

TRANSPORT TECHNICAL NOTE

Prepared on behalf of Liam O'Halloran

ARDENT CONSULTING
ENGINEERS

Project Name	Lindridge Lane, Desford
Client	Liam O'Halloran
Project Ref	2202690
Report Ref	2202690-01
Date	MAY 2022

DOCUMENT CONTROL

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
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1.0 INTRODUCTION & BACKGROUND

Ardent Consulting Engineers (ACE) were instructed by Leaf Architecture on behalf of Liam O'Halloran to provide transport related advice in respect of an outline planning application for the conversion of brownfield space and demolition of a building to provide four residential units. The site is located at Lindridge Lane, Desford, Leicestershire, LE9 9GN.

In accordance with Table PDP1 of LCC's current guidance 'Leicestershire Highway Design Guide', the scale of the proposed development requires no highway related assessment. However, for robustness this Transport Technical Note has been produced to demonstrate that the proposed development of 4 dwellings could be served by a suitable access at Lindridge Lane and that it should not result in a detrimental impact to the existing operation of the highway network.

The objective of this Technical Note is therefore to provide the local highway authority Leicestershire County Council (LCC) and the local planning authority, Hinckley and Bosworth Borough Council (HBBC), with the necessary level of detail to demonstrate that the site can be accessed safely and sustainably, whilst also assessing the transport impact the proposals would have on the existing highway network. As this Development requires no formal assessment, this report adopts a 'light touch' approach to addressing possible highway and transportation impacts, as recommended by current Planning Practice Guidance.

This TTN takes into account current Government policy contained within the National Planning Policy Framework [NPPF] (MHCLG, July 2021), as well as Planning Practice Guidance (DCLG et al). It also considers current best practice advice contained in the document 'Manual for Streets' (DfT, 2007) and its companion document 'Manual for Streets 2 – Wider Application of Principles' (CIHT, September 2010). Furthermore, it takes into account LCC's current 'Leicestershire Highway Design Guide' (2022).

2.0 SITE DESCRIPTION

2.1 Site Overview

The site is located at the south-eastern edge of Lindridge Lane and consists of primarily undeveloped land with a cluster of trees at the north-western edge and outbuilding at the south-eastern edge (associated with the cattery to the northeast of the proposed site). The redline boundary site itself measures approximately 0.38 hectares. The following extract shows the extent of the application site boundary and surrounding highway network. The site is bound by

Lindridge Lane to the northwest, Lyndale Boarding Cattery to the northeast, agricultural land to the southeast and residential properties to the southwest. The site is considered to be within a fairly rural location circa 700 metres of Desford Village Centre.



2.2 Highway Layout

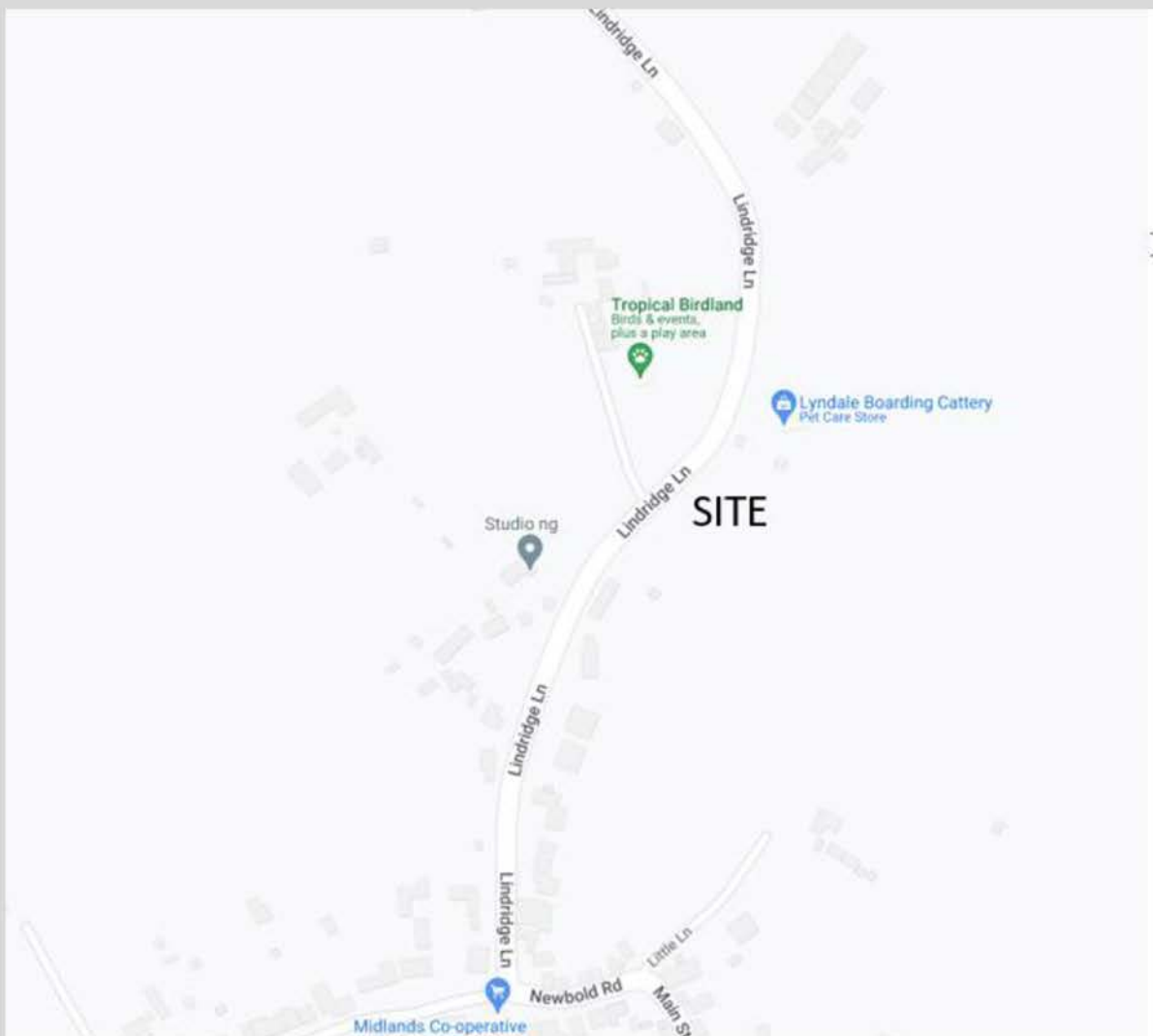
There is currently no direct access into the proposed site itself directly from the public highway. However, it is noted that the site and associated used are currently accessed via the Lyndale Boarding Cattery to the northeast.

Lindridge Lane is a two-way unclassified road that is subject to the national speed limit (60mph) in the vicinity of the site, which reduces to 30mph approximately 150 metres south of the site. Lindridge Lane connects to Newbold Road to the south via a priority-controlled T-junction which links to Desford Town Centre, and Merrylees Road to the north via a priority-controlled T-junction adjacent to Merrylees Industrial Estate. In the vicinity of the site, the carriageway has a width of approximately 5.3m. Whilst there are currently no footways along the site frontage, a footway begins circa 50m to the west along the northern edge of Lindridge Lane providing safe pedestrian

access to Desford.

Paragraph 015 within 'Travel plans, transport assessments and statements in decision-taking' reiterates this and advises that *"an analysis of the injury records on the public highway in the vicinity of the site access for the most recent three-year period, or five-year period if the proposed site has been identified as within a high accident area"*.

In accordance with the above, the 'CrashMap' website was examined (www.crashmap.co.uk) for any details of recorded Personal Injury Accidents within the past five years. This identified that there have been no recorded incidents on Lindridge Lane or on the surrounding local highway network between 2017 and 2021 (most recent five-year period data available).



The above information highlights that there are no trends in terms of incidents/clusters or suggest an on-going safety problem that could be intensified by the proposed development. It can therefore be concluded that there are no significant existing highway safety issues in any

specific location and no further detailed safety assessment or amends to the existing highway layout should be necessary.

2.3 Sustainability

The site is situated in an edge of village location. The Chartered Institution for Highways and Transportation (CIHT) document entitled 'Guidelines for Providing for Journeys on Foot' (GPJF) suggests walking distances which are relevant to a variety of journey purposes. These are reproduced in the below table.

CIHT Classification	Town Centres (m)	Commuting/School/Sightseeing (m)	Elsewhere/Local Services (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

Further to the above, the 'GPJF' document provides guidance on how to encourage pedestrian travel. Paragraph 3.31 states that:

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

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

For 'Commuting/School/Sightseeing' it suggests that 2000 metres is a preferred maximum walking distance, which equates to an approximate 25 minutes' walk, based on a typical walking speed of 1.4 metres per second (circa 80 metres per minute). The following extract is taken from traveltimeplatform.com and shows where residents of the site can travel to / from within a 25-

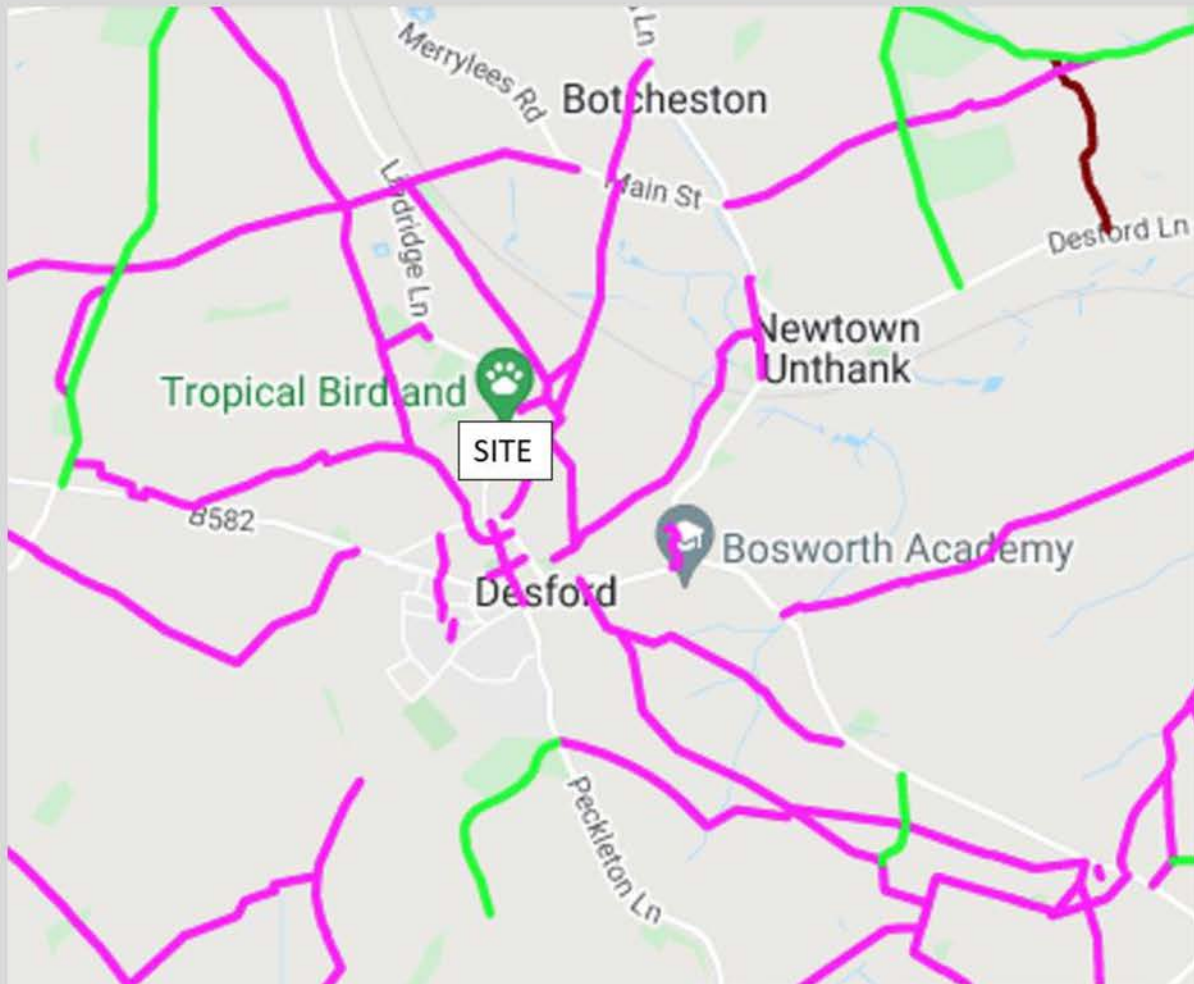
minute walk (circa 2000 metres).



Within 200m (25 minutes) walking distance of the site, local services and schools can be accessed such as the Co-operative foodstore, Desford Free Church, Desford Medical Centre, Desford Church Hall, The Bluebell Inn, Bosworth Academy and Desford Community Primary School.

At present the site can be accessed on foot from Desford by a footway which extends on the western edge of Lindridge Lane. However, this footway currently ends at the 'birdland' site adjacent to the site frontage. To the northeast of the site there are no footways extending north towards Merrylees Road.

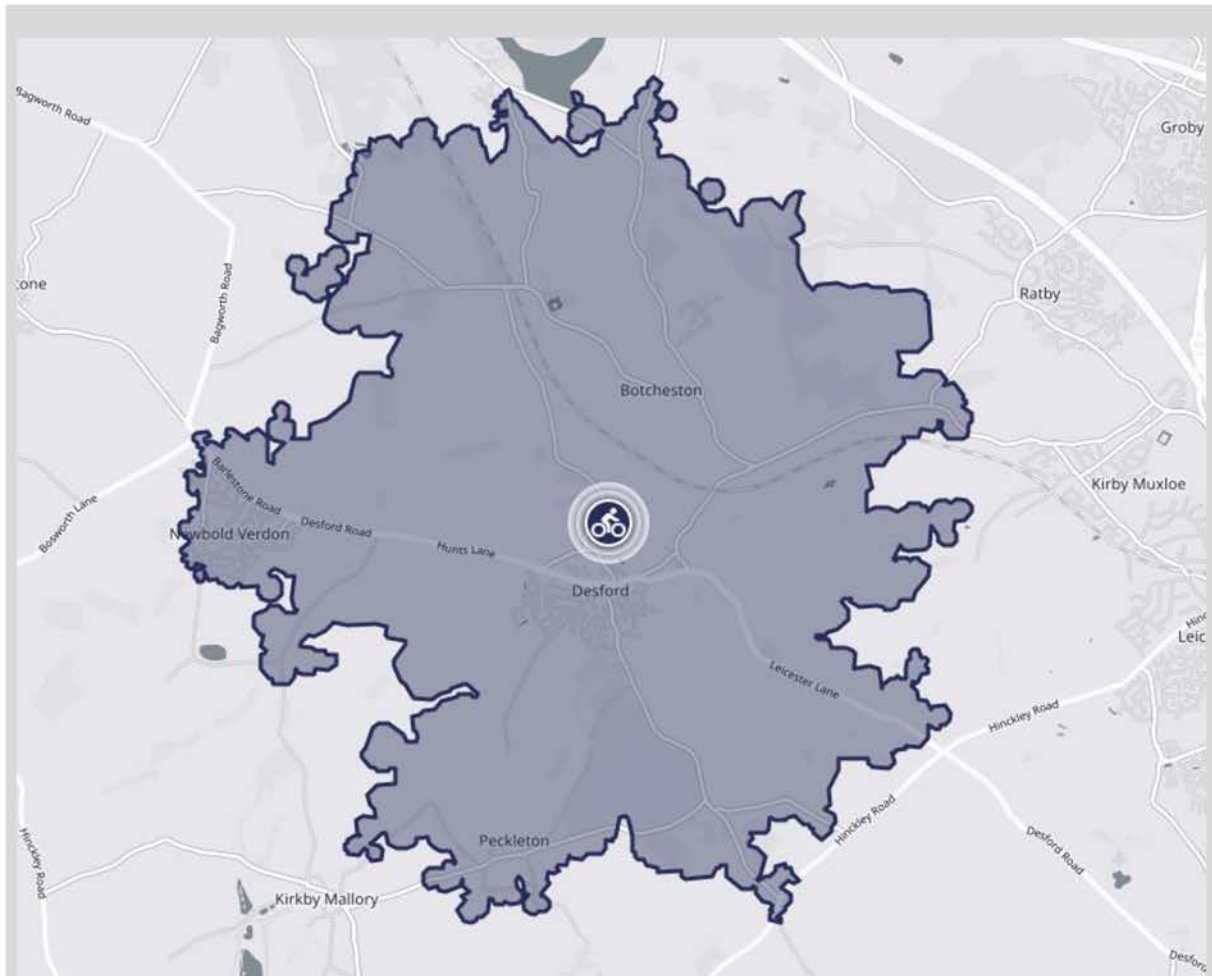
Inspection of Leicestershire County Council's mapping portal confirms that a number of traffic-free public rights of ways existing in close proximity to the site. These link the site to a number of areas such as Botcheston, Newtown Unthank and Newbold Verdon.



Local Transport Note 1/20 – Cycle Infrastructure Design (Department for Transport (DfT), July 2020) states that:

"Two out of every three personal trips are less than five miles in length² –an achievable distance to cycle for most people, with many shorter journeys also suitable for walking. For schoolchildren the opportunities are even greater: three quarters of children live within a 15-minute cycle ride of a secondary school, while more than 90% live within a 15-minute walk of a primary school".

It is generally recognised that a typical cycle speed of 12mph (19kph) would result in a 5-kilometre isochrone equating to a journey time of approximately 16 minutes. The following extract shows an extract from traveltimeplatform.com showing where residents of the site can travel to / from within a 15-minute cycle (circa 5-kilometre cycle).



The 5 kilometre isochrone catchment area centred on the site demonstrates that the surrounding areas including the entirety of Desford, Botcheston, Peckleton and Newbold Verdon are located within a comfortable cycling distance. Due to the lightly trafficked nature of the surrounding highway network, it is considered that cycling within the carriageway should be sufficient in this instance.

Guidance from the Chartered Institution of Highways and Transportation (CIHT) document 'Guidelines for Planning for Public Transport in Development' indicates that ideally, a bus stop should be located within 400m from a new development. However, Section IN6 of the Leicestershire design guide suggests that '*...in more rural areas...*' residential development sites should be sited within 800 metres (10 minutes) walk of an hourly bus service.

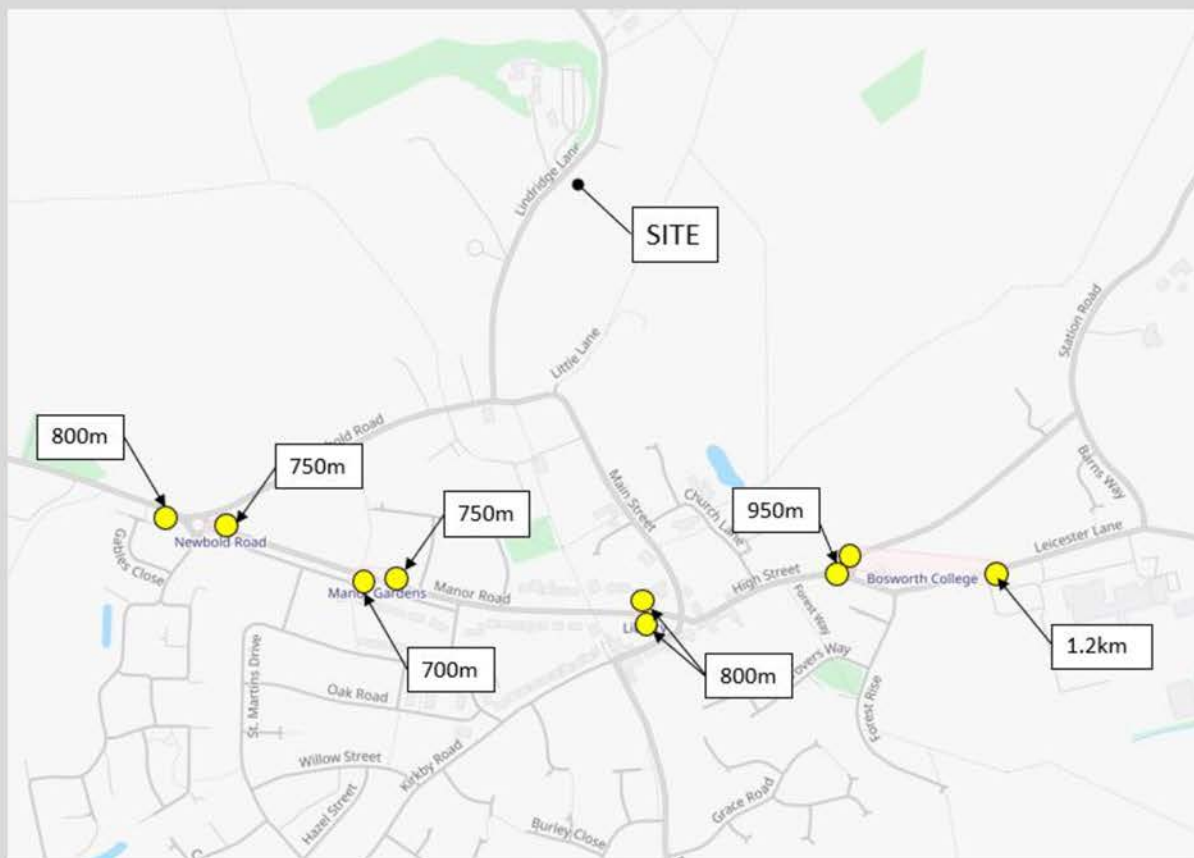
In accordance with the NPPF consideration must be given to the practicality of providing a range of sustainable travel opportunities rather than adhering strictly to 'yardstick' measurements for each mode. In this context Paragraph 29 of the NPPF states that the:

TRANSPORT TECHNICAL NOTE

Prepared on behalf of Liam O'Halloran

"...transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas."

As shown within the following extract, there are a total of five bus stops located within 800m walking distance of the site on Manor Road and Hunts Lane.



These stops are served by route numbers 152 and 153, which operates at a combined frequency of approximately one service every hour from Monday to Saturday. This service connects the site to Leicester.

Taking the above information into consideration, the site is suitably served by bus with routes providing access to a mix of educational, recreational, retail, health and employment opportunities. Bus stops are considered to be within acceptable pedestrian travel distances given the nature of the site, with routes to the stops being relatively direct and pleasant to travel along.

3.0 DEVELOPMENT PROPOSALS

3.1 Overview

The proposed scheme seeks to demolish an existing building relating to the existing cattery and develop a total of 4 detached residential units. Access to the cattery will remain from Lindridge Lane to the north of the site until August 2022, from which point the cattery will cease to operate.

Vehicular access will be in accordance with Leicestershire County Councils 'Leicestershire Highway Design Guide' (2022) and assessed with vehicle tracking. Figure DG17 of the Leicestershire Highway Design Guide confirms that an unadopted shared surface driveway should be suitable to serve up to 25 dwellings. For a development of 2 to 5 units a shared surface carriageway should be provided measuring 4.25 metres wide. However, as the internal access road is to extend over 25 metres in length and accommodate internal refuse collection, this should be increased to 5 metres wide.

In light of the above, **Drawing Number 2202690-001** has been produced to demonstrate how a priority-controlled site access could be provided at Lindridge Lane. This includes a 5 metres wide shared surface access with 6 metres kerb radii and 1 metre wide verges along both sides of the carriageway to accommodate internal refuse collection. Approximately 14 metres south-east of Lindridge Road, the internal shared surface access increases in width to a maximum of 6.2 metres around the bend to accommodate refuse vehicle manoeuvres along with cars passing around the bend itself. A suitably sized turning area has also been provided within the internal layout to allow the RCV to access/egress the site in a forward driving gear. **Section 3.4** of this TTN provides further details as to why internal refuse collection could be beneficial in this instance. Furthermore, it should be noted that a pedestrian link from the site to the existing footway on Lindridge Lane is to be provided, which shall include a dropped kerb pedestrian crossing with tactile paving.

The results of the speed survey (see **Appendix A**) confirmed 85th percentile wet weather vehicle speeds of 37.70mph (60.66kph) in the northbound direction and 40.70mph (65.49kph) in the southbound direction.

The precise visibility splays at the proposed site access for the development have been calculated using the measured 85th percentile speeds and current best practice guidance contained within MfS2, which recommends within Paragraph 1.3.2 that 'as a starting point for any scheme affecting non-trunk roads, designers should start with MfS'. Paragraph 10.1.13 of MfS2 provides a detailed formula for calculating visibility splays, taking into account the percentage of HGV movements and vehicle speeds.

During the speed survey it was noted that vehicle speeds were above 60kph in both directions. Table 10.1 in MfS2 provides specific criteria for calculating the Stopping Sight Distance. Hence, the splay requirements have been calculated by adopting a 0.375g deceleration rate and 2.0 seconds reaction time was used.

The tables contained within **Appendix A** show that by adopting this approach visibility splays of 84 metres to the north and 75 metres to the south would be required from the improved site access at Lindridge Road.

Drawing Number 2202690-001 shows the proposed junction layout and demonstrates that the required visibility splays can be achieved in both directions from a 2.4 metres setback distance to 1 metre into the carriageway, within land that is either under the control of the client or publicly maintained highway.

3.2 Car Parking

The Leicestershire Highway Design Guide includes specific car parking standards for developments between 1-5 houses as follows:

- *"One space per dwelling:*
 - *where car ownership may be low, such as town centres and other locations where services can easily be reached by walking, cycling or public transport.*
- *Two spaces for each dwelling:*
 - *urban locations with poor access to services and poor public transport services;*
 - *three-bedroom dwellings in suburban or rural areas; and*
 - *other locations where car ownership is likely to be higher than locations that are better served by public transport.*
- *Three spaces for each dwelling:*
 - *four-bedroom dwellings in suburban or rural areas; or*
 - *other locations where car ownership is likely to be higher than locations that are better served by public transport."*

The proposals consist of 4 x 4-bed dwellings in a more rural location. Therefore, as shown within **Drawing Number 2202690-001**, each property includes a driveway that is sufficient to

accommodate a minimum of three cars.

Furthermore, garages are to be provided for each property that are of a suitable size to contribute towards the provision of allocated car parking spaces. These are to be constructed with the following minimal internal garage dimensions:

- Standard single = 6m x 3m, with minimum door width of 2.3m
- Use by disabled = 6m x 3.3m with minimum door width of 2.8m
- Double = 6m x 6m, with minimum door width of 4.2m.

3.3 Cycle Parking

The Leicestershire Highway Design Guide includes the following advice with regards to cycle parking:

If cycle parking is not provided for residential developments, it may affect the way we consider the use of garages, i.e. whether they should count towards parking provision.

It is considered that cycle parking should be provided within a garage or other secure store such as a shed within the curtilage of the unit. Each dwelling is to include a double garage which would be sufficient for both car and cycle parking in this instance. Furthermore, it is considered that there is sufficient garden space for residents to put sheds for the use of bike storage if and when required.

3.4 Servicing Arrangements

In line with the recommendations contained in MfS, the proposed development should allow for a refuse collection vehicle parking at the kerbside adjacent to all dwellings, or manoeuvre to within 25 metres distance for refuse workers of any designated collection points, which should be no further than 30 metres distance for residents.

Generally, a development of this scale would have waste collected on-street, which is likely to be the current arrangement for existing properties served via Lindridge Lane. However, the access has been designed to accommodate internal refuse collection to include an internal turning head so that refuse workers are within 25m of a bin collection area. **Drawing Number 2202690-001** demonstrates how a large refuse vehicle can enter the site access via Lindridge Lane, manoeuvre within the turning head at the south-eastern corner of the site an exit onto Lindridge Lane in a forward gear. The drawing also shows how the refuse vehicle can manoeuvre within 25 metres of

each dwelling.

Deliveries to the site will also occur internally via the new site access to prevent on-street parking within the public highway. Given the low level of residential units proposed, it is unlikely that the development will generate an excessive increase in deliveries across the day. As a general rule, residential development attracts a delivery demand of circa 0.05 vehicles per dwelling per day i.e. approximately one delivery made every five weeks. This is equivalent to circa 1 vehicle per 5 days based on the proposals for 4 dwellings. Therefore, there would be no detrimental impact on the surrounding highway network as a result of deliveries.

It is also considered that other day to day deliveries such as Royal Mail would not change significantly from the existing site with the low number of dwellings proposed on the site.

4.0 Trip Generation

4.1 Existing Development

This section seeks to establish the level of weekday peak hour traffic movements generated by the proposed residential development. Although the existing site could result in a number of vehicular movements associated with the cattery which as discussed above will cease to operate from August 2022. This concludes that for a robust assessment no trips for the existing development have been considered.

4.2 Proposed Development

The category 'Residential – Houses Privately Owned' was searched within TRICS, specifying all available weekday multi-modal surveys ranging between the minimum and maximum number of dwellings available to maximise the number of comparable sites with regards to location. The search excluded sites in Greater London, Wales, Scotland, Ireland and Northern Ireland, as well as sites situated 'edge of town centre', 'edge of town', 'free standing' and 'town centre' ('Suburban' and 'neighbourhood centre' sub-categories remaining only). Surveys undertaken during the COVID-19 pandemic were also excluded. A selection of 6 to 50 no od welling was selected averaging at 30 dwelling with the survey. This search resulted in 9 surveys taken from 9 sites. Following a review of the available sites, none of the sites were considered to be noticeably more comparable than the others and so the average trip rates from all sites were extracted in this instance.

The resulting vehicular trip rates (per unit) and commensurate person trip generation for the proposed 4-unit scheme are shown in the below table with the full output data contained within **Appendix B**.

Site	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)			Weekday 12-hour (07:00-19:00)		
	Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
Person Trip Rates (per unit)	0.279	0.942	-	0.619	0.347	-	4.269	4.579	-
Person Trip Generation (4 units)	1	4	5	2	1	4	17	18	35

The mode of travel for the proposed development has been determined from the 'Method of Travel to Work' (residential population) dataset provided within the 2011 specification Census database for the 'Hinckley and Bosworth 005' Middle Super Output Area (see **Appendix C**). This was used to identify a suitable modal split for the proposed residential use, and the following shows this modal split along with the resulting peak hour person trips by each mode (any discrepancies in the figure are due to rounding).

Mode	Share	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)			Weekday 12-hour (07:00-19:00)		
		Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
Train	0.46%	0	0	0	0	0	0	0	0	0
Bus	3.35%	0	0	0	0	0	0	1	1	1
Taxi	0.11%	0	0	0	0	0	0	0	0	0
Motorcycle	0.70%	0	0	0	0	0	0	0	0	0
Car Driver	82.93%	1	3	4	2	1	3	14	15	29
Car Passenger	4.48%	0	0	0	0	0	0	1	1	2
Bicycle	1.49%	0	0	0	0	0	0	0	0	1
On foot	6.48%	0	0	0	0	0	0	1	1	2
Total	100.0%	1	4	5	2	1	4	17	18	35

4.3 Net Change in Traffic

Current national and local guidance for Transport Assessments does not include any prescriptive guidance on determining where significant traffic impacts could occur, noting that the NPPF simply stipulates that impacts should not be 'severe'. In the absence of any such prescriptive guidance, the previous advice contained in the archived document 'Guidance on Transport Assessment' (GOTA) has been used as a starting point to consider where further detailed assessment might be warranted.

For further detailed assessment, increases of 30 two-way peak hour vehicular movements are a general starting point for determining where a significant impact could occur based on the former GOTA guidance, however it is common that higher hourly increases of 45 to 60 vehicles (or higher) could be satisfactorily accommodated where capacity and highway safety issues do not exist.

The above traffic generation calculations indicate that the proposed development would result in a maximum increase of 5 vehicular two-way movements during the morning and 4 during the evening peak periods. This equates to a maximum of 1 additional two-way movement every 12 minutes during the peak periods, which is not considered to be significant.

5.0 SUMMARY AND CONCLUSIONS

This Technical Note has been produced by Ardent Consulting Engineers (ACE) on behalf of Liam O'Halloran to provide transport related advice in respect of an outline planning application for the conversion of brownfield and an outbuilding to provide a total of 4 residential units. The site is located at Lindridge Lane, Desford, Leicestershire, LE9 9GN.

The proposed development will generate a small increase in demand for travel by non-car modes such as walking, cycling, and public transport, which could be satisfactorily accommodated by the existing infrastructure.

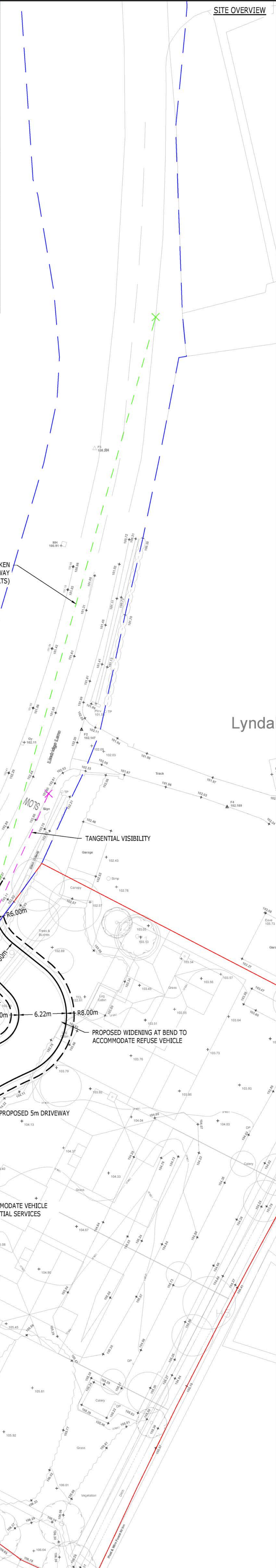
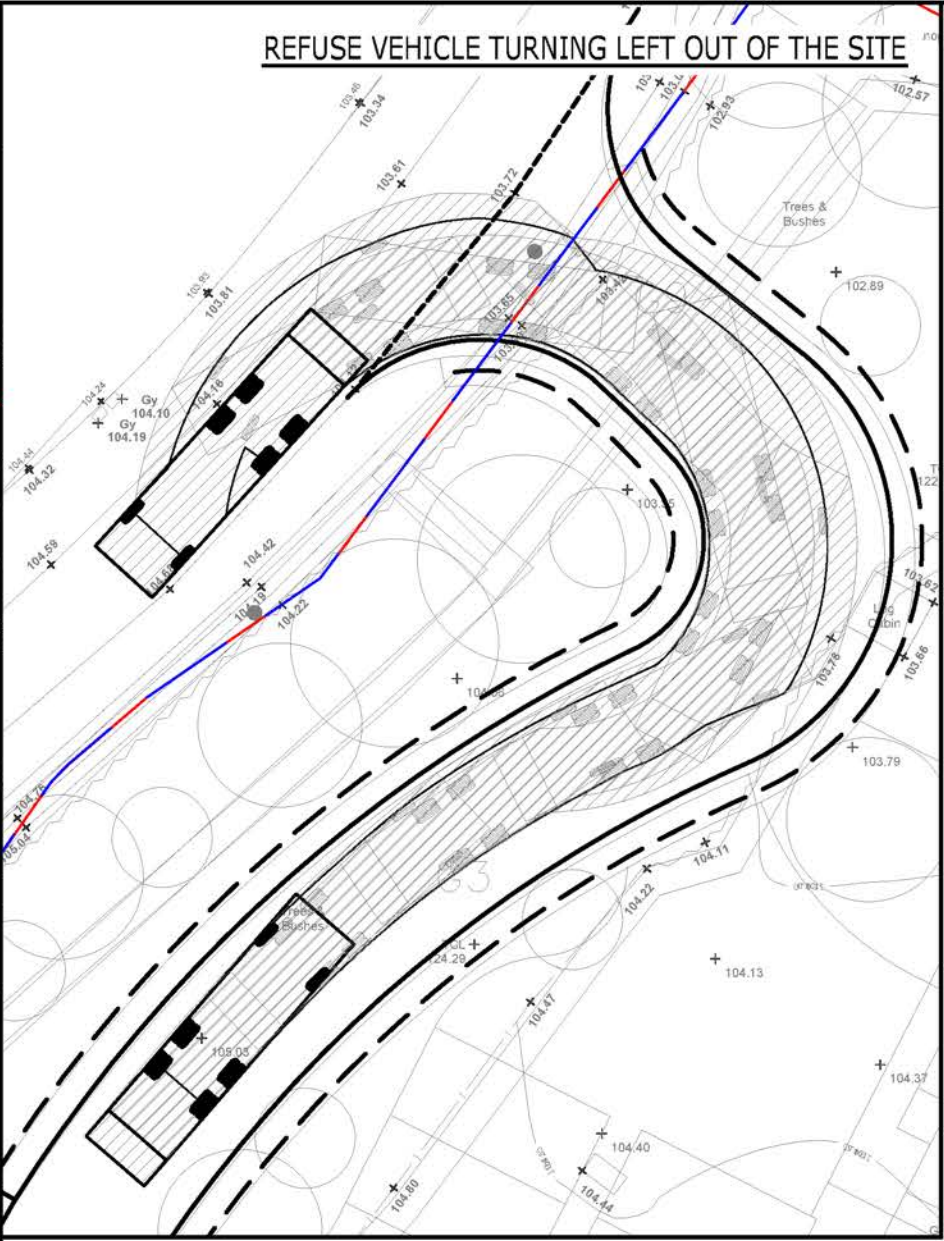
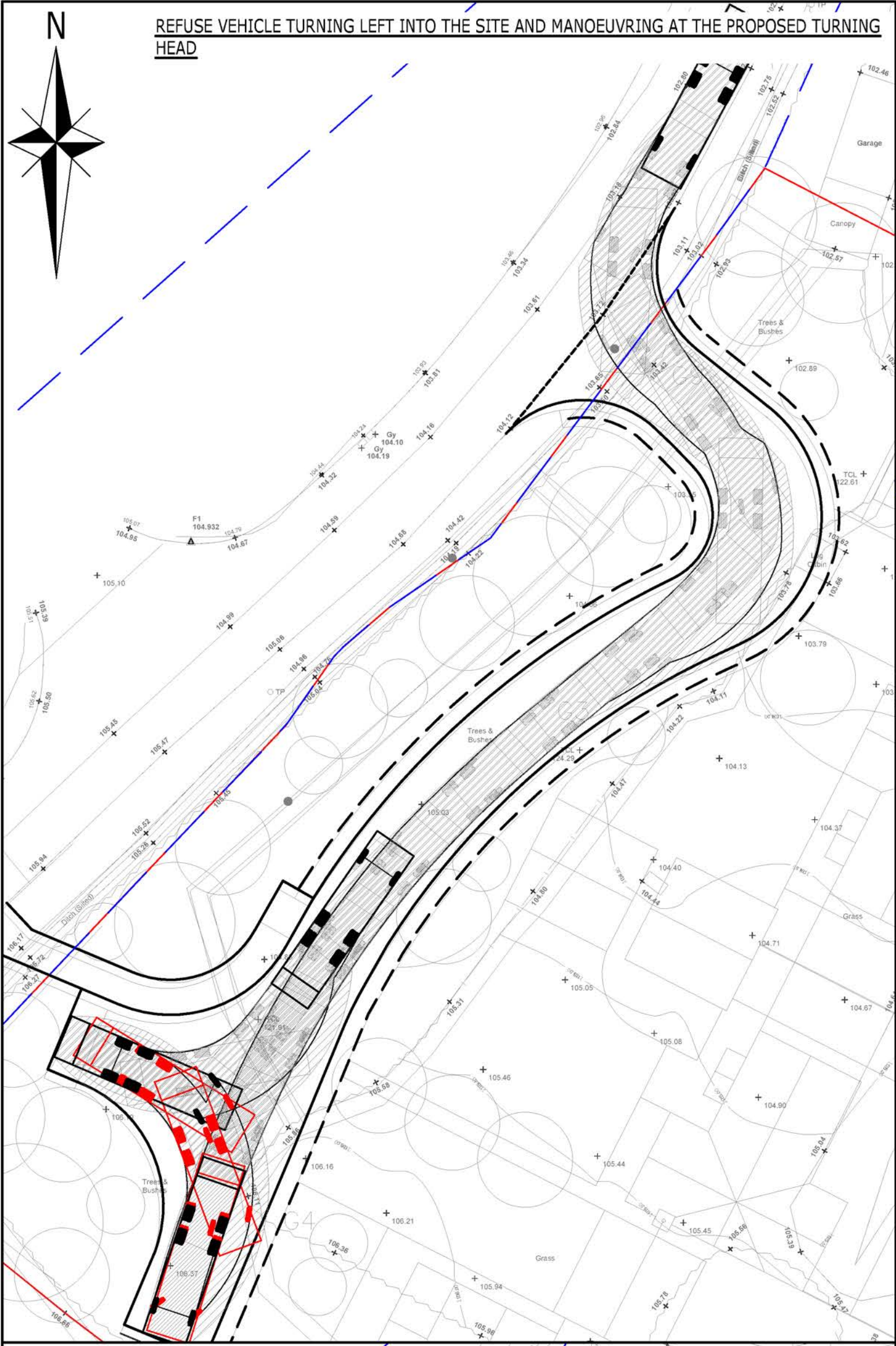
Inspection of the 'CrashMap' website (www.crashmap.co.uk) for the surrounding area has revealed that there are no existing highway safety concerns in the vicinity of the site as no incidents were recorded within the local surrounding highway network. It can be concluded that the additional traffic movements associated with the proposed development should not lead to any increased risk of collisions.

Drawing Number 2202690-001 shows how a policy and guidance compliant access arrangement can be provided at the eastern edge of Lindridge Lane. This includes providing internal turning facilities to prevent the requirement for bin collection and deliveries to occur on-street if required.

This report provides a review of the person trip generation by all modes for the proposed developments, based on Census and suitable TRICS data. It demonstrates that there would be a negligible increase in vehicle trips. As a result, the proposals associated with the development would not result in any adverse impacts on the surrounding highway network, and no mitigating improvements should be required.

Based on the details presented in this Technical Note, it is considered that the proposed development would be compliant with both local and national policy. It is therefore considered that the local highway authority should be in a position to support the planning application.

Drawings



NOTES

- JUNCTION DESIGN BASED ON LCC CURRENT DESIGN GUIDANCE.
- ACCESS SHOWN INDICATIVELY AND SUBJECT TO EXTENDED TOPOGRAPHICAL SURVEY/ LEVELS REVIEW, DETAILED DESIGN AND AGREEMENT WITH HIGHWAY AUTHORITY.
- RED LINE BOUNDARY INDICATIVELY PLOTTED THIS SHOULD BE CONFIRMED BY DESIGN TEAM.
- HIGHWAY BOUNDARY PLOTTED IN LINE WITH PLANS RECEIVED FROM LCC.
- VISIBILITY SPLAYS BASED ON SPEED SURVEY.

KEY

INDICATIVE SITE BOUNDARY —

HIGHWAY BOUNDARY —

Phoenix 2-23W (with Elite 2 6x4 chassis)

Overall Length	10.595m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.250m

Medium Sized Car

Overall Length	4.319m
Overall Width	1.886m
Overall Body Height	1.466m
Min Body Ground Clearance	0.229m
Max Track Width	1.591m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.042m

WORK IN PROGRESS

B	UPDATED SITE BOUNDARY	CL	RS	ATB	10.06.22
A	UPDATED HIGHWAY BOUNDARY	CL	RS	ATB	07.06.22
Rev	Description	Drm	Chk	App	Date

ARDENT

CONSULTING ENGINEERS

Third Floor
The Hallmark Building
52-56 Leadenhall Street
London
EC3M 5JE

Tel: 020 7680 4088
Web: www.ardent-ce.co.uk
E-mail: enquiries@ardent-ce.co.uk

Client:

LIAM O'HALLORAN

Project Title:

LINDRIDGE LANE, DESFORD

Drawing Title:

PROPOSED ROAD ACCESS

A1 Scale	Date	Designed by
1:200	24.05.22	GL
Drawn by	Checked by	Approved by
GL	RS	ATB

Drawing Number: **2202690-001**

Rev: **B**

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Appendix A
Speed Survey Results

Vehicle speeds	37.70 mph 60.66 kph 16.85 v (m/s) 283.92 v ²	Formula: $SSD = vt + v^2/2(d+0.1a)$	<table border="1"> <tr> <th colspan="2">Manual for Streets 2</th> <th colspan="2">DMRB</th> </tr> <tr> <td>Light Vehicles (less than 5% HGVs)</td> <td>HGVs/Buses (over 5% of total vehicles)</td> <td>All traffic (Maximum decel.)</td> <td>All traffic (Desirable Decel.)</td> </tr> <tr> <td>1.5s</td> <td>1.5s</td> <td>2s</td> <td>2s</td> </tr> <tr> <td>0.45g</td> <td>0.375g</td> <td>0.375g</td> <td>0.25g</td> </tr> </table>		Manual for Streets 2		DMRB		Light Vehicles (less than 5% HGVs)	HGVs/Buses (over 5% of total vehicles)	All traffic (Maximum decel.)	All traffic (Desirable Decel.)	1.5s	1.5s	2s	2s	0.45g	0.375g	0.375g	0.25g
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0.45g	0.375g	0.375g	0.25g																	
Driver Perception-Reaction time	2 t (s) 33.70 v x t	<table border="1"> <tr> <td>Perception-Reaction Time (t)</td> <td></td> </tr> <tr> <td>Deceleration Rate (g = 9.81m/s²)</td> <td></td> </tr> </table>		Perception-Reaction Time (t)		Deceleration Rate (g = 9.81m/s ²)														
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Deceleration Rate (g = 9.81m/s ²)																				
Deceleration Rate	0.375 g 3.68 d (m/s) 7.36																			
Gradient	0.00 a* 3.68 d+0.1a 7.3575 2(d+0.1a)	Enter gradient as positive for uphill towards junction and negative for downhill towards junction																		
Stopping Sight Distance (SSD) =	v t + $v^2 / 2(d+0.1a)$ 33.70 + 38.59 = 72.29																			
SSD Bonnet Adjusted (SSD+2.4)**	74.69																			

* for simplicity, gradient will be given as zero where details of levels are unavailable and observed gradients are deemed to be insignificant in terms of the effect on vehicle braking

** 2.4 metres added to splay to allow for bonnet length of approaching vehicles

RADAR VISIBILITY SPLAY CALCULATOR: LINDRIDGE LANE- NORTHBOUND

Vehicle speeds	40.70 mph 65.49 kph 18.19 v (m/s) 330.90 v ²	Formula: $SSD = vt + v^2 / 2(d+0.1a)$	<table border="1"> <thead> <tr> <th colspan="2">Manual for Streets 2</th> <th colspan="2">DMRB</th> </tr> <tr> <th>Light Vehicles (less than 5% HGVs)</th> <th>HGVs/Buses (over 5% of total vehicles)</th> <th>All traffic (Maximum decel.)</th> <th>All traffic (Desirable Decel.)</th> </tr> </thead> <tbody> <tr> <td>1.5s</td> <td>1.5s</td> <td>2s</td> <td>2s</td> </tr> <tr> <td>0.45g</td> <td>0.375g</td> <td>0.375g</td> <td>0.25g</td> </tr> </tbody> </table>		Manual for Streets 2		DMRB		Light Vehicles (less than 5% HGVs)	HGVs/Buses (over 5% of total vehicles)	All traffic (Maximum decel.)	All traffic (Desirable Decel.)	1.5s	1.5s	2s	2s	0.45g	0.375g	0.375g	0.25g
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1.5s	1.5s		2s	2s																
0.45g	0.375g	0.375g	0.25g																	
Driver Perception-Reaction time	2 t (s) 36.38 v x t	<table border="1"> <tr> <td>Perception-Reaction Time (t)</td> <td></td> </tr> <tr> <td>Deceleration Rate (g = 9.81m/s²)</td> <td></td> </tr> </table>		Perception-Reaction Time (t)		Deceleration Rate (g = 9.81m/s ²)														
Perception-Reaction Time (t)																				
Deceleration Rate (g = 9.81m/s ²)																				
Deceleration Rate	0.375 g 3.68 d (m/s) 7.36																			
Gradient	0.00 a* 3.68 d+0.1a 7.3575 2(d+0.1a)	Enter gradient as positive for uphill towards junction and negative for downhill towards junction																		
Stopping Sight Distance (SSD) =	v t + v ² / 2(d+0.1a) = SSD 36.38 + 44.97 = 81.36																			
SSD Bonnet Adjusted (SSD+2.4)**	83.76																			

* for simplicity, gradient will be given as zero where details of levels are unavailable and observed gradients are deemed to be insignificant in terms of the effect on vehicle braking

** 2.4 metres added to splay to allow for bonnet length of approaching vehicles

RADAR VISIBILITY SPLAY CALCULATOR: LINDRIDGE LANE- SOUTHBOUND

Manual Speed Survey,Desford

DATE : THURSDAY 19th MAY 2022

SPEED LIMIT: NSL

LOCATION: LINDRIDGE LANE

100% of free flowing vehicles

ROAD SURFACE: DRY

SINGLE CARRIAGEWAY

DIRECTION : NORTHBOUND				
SPEED (MPH)	CAR	LGV	HGV	BUS
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	1	0	0	0
19	1	0	0	0
20	0	0	0	0
21	1	0	0	0
22	2	0	0	0
23	0	0	0	0
24	1	0	0	0
25	1	1	0	0
26	3	0	0	0
27	3	0	1	0
28	3	0	0	0
29	3	0	0	0
30	8	3	0	0
31	10	0	1	0
32	4	0	0	0
33	6	0	0	0
34	8	0	0	0
35	9	0	0	0
36	6	0	0	0
37	6	0	0	0
38	6	1	0	0
39	3	0	0	0
40	2	0	0	0
41	4	0	0	0
42	2	0	0	0
43	0	0	0	0
44	0	0	0	0
45	0	0	0	0
46	0	0	0	0
47	0	0	0	0
48	0	0	0	0
49	0	0	0	0
50	0	0	0	0
51	0	0	0	0
52	0	0	0	0
53	0	0	0	0
54	0	0	0	0
55	0	0	0	0
56	0	0	0	0
57	0	0	0	0
58	0	0	0	0
59	0	0	0	0
60	0	0	0	0
61	0	0	0	0
62	0	0	0	0
63	0	0	0	0
64	0	0	0	0
65	0	0	0	0
66	0	0	0	0
67	0	0	0	0
68	0	0	0	0
69	0	0	0	0
70	0	0	0	0
71	0	0	0	0
72	0	0	0	0
73	0	0	0	0
74	0	0	0	0
75	0	0	0	0
SUM OF SPEEDS	3055	153	58	0
SUM OF SQUARES	102767	4769	1690	0
TOTAL VEHICLES	93	5	2	0

DIRECTION : SOUTHBOUND				
SPEED (MPH)	CAR	LGV	HGV	BUS
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	2	1	0
19	0	2	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	1	0	0	0
25	0	0	0	0
26	1	0	0	0
27	2	0	0	0
28	3	0	0	0
29	3	0	1	0
30	2	3	0	0
31	4	0	0	0
32	6	0	0	0
33	7	0	0	0
34	4	2	0	0
35	6	1	0	0
36	6	3	0	0
37	4	1	0	0
38	6	2	0	0
39	6	0	0	0
40	5	0	0	0
41	4	1	0	0
42	4	0	0	0
43	2	0	0	0
44	3	0	0	0
45	2	0	0	0
46	0	0	0	0
47	0	0	0	0
48	0	0	0	0
49	0	0	0	0
50	0	0	0	0
51	0	0	0	0
52	0	0	0	0
53	0	0	0	0
54	0	0	0	0
55	0	0	0	0
56	0	0	0	0
57	0	0	0	0
58	0	0	0	0
59	0	0	0	0
60	0	0	0	0
61	0	0	0	0
62	0	0	0	0
63	0	0	0	0
64	0	0	0	0
65	0	0	0	0
66	0	0	0	0
67	0	0	0	0
68	0	0	0	0
69	0	0	0	0
70	0	0	0	0
71	0	0	0	0
72	0	0	0	0
73	0	0	0	0
74	0	0	0	0
75	0	0	0	0
SUM OF SPEEDS	2894	529	47	0
SUM OF SQUARES	105348	17433	1165	0
TOTAL VEHICLES	81	17	2	0

Manual Speed Survey,Desford

DATE : THURSDAY 19th MAY 2022

SPEED LIMIT: NSL

LOCATION: LINDRIDGE LANE

100% of free flowing vehicles

ROAD SURFACE: DRY

SINGLE CARRIAGEWAY

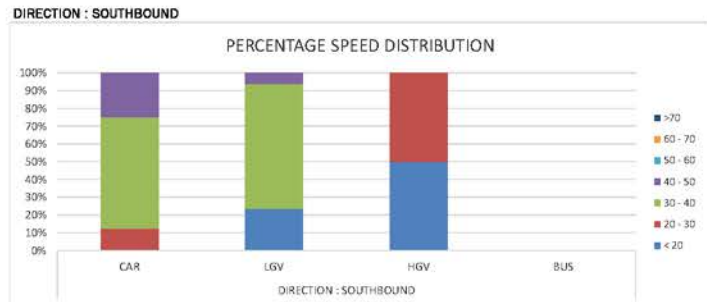
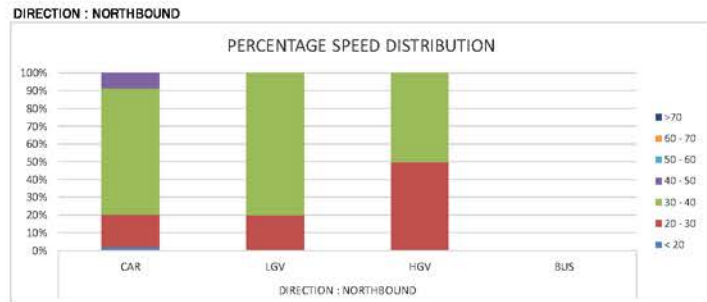
DIRECTION : NORTHBOUND				
SPEED (MPH)	CAR	LGV	HGV	BUS
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	1	0	0	0
19	1	0	0	0
20	0	0	0	0
21	1	0	0	0
22	2	0	0	0
23	0	0	0	0
24	1	0	0	0
25	1	1	0	0
26	3	0	0	0
27	3	0	1	0
28	3	0	0	0
29	3	0	0	0
30	8	3	0	0
31	10	0	1	0
32	4	0	0	0
33	6	0	0	0
34	8	0	0	0
35	9	0	0	0
36	6	0	0	0
37	6	0	0	0
38	6	1	0	0
39	3	0	0	0
40	2	0	0	0
41	4	0	0	0
42	2	0	0	0
43	0	0	0	0
44	0	0	0	0
45	0	0	0	0
46	0	0	0	0
47	0	0	0	0
48	0	0	0	0
49	0	0	0	0
50	0	0	0	0
51	0	0	0	0
52	0	0	0	0
53	0	0	0	0
54	0	0	0	0
55	0	0	0	0
56	0	0	0	0
57	0	0	0	0
58	0	0	0	0
59	0	0	0	0
60	0	0	0	0
61	0	0	0	0
62	0	0	0	0
63	0	0	0	0
64	0	0	0	0
65	0	0	0	0
66	0	0	0	0
67	0	0	0	0
68	0	0	0	0
69	0	0	0	0
70	0	0	0	0
71	0	0	0	0
72	0	0	0	0
73	0	0	0	0
74	0	0	0	0
75	0	0	0	0
SUM OF SPEEDS	3055	153	58	0
SUM OF SQUARES	102767	4769	1690	0
TOTAL VEHICLES	93	5	2	0

DIRECTION : SOUTHBOUND				
SPEED (MPH)	CAR	LGV	HGV	BUS
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	2	1	0
19	0	2	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	1	0	0	0
25	0	0	0	0
26	1	0	0	0
27	2	0	0	0
28	3	0	0	0
29	3	0	1	0
30	2	3	0	0
31	4	0	0	0
32	6	0	0	0
33	7	0	0	0
34	4	2	0	0
35	6	1	0	0
36	6	3	0	0
37	4	1	0	0
38	6	2	0	0
39	6	0	0	0
40	5	0	0	0
41	4	1	0	0
42	4	0	0	0
43	2	0	0	0
44	3	0	0	0
45	2	0	0	0
46	0	0	0	0
47	0	0	0	0
48	0	0	0	0
49	0	0	0	0
50	0	0	0	0
51	0	0	0	0
52	0	0	0	0
53	0	0	0	0
54	0	0	0	0
55	0	0	0	0
56	0	0	0	0
57	0	0	0	0
58	0	0	0	0
59	0	0	0	0
60	0	0	0	0
61	0	0	0	0
62	0	0	0	0
63	0	0	0	0
64	0	0	0	0
65	0	0	0	0
66	0	0	0	0
67	0	0	0	0
68	0	0	0	0
69	0	0	0	0
70	0	0	0	0
71	0	0	0	0
72	0	0	0	0
73	0	0	0	0
74	0	0	0	0
75	0	0	0	0
SUM OF SPEEDS	2894	529	47	0
SUM OF SQUARES	105348	17433	1165	0
TOTAL VEHICLES	81	17	2	0

85th PERCENTILE CALCULATION NOTES:
WET ROAD SURFACE ADDS 2.5mph TO EACH SPEED FOR A SINGLE CARRIAGEWAY, 5mph TO EACH SPEED FOR A DUAL CARRIAGEWAY
EACH 15% OF HGV ADDS 0.6mph TO THE 85th PERCENTILE FOR SINGLE CARRIAGEWAY, 1.2mph FOR DUAL CARRIAGEWAY

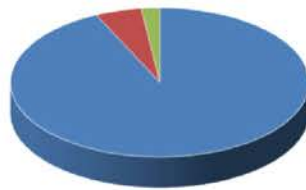
SPEED (MPH)	DIRECTION : NORTHBOUND				SPEED (MPH)	DIRECTION : SOUTHBOUND			
	CAR	LGV	HGV	BUS		CAR	LGV	HGV	BUS
<20	2	0	0	0	<20	0	4	1	0
20-30	17	1	1	0	20-30	10	0	1	0
30-40	66	4	1	0	30-40	51	12	0	0
40-50	8	0	0	0	40-50	20	1	0	0
50-60	0	0	0	0	50-60	0	0	0	0
60-70	0	0	0	0	60-70	0	0	0	0
>70	0	0	0	0	>70	0	0	0	0
TOTAL	93	5	2	0	TOTAL	81	17	2	0

MEAN SPEED:	32.7	MEAN SPEED:	34.7
ST. DEV:	5.1	ST. DEV:	6.0
PERCENTAGE HGV:	2.0%	PERCENTAGE HGV:	2.0%
85th PERCENTILE:	37.7	85th PERCENTILE:	40.7
WET 85th PERCENTILE:	37.5	85th PERCENTILE:	40.4



DIRECTION : NORTHBOUND

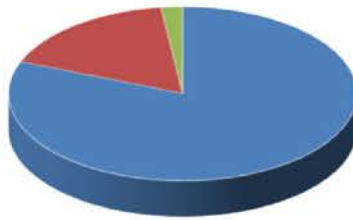
SPEED DISTRIBUTION



- CAR
- LGV
- HGV
- BUS

DIRECTION : SOUTHBOUND

SPEED DISTRIBUTION



- CAR
- LGV
- HGV
- BUS

Appendix B
TRICS Output Data

Calculation Reference: AUDIT-437201-220513-0534

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

02 SOUTH EAST	
HC HAMPSHIRE	1 days
KC KENT	1 days
03 SOUTH WEST	
SM SOMERSET	2 days
WL WILTSHIRE	1 days
04 EAST ANGLIA	
CA CAMBRIDGESHIRE	1 days
SF SUFFOLK	1 days
08 NORTH WEST	
CH CHESHIRE	1 days
09 NORTH	
DH DURHAM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 8 to 50 (units:)
 Range Selected by User: 6 to 50 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 19/11/21

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	3 days
Thursday	3 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5
Neighbourhood Centre (PPS6 Local Centre)	4

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	5
Village	4

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3 9 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS@.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
125,001 to 250,000	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	7 days
1.6 to 2.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	2 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	9 days
-----------------	--------

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CA-03-A-05 EASTFIELD ROAD PETERBOROUGH	DETACHED HOUSES		CAMBRIDGESHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		28	
	Survey date: MONDAY		17/10/16	Survey Type: MANUAL
2	CH-03-A-11 LONDON ROAD NORTHWICH LEFTWICH	TOWN HOUSES		CHESHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		24	
	Survey date: THURSDAY		06/06/19	Survey Type: MANUAL
3	DH-03-A-01 GREENFIELDS ROAD BISHOP AUCKLAND	SEMI DETACHED		DURHAM
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		50	
	Survey date: TUESDAY		28/03/17	Survey Type: MANUAL
4	HC-03-A-17 CANADA WAY LIPHOOK	HOUSES & FLATS		HAMPSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		36	
	Survey date: THURSDAY		12/11/15	Survey Type: MANUAL
5	KC-03-A-05 ROCHESTER ROAD NEAR CHATHAM BURHAM	DETACHED & SEMI-DETACHED		KENT
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings:		8	
	Survey date: FRIDAY		22/09/17	Survey Type: MANUAL
6	SF-03-A-06 BURY ROAD KENTFORD	DETACHED & SEMI-DETACHED		SUFFOLK
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings:		38	
	Survey date: FRIDAY		22/09/17	Survey Type: MANUAL
7	SM-03-A-02 HYDE LANE NEAR TAUNTON CREECH SAINT MICHAEL	MIXED HOUSES		SOMERSET
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings:		42	
	Survey date: TUESDAY		25/09/18	Survey Type: MANUAL
8	SM-03-A-03 HYDE LANE NEAR TAUNTON CREECH ST MICHAEL	MIXED HOUSES		SOMERSET
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings:		41	
	Survey date: TUESDAY		25/09/18	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9 WL-03-A-02 SEMI DETACHED
 HEADLANDS GROVE
 SWINDON

WILTSHIRE

Suburban Area (PPS6 Out of Centre)
 Residential Zone

Total No of Dwellings:

27

Survey date: THURSDAY

22/09/16

Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CA-03-A-07	covid
CH-03-A-12	covid
DV-03-A-01	house type
ES-03-A-06	covid
NY-03-A-13	house type
WM-03-A-04	house type

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLES**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Total People to Total Vehicles ratio (all time periods and directions): 2.01

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	33	0.088	9	33	0.269	9	33	0.357
08:00 - 09:00	9	33	0.153	9	33	0.357	9	33	0.510
09:00 - 10:00	9	33	0.146	9	33	0.180	9	33	0.326
10:00 - 11:00	9	33	0.146	9	33	0.139	9	33	0.285
11:00 - 12:00	9	33	0.139	9	33	0.139	9	33	0.278
12:00 - 13:00	9	33	0.139	9	33	0.160	9	33	0.299
13:00 - 14:00	9	33	0.139	9	33	0.153	9	33	0.292
14:00 - 15:00	9	33	0.184	9	33	0.201	9	33	0.385
15:00 - 16:00	9	33	0.231	9	33	0.201	9	33	0.432
16:00 - 17:00	9	33	0.211	9	33	0.184	9	33	0.395
17:00 - 18:00	9	33	0.333	9	33	0.153	9	33	0.486
18:00 - 19:00	9	33	0.238	9	33	0.119	9	33	0.357
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.147			2.255			4.402

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	8 - 50 (units:)
Survey date range:	01/01/14 - 19/11/21
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	6

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Total People to Total Vehicles ratio (all time periods and directions): 2.01

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	33	0.129	9	33	0.452	9	33	0.581
08:00 - 09:00	9	33	0.279	9	33	0.942	9	33	1.221
09:00 - 10:00	9	33	0.293	9	33	0.361	9	33	0.654
10:00 - 11:00	9	33	0.279	9	33	0.323	9	33	0.602
11:00 - 12:00	9	33	0.231	9	33	0.262	9	33	0.493
12:00 - 13:00	9	33	0.303	9	33	0.330	9	33	0.633
13:00 - 14:00	9	33	0.252	9	33	0.235	9	33	0.487
14:00 - 15:00	9	33	0.323	9	33	0.327	9	33	0.650
15:00 - 16:00	9	33	0.677	9	33	0.452	9	33	1.129
16:00 - 17:00	9	33	0.418	9	33	0.330	9	33	0.748
17:00 - 18:00	9	33	0.619	9	33	0.347	9	33	0.966
18:00 - 19:00	9	33	0.466	9	33	0.218	9	33	0.684
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.269			4.579			8.848

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Appendix C
Census Residential Travel to Work Data

QS701EW - Method of travel to work

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population All usual residents aged 16 to 74
 units Persons
 area type 2011 super output areas - middle layer
 area name E02005381 : Hinckley and Bosworth 005
 rural urban Total

Method of Travel to Work	2011	Percentage	AM			PM			TOTAL		
			A	D	T	A	D	T	A	D	T
			1	4	5	2	1	4	17	18	35
Train	17	0.46%	0	0	0	0	0	0	0	0	0
Bus, minibus or coach	124	3.35%	0	0	0	0	0	0	1	1	1
Taxi	4	0.11%	0	0	0	0	0	0	0	0	0
Motorcycle, scooter or moped	26	0.70%	0	0	0	0	0	0	0	0	0
Driving a car or van	3,071	82.93%	1	3	4	2	1	3	14	15	29
Passenger in a car or van	166	4.48%	0	0	0	0	0	0	1	1	2
Bicycle	55	1.49%	0	0	0	0	0	0	0	0	1
On foot	240	6.48%	0	0	0	0	0	0	1	1	2
	3,703	100.0%	1	4	5	2	1	4	17	18	35

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.