

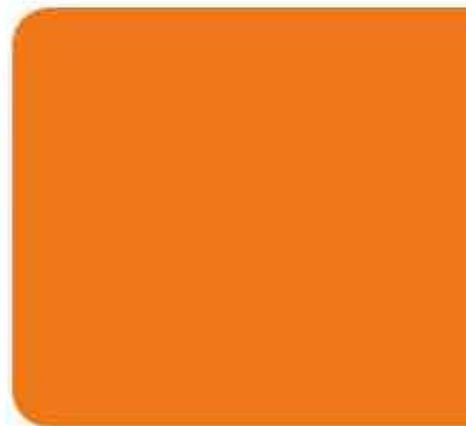


Bellway Homes Limited

Land South of Desford, Leicestershire

Transport Assessment

July 2026



Bellway Homes Limited

Land South of Desford, Leicestershire

Transport Assessment

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CONTENTS

1.	Introduction	4
1.1	Overview	4
1.2	Scope of Assessment	5
1.3	Emerging Planning Context	5
1.4	Background	5
1.5	Report Structure	6
2.	Policy Review	7
2.1	Overview	7
2.2	National Policy	7
2.3	Local Policy	9
2.4	Summary	18
3.	Existing Conditions	19
3.1	Overview	19
3.2	Site Location	19
3.3	Local Highway Network	19
3.4	Existing Traffic Conditions	21
3.5	Highway Safety Review	21
3.6	Sustainable Accessibility	24
3.7	Local Amenities	30
3.8	Summary	34
4.	Development Proposals	35
4.1	Overview	35
4.2	Proposed Development	35
4.3	Vehicle Access Arrangements	35
4.4	NMU Strategy	37
4.5	Public Transport	37
5.	Travel Demand	39
5.1	Overview	39
5.2	Trip Rates and Trip Generation	39
5.3	Multi-Modal Trip Generation	42
5.4	Traffic Distribution	44
6.	Highway Assessment	47

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6.1	Overview	47
6.2	PRTM	47
6.3	Background Traffic	48
6.4	Assessment Scenarios	48
6.5	Assessment Scope	49
6.6	Junction Capacity Assessments	50
6.7	Junction Modelling Results	51
7.	Junction Mitigation	71
7.1	Overview	71
7.2	Junction 10 - A47 Hinckley Road / Dans Lane	71
8.	Summary & Conclusion	72
8.1	Summary	72
8.2	Conclusion	74

APPENDICES

APPENDIX A	Illustrative Masterplan
APPENDIX B	HBBC Pre-Application Response
APPENDIX C	LCC Pre-Application Response
APPENDIX D	Highways Scoping Technical Note
APPENDIX E	ATC Survey Data
APPENDIX F	Collision Data
APPENDIX G	Drawings
APPENDIX H	TRICS Output Reports
APPENDIX I	TEMPro Multi-Modal Trips
APPENDIX J	Traffic Distribution
APPENDIX K	Traffic Flow Diagrams
APPENDIX L	Junction Modelling Results
APPENDIX M	Appeal Decisions
APPENDIX N	Mitigation Drawings
APPENDIX O	Mitigation Modelling Results

1. Introduction

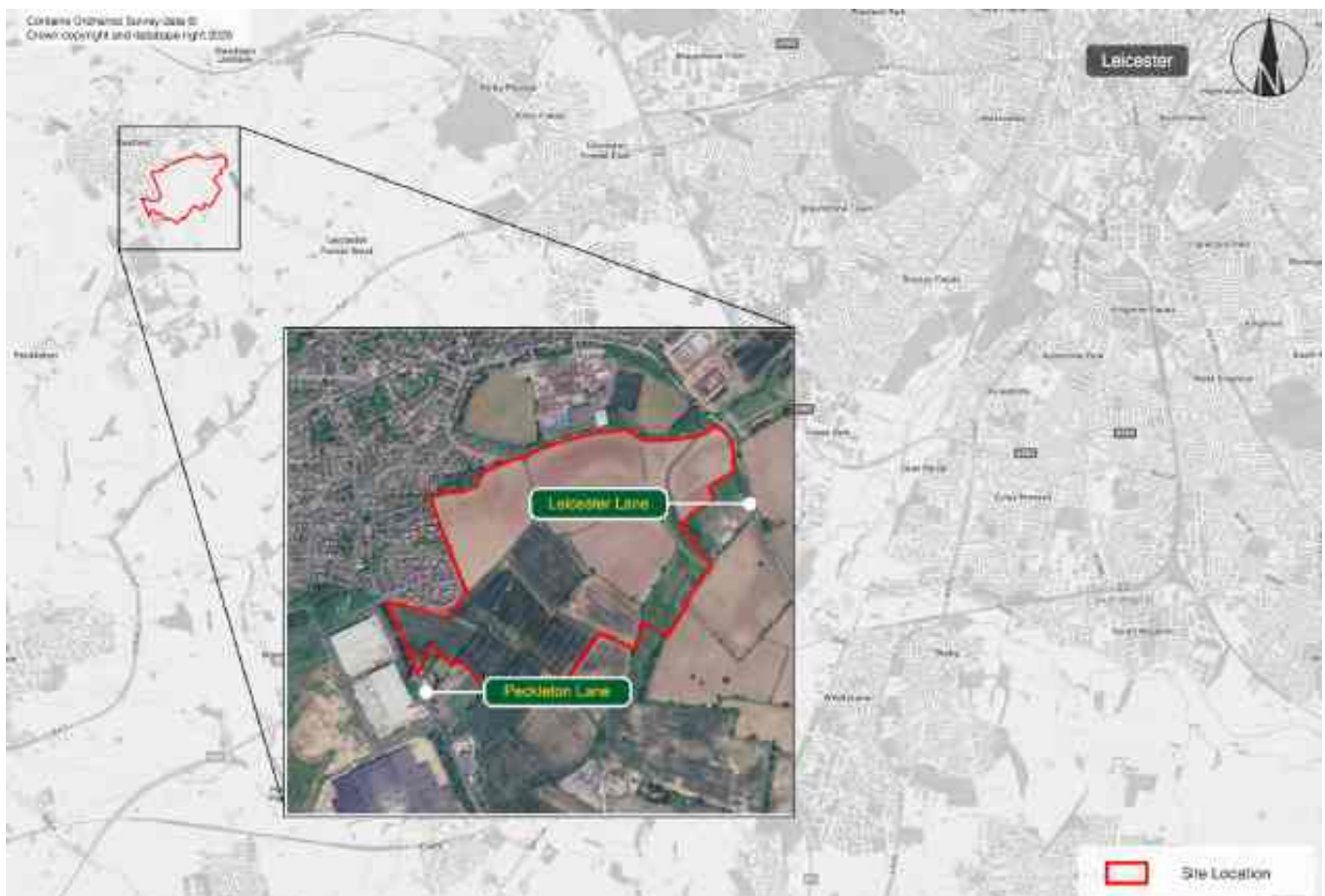
1.1 Overview

1.1.1 mode transport planning (mode) has been appointed by Bellway Strategic Land, part of Bellway Homes Limited, to provide highways and transport advice in relation to the submission of an outline application for a proposed residential development in Desford, Leicestershire. The proposed scheme comprises an outline application for approximately 550 dwellings and a community use building with (potential) Healthcare (up to 1,000sqm) and Use Class E (up to 500sqm), with the full description of development as follows:

"Outline planning application for residential development, including provision of a primary healthcare facility and district centre [E Use Class]; sports facilities; public open space; access from Peckleton Lane and Leicester Lane with a connecting road; sustainable drainage; and associated infrastructure. All matters reserved except for access."

1.1.2 The site location is illustrated in **Figure 1.1**. A copy of the illustrative masterplan is provided at **Appendix A**, for reference.

Figure 1.1 Site Location



- 1.1.3 The site is situated within Hinckley and Bosworth; Hinckley and Bosworth District Council (HBDC) is the Local Planning Authority (LPA) and Leicestershire County Council (LCC) is the Local Highway Authority (LHA).

1.2 Scope of Assessment

- 1.2.1 It is set out in the LCC's 'Leicestershire Highway Design Guide (LHDG): Planning application requirements' that a Transport Assessment (TA) and a Travel Plan (TP) will be necessary to support a development proposal of over 80 dwellings.
- 1.2.2 This TA considers the transport issues at the site and identifies the likely impacts of the proposed development with all modes of travel considered. It sets out the methodology for assessing the baseline conditions and proposed development schedule, and provides a summary of the various associated transport implications including any mitigation requirements arising.
- 1.2.3 A Framework Travel Plan (FTP) has also been prepared for the and should be read in conjunction with this TA. An FTP is an outline framework of the measures, targets, monitoring and management strategy that is required to promote sustainable travel choices and reduce reliance on the private car at developments with a range of land uses, multiple occupiers and/or phases. FTPs support planning applications as they provide a context for individual Travel Plans (TPs) to be developed by landowners or occupiers at the different land uses at a later stage i.e. when the site is occupied.

1.3 Emerging Planning Context

- 1.3.1 The draft Hinckley & Bosworth Local Plan sets out the vision and objectives for the borough up to 2045. The plan sets out a vision and framework for the future development of the area, addressing needs and opportunities to deliver sustainable development in the right locations.
- 1.3.2 Land South of Desford is identified as Strategic Site DES001 within the Regulation 19 document of the Hinckley and Bosworth Local Plan (2024 -2045).

1.4 Background

- 1.4.1 In July 2025, HBBC (LPA) were consulted as part of a request for multi-disciplinary engagement by the applicant in (ref. 25/10080/PREMAJ). Local planning policy was discussed, including compliance with LCC Highway Design Guide and the NPPF, and the need for trip generation, trip distribution and junction capacity assessments. A copy of HBBC's response is provided at **Appendix B** for reference.
- 1.4.2 LCC (LHA) also provided pre-application advice (ref. 2025/2444/04/HEN), of which comments on access strategy, scale of junction modelling, offsite highway works, and Public Rights of Ways was provided. It was concluded with a recommendation to the applicant to submit a transport Assessment prior to the submission of any future planning application. A copy of LCC's response is provided at **Appendix C** for reference.

- 1.4.3 In January 2026, a Highways Scoping Technical Note (HSTN) was submitted to LCC to agree the assessment methodologies to be used in the subsequent highways work to be submitted as part of an outline planning application. A copy of the HSTN is attached at **Appendix D**, for reference.
- 1.4.4 LCC provided a response to the HSTN on 19th February 2026, in which elements of scope and assessment methodology were agreed, including but not limited to principal of access, trip rates and the need for a public transport strategy. A copy of LCC's response, and subsequent relevant correspondence, is provided at **Appendix C**, for reference.

1.5 Report Structure

- 1.5.1 This TA has been prepared in accordance with Planning Practice Guidance (PPG) 'Travel Plans, Transport Assessment and Statements in Decision-Taking' published by the Ministry of Housing Communities and Local Government (MHCLG) in 2014, and LCC's LHDG: Planning application requirements. Following this introduction chapter, the TA is structured as follows:
- **Chapter 2** – provides an overview of relevant national and local planning policies;
 - **Chapter 3** – reviews the existing transport infrastructure in the area surrounding the site, with a focus on opportunities for travel via sustainable modes;
 - **Chapter 4** – outlines the development proposals and access arrangements;
 - **Chapter 5** – considers the trip generation and vehicle trip distribution of the development;
 - **Chapter 6** - sets out the methodology to assess the development proposals and the results of the junction modelling assessments;
 - **Chapter 7** - details the required junction capacity mitigation schemes required to support the development arising from the capacity assessment; and,
 - **Chapter 8** - summarises and concludes the TA.

2. Policy Review

2.1 Overview

2.1.1 This chapter provides a review of the highways and transportation elements of both national and local planning policy relative to the site and the proposed development. It outlines key policy directions and summarises how the proposed development aligns with these policies.

2.1.2 The following relevant documents have been reviewed:

- National Policy:
 - National Planning Policy Framework (2024); and,
 - Planning Practice Guidance (2024).
- Local Policy:
 - Hinckley & Bosworth Borough Council Local Plan (2006 to 2026);
 - Desford Neighbourhood Plan (2018 to 2036);
 - Draft Hinckley & Bosworth Borough Council Regulation 19 Local Plan (2024 to 2045);
 - Leicestershire Local Transport Plan (LTP4) (2025 to 2040);
 - Leicestershire County Council Cycling and Walking Strategy (2024 to 2036); and,
 - Hinckley & Bosworth Green Space Strategy (2023 to 2033).

2.2 National Policy

National Planning Policy Framework (December 2024)

2.2.1 The National Planning Policy Framework (NPPF) sets out the Government's key objectives for achieving sustainable development.

2.2.2 The NPPF sets out the government's planning policies for England, and how these are expected to be applied, stating that all development generating significant amounts of movement should be supported by a TA or Transport Statement (TS), alongside a TP. Within the NPPF, it is suggested that economic, social and environmental objectives should be at the heart of the planning process.

2.2.3 Under the 'Promoting sustainable transport' chapter of the NPPF, it is stated that transport issues should be considered from the earliest stages of plan-making and development proposals (Para. 109). By doing this the potential impacts of development on transport networks can be addressed and the appropriate transport infrastructure can be implemented. By considering transport at the earliest stages, it allows the opportunity to promote walking, cycling and public transport, and to mitigate any problems.

2.2.4 Significant developments should be focused on being sustainable, this can be done through limiting the need to travel and offering a genuine choice of transport modes.

2.2.5 The NPPF states (Para. 111) that planning policies should:

- *"Support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;*
- *Be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;*
- *Provide for attractive and well-designed walking and cycling networks with supporting facilities such as secure cycle parking (drawing on Local Cycling and Walking Infrastructure Plans)."*

2.2.6 Within the context of assessing sites for that may be allocated for development in plans, or specific applications for development, it should be ensured that (Para. 115):

- *"Sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;*
- *safe and suitable access to the site can be achieved for all users;*
- *the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*
- *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 through a vision-led approach."*

2.2.7 Within this context, new developments should (Para. 117):

- *"give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas... 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.*
- *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*

- *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.”*

2.2.8 Paragraph 116 states 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, following mitigation, would be severe, taking into account all reasonable future scenarios.”

2.2.9 The proposed development has been assessed in accordance with the NPPF and this TA and the accompanying RTP demonstrate that the above objectives are satisfied by the development proposals.

Planning Policy Guidance (2024)

2.2.10 PPG provides detailed advice to support the NPPF, and contains further information for planners, developers and the public on the types of assessment required to support planning applications and the approach to considering applications on their various merits.

2.2.11 PPG was published in 2012 and most recently revised in 2024. The PPG aims to facilitate the development of a robust and well thought out site, enabling an assessment of the transport impacts of both existing and proposed developments. The guidance can inform sustainable approaches to transport. A strong assessment will establish evidence that may be useful in:

- Improving the sustainability of transport provision;
- Enhancing the levels of accessibility;
- Creating a choice amongst different modes of transport;
- Improving health and well-being;
- Supporting economic vitality;
- Improving public understanding of the transport implications of development;
- Enabling other highway and transport authority’s/service providers to support and deliver the transport infrastructure that conforms to the Local Plan; and,
- Supporting local businesses and the regional economy.

2.3 Local Policy

Hinckley & Bosworth Borough Council Local Plan (2006 to 2026)

2.3.1 The Local Plan 2006 to 2026 is made up of a series of two Development Plan Documents (DPDs) and several supporting Supplementary Planning Documents (SPDs). Relevant documents to the proposed development are set out in further detail below.

Core Strategy DPD

2.3.2 Adopted in December 2009, the document outlines the broad locations proposed for housing development and other strategic needs such as employment, retail and transport development.

2.3.3 Several spatial objectives are identified, including the following for Transportation and the Need to Travel:

“To reduce the high reliance on car travel in the borough and to increase the opportunities for other forms of transport by focusing the majority of development in the Hinckley urban area where there is a range of transport options available and through securing improvements to public transport infrastructure and facilities that promote walking and cycling and through the use of travel plans.”

2.3.4 The pertinent policies which have been reviewed during the preparation of the TA are as follows:

Policy 8 – Key Rural Centres relating to Leicester:

“To support the local services in Desford and ensure local people have access to a range of housing the council will:

- *Deliver safe cycle routes, as detailed in Policy 14 with particular focus on the routes from Desford to Sport in Desford and Bosworth College and to local employment at Caterpillar, Peckleton Common and Timkens.*
- *Support traffic management measures and additional car parking to encourage people to shop locally, improve Desford village centre and create a true centre for the village as supported by the Desford Parish Plan.”*

Policy 14 – Rural areas Transport:

“To support accessibility within the rural areas, the council will:

- *Support the delivery of a viable, high quality public transport network between the Key Rural Centres and their nearest urban centre and between the Rural Villages and their nearest Key Rural Centre or urban centre.*
- *Support the provision of accessible transport services for mobility impaired and rurally isolated residents.*
- *Support further development of quality and reach of accessible transport services, including expansion of Shop Mobility.*
- *Support the continuation of the Leicestershire hourly services network (this network provides access within 800 metres to a service of at least hourly daytime frequency for 95% of Leicestershire people) and improving access at other times of the day.*
- *Support the continuation of demand responsive transport networks (for example, shared taxi services, community minibuses and rural dial a ride) to the following villages and hamlets that are not covered by the hourly services network: Kirkby Mallory, Peckleton, Shackerstone, Congerstone, parts of Carlton, Sutton Cheney, Shenton, Kirkby Grange and Botcheston.*
- *Deliver safe cycle paths as detailed in the Hinckley & Bosworth Council's Rural Parishes Cycling Network Plan. This will deliver safe routes to school, to residential and to the*

employment areas, Key Rural Centres/urban areas, community, and leisure facilities and into the countryside.

Developers will be required to contribute towards these initiatives through developer contributions and/or land where they meet the tests set out in national guidance. New development that would prejudice their implementation will not be permitted."

Site Allocations and Development Policies DPD

2.3.5 Adopted in July 2016, the document identifies sites for uses such as housing, employment, retail, open space and community facilities that will deliver the aims, vision and objectives of the Core Strategy. It also contains 25 development management policies which will be used to assess planning applications over the plan period.

2.3.6 The pertinent policies which have been reviewed during the preparation of the TA are as follows:

Policy DM17 – Highways and Transportation:

"Development proposals will be supported where they:

- a) Seek to make the best use of existing public transport services and, where appropriate, provide opportunities for improving and sustaining the viability of those services;*
- b) Seek to ensure that there is convenient and safe access for walking and cycling to services and facilities;*
- c) Demonstrate that there is not a significant adverse impact upon highway safety; and in the case of development that generates significant movement;*
- d) That the development is located where the need to travel will be minimised and the use of sustainable transport modes can be maximised;*
- e) Where it can be demonstrated that the residual cumulative impacts of development on the transport network are not severe; and,*

Where appropriate, improvements are required to be undertaken to the highways and transportation network to limit any significant impacts arising from the development (considering cost effectiveness).

All proposals for new development and changes of use should reflect the highway design standards that are set out in the most up to date guidance adopted by the relevant highways authority."

2.3.7 In the case of proposals for development that generate significant movement, applications should be supported by a Transport Statement or Transport Assessment. In addition, such schemes should provide a Travel Plan to exploit opportunities for the use of sustainable transport modes.

2.3.8 LCC provide advice through the 6Cs Design Guide on the development thresholds for the submission of transport assessments, transport statements, travel plans and their scope.

Policy DM18 – Vehicle Parking Standards:

"All proposals for new development will be required to provide an appropriate level of parking provision justified by an assessment of the site location, type of housing, other modes of transport available (e.g. public transport and cycle provision) and appropriate design. Any development will be expected to provide disabled parking provision."

Desford Neighbourhood Plan (2018 to 2036)

2.3.9 The Desford Neighbourhood Development Plan was produced by Desford Parish Council in May 2021 and forms part of the statutory development plan for the area.

2.3.10 The pertinent policies which have been reviewed during the preparation of the TA are as follows:

Policy T1 – Traffic Management

"With particular regard to the rural highway network of the parish and the need to minimise any increase in vehicular traffic all housing and commercial development must:

- a) Be designed to minimise additional traffic generation and movement through the villages;*
- b) Incorporate sufficient off-road parking in line with housing policy H6'*
- c) Not remove or compromise the use of any existing off-road parking areas unless a suitable equivalent alternative is provided;*
- d) Provide any necessary improvements to site access, communal parking and the highway network either directly or by financial contributions; and,*
- e) Consider, where appropriate, the improvement and where possible the creation of footpaths and cycleways to key village services."*

Policy T3 – Electric Vehicles:

"Housing and commercial developments will be required, where appropriate, to provide 7KW cabling to the most practical points to facilitate subsequent installation of electric vehicle charging points."

The provision of communal vehicular charging points within the Parish will be encouraged where there is universal access and their presence doesn't impact negatively on existing available parking in the Parish."

2.3.11 Desford Parish Council is currently undertaking a Neighbourhood Plan Review for the period 2024 to 2036. The latest pre-submission document was published in September 2025 for consultation between 29th September and 7th November 2025.

2.3.12 With regards to the pertinent policies set out above, the addition to Policy T1 is noted as follows:

Policy T1 – Traffic Management:

"With particular regard to the rural highway network of the parish and the need to minimise any increase in vehicular traffic all housing and commercial development must:

a) Be designed to minimise additional traffic generation and movement through the villages. In particular, development leading to significant additional traffic at the following locations as identified in the Transport Assessment (Appendix L) is to be avoided:

- Mini roundabout in the centre of Desford Village*
- High Street in Desford*
- Peckleton Lane and Kirkby Road"*

Draft Hinckley and Bosworth Regulation 19 Local Plan (2024 to 2045)

2.3.13 Hinckley and Bosworth is currently working on a new Local Plan which will set out land allocations and planning policies for the period 2024 to 2045. The latest Regulation 19 Local Plan Consultation Document was published in Autumn 2025 for consultation between August and September 2026.

2.3.14 Land South of Desford (Strategic Site DES001) is identified as a strategic site for 550 homes within Policy PS12.

2.3.15 Para 6.261 of the Consultation Document states that:

2.3.16 "The allocation of Land South of Desford (site reference DES001) for a residential and community facilities led development of a minimum of 550 homes is a key component of the spatial strategy for the Hinckley and Bosworth Local Plan 2024 to 2045. The policy should be read together with the other policies of the Local Plan and the wider Development Plan, and the requirements of the policy apply cumulatively."

2.3.17 The pertinent draft policies have been reviewed during the preparation of the TA are as follows:

Policy IU04 – Highways and Transportation:

"Development will be permitted, subject to:

- a) Ensuring the safe, connected and convenient movement across the transport network, including by sustainable modes of transport;*
- b) Providing safe vehicular and pedestrian access, servicing and parking arrangements as defined in this policy and having regard to relevant Highway Authority guidance and standards;*
- c) Ensuring that additional peak time traffic movements are not detrimental to highway safety or result in the residual cumulative impact on the road network being severe.*

All proposals for major development must:

d) Submit a Transport Assessment to support the application. The Transport Assessment shall consider the impacts of the proposal on the highway network, together with identifying any required mitigation. A Transport Assessment may require assessment using traffic modelling, to be defined by the relevant Highway Authority;

e) Facilitate access by sustainable modes of transport, including connection to existing public rights of way where possible;

f) Provide car parking provision and provide accessible cycle parking to Highway Authority guidance and standards;

g) Deliver public transport enhancements to mitigate impacts on the highway network. Public transport enhancements may include provision of new or additions to existing bus routes, information and waiting facilities and further measures to encourage travel by sustainable modes; and,

h) Mitigate any impact on residential amenity through noise and/or air quality impact resulting from the proposed development."

Policy IU05 – Electric Vehicle Charging Infrastructure:

"Provision must accord with relevant Building Regulations, including Part S (Infrastructure for the Charging of Electric Vehicles), or any successor standards, and the following principles:

1. Residential Development

a) Dwellings with on-plot parking

- i. Where dwellings have on-plot parking, at least one active EV chargepoint must be provided per dwelling, unless it can be clearly demonstrated that this is not feasible.*

b) Communal or unallocated parking

- i. Residential development with communal or unallocated parking must provide:*
 - *A proportion of active EV chargepoints in accessible and convenient locations; and,*
 - *Appropriate passive provision to enable future expansion of EV infrastructure.*

Provision above Building Regulations requirements will be supported where justified by the scale and nature of development.

2. Non-Residential Development

a) Non-residential development must provide:

- i. Active EV charging infrastructure proportionate to the scale and use of the development; and,*

- ii. *Passive provision to enable future expansion where appropriate.*

3. *Design and Delivery*

a) *All EV charging infrastructure must:*

- i. *Be safely located and accessible, including for disabled users;*
- ii. *Be integrated into the layout and design of development; and,*
- iii. *Be capable of being expanded or upgraded over time.*

Where necessary, planning conditions will be used to secure the delivery, specification and operation of EV charging infrastructure.

4. *Relationship with Building Regulations*

- b) *Where Building Regulations require a higher standard than this policy, the higher standard will apply."*

Policy IU01 – Infrastructure and Delivery:

"Planning permission will only be granted where the infrastructure, services, facilities and mitigation necessary to support the development are secured. Where development gives rise to a need for additional or improved provision, proposals must:

a) Provide, deliver or contribute towards the infrastructure required to support the scale and type of development and, where necessary, its cumulative impacts in accordance with the relevant policies of the development plan and having regard to the Council's Infrastructure Delivery Plan and Infrastructure Delivery Schedule; and,

b) Include all on-site and, where necessary, off-site works, measures and mitigation required to ensure that the proposal is acceptable in planning terms.

Where justified and lawful, the Borough Council will use planning obligations and other developer contributions (including where applicable infrastructure levy or successor mechanisms) to secure the infrastructure, works, measures and mitigation required by this policy, having regard to the Infrastructure Delivery Plan, Infrastructure Delivery Schedule and other relevant evidence.

Where an applicant contends that policy-compliant provision of infrastructure, mitigation and/or planning obligations in accordance with development plan policy cannot be achieved on viability grounds, robust and proportionate evidence must be submitted to demonstrate the specific circumstances of the case.

Any viability assessment, including an open book assessment where required by the Borough Council, will be considered having regard to the Council's viability evidence and relevant national policy and guidance and the expectation that development should comply with policy requirements unless exceptional circumstances are clearly demonstrated."

Leicestershire Local Transport Plan 4 (LTP4) (2025 to 2040)

2.3.18 Produced by LCC and adopted in November 2024, the document sets out the vision for transport across Leicestershire:

“Delivering a safe, connected and integrated transport network which supports the ambitions and health of our growing communities, safeguards the environment, and delivers economic prosperity.”

2.3.19 The following core themes are identified and form the structure and direction of LTP4:

- *Enabling health and wellbeing;*
- *Protecting the environment;*
- *Delivering economic growth;*
- *Enhancing network resilience; and,*
- *Embracing innovation.*

2.3.20 With the following core policies set out:

- Core Policy 1: Delivering the vision

Ensure that all our transport solutions accord with the five core themes to deliver our vision for transport with regard to government policy for the benefit of our communities.

- Core Policy 2: Managing Demand

Delivering a safe, accessible, integrated, and resilient transport network that is well managed and enables communities to access jobs, education and all services. The network will also enable efficient movement and delivery of goods to support the local, regional, and international markets.

- Core Policy 3: Enabling Travel Choice

Enabling travel choice in our communities that reflects their unique needs, ensures their safety, actively promotes health & wellbeing, and protects the environment.

- Core Policy 4: Delivering Solutions

Work collaboratively to identify and develop innovative transport related solutions which promote health & wellbeing of our communities, provide betterment to the environment, and provides good value for money while enabling travel choice and improving our transport network users' experiences.

- Core Policy 5: Embracing Innovation

Embrace innovation and collaboration, which enables us to decarbonise transport and adapt to climate change to ensure a resilient transport network, while benefiting the environment and delivering travel choice to promote health and wellbeing within our communities.

- Core Policy 6: Evaluating Progress

Utilise data, monitoring and evaluation of our transport solutions to enable evidence-based programmes, provide a flexible approach to policy development, technology, and innovation to address changes and challenges which impact our communities.

Leicestershire County Council Cycling and Walking Strategy (2022)

2.3.21 The Cycling and Walking strategy sets out LCC's long-term vision *"for Leicestershire to become a county where walking and cycling are safe, accessible and obvious choices for short journeys and a natural part of longer journeys, helping to deliver healthier, greener communities"*.

2.3.22 To support this vision, the three core objectives are:

- To enhance the infrastructure that supports cycling and walking in Leicestershire;
- To enable people to cycle and walk in Leicestershire; and,
- To inspire a step change in cycling and walking in Leicestershire.

2.3.23 The pertinent policies which have been reviewed during the preparation of the TA are as follows:

- **Policy 2:** *To influence planning approvals to ensure that new residential and employment developments are built in line with current cycling and walking guidance, and commit land developers to provide funding for revenue measures;*
- **Policy 3:** *To improve existing and deliver new infrastructure to support cycling and walking, including the provision of segregated cycle routes and prioritisation of active modes in accordance with Gear Change and Local Transport Note 1/20 (LTN1/20).*
- **Policy 4:** *To maximise opportunities for people to undertake cycling and walking as part of journeys linking with passenger transport (bus and rail).*
- **Policy 5:** *To work toward replacing a significant number of everyday local car journeys with cycling and walking journeys.*
- **Policy 6:** *To increase numbers of everyday journeys made by cycling and walking - contributing to the national target of half of all journeys in towns and cities being cycled or walked by 2030.*
- **Policy 8:** *To maximise opportunities to improve road safety for people walking and cycling in line with our wider road safety aims.*

2.3.24 Following the adoption of the Cycling and Walking strategy, LCC are in the process of developing Local Cycling and Walking Infrastructure Plans (LCWIPs).

2.3.25 The Hinckley area LCWIP is to be developed and is expected to identify a series of priority cycle and walking routes that connect key residential growth areas, such as Desford, with local centres, employment sites and public transport hubs. At the time of writing, no further information on the Hinckley area LCWIP has been published.

Hinckley & Bosworth Green Space Strategy (2023 to 2033)

2.3.26 Published by HBDC in November 2023, the Green Space Strategy 2023–2033 seeks to improve the quality and connectivity of green spaces across the Borough. With regards to transport, the strategy recognises the role of green corridors in facilitating sustainable travel, particularly walking and cycling.

2.3.27 With a specific aim set out to:

“Improve infrastructure across our green spaces for physical activities such as walking, running, cycling, and horse riding.”

2.4 Summary

2.4.1 In summary, the planning policy described above collectively seeks to ensure that development is located to ensure future residents and visitors are provided with genuine modal choice by situating development in locations that reduce the need to travel, reduce average journey lengths and benefit from local infrastructure to enable the use of sustainable modes of transport other than the single occupancy private car.

2.4.2 Furthermore, the planning policy considered also seeks to ensure that the impacts of the development are properly considered and mitigated via the preparation of appropriate transportation reports to accompany the planning application and where necessary the provision of mitigation to temper the impacts of a given development, to ensure that any residual impacts are not “severe”.

2.4.3 This TA has been prepared in line with current best practice guidance, policy and methodology.

3. Existing Conditions

3.1 Overview

- 3.1.1 This chapter describes the existing site and the existing local transport network for all modes of transport to assess the current accessibility of the site.

3.2 Site Location

- 3.2.1 The site is located immediately south-east of Desford, approximately 10km west of Leicester city centre, and comprises land to the east of Peckleton Lane and west of the B582 Leicester Lane. An overview of the site location is illustrated in **Figure 1.1**.
- 3.2.2 The site extends over 41.9 ha, comprising several agricultural land parcels which incorporate borders characteristically made of woodland and hedging. To the north, the site is bound by Bosworth Academy and existing residential areas. To the east, the site is bound by Leicester Lane and several agricultural parcels, which are also bound the site to the south. To the west the site is bound by Peckleton Lane, existing residential areas and the Sport In Desford Leisure Centre.

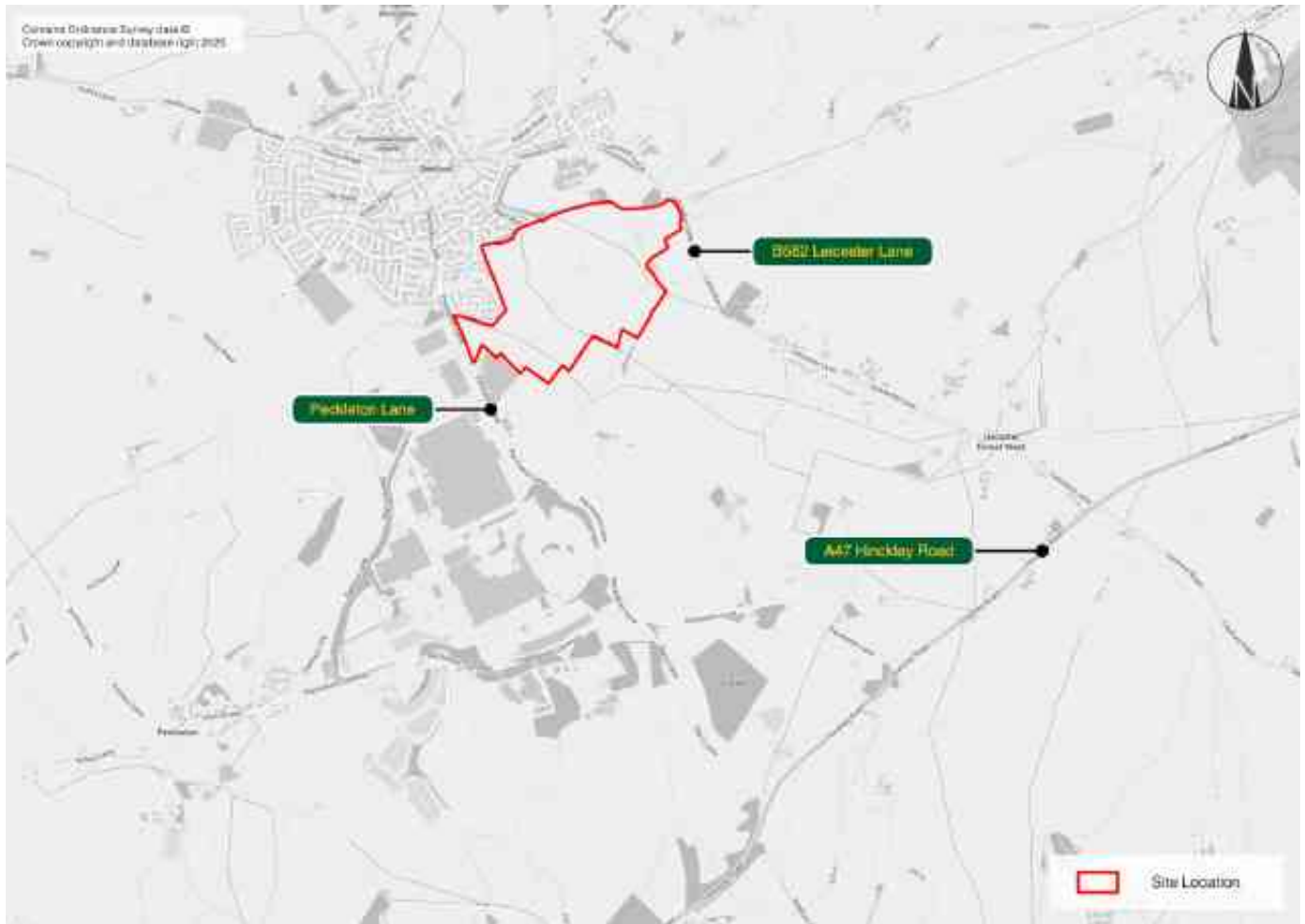
3.3 Local Highway Network

- 3.3.1 An overview of the local highway network in the vicinity of the site is provided in **Figure 3.1**.

Peckleton Lane

- 3.3.2 Peckleton Lane is a single carriageway road that routes in a north-south alignment along the western boundary of the site. Along the site frontage on Peckleton Lane, the road is subject to a 30mph posted speed limit. A c.1.0m footway is provided along the western side of the carriageway, with street lighting and a c.2.0m verge.
- 3.3.3 North of the site frontage with Peckleton Lane, from the junction with Wellum Way, the road benefits from a c.2.0m footway along both sides of the carriageway, which continue towards the centre of Desford. Along the site frontage, Peckleton Lane is subject to 7.5-tonne weight restrictions (except for loading).
- 3.3.4 Approximately 350m south of the site frontage, Peckleton Lane is subject to the national speed limit, with no formal footway in place. The road continues south to the A47 Hinckley Road, a local distributor road which provides connections northeast towards Leicester and southwest towards Earl Shilton, Barwell and Hinckley.

Figure 3.1 Local Highway Network



B582 Leicester Lane

- 3.3.5 The B582 Leicester Lane is a single carriageway road that routes in a north-south alignment along the eastern boundary of the site. In the vicinity of the site frontage onto Leicester Lane, the road is subject to a 40mph posted speed limit, with no street lighting or footway provision.
- 3.3.6 Approximately 350m north of the site frontage the posted speed limit reduces to 30mph on the approach to the mini roundabout on Barns Way. Immediately west of the roundabout the road is lit and benefits from c.2.0m footway provision on both sides of the carriageway, with a 20mph school safety zone outside Bosworth Academy. The road continues west towards the centre of Desford.
- 3.3.7 To the south the road connects with the A47 Hinckley Road, providing onward connections north-east towards Leicester, south-west towards Hinckley, and south-east towards Enderby.

A47 Hinckley Road

3.3.8 The A47 Hinckley Road is a local distributor road that routes in a northeast-southwest alignment, between Leicester City Centre in the north-east and the A5 trunk road via Hinckley in the southwest. From the A5, access is provided to regional and national routes via the Strategic Road Network (SRN).

3.4 Existing Traffic Conditions

3.4.1 Automated Traffic Counts (ATCs) have been undertaken to determine the level of background traffic along the site frontages with Peckleton Lane and the B582 Leicester Lane. These ATCs were undertaken for a 7-day period between 3rd and 9th March 2026.

3.4.2 An overview of the 7-day 'mean' average and 85th percentile speeds, along with Average Annual Weekday Traffic (AAWT) and Average Annual Daily Traffic (AADT) flows recorded by the ATCs are summarised in **Table 3.1** below. The full traffic outputs of the surveys attached at **Appendix E**.

Table 3.1 ATC Results

Direction	Mean Average (mph)	85th Percentile (mph)	18HR AAWT (Total Vehicles)	24HR AADT (Total Vehicles)
Peckleton Lane	33.8 (NB)	39.0 (NB)	5,464	4,905
	36.7 (SB)	42.4 (SB)		
B582 Leicester Lane	36.3 (NB)	39.8 (NB)	11,155	10,377
	41.6 (SB)	41.6 (SB)		

3.5 Highway Safety Review

3.5.1 PPG states that assessments of highway safety should consider the most recently available three-year period of collision data unless a high collision rate has been identified. For completeness, collision data has been obtained from LCC for the most recently obtainable full five-year period (covering 01/01/2020 – 31/12/2024). The study area covered by this analysis is concurrent with the study area of the TA in terms of highway capacity assessment.

3.5.2 Collisions have been categorised as 'slight', 'serious' and 'fatal'. It is noted that the LCC data also includes the categories 'moderately serious' and 'less serious'. For the purposes of this assessment these collisions have been combined, with both being recorded as 'serious' in severity. No further causation factors were provided within the LCC report.

3.5.3 The full accident records obtained from LCC are attached at **Appendix F**, for reference. An overview of the recorded collisions within the study area is illustrated in **Figure 3.2**, with a summary provided in **Table 3.2**.

Figure 3.2 Collision Study Area



Table 3.2 Summary of Collisions

Study Area	Number of Recorded Collisions				
	Slight	Serious	Fatal	Pedestrians	Cyclists
Study Area 1	6	2	1	0	4
Study Area 2	4	1	0	0	0
Study Area 3	4	0	0	0	1
Study Area 4	8	4	1	0	0
Total	22	7	2	0	5

Study Area 1

3.5.4 A total of 9 collisions occurred in Study Area 1; of which 6 were classified as 'slight', 2 were classified as 'serious' and 1 was classified as 'fatal'.

3.5.5 The 'fatal' collision was recorded on the B582 High Street on 03/02/2021. The collision involved a cyclist and a Van / Goods Vehicle; and occurred in Wet/Damp conditions. Both vehicles were going ahead on the carriageway in a westbound direction.

3.5.6 A 'serious' collision was recorded on B582 High Street / B582 Manor Road / Main Street roundabout. The collision involved two cars; with visibility recorded as 'darkness: street lights present'. A car turning right from B582 High Street towards Main Street (north) collided with a car going ahead eastbound on the B582.

3.5.7 Another 'serious' collision was recorded on the B582 Manor Road, c.100m west of the junction with Holmfield Road. The collision involved a Van / Goods Vehicle and a Personal Powered Transporter; with visibility recorded as 'darkness: streetlights present and lit'. The Van / Goods Vehicle travelling eastbound collided with the Personal Powered Transporter travelling westbound.

Study Area 2

3.5.8 A total of 5 collisions occurred in Study Area 2; of which 4 were classified as 'slight' and 1 was classified as 'serious'.

3.5.9 The 'serious' collision was recorded on the B582 Leicester Lane, c. 300m southeast of the Manor Hill Farm access. The collision involved a motorcycle travelling north and a Van / Goods Vehicle travelling south. Visibility was recorded as 'darkness: no street lighting' and road conditions recorded as 'Wet/Damp'.

Study Area 3

3.5.10 A total of 4 collisions occurred in Study Area 3, all of which were classified as 'slight'. No clusters of collisions are observed.

Study Area 4

3.5.11 A total of 13 collisions occurred in Study Area 4; of which 8 were classified as 'slight', 4 were classified as 'serious' and 1 was classified as 'fatal'.

3.5.12 The 'fatal' collision was recorded on the A47 Hinckley Road, at the junction with Peckleton Lane. The collision involved one vehicle. Visibility was recorded as 'darkness: no street lighting' and road conditions recorded as 'Wet/Damp'.

3.5.13 Two 'serious' collisions were recorded on the A47 Hinckley Road, at the access to The Bulls Head. The first collision involved a car turning right out of the access and another car travelling southwest on the A47 Hinckley Road. Visibility was recorded as 'daylight' and road conditions recorded as 'dry'. The second 'serious' collision involved a car turning right out of the access and another car travelling southwest on the A47 Hinckley Road. Visibility was recorded as 'darkness: street lights present and lit' and road conditions recorded as 'wet/damp'.

3.5.14 Another 'serious' collision was recorded on the A47 Hinckley Road, at the junction with Dan's Lane. The collision involved one car waiting to turn right on Dan's Lane, one car making a right turn onto Dan's Lane and a motorcycle travelling northeast through the junction on the A47 Hinckley Road. Visibility was recorded as 'daylight' and road conditions recorded as 'dry'.

3.5.15 The final 'serious' collision was recorded on the A47 Hinckley Road, at the junction with the B582 Desford Road and Leicester Lane. The collision involved one car turning right from the A47 Hinckley Road towards Leicester Lane and a cyclist travelling northeast through the junction on the A47 Hinckley Road. Visibility was recorded as 'daylight' and road conditions recorded as 'wet/damp'.

Summary

3.5.16 Based on the information provided by LCC, although no causation factors were provided within collision data, given the low level of accidents recorded over the study period it is considered that there are not any inherent safety issues on the local highway network. Therefore, there will be no requirement for any specific road safety issues to be addressed or mitigated as a part of the development proposals.

3.6 Sustainable Accessibility

Walking

3.6.1 The NPPF sets out the Government's planning policies for England and how these are expected to be applied. Chapter 9 of the NPPF, 'Promoting Sustainable Transport', sets out the important role that transport issues and policies have in facilitating sustainable development.

3.6.2 Paragraph 109 states that 'transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places. This should involve:

- making transport considerations an important part of early engagement with local communities;
- ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places;
- understanding and addressing the potential impacts of development on transport networks;
- realising opportunities from existing or proposed transport infrastructure, and changing transport technology and usage – for example in relation to the scale, location or density of development that can be accommodated;
- identifying and pursuing opportunities to promote walking, cycling and public transport use; and,
- identifying, assessing and taking into account the environmental impacts of traffic and transport infrastructure – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.

3.6.3 Further to this, the 'Planning for Walking' (2015) document produced by the Chartered Institution of Highways and Transportation (CIHT) document suggests that c.80% of journeys shorter than 1 mile (1.6km) are made wholly on foot.

- 3.6.4 It goes on to say that traditional layouts are typically characterised as having a range of facilities within 10 minutes' walking distance (around 800 metres). However, the propensity to walk is not only influenced by distance/time but also the quality of the experience; people may be willing to walk further where their surroundings are more attractive, safe and stimulating.
- 3.6.5 A desktop review of existing walking and cycling routes in the vicinity of the site has been undertaken, which has been informed further by observations drawn from the site visit in August 2023. It is envisaged that the primary desire lines from the development parcels will lead north towards the existing residential areas and the local services and amenities in the centre of Desford.
- 3.6.6 The site is situated immediately south of a large residential area, which benefits from a comprehensive network of footways, the majority of which are lit and of good quality. Footway provision is currently provided along the western site frontage, on the opposite side of Peckleton Lane as shown in **Figure 3.3**.

Figure 3.3 Footway Provision along Peckleton Lane



- 3.6.7 Footway provision along Peckleton Lane provides a direct route north towards the centre of Desford, and south towards employment opportunities at the nearby Griffin Park Industrial Estate.

Pedestrian connections are supported by uncontrolled crossing facilities along desire lines at junctions; typically incorporating dropped kerbs and tactile paving. Accessibility is further supported by the provision of a dropped kerb crossing along Forest Rise on the approach to the roundabout with B582 which provides access towards Desford Town Centre.

- 3.6.8 However, it should be noted along the eastern site frontage on the B582 Leicester Lane, there are no footways on either side of the carriageway. The first footways along the B582 Leicester Lane on the approach into Desford are located immediately west of the mini roundabout with Barns Way, c.500m north of the proposed site access.

3.6.9 The site is dissected and bordered by a number of Public Rights of Ways (PRoWs), as shown in **Figure 3.4**.

Figure 3.4 Public Rights of Way



3.6.10 Public footpaths R97/1, R98/7, and R99/1 route directly through the site. To the north of the site, public footpaths 98/7 and 97/1 provide a connection to R98/8, together forming the most direct route north into the centre of Desford from the centre of the site.

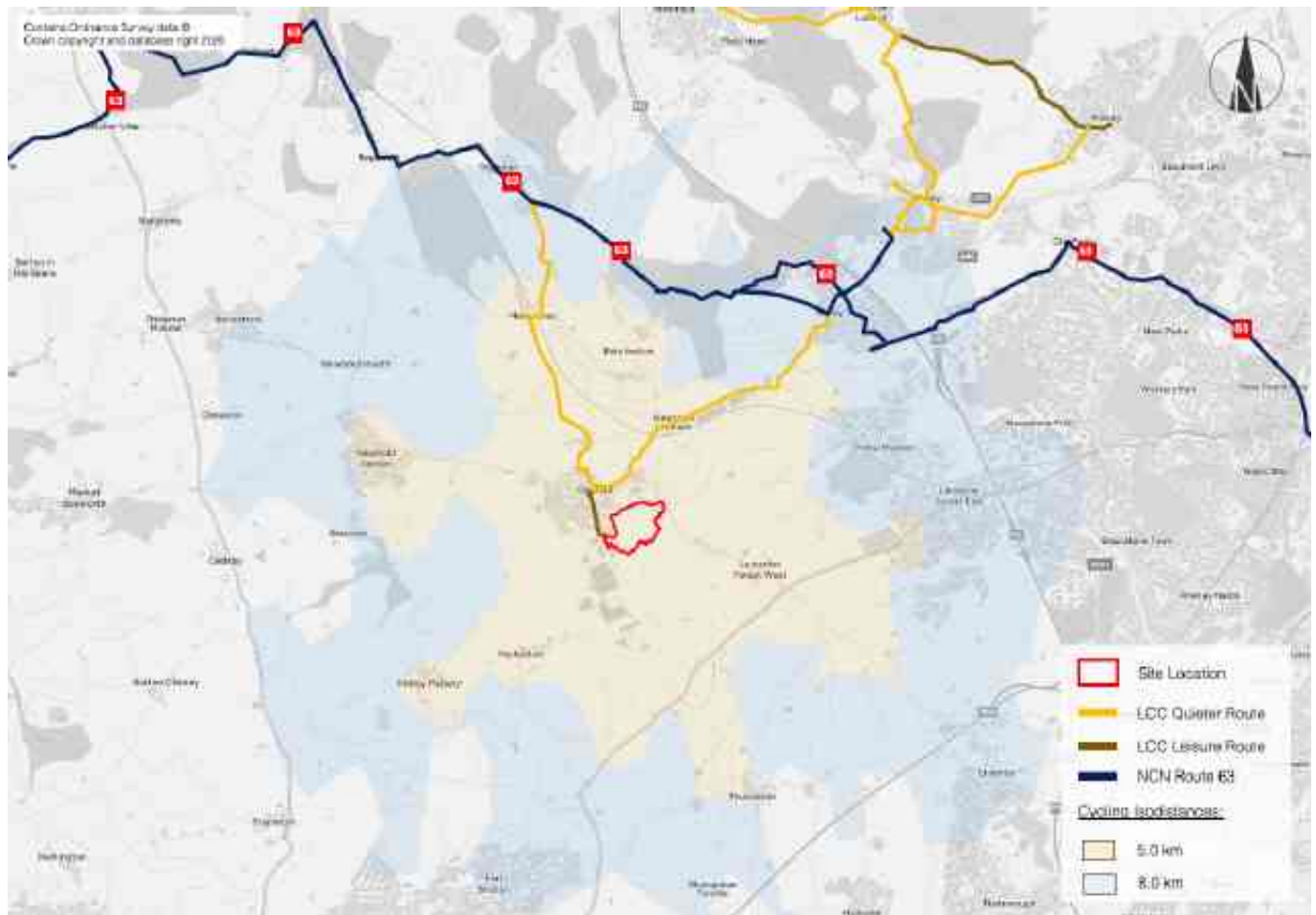
3.6.11 The access from the site to public footpath R98/8 is shown below in **Figure 3.5**.

Figure 3.5 Access to Footpath R98/7

Cycling

- 3.6.12 The Department for Transport (DfT) – Local Transport Note (LTN) 1/20 ‘Cycle Infrastructure Design’ cites that two out of every three personal trips are less than five miles (c.8km) in length (Transport Statistics Great Britain, DfT, 2016) - an achievable distance to cycle for most people, with many shorter journeys also suitable for walking. Cycling is therefore an important mode of travel that has the potential to perform a more significant role across various journey purposes.
- 3.6.13 A review of LCC’s cycle portal has been undertaken, which identifies the section of Peckleton Lane to the west of the site as a ‘leisure route’, providing connections between the site and Desford. Approximately 30m north of the site, from the ‘leisure route’ along Peckleton Lane, a signed off-road route provides connections south towards several ‘quieter routes’, towards Peckleton and Kirkby Mallory.
- 3.6.14 North of the site, a ‘quieter route’ provides connections north along Lindridge Lane, towards Thornton and Bagworth, and connects with Route 63 of the National Cycle Network (NCN) which provides routes east towards Leicester and west towards Ibstock. An additional ‘quieter route’ provides connections northeast along Desford Lane towards the Poundstretcher Head Office and several residential areas to the west of Leicester City Centre.
- 3.6.15 A summary of the local cycling routes is displayed in **Figure 3.6**.

Figure 3.6 Cycle Routes



Bus Services

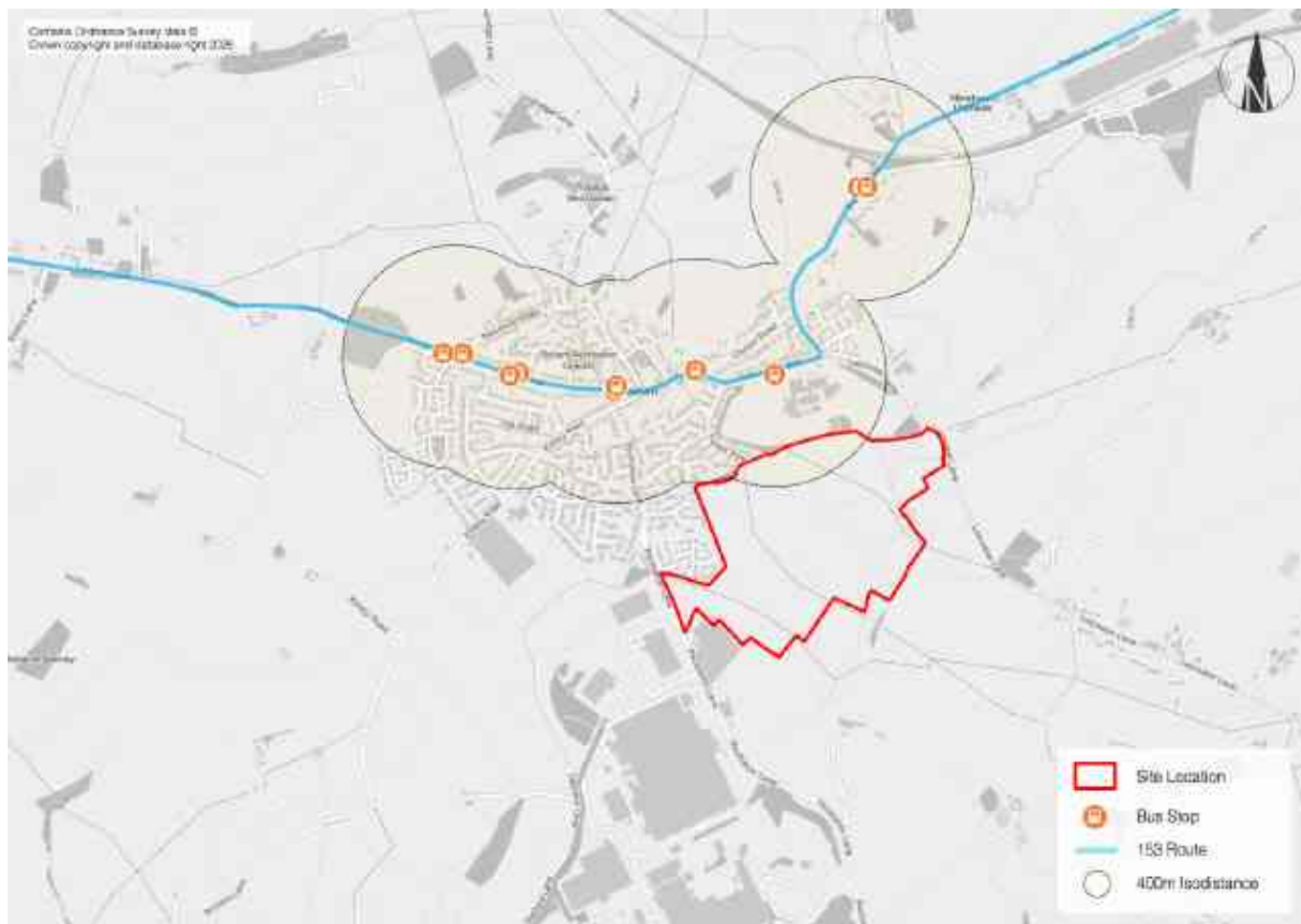
3.6.16 The CIHT *Buses in Urban Developments* (2018) summarises the recommended maximum walking distances for core bus corridors, high-frequency bus routes and less frequent routes, with the respective recommended maximum walking distances being 500m, 400m and 300m.

3.6.17 The closest bus stops to the site are located on the 582 Leicester Lane, opposite Bosworth College. The eastbound stop is situated immediately west of the junction with Station Road and the westbound stop is located 130m east of the roundabout with Forest Rise. These bus stops are within an approximate 9-minute walk (c.650m) from the centre of the proposed site via Forest Rise.

3.6.18 The eastbound bus stop comprises a bus stop clearway, a bus shelter and real time information board. The westbound stop comprises a bus shelter and a simple flagpole design with timetable information.

3.6.19 The location of the bus stops in the vicinity of the site is illustrated in **Figure 3.7**.

Figure 3.7 Bus Stops Location



3.6.20 The bus stops outlined above are served by the no.153 service, which provides a connection between Market Bosworth and Leicester City Centre, via Newbold Verdon, Desford and Kirby Muxloe. The service operates in both directions, Monday to Saturday at a frequency of 1 service per hour.

3.6.21 An overview of typical bus frequency provision during the peak times for each service is provided in **Table 3.3**.

Table 3.3 Bus Service Provision

Bus Service	Route	Typical Weekday Frequency	Typical Saturday Frequency	Typical Sunday Frequency
153	Market Bosworth - Leicester	1 per hour	1 per hour	No service

3.6.22 Given that the nearest bus stops are outside of the typical 400m distance outlined and in order to improve access to bus services, it is considered appropriate to provide bus access into the site. This is discussed further in **Chapter 4**.

3.6.23 Hinckley and Bosworth Community Transport also provide an accessible transport service throughout the district for people who because of age, disability or rural isolation, cannot use conventional public transport or have problems doing so.

3.6.24 The community transport scheme provides both a 'Dial a Ride' service, with volunteer drivers providing a door-to-door transport service; and a 'Community Minibus' service, providing complementary bus services, picking up people from their homes and taking them to local towns and centres for shopping and business.

Rail Services

3.6.25 The closest railway station to the site Narborough Station, which is situated c.8.5km southeast of the site, however this is not located within an easily accessible distance on foot or by bicycle and would require a c.1 hour & 20-minute journey, using multiple bus services.

3.6.26 Leicester Station is situated c.11.5km east of the site and can be accessed as part of a multi-modal journey; comprising a 32-minute (in transit) journey on the no. 153 bus service and a 17-minute walk. The station can also be accessed via a c.14.5km (41-minute) cycle; however, on account of the journey length this may only be suitable for confident experienced cyclists.

3.6.27 The station is served by frequent services to Nottingham, London St Pancras and Sheffield, while CrossCountry trains run between Leicester and Cambridge, Birmingham, and Stansted Airport; journey times and peak hour frequency is displayed in **Table 3.4** for reference.

Table 3.4 Rail Service Provision – Leicester Station

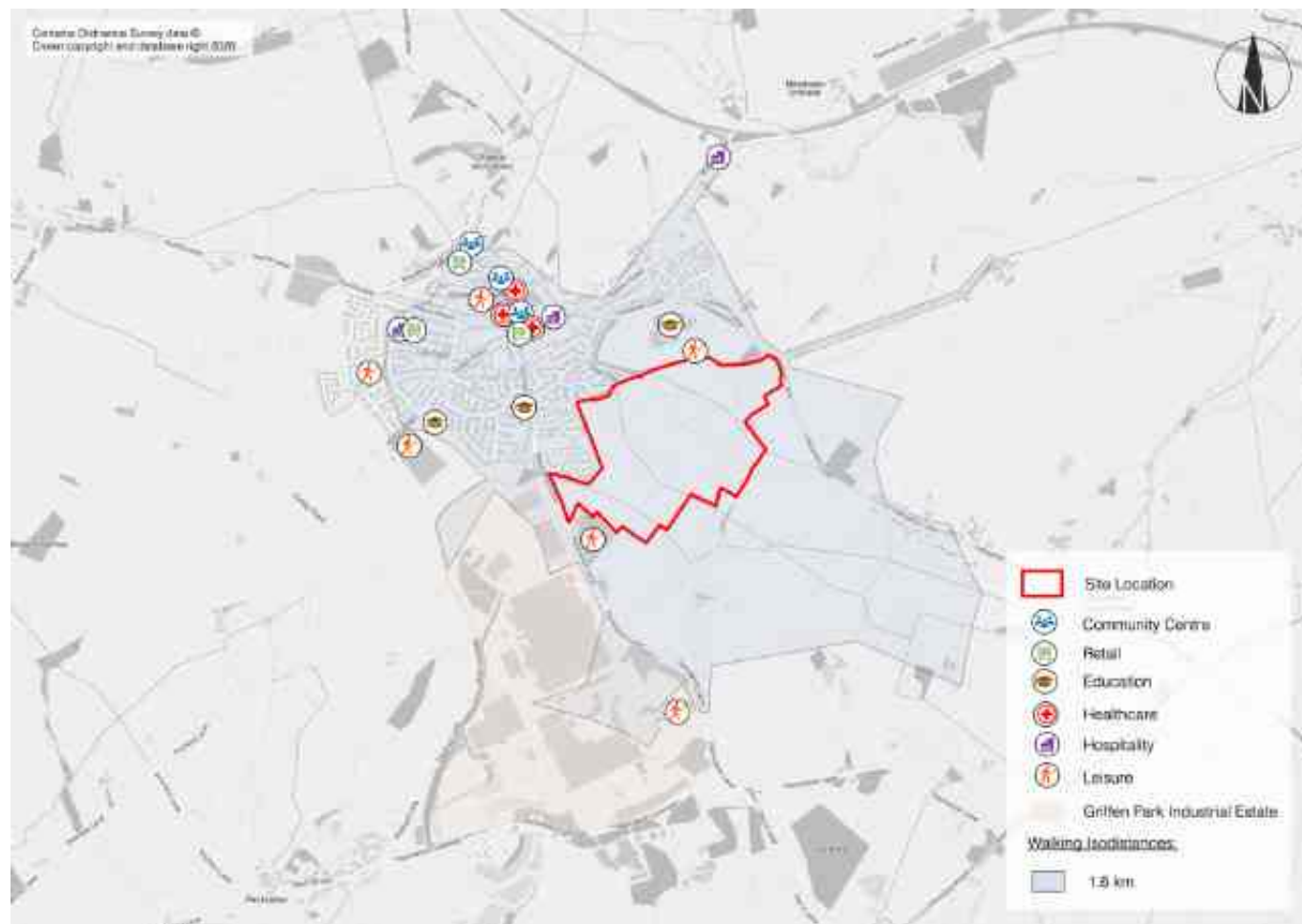
Destination (Direct)	Journey Time (approx.)	Typical Peak Hour Frequency
Nottingham	30 minutes	3 per hour
Birmingham New Street	53 minutes	2 per hour
Sheffield	1 hour	2 per hour
London St Pancras	1 hour 10 minutes	4 per hour
London Stansted Airport	2 hour 30 minutes	1 per hour
Cambridge	2 hours	1 per hour

3.7 Local Amenities

3.7.1 It is imperative to consider the potential opportunities to access local amenities. In transport planning terms, the most sustainable sites are those generating the lowest number of single occupancy private vehicle trips, which can be achieved by facilitating a greater proportion of walking, cycling and public transport journeys.

- 3.7.2 The majority of trips that will be made by walking or cycling are for short shopping trips, access to leisure / retail facilities, trips to work, school trips and trips to public transport services as part of linked trips to other destinations. The levels of facilities and services accessible locally are of particular interest to help reduce the need for car use.
- 3.7.3 Appropriate walking distances are dependent upon the location of the specific development; more remote locations will see people being prepared to walk further to their end destination. Similarly, appropriate walking distances are also dependent upon the standard of existing pedestrian infrastructure provision, with further walking distances achievable in locations with extensive and higher-quality pedestrian footways, crossings and pedestrianised areas.
- 3.7.4 As with pedestrian accessibility, the level of a site's cycle accessibility depends upon a combination of the distance from the local amenities and the standard of existing cycle infrastructure. It should, however, be noted that cycle infrastructure can include facilities shared with vehicles and pedestrians, as well as dedicated cycle infrastructure.
- 3.7.5 The 'Planning for Walking' (2015) document, produced by the CIHT) document suggests that c.80% of journeys shorter than 1 mile (1.6km) are made wholly on foot.
- 3.7.6 Furthermore, the DfT Local Transport Note 1/20 'Cycle Infrastructure Design' States that two out of every three personal trips are less than five miles in length (Transport Statistics Great Britain, DfT, 2016) an achievable distance to cycle for most people.
- 3.7.7 The above guidance has been taken into consideration when assessing the proposed walking journey distances/time to key nearby amenities from the residential parcel. mode has utilised Google Maps' route directions and journey time tool to inform the distances to key amenities.
- 3.7.8 An assessment of the accessibility of the site in relation to local services and facilities has been undertaken and is provided in **Figure 3.8**.

Figure 3.8 Local Facilities



3.7.9 **Table 3.5** provides a summary of the approximate distances and walking / cycling times to local amenities and facilities. The measurements have been taken from the centre of the site. Journey times have been estimated on the following two assumptions:

- Walking time: 80 metres per minute¹
- Cycling time: 268 metres per minute²

¹ Walking time assumption based off section 6.3 within 'Planning for Walking' published by the Chartered Institution of Highways and Transportation (2015)

² Cycling time assumptions based off paragraph 13.6.3 within 'Cycle Infrastructure Design Local Transport Note 1/20' published by the Department for Transport (2020)

Table 3.5 Accessibility to Local Amenities & Facilities

Amenity / Facility	Distance from centre of site (m)	Estimated Walking Journey Time (mins)	Estimated Cycling Journey Time (mins)
Education			
Topsham House Children's Nursery	994	12	4
Bosworth Academy	1090	14	4
Desford Community Primary School	1552	19	6
Health			
Desford Pharmacy	993	12	4
Desford Dental Care	1033	13	4
Desford Medical Centre	1207	15	5
Employment			
Griffen Park Industrial Estate	945	12	4
Retail			
Central Co-op Food, High Street	993	4	12
Desford Shop & Post Office	1475	6	18
Community			
Desford Library Community Hub	916	11	3
Desford Church Hall	1065	13	4
Desford Free Church	1190	15	4
Leisure			
Sport in Desford	878	11	3
Stewards Play Park	1150	14	4
Dome Sports Centre	1209	15	5
Bluebell Green Play Park	1840	23	7
Caterpillar Juniors Football Club	2083	26	8
Hospitality			
The Bluebell Inn and Lodge	799	10	3
Desford Fish Bar / Little India	1462	18	5
The Lancaster Arms	1714	21	6

3.7.10 As demonstrated by **Figure 3.8** and **Table 3.5**, the development site is located within an accessible (maximum) distance of a range of amenities / facilities, including Desford Community Primary School, Bosworth Academy, Desford Medical Centre, and The Co-Operative food store.

3.8 Summary

- 3.8.1 The site is in an accessible location with walking, cycling and public transport access to and from local amenities and the wider sustainable transport network; with a number of local schools, recreational facilities, and retail opportunities in Desford. A number of local designated cycle routes are also identified in proximity to the site, providing connections to surrounding residential areas and towards Leicester city centre.
- 3.8.2 Analysis of the local highway network in the vicinity of the site has demonstrated that there are no inherent highway safety issues on the local highway network surrounding the site which would likely be exacerbated by the development.

4. Development Proposals

4.1 Overview

- 4.1.1 This section of the report provides details and a description of the proposed development site, including access arrangements.

4.2 Proposed Development

- 4.2.1 The proposed scheme comprises an outline application for approximately 550 dwellings and a community use building with (potential) Healthcare (up to 1,000sqm) and Use Class E (up to 500sqm), with the full description of development as follows:

"Outline planning application for residential development, including provision of a primary healthcare facility and district centre [E Use Class]; sports facilities; public open space; access from Peckleton Lane and Leicester Lane with a connecting road; sustainable drainage; and associated infrastructure. All matters reserved except for access."

- 4.2.2 An illustrative concept masterplan has been prepared, which demonstrates how the site can be delivered, and is attached in **Appendix A**, for reference.

4.3 Vehicle Access Arrangements

- 4.3.1 Vehicular access will be provided via two ghost-island priority junctions on Peckleton Land and the B582 Leicester Lane. The principle of access has been agreed with LCC as part of the previously outlined scoping and pre-application discussions.
- 4.3.2 In determining the access strategy for the site, consideration has been made to the guidance set out in the LHDG. In accordance with the LHDG, the accesses have been designed to a 'Major Residential Access Road', which would allow for future bus accessibility into the site (subject to development of an appropriate strategy and ongoing discussions with the LHA and local bus operators).
- 4.3.3 It is the intention of the applicant that the two access junctions be linked by a central spine road, in the fullness of time; however, this will be discussed, refined and detailed as part of any subsequent Reserved Matters (RM) application.
- 4.3.4 In accordance with the guidance set out within LHDG, a 'Major Residential Access Road' can serve up to 400 dwellings from a single point of access, or up to 1,000 dwellings if more than one access point is provided. This will allow for future flexibility regarding the future phasing of the site (subject to a subsequent RM application), in terms of the number of units served from each access in the initial phases of development, prior to the spine road connection being fully constructed and a connection through the site being established. This matter will be discussed with the LHA and the LPA as the scheme progresses.

Peckleton Lane

- 4.3.5 The primary point of access to the site will be provided off Peckleton Lane to the west of the site; this has been designed in accordance with the standards for a 'Major Residential Access Road', to allow for future bus access. The primary access takes the form of a priority ghost-island right turn lane junction, with a 6.75m wide access road on the minor access arm to facilitate bus permeability.
- 4.3.6 Consideration has also been made of the relevant visibility splay requirements from the proposed site access junction. To determine the required visibility splays, vehicle speeds have been obtained from the ATC undertaken on Peckleton Lane, adjacent to the site frontage. The ATC recorded 85th percentile speeds of 39mph and 42.4mph for northbound and southbound traffic, respectively. As demonstrated in **Drawing J328769-MI-SI-XX-DR-C-0130** attached at **Appendix G**, the required visibility splays of 2.4m x 111.2m and 2.4 x 96.9m can be achieved to the north and south of the junction, respectively, in accordance with the recorded 85th percentile speeds (outlined in **Table 3.1**) and the standards outlined in the Design Manual for Roads and Bridges (DMRB).
- 4.3.7 An overview of the proposed site access arrangements along Peckleton Lane is provided in **Drawing J328769-MI-SI-XX-DR-C-0130**, attached at **Appendix G**, for reference.

B582 Leicester Lane

- 4.3.8 The secondary point of vehicular access will be provided from Leicester Lane to the east of the site, and has also been designed in accordance with the standards for a 'Major Residential Access Road', to allow for future bus access. The proposed secondary access also takes the form of a priority ghost-island right turn lane junction, with a 6.75m wide access road on the minor access arm to facilitate bus permeability.
- 4.3.9 Vehicle speeds have been obtained from the ATC undertaken on Leicester Lane adjacent to the site frontage. The ATC recorded 85th percentile speeds of 39.8mph and 41.6mph for northbound and southbound traffic, respectively. As demonstrated in **Drawing J328769-MI-SI-XX-DR-C-0120** attached at **Appendix G**, the required visibility splays of 2.4m x 107.8m and 2.4 x 100.3m can be achieved to the north and south of the junction, respectively, in accordance with the recorded 85th percentile speeds (outlined in **Table 3.1**) and the standards outlined in the DMRB.
- 4.3.10 An overview of the proposed site access arrangements along Leicester Lane is provided in **J328769-MI-SI-XX-DR-C-0120**, attached at **Appendix G**, for reference.

Swept-Path Analysis

- 4.3.11 Swept path analysis has been undertaken for the proposed site access junctions for a Refuse Vehicle, Removals Van, Rigid Bus and Fire Tender. **Drawings J328769-MI-SI-XX-DR-C-0116** and **J328769-MI-SI-XX-DR-C-0125**, attached at **Appendix G**, demonstrate that the relevant design vehicles can access and egress the site via the proposed access junctions.

4.4 NMU Strategy

- 4.4.1 As outlined in **Chapter 3**, the primary desire line from the site for Non-Motorised Users (NMUs) is envisaged to be to the north through the site, towards the local services and amenities in the centre of Desford.
- 4.4.2 To cater for the primary desire line to and from the site, consideration has been made of a potential opportunity to upgrade the current PRow which routes to the north of the site, towards Forest Rise. As outlined in **Figure 3.4**, pedestrian access at this location is currently provided via public footpath R98/8, with connections along this route provided over the watercourse at the northern site frontage via a narrow wooden planked bridge, as shown in **Figure 3.5**.
- 4.4.3 The principle of improving this route has been discussed with LCC, and it has been agreed that this will comprise a new 3m wide (shared foot/cycle) connection over the watercourse (requiring the installation of an upgraded bridge connection), and a paved connection to the north, providing connections to Forest Rise. At the point where a connection is provided to Forest Rise, cyclists will be required to rejoin the carriageway, and a pedestrian connection will be provided to the existing footway provision, providing connections towards the centre of Desford.
- 4.4.4 To support pedestrian accessibility into the site from the west, a 2.0m footway is proposed at the site access onto Peckleton Lane, with a dropped kerb tactile paving crossing, and a central refuge facility, providing a connection to the existing footway provision on the western side of the Peckleton Lane.
- 4.4.5 An overview of the indicative arrangements are provided in following drawings, attached at **Appendix G**, for reference:
- **Drawing J328769-MI-SI-XX-DR-C-0160** - Shared Use NMU Connection to Forest Rise (North);
 - **Drawing J328769-MI-SI-XX-DR-C-0130** – Peckleton Lane site access.

4.5 Public Transport

- 4.5.1 Based on the level of development, improved public transport services would provide an excellent opportunity to kickstart sustainable travel habits throughout the site and in the wider area. The site will provide additional demand for bus travel amongst prospective residents and visitors, in addition to staff employed as part of the proposed facilities within the local centre.
- 4.5.2 As outlined in **Section 3.6**, the existing bus stops are located outside of the typically recommended walking distance of 400m from the site, as outlined in The CIHT *Buses in Urban Developments* (2018). To improve access to bus services, it is considered appropriate to provide bus access into the site.

- 4.5.3 As part of the sustainable access strategy for the site, the proposed site access junctions have therefore been designed with a carriageway width of 6.75m, in accordance with the standards for a Local Distributor Road, to facilitate bus access into the site.
- 4.5.4 Considering the concept masterplan for the site, and the proposed access strategy, two potential bus routing options for the site have been considered at this stage:
- Option 1 – Access / egress via the western site access, and a route along the internal spine road, and around a looped secondary route, before egressing out of the western access.
 - Option 2 – Access via the western access, route along the internal spine road and egress via the eastern access.
- 4.5.5 Further discussions will be held with LCC and local bus operators through the planning application's determination period to ascertain the commerciality of the existing local bus services, and to understand whether contributions will be sought to divert existing services into the site.
- 4.5.6 The placement of bus stops within the site will also be discussed with LCC and local operators and confirmed through the subsequent RM application to ensure suitable access catchment coverage for individual dwellings within the site, and provide suitable accessibility for the local centre.
- 4.5.7 The diversion of the bus service into the site will be targeted at prospective residents and visitors to dwellings at the site; as well as staff and users of the onsite facilities promoted as part of the local centre.

5. Travel Demand

5.1 Overview

5.1.1 This section provides an overview of the methodology used to calculate the travel demand associated with the development proposals, including vehicle trip generation, multi-modal trip generation and vehicle trip distribution.

5.2 Trip Rates and Trip Generation

Residential

5.2.1 To provide an indication of the potential forecast traffic impact of the residential element of the development, approved trip rates have been obtained from planning application 25/01156/OUT, as agreed with LCC as part of the previously outlined pre-application scoping discussions.

5.2.2 As outlined above, the proposed development is for approximately 550 dwellings, however for completeness the traffic impact of the site has been considered based upon a development of up to 600 dwellings.

5.2.3 **Table 5.1** provides a summary of the vehicle trip rates for the traditional highway network weekday morning (08:00-09:00) and evening (17:00-18:00) peak hours, along with an overview of the trip generation associated with the 600 dwelling development scheme.

Table 5.1 Residential Trip Rates and Trip Generation

	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
Trip Rates (per dwelling)	0.113	0.500	0.613	0.331	0.244	0.575
Trip Generation (600 dwellings)	68	300	368	199	146	345

5.2.4 **Table 5.1** illustrates that a proposed development of 600 dwellings is forecast to generate approximately 368 and 345 two-way trips during the AM and PM peak hours, respectively. This equates to approximately 6 additional two-way trips per minute on the surrounding highway network during each of the peak hours.

Healthcare

5.2.5 To provide an indication of the traffic impact of the proposed healthcare land use, data has been obtained from the TRICS (V 8.26.3) database for developments from the 'Health – GP Surgery' (05/G) land use category. Sites of similar scale and geographical setting have been included in the data samples. Sites located in Greater London have been excluded along with sites outside of England.

5.2.6 **Table 5.2** provides a summary of the vehicle trip rates for the healthcare element of the proposed development local centre, during the traditional highway network weekday AM (08:00-09:00) and PM (17:00-18:00) peak periods. The full TRICS search outputs are included as **Appendix H**, for reference.

Table 5.2 Healthcare Trip Rates and Trip Generation

	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
Trip Rates (per 100sqm)	5.020	2.567	7.587	2.522	3.498	6.020
Trip Generation (1,000sqm)	50	26	76	25	35	60

5.2.7 For the healthcare land use, it is expected that 20% of the trips (c.1,500 of the c.7,500 projected patients³ associated with the healthcare facility) will be derived from the development itself, with the remaining 80% of trips originating from outside of the development site.

5.2.8 Consideration has also been made of the potential for pass-by trips. It is not envisaged that all trips associated with healthcare land use will be new trips on the local highway network, instead it is assumed that 20% of external trips will be pass-by trips: a multi-purpose trip that passes the site frontage along the adjacent road network, visits the local centre and then continues back along its original route.

5.2.9 The internalisation and pass-by assumptions have been discussed and agreed with LCC as part of the previously outlined pre-application scoping discussions, which are included at **Appendix C**, for reference.

5.2.10 **Table 5.3** provides a summary of the 'new' vehicle trips for the healthcare land use during the traditional highway network weekday AM (08:00-09:00) and PM (17:00-18:00) peak hours.

³ Further detail on the projected patient numbers is provided within the planning statement, which accompanies the suite of documents associated with the planning application

Table 5.3 'New' Healthcare Trips

	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
Trip Rates (per 100sqm)	32	16	49	16	22	39

Class E

5.2.11 To provide an indication of the traffic impact of the proposed E Use Class, data has been obtained from the TRICS (V 8.26.3) database for developments from the 'Retail – Convenience (01/)) land use category. Sites of similar scale and geographical setting have been included in the data samples. Sites located in Greater London have been excluded along with sites outside of England.

5.2.12 **Table 5.4** provides a summary of the vehicle trip rates for the local centre of the development during the traditional highway network weekday AM (08:00-09:00) and PM (17:00-18:00) peak hours. The full TRICS search outputs are included as **Appendix H**, for reference.

Table 5.4 Use Class E Trip Rates and Trip Generation

	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
Trip Rates (per 100sqm)	6.339	5.664	12.003	7.215	8.294	15.509
Trip Generation (500sqm)	32	28	60	36	41	78

5.2.13 Consideration has also been made of the potential for linked, transferred and pass-by trips associated with the E Use Class. It is not envisaged that all trips associated with the E Use Class will be new trips on the local highway network, the level of trips generated by retail developments historically are classified into one of the following categories:

- Linked trip – a trip associated which is already on the network within the site, associated with the proposed residential units, and is therefore accounted for in the above residential trip generation;
- Primary (New) Trip – a single purpose trip that is new to the local highway network during the assessment period;
- Primary (Transferred) Trip – a single purpose trip that was previously undertaken at an alternative comparable location and transferred to the proposed site. On account of the local nature of the proposed scheme, it is envisaged that these would be comprised of locals immediately north and south of the site who visit the site before returning home; and,
- Pass-By Trip – a multi-purpose trip that passes the site frontage along the adjacent road network visits the local centre and then continues along its initial route.

5.2.14 An assumption of 30% of the trips associated with the E Use Class have been classified as 'Primary (New)' trips, with 30% 'Linked' trips, 20% 'Primary (Transferred)' trips, and 20% 'Pass-By' trips. The assumptions have been agreed with LCC as part of the pre-application scoping discussions.

5.2.15 **Table 5.5** provides a summary of the 'new' vehicle trips for the Class E land use during the traditional highway network weekday AM (08:00-09:00) and PM (17:00-18:00) peak periods.

Table 5.5 'New' Use Class E Trips

	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
Trip Rates (per 100sqm)	10	8	18	11	12	23

Total 'New' Trips

5.2.16 Based upon the trip generation figures presented above, **Table 5.6** provides a summary of the forecast total new trip generation associated with the development.

Table 5.6 Total 'New' Trip Generation

	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
Residential	68	300	368	199	146	345
Healthcare	32	16	49	16	22	39
Use Class E	10	8	18	11	12	23
Total	109	325	434	226	181	407

5.2.17 **Table 5.6** illustrates that the proposed development is forecast to generate approximately 434 and 407 'new' two-way trips during the AM and PM peak hours, respectively. This equates to approximately 7-8 additional 'new' two-way trips per minute on the surrounding highway network during the peak hours.

5.3 Multi-Modal Trip Generation

5.3.1 To provide a representative forecast of multi modal trips anticipated at the proposed development, mode has consulted the TEMPro v8.1 dataset. Mode share data based on trip type has been extracted from TEMPro to inform journey purpose and mode share.

5.3.1 The site is located within the Hinckley and Bosworth 005 MSOA (E02005381) and therefore the MSOA has been used as a proxy for the purpose of mode share data.

5.3.2 Mode share data for home-based trips has been extracted and is shown in **Table 5.7**. The full mode share data from TEMPro is attached at **Appendix I**, for reference. It should be noted that the 'other' journey purpose category encompasses personal business, visiting friends, holiday trips and recreation trips.

Table 5.7 TEMPro Mode Share Split

Mode	Work		Education		Retail		Other		Total	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Car Driver	77%	77%	27%	26%	54%	54%	52%	53%	54%	55%
Car Passenger	12%	11%	40%	40%	26%	26%	30%	30%	28%	27%
Walk	6%	6%	22%	23%	13%	13%	11%	11%	12%	12%
Cycle	2%	2%	1%	1%	1%	1%	2%	2%	2%	2%
Bus Coach	3%	3%	9%	10%	5%	5%	3%	3%	4%	4%
Rail	1%	2%	1%	1%	1%	0%	1%	1%	1%	1%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

5.3.1 For the residential and healthcare land uses, the mode share data for 'total' trip purposes has been applied to the total vehicular trip rates for to calculate multi-modal trip rates. For the Use Class E, the mode share data for 'retail' trip purposes has been applied to the total vehicular trip rates for to calculate multi-modal trip rates.

5.3.1 A summary of the total multi-modal trip generation associated with the development is shown in **Table 5.8**. A full breakdown of the multi-modal trip generation calculations is provided at **Appendix I**.

Table 5.8 Multi Modal Trip Generation

Travel Type	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
Residential						
Car Driver	68	300	368	199	146	345
Car Passenger	35	147	182	102	72	174
Walk	15	63	78	44	31	74
Cycle	2	9	11	6	4	10
Bus/Coach	5	21	26	15	10	25
Rail	1	6	7	4	3	6
Healthcare						

Travel Type	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
Car Driver	50	26	76	25	35	60
Car Passenger	26	13	38	13	17	30
Walk	11	5	16	5	7	13
Cycle	2	1	2	1	1	2
Bus/Coach	4	2	5	2	2	4
Rail	1	0	1	0	1	1
Use Class E						
Car Driver	32	28	60	36	41	78
Car Passenger	16	14	29	18	20	37
Walk	8	6	14	9	10	19
Cycle	1	0	1	1	1	1
Bus/Coach	3	2	6	4	4	7
Rail	0	0	1	0	0	1
Total						
Car Driver ⁴	150	354	504	260	222	483
Car Passenger	76	173	250	133	109	241
Walk	34	75	108	58	48	106
Cycle	4	10	14	7	6	13
Bus/Coach	12	25	37	20	17	37
Rail	2	6	9	4	4	8

5.4 Traffic Distribution

5.4.1 To understand the routing of trips associated with the proposed development, traffic has been distributed across the local highway network using 2011 Census data, relating to the locations of workplaces where existing residents in the Hinckley and Bosworth 005 MSOA (E02005381); within which the site is located, travel to and from.

5.4.2 In this regard, it should be noted that 2011 Census Journey to Work data is considered to provide the most accurate representation of the distribution profile at the site, due to the impact of the COVID-19 pandemic during the time travel data was obtained for the purpose of the more recent 2021 Census.

⁴ Total 'Car Driver' is higher than those presented in Table 5.6 (and assessed as part of the offsite highway network capacity analysis); this is due to no reductions for internalised vehicle trips being applied to the multi-modal forecast calculations in Table 5.8.

5.4.3 The local highway network was analysed and the main routes/areas surrounding the site were assigned to a zone (using Google Maps journey planning tool). A summary of the zones and the distribution of traffic to and from these zones is shown in **Figure 5.1**. A full breakdown of the trip generation exercise is attached at **Appendix J**, for reference.

Figure 5.1 Traffic Distribution Zones



5.4.4 The resulting trip distribution for the development has also been summarised in **Table 5.4** for the respective AM and PM peak hours.

5.4.5 It is difficult to provide an accurate indication of the likely distribution of traffic associated with the healthcare facility, or indeed the potential Class E use at this stage, therefore for the purpose of the assessment the distribution of trips associated with these elements of the proposals have assumed the same profile as the residential element of the development.

Table 5.9 Traffic Distribution Profile

Zone	%	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
		Arrive	Depart	Arrive	Depart
A	19%	21	62	43	35
B	0%	0	0	0	0
C	19%	21	62	43	35
D	10%	11	34	23	19
E	16%	17	52	36	29
F	2%	2	7	5	4
G	14%	15	44	30	24
H	8%	9	27	19	15
I	1%	1	2	2	1
J	5%	6	17	12	10
K	3%	3	10	7	6
L	2%	2	7	5	4
Total	100%	109	325	226	181

5.4.6 Traffic was then assigned to the road network based on the shortest journey time to each respective zone (using Google Maps journey planning tool). This has been used to determine the level of development traffic expected to be generated at key off site junctions.

5.4.7 When assigning traffic onto the local highway network, consideration has been made of the assumed proportionate development split across the two site access points, as outlined below:

- Leicester Lane = **55%**
- Peckleton Lane = **45%**

6. Highway Assessment

6.1 Overview

6.1.1 This chapter provides a summary of the detailed assessments that will be undertaken to understand the impact of the development proposals on the operation of the local highway network.

6.2 PRTM

6.2.1 As outlined in Chapter 1, the proposed methodology for assessing the impacts of the proposed development on the highway network has been subject to detailed pre-application scoping discussions with LCC; in their capacity as LHA. Through the course of discussions, it was noted that due to the scale of the development, this should be assessed through the use of the LHA's Pan Regional Transport Model (PRTM). The PRTM is managed by LCC's Network Data & Intelligence Team (NDIT). The use of the PRTM will consider the impact of the development on the local highway network, along with any rerouting of background traffic.

6.2.2 Since the timing of these initial discussions, mode (on behalf of the applicants) has commissioned NDIT to complete a model run, in order to identify the likely impacts of the proposals on the highway network. LCC is aware of the current status of this modelling exercise and will continue to be updated on the progress and results of this; and LCC and HBBC have agreed for the modelling work to continue alongside the applications consideration.

6.2.3 On account of the timescales for completing the full suite of modelling work, it has not been feasible to delay the application to allow all of this to be completed prior to submission. In the meantime, in order to provide a preliminary view of the impacts of the proposed development, and allow the application to be validated, an industry standard approach has been followed; using trip rates (obtained from TRCIS / approved local applications) and trip distribution (based upon Census Journey to Work data) to understand the likely assignment of development traffic onto the local highway network.

6.2.4 The methodology underpinning the assessment work presented in this TA has been discussed and agreed with LCC, and will form the basis of the wider assessment work being undertaken as part of the PRTM. It is therefore the intention of the applicants that once the full results of the modelling exercise are available, a separate TA Addendum Report will be prepared, which provides a comparison with the modelling data presented within this TA to validate this, and (if required) consider any necessary amendments / further mitigation works. LCC will continue to be informed of the progress of the PRTM modelling work following the submission of the current TA and planning application.

6.3 Background Traffic

6.3.1 As outlined in **Section 3.4**, to determine the level of background traffic along the site frontages with Peckleton Lane and the B582 Leicester Lane, two ATCs undertaken for a 7-day period between 3rd and 9th March 2026.

6.3.2 To determine background traffic levels at key junctions on the wider highway network, Manual Classified Counts (MCCs) were also undertaken at the following junctions on Thursday 5th March 2026 during the hours of 07:00-10:00 and 16:00–19:00:

- MCC 1 - Peckleton Common / Peckleton Lane;
- MCC 2 – Peckleton Lane / High Street / Kirby Road;
- MCC 3 - B582 Manor Road / Main Street / High Street / Kirkby Road;
- MCC 4 – B582 Hunts Lane / Manor Road / Newbold Road;
- MCC 5 - B582 Leicester Lane / Barns Way;
- MCC 6 – Botcheston Road / Desford Lane;
- MCC 7 – A47 Hinckley Road / B582 Leicester Lane / B582 Desford Road;
- MCC 8 – A47 Hinckley Road / Dans Lane;
- MCC 9 – A47 Hinckley Road / Desford Road; and,
- MCC 10 – A47 Leicester Road / A47 Hinckley Road / A47 Roundabout.

6.3.3 The associated traffic data has been used to determine the existing background traffic levels from which the future year baseline scenario has been forecast. Full traffic count data can be made available to LCC, upon request.

6.4 Assessment Scenarios

6.4.1 The capacity assessments will be undertaken for the future year assessment of 2036 (+10 years from the application submission). The following core assessment scenarios will therefore be assessed, which have been discussed and agreed with LCC through the course of the pre-application scoping discussions:

- 2026 Base;
- 2036 Base;
- 2036 Base + Dev.

6.4.2 Growth factors have been applied to the background traffic flows to demonstrate how traffic is expected to change over the assessment period. Future year background traffic growth has therefore been extracted from TEMPro v8.1 for the local Hinckley and Bosworth 005 MSOA (E02005381) MSOA.

6.4.3 For the interrogation of the TEMPro database the growth rates for 'car drivers only' were selected with the trip end type being defined as 'origin/destination'. Trip rates were obtained for the Weekday AM and PM peak periods. Once the trip rates had been calculated, an adjustment was applied to provide a local growth rate. An NTM growth calculation for 'All Roads' was weighted to the TEMPro growth rates.

6.4.4 A summary of the TEMPro growth factors is provided in **Table 6.1**.

Table 6.1 TEMPro Growth Factors

Year	AM Peak	PM Peak
2026 - 2036	1.1004	1.1038

6.4.5 Traffic flow diagrams for the study area have been developed for the scenarios outlined above; these are contained in **Appendix K**, for reference.

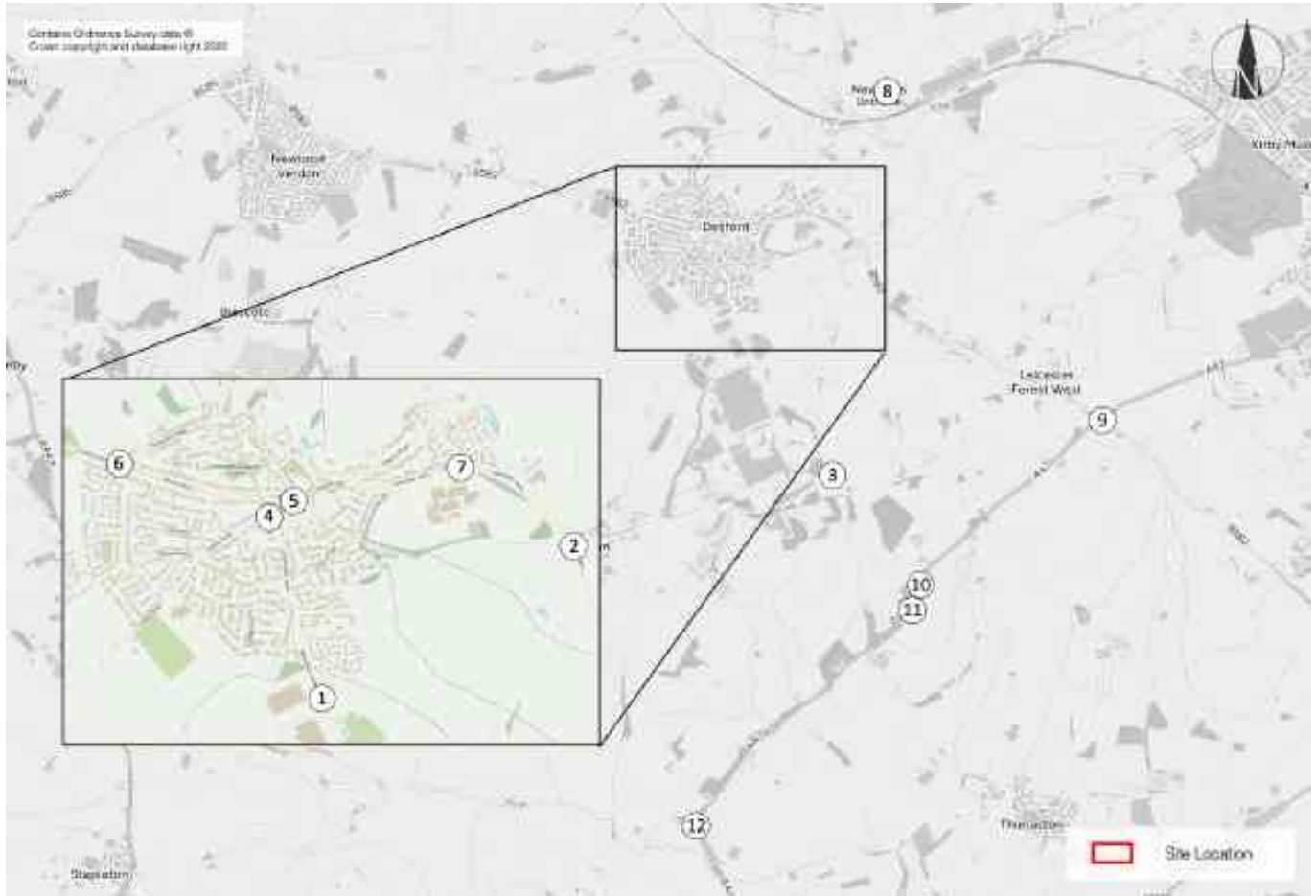
6.5 Assessment Scope

6.5.1 Based on the scale of development proposed and the routes from the site to the highway network in the vicinity of the site, junction assessments have been undertaken at the locations listed below, and as shown in **Figure 6.1**, for reference:

- Site Access Junctions:
 - Junction 1 – Site Access / Peckleton; and,
 - Junction 2 – Site Access / B582 Leicester Lane.
- Off-Site Junctions:
 - Junction 3 - Peckleton Common / Peckleton Lane;
 - Junction 4 - Peckleton Lane / High Street / Kirby Road;
 - Junction 5 - B582 Manor Road / Main Street / High Street / Kirkby Road;
 - Junction 6 - B582 Hunts Lane / Manor Road / Newbold Road;
 - Junction 7 - B582 Leicester Lane / Barns Way;
 - Junction 8 - Botcheston Road / Desford Lane;
 - Junction 9 - A47 Hinckley Road / B582 Leicester Lane / B582 Desford Road;

- Junction 10 - A47 Hinckley Road / Dans Lane;
- Junction 11 - A47 Hinckley Road / Desford Road; and,
- Junction 12 - A47 Leicester Road / A47 Hinckley Road / A47 Roundabout.

Figure 6.1 Location of Junction Assessments



6.6 Junction Capacity Assessments

- 6.6.1 The junction capacity assessments undertaken in this TA have been based on the traditional AM peak period of 08:00-09:00 and PM peak period of 17:00-18:00, in line with industry standard practice.
- 6.6.2 The junction assessments have been based on 100% of the development generated traffic and do not take into account any measures to reduce private car use, which are promoted as part the accompanying FTP. The models have also been based on OD Tab which reflects a more robust scenario in terms of trip arrival profile.

- 6.6.3 The industry standard software package 'Junctions 11' (PICADY and ARCADY modules) has been used to assess the capacity of the priority junctions and roundabouts as well as LinSig V3 for signalised junctions. The geometric parameters have been measured using OS base mapping. The LinSig model for the A47 Hinckley Road / B582 Leicester Lane / B582 Desford Road junction was obtained directly from LCC.
- 6.6.4 Generally, values of 0.85 or lower are accepted as an indication of roundabouts or priority junctions to be operating satisfactorily; however, this is not always a clear indicator as this can vary through the peak hour; therefore, the length of queues and the delay must also be considered when determining if the traffic impact at any given junction is 'severe'.
- 6.6.5 At signalised junctions operating close to zero Practical Reserve Capacity (PRC), which equates to a DoS/RFC value of approximately 0.90 or 90%, small reductions in capacity may result in exponential delay and/or queueing. Therefore, junctions operating above 0.90/90% should be carefully reviewed to ensure that queues and the delay, is not significantly impacted upon to ensure that the new development will not have a 'severe' impact upon the existing highway infrastructure.
- 6.6.6 A summary of the modelling results is presented below, and full model output reports are provided in **Appendix L**, for reference.

6.7 Junction Modelling Results

Junction 1 – Site Access / Peckleton Lane

- 6.7.1 The site access on Peckleton Lane has been modelled using the PICADY module of Junctions 11. A summary of the results is shown in **Table 6.2**.

Table 6.2 Site Access / Peckleton Lane Capacity Assessment Results

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2036 Base + Dev						
Site Access	1	13	0.39	0	9	0.20
Peckleton Lane (South)	0	7	0.07	0	7	0.11

- 6.7.2 The model results show that in the with development scenarios the junction is forecast to operate well within capacity, with a maximum RFC value of 0.39 during the worst-case AM peak hour in the '2036 Base + Dev' scenario. The proposed site access with Peckleton Lane is therefore considered suitable to serve the proposed development.

Junction 2 – Site Access / B582 Leicester Lane

6.7.3 The site access on the B582 Leicester Lane has been modelled using the PICADY module of Junctions 11. A summary of the results is shown in **Table 6.3**.

Table 6.3 Site Access / B582 Leicester Lane Capacity Assessment Results

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2036 Base + Dev						
Site Access	1	20	0.38	0	18	0.24
B582 Leicester Ln (N)	0	7	0.06	0	8	0.13

6.7.4 The model results show that in the with development scenarios the junction is forecast to operate well within capacity, with a maximum RFC value of 0.38 during the worst-case AM peak hour in the '2036 Base + Dev'. The proposed site access with Leicester Lane is therefore considered suitable to serve the proposed development.

Junction 3 - Peckleton Common / Peckleton Lane

6.7.5 Peckleton Common/ Peckleton Lane has been modelled using the PICADY module of Junctions 11. A summary of the results is shown in **Table 6.4**.

Table 6.4 Peckleton Common / Peckleton Lane Capacity Assessment Results

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2026 Base						
Peckleton Common to Peckleton Lane (N)	0	8	0.10	0	7	0.08
Peckleton Common to Peckleton Lane (S)	1	13	0.32	0	10	0.16
Peckleton Lane (N)	0	5	0.12	0	6	0.08
2036 Base						
Peckleton Common to Peckleton Lane (N)	0	8	0.11	0	7	0.09
Peckleton Common to Peckleton Lane (S)	1	15	0.37	0	10	0.18
Peckleton Lane (N)	0	5	0.13	0	6	0.09
2036 Base + Dev						
Peckleton Common to Peckleton Lane (N)	0	8	0.13	0	8	0.13
Peckleton Common to Peckleton Lane (S)	1	17	0.40	0	11	0.20

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
Peckleton Lane (N)	1	5	0.22	0	6	0.13

6.7.6 The model results show that in the with development scenarios the junction is forecast to operate well within capacity, with a maximum RFC value of 0.40 during the worst-case AM peak hour in the '2036 Base + Dev' scenario, therefore no further investigation or mitigation is therefore deemed to be necessary at this location.

Junction 4 - Peckleton Lane / High Street / Kirby Road

6.7.7 Peckleton Lane / High Street / Kirby Road has been modelled using the PICADY module of Junctions 11. A summary of the results is shown in **Table 6.5**.

Table 6.5 Peckleton Lane / High Street / Kirby Road Capacity Assessment Results

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2026 Base						
Peckleton Lane	2	22	0.62	2	19	0.61
Kirkby Road	0	7	0.17	0	6	0.07
2036 Base						
Peckleton Lane	2	28	0.70	2	23	0.68
Kirkby Road	0	8	0.20	0	6	0.08
2036 Base + Dev						
Peckleton Lane	6	62	0.88	3	33	0.78
Kirkby Road	0	8	0.20	0	7	0.08

6.7.8 The model results indicate that the junction operates within its practical capacity, with the maximum RFC value of 0.70 recorded on the Peckleton Lane arm during the AM peak, along with an associated queue of 2 vehicles and a delay of 28 seconds. Following the introduction of development traffic, the RFC value increases by 0.18, and the associated queue and delay increases by 4 vehicles and 34 seconds, respectively.

6.7.9 In light of the above, it is considered that whilst the development has an impact in this location, this is relatively minor in the context of the junction throughput and cannot be defined as severe.

6.7.10 It should also be noted that the 2036 future year scenario includes 10 years of background traffic growth and excludes any modal shift which may come about as a result of the measures to be outlined in the accompanying FTP. It should also be noted that the current modelling does not account for any rerouting of background traffic which could occur from east to west through the site, once the internal spine road has been implemented. Any dynamic rerouting of traffic will need to be identified as part of the subsequent work being prepared using the PRTM. The actual realised impact at the junction may therefore be lower, and no further investigation or mitigation is therefore deemed to be necessary at this location.

Junction 5 - B582 Manor Road / Main Street / High Street / Kirkby Road

6.7.11 B582 Manor Road / Main Street / High Street / Kirkby Road has been modelled using the ARCADY module of Junctions 11. A summary of the results is shown in **Table 6.6**.

Table 6.6 B582 Manor Road / Main Street / High Street / Kirkby Road Capacity Assessment Results

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2026 Base						
B582 High Street	2	9	0.62	2	6	0.69
High Street	1	9	0.44	1	12	0.45
B582 Manor Road	9	56	0.93	2	13	0.62
Main Street	2	36	0.65	1	15	0.32
2036 Base						
B582 High Street	2	11	0.69	3	13	0.77
High Street	1	11	0.54	2	17	0.60
B582 Manor Road	36	176	1.08	3	19	0.72
Main Street	3	52	0.76	1	17	0.38
2036 Base + Dev						
B582 High Street	2	11	0.70	4	16	0.80
High Street	2	14	0.64	2	21	0.67
B582 Manor Road	46	218	1.12	4	25	0.79
Main Street	3	52	0.76	1	18	0.39

6.7.12 The model results show that during the AM peak of the 2036 Base scenario, the junction operates beyond its theoretical capacity, with a maximum RFC value of 1.08, along with a queue of 36 vehicles and a delay of 176 seconds in the AM peak hour.

6.7.13 The addition of development traffic would reduce the capacity at the junction further, with slight increases in queueing and delays observed at the junction. It should be noted in this respect that capacity assessments which exceed 1.00 RFC often generate queue lengths that are subject to exponential growth. For this reason, consideration should be made that queue lengths on over-capacity approach arms may be indicative rather than representative of actual observed conditions. The RFC is subject to a slight increase of 0.04, which is relatively minor in the context of the existing operation of the junction and cannot be defined as severe.

6.7.14 In light of the above, it is considered that the proposed scheme will have a relatively minor impact at the junction, which is already predicted to operate beyond its theoretical capacity in 2036, prior to the onset of additional traffic associated with the proposed development.

6.7.15 It is not therefore considered that the proposed development should be liable for further mitigation, given that the junction is already predicted to operate beyond its theoretical capacity in the 2036 base. It should also be noted that the 2036 future year scenario includes 10 years of background traffic growth and excludes any modal shift which may come about as a result of the measures outlined in the planning application's accompanying FTP.

6.7.16 The current modelling also does not account for any rerouting of background traffic which could occur from east to west through the site, once the internal spine road has been implemented. Any dynamic rerouting of traffic will need to be identified as part of the subsequent work being prepared through the use of the PRTM. The actual realised impact at the junction may therefore be lower, and no further investigation or mitigation is therefore deemed to be necessary at this location.

Junction 6 - B582 Hunts Lane / Manor Road / Newbold Road

6.7.17 B582 Hunts Lane / Manor Road / Newbold Road has been modelled using the ARCADY module of Junctions 11. A summary of the results is shown in **Table 6.7**.

Table 6.7 B582 Hunts Lane / Manor Road / Newbold Road Capacity Assessment Results

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2026 Base						
Newbold Road	0	8	0.11	0	6	0.09
B5822 Manor Road	1	4	0.31	1	5	0.47
Lockeymead Drive	0	5	0.08	0	4	0.06
Hunts Lane	1	6	0.52	1	4	0.34
2036 Base						
Newbold Road	0	8	0.13	0	6	0.10
B5822 Manor Road	1	4	0.35	1	5	0.51

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
Lockymead Drive	0	4	0.10	0	4	0.07
Hunts Lane	1	7	0.57	1	5	0.38
2036 Base + Dev						
Newbold Road	0	8	0.13	0	7	0.11
B5822 Manor Road	1	4	0.40	1	6	0.54
Lockymead Drive	0	4	0.10	0	4	0.07
Hunts Lane	2	7	0.59	1	5	0.42

6.7.18 The model results show that in the with development scenarios the junction is forecast to operate well within capacity, with a maximum RFC value of 0.59 during the worst-case AM peak hour in the '2036 Base + Dev' scenario, therefore no further assessment or mitigation is therefore deemed to be necessary at this location.

Junction 7 - B582 Leicester Lane / Barns Way

6.7.19 B582 Leicester Lane / Barns Way has been modelled using the ARCADY module of Junctions 11. A summary of the results is shown in **Table 6.8**.

Table 6.8 B582 Leicester Lane / Barns Way Capacity Assessment Results

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2026 Base						
B582 Leicester Lane (E)	1	6	0.48	1	8	0.58
B582 Leicester Lane (W)	2	13	0.68	1	8	0.41
Barns Way	2	12	0.58	1	8	0.50
2036 Base						
B582 Leicester Lane (E)	1	7	0.54	2	9	0.65
B582 Leicester Lane (W)	3	17	0.75	1	9	0.46
Barns Way	2	15	0.67	1	10	0.56
2036 Base + Dev						
B582 Leicester Lane (E)	2	9	0.62	2	11	0.69
B582 Leicester Lane (W)	4	24	0.81	1	9	0.48
Barns Way	2	17	0.71	2	12	0.63

6.7.20 The model results show that in the with development scenarios the junction is forecast to operate within capacity, with a maximum RFC value of 0.81 during the worst-case AM peak hour in the '2036 Base + Dev' scenario, therefore no further assessment or mitigation is therefore deemed to be necessary at this location.

Junction 8 - Botcheston Road / Desford Lane

6.7.21 Botcheston Road/ Desford Lane has been modelled as a series of junctions. The Botcheston Road to Desford Lane slip has been modelled as a priority T junction, 8a. The Botcheston road/ Botcheston road slip/ Desford Lane has been modelled as a group of priority T junctions, 8b, set out as i, ii and iii.

- Junction 8a- Botcheston Road/ Desford Slip
- Junction 8b i- Desford Lane/ Botcheston Road
- Junction 8b ii- Desford Lane/ Botcheston Road Slip
- Junction 8b iii- Botcheston Road/ Botcheston Road Slip

6.7.22 This arrangement is illustrated in **Figure 6.2**, and the junctions have both been modelled using the PICADY module of Junctions 11.

Figure 6.2 Arrangement of Junction 8

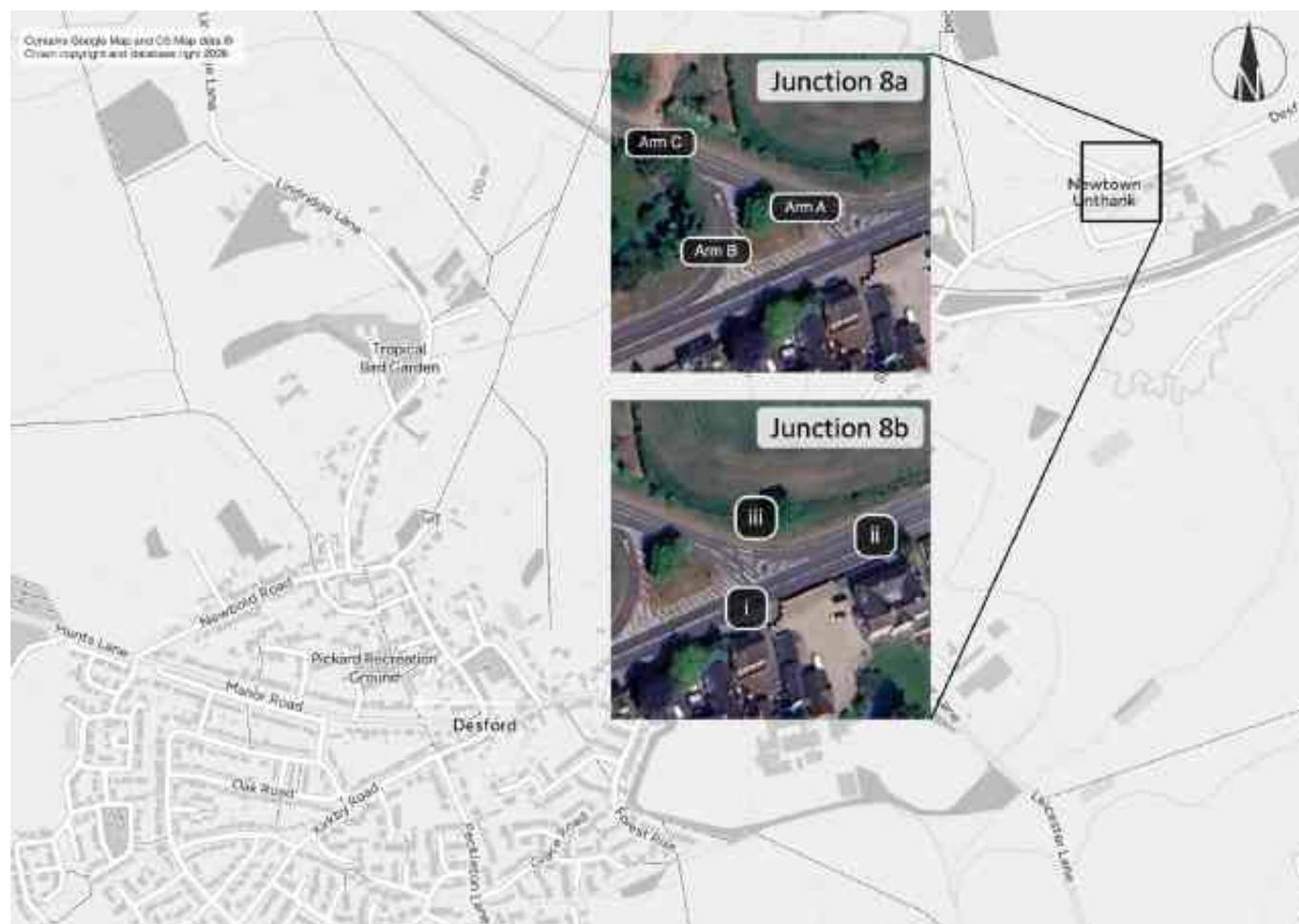


Figure 6.3 Diagram of Junction model- Junction 8a

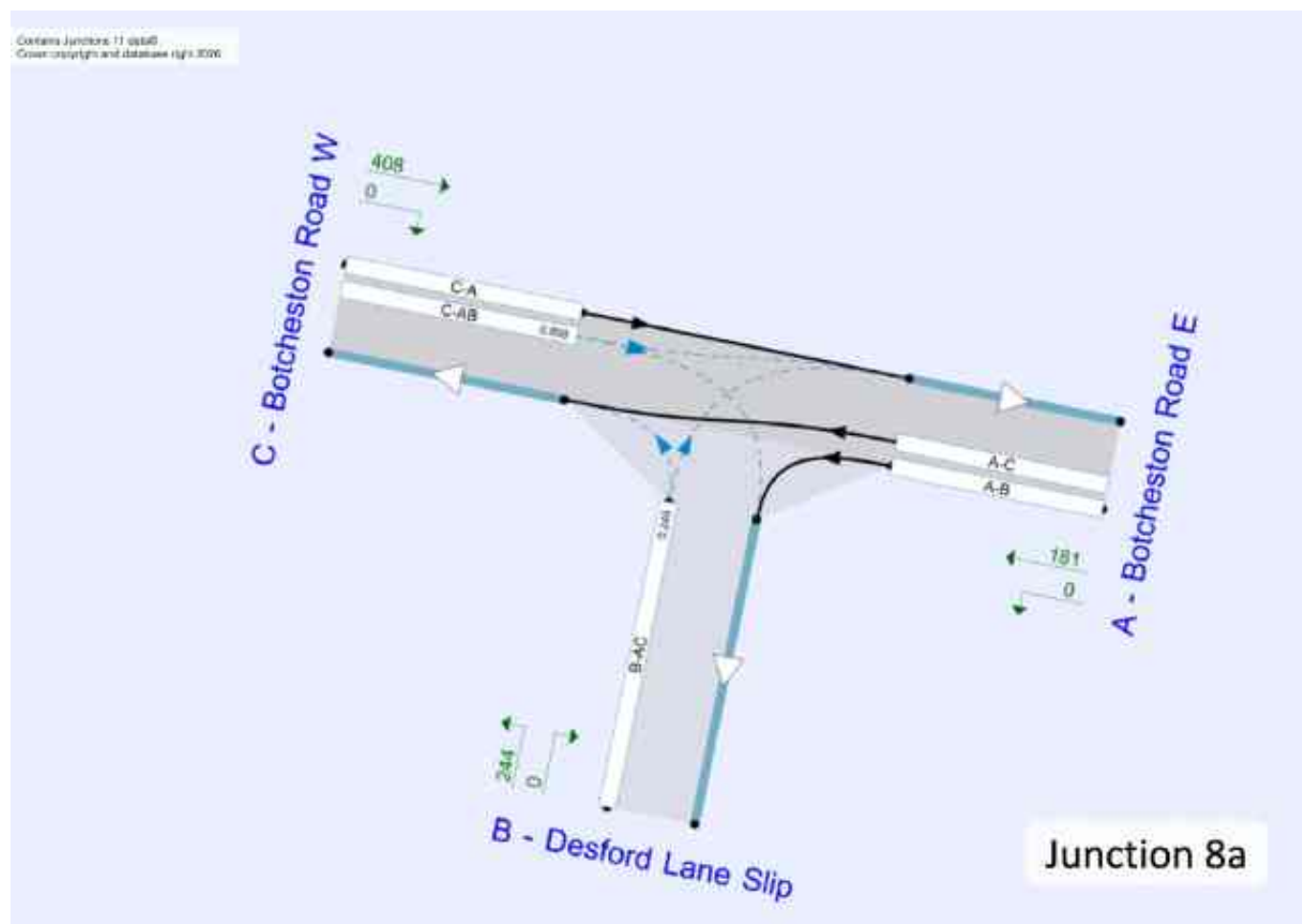


Table 6.9 8a Botcheston Road / Desford Lane Slip Capacity Assessment Results

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2026 Base						
Desford Lane Slip	0	6	0.22	1	8	0.34
Botcheston Road W	0	0	0.00	0	0	0.00
2036 Base						
Desford Lane Slip	0	7	0.24	1	8	0.38
Botcheston Road W	0	0	0.00	0	0	0.00
2036 Base + Dev						
Desford Lane Slip	0	7	0.27	1	8	0.40
Botcheston Road W	0	0	0.00	0	0	0.00

6.7.23 The model results show that junction 8a is forecast to operate well within capacity with the development, with a maximum RFC value of 0.40 during the worst-case PM peak hour in the '2036 Base + Dev' scenario.

Figure 6.4 Diagram of Junction Model- Junction 8b

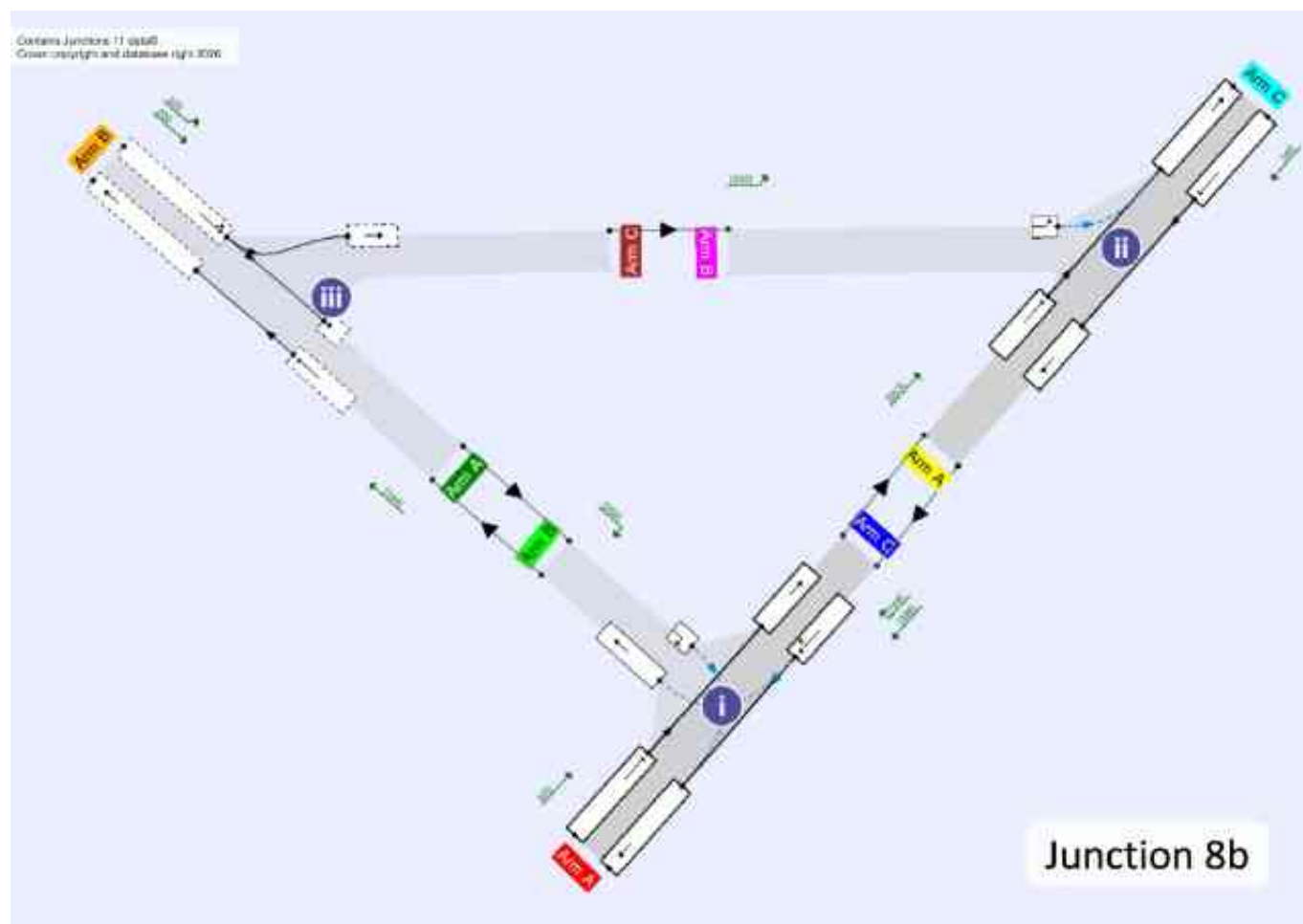


Table 6.10 8b Junction i- Desford Lane / Botcheston Road Capacity Assessment Results

	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Queue (Veh)	Delay (s)	Queue (Veh)	Delay (s)
2026 Base				
Botcheston Road	1	11	1	10
Desford Lane	1	5	1	5
2036 Base				
Botcheston Road	1	12	1	11
Desford Lane	0	5	1	5
2036 Base + Dev				
Botcheston Road	1	13	1	11
Desford Lane	1	6	1	6

Table 6.11 8b Junction ii- Desford Lane/ Botcheston Road Slip Capacity Assessment

	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Queue (Veh)	Delay (s)	Queue (Veh)	Delay (s)
2026 Base				
Botcheston Road Slip	0	6	0	5
Desford Lane	0	1	0	1
2036 Base				
Botcheston Road Slip	0	6	1	6
Desford Lane	0	1	0	1
2036 Base + Dev				
Botcheston Road Slip	0	6	0	6
Desford Lane	0	1	0	2

Table 6.12 8b Junction iii- Botcheston Road/ Botcheston Road Slip Capacity Assessment

	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Queue (Veh)	Delay (s)	Queue (Veh)	Delay (s)
2026 Base				
Botcheston Road Slip	2	18	1	6
2036 Base				
Botcheston Road Slip	7	51	2	13
2036 Base + Dev				
Botcheston Road Slip	13	95	3	21

6.7.24 As Junction 8b has been modelled as a set of priority T junctions, RFC values have not been calculated. TRL state that:

- *'RFCs are not available for internal links between junctions, due to the unavailability of demand flows on internal links'*

6.7.25 Because of this, queues and delays have been drawn upon to assess the junction:

- *'In the absence of RFCs, the throughput, queue and delay are the most useful measures of performance'*

6.7.26 The maximum queue at Junction 8b occurs in the results for Junction iii. The 2036 Base reports a queue of 7 vehicles prior to the onset of the proposed development, along with an associated delay of 51 seconds. Following the introduction of development traffic, the associated queue increases to 13 vehicles, and the delay to 95 seconds. The associated increase in queueing and delay can be accommodated by the existing arrangement at the junction and would not cause blocking back to other junctions on the network.

6.7.27 In this regard, it is noted that the increase in queue and delay is isolated to the AM scenario of Junction 8b iii, whereas the associated increase in queues and delay at Junctions i and ii in the 2036 Base + Dev scenarios is considered to be negligible.

6.7.28 The results presented above have nonetheless been considered in the context of paragraph 116 of the NPPF; which sets out:

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

6.7.29 Whilst there is a degree of uncertainty on what constitutes a ‘severe’ impact, key measures of assessing a proposal against paragraph 116 of the NPPF is through analysis of queue lengths and associated delay, and how this has been considered in previous planning case law.

6.7.30 The reported results and level of change ‘with development’ have been considered relative to previously issued appeal decisions vs. the ‘severe’ benchmark. At Land South of Green Lane in Yarm (CD G2) (PINS Reference: APP/H0738/W/21/3279168) the Inspector concluded:

“the increase within the zero mitigation scheme of around three minutes – or roughly the time it would take a driver to listen to one song in the car, as I heard at the Inquiry – in one localised area, would result in a significant impact but this could not be defined as severe.”

6.7.31 Similarly, and more recently, at Great Chart, Ashford (CD G1) (PINS Reference: APP/E2205/W/24/3345454), paragraphs 38 and 39, the Inspector concluded that a forecast increase in delay of circa 3 minutes in one peak hour, whilst material, falls short of the severity threshold.

6.7.32 Both appeal decisions are attached at **Appendix M**, for reference.

6.7.33 On the worst affected arm, following the introduction of development traffic the greatest magnitude of delay increase reported on the Botcheston Road Slip approach (Junction iii) is 44 seconds during the AM peak, which is therefore some way below the metric identified by the Inspectorate in defining ‘severe’.

6.7.34 Furthermore, as noted above the junction assessments have been based on 100% of the development generated traffic and do not consider any measures to reduce private car use, which are promoted as part the accompanying FTP. The models have also been based on OD Tab which reflects a more robust scenario in terms of trip arrival profile.

6.7.35 In light of the above, it is considered that whilst the development has an impact at this junction, this is relatively minor in the context of the junction. It is therefore considered that the impact of the development at this junction cannot be defined as severe in the context of historic cases, and therefore no mitigation is proposed and hence no further assessment is deemed necessary.

Junction 9 - A47 Hinckley Road / B582 Leicester Lane / B582 Desford Road

6.7.36 A47 Hinckley Road / B582 Leicester Lane / B582 Desford Road has been modelled using LINSIG. A summary of the results is shown in **Table 6.13**.

Table 6.13 A47 Hinckley Road / B582 Leicester Lane / B582 Desford Road Capacity Assessment Results

	AM Peak Period (08:00-09:00)			PM Peak Period (17:00-18:00)		
	DoS (%)	MMQ (PCU)	Delay/ PCU (s)	DoS (%)	MMQ (PCU)	Delay/ PCU (s)
2026 Base						
A47 Hinckley Road (SW)	81.7	14	52	83.8	17	58
A47 Hinckley Road (NE)	67.8	13	44	80.1	17	52
Leicester Lane	80.2	15	59	82.7	9	59
Desford Road	67.0	11	52	83.5	21	51
PRC		10.2%			7.3%	
Cycle Time (s)		120			120	
2036 Base						
A47 Hinckley Road (SW)	89.8	19	60	92.4	22	72
A47 Hinckley Road (NE)	74.6	15	47	88.4	21	60
Leicester Lane	88.3	18	69	91.2	12	75
Desford Road	73.5	13	55	92.1	26	65
PRC		0.2%			-2.7%	
Cycle Time (s)		120			120	
2036 Base + Dev						
A47 Hinckley Road (SW)	91.6	21	68	97.2	26	95
A47 Hinckley Road (NE)	77.4	15	49	92.5	23	70
Leicester Lane	91.2	21	71	91.2	14	71
Desford Road	70.7	13	51	95.7	31	76
PRC		-2.9			-8.0	
Cycle Time (s)		120			120	

6.7.37 The model results indicate that the junction operates beyond its practical capacity in the PM peak of the 2036 Base scenario, with a maximum DoS of 92.4% recorded on the A47 Hinckley Road (SW) approach, along with a MMQ of 22 PCU and a Delay of 72 seconds per PCU.

6.7.38 Following the introduction of development, the maximum DoS recorded on the Hinckley Road is subject to a minor increase of 4.8%. The accompanying MMQ and delay per PCU are also subject to minor increases, of 4 PCU and 23 seconds per PCU.

6.7.1 In light of the above, it is considered that whilst the development has an impact in this location, this is relatively minor in the context of the junction throughput and cannot be defined as severe. In this regard it should be noted that it is not the place of the planning system to ensure the convenience of the motorist as demonstrated in the case of Land North of Holt Road, Wrexham (PINS Ref: APP/H6955/A/19/3238470), which concluded:

“It is not the function of the planning system to ensure that the convenience of the private car user is safeguarded from congestion, especially existing congestion.”

6.7.2 At this stage of the analysis, consideration has been made to paragraph 116 of the NPPF; which sets out:

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

6.7.3 Whilst there is a degree of uncertainty on what constitutes a ‘severe’ impact, key measures of assessing a proposal against paragraph 116 of the NPPF is through analysis of queue lengths and associated delay, and how this has been considered in previous planning case law. The impact of development traffic is further set out in **Table 6.14** below, with specific reference to the worst-case PM peak hour.

Table 6.14 Development Traffic Impact in PM Peak Hour

	2036 Base		2036 Base + Development		Difference	
	Queue (PCU)	Delay/ PCU (s)	Queue (Veh)	Delay/ PCU (s)	Queue (PCU)	Delay/PCU (s)
A47 Hinckley Road (SW)	22	72	26	95	+4	+23
A47 Hinckley Road (NE)	21	60	23	70	+2	+10
Leicester Lane	12	75	14	71	+2	-4
Desford Road	26	65	31	76	+5	+11

6.7.4 **Table 6.13** shows that impact of development traffic at the junction is forecast to be minimal. On the most impacted A47 Hinckley Road (SW) arm, the increase in the queue length is forecast to be 4 PCUs and increase in delay forecast to be 23 seconds.

6.7.1 The reported results and level of change ‘with development’ have been considered relative to previously issued appeal decisions vs. the ‘severe’ benchmark. At Land South of Green Lane in Yarm (CD G2) (PINS Reference: APP/H0738/W/21/3279168) the Inspector concluded:

“the increase within the zero mitigation scheme of around three minutes – or roughly the time it would take a driver to listen to one song in the car, as I heard at the Inquiry – in one localised area, would result in a significant impact but this could not be defined as severe.”

- 6.7.1 Similarly, and more recently, at Great Chart, Ashford (CD G1) (PINS Reference: APP/E2205/W/24/3345454), paragraphs 38 and 39, the Inspector concluded that a forecast increase in delay of circa 3 minutes in one peak hour, whilst material, falls short of the severity threshold.
- 6.7.2 On the worst affected arm, the greatest magnitude of delay reported is therefore some way below the metric identified by the Inspectorate in defining ‘severe’.
- 6.7.3 It should be noted that the proposed scheme is forecast to generate approximately 127 and 119 two-way vehicular trips through the junction during the respective AM and PM peak periods. This equates to less than two additional vehicles per minute and represents an increase in two-way trips of c. 5.2% and 4.7% through the junction when considered in context to the 2,420 and 2,521 two-way vehicle trips forecast through the junction during the respective AM and PM peaks in the 2036 Base period.
- 6.7.4 The 2036 future year scenario also includes 10 years of background traffic growth and excludes any modal shift which may come about as a result of the measures to be outlined in the accompanying FTP. The actual realised impact at the junction may therefore be lower, and no further analysis or mitigation is deemed to be necessary at this location.

Junction 10 - A47 Hinckley Road / Dans Lane

- 6.7.5 A47 Hinckley Road/ Dans Lane has been modelled as a group of priority T junctions set out as 10a, 10b and 10c .
- Junction 10a- A47 Hinckley Road/ Dan’s Lane
 - Junction 10b- A47 Hinckley Road/ Dan’s Lane Slip
 - Junction 10c- Dan’s Lane/ Dan’s Lane Slip
- 6.7.6 This arrangement is illustrated in **Figure 6.5**. Junction 10 has been modelled using the PICADY module of Junctions 11.

Figure 6.5 Arrangement of Junction 10



Table 6.15 10a A47 Hinckley Road/ Dan's Lane

	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Queue (Veh)	Delay (s)	Queue (Veh)	Delay (s)
2026 Base				
Dan's Lane	2	27	1	25
A47 Hinckley Road	1	5	1	4
2036 Base				
Dan's Lane	3	33	2	31
A47 Hinckley Road	1	7	2	5
2036 Base + Dev				
Dan's Lane	3	35	2	36
A47 Hinckley Road	1	7	2	5

Table 6.16 0b A47 Hinckley Road/ Dan's Lane Slip

	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Queue (Veh)	Delay (s)	Queue (Veh)	Delay (s)
2026 Base				
Dan's Lane Slip	0	8	0	7
A47 Hinckley Road	0	0	0	0
2036 Base				
Dan's Lane Slip	0	8	0	7
A47 Hinckley Road	0	0	0	0
2036 Base + Dev				
Dan's Lane Slip	0	8	0	7
A47 Hinckley Road	0	0	0	0

Table 6.17 10c Dan's Lane/ Dan's Lane Slip

	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Queue (Veh)	Delay (s)	Queue (Veh)	Delay (s)
2026 Base				
Dan's Lane Slip	1	6	0	0
2036 Base				
Dan's Lane Slip	10	71	1	2
2036 Base + Dev				
Dan's Lane Slip	44	343	2	18

6.7.7 As Junction 10 has been modelled as a group of priority T junctions, with internal links, RFC values have not been calculated. Therefore, the junction has been assessed using delay times and queue lengths.

6.7.8 The maximum queues and delays reported are shown in **Table 6.17**, on Dan's Lane Slip in Junction 10c. The introduction of the development has resulted in queues increasing from 10 to 44 vehicles and delays increasing from 71s to 343s during peak AM hour of the '2036 Base+ Dev' Scenario.

6.7.9 Mitigation for this junction is considered further in **Chapter 7**.

Junction 11 - A47 Hinckley Road / Desford Road

6.7.10 A47 Hinckley Road/ Desford Road has been modelled as a group of priority T junctions, set out as 11a, 11b and 11c.

- Junction 11a - A47 Hinckley Road/ Desford Road

- Junction 11b - A47 Hinckley Road/ Desford Road Slip
- Junction 11c - Desford Road/ Desford Road Slip

This arrangement is illustrated in **Figure 6.6**. Junction 11 has been modelled using the PICADY module of Junctions 11.

Figure 6.6 Arrangement of Junction 11



Table 6.18 Junction 11a A47 Hinckley Road/ Desford Road Capacity Assessment Results

	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Queue (Veh)	Delay (s)	Q (Veh)	Delay (s)
2026 Base				
Desford Road	0	13	0	17
A47 Hinckley Road	0	2	0	1
2036 Base				
Desford Road	1	15	1	21
A47 Hinckley Road	0	2	0	1
2036 Base + Dev				

Desford Road	0	16	1	22
A47 Hinckley Road	1	2	0	1

Table 6.19 Junction 11b Hinckley Road/ Desford Road Slip

		AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
		Q (Veh)	Delay (s)	Q (Veh)	Delay (s)
2026 Base					
Desford Road Slip	0	5	0	6	
A47 Hinckley Road	0	0	0	0	
2036 Base					
Desford Road Slip	0	5	0	6	
A47 Hinckley Road	0	0	0	0	
2036 Base + Dev					
Desford Road Slip	0	5	0	7	
A47 Hinckley Road	0	0	0	0	

Table 6.20 Junction 11c Desford Road/ Desford Road Slip Capacity Assessment Results

		AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
		Q (Veh)	Delay (s)	Q (Veh)	Delay (s)
2026 Base					
Desford Road	0	0	0	0	
2036 Base					
Desford Road	0	0	0	0	
2036 Base + Dev					
Desford Road	0	0	0	0	

6.7.11 As outlined in **Paragraph 6.7.24**, TRL guidance outlines that:

- o *'RFCs are not available for internal links between junctions, due to the unavailability of demand flows on internal links'*

6.7.12 In light of this, queues and delays have been drawn upon to assess the junction. **Table 6.20** shows that the maximum delays recorded on Junction 11 are on 11a, on Desford Road in the PM peak period. The introduction of the development increases delays from 21s to 22s from the '2036 Base' to the '2036 Base + Dev' scenarios.

6.7.13 This is not considered to represent a significant impact and therefore no further analysis or mitigation is deemed to be necessary at this location.

Junction 12 - A47 Leicester Road / A47 Hinckley Road / A47 Roundabout

6.7.14 Junction 12 – A47 Leicester Road / A47 Hinckley Road / A47 Roundabout has been modelled using the ARCADY module of Junctions 11. A summary of the results is shown in **Table 6.21**.

Table 6.21 A47 Leicester Road / A47 Hinckley Road / A47 Roundabout Capacity Assessment Results

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Q (Veh)	Delay (s)	RFC	Q (Veh)	Delay (s)	RFC
2026 Base						
A47 Hinckley Rd (N)	0	2	0.24	1	3	0.39
A47 (S)	0	3	0.24	0	3	0.23
Leicester Road	0	2	0.15	0	2	0.14
2036 Base						
A47 Hinckley Rd (N)	0	2	0.27	1	3	0.43
A47 (S)	0	3	0.27	0	3	0.26
Leicester Road	0	2	0.17	0	2	0.15
2036 Base + Dev						
A47 Hinckley Rd (N)	0	2	0.29	1	3	0.45
A47 (S)	0	3	0.28	0	3	0.27
Leicester Road	0	2	0.18	0	2	0.16

6.7.15 The model results show that in the with development scenarios the junction is forecast to operate well within capacity, with a maximum RFC value of 0.45 during the worst-case PM peak hour in the '2036 Base + Dev' scenario. This is not considered to represent a significant impact and therefore no further analysis or mitigation is deemed to be necessary at this location.

7. Junction Mitigation

7.1 Overview

7.1.1 This chapter identifies the proposed junction in the vicinity of the site which is forecast to operate over capacity following the introduction of the proposed development and presents a concept design to mitigate the impact at this location.

7.2 Junction 10 - A47 Hinckley Road / Dans Lane

7.2.1 As set out in **Chapter 6**, the introduction of development traffic in the 2036 future year scenario is forecast to result in a material increase in queueing and delay at the A47 Hinckley Road / Dans Lane priority junction, during the AM Peak hour. To mitigate the impact at this location, consideration has been made to a potential improvement scheme.

7.2.2 The scheme comprises a reconfiguration of the junction to establish a signal-controlled layout. An indicative design is provided in **Drawing J32-7523-PS-006**, attached at **Appendix N**, for reference.

7.2.3 A summary of the results of the LINSIG assessment undertaken for the proposed scheme is provided in **Table 7.1**. The full model output report for the proposed mitigation scheme is included in **Appendix O**.

Table 7.1 A47 Hinckley Road / Dans Lane Mitigation Junction Capacity Assessment Results

	AM Peak Period (08:00-09:00)			PM Peak Period (17:00-18:00)		
	DoS (%)	MMQ (PCU)	Delay/ PCU (s)	DoS (%)	MMQ (PCU)	Delay/ PCU (s)
2036 Base + Dev						
Hinckley Road (S)	76%	7	29.5	63.7%	12.4	17.6
Hinckley Road (N)	80.1%	14.6	25.8	67.4%	11.4	18.3
Dan's Lane	78.6%	10.5	43.8	67.7%	6.3	45.7
PRC (%)	12.3%			32.9%		
Cycle Time (s)	180			180		

7.2.4 **Table 7.1** shows that following the introduction of a signalisation mitigation scheme in the 2036 Base + Development scenario, the junction operates with significant practical reserve capacity, with a maximum DoS of 80.1% recorded on the Hinckley Road (N) approach during the AM peak period. It should be noted that in addition to introducing additional highways capacity, the proposed mitigation scheme introduced a wider benefit in the locality, through the introduction of a signalised pedestrian crossing facility, linking the footway provision and bus stops on either side of Hinckley Road.

8. Summary & Conclusion

8.1 Summary

- 8.1.1 mode transport planning (mode) has been appointed by Bellway Strategic Land, part of Bellway Homes Limited, to provide highways and transport advice in relation to the submission of an outline application for a proposed residential development in Desford, Leicestershire.
- 8.1.2 The proposed scheme comprises an outline application for approximately 550 dwellings and a community use building with (potential) Healthcare (up to 1,000sqm) and Use Class E (up to 500sqm), with the full description of development as follows:
- "Outline planning application for residential development, including provision of a primary healthcare facility and district centre [E Use Class]; sports facilities; public open space; access from Peckleton Lane and Leicester Lane with a connecting road; sustainable drainage; and associated infrastructure. All matters reserved except for access."*
- 8.1.3 In January 2026, a Highways Scoping Technical Note (HSTN) was submitted to LCC to scope out and agree the assessment methodologies to be used in the subsequent highways. The scope and assessment methodology for this Transport Assessment was agreed; including, but not limited to, principal of access, trip rates and the need for a public transport strategy.
- 8.1.4 Vehicular access will be provided via ghost-island priority junctions on Peckleton Land and the B582 Leicester Lane, respectively.
- 8.1.5 As part of the access strategy for the site, the proposed residential access junctions have been designed to facilitate bus access into the site. Further discussions will be held with LCC and local operators through the determination period, to ascertain the commerciality of the existing local bus services, and to understand what contributions will be sought to divert one of the existing services into the site.
- 8.1.6 The site is in an accessible location with walking, cycling and public transport access to and from local amenities and the wider sustainable transport network; with a few local schools, recreational facilities, and retail opportunities in Desford.
- 8.1.7 The primary desire line from the site is envisaged to be to the north, towards local amenities and facilities in the centre of Desford. To support pedestrian and cycle access into the site, the existing PRoW to the north towards Forest Rise will be upgraded and improved to provide a 3m wide shared (foot/cycle) use facility and a paved connection to the north, providing connections to Forest Rise. At the point where a connection is provided to Forest Rise, cyclists will be required to rejoin the carriageway, and a pedestrian connection will be provided to the existing footway provision, providing connections towards the centre of Desford.

- 8.1.8 To support pedestrian accessibility into the site from the west, a 2.0m footway is proposed at the site access onto Peckleton Lane, with a dropped kerb tactile paving crossing, with a central refuge facility, providing a connection to the existing footway provision on the western side of the Peckleton Lane.
- 8.1.9 A review of the collision data for the highways network surrounding the development site has concluded that there are not any inherent highway safety issues which would be exacerbated by the development.
- 8.1.10 A trip generation exercise has demonstrated that the proposed development is forecast to generate approximately 434 and 407 'new' two-way trips during the AM and PM peak hours, respectively. This equates to approximately 7-8 additional 'new' two-way trips per minute on the surrounding highway network during each of the peak hours.
- 8.1.11 Junction capacity assessments have been undertaken at the proposed site access junctions and at the following key off-site junctions on the local highway network:
- Peckleton Common / Peckleton Lane;
 - Peckleton Lane / High Street / Kirby Road;
 - B582 Manor Road / Main Street / High Street / Kirkby Road;
 - B582 Hunts Lane / Manor Road / Newbold Road;
 - B582 Leicester Lane / Barns Way;
 - Botcheston Road / Desford Lane;
 - A47 Hinckley Road / B582 Leicester Lane / B582 Desford Road;
 - A47 Hinckley Road / Dans Lane;
 - A47 Hinckley Road / Desford Road; and,
 - A47 Leicester Road / A47 Hinckley Road / A47 Roundabout.
- 8.1.12 A 2036 future year scenario has been considered within the junction capacity assessments, inclusive of background traffic growth (identified through use of TEMPro) thus a robust level of assessment has been completed. The junction capacity assessments have been based on 100% of the development generated traffic and do not take into account any measures to reduce private car use, which are promoted as part of the accompanying RTP, therefore the actual realised impacts of the development at these junctions could be lower.
- 8.1.13 The results of the junction capacity assessment indicate that subject to the implementation of a mitigation scheme at the A47 Hinckley Road / Dans Lane junction, the proposed development would not result in any significant and/or severe impacts on the operation of the local highway network in the vicinity of the site.

8.2 Conclusion

- 8.2.1 In conclusion, it has been demonstrated that the proposed development will not have an adverse impact on the local highway network and accords with the following relevant sections of the NPPF:

“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, following mitigation, would be severe, taking into account all reasonable future scenarios.”
(Paragraph 116)

“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.” (Paragraph 110)

- 8.2.2 Based on the information presented within this TA, it is considered that the proposed development will be sustainably located, can provide safe and suitable access and will not result in any severe residual cumulative impact, and therefore wholly aligns with the NPPF and as such be considered acceptable in terms of transport and highways.