

Client:
Caddick Developments Limited

Project:
**Land at Junction 22 of the M1
Cliffe Hill Farm**

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Report Title:
Transport Assessment

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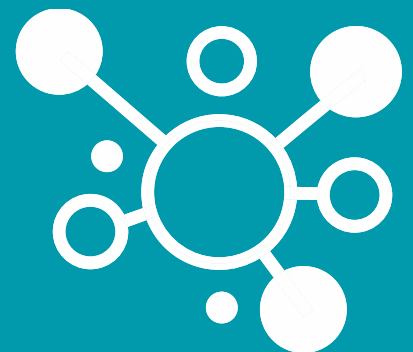


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1.0 Introduction

Background

- 1.1 Hub Transport Planning Ltd has been commissioned by Caddick Developments Limited to provide transport advice for a proposed commercial development on land at Junction 22 of the M1, Markfield; the land is being promoted for the upcoming Hinckley & Bosworth Local Plan Review 2024 to 2045 and is a Draft Allocation in the emerging Local Plan. The site location is shown in **Figure 1.1**.
- 1.2 The planning application currently proposes 64,101sqm of B2/B8 land uses; however for robustness this Transport Assessment (TA) assesses the impact for up to 65,000 sqm of B2/B8 land uses. At this stage, it is anticipated that 80% of the site would be for B8 uses (52,000sqm) and the remaining 20% would be for B2 uses (13,000sqm). The proposed development would be Building Research Establishment Environmental Assessment Methodology (BREEAM) rated.
- 1.3 This TA has been prepared to support a full planning application for the development proposal outlined above. The TA is accompanied by a Travel Plan, which sets out measures that will be put in place to encourage travel by sustainable modes of transport.
- 1.4 A series of Technical and Scoping Notes have been submitted to Leicestershire County Council (LCC) with agreements reached on trip generation and the assessment approach. This TA has assessed the impact of the proposed development in line with scoping discussions and responses made to the TA Scoping Report from LCC.

Purpose and Structure of the Report

- 1.5 This report considers the transport impact of the proposed development and how accessible nearby facilities are via sustainable and active modes of transport. This report also considers any proposed mitigation measures, and all measures that make the development BREEAM compliant from a transport perspective.
- 1.6 Following this introduction, the report is set out as follows:
 - Section 2.0 – Policy Review;
 - Section 3.0 – Baseline Conditions;
 - Section 4.0 – Development Proposals;
 - Section 5.0 – Trip Generation, Distribution and Assignment;
 - Section 6.0 – Traffic Impact;
 - Section 7.0 – Summary and Conclusion.

Limitations of the Report

- 1.7 This report has been undertaken at the request of Caddick Developments Limited, thus should not be entrusted to any third party without written permission from Hub Transport Planning Ltd. However, should any information contained within this report be used by any unauthorised third party, it is done so entirely at their own risk and shall not be the responsibility of Hub Transport Planning Ltd.

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- 1.8 This report has been compiled using data from a number of external sources (such as TRICS, traffic count data and public transport information); these sources are considered to be reliable and therefore the data provided is considered to be accurate and relevant at the time of preparing this report.

2.0 Policy Review

- 2.1 A review of key national, regional and local policy that is relevant to the proposed development has been undertaken and is presented in this section.

National Planning Policy Framework

- 2.2 The latest National Planning Policy Framework (NPPF) was published in December 2024 and sets out the government's planning policies for England and provides a framework for delivering housing and other development in a sustainable manner.
- 2.3 The most relevant paragraphs to the proposed development are 109 to 112 and 114 to 118, which are detailed in **Table 1**.

Table 1 – Relevant paragraphs from the NPPF relating to the proposed development

Paragraph Ref	Description
109	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: a) making transport considerations an important part of early engagement with local communities; b) ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places. c) understanding and addressing the potential impacts of development on transport networks; d) 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; e) identifying and pursuing opportunities to promote walking, cycling and public transport use; and f) 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.
110	The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.
111	Planning policies should: a) 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; b) 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; c) identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development; d) 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); e) provide for any large scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements; and recognise the importance of maintaining a national network of general aviation airfields, and

Paragraph Ref	Description
	their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the General Aviation Strategy.
112	If setting local parking standards for residential and non-residential development, policies should take into account: - the accessibility of the development; - the type, mix and use of development; - the availability of and opportunities for public transport; - local car ownership levels; and - the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.
114	Planning policies and decisions should recognise the importance of providing adequate overnight lorry parking facilities, taking into account any local shortages, to reduce the risk of parking in locations that lack proper facilities or could cause a nuisance. Proposals for new or expanded distribution centres should make provision for sufficient lorry parking to cater for their anticipated use.
115	In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that: - 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.
116	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.
117	Within this context [related to paragraph 116], applications for development should: - give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use; - 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.
118	All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored.

BREEAM UK New Construction Version 6.1 Technical Manual

- 2.4 The BREEAM UK New Construction Version 6.1 Technical Manual sets out the environmental performance standard against which new, non-domestic buildings in the UK can be assessed and achieve a BREEAM new construction rating. Transport is core to environmental and sustainability performance so is included as its own category in the manual. The transport section encourages provision of, and improved access to, local amenities and to sustainable means of transport, i.e. public transport and other alternative transport solutions for building users. The aim is to reward locations and solutions that support reductions in car journeys and, therefore, congestion and CO₂ emissions over the life of the building.
- 2.5 Tra 01 Transport assessment and travel plan sets out the assessment criteria and methodology for achieving a BREEAM new construction transport rating. It states that a site-specific transport assessment (or travel statement) and draft travel plan are required. The transport assessment (or statement) and travel plan are worth two credits against the wider BREEAM assessment.
- 2.6 The site-specific travel assessment (or statement) shall cover as a minimum:
- 2.a If relevant, travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities.
 - 2.b Predicted travel patterns and transport impact of future building or site users.
 - 2.c Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors.
 - 2.d Reporting of the number and type of existing accessible amenities within 500m of the site.
 - 2.e Disabled access accounting for varying levels and types of disability, including visual impairment.
 - 2.f Calculation of the existing public transport Accessibility Index (AI).
 - 2.g Current facilities for cyclists.
- 2.7 Following a transport assessment (in accordance with the requirements set out in criteria 2), a site specific travel plan should be developed that provides a long term management strategy which encourages more sustainable travel. The travel plan should include measures to increase or improve more sustainable modes of transport and movement of people and goods during the building's operation.
- 2.8 If the occupier is known, they should be involved in the development of the travel plan.
- 2.9 It should be demonstrated that the travel plan will be implemented and supported by the building's management in operation.
- 2.10 The travel plan, as a minimum, should consider the following measures:
- Negotiation with local bus, train or tram companies an increase in the local service provision for the development
 - Provision of a public transport information system in a publicly accessible area
 - Provision of electric recharging stations
 - Provision of parking priority spaces for car sharers
 - Consultation with the local authority on the state of the local cycling network and on improvements

- Provision of dedicated and convenient cycle storage
- Provision of cyclists' facilities
- Lighting, landscaping and shelter to create pleasant pedestrian and public transport waiting areas
- Restrictions or charging for car parking
- Pedestrian and cyclist friendly (for all types of user regardless of the level of mobility or visual impairment) with the provision of cycle lanes, safe crossing points, direct routes, appropriate tactile surfaces, good lighting and signposting to other amenities, public transport nodes and adjoining off-site pedestrian and cycle routes
- Provision of suitable taxi drop-off or waiting areas
- Ensure rural buildings have appropriate access to transport to serve the local community adequately (where procured to do so, e.g. community centre).

- 2.11 Tra 01 also sets out the methodology for calculating the current public transport Accessibility Index (AI).
- 2.12 The methodology for calculating the AI uses transport for London's Public Transport Accessibility Level (PTAL) method, itself based on a methodology developed in 1992 by the London Borough of Hammersmith and Fulham. Therefore, the BREEAM methodology could be considered focused more towards urban developments.
- 2.13 BREEAM UK New Construction assessments are split into ten scorable categories with differing credit scores. Transport makes up 12 credits out of a total of 148 credits, this is an 8% weighting.

Leicestershire Local Transport Plan 4 (LTP4)

- 2.14 LCC has started to prepare its next Local Transport Plan 4 (LTP4), which sets out the vision for transport to 2050. A core document was adopted on 22nd November 2024 for Phase 1 (up to 2030).
- 2.15 The LTP4 sets out a vision across Leicestershire to deliver '*a safe, connected and integrated transport network which is resilient and well managed to support the ambitions and health of our growing communities, safeguards the environment whilst delivering economic prosperity.*'
- 2.16 The LTP4 sets out several core themes which form the structure and direction of the LTP4, as listed below:
- Enabling Health and Wellbeing⁽¹⁾
 - Protecting the Environment⁽²⁾
 - Delivering Economic Growth⁽³⁾
 - Enhancing Our Transport Network's Resilience⁽⁴⁾
 - Embracing Innovation⁽⁵⁾
- 2.17 **Table 2** below outlines each core policy along with the proposed strategic outcomes that are relevant to the proposed development.

Table 2 –Core Policies and Strategic Outcomes in the LTP4 that are relevant to the proposed development

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Core Policy	Strategic Outcomes
Delivering the Vision	1: Facilitate a transport network which benefits the health and wellbeing of our communities from transport solutions.
	2: Enable a transport network which minimises the impact, and where possible, provides benefit to the environment
	3: Facilitate a transport network which delivers transport solutions that are viable and enable economic growth and deliver best value for money.
	4: Provide a transport network which ensures the delivery of transport solutions which minimise delay, enable travel choice and positive user experiences.
	5: Actively enable the transport network to trial and implement innovation which provides betterment to our communities and resilience to its operation.
Managing Demand	1: Deliver an accessible transport network that meets the requirements of users and provides them with the ability to access employment, education and social amenities which reduces inequality and isolation within our communities.
	2: Provide a transport network which minimises the impact on the environment and, where feasible, enable enhancement and recovery towards a reliable transport network
	3: Provide a transport network which enables the ability of people and goods to move with ease across the county to support and benefit the economy and our communities.
	4: Provide a transport network which is safe, reliable and resilient which minimises the delay of people and goods across and through the county
	5: Provide a transport network which responds to new technology, ways to travel and innovation which provides greater resilience in meeting the transport demands of our communities.
Enabling Travel Choice	1: Enable travel choice which proactively encourages and allows users to make travel choices which meet their needs and requirements and benefits their and the wider communities health and wellbeing.
	2: Facilitate an integrated transport network to enable travel choices which meet users needs and requirements whilst reducing carbon production, lowering emissions and provide benefit to the environment.
	3: Provide an integrated transport network which supports the delivery of new homes and jobs across the county in a sustainable approach by ensuring the provision of transport connectivity to enable travel choice.
	4: Have a well managed transport network which enables travel choice by ensuring viable transport alternatives to car-based journeys that are safe, reliable and resilient to better our communities.
	5: Enable the transport network to support the development of viable low carbon transport alternatives and fuels which provide benefit to the health and wellbeing of communities and the environment.
Delivering Solutions	1: Identify and deliver transport solutions across the transport network which supports and benefits the health and wellbeing of our communities.
	2: Develop and deliver transport solutions across the transport network fully consider and, where feasible, provide betterment to the environment.
	3: Identify and implement viable transport solutions which support economic growth and sustainable development and deliver best value for money

Core Policy	Strategic Outcomes
	4: Implement integrated transport solutions which minimise delays and enable a well-managed and resilient transport network to the benefit of our community.
	5: Actively seek to implement innovation which provides betterment to our communities' health & wellbeing, protects the environment and supports economic prosperity.
Embracing Innovation	1: Work with our communities, key partners and transport infrastructure providers to embrace innovation which seeks to minimise the impact the transport network has on the health and wellbeing of our communities.
	2: In collaboration with our communities, key partners and transport infrastructure providers innovation will be embraced which minimises the impact, and where feasible provide benefit to the environment.
	3: Ensure that through maintenance, renewal and improvement identify innovation and activities which support the decarbonisation of the transport network and provide good value for money.
	4: Working collaboratively with our communities, key partners and transport infrastructure providers to embrace innovation which proactively supports decarbonisation and adapts to climate change.
	5: Work with our communities, key partners and transport infrastructure providers to embrace innovation that provides betterment to the operation of the transport network and reduces its carbon impacts.
Evaluating Progress	1: Work with key partners to identify and monitor the impacts which transport solutions are having on the health & wellbeing of our communities.
	2: Work with key partners to identify and monitor the impacts of transport solutions are having on the environment across the county.
	3: Work with partners to understand the potential benefits which have been released through transport solutions to the economy, job creation, and housing delivery.
	4: Work with partners and transport infrastructure providers to monitor and manage the transport network to ensure it operates in a safe, efficient, reliable and resilient manner.
	5: Actively monitor innovations and trials which have been implemented to support new ways of working and operating the transport network whilst ensuring best value for money.

LCC Cycling and Walking Strategy

2.18 LCC published their cycle and walking strategy in July 2021. The strategy sets out a vision for Leicestershire to become a county where walking and cycling is safe, accessible and obvious choices for short journeys and a natural part of longer journeys, helping to deliver healthier, greener communities by reducing congestion and improving air quality, health and wellbeing.

2.19 The strategy sets out three main objectives:

- To enhance the infrastructure that supports cycling and walking in Leicestershire by upgrading existing and providing high quality new segregated infrastructure, cycle parking, pedestrian crossings and traffic reduction measures to create health streets and spaces;
- To enable people to cycle and walk in Leicestershire by providing cycle training, working with schools and workplaces to provide people with the required skills and information; and

- To inspire a step change in cycling and walking in Leicestershire by targeted promotion, engagement and encouragement to instil confidence so that people from all backgrounds choose to walk and cycle more.

2.20 The Cycling and Walking Strategy sets out 11 policies to help achieve the objectives above. Those relating to the proposed development are shown in **Table 3**.

Table 3 – LCC Cycling and Walking Strategy policies relevant to the proposed development

Policy Reference	Policy
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 behavioural change 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 8	To maximise opportunities to improve road safety for people walking and cycling in line with wider road safety aims.

Leicestershire Highway Design Guide

2.21 Following a recent consultation, the design guide was updated in December 2024¹.

2.22 **Table 4** below summarises the content covered on the website which will be considered throughout this report.

Table 4 – Leicestershire Highway Design Guide Content

Topic	Content
Highway Development Management	- Highway development management policies - Preparing development proposals - Transport assessments, statements and travel plans - Highway development management survey requirements - Transport modelling - Road Safety Audit Policy
Highway Layouts and Design	- Road layouts and design - Active Travel - Passenger Transport - Design and approval of highway structures - Parking and making provision for service vehicles - Electric vehicle charging points

¹ Leicestershire Highway Design Guide, LCC (2024). URL: <https://www.leicestershirehighwaydesignguide.uk/>. Last Accessed: 28/05/25.

Parking Provision

2.23 **Table 5** below outlines the off-street parking standards, the parking standards are the normal minimum requirements.

Table 5 - Parking Standards based on Leicestershire Highway Design Guide

Land Use Class	Threshold for applying the standard	Minimum Number of Parking Spaces		Minimum Number of Operational/Lorry Spaces
B2 – General Industry	Above 2,500 sqm	1/130sqm	Urban town centre, edge of town centre	One lorry space (articulated vehicle) for every 400sqm
		1/80sqm	Rest of urban town	
		1/90sqm	Rural town, edge of town centre	
		1/65sqm	Rest of rural town	
		1/55sqm	Out of town	
B8 – Storage and Distribution	Above 2,500 sqm	1/300sqm	Urban town centre, edge of town centre	One lorry space (articulated vehicle) for every 400sqm
		1/180sqm	Rest of urban town	
		1/200sqm	Rural town, edge of town centre	
		1/150sqm	Rest of rural town	
		1/120sqm	Out of town	

2.24 Additionally, the Highway Design Guide sets out the following standards for cycling and motorcycles:

- Cycle Parking:
 - o One long stay space per 500m² GFA for staff and operational use, parking to be secure and under cover.
 - o One short stay space per 1,000m² GFA for customer use to be in the form as shown in Figure 51, parking to be located in a prominent and convenient location.
- Motorcycle and Moped Parking:
 - o One space, plus an additional space for every 10 car parking spaces.

2.25 All cycle parking must be secure and normally with weather protection provided at least for long stay parking (for example, employees); conveniently located at entrances to buildings; enjoy good natural observation; well-lit and located so it does not obstruct pedestrian and cycle routes.

2.26 Design considerations for cycle parking have also been considered in the LCC Cycling and Walking Strategy.

Electric Vehicle Charging Points

2.27 All new non-residential buildings with more than 10 parking spaces must have a minimum of one charge point and cable routes for one in five (20%) of the total number of spaces.

Hinckley and Bosworth Local Plan (2006-2026)

2.28 The plan is made up of a series of documents and supporting maps, including the four key development plan documents (DPD):

- Core Strategy DPD;
- Site Allocations and Development Management Policies DPD;
- Hinckley Town Centre Area Action Plan (AAP) DPD; and
- Earl Shilton & Barwell (AAP) DPD.

2.29 This section reviews the Core Strategy DPD since this applies to the proposed site and its location.

Core Strategy DPD

2.30 The Core Strategy was adopted in December 2009 and sets out a vision that the borough will be thriving and successful which exemplifies green sustainable development across the East Midlands. It also states that more residents will be choosing to work locally as higher paid jobs are provided through the successful diversification of the economy and identifies key rural centres, such as Markfield, as providing the necessary day-to-day services to ensure rural communities have the choice to shop, work and play close to where they live.

2.31 The Core Strategy sets out 13 strategic objectives to achieve its vision for the borough. Those relevant to the proposed development in transport terms are:

- Spatial Objective 3 – Strong and Vibrant Rural Communities:
 - o To ensure rural communities have access to a range of shops, education, community, leisure facilities and employment opportunities in the Key Rural Centres to support, enhance and improve the sustainability, vibrancy and vitality of our rural areas.
- Spatial Objective 6 – Infrastructure Provision:
 - o To ensure that development contributes to the necessary infrastructure required by new development, through provision of new, or where appropriate, enhancement of existing infrastructure (for example through appropriate developer contributions).
- Spatial Objective 13 – Transportation and Need to Travel:
 - o 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 improvement to public transport infrastructure and facilities that promote walking and cycling and through the use of travel plans.

2.32 The policies relating to transport and the proposed development are provided in **Table 6** below.

Table 6 – Core Strategy Policies relating to the proposed development

Policy	Description
Policy 7: Key Rural Centres	To support the Key Rural Centres and ensure they can provide key services to their rural hinterland, the council will: • Ensure there is a range of employment opportunities within the Key Rural Centres. To support this, the enhancement of allocated employment sites in the Key Rural Centres will be supported, as will the development of employment uses including home working within the settlement boundary. • Require transport improvements in line with Policy 14.
Policy 8: Key Rural Centres Relating to Leicester	To support the local services in Markfield and ensure local people have access to a range of housing the council will: • Support additional employment provision to meet local needs in line with Policy 7. • Deliver safe cycle routes as detailed in Policy 14, in particular from Markfield to South Charnwood High School and between Markfield and Bardon Industrial Estate.
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 • 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 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.

Hinckley and Bosworth Local Plan Review (2024 to 2045)

- 2.33 Hinckley and Bosworth are currently working on a new Local Plan which will set out land allocations and planning policies for 2024 to 2045.
- 2.34 The Local Plan is estimated for adoption in late 2027. As the new Local Plan is not adopted, the proposed development should be determined against the policies set out in the Core Strategy DPD.

3.0 Baseline Conditions

Site Location

- 3.1 The site is located immediately east of M1 Junction 22 to the north-west of Markfield, Leicestershire.
- 3.2 The site currently comprises agricultural land and is bounded by Old House Lane to the north, Whitwick Road to the east, the A50 to the south and the M1 to the west.

Existing Highway Network

- 3.3 The A50 comprises a dual carriageway, which is approximately 7.0m wide in each direction. The speed limit changes from 50mph to the national speed limit at the proposed point of access to the site from the A50.
- 3.4 The A50 is a key strategic route that connects the proposed development with the M1 located immediately west of the site, Coalville, Swadlincote and Burton upon Trent via the A511 to the west and Leicester to the east.
- 3.5 There is also an existing layby on the A50 eastbound link that serves a bus stop and provides a parking area for two Heavy Goods Vehicles (HGVs) approximately 110 metres east of M1 Junction 22.
- 3.6 Whitwick Road is a single carriageway, which is approximately 7.3m wide and subject to the national speed limit. Whitwick Road runs north/south and provides connections between eastern Coalville via Abbots Oak and Copt Oak to Markfield.
- 3.7 A footway of c.1.5m in width (wider in places) is located on the eastern side of Whitwick Road opposite the frontage of the site towards Markfield, with footways of c.1.0m-1.5m in width (wider in places) along the northern side of the A50 linking M1 Junction 22 to Cottage Lane. There are proposals for a shared footway of c.3.0m to be constructed on the western side of Whitwick Road along the frontage of the site, as well as a widening of existing footways along Whitwick Road and the A50, and shared footways within the site.
- 3.8 Tactile paved crossings are located within proximity of the site at M1 Junction 22, allowing for pedestrians to cross underneath the motorway.

Sustainable Travel

- 3.9 Walking and cycling provide important alternatives to cars and should also be encouraged to form part of longer trips via public transport.

Walking Distance Guidance

- 3.10 The Institution of Highways and Transportation (IHT) (now Chartered Institution of Highways and Transportation (CIHT)) guidance document 'Providing for Journeys on Foot' provides advice for sustainable travel infrastructure provision within new developments. The suggested walking distances to key facilities (e.g. healthcare, shops) are presented in **Table 7**.

Table 7 – Suggested Walking Distances (CIHT Guidelines)

	Town Centre (m)	Commuting/Schools/ Sightseeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

- 3.11 BREEAM suggests that amenities within a 500m proximity of a development site are likely to be more accessible and are likely to make a development site more sustainable.
- 3.12 In addition to this guidance, Manual for Streets (MfS) and the National Design Guide (2021) states that 'walkable neighbourhoods' are typically characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance of residential areas which may be accessed comfortably on foot.
- 3.13 MfS also states that the 800m walking distance is not an upper limit and references the former Planning Policy Guidance Note 13: Transport (PPG13) guidance in respect of walking replacing short car trips, particularly those under 2km.
- 3.14 Table NTS0303 from the 2023 National Travel Survey (released August 2024) indicates that the national average walk trip distance in 2023 was 0.7 miles or 1.12km.
- 3.15 The 2023 National Travel Survey (Table NTS0308) also shows that walking was the most frequent mode used for short trips, with 81% of trips under one mile (1.6km) being completed by foot in 2023, which is very similar to 2022 (83%) and 2021 (82%).

Cycling Distance Guidance

- 3.16 There is also potential for short car trips to be substituted for cycle trips, and for longer trips to be substituted by a combination of cycle and public transport trips.
- 3.17 The CIHT Planning for Cycling document (2014) states that *"The majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips (Department for Transport (DfT), 2014a)."*
- 3.18 The DfT Cycling and Walking Investment Strategy (2017) also refers to the threshold of five miles (or 8km), stating that *"two out of every three personal trips are within five miles - an achievable distance to cycle for most people, with many shorter journeys also suitable for walking."*
- 3.19 The second cycling and walking investment strategy published by DfT in 2022 does not specifically reference the statement in the paragraph above, however one of the main objectives is to increase the percentage of short journeys (i.e. those under five miles) in towns and cities that are walked or cycled from 41% in 2018/2019 to 46% in 2025.
- 3.20 The 2023 National Travel Survey also shows that the average cycle trip distance (for all purposes) was 3.0 miles or 4.8km. Therefore, it is reasonable to consider cycling as a viable mode of travel for distances up to 8km.
- 3.21 The following section considers the opportunities for sustainable travel that are available in the vicinity of the site.

Local Facilities

- 3.22 The main facilities that are likely to be in demand by workers and visitors are cafes or supermarkets to purchase food and drink. Each unit within the proposed development will provide staff welfare and canteen facilities to reduce the number of trips made from the site (e.g., during lunch breaks).
- 3.23 The surrounding local facilities in the area are shown in **Figure 3.1** and are listed in **Table 8**, with the distances measured from the centre of the site (allowing 350m for workers/visitors travelling from the centre of the site).

Table 8 – Distance to Local Facilities

Local Facility (Figure Reference)	Distance
Retail	
Co-op Village Store (R1)	2.0km
Markfield Village Store and Post Office (R2)	2.4km
Healthcare	
Markfield Medical Centre and Chemist (H1)	2.4km

- 3.24 **Table 8** demonstrates that there are local facilities in Markfield within walking distance of the site, some falling within the 2km upper limit outlined in MfS, which have the potential to be utilised by employees during breaks or before/after shifts.

Pedestrian Accessibility

- 3.25 Currently, there is a street-lit footway that runs along the northern side of the A511 and A50 between the 'Services' eastbound bus stop on the A511 and the existing layby along the site frontage on the A50. Between these two locations, the footway provides access to some residential dwellings on Little Shaw Lane and the bus stops.
- 3.26 On the southern side of the A50, there is a footway bordering the layby for the westbound bus stop. Bus users can access the bus stop from Altar Stones Lane through a gap in the fence that continues to Markfield Village Centre; the route along Altar Stones Lane is not street-lit. Altar Stones Lane does not have footways, but is a low trafficked street where all users share the carriageway. There is no other footway provision along the A50 in the vicinity of the site.
- 3.27 There are also no formal crossing points on the A50 within the vicinity of the site.
- 3.28 Along the eastern boundary on Whitwick Road, there is a street-lit footway that runs along the eastern side of the carriageway; dropped kerbs are provided across both A50 off-slip roads. The footway continues along Ashby Road and provides access to bus stops and Markfield Town Centre via Main Street.
- 3.29 There is also a network of Public Rights of Way (PRoWs) which provide connections within Markfield and to leisure routes into Poultny Wood and Beacon Hills.
- 3.30 **Figure 3.2** shows the PRoW network and the 800m, 1.2km and 2.0km walking distance from the site (taking account of the fact that employees/visitors would have a 350m walk from the centre of the site).

BREEAM Assessment of Amenities

- 3.31 As part of the BREEAM assessment, the development site is scored against amenities within a 500m vicinity. The amenities used for the BREEAM assessment, and how many of them can be found within a 500m vicinity of the development, are shown in **Table 9**. As a B2/B8 development, all of the listed amenities are relevant for the assessment.

Table 9 - BREEAM Amenities within 500m proximity of the Site

Amenity	Within 500m of Development Site?
Appropriate Food Outlet	No – Co-op village store
Access to Cash	No – Co-op village Store
Access to an outdoor open space	No – Altar Stones Nature Reserve
Access to a recreation or leisure facility for fitness or sports	No – Premier Gym
Publicly available postal facility	No – Markfield Post office
Community facility	No – Markfield Congregational Community Church
Over the counter services associated with a pharmacy	No – Masons Chemist
Public sector GP surgery or general medical centre	No – Markfield Medical Centre
Child care facility or school	No – Mercenfeld Primary School

- 3.32 **Table 9** above demonstrates that the proposed development does not comply with any of the BREEAM amenity scoring system. All of the key facilities lie in the edge or within the centre of Markfield, which is around 1.0 to 2.0km away from the site. The nearest leisure facility for fitness or sport is the Premier Gym in Bardon Hill, some 5.5km away. This means that the development is likely to score poorly in its current condition.
- 3.33 All of these facilities are outside the 800m walkable neighbourhood distance specified in MfS. Indeed, for commercial developments, the key facilities required are those required at break times to obtain meals, drinks, etc. The development units will provide facilities for hot drinks and reheating of food and will ensure appropriate food outlets are within an easy walk of the proposed development.

Cycling Accessibility

- 3.34 As part of the BREEAM assessment (criterion 2.c. of the Tra 01 assessment), the development site has been scored against current and future cycling facilities. The development will be on agricultural land that is only occupied by farm buildings. It is, therefore, unnecessary to discuss existing travel patterns and attitudes of existing building or site users towards cycling.
- 3.35 All cycling within the vicinity of the site is on-road. The A511 and A50 is likely to be intimidating for all but experienced cyclists, given that there are high traffic volumes, and the road is subject to the national speed limit for most of the route.
- 3.36 However, it is possible for cyclists to travel to/from Markfield Town Centre via Altar Stones Lane and Whitwick Road – providing a lighter trafficked route. Both routes are also relatively direct and join at the Whitwick Road/Ashby Road junction near Hill Lane.
- 3.37 Additionally, cyclists can also access the settlements of Coalville and Whitwick via Whitwick Road, as well as the southern edge of Loughborough via Priory Lane and a combination of lower trafficked and traffic-free cycle routes.

- 3.38 National Cycle Network (NCN) Route 52, which provides a route to Coalville, can be accessed c.10km to the north-west of the site via some low trafficked routes, experienced cyclists could alternatively use the A511 to access NCN Route 52 which is a more direct and faster route.
- 3.39 Additionally, NCN Route 63, can be accessed c.7.0km to the south of the proposed site via a number of low trafficked routes which provides a route into Leicester. From here, employees can also join onto NCN Routes 6 and 63 providing an extensive network for employees.
- 3.40 A plan of the local area showing a 5.0km cycling distance, 8.0km cycling distance and NCN Routes is shown in **Figure 3.3**.
- 3.41 Table NTS0303 of the latest National Travel Survey (released August 2024) indicates that the average cycle trip distance in 2023 was 3.0 miles or 4.82km; a slight reduction compared to the pre-Covid distance in 2019, which was 3.3 miles or 5.28km. However, National Travel Survey results from 2021 and 2022 indicate the average cycle trip distance was 3.6 miles or 5.76km.
- 3.42 Given the above, it is considered that a 5.0km distance is a reasonable threshold within which to consider cycling trips to/from the site, particularly for employees.
- 3.43 The majority of facilities listed in **Table 8** and **Table 9** are located well within the average cycle distance for 2023 of 4.8km (assuming a 16mph cycle speed), as included in the National Travel Survey (2024).
- 3.44 As the site will be a new-build development, the existing facilities for cyclists, on site, are currently limited. However, proposed facilities to be included within the development comprise of new showers, changing rooms, lockers, and secure/covered cycle storage.
- 3.45 The development proposals will also incorporate improved shared footway provision towards Markfield and the A50/M1 Junction 22.

Local Environment for pedestrians and cyclists

- 3.46 The current local environment for pedestrians and cyclists is generally considered poor but is proposed to be improved as part of the development. For pedestrians there are footways of c.1.0-1.5m in width on the northern side of the A50 as well as a running along the eastern side of Whitwick Road that provide access to facilities in Markfield.
- 3.47 Tactile paved crossings are currently only located within proximity of the site at M1 Junction 22, allowing for safe and secure crossing of the M1 Junction 22 slip roads. However, the development proposes tactile paving with the A50/Whitwick Road Junction immediately south east of the site.
- 3.48 For cyclists, all cycling within the vicinity of the site is on-road but the development proposes improvements in the form of new shared footways along Whitwick Road to Markfield.
- 3.49 For disabled and elderly people wide pathways and tactile paving will be provided within the site to create a beneficial environment that is better than the current situation.
- 3.50 The BREEAM assessment, including its assessment of the local environment for pedestrians and cyclists is provided as **Appendix A**.

Bus Accessibility

- 3.51 The closest bus stops to the site are the 'Cliffe Hill Farm' bus stops located within the existing layby on the A50 c.350m south of the centre of the site. The eastbound stop is accessible via the existing footway, however, there are currently no crossing points along the A50 which means there are currently no links between the site and the westbound bus stop.
- 3.52 Both bus stops are in laybys and take the form of a flagpole and timetable information.
- 3.53 The existing bus service provision is set out in **Table 10**.

Table 10 – Local Bus Service

Service No.	Stop Direction	Operator	Route	Frequency (approx.)		
				Monday – Friday	Saturday	Sunday
29	Eastbound	Arriva Midlands	Swadlincote - Leicester	Hourly First Service: 05:22 Last Service: 22:46	Hourly First Service: 05:22 Last Service: 22:46	Every One to Two Hours First Service: 05:52 Last Service: 21:46
29	Westbound	Arriva Midlands	Leicester - Swadlincote	Hourly First Service: 07:03 Last Service: 23:47	Hourly First Service: 07:03 Last Service: 23:47	Every One to Two Hours First Service: 07:07 Last Service: 22:49
29A	Eastbound	Arriva Midlands	Leicester - Swadlincote	Hourly First Service: 05:50 Last Service: 18:52	Hourly First Service: 05:50 Last Service: 18:52	N.A
29A	Westbound	Arriva Midlands	Leicester - Swadlincote	Hourly First Service: 08:20 Last Service: 18:36	Hourly First Service: 08:21 Last Service: 18:37	N.A
29B	Eastbound	Arriva Midlands	Swadlincote - Leicester	N.A	N.A	Every Two Hours First Service: 11:44 Last Service: 17:39
29B	Westbound	Arriva Midlands	Leicester - Swadlincote	N.A	N.A	Every Two Hours First Service: 10:03 Last Service: 16:03

- 3.54 **Table 10** demonstrates that the existing bus service provision provides the opportunity for employees to travel by bus to access facilities and employment purposes.
- 3.55 The 29 and 29A bus services are generally offset and provide a composite frequency during the day of every 30 minutes. They also start early and run into the evening, which makes buses a viable option for commuting for shift patterns across the day.
- 3.56 Journey times for employees travelling to the following key destinations by bus (including a 10-minute walk from the centre of the site) are:
- Markfield – 17 minutes;
 - Coalville – 50 minutes; and
 - Leicester – 52 minutes.
- 3.57 As well as commuting purposes, the bus can also be used to access retail/healthcare facilities in Markfield. The current £3 cap on single fares also makes buses very competitive with other modes of transport.

Accessibility Mapping

- 3.58 One hour journey time isochrones for different times of the day have been produced using GIS to demonstrate the catchment area for workers who may travel to/from the site by bus. To reflect that some staff will be working shift patterns and others will be working more traditional working hours (e.g., 9am to 5pm), accessibility mapping has been undertaken for the following (assuming staggered shift patterns):
- Morning shift changeover (06:00 – 07:00) – **Figure 3.4**;
 - AM peak (08:00 – 09:00) – **Figure 3.5**;
 - Afternoon shift changeover (14:00 – 15:00) – **Figure 3.6**;
 - PM peak (17:00 – 18:00) – **Figure 3.7**; and
 - Evening shift changeover (22:00 – 23:00) – **Figure 3.8**.
- 3.59 The accessibility mapping shows that workers would be able to commute across all times of day to/from Leicester to the south-east and Coalville to the north-west. These services are relatively direct which also makes them more attractive to use.

Rail Accessibility

- 3.60 The nearest railway stations to the proposed development are Leicester and Loughborough Railway Stations and further information on service provision and facilities for both stations are summarised in this section.

Leicester Railway Station

- 3.61 Leicester Railway Station is located c.15km south-east of the site and is operated by East Midlands Railway (EMR). It can be accessed by:
- A multi-modal trip, comprising a 38-minute bus journey and a 20-minute walk from the bus stops in Leicester; or
 - A c.25-minute car journey.
 - 58-minute bus (inc.20-minute walk from bus stop to station)
- 3.62 It has provision for 498 car parking spaces, including 24 accessible spaces. The car parking spaces are split between two car parks; Station Car Park (including 488 spaces and 20 accessible spaces) and the short stay car park (10 spaces and four accessible spaces). The station provides 222 cycle parking spaces, which are sheltered and monitored by CCTV and take the form of compound and stands. The cycle spaces are split between the cycle hub and main car park and station.
- 3.63 The direct local and regional services are summarised in **Table 11**.

Table 11 – Rail Services from Leicester Railway Station

Destination	Approx. Frequency	Approx. Journey Time	First and Last Services					
			Monday to Friday		Saturday		Sunday	
			Departures	Arrivals	Departures	Arrivals	Departures	Arrivals
Nuneaton (via Hinckley)	2 every hour	29 mins	First service: 06:18 Last service: 22:56	First service: 05:49 Last service: 22:51	First service: 05:48 Last service: 22:20	First service: 05:51 Last service: 22:51	First service: 10:20 Last service: 22:20	First service: 10:21 Last service: 22:21
Nottingham	3 every hour	54 mins	First service: 06:38 Last service: 23:47	First service: 05:14 Last service: 23:20	First service: 06:43 Last service: 23:47	First service: 05:26 Last service: 23:18	First service: 10:25 Last service: 23:59	First service: 08:21 Last service: 21:50
Birmingham New Street	2 every hour	57 mins	First service: 06:18 Last service: 22:56	First service: 05:19 Last service: 22:22	First service: 05:48 Last service: 22:20	First service: 05:22 Last service: 22:22	First service: 10:20 Last service: 22:20	First service: 09:52 Last service: 21:52
Sheffield (via Derby)	2 every hour	1 hr 2 mins	First service: 05:48 Last service: 23:37	First service: 04:58 Last service: 21:45	First service: 06:39 Last service: 22:36	First service: 05:56 Last service: 21:00	First service: 10:15 Last service: 23:12	First service: 08:23 Last service: 20:28

Loughborough Railway Station

3.64 Loughborough Railway Station is located c.11km north-east of the site and is operated by East Midlands Railway (EMR). It can be accessed by:

- A 40-minute cycle; or
- A 20-minute car journey.

3.65 It has provision for 256 car parking spaces, including 10 accessible spaces. The station provides 130 cycle parking spaces, which is sheltered and monitored by CCTV which takes the form of compounds. The cycle hub is open 24 hours.

3.66 The direct local and regional services are summarised in **Table 12**.

Table 12 – Rail Services from Loughborough Railway Station

Destination	Approx. Frequency	Approx. Journey Time	First and Last Services					
			Monday to Friday		Saturday		Sunday	
			Departures	Arrivals	Departures	Arrivals	Departures	Arrivals
Leicester	3 every hour	24 mins	First service: 05:00	First service: 05:48	First service: 05:08	First service: 05:50	First service: 08:25	First service: 10:15
			Last service: 23:41	Last service: 23:46	Last service: 23:40	Last service: 23:45	Last service: 22:10	Last service: 23:59
Nottingham	2 every hour	29 mins	First service: 06:53	First service: 04:56	First service: 06:54	First service: 05:00	First service: 10:35	First service: 09:26
			Last service: 23:10	Last service: 23:20	Last service: 23:44	Last service: 23:18	Last service: 23:06	Last service: 21:50
Sheffield (via Derby)	1 every hour	56 mins	First service: 06:00	First service: 04:58	First service: 06:00	First service: 05:56	First service: 10:25	First service: 08:23
			Last service: 23:53	Last service: 21:45	Last service: 22:46	Last service: 21:00	Last service: 22:18	Last service: 20:23

Calculation of the Public Transport Accessibility Index (AI)

- 3.67 Within the BREEAM UK New Construction Version 6.1 Technical Manual chapter Tra 01 Transport assessment and travel plan, sets out the methodology for calculating the public transport Accessibility Index (AI) (Criterion 2.f.).
- 3.68 The methodology for calculating the AI uses transport for London's Public Transport Accessibility Level (PTAL) method, itself based on a methodology developed in 1992 by the London Borough of Hammersmith and Fulham. Therefore, the BREEAM methodology could be considered focused more towards urban developments. The full methodology and inputs considered for the assessment of this development can be found in **Appendix A**.
- 3.69 The BREEAM Accessibility Index tool was used to calculate a current Accessibility Index score which, for this site, is 1.65.

Summary

- 3.70 The above review demonstrates that each unit within the proposed development will provide staff welfare and canteen facilities to reduce the number of trips made from the site (e.g., during lunch breaks) to reduce the number of trips made off-site during the day by staff. It also demonstrates that the site is accessible by a variety of modes of transport that have the potential to reduce the reliance on the private car for staff, and visitors; some off-site facilities are available in the vicinity of the site, for which trips can be made by sustainable means.
- 3.71 It is therefore considered that residents, staff, and visitors will have a choice about how they travel and that the proposals accord with the guiding principles of the NPPF.
- 3.72 The current local environment for pedestrians and cyclists is generally considered poor.
- 3.73 For the purposes of the BREEAM assessment, key facilities within 500m of the proposed development have been highlighted and a current Accessibility Index score calculated, which for this site is 1.65.
- 3.74 The BREEAM assessment is provided as **Appendix A**.

Personal Injury Accident Data

- 3.75 To establish road safety conditions on the local highway network, Personal Injury Accident (PIA) data within the vicinity of the site was requested from Leicestershire's Road Traffic Collision Data team for the latest available five-year period. The PIA data is provided in **Appendix B**.
- 3.76 During the specified period, there were 38 PIAs on the surrounding network; 27 were recorded as 'slight' and 11 were recorded as 'serious'. No fatal PIAs were recorded.
- 3.77 **Table 13** shows that there have been 38 PIAs on the surrounding network in the most recent five-year period. Of the 38 PIAs, 27 were slight and the remaining 11 were serious. A total of five accidents involved four pedestrians and one cyclist.
- 3.78 To provide greater context for analysis, **Table 13** summarised the total PIAs by location.

Table 13 – Summary of PIA Data

Approach	Slight	Serious	Fatal	Pedestrian	Cyclist	Total
M1 Junction 22 Roundabout						
Southbound Off-Slip	2	0	0	0	0	2
Roundabout (Northbound)	1	0	0	0	0	1
Roundabout (Eastbound)	1	0	0	0	0	1
Roundabout (Southbound)	1	0	0	0	0	1
Roundabout (Westbound)	1	0	0	0	0	1
Whitwick Road						
Junction with Altar Stones Lane and Ashby Road	1	0	0	0	0	1
Junction with A50 Slip-road	1	1	0	0	0	2
Junction with Priory Lane	1	0	0	0	0	1
Approaching Old House Lane	0	1	0	0	0	1
Markfield Bypass A50						
A50 Eastbound	1	0	0	0	0	1
A50 Northbound	0	2	0	1	1	2
A50 Southbound	1	0	0	0	0	1
Field Head Roundabout						
Roundabout (Northbound)	1	0	0	0	0	1
Roundabout (Eastbound)	0	1	0	0	0	1
Leicester Road A50						
Northbound	1	0	0	0	0	1
Quarry Roundabout						
Southbound approaching Roundabout	2	0	0	0	0	2
Old House Lane						
Old House Lane	0	1	0	0	0	1
Copt Oak Road						
Junction with Whitwick Road	2	0	0	0	0	2
M1						

Approach	Slight	Serious	Fatal	Pedestrian	Cyclist	Total
Northbound	0	1	0	0	0	1
Little Shaw Lane						
Junction with Stanton Lane	3	0	0	0	0	3
Shaw Lane (Eastbound)						
Approximately 350m West of Stanton Lane	1	0	0	0	0	1
Approximately 200m East of Billa Barra Lane	0	1	0	0	0	1
Opposite 151 Shaw Lane	1	0	0	1	0	1
Approximately 100m East of Bardon Chapel	0	1	0	0	0	1
Near Bardon Chapel	0	1	0	1	0	1
Shaw Lane (Westbound)						
Approximately 100m West of Copt Oak Road	1	0	0	0	0	1
Near 187 Shaw Lane	1	0	0	0	0	1
Outside Redgates Farm	0	1	0	1	0	1
Beveridge Lane Roundabout						
Approach/At Roundabout	2	0	0	0	0	2
Bardon Road						
Southbound	1	0	0	0	0	1
Total	27	11	0	4	1	38

3.79 **Table 13** shows that there are no PIA cluster of accidents (five PIAs within a 50m radius in five years). There have been six PIAs at the M1 Junction 22 Roundabout and five PIAs along Whitwick Road over the latest five-year period. The PIAs at the roundabout are not clustered on one particular approach, circulatory section or node and the PIAs on Whitwick Road do not form a cluster.

3.80 Further analysis on M1 Junction 22 Roundabout and Whitwick Road is provided below as the proposed development would intensify use at these locations. Additionally, the pedestrian and cycle PIAs are also summarised below.

M1 Junction 22 Roundabout

3.81 The six PIAs at M1 Junction 22 Roundabout were all classified as slight. There were no clusters on any approaches to the roundabout or on the circulatory. In the absence of descriptions, it is difficult to determine exactly how the PIAs occurred; however:

- All PIAs involved two vehicles;
- Three PIAs occurred due to a vehicle changing lanes and causing a 'sideswipe' collision;
- One PIA involved two vehicles who were both 'going ahead other'; and
- Two PIAs involved one vehicle 'stopping' and the other vehicle 'going ahead but held up', which implies a shunt-type collision.

3.82 The junction already has advanced directional signage and accompanying road markings to tell drivers which lane they should use through the junction.

- 3.83 Therefore, while there have been some trends in PIAs over the latest five-year period, these have been caused by driver error and there are no definable causation patterns, clusters or factors that indicate a particular highway safety issue at M1 Junction 22 Roundabout, particularly given the significant volume of traffic that passes through the junction on a daily basis.

Whitwick Road

- 3.84 Of the five PIAs along Whitwick Road, three were classified as slight and two were serious; no clusters have been identified along Whitwick Road. In the absence of descriptions, it is difficult to determine exactly how the PIA occurred, however:
- Four of the five PIAs involved two vehicles (three slight and one serious);
 - One PIA involved a single vehicle (serious), which was due to a vehicle travelling northbound overtaking a vehicle, likely resulting in loss of control;
 - One slight PIA involved a vehicle u-turning at the Whitwick Road/A50 Eastbound On-Slip and colliding with a vehicle travelling southbound on Whitwick Road;
 - One slight PIA involved a vehicle overtaking another vehicle that was starting to turn right into Priory Lane;
 - One slight PIA involved a vehicle colliding with a parked vehicle while travelling round the bend at the Whitwick Road/Ashby Road junction; and
 - One serious PIA involved a vehicle waiting to turn right onto the A50 Eastbound On-Slip and a vehicle continuing northbound on Whitwick Road; resulting in a shunt-type PIA. The weather conditions were described as raining without high winds and road conditions were described as wet/damp.
- 3.85 The PIA analysis has not identified any trends or clusters during the latest five-year period. The PIAs have been caused by driver error and there are no definable causation patterns, clusters or factors that indicate a particular highway safety issue along Whitwick Road.

Pedestrian and Cyclist PIAs

- 3.86 Of the total 38 PIAs, four involved pedestrians, and one involved a cyclist.
- 3.87 The PIA involving a cyclist was located on the A50 westbound carriageway and classified as serious. A driver of a van collided with the pedal cyclist while overtaking, causing serious injuries to the cyclist.
- 3.88 The remaining four PIAs involving pedestrians were generally associated with fine weather without high winds and dry road conditions. None of the PIAs were at or within 20m of a junction or pedestrian crossing, whilst two took place in daylight, only one was in darkness although street lighting was noted to be present and lit.
- 3.89 While all PIAs are regrettable, the quantity and severity of the pedestrian and cyclist PIAs recorded in the vicinity of the site do not give any undue cause for concern at this stage, nor does the data suggest that there are any accident clusters in the vicinity of the site.

Summary

- 3.90 Although all PIAs are regrettable, the review of PIA data has not identified any accident clusters or highway safety issues in the vicinity of the proposed development site; however, we are aware that the scheme is likely to support wider mitigation proposals (subject to impact assessment work), that is also expected to improve safety along the A50 corridor and in the vicinity of the site.

4.0 Development Proposals

Site Proposal

- 4.1 The development will provide up to 65,000sqm of B2/B8 employment land, with access proposed from the A50.
- 4.2 Each unit within the proposed development will provide staff welfare and canteen facilities to reduce the need for employees to leave the site to access snack/lunch facilities. The site will also provide outdoor amenity space and walking routes through green infrastructure that allows staff and visitors to take walks during breaks within the development.

A50 Site Access Design

- 4.3 The site access design is shown on **Drawing T22523.001 rev F**.
- 4.4 The A50 access would only permit inbound vehicle movements via an auxiliary diverge lane and proposes to remove the existing bus stop/HGV layby on the A50 eastbound carriageway, providing a replacement facility within the site.
- 4.5 The access has been designed in accordance with Design Manual for Roads and Bridges (DMRB) CD 123. Given the access location is just prior to end of the 50mph speed limit, for robustness it has been designed in accordance with the prevailing national speed limit.
- 4.6 Table 5.22 of CD 123 states that an auxiliary lane on an up gradient of 0-4% requires a 110m auxiliary lane deceleration length with a 30m direct taper for a design speed of 120kph. The proposed site access junction on the A50 is along a stretch that has a 1.1% gradient and, as per above, subject to the national speed limit (70mph for a dual carriageway).
- 4.7 The access road is proposed at an initial 3.65m width in line with the LHA's highway design guide, with 25m entry radius, plus a separate 3.0m shared pedestrian footway/cycleway connection between the site and Altar Stones Lane for access to the existing A50 westbound bus stop and into Markfield via a proposed staggered toucan crossing across the A50.
- 4.8 To calculate forward visibility splays, an Automatic Traffic Count (ATC) speed survey was commissioned between Thursday 8th May and Wednesday 14th May 2025 inclusive. The ATC was located along the A50 eastbound at the site access location. The data is provided as **Appendix C** to this report.
- 4.9 The recorded 85th percentile speed was 38.5mph eastbound resulting in forward visibility splays of 94m to the west of the junction. The visibility splay calculations for the A50 eastbound are also provided as **Appendix C**.
- 4.10 Swept path analysis for the site access junction is provided on **Drawing T22523.002 Rev F** and demonstrates that a large articulated HGV and single decker bus can enter the site comfortably.
- 4.11 The proposed site access also incorporates a new staggered toucan crossing on the A50 with associated road markings and tactile paving to connect the site with the westbound bus stop and Markfield via Altar Stones Lane. This will provide safe and suitable access provision for all users, including those with visual impairment. Tactile paving will be provided at each crossing point throughout the site.

- 4.12 The access to the development will be improved and prioritised for people with disabilities as the accessible parking spaces will be located directly next to the unit entrances.

Impact of Bus Services

- 4.13 The intention is to divert the existing eastbound bus service into the site and then out onto Whitwick Road. **Drawing T22523.001 Rev F** also shows the proposed relocation of the existing bus stop from the A50 eastbound layby to a location (to be agreed in detail in due course) within the proposed development, as part of the access junction proposals.
- 4.14 The bus service along this section of the A50 stops only at the farm, before heading into Markfield via the A50 slip road junction to the east. Therefore, diverting the service into the development from the A50, and then out onto Whitwick Road to the east is a sensible (and commercially beneficial) proposition.
- 4.15 We have held initial discussions with Arriva who have confirmed the following:
- The service diversion into the site is acceptable in principle;
 - If the internal roads are to be kept private, Arriva have previously agreed service provision through such sites using documented permission for access;
 - Additional service provision, or service changes are possible, but would depend on the shift frequencies/patterns to ensure that it aligns with shift patterns of other employment/industrial estates in the area;
 - Service improvements can be delivered via a direct award to Arriva, if necessary, whereby Arriva would confirm the maximum S106 cap, and the S106 agreement would then specify this amount, with LCC subsequently contracting with the operator on that basis;
 - Arriva has experience of similar arrangements at Magna Park (Lutterworth), Hinckley Park and for Amazon at Bardon.
- 4.16 Further discussion will be required with both the highway authority (LCC) and Arriva during the course of the planning application to agree/finalise the diversion details.
- 4.17 The diversion of the existing eastbound bus service into the site will result in an improvement of the Accessibility Index score from the existing 1.65 to 1.91.

Impact on HGVs using the A50 eastbound layby

- 4.18 The existing layby measures c.28 metres long and can accommodate up to two large vehicles. The LHA has previously raised concerns about losing the layby to facilitate access to the proposed development; therefore, surveys have been undertaken to determine their usage.
- 4.19 An updated survey of the A50 eastbound layby proposed to be removed as part of the development access proposals was undertaken on Wednesday 6th September 2023.
- 4.20 To establish the utilisation of the layby located adjacent to the proposed site, a survey every 15 minutes during morning and evening peak periods was undertaken. The results are seen in **Table 14** below.

Table 14 – Summary of A50 Eastbound Layby Usage Survey

AM Peak Hour				PM Peak Hour			
	Car/LGV	HGV	Total		Car/LGV	HGV	Total
7am to 7:15am	0	1	1	4pm to 4:15pm	0	1	1
7:15am to 7:30am	0	0	0	4:15pm to 4:30pm	0	0	0
7:30am to 7:45am	0	0	0	4:30pm to 4:45pm	1	0	1
7:45am to 8am	0	1	1	4:45pm to 5pm	0	0	0
8am to 8:15am	1	0	1	5pm to 5:15pm	0	0	0
8:15am to 8:30am	0	0	0	5:15pm to 5:30pm	0	0	0
8:30am to 8:45am	0	0	0	5:30pm to 5:45pm	2	0	2
8:45am to 9am	0	0	0	5:45pm to 6pm	1	0	1
9am to 9:15am	1	0	1	6pm to 6:15pm	0	0	0
9:15am to 9:30am	0	1	1	6:15pm to 6:30pm	0	0	0
9:30am to 9:45am	1	1	2	6:30pm to 6:45pm	0	0	0
9:45am to 10am	1	0	1	6:45pm to 7pm	1	0	1
% Time Bay Full (2 Vehicles)	-	-	8%	% Time Bay Full (2 Vehicles)	-	-	8%

- 4.21 **Table 14** demonstrates that whilst there is occasional use of the layby located adjacent to the site, during the peak hour periods it is only full 8% of the time.
- 4.22 Notwithstanding this, the intention is for the proposed development site to accommodate layby provision alongside the internal road network, which would provide parking for displaced vehicles from this layby.
- 4.23 However, in addition, it is pertinent to note that there is also a local services area located off the M1 junction roundabout which has parking available for both HGVs and cars (the BP garage is closed at present, but the parking area adjacent to the Travelodge remains in place).

Whitwick Road Site Egress Junction Design

- 4.24 The site egress priority junction onto Whitwick Road is shown on **Drawing T22523.004 rev E** and demonstrates that there is sufficient frontage along Whitwick Road to provide a junction designed in accordance with DMRB CD 123.
- 4.25 The junction provides a 3.65m carriageway width, with an 15m exit radius for both directions, and an additional 1:8 corner taper over a distance of 32m for traffic turning left to ensure that large HGVs do not overrun into the opposing traffic lane.
- 4.26 Additionally, a 2.0m footway connecting to existing pedestrian provision on the western side on Whitwick Road at the bridge over the A50 is proposed. To the north of the A50 westbound/Whitwick Road slip roads, an uncontrolled crossing with dropped kerbs and tactile paving is proposed to facilitate crossing from the western to eastern side of Whitwick Road. The existing footway is also proposed to be upgraded to 2.0m width along the eastern side of Whitwick Road into Markfield, with dropped kerbs and tactile paving provided on the existing slip road.
- 4.27 Speed data was obtained using ATCs along Whitwick Road where the site access is proposed for a 7-day period between Thursday 8th May 2025 and Wednesday 14th May 2025 inclusive.
- 4.28 The recorded 85th percentile speeds were 58.4mph northbound and 55.4mph southbound. These recorded speeds result in visibility splays of 4.5m x 213m to the south and 4.5m x 187m to the north of the junction, no wet weather addition was applied to the recorded 85th percentile speeds due to the survey period being dry. The ATC data and visibility splay calculations are provided as **Appendix D**.

- 4.29 Swept path analysis shown demonstrates that large articulated HGV movements can be accommodated within the proposed junction arrangement.
- 4.30 It should be noted that the junction would also be accompanied by a new street lighting scheme, which could also extend to the south of the A50 (for the westbound on and off-slips), such that the junction design is compliant with the Leicestershire Highways Design Guide (LHDG).
- 4.31 Notwithstanding this element, the design is compliant with DMRB CD 123 in any case.
- 4.32 The proposed site egress will increase safety and access provision for those with visual impairment as tactile paving will be provided.

Internal Layout

- 4.33 The internal layout of the proposed development will be designed using the principles set out in Manual for Streets (MfS), MfS2 and the Leicestershire Highway Design Guide.

A50 Westbound On-Slip/Whitwick Road Junction Improvements

- 4.34 Currently, vehicles turning right onto the A50 westbound on-slip are required to give way to traffic joining the slip road from the south. There is only c.12m of storage capacity for vehicles giving way, which means that a HGV would block the carriageway on Whitwick Road.
- 4.35 Therefore, as part of the proposals, the existing A50 Westbound On-Slip/Whitwick Road junction would be improved to remove the requirement for right turning vehicles to give way as shown on **Drawing T22578.003 rev E**.
- 4.36 The works would require replacing the existing splitter island with a smaller island and providing a dedicated lane for vehicles joining the slip road from the south or the westbound off-slip and another dedicated lane for right turn movements. These lanes would be separated by hatching and taper down to a single lane over a c.130m distance as shown in **Drawing T22578.006**. From this point, drivers would merge with traffic on the A50 westbound carriageway.

Road Safety Audit of Site Access Junctions

- 4.37 While the designs are either fully compliant with DMRB guidance, or provide significant improvement to the existing provision (in the case of the slip road proposals), Stage 1 Road Safety Audits have been undertaken and are provided under separate cover. The drawings included within this report have been updated in line with the RSA recommendations.

Pedestrian and Cyclist Access – Whitwick Road

- 4.38 The pedestrian route from the Whitwick Road access junction into Markfield would be upgraded with a 2.0m footway connecting from the site access into Markfield, with a new uncontrolled crossing with dropped kerbs and tactile paving proposed to facilitate crossing from the western to eastern side of Whitwick Road and across the A50 westbound slip road with Whitwick Road which will be upgraded to include dropped kerbs and tactile paving. The improvements are shown in **Drawings T22523.003 rev E and T22523.004 rev E**.
- 4.39 There would also be a street lighting package proposed as part of the development, which would provide a safe and accessible pedestrian route for commuters between the site and Markfield both in the morning and evening.

Pedestrian and Cyclist Access – A50

- 4.40 A 3.0m shared pedestrian footway/cycleway route is proposed between the site and Altar Stones Lane. Altar Stones Lane is a quiet road c.6.0m in width suitable for on road cycling and a suitable pedestrian route into Markfield.
- 4.41 This route will also provide direct access to the bus stop on the westbound carriageway of the A50. To facilitate safe crossing of the A50, a signalised toucan crossing is proposed at 4.0m in width. The crossing will contain a splitter island, guard rails, dropped kerbs and tactile paving to facilitate safe crossing, with appropriate stopping sight distances as shown in **Drawing T22523.005 rev D**.
- 4.42 The proposals would significantly improve pedestrian and cycle connectivity to facilities and bus stops in Markfield since existing provisions mean that pedestrians are unable to cross the A50 safely.
- 4.43 **Drawing T22523.005 rev D** shows Stopping Sight Distances (SSD) at the proposed staggered toucan crossing with an eastbound traffic SSD of 120m. This is in excess of the visibility calculated from the radar surveys undertaken in September 2023, however, it is in line with the DMRB visibility required for a 40mph speed limit (on the basis that the speeds recorded were 40mph and the DMRB visibility allows for traffic travelling slightly above the speed limit). The SSD of 160m for westbound traffic is in line with the prevailing 50mph speed limit and DMRB guidance.
- 4.44 A pedestrian crossing assessment has also been undertaken for the proposed toucan crossings on the A50 in line with Traffic Signs Manual Chapter 6 and is included in **Appendix E**.

Disabled Access

- 4.45 Disabled access to the site will be improved, compared to the current situation, with the addition of a footway, on the northern and western side of the site access, and on the southern side of the site egress. All highway carriageways and footways within the proposed development will be at grade to allow for easy wheelchair access.
- 4.46 Tactile paving will be provided between the main carriageway road access, parking facilities, and entrances to the buildings, such as the entrances to the distribution warehouses and industrial units. This will ensure that visually impaired people are kept away from hazards such as moving vehicles on site.

Parking Provision

- 4.47 Paragraphs 112 and 113 of the National Planning Policy Framework (NPPF), December 2024, state:
- “112. If setting local parking standards for residential and non-residential development, policies should take into account:*
- A) the accessibility of the development;*
 - B) the type, mix and use of the development;*
 - C) the availability of and opportunities for public transport;*
 - D) local car ownership levels; and*
 - E) the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.”*

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

LCC Parking Standards

- 4.48 The LCC Highway Design Guide (HDG) 2024 provides specific car parking standards for new B2 and B8 developments. Overall, the LCC HDG has a more onerous set of parking requirements than BREEAM with the exception car sharing spaces.
- 4.49 For new out of town B8 developments up to 2,500sqm in Gross Floor Area (GFA) the LCC HDG requires a minimum of 1.0 car parking spaces per 100sqm and 1.0 lorry parking space per 400sqm. For new out of town B8 developments over 2,500sqm GFA a minimum of 1.0 car parking space per 120sqm is required and 1.0 lorry parking space per 400sqm.
- 4.50 For new out of town B2 developments up to 2,500sqm in Gross Floor Area (GFA) the LCC HDG requires a minimum of 1.0 car parking spaces per 50sqm and 1.0 lorry parking space per 400sqm. For new out of town B2 developments over 2,500sqm GFA a minimum of 1.0 car parking space per 55sqm is required and 1.0 lorry parking space per 400sqm.
- 4.51 The LCC HDG states that the LHA is likely to accept 95% to 110% of the minimum space requirement for non-residential land use parking standards.
- 4.52 The site will provide c.52,000sqm of B8 use and c.13,000sqm of B2 use. The parking provision proposed by mode and unit is shown in **Table 15**.

Table 15 – Proposed parking provision by mode and unit (Including % of required provision)

Unit	Unit Area (sqm)	Vehicle Parking								Cycle Parking
		Car EV Charging	Car Share	Accessible Car	Accessible Car EV Charging	Total Car Parking Spaces*	Motorcycle	HGVs	Total	
1	14,287	30 (103%)	10 (143%)	7 (175%)	2 (200%)	142 (97%)	8 (50%)	39 (108%)	189	48 (112%)
2	21,065	44 (102%)	11 (100%)	9 (180%)	2 (200%)	211 (97%)	8 (35%)	74 (140%)	293	72 (114%)
3	6,265	14 (108%)	4 (133%)	1 (50%)	2 (100%)	62 (95%)	4 (50%)	22 (138%)	88	24 (126%)
4	11,824	24 (100%)	6 (100%)	4 (133%)	2 (200%)	116 (95%)	8 (62%)	46 (153%)	170	36 (103%)
5	8,714	18 (100%)	5 (100%)	3 (100%)	2 (200%)	87 (97%)	8 (80%)	20 (91%)	115	36 (138%)
6	2,639	6 (120%)	2 (200%)	0 (0%)	2 (100%)	28 (104%)	4 (100%)	6 (86%)	38	12 (150%)
Total	64,794	136	38	24	12	646	40	207	893	228
Total % of requirement met		103%	115%	126%	300%	97%	54%	126%**	N/A	118%

* Total of Standard, EV Charging, Car Share, Accessible Car, and Accessible Car (EV Charging)

** This includes trailer spaces that can be used for HGV parking or just trailer parking. Not all spaces will be used by trailers at the same time

- 4.53 Therefore, for the proposed development the LCC, HDG requires 668 car parking spaces in total. The LCC HDG also requires 134 lorry parking spaces for the B8 uses and 30 lorry parking spaces for the B2 uses.
- 4.54 The proposed development will provide 646 car parking spaces, which is 97% of the standard set out in the LCC guidance; in addition, the development will provide 207 lorry parking spaces, which 126% of the standard set out in the LCC guidance. It is worth noting that this is based on a mixture of primarily full-length HGV parking spaces and trailer spaces. The trailer spaces will not be full at all times so will be used for HGV parking as well
- 4.55 The LCC HDG sets out disabled parking standards for B2 and B8 developments, suggesting six accessible bays plus 2% of total parking spaces, thus for the development site, 23 spaces in total.
- 4.56 The proposed development will provide a total of 36 accessible car parking spaces across the site (24 standard and 12 EV charging), which is considered both appropriate and sufficient to serve the development.
- 4.57 For Electric Vehicles (EVs), the LCC HDG indicates that 20% of parking provision should be delivered with a charging point to comply with EN 62196-2 (J1772) Type 2, Mode 3, 7 pin, 32 amp, 7 KWs; plus cable routes for 1 in 5 of the total number of spaces. This means that for the proposed development site, the LCC HDG would indicate 132 EV parking/cable route spaces are required.
- 4.58 The proposals for the development allow for the provision of electric vehicle charging spaces, in the form of 69 intelligent 7KW EV Twin Pedestal Chargers, each with 6 DUCT for data and power to EVCs (136 EV spaces in total). This is more than the minimum requirement, set out in the BREEAM UK New Construction Version 6.1 Technical Manual, for electric vehicle charging at 128 spaces (20% of 642 spaces). It is also worth noting that for each individual unit, if the Car EV Charging and Accessible Car EV Charging parking spaces are combined then they 100% meet the LCC HDG requirements for EV Charging parking spaces.
- 4.59 Motorcycle parking is proposed across the site and will deliver 40 spaces in total; the LCC HDG suggests that 74 motorcycle parking spaces would be required (1 space, plus 1 additional space for every 10 car parking spaces).
- 4.60 However, it is worth noting that TRICS analysis suggests less than 1% of daily vehicle trips associated with B2 and B8 commercial development uses are undertaken by motorcycle; the daily vehicle trip generation associated with the proposals is c.2,600 (AADT), which would represent 26 motorcycle trips (two-way).
- 4.61 As such, the provision of 40 spaces is considered to be more than sufficient across the site and, given inbound motorcycle trips total 13 movements across the day, the individual unit provision of either 4 or 8 spaces is considered suitable.
- 4.62 The shortfall across the site is not considered to be an issue based on the above.
- 4.63 For dedicated Car Share parking spaces, the BREEAM Tra 02 Sustainable transport measures states that for a B2 or B8 development at least 5% of the total car parking capacity should be allocated for Car Share parking spaces. The BREEAM Tra 02 Sustainable transport document suggests 33 spaces in total would be required.
- 4.64 Overall, the proposed parking at the development site is considered to be appropriate for the size of the development and its operation.

Cycle Parking

- 4.65 Secure cycle parking will be provided for each of the B2 and B8 units in the form of separate indoor, covered cycle stores. BREEAM Tra 02 Sustainable transport measures states that for a B2 or B8 development there should be one cycle space for every ten staff.

-
- 4.66 The development proposes parking for 228 bicycles across covered and secure cycle stores, as well as shower facilities and lockers for cyclists inside each unit. This meets the minimum requirements for cycle storage, set out in the BREEAM UK New Construction Version 6.1 Technical Manual, given the expected number of staff on site.
- 4.67 The LCC HDG also sets out the following, more onerous, minimum requirements for cycle parking spaces:
- One long stay (Secure and under cover) cycle parking space per 500sqm GFA of B2/B8 development
- 4.68 On the basis of the above, the LCC HDG requires 194 sheltered cycle parking spaces for the proposed development.
- 4.69 The proposed development will provide a total of 228 cycle parking spaces across the site, so in excess of the requirement, to seek to encourage cycling as a mode of travel for employees.

5.0 Trip Generation, Distribution and Assignment

- 5.1 For the purposes of the BREEAM assessment, Sections 5 and 6 cover the predicted travel patterns and transport impact of the future development and site users on the local highway network.
- 5.2 The proposed development is for up to 65,000sqm of B2/B8 land uses, it is anticipated that 80% of the site would be for B8 uses (52,000sqm) and the remaining 20% would be for B2 uses (13,000sqm).
- 5.3 The trip generation rates have been agreed with LCC and National Highways (NH) as being appropriate for inclusion within the strategic modelling exercise that is required (as set out in section 6.0). The agreed trip rates are based on the 85th percentile of the TRICS database and are therefore much higher than average rates, which provides a very robust assessment of the traffic generation for the proposed development.
- 5.4 The agreed trip rates are set out below in **Tables 16 to 18**.

Table 16 – Trip Generation Assessment – B2 Industrial

Peak Hour	Trip Rate (per 100 sqm GFA)		Vehicle Trips	
	In	Out	In	Out
Car/LGV's				
AM	0.857	0.339	111	44
PM	0.321	0.795	42	103
HGV's				
AM	0.038	0.041	5	5
PM	0.018	0.012	2	2
Total				
AM	-	-	116	49
PM	-	-	44	105

AM peak is 07:00-08:00, PM peak is 17:00-18:00; trips have been rounded.

Table 17 – Trip Generation Assessment – B8 Warehousing

Peak Hour	Trip Rate (per 100 sqm GFA)		Vehicle Trips	
	In	Out	In	Out
Car/LGV's				
AM	0.415	0.187	216	97
PM	0.083	0.225	43	117
HGV's				
AM	0.011	0.090	6	47
PM	0.045	0.030	23	16
Total				
AM	-	-	222	144
PM	-	-	66	133

AM peak is 07:00-08:00, PM peak is 17:00-18:00; trips have been rounded.

Table 18 – Trip Generation Assessment – Combined Development (65,000sqm)

Peak Hour	Trip Rate (per 100 sqm GFA)		Vehicle Trips	
	In	Out	In	Out
Car/LGV's				
AM	-	-	327	141
PM	-	-	85	220
HGV's				
AM	-	-	11	52
PM	-	-	25	18
Total				
AM	-	-	338	193
PM	-	-	110	238

AM peak is 07:00-08:00, PM peak is 17:00-18:00; trips have been rounded.

- 5.5 The trip generation exercise demonstrates that the proposed development site has the potential to generate up to 531 two-way vehicle movements in the AM peak hour and 348 two-way vehicle movements in the PM peak hour.
- 5.6 Additionally, the trip generation assessment demonstrated that the proposed development site has the potential to generate up to 63 two-way HGV movements in the AM peak hour and 43 two-way HGV movements in the PM peak hour.

Traffic Distribution and Assignment

- 5.7 An initial assessment of the traffic distribution and assignment has been undertaken across the highway network using online Google map routing tools and based on 2011 Census Origin/Destination Travel to Work data (MSOA area – E02005377: Hinckley and Bosworth 001).
- 5.8 The full details of this data are included in **Appendix F**.
- 5.9 The resulting assignment is as follows:
- Whitwick Road (N): 21.4%
 - Whitwick Road (S): 78.6%:
 - A50 (E): 37.5%
 - A50 (W): 35.3%
 - Ashby Road: 5.8%
- 5.10 The development traffic forecasts across the network will alter as part of the subsequent TA which will be informed by the PRTM. The sole purpose of providing the traffic forecasts within this interim report is to indicate the likely performance of the proposed site access.

6.0 Traffic Impact

Pan Regional Transport Model (PRTM)

- 6.1 The PRTM is Leicestershire's Pan Regional Transport Model and is a strategic traffic model designed for the assessment of major transport schemes and developments.
- 6.2 During the course of pre-application discussions with both LCC and NH, we have agreed the methodology for the assessment of the development traffic impact using the PRTM.
- 6.3 The agreed development testing pro-forma is provided as **Appendix G** to this report.
- 6.4 The forecasts from the model and additional analysis and reporting will be provided by means of an addendum or updated TA.
- 6.5 To determine the future traffic impact of the proposed development on the local highway network, the following scenarios are being assessed for the AM and PM peak periods and have been agreed with LCC:
 - 2026 Base
 - 2026 Base + Proposed Development
 - 2028 Opening Year
 - 2028 Opening Year + Proposed Development
 - 2030 Base
 - 2030 Base + Proposed Development
 - 2036 Base
 - 2036 Base + Proposed Development
- 6.6 At the time of writing this report, the PRTM modelling is underway but results are yet to be received.
- 6.7 Therefore, the traffic impact assessment (based on the model outputs) will be included within an addendum report that will be submitted in due course, once the modelling assessment work has been completed.

7.0 Summary and Conclusion

Summary

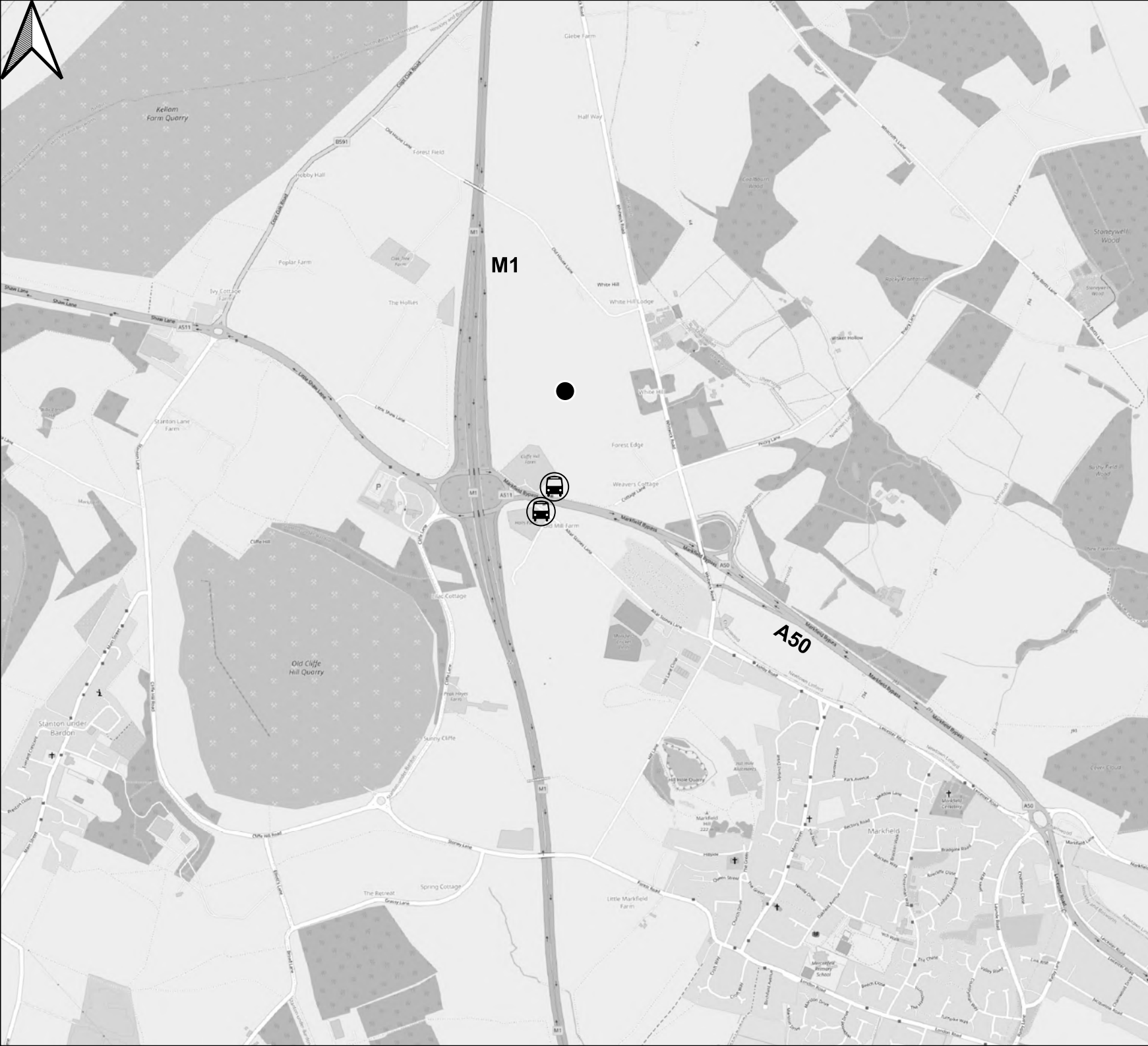
- 7.1 Hub Transport Planning Ltd has been commissioned by Caddick Developments Limited to produce a Transport Assessment for a proposed B2/B8 commercial site for up to 65,000sqm on Land at Junction 22 of the M1, Markfield; the assessment takes into account the proposal for the development to be Building Research Establishment Environmental Assessment Methodology (BREEAM) rated.
- 7.2 It is considered that safe and suitable vehicular access can be provided to the proposed development site from the A50, replacing the existing bus stop/HGV layby with the implementation of a new auxiliary diverge lane.
- 7.3 The analysis demonstrates that the proposed development is readily accessible to local facilities in Markfield by walking and cycling for employees and visitors. It also demonstrates that the 29 and 29A bus services, which run along the A50 on the southern side of the site, are generally offset and provide a composite frequency during the day of every 30 minutes.
- 7.4 The proposal to divert these bus services into the site has been agreed in principle with Arriva and will be finalised in due course.
- 7.5 The current local environment for pedestrians and cyclists is generally considered to be poor but will be improved with new shared footways to, from and around the site.
- 7.6 For the purposes of the BREEAM assessment, key facilities within 500m of the proposed development have been highlighted and an Accessibility Index score calculated, which for this site is currently 1.65. With the diversion of the existing bus route into the site, the Accessibility Index score will improve to 1.91.
- 7.7 Connectivity to Markfield and the bus stops on the A50 would be enhanced through the delivery of a toucan crossing over the A50 to connect to the westbound bus stop and Altar Stones Lane and improved footways along Whitwick Road, and a pedestrian crossing assessment will be provided in due course.
- 7.8 A review of personal injury accident data has not identified any accident clusters or highway safety issues in the vicinity of the proposed development site.
- 7.9 Disabled access to the site will be improved and will account for varying levels and types of disability, including visual impairment.
- 7.10 Pedestrian and cycle access will be provided and will tie into the existing infrastructure along the northern and side of the A50, as well as along the western side of Whitwick Road.
- 7.11 The applicant has agreed with LCC and NH to utilise the PRTM and forecasts from the model and additional analysis and reporting will be provided by means of an addendum TA in due course.

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T22523

Land at Junction 22 of the M1, Cliffe Hill Farm

Figures



Legend

- Site Location
- 🚌 Bus Stops

**Figure 1.1 - Site Location
T22523 Markfield B8**

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0 350 700 m





Legend

- Site Location
- Healthcare
- Retail

**Figure 3.1 - Local Facilities
T22523 Markfield B8**

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0 250 500 m





Legend

- Site Location
- 800m
- 1.2km
- 2.0km
- Public Footpath

**Figure 3.2 Walking Distances
T22523 Markfield B8**

Caddick Developments Limited

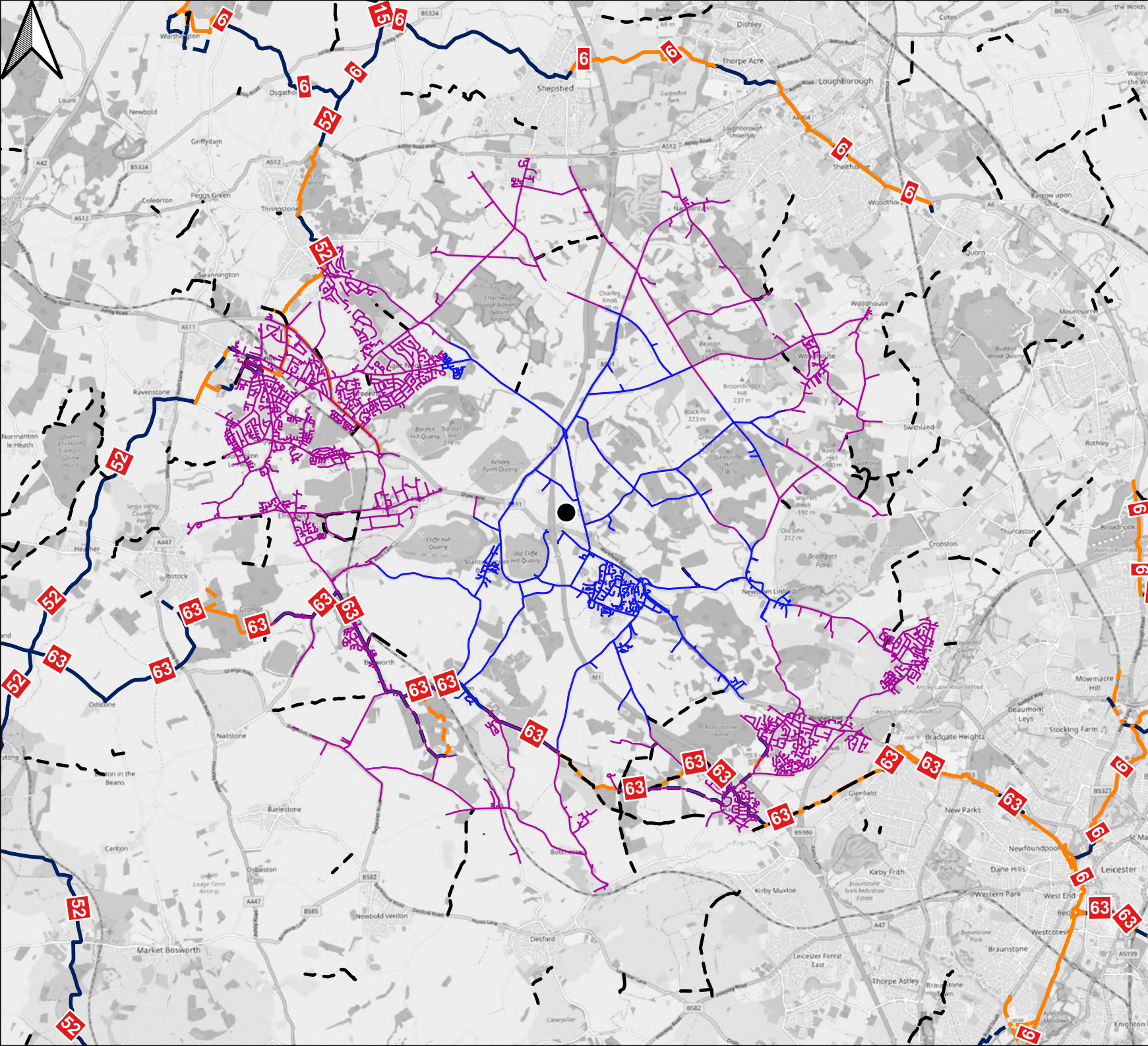


hub
TRANSPORT PLANNING LTD

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0 250 500 m





Legend

- Site Location
- 5km
- 8km
- - Public Bridleway
- + + Byway open to all traffic
- Restricted Byway
- On-Road Route not on NCN
- On-Road Route on NCN
- Traffic-Free Route not on NCN
- Traffic-Free Route on NCN

**Figure 3.3 - Cycling Distances
T22523 Markfield B8**

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0 2 4 km





Legend

 Morning Shift Changeover Arrivals

Figure 3.4 - Morning Shift Changeover (Arrivals)

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0 5 10 km





Legend

 Morning Shift Changeover (Departures)

Figure 3.4 - Morning Shift Changeover (Departures)

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0 5 10 km





Legend

 AM Peak (Arrivals)

Figure 3.5 - AM Peak (Arrivals)

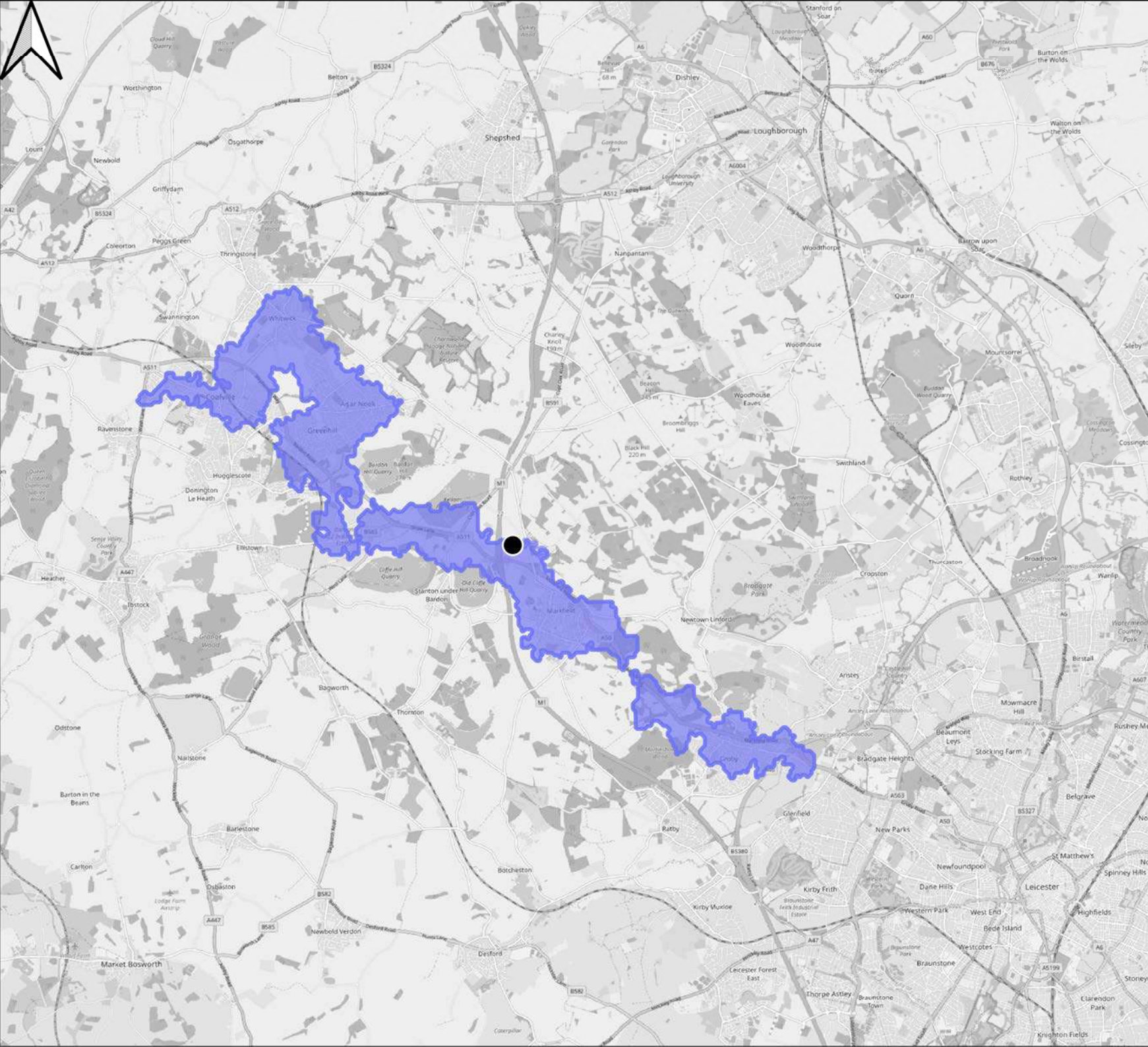
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0 5 10 km





Legend

 AM Peak (Departures)

Figure 3.5 - AM Peak (Departures)

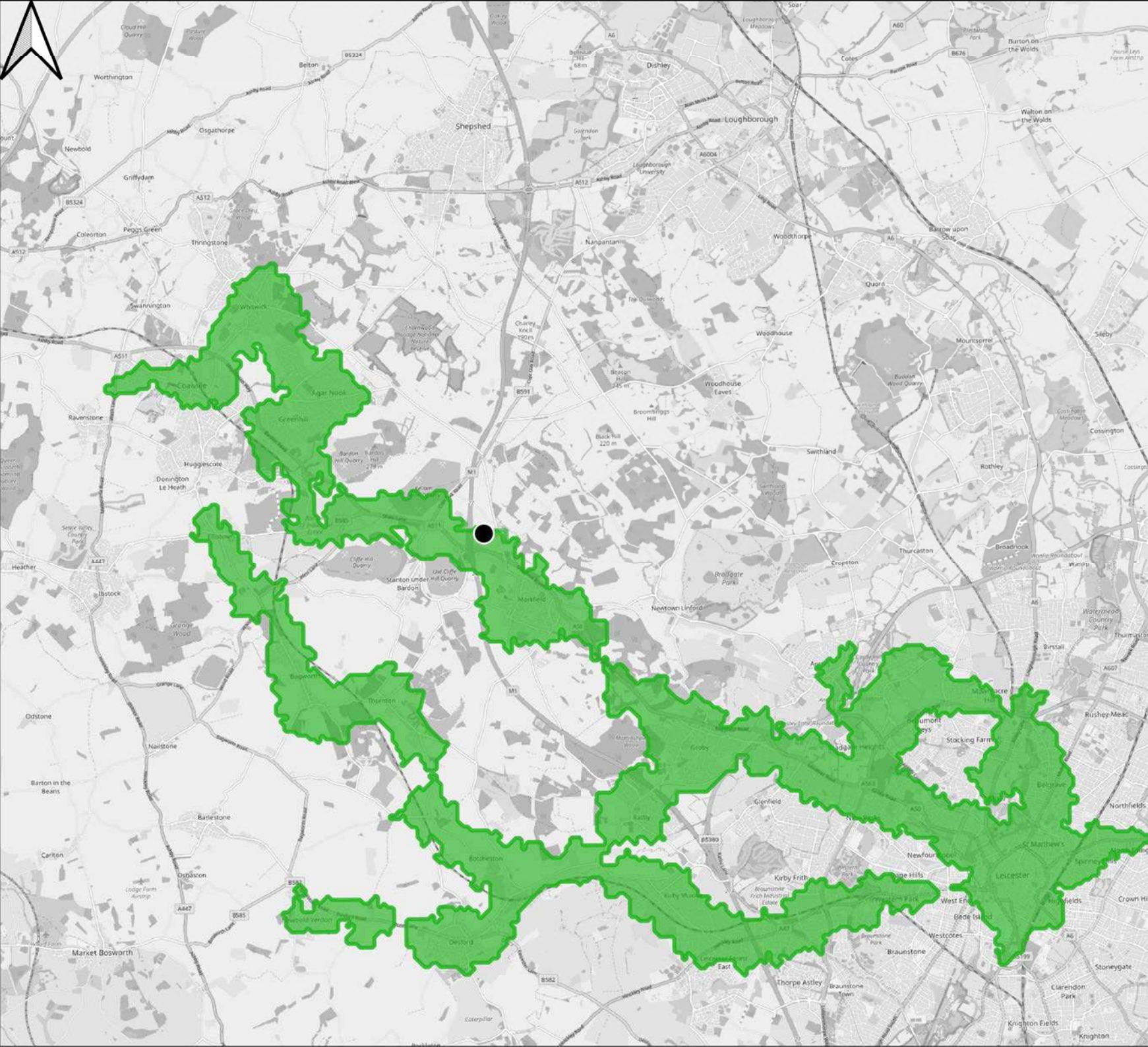
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0 5 10 km





Legend

 Afternoon Shift
Changeover (Arrivals)

**Figure 3.6 - Afternoon Shift
Changeover (Arrivals)**

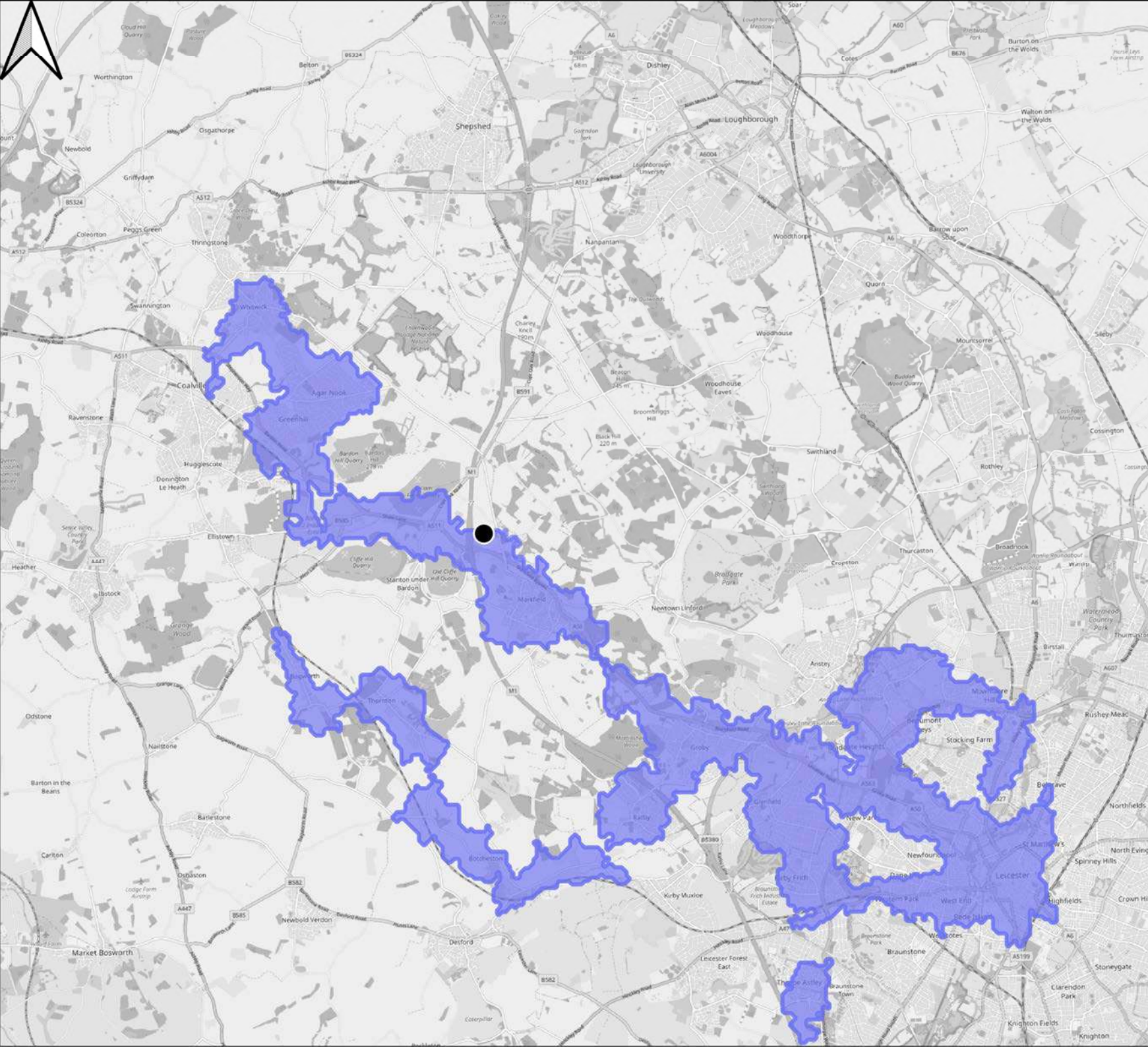
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TravelTime](https://docs.traveltime.com/api/overview/introduction) - [https://docs.traveltime.com/
api/overview/introduction](https://docs.traveltime.com/api/overview/introduction)

0 5 10 km





Legend

 Afternoon Shift
Changeover (Departures)

**Figure 3.6 - Afternoon Shift
Changeover (Departures)**

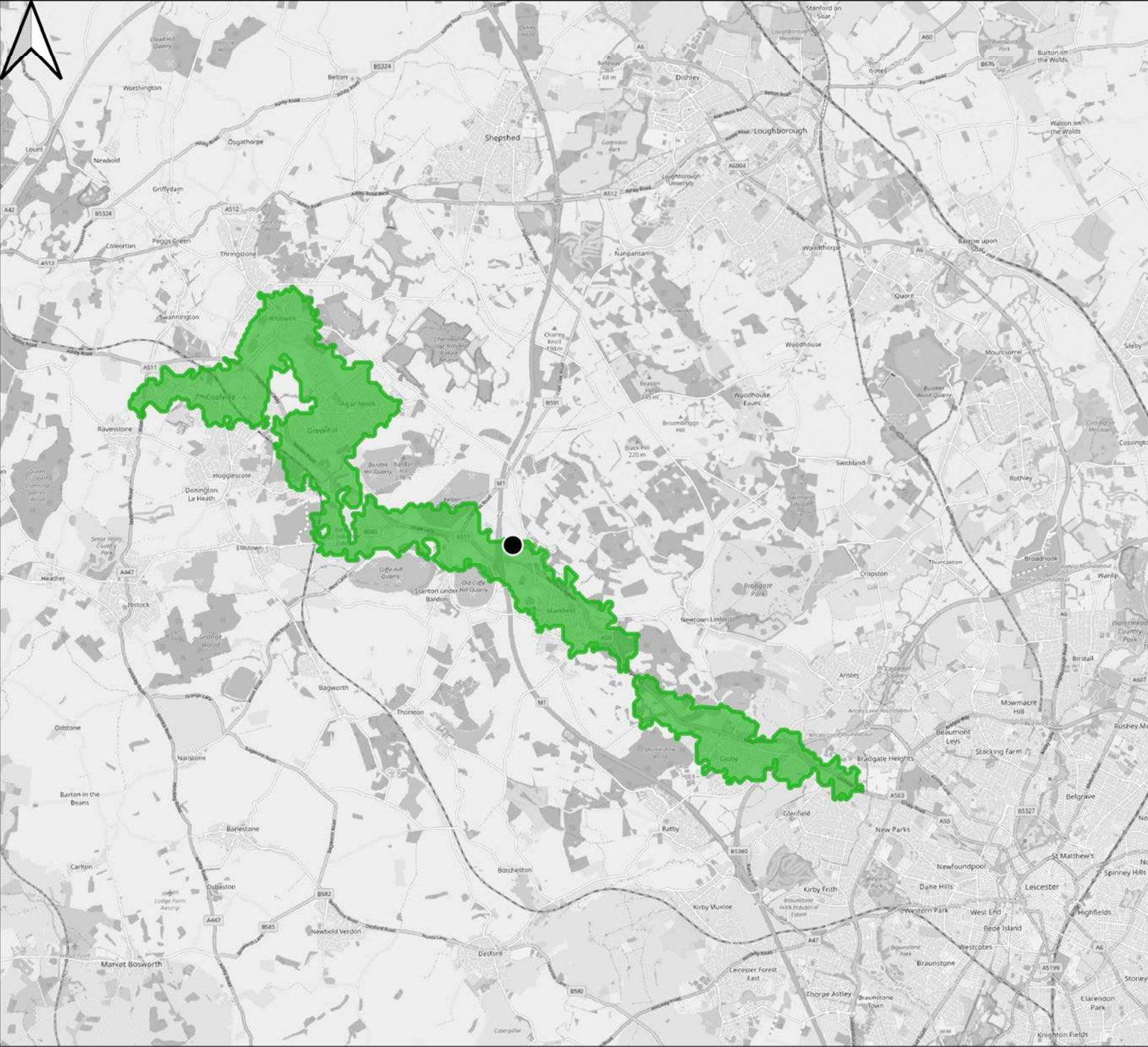
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api/overview/introduction](https://docs.traveltime.com/api/overview/introduction)

0 5 10 km





Legend

 PM Peak (Arrivals)

Figure 3.7 - PM Peak (Arrivals)

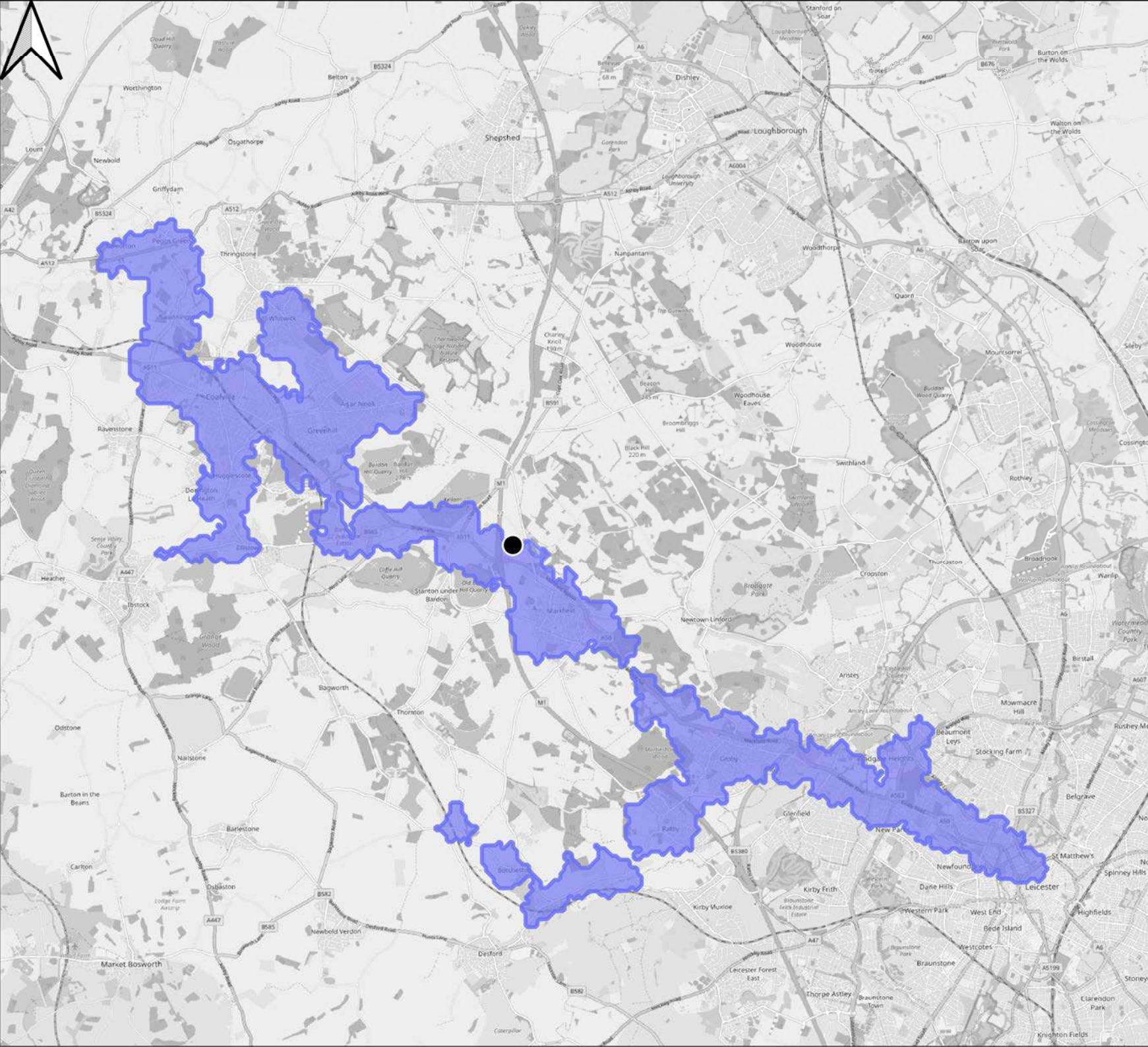
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0 5 10 km





Legend

 PM Peak (Departures)

Figure 3.7 - PM Peak (Departures)

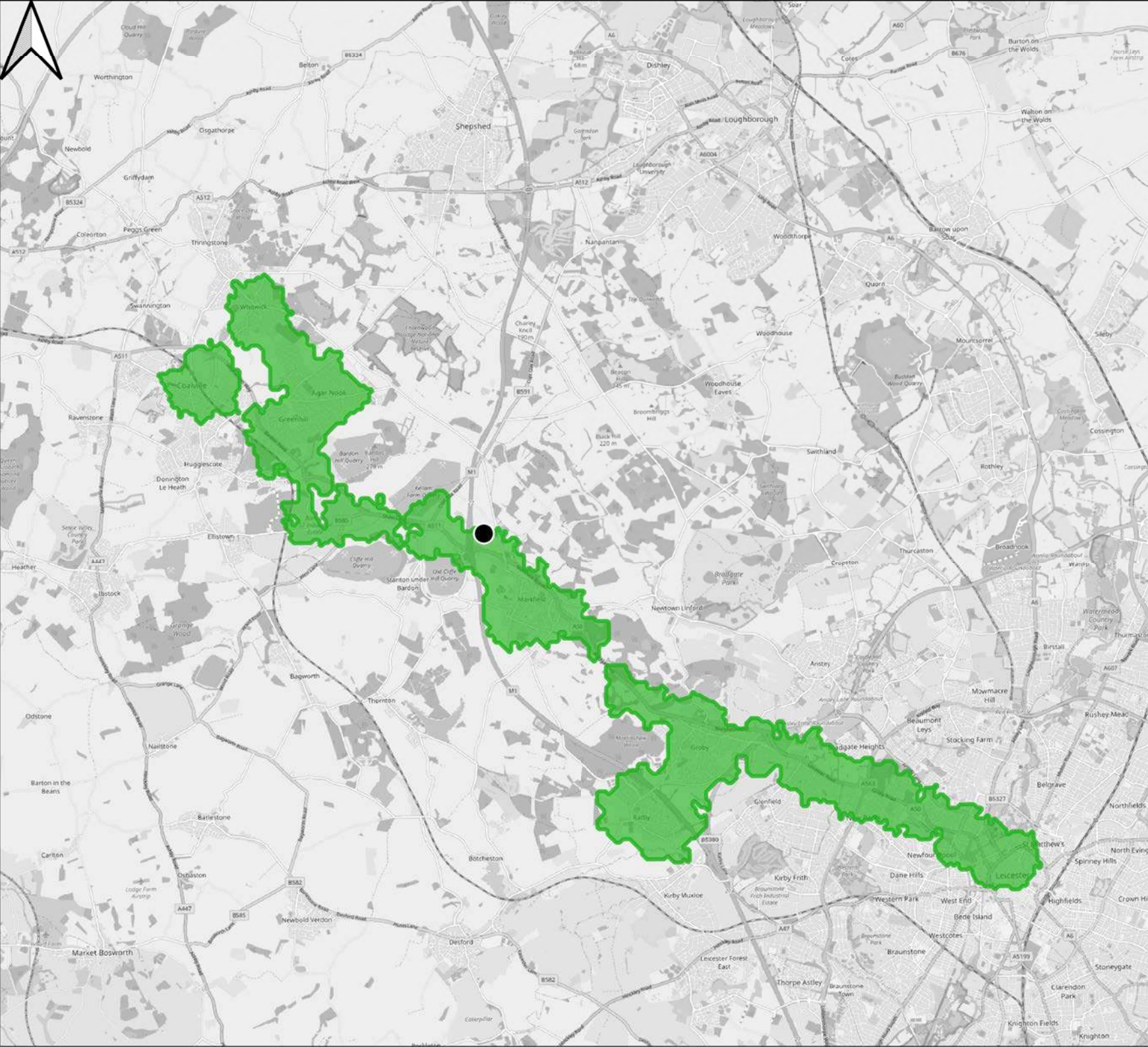
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0 5 10 km





Legend

 Evening Shift
Changeover (Arrivals)

**Figure 3.8 - Evening Shift
Changeover (Arrivals)**

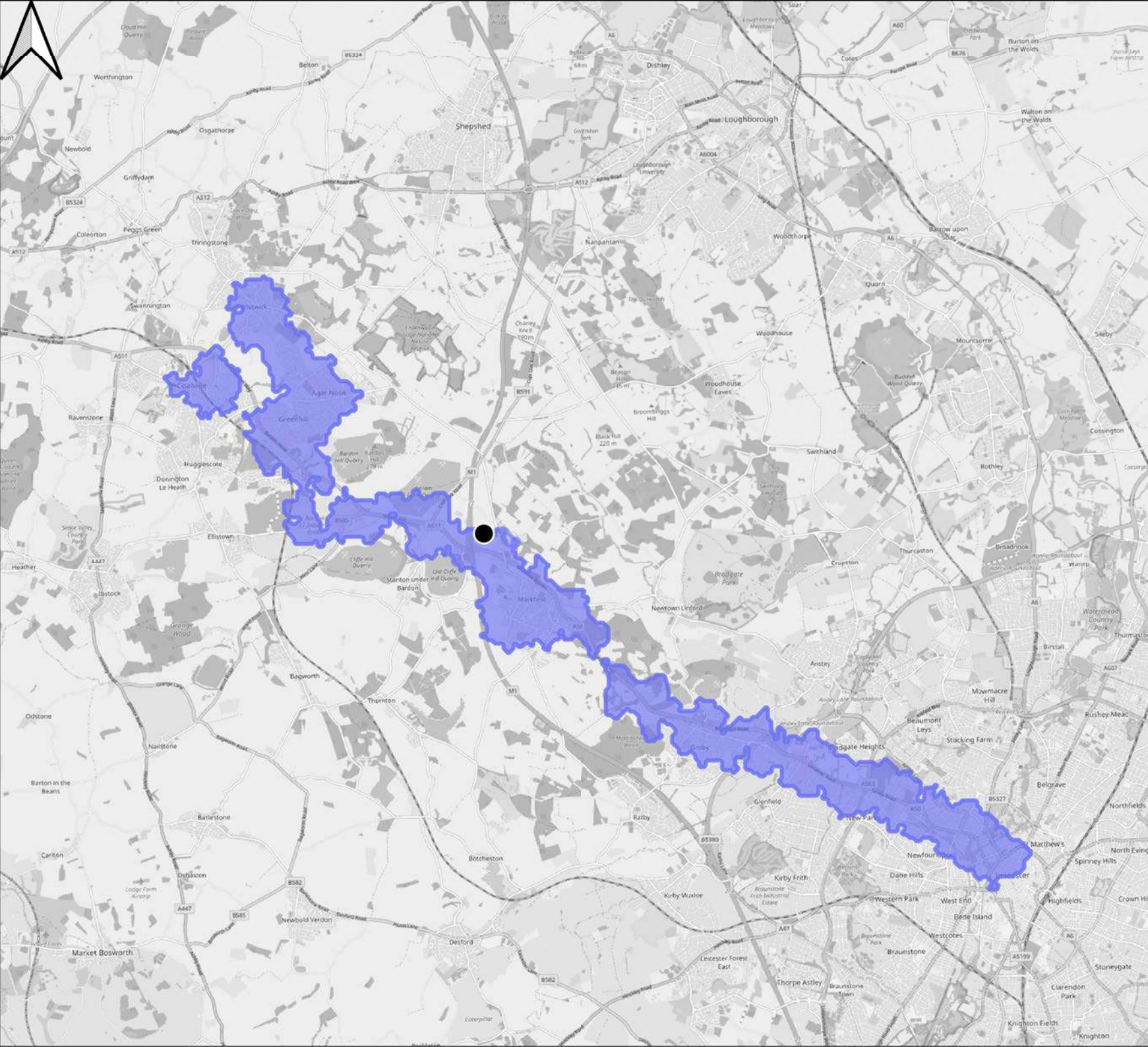
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TravelTime - [https://docs.traveltime.com/
api/overview/introduction](https://docs.traveltime.com/api/overview/introduction)

0 5 10 km





Legend

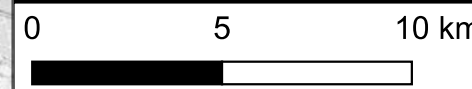
Evening Shift
Changeover (Departures)

**Figure 3.8 - Evening Shift
Changeover (Departures)**

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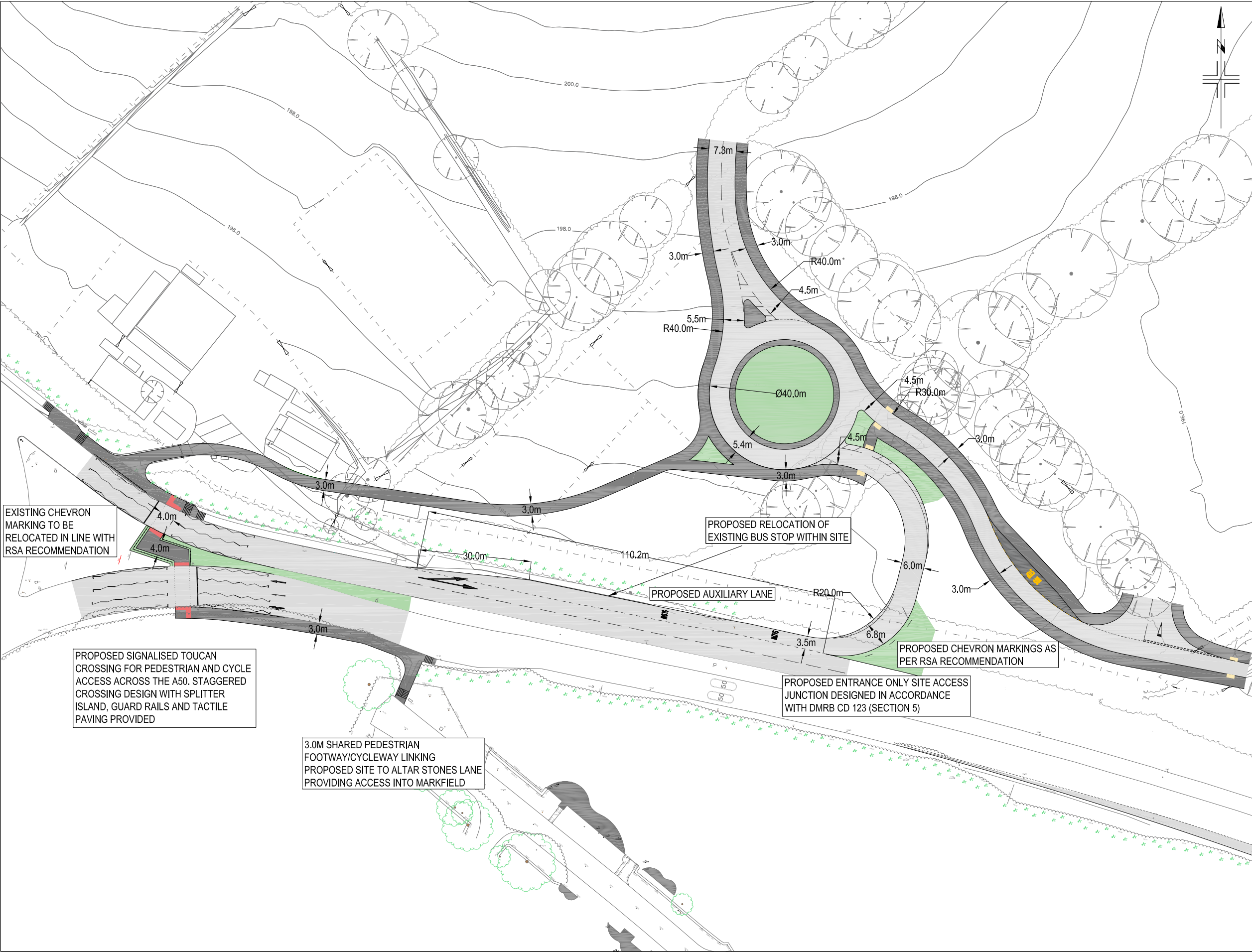


T22523

Land at Junction 22 of the M1, Cliffe Hill Farm



Drawings



1. THIS DRAWING IS NOT TO BE SCALED FOR CONSTRUCTION PURPOSES.
2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.

F	DRAWING UPDATED FOLLOWING STAGE 1 RSA	16.09.25	JP	GM
E	DRAWING UPDATED FOLLOWING MEETING WITH LHA	27.05.25	JP	GM
D	SITE ACCESS UPDATED FOLLOWING TEAM MEETING	10.05.24	JP	GM
C	SITE ACCESS UPDATED FOLLOWING CLIENT COMMENTS	27.11.23	BHB	JP
B	SITE ACCESS UPDATED FOLLOWING CONSULTATION	23.11.23	BHB	JP
A	SITE ACCESS UPDATED FOLLOWING CONSULTATION	28.02.23	ML	JP

REV	DESCRIPTION	DATE	BY	AUTH
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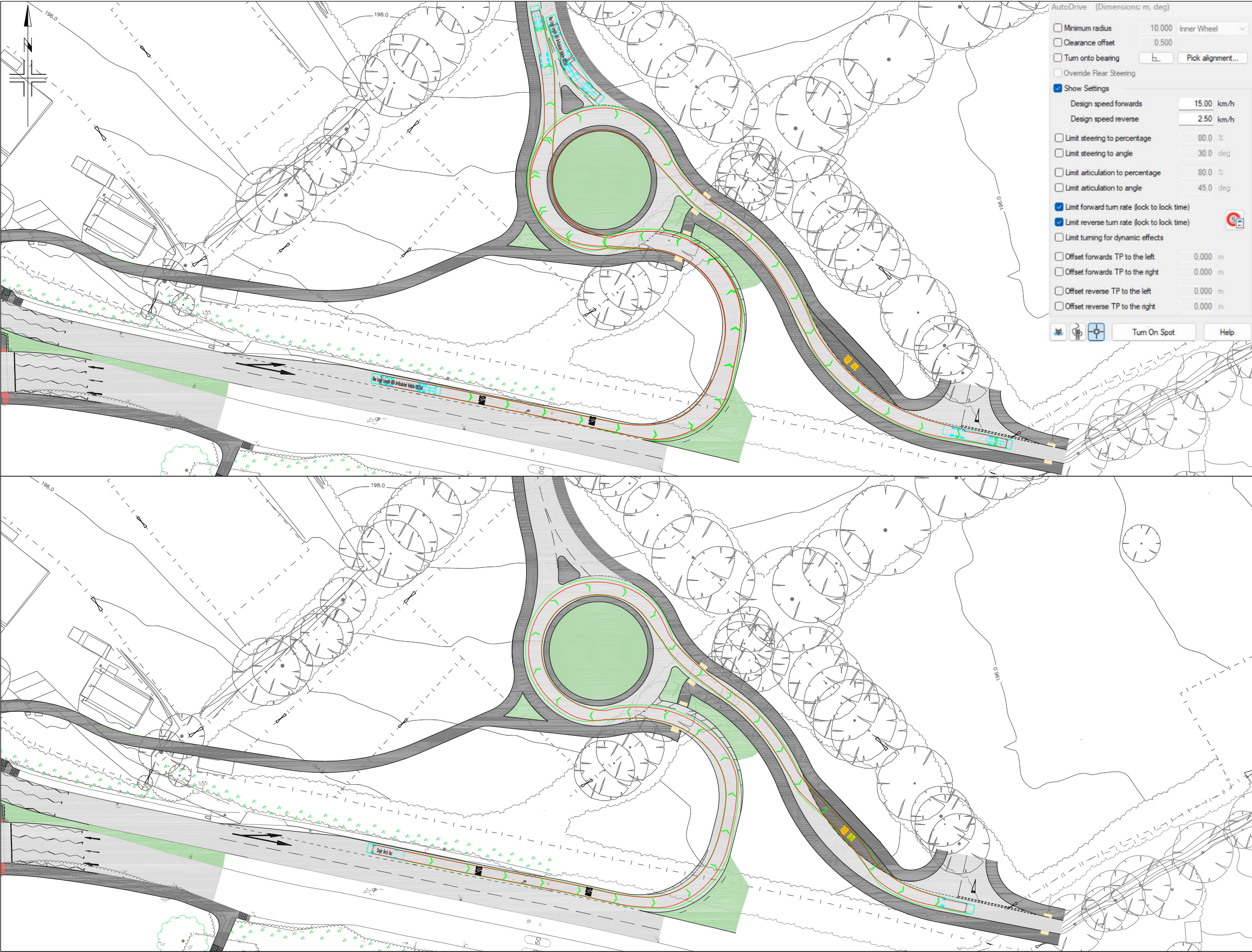
Hub Transport Planning Ltd
Floor 1B
4 Temple Row
Birmingham
B2 5HG
T : 0121 454 5530

CLIENT
CADDICK DEVELOPMENTS LIMITED

PROJECT
**LAND AT JUNCTION 22 OF THE M1
CLIFFE HILL FARM**

TITLE
**PROPOSED A50 SITE ACCESS WITH
AUXILIARY LANE**

DRAWN JP	AUTHORISED GM	SCALE 1:1000	SHEET SIZE A3	DATE 20.03.22
PROJECT NO. T22523		DRAWING NO. 001		REV F



AutoDrive (Dimensions: m, deg)

☐ Minimum radius

10.000

Inner Wheel

☐ Clearance offset

0.500

☐ Turn onto bearing

h

Pick alignment...

☐ Override Rear Steering

☒ Show Settings

Design speed forwards

15.00

km/h

Design speed reverse

2.50

km/h

☐ Limit steering to percentage

80.0

%

☐ Limit steering to angle

30.0

deg

☐ Limit articulation to percentage

80.0

%

☐ Limit articulation to angle

45.0

deg

☒ Limit forward turn rate (lock to lock time)

☒ Limit reverse turn rate (lock to lock time)

☐ Limit tuning for dynamic effects

☐ Offset forwards TP to the left

0.000

m

☐ Offset forwards TP to the right

0.000

m

☐ Offset reverse TP to the left

0.000

m

☐ Offset reverse TP to the right

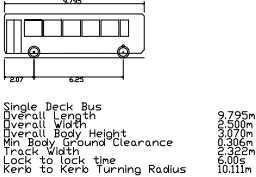
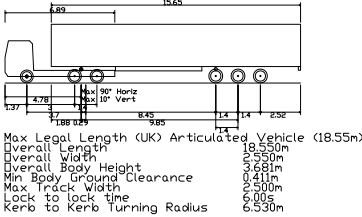
0.000

m

Turn On Spot

Help

1. THIS DRAWING IS NOT TO BE SCALED FOR CONSTRUCTION PURPOSES.
2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.



F	DRAWING UPDATED FOLLOWING STAGE 1 RSA	16.09.25	JP	GM
E	DRAWING UPDATED FOLLOWING MEETING WITH LHA	27.05.25	JP	GM
D	SITE ACCESS UPDATED FOLLOWING TEAM MEETING	10.05.24	JP	GM
C	SITE ACCESS UPDATED FOLLOWING CLIENT COMMENTS	27.11.23	BHB	JP
B	SITE ACCESS UPDATED FOLLOWING CONSULTATION	23.11.23	BHB	JP
A	SITE ACCESS UPDATED FOLLOWING CONSULTATION	28.02.23	ML	JP

REV	DESCRIPTION	DATE	BY	AUTH
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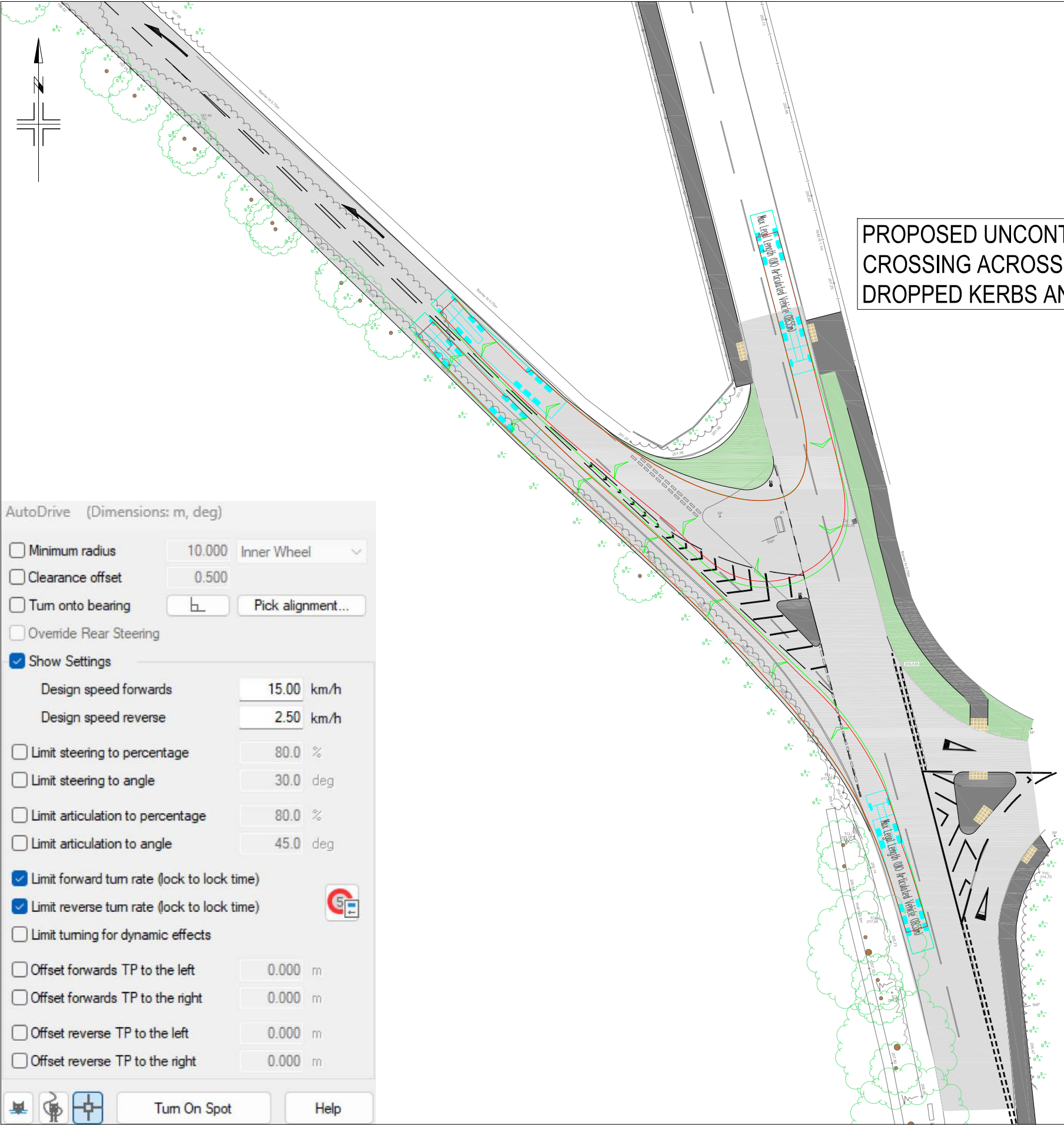
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CLIENT
CADDICK DEVELOPMENTS LIMITED

PROJECT
LAND AT JUNCTION 22 OF THE M1
CLIFFE HILL FARM

TITLE
PROPOSED A50 SITE ACCESS
SWEEP PATH ANALYSIS 01

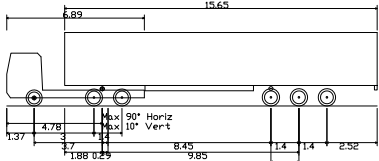
DRAWN	AUTHORISED	SCALE	SHEET SIZE	DATE
JP	GM	1:500	A3	20.03.22
PROJECT NO. T22523		DRAWING NO. 002		REV F



PROPOSED UNCONTROLLED PEDESTRIAN CROSSING ACROSS WHITWICK ROAD WITH DROPPED KERBS AND TACTILE PAVING

EXISTING SOUTHBOUND FOOTWAY FOR ACCESS INTO MARKFIELD UPGRADED TO 2.0M WIDTH. EXISTING JUNCTION CROSSINGS UPGRADED WITH DROPPED KERBS, TACTILE PAVING AND CENTRAL ISLAND/REFUGE

- 1. THIS DRAWING IS NOT TO BE SCALED FOR CONSTRUCTION PURPOSES.
- 2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.



Max Legal Length (UK) Articulated Vehicle (18.55m)
Overall Length 18.550m
Overall Width 2.550m
Overall Body Height 3.681m
Min Body Ground Clearance 0.411m
Max Track Width 2.500m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 6.530m

E	DRAWING UPDATED FOLLOWING STAGE 1 RSA	16.09.25	JP	GM
D	DRAWING UPDATED FOLLOWING MEETING WITH LHA	27.05.25	JP	GM
C	UPDATED FOLLOWING CLIENT COMMENTS	27.11.23	BHB	JP
B	UPDATED FOLLOWING CONSULTATION	23.11.23	BHB	JP
A	UPDATED FOLLOWING TOPOGRAPHICAL SURVEY	28.02.23	ML	JP

REV	DESCRIPTION	DATE	BY	AUTH
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CLIENT
CADDICK DEVELOPMENTS LIMITED

PROJECT
LAND AT JUNCTION 22 OF THE M1
CLIFFE HILL FARM

TITLE
PROPOSED WHITWICK RD/A50
WESTBOUND SLIP RD MITIGATION

DRAWN	AUTHORISED	SCALE	SHEET SIZE	DATE
JP	GM	1:500	A3	20.03.22

PROJECT NO.	DRAWING NO.	REV
T22523	003	E