



TRANSPORT ASSESSMENT

PROPOSED RESIDENTIAL DEVELOPMENT
LAND EAST OF ASHBY ROAD, HINCKLEY

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EXECUTIVE SUMMARY

ADC Infrastructure Limited are commissioned by Davidsons Developments Ltd to provide transport and highways consultancy advice in support of a planning application for up to 110 dwellings on land to the east of Ashby Road, in Hinckley. The proposed development would be accessed from the A447 Ashby Road, via a simple priority-controlled T junction approximately 350m north of the junction with the A47. The access design accords with LCC's design standards, and the required visibility splays can be achieved within the public highway, or land under the control of the applicant. The application will be in outline, apart from the access on Ashby Road.

The development proposals were scoped with Leicestershire County Council (LCC) in June 2024 and several of the key inputs into the Transport Assessment were agreed at an early stage, including the use of the Pan Regional Traffic Model (PRTM) to assess the impact of the development on the local highway network.

Opportunities for sustainable travel in the local area are good. There are footways along both sides of the A447 south of the site, and along the B4667 towards Hinckley town centre. The proposed development is within reasonable walking distances of the many available services and amenities in the northern districts of Hinckley, inducing both primary and secondary schools, and supermarkets. The proposed development would provide both new pedestrian and cycle connections and improve the existing provision along the western edge of the A447 between the site and the A47 crossroads, ensuring compliance with the latest local and national design guidance. A new signal-controlled toucan crossing is proposed on the A447, ensuring residents can safely access the infrastructure on the opposite side of the road. The proposed development site is also well located for bus travel, with existing stops within 400m of the site, and five services an hour into Hinckley, Nuneaton and Leicester, as well as the smaller villages on route. Given this, there is no reason to consider the site as being car dependent. A multi-modal assessment has been undertaken, based on site of a similar size and location around the country. This indicates that the existing and proposed sustainable transport infrastructure and bus services, could comfortably accommodate the additional travel demand.

The proposed development would generate up to 72 two-way vehicle movements in a peak hour. This is based on trip rates from comparative developments nearby and is agreed by the local highway authority. LCC's strategic traffic model, the PRTM, was used to assign the development traffic to the local network. Away from the site access, only the A47/A447/B4667 crossroads would experience an impact greater than 30 additional two way movements in a peak hour. A comparative multi-modal analysis has also been taken, to establish how all residents would travel to and from the site, not simply motorists.

The PRTM was also used to generate a series of future year 'Furnessed' matrices at both the site access and the A47/A447/B4667 crossroads, based on observed traffic data collected on 5 September 2024. These 'Furnessed' Matrices incorporate all local committed development traffic flows contained within the PRTM and therefore present a robust future year assessment of the local highway network from which to model the impact of the development traffic.

The site access has been modelled in Junction 9 PICADY and has ample capacity to accommodate the development traffic. The A47 crossroads has been modelled using LinSig V3, with information taken from the as built drawings and controller configuration documents purchased from LCC. Impacts on both capacity and queuing at the junction are minimal in all the tested scenarios. The development therefore meets the key policy tests outlined in the NPPF that safe and suitable access can be achieved for all users, and that the development should not be prevented on highways grounds.

CONTENTS

1.0	INTRODUCTION	5
2.0	EXISTING CONDITIONS	7
	Observed Traffic Flows.....	7
	Vehicle speeds	8
	Personal Injury Accident record	8
	Summary	13
3.0	PROPOSED DEVELOPMENT.....	14
	Development proposals.....	14
	Access for vehicles and sustainable modes	14
4.0	DEVELOPMENT TRIP GENERATION	16
	Vehicle trips	16
	Proposed daily modal split and person trip generation.....	16
5.0	TRAFFIC DISTRIBUTION AND ASSIGNMENT.....	18
6.0	ASSESSMENT TRAFFIC FLOWS	19
7.0	HIGHWAY IMPACT.....	20
	Site Access	20
	A47/A447 Ashby Road/B4667 signalised crossroads.....	20

DRAWINGS

Drawing Reference 3280-ADC-HGN-XX-DR-CH-0103-S01-P02 – Site Access Arrangement

TRAFFIC FLOW DIAGRAMS

APPENDICES

Appendix A	Illustrative Layout
Appendix B	Transport Assessment Scoping Study
Appendix C	Leicestershire County Council Scoping Response
Appendix D	Traffic Count Data
Appendix E	Personal Injury Accident Data
Appendix F	Highway Boundary Data
Appendix G	Multi Modal TRICS data
Appendix H	PRTM Outputs
Appendix I	PRTM Furnessed Matrices
Appendix J	PICADY Report, Site Access
Appendix K	LinSig Report, A47/A447/B4667 Crossroads

1.0 INTRODUCTION

1.1 ADC Infrastructure Ltd are commissioned by Davidsons Developments Ltd to provide transport and highways consultancy advice as part of an outline planning application for up to 110 dwellings on land to the east of Ashby Road, in Hinckley. The general site location is shown in **Figure 1**, and the detailed site location is shown in **Figure 2**. The application is in outline with all matters reserved apart from access from Ashby Road. An illustrative layout is in **Appendix A**. The illustrative layout shows a development of 103 dwellings, however the TA and its associated modelling is based on a quantum of 110, making it a worst case assessment.

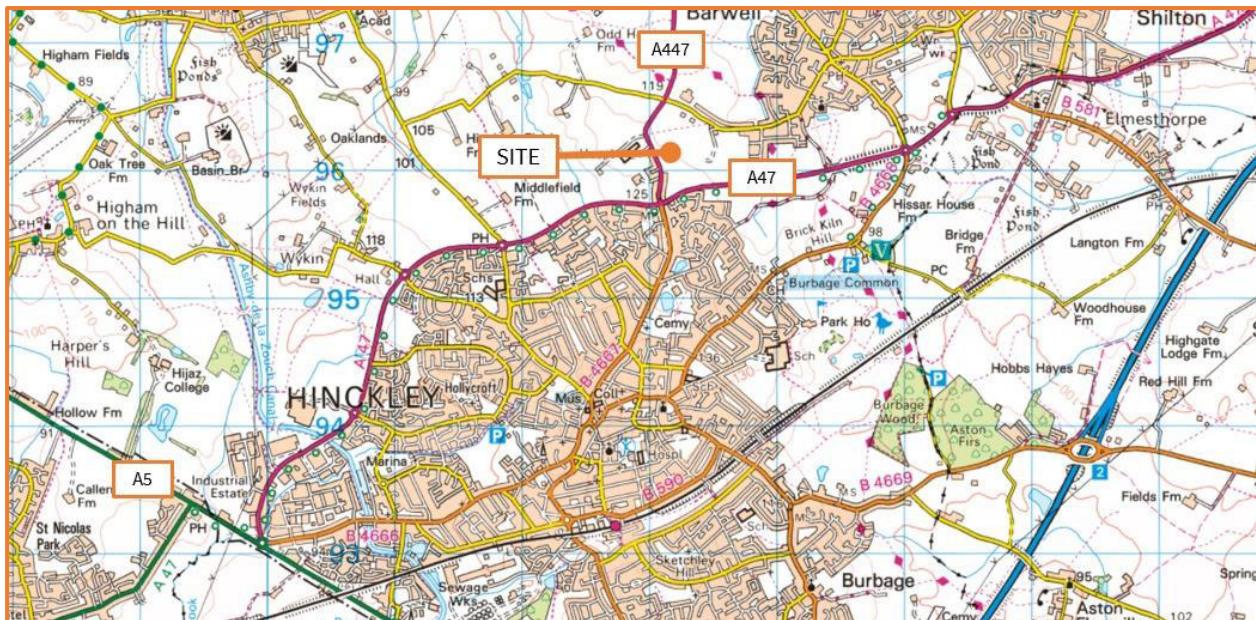


Figure 1: general site location



Figure 2: detailed site location

- 1.2 Hinckley and Bosworth Borough Council (HBBC) are the Local Planning Authority (LPA) and Leicestershire County Council (LCC) are the Local Highway Authority (LHA).
- 1.3 A Transport Assessment Scoping Study (TASS) **ADC3280-RP-D-v2** was submitted to LCC Highways Development Management (HDM) in June 2024. The TASS is at **Appendix B**. The aim of that report was to agree the key inputs to the Transport Assessment.
- 1.4 LCC provided their response (Ref: 2024/3465/04/HEN) on 8 August 2024. The response and any subsequent correspondence are at **Appendix C**.
- 1.5 LCC agreed the principle of access, and the trip generation for the development. They requested the use of the Pan Regional Transport Model (PRTM) to establish a trip distribution, junction study area, future assessment year and committed development flows. The PRTM has therefore been used within this Transport Assessment, and the results of the PRTM modelling are discussed in detail later in this report.
- 1.6 This Transport Assessment has been prepared to support the outline planning application. It is structured as follows:
 - Section 2 describes the existing highway and infrastructure conditions surrounding the site;
 - Section 3 describes the outline development proposals;
 - Section 4 calculates the potential trip generation and modal split;
 - Section 5 describes the PRTM modelling process, and summarises the results;
 - Section 6 assesses the impact of the proposed development on the highway network, and;
 - Section 7 presents the summary and conclusions.
- 1.7 This Transport Assessment has been produced in accordance with 'Travel Plans, Transport Assessments and Statements'¹, It examines the transport implications of the proposed development taking into account the requirements of the National Planning Policy Framework (NPPF)²:
 115. *In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*
 - a) *sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;*
 - b) *safe and suitable access to the site can be achieved for all users;*
 - c) *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*
 - d) *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.*

¹ Travel Plans, Transport Assessments and Statements, Planning Practice Guidance, Department for Levelling Up, Housing and Communities and Ministry for Housing, Communities and Local Government, March 2014

² National Planning Policy Framework. December 2024, p33

2.0 EXISTING CONDITIONS

Local highway conditions

- 2.1 The proposed development would be accessed from the A447 Ashby Road. The A447 runs north-south between the A511 at Coalville to the north, and the A47 to the south of the site. Along the site frontage, it is sub-urban in character with houses along the western side of the carriageway, becoming rural as it exits the built-up area north of the Hinckley and Bosworth Community Hospital. It is a single carriageway A-road, governed by a 40mph speed limit. Where there are houses fronting onto the carriageway, it has footways, with the footway along the western side of the road set back from the carriageway by a wide grassed verge with trees. There is currently no footway provision along the site frontage. There is street lighting along the site frontage.
- 2.2 Ashby Road joins the A47 and B4667 at a signal-controlled crossroads to the south of the site. The A47 forms the northern bypass around Hinckley, before continuing northeast to Leicester and beyond. It is governed by the National Speed Limit (NSL), reducing to 40mph on the approach to the junction with the A447 Ashby Road. There is street lighting in the 40mph zone, which ceases as it exits the built-up area and becomes the NSL. There is a segregated footway/cycleway running along its southern edge, segregated from the carriageway by a 0.5m wide grassed verge.
- 2.3 The B4667 Ashby Road runs south from the crossroads into the centre of Hinckley. It is sub-urban in character with development on both sides of the carriageway. It has street lighting, a 2m footway along its western edge and a 3m shared footway/cycleway on its eastern edge. Both are separated from the carriageway by a grass verge, until the junction with Barwell Lane next to the ASDA.

Observed traffic flows

- 2.4 A Junction Turning Count (JTC) were undertaken at the A47/A447/B4667 signal-controlled crossroads on Thursday 5 September 2024, during school term-time.
- 2.5 LCC's Highway Design Guide states that *Manual classified counts (MCC) and vehicle turning movements are likely to remain as a single day capture but should be deployed alongside Pneumatic Tubes or SDR on at least one link, for a period of at least 7 days covering the date of the MCC to ensure the data is representative*. Two Automatic Traffic Counts (ATC's) were also installed on the A447 Ashby Road, to the north and south of the site, between 2 and 9 September 2024 during school term time. These record both traffic volumes and speeds, as well as validating the JTC data. The average weekday peak hour and 24 hr data from these ATC's is below. The data is discussed in more detail in section 4 of this report.

ATC weekday data September 2024. A447	A447 Road all vehicles	
	Northbound	Southbound
Average AM peak hour	407	678
Average PM peak hour	714	671
Average weekday 24hr	6941	8242

- 2.6 The traffic flow data from each count form the '2024 Observed' flow set, which is shown at **Diagrams 1 and 2** for the morning and evening peak hours respectively. The full traffic count data is at **Appendix D**.

2.7 The traffic flows along the A447, taken from the JTC, are summarised in the table below

traffic count 5 September 2024, A4/A447 crossroads	A447 Road all vehicles	
	Northbound	Southbound
AM peak hour (07:45-08:45)	450	733
PM peak hour (16:45-17:45)	758	790

2.8 The data from the JTC is representative of the average weekday flows taken from the ATC on the A447. This demonstrates that the 5th September was a representative day from which to survey the operation of the junction.

Vehicle speeds

2.9 85th percentile vehicle speeds along the A447 Ashby Road, measured by the southern ATC (closest to the site access) over the course of the survey were 41.8mph southbound and 41.9mph northbound. Ashby Road is within the 40mph zone and therefore vehicles are travelling slightly above the speed limit in both directions. The speed survey data is also contained in **Appendix D**.

Personal injury accident record

2.10 It is necessary to examine the personal injury accident (PIA) record on the roads in the vicinity of the site, to identify any trends which may be exacerbated by the additional traffic generated by the proposed development. Therefore, the most recent available five years of PIA data was purchased from LCC. It is summarised below, and the full PIA reports are at **Appendix E**.

A447 Ashby Road, as it passes the site, up to the junction with the A447

- Two recorded PIA's. One categorised as serious, the other as a fatality.
- The fatal collision occurred in June 2023, outside number 249 Ashby Road, which is opposite the site frontage, south of the hospital, and involved a motorcycle colliding with a car which was making a U-turn in the carriageway. It resulted in a single fatality.
- The serious collision occurred in November 2022 at the hospital access and involved three cars in a rear end shunt type accident. It resulted in serious injuries to one individual.

A47/A447/B4667 signalised crossroads junction

- Nine recorded PIA's. Eight slight, one serious.
- The PIA resulting in serious injuries involved a single vehicle, at night, in the rain. No probable cause is given in the report.
- Of the remaining eight PIA's, all were recorded as slight. Six of the PIA's involved a car pulling across the junction (in any direction) into the path of a vehicle approaching from the opposing direction.
- Three PIA's involving right turners involved vehicles travelling on the A47 colliding with a vehicle turning right from the opposing direction.
- Two PIA's involving right turners involved vehicles travelling on the A447 Ashby Road colliding with a vehicle turning right from the opposing direction.
- One PIA involved a vehicle travelling eastbound on the A47, colliding with a vehicle turning right from the A447 Ashby Road onto the A47
- One PIA involved a rear-end shunt type collision with vehicles travelling in the same direction.

A47, east of the crossroads.

- One PIA occurred at the junction with Cornwall Way, involving four vehicles and resulting in slight injuries to one individual.

A47, west of the crossroads.

- One PIA occurred 40m west of the crossroads, involving three vehicles and resulting in very serious injuries to one individual, and the deaths of two others. The PIA involved a head on collision between two vehicles, at night, in wet conditions. No probable cause was given in the report.

2.11 The only identifiable trend in either location or type of accidents across the study area was the cluster at the A47/A447 crossroads, most of which involved turning vehicles colliding with an oncoming vehicle from the opposite direction. On all approaches, the right turn movement operates in the same stage as the ahead moves, meaning that right turning traffic must wait for a gap in the oncoming flow, or go in the intergreen at the end of their respective stage. While efficient insofar as it minimises the number of stages run in each cycle, this arrangement does increase the risk of the observed collision types.

Opportunities for sustainable transport – Pedestrians

2.12 For commuters and school pupils without mobility impairment, up to 500 metres is the desirable walking distance, up to 1,000 metres is an acceptable walking distance, and up to 2,000 metres is the preferred maximum walking distance³. **Figure 3**, overleaf, shows a 2km pedestrian catchment from the centre of the site.

2.13 The proposed development is within reasonable walking distances of the many available services and amenities on the northern side of Hinckley. The site is also within walking distance of the neighbouring village of Barwell, although pedestrian connectivity is less favourable in that direction.

2.14 Pedestrian connectivity between the site and Hinckley is excellent. There is a footway along the western side of the A447 Ashby Road, which is set back from the carriageway edge by a wide grassed verge. On the eastern side of the carriageway there is a footway which ceases after the row of houses south of the site. As part of the development proposals, a new footway would be provided along the site frontage to connect to the existing footway on the eastern side of the road.

2.15 South of the site, the A47/A447 signal controlled junction has pedestrian crossing facilities on each arm.

2.16 South of the A47/A447 signal controlled junction, the B4667 has excellent pedestrian facilities, with a 2m footway along its western edge and a 3m shared footway/cycleway on its eastern edge.

2.17 The facilities within 2km walk of the site include:

- Educational – Richmond Primary School, Redmoor Secondary Academy, Dorothy Goodman Secondary School (SEN Specific)
- Health – Hinckley and Bosworth Community Hospital, ASDA Pharmacy
- Retail – ASDA & Morrisons Supermarkets
- Recreational – Ashby Roads Sports Complex

³ Guidelines for Providing for Journeys on Foot, Chartered Institution of Highways and Transportation, 2000

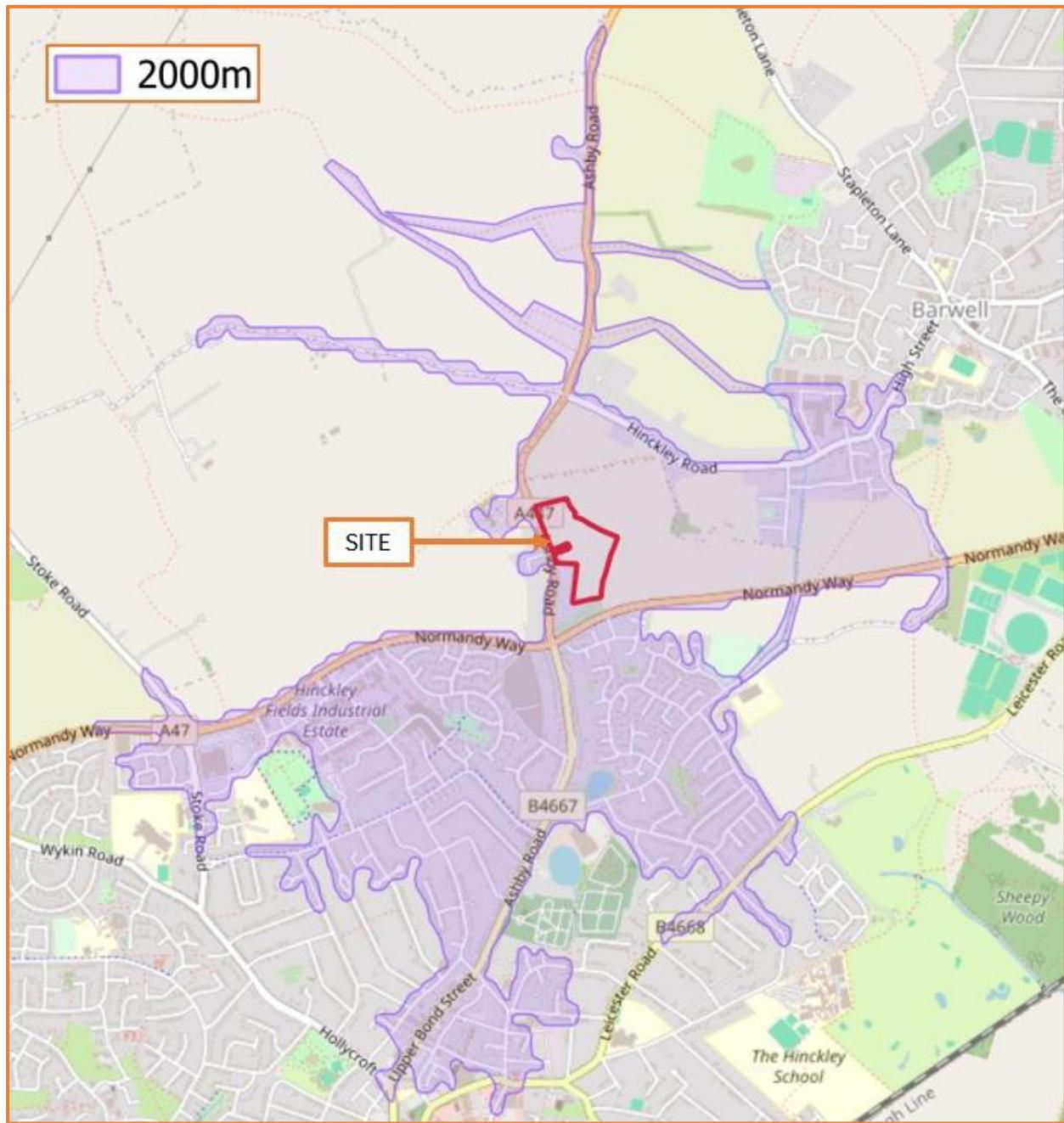


Figure 3: pedestrian catchment area

Opportunities for sustainable transport – Cyclists

2.18 Data from the 2021 National Travel Survey indicates that the average length of a cycle journey is approximately 5km, although cyclists will commute significantly longer distances than this if the topography and highway conditions are favourable. A 5km catchment from the centre of the site is shown in **Figure 5** below.



Figure 5: cycle catchment area

- 2.19 The site is located within realistic cycling distance of Hinckley for commuters, or utility cyclists. The town centre is approximately a 15-minute bike ride from the site, at typical cycling speeds of 15kph.
- 2.20 **Figure 6** shows an extract of the LCC's cycle map. As shown, along the site frontage, Ashby Road is marked as a quieter route. From the A47/A447/B4667 signal controlled junction, there is a segregated footway/cycleway running along the B4667 Ashby Road, which extends as far south as the crossroads with Upper Bond Street and Derby Road, on the edge of the town centre after which cyclists must rejoin the carriageway, marked as a quieter route.



Figure 6: Extract from the LCC Cycle Map

- 2.21 In addition, the A47 has a fully segregated footway/cycleway running along its southern edge, connecting the site with Barwell and shared footway/cycleway with Earl Shilton.
- 2.22 North of the junction with the A47, the A447 has no dedicated infrastructure for cyclists, meaning that future residents of the proposed development would need to cycle on carriageway for a short distance until they reached the segregated footway/cycleway. This section of road is categorised as a 'recommended on-road route' by LCC, hence it is considered to be safe for residents to cycle on the carriageway.

Opportunities for sustainable transport – Public Transport

- 2.23 The nearest bus stops to the proposed development are on the A447 just north of the proposed site access, adjacent to the Hinckley and Bosworth Community Hospital. There are more stops to the south between the site and the A47 junction. Both the northbound and southbound stops nearest the site are marked by flag/pole arrangement with timetable information and the southbound stop has a shelter. The bus stops provide access to the following services:

A447 Stops					
Service	Route	Frequency	Starts	Ends	Journey Duration
148	Nuneaton - Leicester	Every 30 mins Mon-Sat, no Sunday Services.	06:08	22:25	Nuneaton: 26 mins Hinckley: 7 mins Leicester: 44 mins
158	Nuneaton - Leicester	Every 20 mins Mon-Sat, hourly Sunday Services	05:30	22:55	Same as above

2.24 The proposed development site is therefore well located for bus travel, with existing stops within 400m of the site, and five services an hour into Hinckley, Nuneaton and Leicester, as well as the smaller villages on route.

2.25 Hinckley railway station is located approximately 3km from the site and is accessible by cycle and using the bus services 148 and 158. The station provides the following services:

- Daily hourly services to Leicester and Birmingham
- One early morning train to Stansted Airport and evening train to Gloucester on weekdays
- Three additional peak services as far as Cambridge via Peterborough

Summary

2.26 Overall, the site is well located for residential development with the facilities/amenities in northern Hinckley within the walking distance of the site, accessed via excellent pedestrian network throughout Hinckley. All of Hinckley, Barwell and most of Earl Shilton are within cycling distance of the site and the facilities can be accessed via a combination of on-road/off-road cycle routes and quieter roads. The nearest public transport stops provide frequent services to Nuneaton, Leicester and Birmingham, with five bus services per hour past the site and bus stops within walking distance. There are therefore excellent opportunities for sustainable travel to and from the site.

3.0 PROPOSED DEVELOPMENT

Development proposals

3.1 The outline planning application is for up to 110 dwellings, to be accessed from Ashby Road. The illustrative layout is at **Appendix A**. The illustrative layout shows a development of 103 dwellings, however the TA and its associated modelling is based on a quantum of 110, making it a worst case assessment.

Access for vehicles and sustainable modes

3.2 LCC's Highway Design Guide states that a Residential Access Road with a carriageway width of 5.5m is sufficient to serve up to 400 dwellings, with normally no more than 150 from a single point of access. Therefore, as the application is for less than this, at up to 110 dwellings, it is proposed that the development will have a single point of access on Ashby Road, with a 5.5m carriageway width.

3.3 The access will be formed by a priority controlled simple T-junction. As described in detail in section 7, a simple T junction would be able to accommodate the level of traffic generated by the 110 dwellings without detriment to either safety or capacity on the A447. In their scoping response, LCC noted "*the presence of several private driveway along the site frontage where a ghost island right turn lane would be located*", and they had "*concerns this could cause confusion to drivers in the event a resident needs to turn right in to their driveway. Consideration will therefore need to be given to the private driveways in relation to the access arrangements.*" The proposed simple-T junction avoids these safety concerns.

3.4 Visibility splays of 2.4 x 120m can be achieved in either direction at the access, as required by table 6 of LCC's HDG for the recorded 85th percentile vehicle speeds along the site frontage. These splays can be achieved within the public highway or land under the control of the applicant.

3.5 The main vehicular access carriageway would be flanked by 2m footways either side of the carriageway. These would extend north along the A447 up to the existing footway behind the bus-layby, and south to the existing footway in front of the row of houses adjacent to the site.

3.6 LCC's new Highways Design Guide places an emphasis on ensuring any cycle infrastructure is designed to the standards set out in the DfT's Local Transport Note 1/20. In most instances, this new guidance favours a segregated arrangement whereby a 2m footway is run adjacent to a 3m cycleway, with both set back from the carriageway edge by a verge (dependent on vehicle speeds).

3.7 As shown on the illustrative layout, there is a small area of third-party land toward the southern boundary of the development site. This land means it is not possible to extend a 5m wide facility all the way along the site frontage. To achieve a connection of this standard within the available land, it is necessary to design a dedicated pedestrian cycle link through the site boundary south of the third-party land.

3.8 A plan showing the extent of the public highway is at **Appendix F**. Public highway on the eastern edge of the A447 is limited, and the residential plots extend almost up the back of the existing footway. Widening on that side of the carriageway is not possible. There is far more public land available on the western side, where the footway is set back by a wide grassed verge. It is

proposed to widen the existing footway out to 2m, and construct an adjacent 3m cycleway, extending south to the junction with the A447. This is possible within the public highway.

- 3.9 A signal-controlled crossing is proposed on the A447 opposite the pedestrian/cycle access into the development. The choice of a controlled crossing is due to the vehicle speeds, and traffic volumes along Ashby Road. The location has been chosen to minimise interaction with the private drives opposite the site, and to ensure that 120m visibility can be achieved to the primary signal head in each direction.
- 3.10 The access strategy, including all the elements discussed above, is shown in **Drawing 3280-ADC-HGN-XX-DR-CH-0103-S1-P02**

4.0 DEVELOPMENT TRIP GENERATION

Vehicle trips

4.1 The Scoping Note at **Appendix B** set out trip rates and a subsequent vehicle trip generation profile for the proposed development. In their response, LCC requested that the vehicular trip rates recently agreed for the large residential developments to the west of Ashby Road were used instead. These are in the table below, together with the trip generation for 110 dwellings as a worst case.

Proposed vehicle trip rates and traffic generation		arrive	depart	two-way
vehicle trip rates (per dwelling)	AM peak hour	0.148	0.425	0.573
	PM peak hour	0.409	0.244	0.653
vehicle trips (110 dwellings)	AM peak hour	16	47	63
	PM peak hour	45	27	72

4.2 The proposed development would be expected to generate up to 72 two-way vehicle movements in a peak hour.

Proposed daily modal split and person trip generation

4.3 A comparative multi modal TRICS analysis has been undertaken to establish a representative modal split for trips to and from the development, across a 12-hour period. This considers not only trips to work, but also those made to school, to local shops and amenities and for leisure purposes. The development would be expected to generate 789 person trips, across all modes, in a day. The TRICS data is at **Appendix G**.

4.4 The average daily modal split from the TRICS selection was applied to the total person trip generation, to calculate the forecast daily number of trips by each travel mode, as shown in the table below. It should be noted that the TRICS data applied a 0.5% modal share to train journeys, and 2.3% to bus. There is no railway station nearby, so train travel is unlikely, apart from as a multi modal journey. So, the 0.7% modal share has been reassigned to the bus, increasing it to 2.8%

4.5 The number of vehicle passengers was calculated from the average car occupancy rate of 1.48 from the TRICS data.

	pedestrian	cyclist	bus	train	single vehicle occupant	multi-vehicle occupant		total
						driver	passenger	
modal split	14.1%	1.9%	2.8%	0.0%	39.3%	30.0%	11.9%	100.0%
person trips	111	15	22	0	310	237	94	789

4.6 The proposed development would generate up to 111 pedestrian trips, 15 cycle trips and 22 bus trips across a day.

4.7 Section 2 details the existing infrastructure in the vicinity of the site, including a description of the existing pedestrian, cycle, and public transport infrastructure. Section 3 details the infrastructure proposed as part of the proposed development including the provision of dedicated pedestrian/cycle connections through the site boundary, along the access roads, along the western edge of A447, along with the installation of a new signalised pedestrian/cycle

crossing on the A447. The existing and proposed infrastructure therefore has the capacity to accommodate the additional trips and no further change in infrastructure is required.

5.0 TRAFFIC DISTRIBUTION AND ASSIGNMENT

5.1 The TA Scoping Report presented a trip distribution for the proposed development, derived from the 2011 National Census 'location of usual residence and place of work by method of travel to work' dataset (reference WU03EW) for the Hinckley and Bosworth 009 MSOA. From this information, the travel routes were estimated using GIS to and from the MSOA centroid, and the proportion using each highway route was identified.

5.2 In their response, LCC requested that instead of this methodology, the Pan Regional Transport Model (PRTM) be used to assess the impact of the proposed development, stating the following;

'The Highways Development Management (HDM) team require planning application submissions for developments that result in greater than-or-equal to 80 dwellings, or equivalent level of employment land use trip generation, to be based on robust forecast evidence that is pragmatic to the scale of proposed development.'

The LHA would therefore advise for a development of this scale that the applicant make limited use of the LHA's Pan Regional Transport Model (PRTM) which could, for example, provide trip distribution / assignment as well as having committed developments already taken into account within extracted flows.

5.3 Based on the above, a level 2 limited PRTM run was commissioned. The model outputs are in **Appendix H**.

5.4 The distribution from the PRTM was used to identify an area of impact, as requested by LCC:

'The LHA advise that should the proposals generate approximately 30 or more additional two way trips (e.g. 15 arrivals and 15 departures) in either the AM or PM peak hours at any key junction, capacity assessments would be required. The LHA note that the following two junctions will be considered:

- Site access/ Ashby Road (A447)
- A47 Normandy Way / A447 Ashby Road / B4667 Ashby Road signalised junction

Whilst this is accepted, it is advised that additional junctions may need consideration following revised trip rates and further trip distribution analysis based on more detailed modelling.'

5.5 The development traffic at Paragraph 4.1 was then assigned to the network using the PRTM distribution in each peak hour. The junctions within the study area are shown in the table below, along with the increase in vehicle trips as a result of the proposed development.

junction	total vehicles AM	total vehicles PM
Site Access	62	72
A47/A447/B4667 crossroads	52	59

6.0 ASSESSMENT TRAFFIC FLOWS

- 6.1 As detailed in Section 2, junction turning count was conducted at the A47/A447/B4667 crossroads on 5 September 2024.
- 6.2 These counts form the '2024 Observed' traffic flow sets, which are in **Diagrams 1 and 2** for the morning and evening peak hours respectively.
- 6.3 The observed traffic flows matrices were then sent to LCC to undergo the 'Furnessing' process, to growth them to a future assessment year of 2030 using the link flows included in the PRTM model. These form the '2030 'Do Nothing' Background traffic flows shown in **Diagrams 3 and 4** for the morning and evening peak hours respectively. The Furnessed count data is in **Appendix I**.
- 6.4 The PRTM distribution is shown in **Diagrams 5 and 6**, and the development traffic assignment in **Diagrams 7 and 8**.
- 6.5 Finally, the development traffic was added to both the 2030 Background flow sets to give a set of 'Furnessed, Do Something' flows for the future assessment year (i.e. 2030 with development). These are at **Diagrams 9 and 10**.
- 6.6 The traffic above would divide at the A47/A447 crossroads, with no additional junction experiencing an increase of greater than 30 two-way movements in a peak hour. The study area is therefore limited to the site access, and the crossroads.

7.0 HIGHWAY IMPACT

Site Access

7.1 The proposed site access is shown in **Drawing 3280-ADC-HGN-XX-DR-CH-0103-S1-P02** and has been modelled using Junctions 9 PICADY. It has been tested using the 2030 With Development traffic flows for both peak hours. The results are shown in the table below and the full PICADY report is at **Appendix J**.

	AM peak hour			PM peak hour		
	Queue (Veh)	Delay (secs)	Ratio of Flow to Capacity	Queue (Veh)	Delay (secs)	Ratio of Flow to Capacity
2030 With Development						
Site access	0.1	9.71	12%	0.1	10.73	8%
Ashby Road ahead, and right into site	0.1	4.64	4%	0.5	3.99	17%

7.2 As shown in the table above, in all scenarios in both the morning and evening peak hours, the site access junction is forecast to operate with a maximum ratio of flow to capacity (RFC) of 17% and therefore has spare capacity. There would be no material queuing or delay associated with the proposed site access junction, which can therefore comfortably accommodate all the proposed development traffic with no detriment to the wider highway network. The lack of predicted queuing for the right turn movement from the A447 into the site means that there is no need to provide a ghost island.

A47/A447 Ashby Road/B4667 signalised crossroads

7.3 The A47/A447/B4667 junction is a signal-controlled crossroads, as shown in **Figure 8** below. It has been modelled using LinSig. The model was built using the as-built drawing and signal controller configuration documents purchased from LCC, to ensure it accurately reflected the on-street operation of the junction. It has been tested using the 2030 Background and With Development traffic flows for both peak hours. The results are shown in the table below and the full LinSig report is at **Appendix K**.



Figure 7: A47/A447/B4667crossroads

A47/A447/B4667 Junction Capacity Results				
Scenario	Peak hour	Cycle time	Practical Reserve Capacity	Total delay (PCUhr)
2024 Observed	AM 8-9	90	14.5%	22.58
	PM 17-18	90	15.6%	25.87
2030 Do Minimum	AM 8-9	90	-3.2%	35.61
	PM 17-18	90	-2.5%	37.19
2033 Do Something	AM 8-9	90	-4.7%	38.28
	PM 17-18	90	-6.2%	41.06

7.4 The junction would have a negative reserve capacity in all 2030 Background scenarios, meaning that in each peak hour, one or more of the approaches would be operating above 90% Degree of Saturation (DoS). The relative impact, in terms of overall junction PRC, presented by the development traffic is in the table below.

A47/A447/B4667 Junction PRC comparison			
Peak hour	PRC- Do Minimum	PRC – Do Something	Change
AM 8-9	-3.2%	-4.7%	-1.5%
PM 17-18	-2.5%	-6.2%	-3.7%

7.5 The development impact at the junction would be relatively modest scenarios, with the largest reduction in reserve capacity being felt in the evening peak, where the PRC would reduce by 3.7%. In the morning peak the A447 Southbound would operate at 93.7% saturated, with the development in place. In the evening peak, the opposing approach, the B4667 northbound would operate at 91.2% saturation. In both peaks, the A47 westbound approach operates above 90% saturation.

7.6 The relative impact of the development in terms of DoS and mean-max queuing (MMQ) on these congested approaches is highlighted in the table below.

A47/A447/B4667 Junction Link comparison				
A447 Southbound				
Peak hour	DoS - Do Minimum	DoS – Do Something	MMQ – Do Minimum	MMQ – Do Something
AM 8-9	92.6%	93.7%	16.2	18.2
B4667 Northbound				
PM 17-18	90.5%	91.2%	17.0	17.1
A47 - Westbound				
AM 8-9	92.1%	94.3%	23.0	26.6
PM 17-18	92.2%	95.6%	24.7	26.7

7.7 As shown in the table, additional development traffic will present a modest impact on both capacity and queue lengths. Predicted mean-max queue lengths would increase by less than three vehicles on any given approach in the Do Something scenario. Likewise, the largest reduction in capacity is -5.5% on the B4667, in the evening peak. All approaches would still operate below 100% capacity with the development in place. The impact of the development traffic cannot be described as severe.

7.8 In their scoping response, LCC stated that they '*are investigating a potential improvement scheme for the junction and it is likely that as part of the proposed developments, a contribution towards an improvement scheme which is in proportion to the impact and scale of the development proposed, may be required.*' The applicant would be willing to discuss a contribution towards this future mitigation, should it be found to be deliverable, proportional to the impact described above.

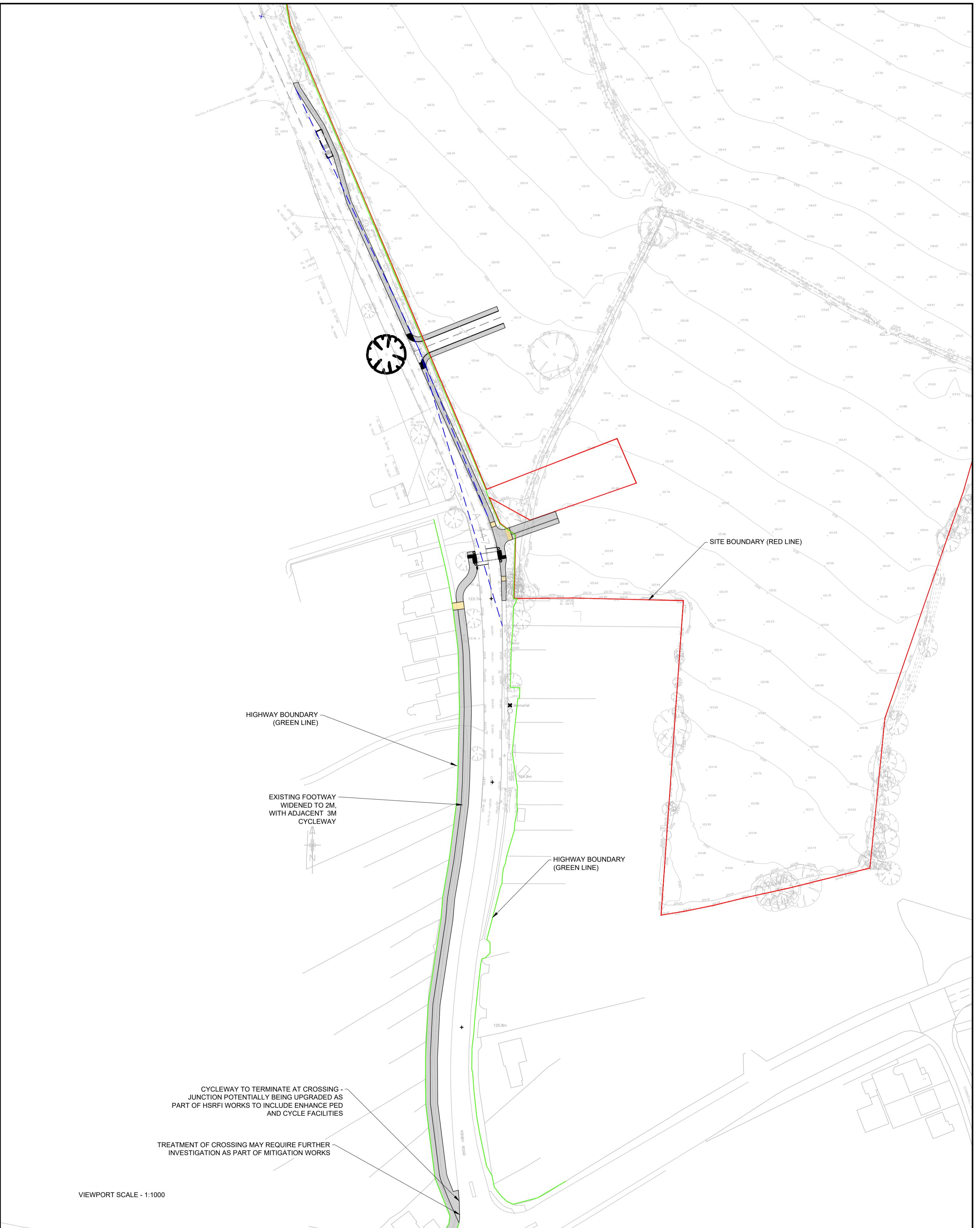
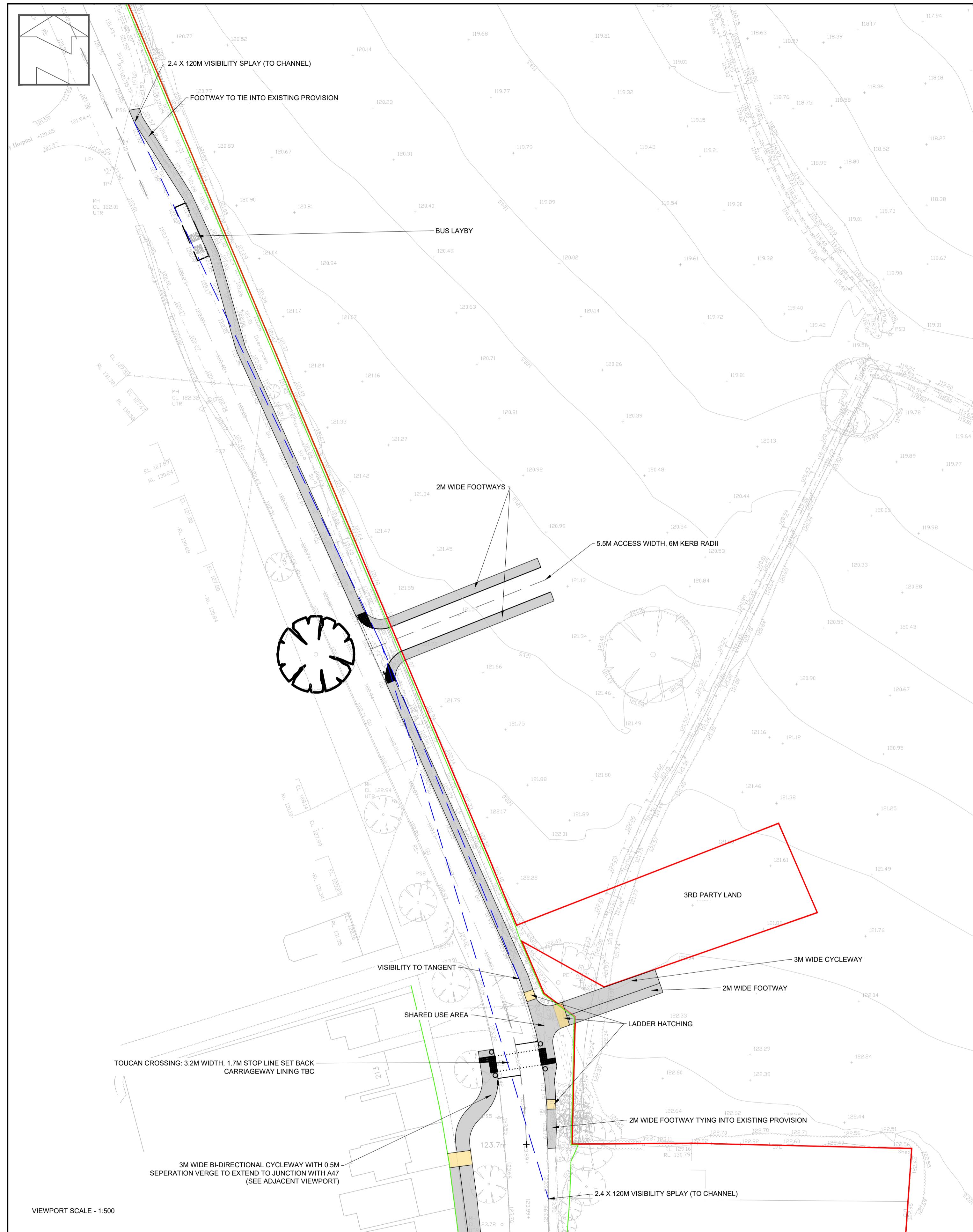
7.9 As described in section 2, the junction has seen 8 PIA's over the last 5 years, at a rate of 1.4 per year. While there is a trend towards PIA's involving right turners, the amount of PIA's over the survey period does not indicate a severe road safety concern that would be made worse by the proposed development. Notwithstanding this, any improvement scheme proposed by LCC would have a positive impact on road safety.

8.0 SUMMARY AND CONCLUSIONS

- 8.1 ADC Infrastructure Ltd are commissioned by Davidsons Developments Ltd to provide transport and highways consultancy advice as part of an outline planning application for up to 110 dwellings on land to the east of Ashby Road, in Hinckley. The illustrative layout shows a development of 103 dwellings, however the TA and its associated modelling is based on a quantum of 110, making it a worst case assessment.
- 8.2 A Transport Assessment Scoping Study (TASS) was submitted to LCC Highways Development Management (HDM) in June 2024. Pre-application consultation comments were received in which LCC agreed the principle of access, and the trip generation for the development. They requested the use of the Pan Regional Transport Model to establish a trip distribution, junction study area, future assessment year and committed development flows.
- 8.3 The proposed development would be accessed from the A447 Ashby Road, via a simple priority-controlled T junction approximately 350m north of the junction with the A47. The access design accords with LCC's design standards, and the required visibility splays can be achieved within the public highway, or land under the control of the applicant. The application will be in outline, apart from the access on Ashby Road.
- 8.4 The site is well located for residential development with the facilities/amenities in northern Hinckley within the walking distance of the site, accessed via excellent pedestrian network throughout Hinckley. All of Hinckley, Barwell and most of Earl Shilton are within cycling distance of the site and the facilities can be accessed via a combination of on-road/off-road cycle routes and quieter roads. The nearest public transport stops provide frequent services to Nuneaton, Leicester and Birmingham, with five bus services per hour past the site and bus stops within walking distance. There are therefore excellent opportunities for sustainable travel to and from the site.
- 8.5 The proposed development would generate up to 111 pedestrian trips, 15 cycle trips and 22 bus trips across a day. New sustainable transport infrastructure is proposed as part of the proposed development including the provision of dedicated pedestrian/cycle connections through the site boundary, along the access roads, along the western edge of A447, along with the installation of a new signalised pedestrian/cycle crossing on the A447. The existing and proposed infrastructure therefore has the capacity to accommodate the additional trips and no further change in infrastructure is required.
- 8.6 The proposed development would generate up to 72 two-way vehicle movements in a peak hour. This is based on trip rates from comparative developments nearby and is agreed by the local highway authority. LCC's strategic traffic model, the PRTM, was used to assign the development traffic to the local network. Away from the site access, only the A47/A447/B4667 crossroads would experience an increase greater than 30 additional two way movements in a peak hour.
- 8.7 The PRTM was also used to generate a series of future year 'Furnessed' matrices at both the site access and the A47/A447/B4667 crossroads, based on observed traffic data collected on 5 September 2024. These 'Furnessed' Matrices incorporate all local committed development traffic flows contained within the PRTM and therefore present a robust future year cumulative assessment of the local highway network from which to model the impact of the development traffic.

- 8.8 The site access has been modelled in Junction 9 PICADY and has ample capacity to accommodate the development traffic. The A47 crossroads has been modelled using LinSig V3, with information taken from the as built drawings and controller configuration documents purchased from LCC. Impacts on both capacity and queuing at the junction are minimal in all the tested scenarios.
- 8.9 The development therefore meets the key policy tests outlined in the NPPF: that safe and suitable access can be achieved for all users; that the development would not have a severe impact on the operation of the highway network, or an unacceptable impact on highway safety, and it is therefore concluded that the development should not be prevented on highways grounds.

DRAWINGS



General Notes

1. Do not scale this drawing. All dimensions must be checked/verified on site.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions are in metres unless noted otherwise. All levels are in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.

PO2	25.03.25	Access location
PO1	04.12.24	First issue to ch
Rev	Date	Description

			Client:	Davidsons Developments Ltd
			Project:	Land at Ashby Road, Hinckley
ns adjusted	DH	DH		
ient team	DH	DH		
	Dr	Ch		

Site Access



ADC Infrastructure Limited

© ADC Infrastructure Limited								
Size:	A1			Scale:	As Shown			
Project	Originator	Volume	Level	Type	Role	Number	Status	Revision
3280	-ADC	-HGN	-XX	-DR	-CH	-0103	S1	P02

TRAFFIC FLOW DIAGRAMS

A447 Ashby Road

A

B

C

Site access

	TOTAL			
	A	B	C	Total
A			733	733
B				0
C	450			450
Total	450	0	733	1183

	PCUs			
	A	B	C	Total
A			761	761
B				0
C	484			484
Total	484	0	761	1245

	HGV			
	A	B	C	Total
A			28	28
B				0
C	34			34
Total	34	0	28	62

	% HGV			
	A	B	C	Total
A			4%	
B				
C	8%			
Total				

A447 Ashby Road

A

D

J1

B

A47 W J1 A47 E

C

Ashby Road

	TOTAL				
	A	B	C	D	Total
A	0	26	400	307	733
B	25	0	100	591	716
C	218	98	0	143	459
D	207	424	81	0	712
Total	450	548	581	1041	2620

	HGV				
	A	B	C	D	Total
A	0	4	10	14	28
B	4	0	3	22	29
C	11	5	0	2	18
D	19	30	0	0	49
Total	34	39	13	38	124

	PCUs				
	A	B	C	D	Total
A	0	30	410	321	761
B	29	0	103	613	745
C	229	103	0	145	477
D	226	454	81	0	761
Total	484	587	594	1079	2744

ADC3280

LAND AT ASHBY ROAD, HINCKLEY

DIAGRAM 1

2024 OBSERVED AM

ADC 
INFRASTRUCTURE

A447 Ashby Road

A

B

C

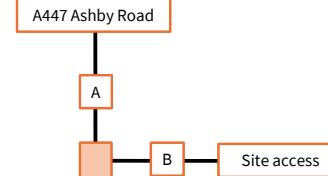
A447 Ashby Road

A

A47 W

C

Ashby Road



	TOTAL			
	A	B	C	Total
A			790	790
B				0
C	758			758
Total	758	0	790	1548

	PCUs			
	A	B	C	Total
A			806	806
B				0
C	777			777
Total	777	0	806	1583

	HGV			
	A	B	C	Total
A			16	16
B				0
C	19			19
Total	19	0	16	35

	% HGV			
	A	B	C	Total
A			2%	
B				
C	3%			
Total				

	TOTAL				
	A	B	C	D	Total
A	0	50	480	260	790
B	35	0	171	529	735
C	352	156	0	96	604
D	371	460	39	0	870
Total	758	666	690	885	2999

	HGV				
	A	B	C	D	Total
A	0	4	5	7	16
B	4	0	2	6	12
C	7	0	0	0	7
D	8	6	0	0	14
Total	19	10	7	13	49

	PCUs				
	A	B	C	D	Total
A	0	54	485	267	806
B	39	0	173	535	747
C	359	156	0	96	611
D	379	466	39	0	884
Total	777	676	697	898	3048

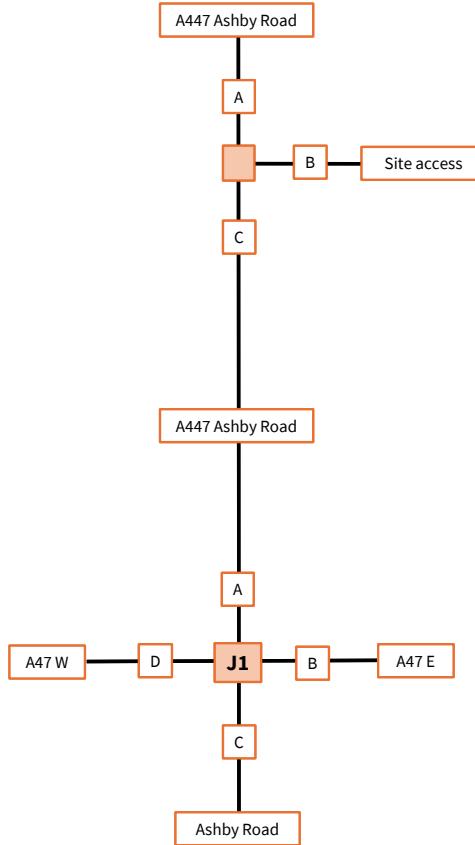
ADC3280

LAND AT ASHBY ROAD, HINCKLEY

DIAGRAM 2

2024 OBSERVED PM

ADC 
INFRASTRUCTURE



PCUs				
	A	B	C	Total
A	0	0	760	760
B	0	0	0	0
C	487	0	0	487
Total	487	0	760	1247

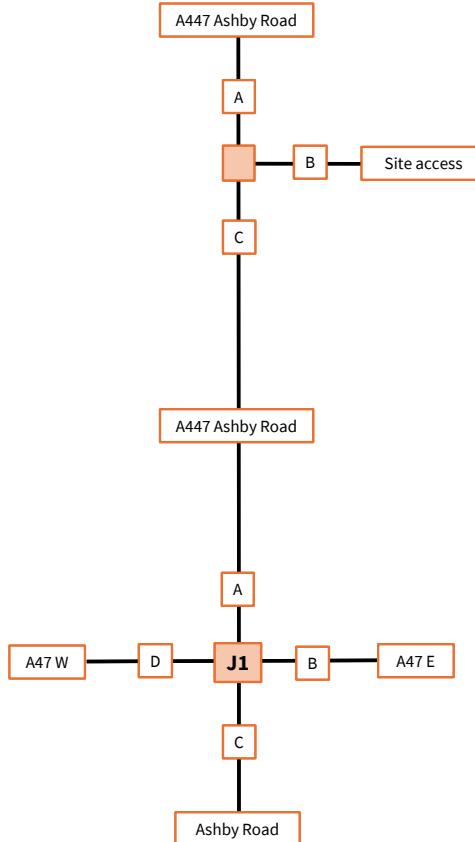
PCUs					
	A	B	C	D	Total
A	0	30	406	324	760
B	33	0	132	802	967
C	206	109	0	157	472
D	249	580	106	0	935
Total	488	719	644	1283	3134

ADC3280

LAND AT ASHBY ROAD, HINCKLEY

DIAGRAM 3

2030 FURNESSED 'DO NOTHING' TRAFFIC FLOWS, AM PEAK



PCUs				
	A	B	C	Total
A	0	0	731	731
B	0	0	0	0
C	822	0	0	822
Total	822	0	731	1553

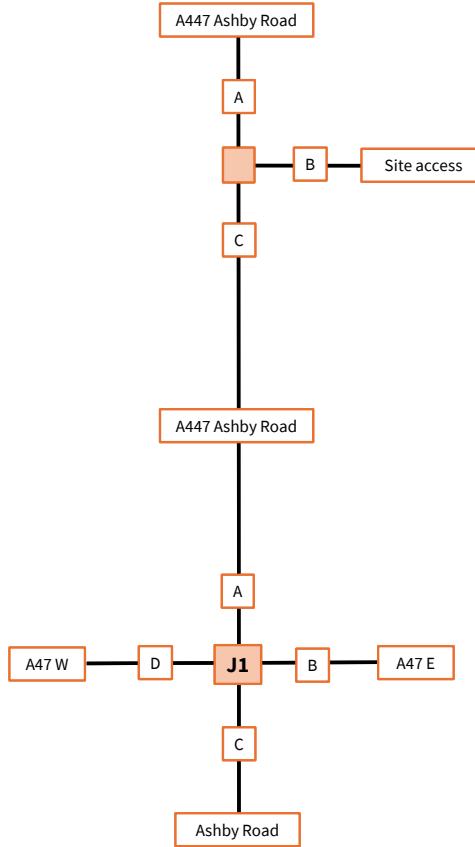
PCUs					
	A	B	C	D	Total
A	0	41	444	247	732
B	41	0	235	736	1012
C	340	161	0	121	622
D	443	583	58	0	1084
Total	824	785	737	1104	3450

ADC3280

LAND AT ASHBY ROAD, HINCKLEY

DIAGRAM 4

2030 FURNESSED 'DO NOTHING' TRAFFIC FLOWS, PM PEAK



Distribution (%)			
	A	B	C
A		20%	
B	15%		84%
C		80%	

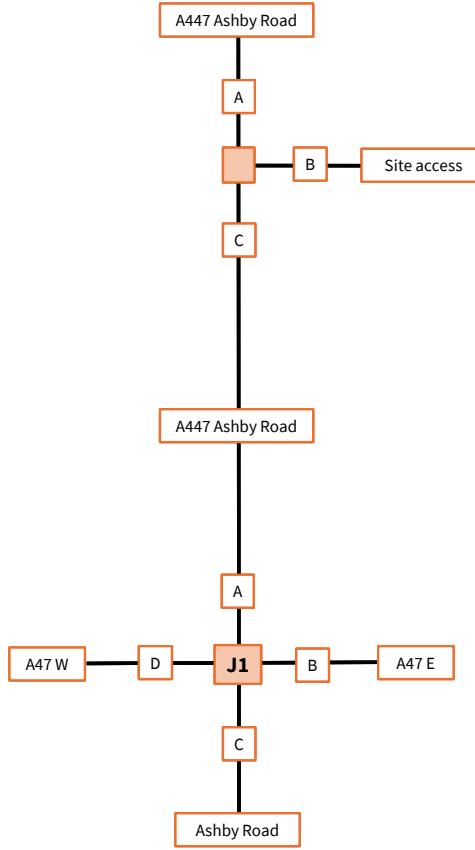
Distribution (%)				
	A	B	C	D
A		25%	39%	20%
B	25%			
C	37%			
D	18%			

ADC3280

LAND AT ASHBY ROAD, HINCKLEY

DIAGRAM 5

PRTM TRAFFIC DISTRIBUTION, AM PEAK



Distribution (%)			
	A	B	C
A		16%	
B	22%		78%
C		84%	

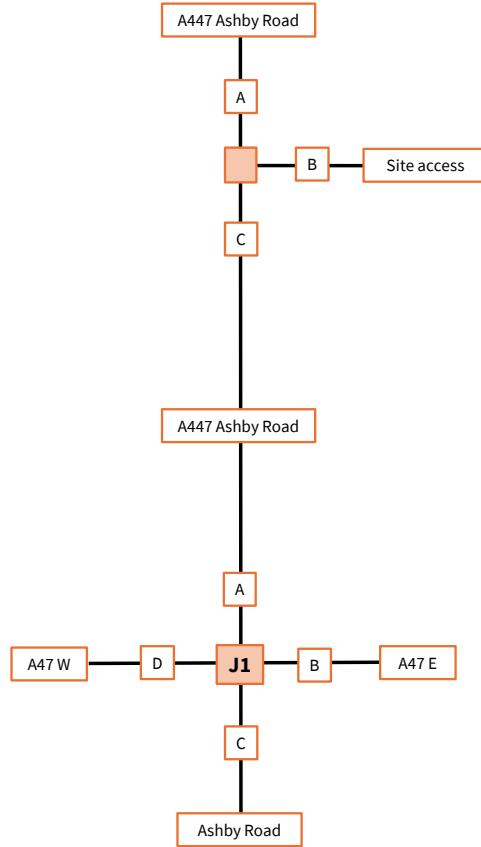
Distribution (%)				
	A	B	C	D
A		25%	37%	16%
B	34%			
C	30%			
D	20%			

ADC3280

LAND AT ASHBY ROAD, HINCKLEY

DIAGRAM 6

PRTM TRAFFIC DISTRIBUTION, PM PEAK



TOTAL				
	A	B	C	Total
A		3		3
B	7		39	46
C		13		13
Total	7	16	39	62

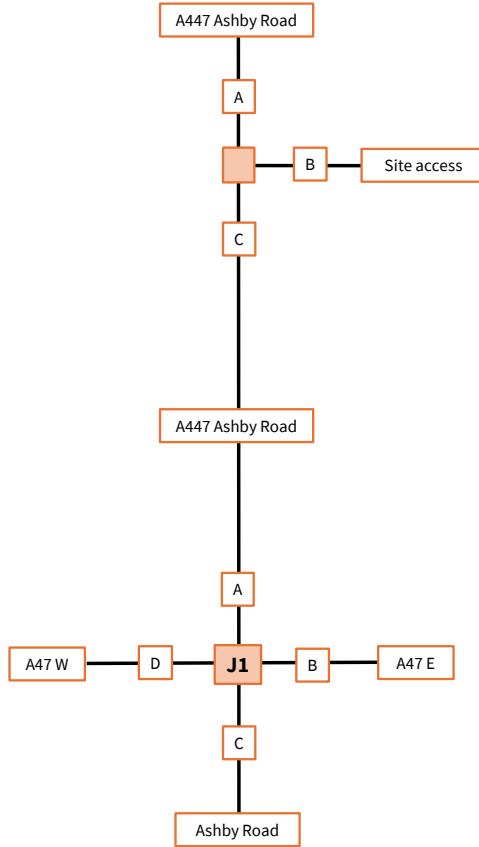
TOTAL					
	A	B	C	D	Total
A		12	18	9	39
B	4				4
C	6				6
D	3				3
Total	13	12	18	9	52

ADC3280

LAND AT HINCKLEY

DIAGRAM 7

DEVELOPMENT TRAFFIC ASSIGNMENT AM PEAK



TOTAL				
	A	B	C	Total
A		7		7
B	6		21	27
C		38		38
Total	6	45	21	72

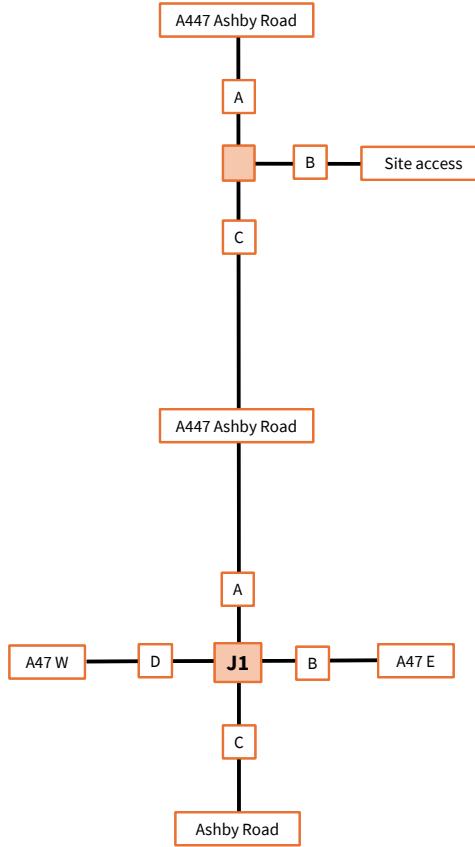
TOTAL					
	A	B	C	D	Total
A		7	10	4	21
B	15				15
C	14				14
D	9				9
Total	38	7	10	4	59

ADC3280

LAND AT HINCKLEY

DIAGRAM 8

DEVELOPMENT TRAFFIC ASSIGNMENT PM PEAK



PCUs				
	A	B	C	Total
A	0	3	760	763
B	8	0	39	47
C	487	13	0	500
Total	495	16	799	1310

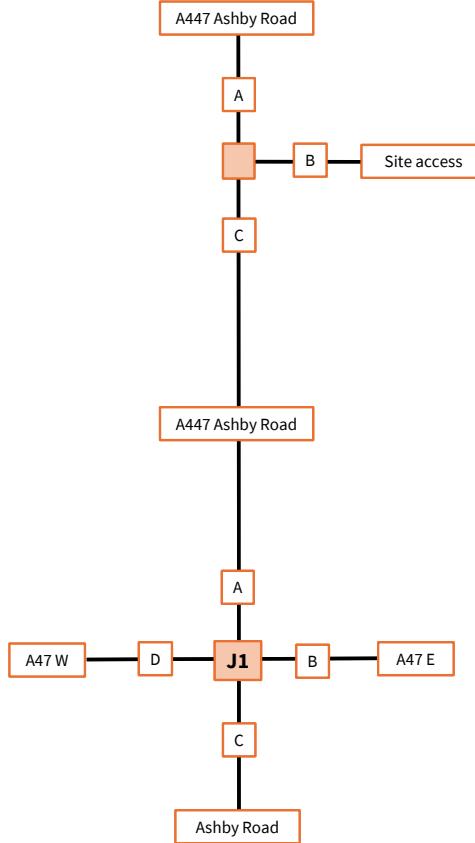
PCUs					
	A	B	C	D	Total
A	0	33	429	338	800
B	35	0	133	803	971
C	215	111	0	152	478
Total	501	731	662	1293	3187

ADC3280

LAND AT ASHBY ROAD, HINCKLEY

DIAGRAM 9

2030 DO SOMETHING 'DO SOMETHING' TRAFFIC FLOWS, AM PEAK



PCUs				
	A	B	C	Total
A	0	7	731	738
B	7	0	20	27
C	822	38	0	860
Total	829	45	751	1625

PCUs					
	A	B	C	D	Total
A	0	46	456	250	752
B	47	0	238	743	1028
C	358	162	0	115	635
D	457	584	53	0	1094
Total	862	792	747	1108	3509

ADC3280

LAND AT ASHBY ROAD, HINCKLEY

DIAGRAM 10

2030 DO SOMETHING 'DO SOMETHING' TRAFFIC FLOWS, PM PEAK

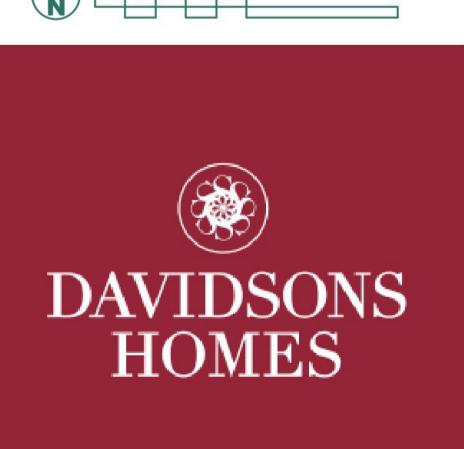
APPENDIX A

ILLUSTRATIVE LAYOUT



Key

	Application site boundary
	Existing (retained) trees & hedgerow
	Proposed tree/hedge removal
	Root protection areas
	Indicative proposed planting
	Open space
	Indicative surface water attenuation basin
	Existing Public Right of Way
	Proposed pedestrian/cycle link
	Potential for children play
	MANCO strip
	Indicative extent of residential area
	Potential locations of landmark buildings
	Proposed vehicular access



nineteen47

CHARTERED TOWN PLANNERS & URBAN DESIGNERS

Ashby Road, Hinckley

Drawing Ref: U05

Project Code: n2452 Rev: J

Date: 25.07.2025 Drawing Scale: 1:500 @ A0

APPENDIX B

TRANSPORT ASSESSMENT SCOPING STUDY



TRANSPORT ASSESSMENT – SCOPING STUDY

**PROPOSED RESIDENTIAL DEVELOPMENT
ASHBY ROAD, HINCKLEY**

DOCUMENT CONTROL

project number: ADC3280			report reference: ADC3280-RP-D	
version	date	author	reviewer	comments
1		R Leconte/A Martha		internal draft
2	19/06/2023	R Leconte/A Martha	R Leconte	issued to Client team

CONTENTS

1.0	INTRODUCTION	4
2.0	EXISTING CONDITIONS	7
	Traffic flows and vehicle speeds	7
	Summary	13
3.0	PROPOSED DEVELOPMENT.....	14
	Development proposals.....	14
	Access	14
	Sustainable travel measures.....	14
4.0	DEVELOPMENT TRIP GENERATION	16
	Peak hour traffic generation	16
	Proposed daily modal split and person trip generation.....	17
5.0	VEHICLE DISTRIBUTION AND ASSIGNMENT.....	18
6.0	ASSESSMENT TRAFFIC FLOWS	19
	Study area.....	19
	Observed traffic flows	19
	Assessment year base traffic flows	19
	Committed development and background traffic flows	19
	2029 with development traffic flows	20
7.0	SUMMARY AND CONCLUSIONS.....	21

DRAWINGS

Drawing ADC3280-DR-001-P1 (Proposed site access layout – simple T-junction)
Drawing ADC3280-DR-002-P1 (Proposed site access layout – ghost island junction)

APPENDICES

Appendix A	TRICS Outputs
Appendix B	2011 Census Distribution
Appendix C	Distribution Pattern
Appendix D	Development Assignment

1.0 INTRODUCTION

1.1 ADC Infrastructure Limited are commissioned by Davidsons Developments Ltd to provide transport and highways consultancy advice in support of an outline planning application for up to 120 dwellings on land to the east of Ashby Road, in Hinckley. The general site location is shown in **Figure 1**, and the detailed site location is shown in **Figure 2**. The application is outline with all matter reserved except for means of access. An illustrative masterplan is not yet available.



Figure 1: general site location



Figure 2: detailed site location

- 1.2 Hinckley and Bosworth Borough Council are the Local Planning Authority (LPA) and Leicestershire County Council (LCC) are the Local Highway Authority (LHA).
- 1.3 There are a number of developments coming forward in the area, which would change traffic flows and highway infrastructure in the area. This includes, but is not limited to, two large residential developments on land to the north of the A47 and west of Ashby Road. The Transport Assessments, and associated comments from LCC, for those two schemes have been reviewed in the preparation of this Scoping Study. Those developments used the Pan Regional Transport Modal (PRTM) to understand the impacts of their additional traffic. However, given the small scale of the proposed development, with up to 120 dwellings, it is not proposed to use PRTM for this development.
- 1.4 This Scoping Study has therefore been prepared to present and agree with LCC the key parameters for use in the Transport Assessment that will be submitted with the forthcoming outline planning application. It is structured as follows:
 - Section 2 describes the existing conditions in the vicinity of the site. The local highway network is described. The existing opportunities for travel to the site by sustainable modes are also examined, including walking, cycling, and bus. Traffic counts have not yet been completed, due to ongoing roadworks.
 - Section 3 describes the outline development proposals, including the proposed vehicular access junction options, and the new infrastructure that would be provided to encourage the use of sustainable travel modes. Agreement is sought to the principle of the access.
 - Section 4 summarises the forecast trip generation of the development using trip rates and the modal split from the TRICS database. Average vehicle trip rates are used to determine

the peak hour traffic flows, whilst average person trip rates and modal split are used to determine the daily person trip generation. Agreement is sought on the trip rates.

- Section 5 details the distribution pattern and assigns the development traffic on the local highway network, using 2011 Census travel to work data. Agreement is sought on the distribution pattern.
- Section 6 presents the proposed study area and the 2029 assessment year traffic flows, including TEMPRO growth rates and various committed development. Agreement is sought on this.
- Section 7 presents a summary of the key parameters for agreement.

1.5 This Scoping Study considers the transport implications of the development proposal in respect of the NPPF¹, in particular the following paragraphs:

“114. In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location.*
- b) safe and suitable access to the site can be achieved for all users;*
- c) 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 46; and*
- d) 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.*

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

¹ National Planning Policy Framework, Department for Levelling Up, Housing and Communities, December 2023

2.0 EXISTING CONDITIONS

Local highway conditions

- 2.1 The proposed development would be accessed from the A447 Ashby Road. The A447 runs north-south between the A511 at Coalville to the north, and the A47 to the south of the site. Along the site frontage, it is sub-urban in character with houses along the western side of the carriageway, becoming rural as it exits the built-up area north of the Hinckley and Bosworth Community Hospital. It is a single carriageway A-road, governed by a 40mph speed limit. Where there are houses fronting onto the carriageway, it has footways, with the footway along the western side road set back from the carriageway by a wide grassed verge. There is currently no footway provision along the site frontage. There is street lighting along the site frontage.
- 2.2 Ashby Road joins the A47 and B4667 at a signal-controlled crossroads to the south of the site. The A47 forms the northern bypass around Hinckley, before continuing northeast to Leicester and beyond. It is governed by the National Speed Limit (NSL), reducing to 40mph on the approach to the junction with the A447 Ashby Road. There is street lighting in the 40mph zone, which ceases as it exits the built-up area and becomes the NSL. There is a segregated footway cycleway running along its southern edge, segregated from the carriageway by a 0.5m wide grassed verge.
- 2.3 The A47/A447/B4667 signal controlled crossroads has two lane approaches on all arms. It is understood that LCC have a mitigation scheme which involves widening each arm, and an additional lane on both the western and southern arms of the junction (drawing reference A1-4332.000/H1/**/**), and a copy of this drawing is requested.
- 2.4 As part of the Transport Assessment, a traffic count will be undertaken at the A47/A447/B4667 signal controlled crossroads which will form the study area.
- 2.5 Accident data will also be obtained for the study area, and an analysis of all recorded accidents will be included in the Transport Assessment.

Traffic flows and vehicle speeds

- 2.6 Two Automatic Traffic Counters (ATC) were commissioned on Ashby Road to understand the traffic flows along Ashby Road and record existing vehicle speeds along the site frontage. This was to inform the layout of the proposed site access junction, and the visibility splay requirements. However, roadworks have recently been commenced on Ashby Road and temporary traffic lights are in place until 11 July 2024, as shown in **Figure 3** below. Therefore, the surveys were paused, and it is proposed that the surveys would be carried out once the obstructions have been cleared and after the school summer holidays. This is of relevance to the site access designs presented in Section 3.

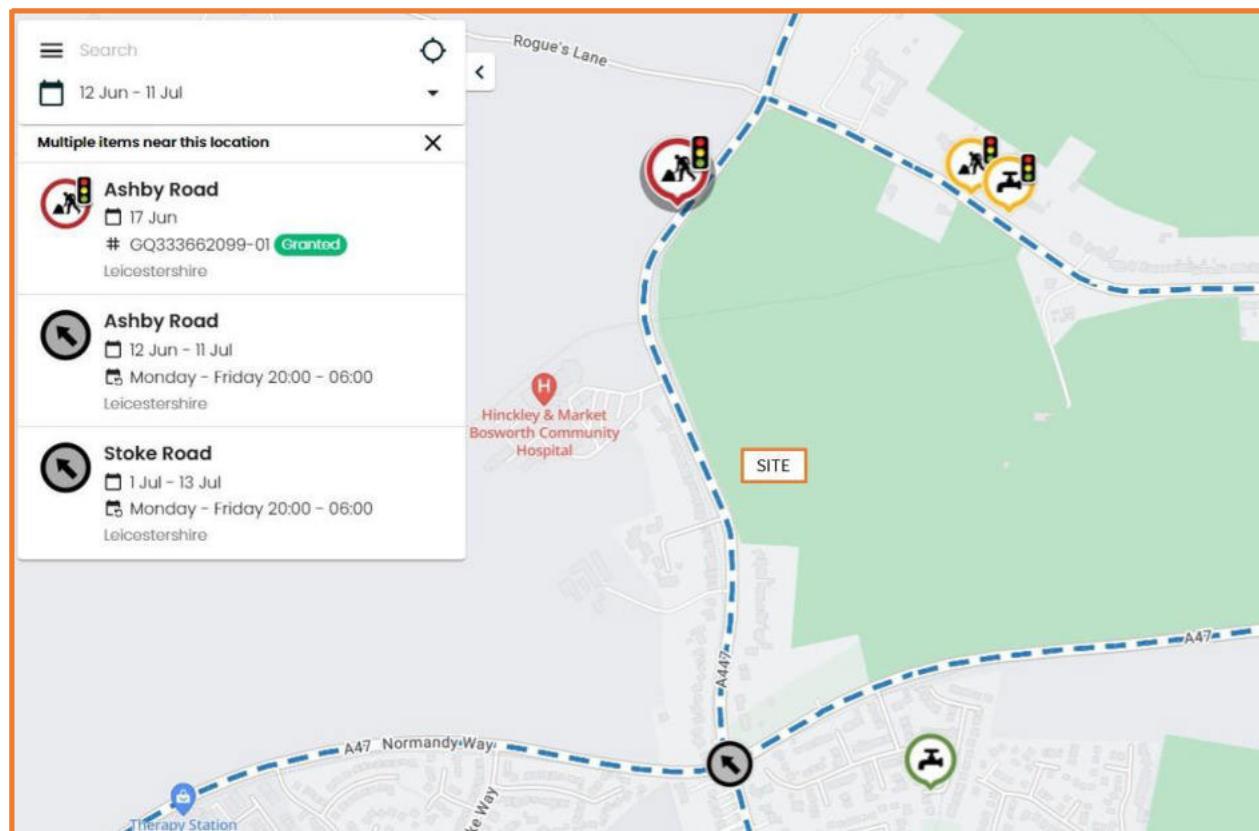


Figure 3: An extract from Causeway one. Network

Opportunities for sustainable transport – Pedestrians

2.7 For commuters and school pupils without mobility impairment, up to 500 metres is the desirable walking distance, up to 1,000 metres is an acceptable walking distance, and up to 2,000 metres is the preferred maximum walking distance². **Figure 3** shows a 2km pedestrian catchment from the centre of the site.

² Guidelines for Providing for Journeys on Foot, Chartered Institution of Highways and Transportation, 2000

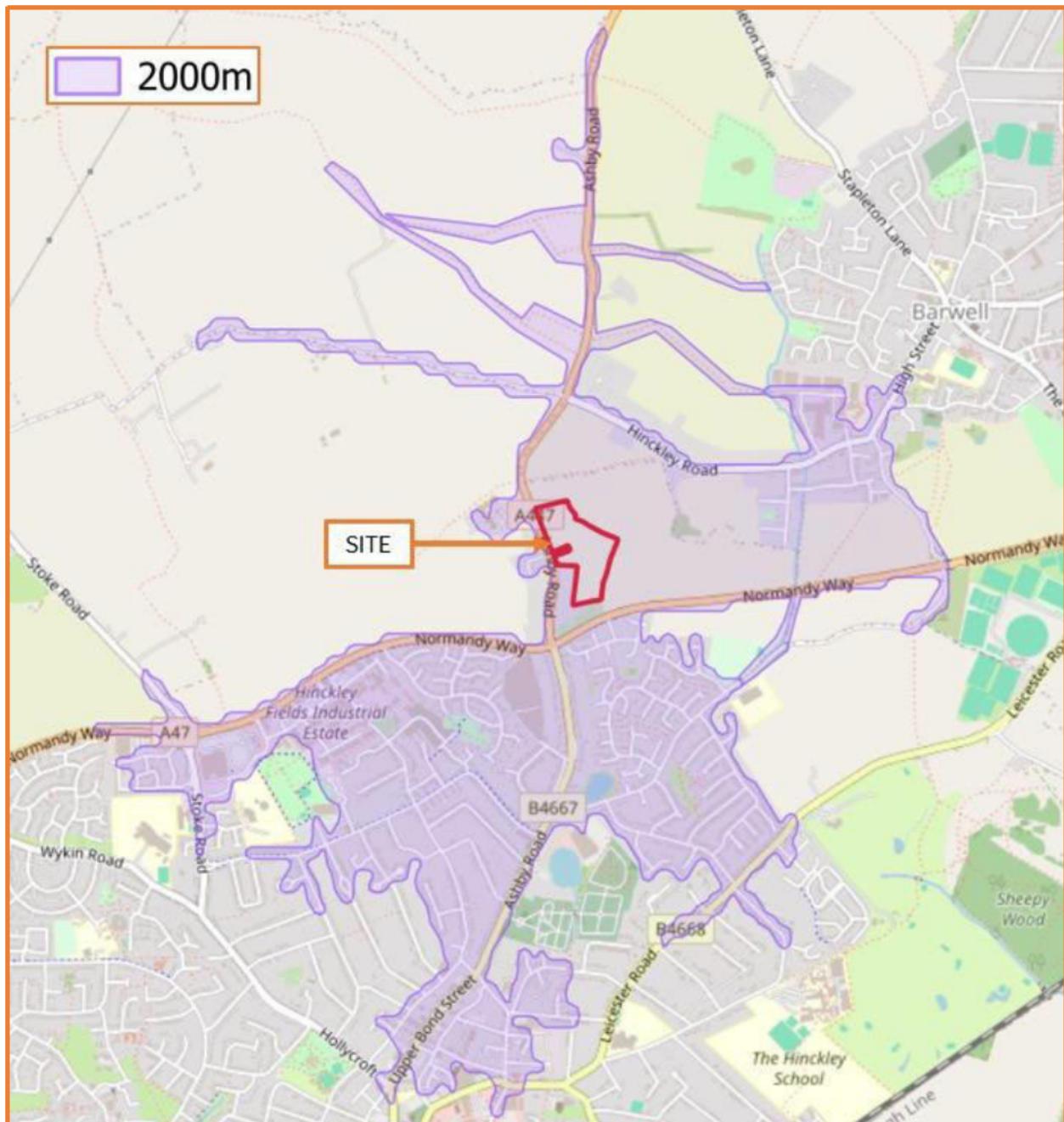


Figure 3: pedestrian catchment area

- 2.8 The proposed development is within reasonable walking distances of the many available services and amenities on the northern side of Hinckley. The site is also within walking distance of the neighbouring village of Barwell, although pedestrian connectivity is less favourable in that direction.
- 2.9 Pedestrian connectivity between the site and Hinckley is excellent. There is a footway along the western side of the A447 Ashby Road, which is set back from the carriageway edge by a wide grassed verge. On the eastern side of the carriageway there is a footway which ceases after the row of houses south of the site. As part of the development proposals, a new footway would be provided along the site frontage to connect to the existing footway.
- 2.10 South of the site, the A47/A447 signal controlled junction has pedestrian crossing facilities on each arm. In addition to the improvements detailed in Section 2.3, it is understood that it is proposed that these will be upgraded to staggered crossings as part of the remedial works for the

nearby proposed Hinckley Strategic Rail Freight Interchange (decision due September 2024) as shown in **Figure 4** below. Confirmation is therefore sought from LCC on the consented scheme at the junction.

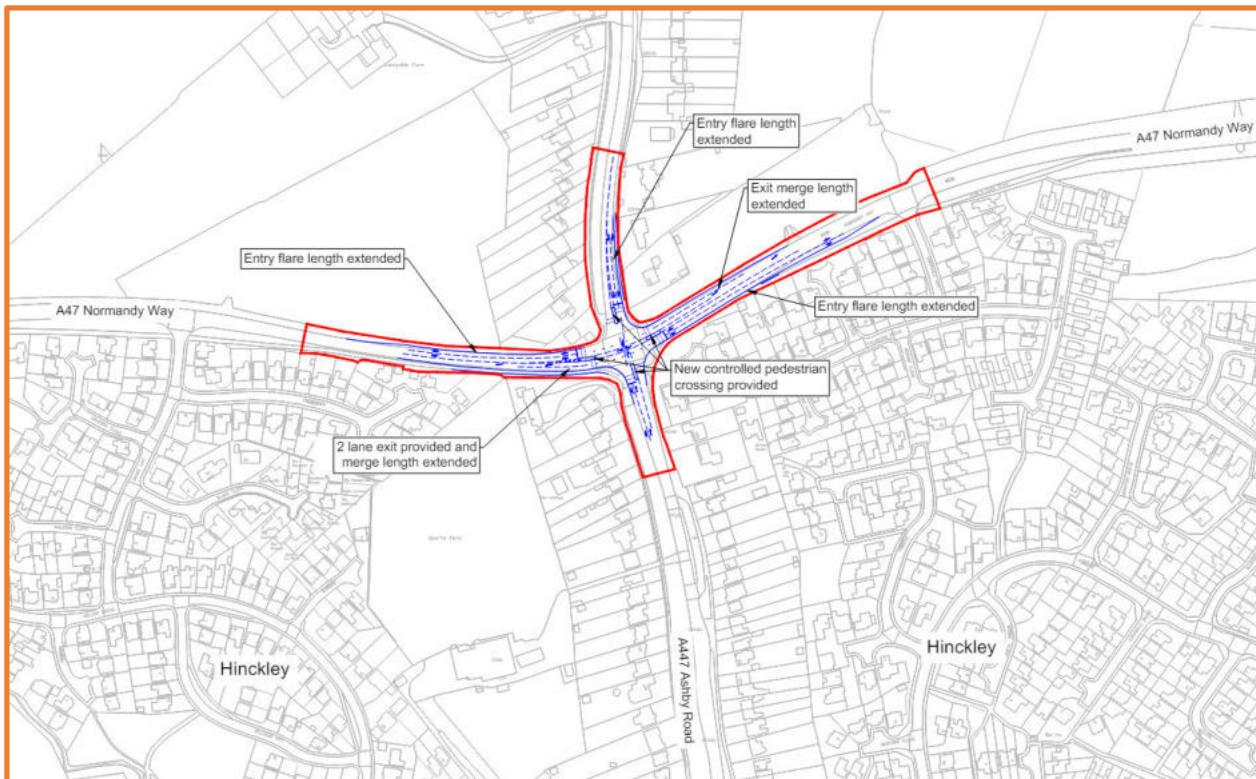


Figure 4: Extract from HNRFI Highway Plans Sheet 8

2.11 The site is therefore well located for pedestrian travel.

Opportunities for sustainable transport – Cyclists

2.12 Data from the 2021 National Travel Survey indicates that the average length of a cycle journey is approximately 5km, although cyclists will commute significantly longer distances than this if the topography and highway conditions are favourable. A 5km catchment from the centre of the site is shown in **Figure 5** below.



Figure 5: cycle catchment area

2.13 The site is located within realistic cycling distance of Hinckley for commuters, or utility cyclists. The town centre is approximately a 15-minute bike ride from the site, at typical cycling speeds of 15kph.

2.14 **Figure 6** shows an extract of the LCC's cycle map. As shown, along the site frontage, Ashby Road is marked as a quieter route. From the A47/A447/B4667 signal controlled junction, there is a segregated footway/cycleway running along the B4667 Ashby Road, which extends as far south as the crossroads with Upper Bond Street and Derby Road, on the edge of the town centre after which cyclists must rejoin the carriageway, marked as a quieter route.

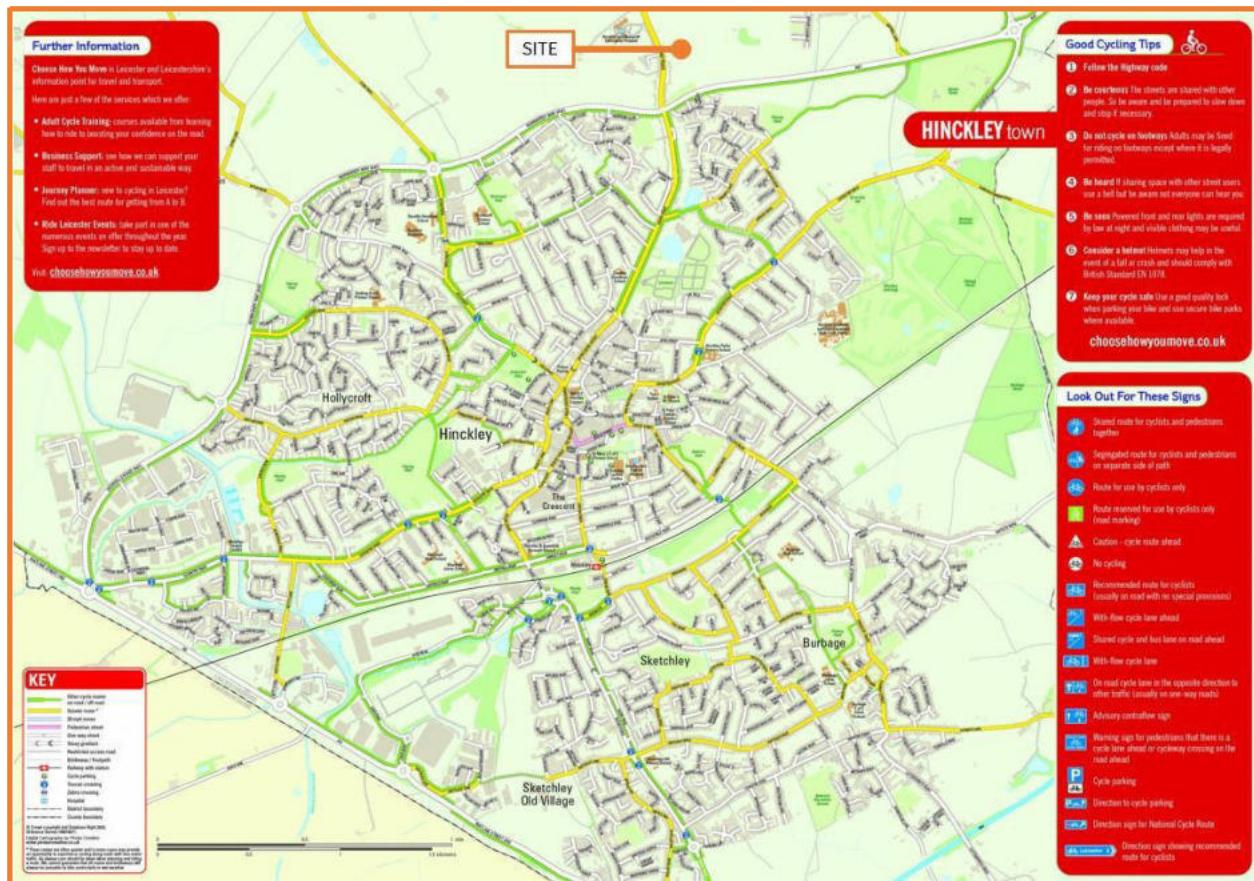


Figure 6: Extract from the LCC Cycle Map

- 2.15 In addition, the A47 has a fully segregated footway/cycleway running along its southern edge.
- 2.16 It is understood that the junction is to be upgraded with full puffin/toucan facilities, as part of the mitigation scheme for another nearby development. Confirmation is sought from LCC on this. If the application does not come forward, the proposed improvements could be explored as part of the active travel measures offered by the proposed development.
- 2.17 North of the junction with the A47, the A447 has no dedicated infrastructure for cyclists, meaning that future residents of the proposed development would need to cycle on carriageway for a short distance until they reached the segregated footway/cycleway. This section of road is categorised as a 'recommended on-road route' by LCC, hence it is safe for residents to cycle on carriageway.
- 2.18 The A47 has a fully segregated footway/cycleway running along its southern edge, connecting the site with Barwell and shared footway/cycleway with Earl Shilton.
- 2.19 South of the junction, there is a segregated footway/cycleway running along the B4667 Ashby Road, which extends as far south as the crossroads with Upper Bond Street and Derby Road, on the edge of the town centre after which cyclists must rejoin the carriageway.

Opportunities for sustainable transport – Public Transport

2.20 The nearest bus stops to the proposed development are on the A447 just north of the proposed site access, adjacent to the Hinckley and Bosworth Community Hospital. There are more stops to the south between the site and the A47 junction. Both the northbound and southbound stops nearest the site are marked by flag/pole arrangement with timetable information and the southbound stop has a shelter. The bus stops provide access to the following services:

A447 Stops					
Service	Route	Frequency	Starts	Ends	Journey Duration
148	Nuneaton - Leicester	Every 30 mins Mon-Sat, no Sunday Services.	06:08	22:25	Nuneaton: 26 mins Hinckley: 7 mins Leicester: 44 mins
158	Nuneaton - Leicester	Every 20 mins Mon-Sat, hourly Sunday Services	05:30	22:55	Same as above

2.21 The proposed development site is therefore well located for bus travel, with existing stops within 400m of the site, and five services an hour into Hinckley, Nuneaton and Leicester, as well as the smaller villages on route.

2.22 Hinckley railway station is located approximately 3km from the site and is accessible by cycle and using the bus services 148 and 158. The station provides the following services:

- Daily hourly services to Leicester and Birmingham
- One early morning train to Stansted Airport and evening train to Gloucester on weekdays
- Three additional peak services as far as Cambridge via Peterborough

Summary

2.23 Overall, the site is well located for residential development with the facilities/amenities in northern Hinckley within the walking distance of the site, accessed via excellent pedestrian network throughout Hinckley. All of Hinckley, Barwell and most of Earl Shilton are within cycling distance of the site and the facilities can be accessed via a combination of on-road/off-road cycle routes and quieter roads. The nearest public transport stops provide frequent services to Nuneaton, Leicester and Birmingham, with five bus services per hour past the site and bus stops within walking distance. There are therefore excellent opportunities for sustainable travel to and from the site.

3.0 PROPOSED DEVELOPMENT

Development proposals

3.1 The outline planning application is for up to 120 dwellings, to be accessed from Ashby Road.

Access

3.2 LCC's Highway Design Guide states that a Residential Access Road with a carriageway width of 5.5m is sufficient to serve up to 400 dwellings, with normally no more than 150 from a single point of access. Therefore, as the application is for less than this, at up to 120 dwellings, it is proposed that the development will have a single point of access on Ashby Road, with a 5.5m carriageway width.

3.3 The form of the junction is still to be confirmed. Whilst a simple T-junction is considered appropriate at this stage, we await ATC data for Ashby Road to understand whether a ghost island right turn lane will be required based on existing traffic flows.

3.4 Paragraph 2.3.1 of CD123 provides information on how to determine the appropriate level of junction provision based on the traffic flows on major and minor roads. A ghost island junction would be required if the two-way AADT flows exceed 300 on the minor road (the site access) and 13,000 on the major road (the A447 Ashby Road).

3.5 Both a simple T-junction layout and a ghost island right turn lane are deliverable within land owned by Davidsons and the adopted highway boundary. An indicative simple T-junction arrangement is shown in **Drawing ADC3280-DR-001-P1**, whilst an indicative T-junction with ghost island right turn lane is shown in **Drawing ADC3280-DR-002 P1**.

3.6 Advice is sought at this stage on whether LCC have a preference to the junction form. The drawing will be updated with visibility splays based on the recorded vehicle speeds, once the ATC data is available. The proposed junction arrangement will be detailed in the Transport Assessment, together with a Stage One Road Safety Audit and associated Response Report.

Sustainable travel measures

3.7 As shown in the drawings, as part of the development proposals, it is proposed to provide a new 2m wide footway extending north from the site access junction to the bus layby, beyond which there is an existing footway to connect to.

3.8 South of the junction, the proposed active travel provision consists of a separate 2m footway and 3m cycleway, which is segregated from the carriageway edge by a 0.5m wide verge. A third-party land constraint to the south of the site means that whilst the 2m wide footway can continue along the eastern edge of A447, connecting into the existing provision, cyclists will need to be taken across the carriageway via a crossing. The location and form of the crossing is to be determined depending on the existing traffic flows from the ATC. The western edge of the A447 has a wide verge, and an existing footway, meaning that there is sufficient space to accommodate a 3m wide cycleway to connect to the junction with the A47 and continue their onward journey via segregated footway/cycleway on Ashby Road into Hinckley or the A47 to Barwell and further.

3.9 Further south, as detailed in Section 2, it is understood that there are consented proposals to upgrade the crossing facilities at the A47/A447/B4667 junction to provide controlled staggered

crossings. Consideration will need to be given to how cyclists cross, to allow a continuous off-road cycle route from the site into Hinckley Town Centre.

3.10 As part of the Transport Assessment, a Stage One Road Safety Audit of the proposals will be provided.

4.0 DEVELOPMENT TRIP GENERATION

Peak hour traffic generation

4.1 In order to determine the forecast traffic generation of up to 120 dwellings, reference was made to the TRICS 7.11.1 database. The following selection criteria was applied:

- all multi-modal sites in the 'residential - privately owned houses' category were selected.
- only sites in England, excluding Greater London, were selected.
- only sites in a suburban area or edge of town location were selected.
- trip rate per dwelling selected.
- sites with 50 to 200 dwellings were selected.
- sites surveyed during a time when Covid restrictions were in place were deselected
- sites that included flats were deselected.

4.2 This selection resulted in 16 sites on 16 survey days. The sites are considered to be comparable to the proposed development site in terms of location, accessibility and scale. The TRICS outputs are contained in **Appendix A**.

4.3 Given the location of the site, and the excellent existing opportunities for pedestrian, cycle and bus travel (as detailed in Section 2), together with the proposed infrastructure to further improve the accessibility of the site, the average trip rates are considered appropriate to use.

4.4 The average vehicle trip rates, and the resultant morning and evening peak hour traffic generation for 120 dwellings is shown in the table. Based on a worst case of 120 dwellings, the proposed development would generate up to 58 two-way trips in a typical peak hour.

Proposed vehicle trip rates and traffic generation		arrive	depart	two-way
trip rates (per dwelling)	AM peak hour	0.13	0.353	0.483
	PM peak hour	0.327	0.16	0.487
vehicle trips (120 dwellings)	AM peak hour	16	42	58
	PM peak hour	39	19	58

4.5 As detailed in Section 1, there are a number of developments in the area. Therefore, the trip rates of those developments were examined for comparative purposes. The trip rates for the large-scale residential developments to the west of Ashby Road are shown in the table below, together with the traffic generation of 120 dwellings:

LCC vehicle trip rates and traffic generation		arrive	depart	two-way
trip rates (per dwelling)	AM peak hour	0.148	0.425	0.573
	PM peak hour	0.409	0.244	0.653
vehicle trips (120 dwellings)	AM peak hour	18	51	69
	PM peak hour	49	29	78

4.6 As shown, the trip rates for the larger scale developments are higher. However, given the location of the development with excellent opportunities for sustainable travel, together with the proposed improvements to further facilitate the use of sustainable travel modes, the average trip rates remain appropriate to use.

4.7 Agreement is sought from LCC on the proposed vehicle trip rates in the table at paragraph 4.4.

Proposed daily modal split and person trip generation

4.8 In order to calculate the forecast modal split and daily trip generation of the development by all modes and for all journey purposes, reference was again made to the TRICS 7.11.1 database.

4.9 To be consistent with the selection criteria used to select the vehicle trip rates, the same filter selection process was applied, and this selection resulted in 16 sites on 16 survey days. The average daily person trip rates from the 16 comparable sites were selected, and resultant total trip generation of 120 dwellings is shown in the table below. The TRICS outputs are in **Appendix A**.

	daily (0700-1900)		
	arrival	depart	two-way
person trip rates	4.02	4.064	8.084
total person trip generation	482	488	970

4.10 The average daily modal split from the most comparable sites from TRICS selection was applied to the total person trip generation, to calculate the forecast daily number of trips by each travel mode, as shown in the table below. The proportion of trips by foot, cycle and bus are considered appropriate given the location of the site and the excellent opportunities for sustainable travel. The number of vehicle passengers was calculated from the average car occupancy rate of 1.18 from the TRICS data. The TRICS outputs are in **Appendix A**.

	Foot	Bicycle	Bus	Train	Driver	Passenger	Total
Modal Split	16.4%	1.5%	6.7%	4.0%	66.0%	5.4%	100.0%
Daily	159	15	65	39	639	53	970

4.11 Agreement is sought from LCC on the proposed person trip rates and the modal split.

5.0 VEHICLE DISTRIBUTION AND ASSIGNMENT

- 5.1 In order to determine the likely distribution pattern of the development traffic shown in the table at paragraph 4.4, reference was made to the 2011 National Census ‘Location of usual residence and place of work by method of travel to work’ dataset (reference WU03EW). The data provides information on the in moves and out moves to and from each middle layer super output area (MSOA) associated with journeys to work by car.
- 5.2 The site is located in the ‘Hinckley and Bosworth 009’ MSOA. Therefore, the data was examined to identify where people living within the Hinckley and Bosworth 009 MSOA travel to. From this information, the travel routes and the proportion using each highway route were identified using GIS. A copy of the Census data is contained in **Appendix B**. This approach is appropriate given that it is likely that new residents within the development will display similar travel patterns to existing residents in the area.
- 5.3 The use of 2011 Census data remains appropriate, given that the 2021 Census was undertaken when travel patterns were affected by the Covid pandemic.
- 5.4 The resultant distribution pattern is shown in **Diagram 1 in Appendix C**. It assumes that:
 - 28.4% travel to and from the A47 East
 - 22.7%, to and from the A47 West
 - 12.7% travel to and from the A447 North
 - 36.2% travel to and from the Ashby Road South through Hinckley
- 5.5 The development traffic in the table at paragraph 4.4 was assigned to the local highway network in accordance with the distribution pattern shown in **Diagram 1**. The morning and evening peak hour development traffic assignment is shown in **Diagrams 2 and 3 in Appendix D**.
- 5.6 Agreement is sought from LCC on the proposed distribution pattern.

6.0 ASSESSMENT TRAFFIC FLOWS

Study area

- 6.1 The study area will be limited to any junction experiencing an increase of 30 or more two-way trips as a result of the proposed development.
- 6.2 As shown in **Diagrams 2 and 3**, the proposed development would add 51 trips to the A47/A447/B4667 signal controlled junction.
- 6.3 Beyond that junction, the development would add 16 two-way on the A47 east of the junction, 14 two-way on the A47 west of the junction, and 21 two-way on the B4667 south of the junction. Therefore, no further assessment is required in any direction.
- 6.4 The development would add 7 two-way traffic flows on the A447 Ashby Road to the north of the site, and therefore no further assessment is required.
- 6.5 Therefore, the study area is limited to the proposed site access junction, and the A47/A447/B4667 signal-controlled junction.
- 6.6 Agreement is sought from LCC on the proposed study area.

Observed traffic flows

- 6.7 As discussed in Section 2, traffic counts will be undertaken on Ashby Road along the site frontage in July 2024.
- 6.8 In addition, a new traffic count will be undertaken at the A47/A447/B4667 signal controlled junction in 2024. This is considered more appropriate than using data from the October 2021 survey undertaken for the two residential developments west of Ashby Road, given the age of the data and potential implications from Covid.

Assessment year base traffic flows

- 6.9 The 2024 observed traffic flows will be growthed to a future assessment year of 2029 (five years after submission of the planning application). The following Core Scenario growth rates were obtained for the Hinckley and Bosworth 009 MSOA from TEMPRO (v8, dataset 80).
 - 2024 to 2029 (AM) 1.0481
 - 2024 to 2029 (PM) 1.0485
- 6.10 These growth rates will be applied to the observed traffic flows at the study area junction, to create 2029 base traffic flows.
- 6.11 Agreement is sought from LCC on the proposed future assessment year, and the proposed growth rates.

Committed development and background traffic flows

- 6.12 It is necessary to include traffic flows associated with any committed developments within the assessment year traffic flows. The NPPF states that *“it is important to give appropriate consideration to the cumulative impacts arising from other committed development (i.e. development that is consented or allocated where there is a reasonable degree of certainty will*

proceed within the next three years). At the decision-taking stage this may require the developer to carry out an assessment of the impact of those adopted Local Plan allocations which have the potential to impact on the same sections of transport network as well as other relevant local sites benefitting from as yet unimplemented planning approval.”

6.13 The following developments have been identified which could potentially impact the traffic flows through the study area junction:

committed development	status	Size
Land East of Stoke Road Phase 1 (23/00432/OUT)	awaiting decision	500
Land East of Stoke Road Phase 2 (24/00264/OUT)	awaiting decision	415
Land North East of Triumph Motorcycles	permitted	850
Earl Shilton SUE	awaiting decision	1,500
Barwell SUE	awaiting decision	2,500

6.14 The two residential developments on Land East of Stoke Road (referred to previously in this report as land west of Ashby Road) are not allocated, and are awaiting decision. Confirmation is therefore sought from LCC on whether the traffic flows associated with these developments should be separately included. If they are to be included, advice is sought from LCC on the likely timescales for construction and operation, and hence what proportion of traffic should be included in the 2029 assessment traffic flows.

6.15 With respect to land north east of Triumph Motorcycles, the Bloor Homes website shows 451 out of 850 homes have been constructed, of which 434 have been occupied. Therefore, much of the traffic will already be included for in the observed flows from the July 2024 traffic count. It is considered that the remaining flows will be covered in the TEMPRO growth rates, and therefore it is not proposed to separately include for this development.

6.16 The bigger developments, Earl Shilton SUE and Barwell SUE are awaiting decision. However, as allocated sites, it is not proposed to separately include traffic associated with these schemes, as they will be included for in the TEMPRO growth factors. Furthermore, the PRTM assumed timescales of 2029 to 2045 for Earl Shilton and 2028-2051 for Barwell, meaning there would be limited traffic in the 2029 assessment year.

6.17 Agreement is sought from LCC on the committed developments that need to be included within the Transport Assessment. Advice is also sought on the proportion of development that will be built out by the 2029 assessment year, and thus the proportion of traffic that should be included in the 2029 background traffic flows.

2029 with development traffic flows

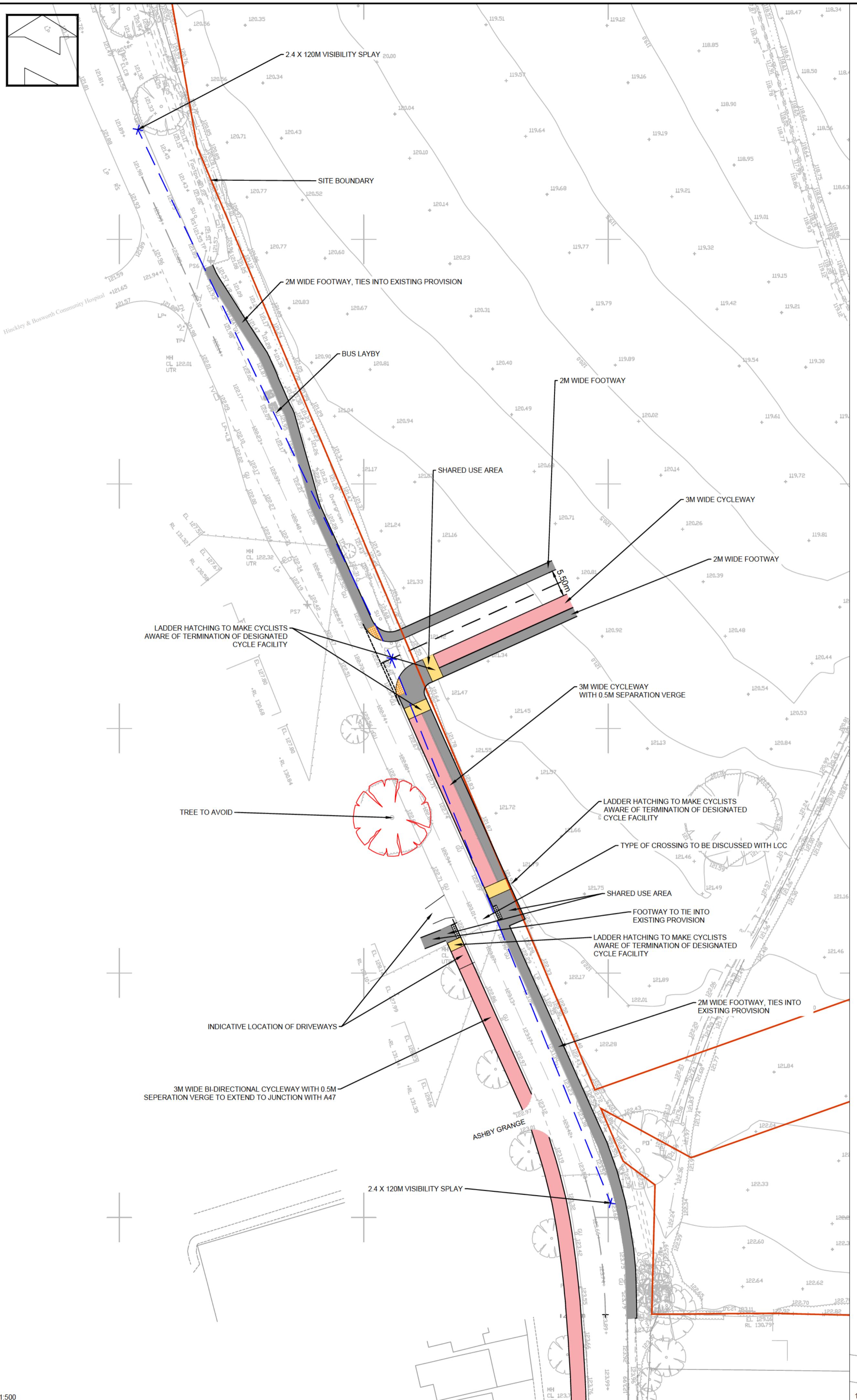
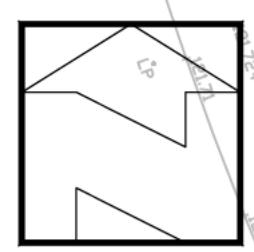
6.18 The proposed development traffic flows will be added to the 2029 background traffic flows to provide 2029 with development traffic flows for use in the junction assessments within the Transport Assessment.

7.0 SUMMARY AND CONCLUSIONS

- 7.1 Davidsons commissioned ADC Infrastructure Limited to provide transport and highways consultancy advice in support of an outline planning application for up to 120 dwellings on land at Ashby Road, in Hinckley.
- 7.2 There are a number of developments coming forward in the area, which would change traffic flows and highway infrastructure in the area. This includes two large residential developments on land to the north of the A47 and west of Ashby Road referred to as Land East of Stoke Road. Those developments used the Pan Regional Transport Modal (PRTM) to understand the impacts of the additional traffic. However, given the small scale of the proposed development, with up to 120 dwellings, it is not proposed to use PRTM for this development.
- 7.3 This Scoping Study has therefore been prepared to present and agree with LCC the key parameters for use in the Transport Assessment.
- 7.4 There are good opportunities for pedestrian travel with the many available services and amenities in northern Hinckley accessible via excellent pedestrian network in the town. All of Hinckley, Barwell and most of Earl Shilton are within cycling distance of the site and the facilities can be accessed via a combination of on-road/off-road cycle routes and quieter roads. The nearest public transport stops provide frequent services to Nuneaton, Leicester and Birmingham, with five bus services per hour past the site and bus stops within walking distance of the site.
- 7.5 The development would be accessed from a single point of access onto Ashby Road. Two access options have been considered - simple priority-controlled T-junction and a ghost island right turn lane junction. The form of the junction will be informed by an ATC on Ashby Road once current roadworks are lifted, and a Stage One Road Safety Audit and associated Response Report will be prepared.
- 7.6 The development proposals include the provision of a new 2m wide footway to the north and south of the junction tying into the existing footway provision on the eastern side of Ashby Road. The proposals also include a 3m wide footway/cycleway on the western side of Ashby Road, connection to the facilities south of the A47/A447 signal controlled junction. The form of the crossing on Ashby Road will be informed by the ATC data.
- 7.7 Given the excellent opportunities for sustainable travel, average vehicle trip rates from the TRICS database were selected, and the proposed development would generate up to 58 two-way vehicle trips in a typical peak hour. Agreement is sought from LCC on the proposed trip rates.
- 7.8 Average person trip rates were also selected, together with a modal split. The development would generate up to 159 pedestrian trips, 15 cycle trips, 65 bus trips and 39 train trips in a day. Agreement is sought from LCC on the proposed person trip rates and modal split.
- 7.9 The development traffic was distributed to the highway network using 2011 Census travel to work data. Agreement is sought from LCC on the proposed distribution pattern.
- 7.10 Based on the likely increase in trips, the study area for the Transport Assessment is limited to the proposed site access junction and the A47/A447 signal controlled junction. Agreement is sought from LCC on the proposed study area.

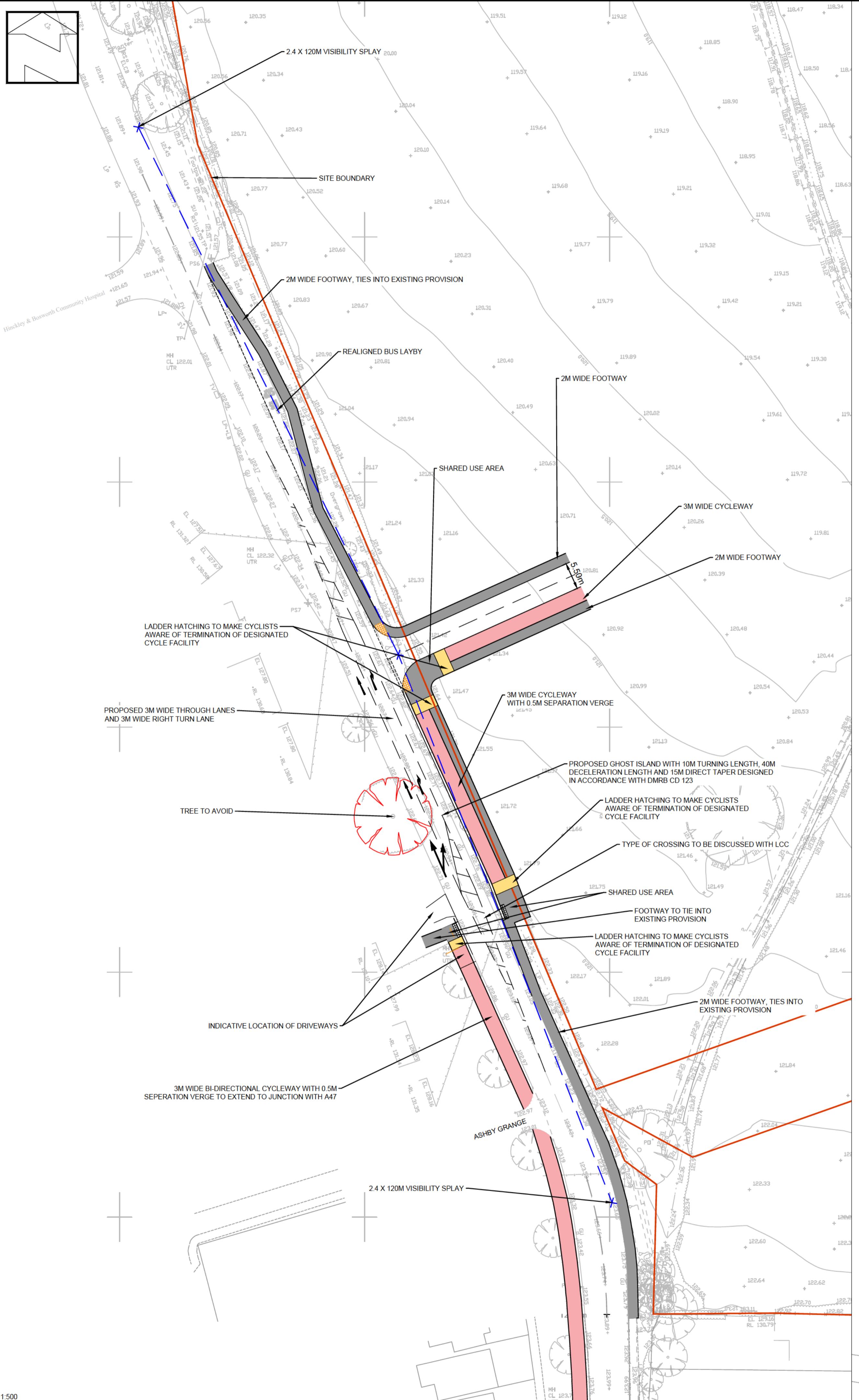
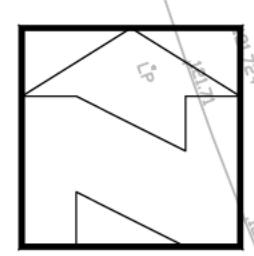
- 7.11 New traffic counts will be undertaken, and the observed flows growthed to a future year of 2029. Agreement is sought from LCC on the proposed future assessment year and TEMPRO growth rates.
- 7.12 Several committed developments were considered for inclusion within the 2029 assessment flows. Agreement is sought from LCC on the committed developments to include, as well as the proportion of development that would be built out by the 2029 assessment year and thus the proportion of traffic that needs to be included in the assessment flows.
- 7.13 Plans of the consented improvement scheme at the A47/A447/B4667 junction are also requested from LCC.
- 7.14 ADC welcome LCC's response to this Scoping Study and would like to attend a meeting to discuss the key parameters for agreement, if that would be useful to LCC.

DRAWING ADC3280-DR-001-P1
(PROPOSED SITE ACCESS LAYOUT – SIMPLE T-JUNCTION)



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DRAWING ADC3280-DR-002-P1
(PROPOSED SITE ACCESS LAYOUT – GHOST ISLAND)



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APPENDIX A

TRICS OUTPUTS

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
CT	CENTRAL BEDFORDSHIRE	1 days
EX	ESSEX	1 days
HC	HAMPSHIRE	1 days
HF	HERTFORDSHIRE	1 days
KC	KENT	2 days
WB	WEST BERKSHIRE	1 days
WS	WEST SUSSEX	2 days
03	SOUTH WEST	
DC	DORSET	1 days
04	EAST ANGLIA	
NF	NORFOLK	4 days
09	NORTH	
DH	DURHAM	2 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: 50 to 180 (units:)
 Range Selected by User: 50 to 200 (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: 01/01/16 to 07/11/23

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	2 days
Tuesday	6 days
Wednesday	1 days
Thursday	3 days
Friday	4 days

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

Selected survey types:

Manual count	16 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	14

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	13
Out of Town	1
No Sub Category	2

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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	11 days - Selected
Servicing vehicles Excluded	29 days - Selected

Secondary Filtering selection:

Use Class:
 C3 16 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	5 days
10,001 to 15,000	5 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days

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

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	3 days
50,001 to 75,000	2 days
75,001 to 100,000	2 days
125,001 to 250,000	5 days
250,001 to 500,000	1 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	3 days
1.1 to 1.5	11 days
1.6 to 2.0	2 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	12 days
No	4 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	16 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	CT-03-A-03	MIXED HOUSES	CENTRAL BEDFORDSHIRE
	ARLESEY ROAD		
	STOTFOLD		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	73	
	<i>Survey date: TUESDAY</i>	27/06/23	
2	DC-03-A-09	MIXED HOUSES	<i>Survey Type: MANUAL</i>
	A350		DORSET
	SHAFTESBURY		
	Edge of Town		
	No Sub Category		
	Total No of Dwellings:	50	
	<i>Survey date: FRIDAY</i>	19/11/21	
3	DH-03-A-01	SEMI DETACHED	<i>Survey Type: MANUAL</i>
	GREENFIELDS ROAD		DURHAM
	BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	50	
	<i>Survey date: TUESDAY</i>	28/03/17	
4	DH-03-A-03	SEMI-DETACHED & TERRACED	<i>Survey Type: MANUAL</i>
	PILGRIMS WAY		DURHAM
	DURHAM		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	57	
	<i>Survey date: FRIDAY</i>	19/10/18	
5	EX-03-A-03	MIXED HOUSES	<i>Survey Type: MANUAL</i>
	KESTREL GROVE		ESSEX
	RAYLEIGH		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	123	
	<i>Survey date: MONDAY</i>	27/09/21	
6	HC-03-A-27	MIXED HOUSES	<i>Survey Type: MANUAL</i>
	DAIRY ROAD		HAMPSHIRE
	ANDOVER		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	73	
	<i>Survey date: TUESDAY</i>	16/11/21	
7	HF-03-A-03	MIXED HOUSES	<i>Survey Type: MANUAL</i>
	HARE STREET ROAD		HERTFORDSHIRE
	BUNTINGFORD		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	160	
	<i>Survey date: MONDAY</i>	08/07/19	
			<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

8	KC-03-A-04	SEMI-DETACHED & TERRACED	KENT
	KILN BARN ROAD		
	AYLESFORD		
	DITTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	110	
	<i>Survey date: FRIDAY</i>	22/09/17	<i>Survey Type: MANUAL</i>
9	KC-03-A-10	MIXED HOUSES	KENT
	HEADCORN ROAD		
	STAPLEHURST		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	106	
	<i>Survey date: TUESDAY</i>	09/05/23	<i>Survey Type: MANUAL</i>
10	NF-03-A-33	MIXED HOUSES	NORFOLK
	LONDON ROAD		
	ATTLEBOROUGH		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	143	
	<i>Survey date: THURSDAY</i>	29/09/22	<i>Survey Type: MANUAL</i>
11	NF-03-A-34	MIXED HOUSES	NORFOLK
	NORWICH ROAD		
	SWAFFHAM		
	Edge of Town		
	Out of Town		
	Total No of Dwellings:	80	
	<i>Survey date: TUESDAY</i>	27/09/22	<i>Survey Type: MANUAL</i>
12	NF-03-A-36	MIXED HOUSES	NORFOLK
	LONDON ROAD		
	WYMONDHAM		
	Edge of Town		
	No Sub Category		
	Total No of Dwellings:	75	
	<i>Survey date: THURSDAY</i>	29/09/22	<i>Survey Type: MANUAL</i>
13	NF-03-A-52	MIXED HOUSES	NORFOLK
	LYNNSPORT WAY		
	KING'S LYNN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	130	
	<i>Survey date: TUESDAY</i>	07/11/23	<i>Survey Type: MANUAL</i>
14	WB-03-A-03	MIXED HOUSES	WEST BERKSHIRE
	DORKING WAY		
	READING		
	CALCOT		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	108	
	<i>Survey date: FRIDAY</i>	09/09/22	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

15	WS-03-A-08	MIXED HOUSES	WEST SUSSEX
	ROUNDSTONE LANE		
	ANGMERING		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	180	
	Survey date: THURSDAY	19/04/18	Survey Type: MANUAL
16	WS-03-A-14	MIXED HOUSES	WEST SUSSEX
	TODDINGTON LANE		
	LITTLEHAMPTON		
	WICK		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	117	
	Survey date: WEDNESDAY	20/10/21	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
ES-03-A-05	Site includes flats
ES-03-A-08	Site includes flats
ES-03-A-10	Site includes flats
HC-03-A-23	Site includes flats
HC-03-A-28	Site includes flats
HC-03-A-33	Site includes flats
HC-03-A-36	Site includes flats
KC-03-A-03	Site includes flats
NF-03-A-25	Site includes flats
NF-03-A-35	Site includes flats
SF-03-A-09	Covid
SF-03-A-10	Covid
WS-03-A-12	Covid
WS-03-A-13	Covid
WS-03-A-17	Site includes flats
WS-03-A-19	Site includes flats

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): 1.80

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	16	102	0.081	16	102	0.298	16	102	0.379
08:00 - 09:00	16	102	0.130	16	102	0.353	16	102	0.483
09:00 - 10:00	16	102	0.147	16	102	0.178	16	102	0.325
10:00 - 11:00	16	102	0.132	16	102	0.172	16	102	0.304
11:00 - 12:00	16	102	0.127	16	102	0.143	16	102	0.270
12:00 - 13:00	16	102	0.142	16	102	0.146	16	102	0.288
13:00 - 14:00	16	102	0.161	16	102	0.160	16	102	0.321
14:00 - 15:00	16	102	0.174	16	102	0.186	16	102	0.360
15:00 - 16:00	16	102	0.268	16	102	0.162	16	102	0.430
16:00 - 17:00	16	102	0.245	16	102	0.155	16	102	0.400
17:00 - 18:00	16	102	0.327	16	102	0.160	16	102	0.487
18:00 - 19:00	16	102	0.297	16	102	0.147	16	102	0.444
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.231				2.260			4.491

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*FACT. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	50 - 180 (units:)
Survey date date range:	01/01/16 - 07/11/23
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	8
Surveys manually removed from selection:	16

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): 1.80

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	16	102	0.126	16	102	0.513	16	102	0.639
08:00 - 09:00	16	102	0.223	16	102	0.779	16	102	1.002
09:00 - 10:00	16	102	0.240	16	102	0.300	16	102	0.540
10:00 - 11:00	16	102	0.205	16	102	0.273	16	102	0.478
11:00 - 12:00	16	102	0.215	16	102	0.253	16	102	0.468
12:00 - 13:00	16	102	0.249	16	102	0.235	16	102	0.484
13:00 - 14:00	16	102	0.254	16	102	0.253	16	102	0.507
14:00 - 15:00	16	102	0.291	16	102	0.329	16	102	0.620
15:00 - 16:00	16	102	0.638	16	102	0.319	16	102	0.957
16:00 - 17:00	16	102	0.489	16	102	0.285	16	102	0.774
17:00 - 18:00	16	102	0.566	16	102	0.275	16	102	0.841
18:00 - 19:00	16	102	0.524	16	102	0.250	16	102	0.774
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		4.020			4.064				8.084

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.

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APPENDIX B

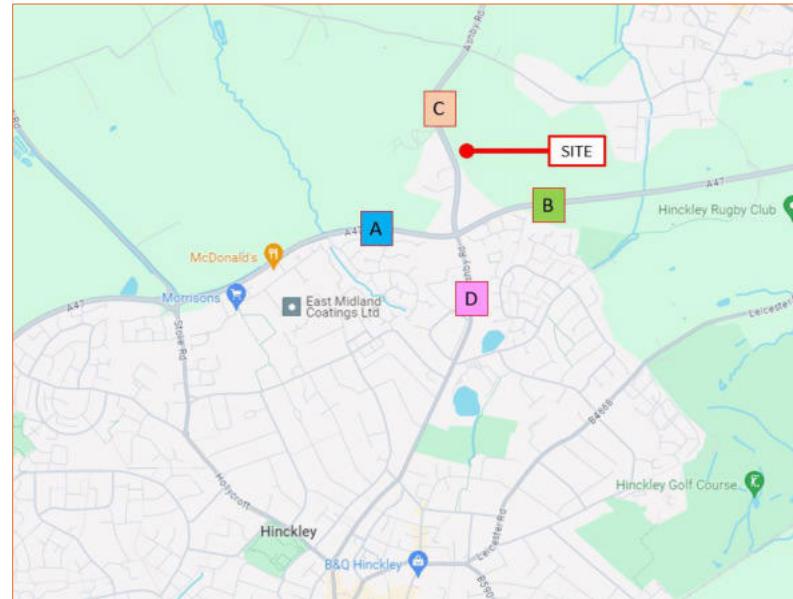
2011 CENSUS DISTRIBUTION

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
 ONS Crown Copyright Reserved [from Nomis on 6 June 2024]

population
 units
 date
 method of travel to work

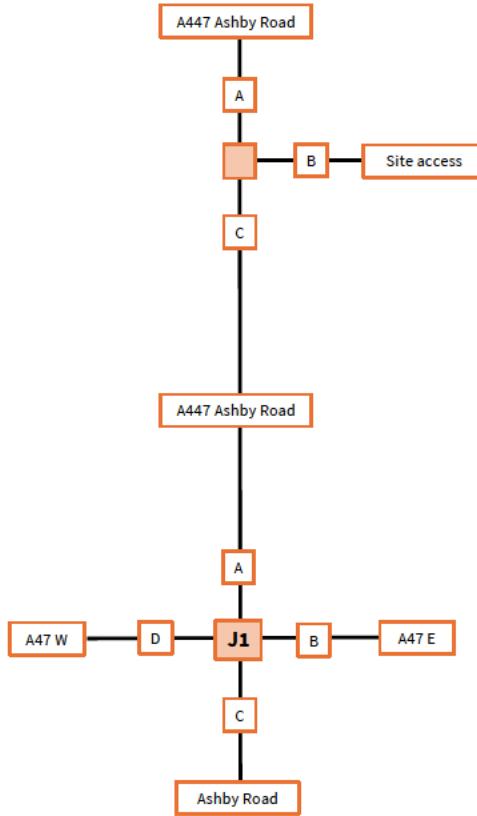
All usual residents aged 16 and over in employment the week before the census
 Persons
 2011
 Driving a car or van

	usual residence	A	B	C	D
place of work : 2011 census merged local authority district	E02005385 : Hinckley and Bosworth 009	A47 W	A47 E	A447 N	Ashby Road S
E02005386 : Hinckley and Bosworth 010	245				245
Leicester	183		183		
Blaby	177		177		
E02005387 : Hinckley and Bosworth 011	143	143			
Coventry	126	63			63
E02005385 : Hinckley and Bosworth 009	119	11.9	11.9	11.9	83.3
Harborough	115		115		
Nuneaton and Bedworth	115	115			
E02005388 : Hinckley and Bosworth 012	81				81
Rugby	77				77
E02005390 : Hinckley and Bosworth 014	60	30			30
E02005383 : Hinckley and Bosworth 007	53				53
E02005384 : Hinckley and Bosworth 008	51	25.5			25.5
North Warwickshire	49	24.5			24.5
Warwick	42				42
North West Leicestershire	39				39
Birmingham	39	19.5			19.5
E02005381 : Hinckley and Bosworth 005	35		17.5		17.5
E02005382 : Hinckley and Bosworth 006	34		25.5	8.5	
Charnwood	25		12.5	12.5	
E02005380 : Hinckley and Bosworth 004	24				24
E02005389 : Hinckley and Bosworth 013	21				21
Northampton	17				17
Melton	15	5	5	5	
Derby and Wigston	15		15		
Derby	10				10
Solihull	9	4.5			4.5
Tamworth	8	8			
Milton Keynes	8				8
Daventry	7				7
Stratford-on-Avon	7				7
E02005377 : Hinckley and Bosworth 001	6				6
Nottingham	6		3	3	
South Northamptonshire	5				5
Ashfield	5				5
Shropshire	5	5			
Walsall	5	5			
Wakefield	4				4
Amber Valley	4		2	2	
East Staffordshire	4				4
Lichfield	4	4			
Peterborough	4		2		2
Cotby	3		3		
Rushcliffe	3		3		
Sandwell	3	1.5			1.5
Wolverhampton	3	1.5			1.5
Hillingdon	3				3
Erewash	2			2	
East Northamptonshire	2		1		1
Kettering	2				2
Luton	2				2
Broxbourne	2				2
Kings Lynn and West Norfolk	2		2		
Norwich	2				2
South Norfolk	2				2
Westminster, City of London	2				2
TOTAL		462	578	257	736
PERCENTAGE		22.7%	28.4%	12.6%	36.2%
VEHICLE TRIPS		14	16	7	21
		A47 W	A47 E	A447 N	Ashby Road S



APPENDIX C

DISTRIBUTION PATTERN



TOTAL				
	A	B	C	Total
A		13%		13%
B	13%		87%	100%
C		87%		87%
Total	13%	100%	87%	

TOTAL					
	A	B	C	D	Total
A		28%	36%	23%	87%
B	28%				28%
C	36%				36%
D	23%				23%
Total	87%	28%	36%	23%	

ADC3280

LAND AT HINCKLEY

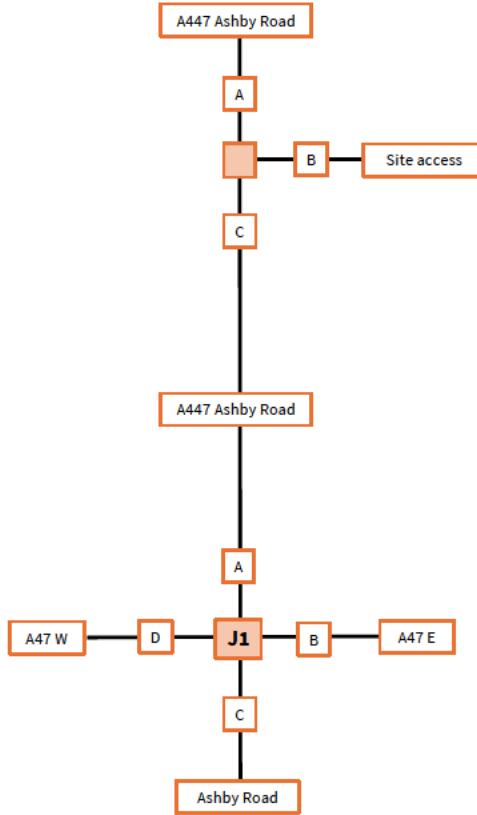
DIAGRAM 1

Distribution Pattern

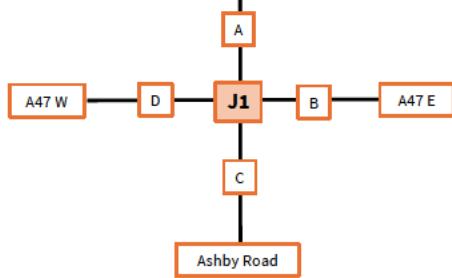
ADC 
INFRASTRUCTURE

APPENDIX D

TRAFFIC ASSIGNMENT



TOTAL				
	A	B	C	Total
A		2		2
B	5		37	42
C		14		14
Total	5	16	37	58



TOTAL					
	A	B	C	D	Total
A		12	15	10	37
B	5				5
C	6				6
D	4				4
Total	15	12	15	10	52

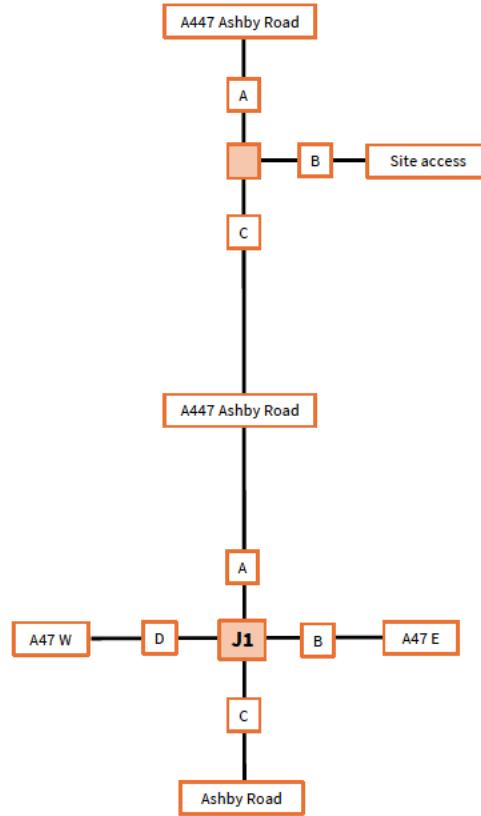
ADC3280

LAND AT HINCKLEY

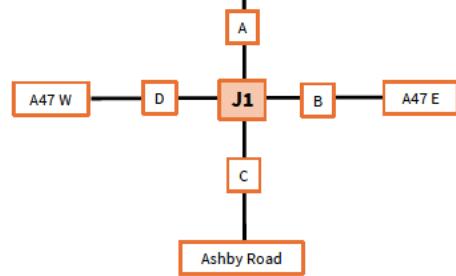
DIAGRAM 2

Development Assignment AM Peak Hour

ADC 
INFRASTRUCTURE



TOTAL				
	A	B	C	Total
A		5		5
B	2		17	19
C		34		34
Total	2	39	17	58



TOTAL					
	A	B	C	D	Total
A		5	7	4	16
B	11				11
C	14				14
D	9				9
Total	34	5	7	4	50

ADC3280

LAND AT HINCKLEY

DIAGRAM 3

Development Assignment PM Peak Hour

ADC 
INFRASTRUCTURE

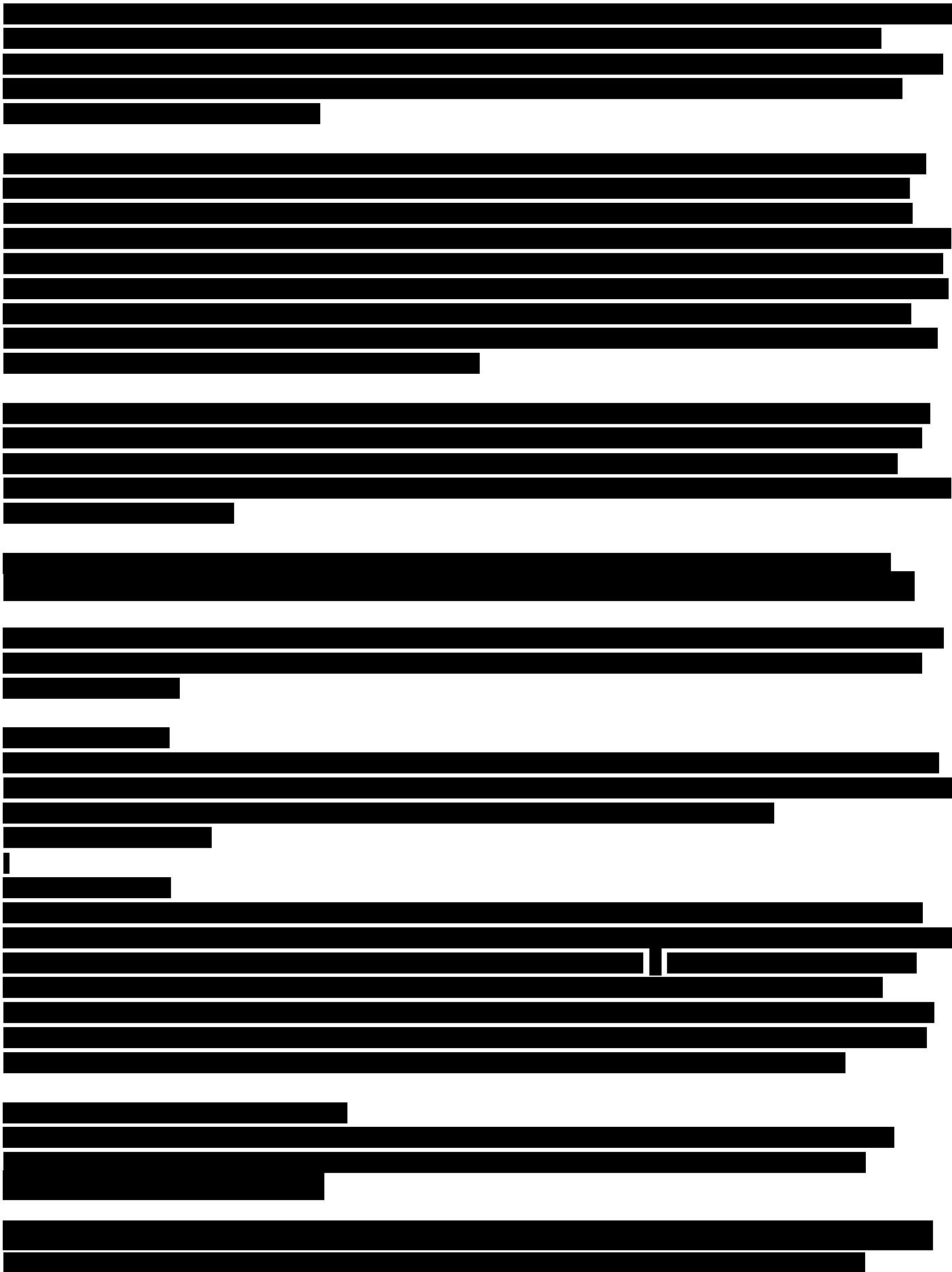
APPENDIX C

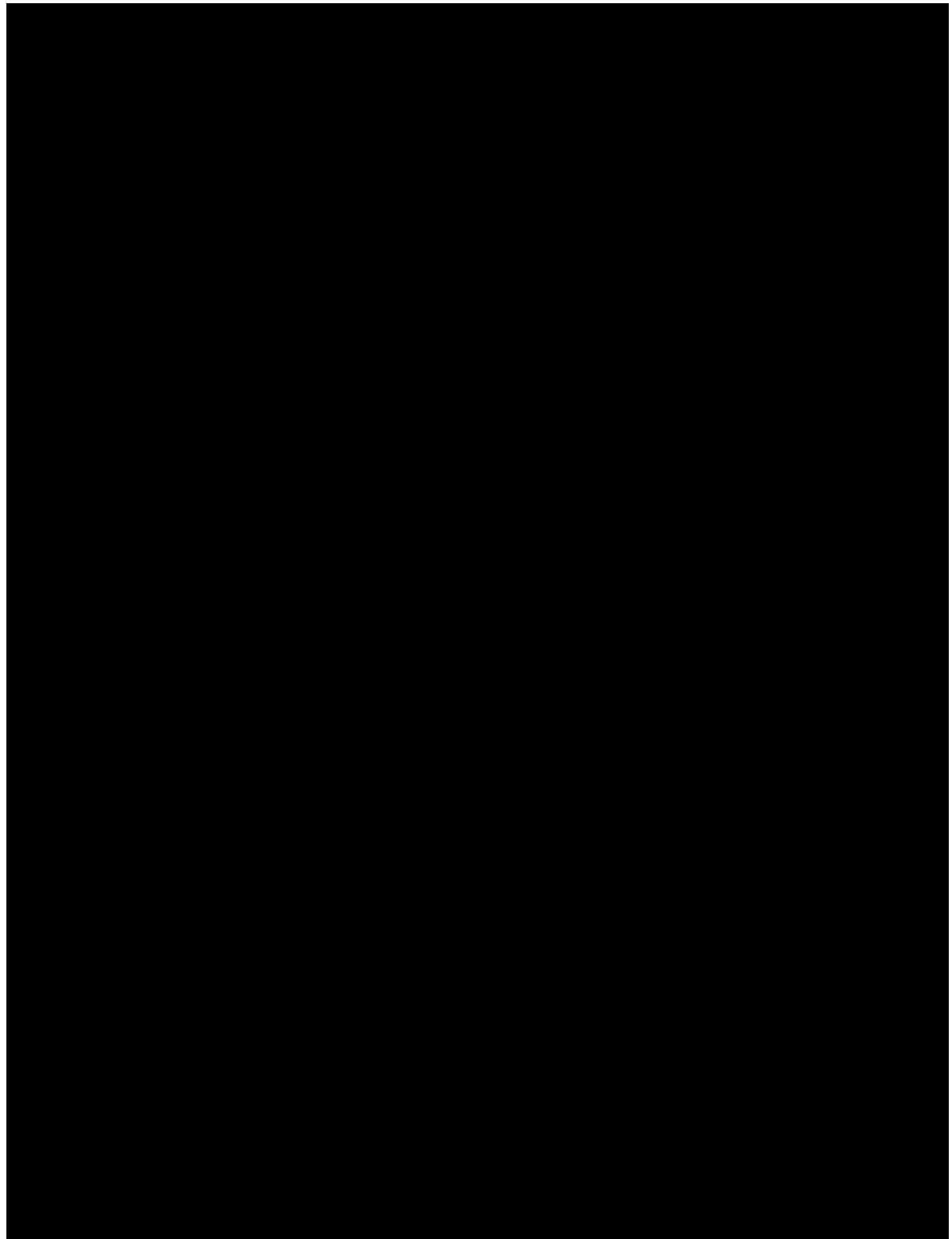
LCC SCOPING RESPONSE

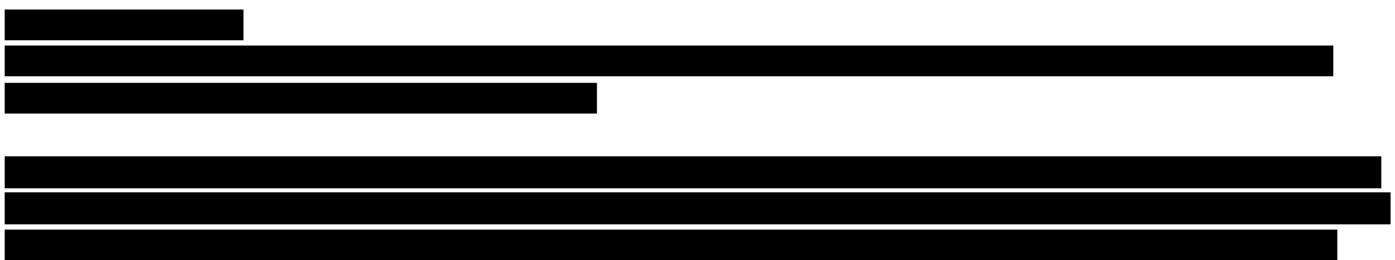
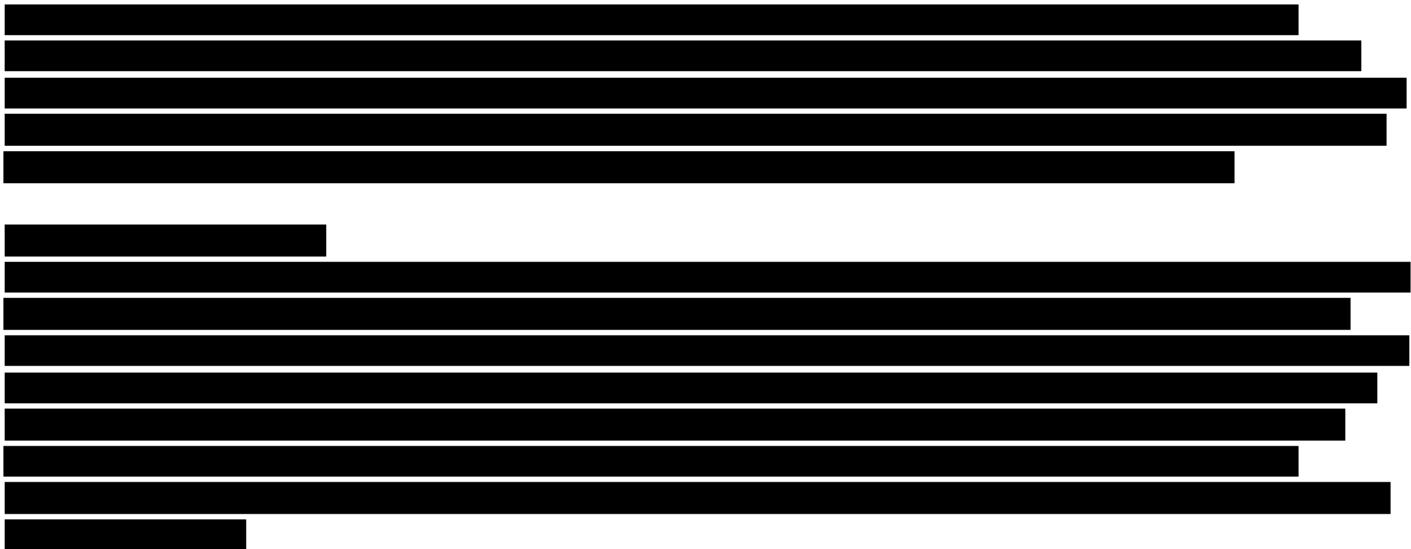


PRE-APPLICATION DETAILS

A series of horizontal black bars of varying lengths, likely representing data points or measurements. The bars are arranged in a grid-like pattern across the page. The lengths of the bars vary significantly, with some being very short and others being very long, creating a visual representation of data distribution or frequency.







Category	Number of Samples
0	1000
1	1000
2	1000
3	1
4	1000
5	1000
6	1000
7	1000
8	1000
9	1000

Date Received
24 June 2024

**Case Officer
Ben Dutton**

Reviewer DH

Date issued
08 August 2024

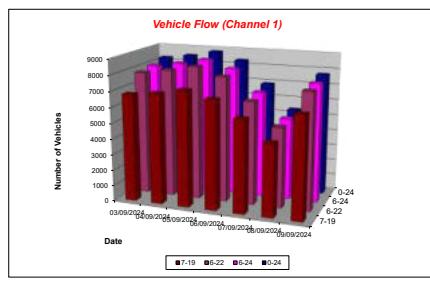
APPENDIX D

TRAFFIC COUNT DATA

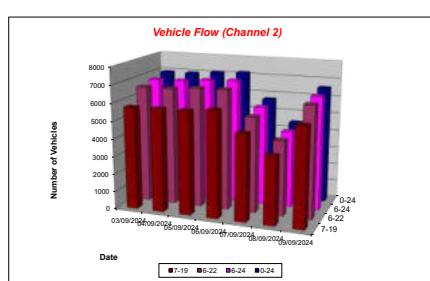
Hinckley ATC 1, A447 Ashby Road (Northern Site)

Produced by Road Data Services Ltd.

Hr Ending	Vehicle Flow							Average	Average
	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday		
1	25	20	24	21	49	63	20	35	33
2	19	16	20	19	42	52	19	35	33
3	17	17	19	24	17	18	12	36	37
4	16	16	16	14	16	16	12	36	35
5	40	49	39	40	19	23	46	42	37
6	139	116	172	127	60	35	152	130	106
7	232	203	238	206	94	54	212	187	156
8	630	657	622	581	182	85	622	622	483
9	152	150	150	150	150	150	150	150	150
10	471	544	544	541	217	132	521	509	516
11	488	902	602	498	610	456	484	495	506
12	523	514	514	514	514	514	514	514	514
13	907	922	489	593	815	583	522	527	547
14	518	514	514	514	514	514	514	514	514
15	723	612	615	627	529	477	612	593	593
16	541	608	608	618	509	487	571	569	570
17	152	150	150	150	150	150	150	150	150
18	652	624	717	575	449	311	578	578	584
19	472	523	607	443	345	272	408	481	432
20	294	294	294	294	294	294	294	294	294
21	208	214	207	243	153	126	213	221	186
22	111	111	96	111	112	80	66	89	94
23	111	111	96	111	112	80	66	89	94
24	38	46	58	73	84	31	48	53	54
25	7872	6972	7295	6870	5849	4575	6429	6865	6896
26	5040	5050	5050	5050	5050	5050	5050	5050	5050
27	6342	8471	8803	8351	6893	5343	7731	5118	7088



Hr Ending	Vehicle Flow							Average	Average
	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday		
1	28	22	25	48	62	20	35	35	33
2	19	16	20	19	41	31	17	35	33
3	17	17	11	22	22	15	16	37	32
4	16	16	16	16	16	16	16	36	35
5	21	18	21	24	11	19	31	25	25
6	78	80	89	77	24	19	77	70	72
7	152	150	150	150	150	150	150	150	150
8	367	415	389	361	149	76	389	384	387
9	401	344	378	378	407	231	354	354	354
10	422	424	365	393	460	333	387	419	405
11	433	418	378	407	378	378	407	371	371
12	445	409	419	507	507	419	419	419	419
13	445	409	419	507	507	419	419	419	419
14	441	405	419	506	536	519	422	451	475
15	441	405	419	506	536	519	422	451	475
16	445	409	419	507	507	419	419	419	419
17	445	409	419	507	507	419	419	419	419
18	518	554	623	563	469	363	511	554	515
19	518	554	623	563	469	363	511	554	515
20	524	556	619	556	471	374	524	556	515
21	524	556	619	556	471	374	524	556	515
22	524	556	619	556	471	374	524	556	515
23	524	556	619	556	471	374	524	556	515
24	44	54	66	90	74	30	51	61	62
25	7572	6766	5905	5958	4840	3901	5924	5924	5924
26	5040	5050	5050	5050	5050	5050	5050	5050	5050
27	6342	6868	7084	7158	5714	4463	6074	6041	6112



Hinckley ATC 1, A447 Ashby Road (Northern Site)

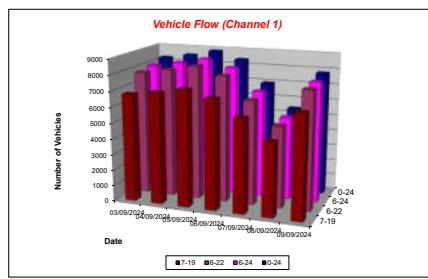
Produced by Road Data Services Ltd.

Hr Ending	Vehicle Flow							Average	Average
	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday		
1	36	38	39	39	39	39	39	39	39
2	37	38	39	39	39	39	39	39	39
3	38	40	41	41	38	39	40	39	39
4	39	41	42	42	39	40	41	39	39
5	40	41	42	42	39	40	41	39	39
6	38	37	39	39	37	38	37	36	36
7	39	38	37	37	38	37	36	35	35
8	38	37	36	36	35	36	35	34	34
9	37	36	35	35	34	35	34	33	33
10	38	37	36	36	35	36	35	34	34
11	39	38	37	37	36	37	36	35	35
12	38	37	36	36	35	36	35	34	34
13	37	36	35	35	34	35	34	33	33
14	38	37	36	36	35	36	35	34	34
15	39	38	37	37	36	37	36	35	35
16	38	37	36	36	35	36	35	34	34
17	37	36	35	35	34	35	34	33	33
18	36	35	34	34	33	34	33	32	32
19	37	36	35	35	34	35	34	33	33
20	38	37	36	36	35	36	35	34	34
21	39	38	37	37	36	37	36	35	35
22	38	37	36	36	35	36	35	34	34
23	37	36	35	35	34	35	34	33	33
24	38	37	36	36	35	36	35	34	34
25	39	38	37	37	36	37	36	35	35
26	38	37	36	36	35	36	35	34	34
27	37	36	35	35	34	35	34	33	33
28	36	35	34	34	33	34	33	32	32
29	37	36	35	35	34	35	34	33	33
30	38	37	36	36	35	36	35	34	34
31	39	38	37	37	36	37	36	35	35
32	38	37	36	36	35	36	35	34	34
33	37	36	35	35	34	35	34	33	33
34	38	37	36	36	35	36	35	34	34
35	39	38	37	37	36	37	36	35	35
36	38	37	36	36	35	36	35	34	34
37	37	36	35	35	34	35	34	33	33
38	36	35	34	34	33	34	33	32	32
39	37	36	35	35	34	35	34	33	33
40	38	37	36	36	35	36	35	34	34
41	39	38	37	37	36	37	36	35	35
42	38	37	36	36	35	36	35	34	34
43	37	36	35	35	34	35	34	33	33
44	38	37	36	36	35	36	35	34	34
45	39	38	37	37	36	37	36	35	35
46	38	37	36	36	35	36	35	34	34
47	37	36	35	35	34	35	34	33	33
48	36	35	34	34	33	34	33	32	32
49	37	36	35	35	34	35	34	33	33
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53	37	36	35	35	34	35	34	33	33
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56	38	37	36	36	35	36	35	34	34
57	37	36	35	35	34	35	34	33	33
58	36	35	34	34	33	34	33	32	32
59	37	36	35	35	34	35	34	33	33
60	38	37	36	36	35	36	35	34	34
61	39	38	37	37	36	37	36	35	35
62	38	37	36	36	35	36	35	34	34
63	37	36	35	35	34	35	34	33	33
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66	38	37	36</td						

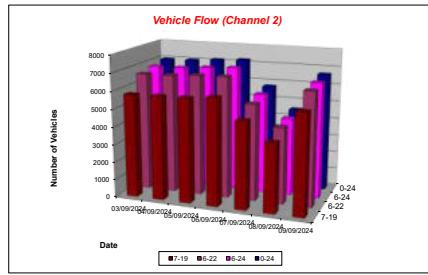
Hinckley ATC 2, A447 Ashby Road (Southern Site)

Produced by Road Data Services Ltd.

Hr Ending	Vehicle Flow							Average	Average
	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday		
1	27	21	25	24	50	67	22	32	32
2	13	10	15	13	20	27	13	19	19
3	17	18	12	22	18	18	12	16	17
4	17	19	16	24	19	16	14	20	19
5	46	49	43	42	19	23	44	40	38
6	139	116	133	131	60	35	138	131	107
7	243	211	238	236	126	133	242	211	194
8	620	660	623	583	189	94	627	623	485
9	103	105	99	102	236	137	102	105	102
10	103	105	569	549	119	138	524	561	522
11	482	509	503	504	612	462	487	497	508
12	523	541	511	510	510	510	523	523	510
13	508	526	499	506	620	580	524	532	526
14	521	515	515	515	645	536	486	521	515
15	524	515	515	515	618	536	515	524	515
16	544	617	688	617	512	462	574	688	575
17	555	555	555	555	555	555	555	555	555
18	653	620	760	581	448	311	589	641	586
19	473	522	609	452	350	279	419	484	443
20	378	393	408	393	274	226	393	378	370
21	268	216	208	244	185	141	216	222	186
22	112	112	100	112	104	81	102	100	95
23	112	111	100	112	104	81	107	100	95
24	40	47	50	73	62	36	48	44	52
25	7765	7013	7306	6911	5880	4830	6909	6965	5837
26	7350	7111	7050	6919	5871	4845	7477	6919	5818
27	6249	8504	8814	8385	6949	5420	7821	8163	7741



Hr Ending	Vehicle Flow							Average	Average
	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday		
1	28	23	30	28	49	64	20	26	26
2	15	13	16	14	24	16	16	16	17
3	15	16	10	24	16	16	16	16	17
4	15	16	10	24	16	16	16	16	17
5	23	16	22	22	11	19	30	23	20
6	80	84	73	74	29	16	71	76	71
7	124	124	124	124	124	124	124	124	124
8	385	459	369	366	151	76	391	381	312
9	345	420	473	404	242	135	361	345	312
10	426	440	361	359	467	344	398	411	369
11	423	441	361	359	467	344	398	411	369
12	442	489	425	508	551	523	436	496	479
13	447	412	479	579	505	443	463	468	447
14	509	529	478	472	472	472	472	472	472
15	526	564	625	570	477	374	530	563	524
16	526	564	625	570	477	374	530	563	524
17	736	781	742	745	505	267	777	760	726
18	495	440	501	492	313	226	436	455	422
19	123	124	124	124	124	124	124	124	124
20	180	220	204	195	150	123	173	180	150
21	113	105	105	116	123	82	81	105	101
22	113	110	105	116	123	82	81	105	101
23	43	53	67	91	74	30	50	61	52
24	7765	8616	8039	5995	4880	3868	9621	5813	5861
25	6249	8504	8814	8385	6949	5420	7821	8163	6867
26	6249	7011	7143	7205	3758	4521	6699	6867	6467

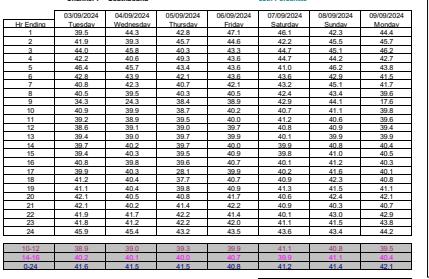


Hinckley ATC 2, A447 Ashby Road (Southern Site)

Produced by Road Data Services Ltd.

Hr Ending	Vehicle Flow							Average	Average
	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday		
1	27	21	25	24	50	67	22	32	32
2	13	10	15	13	20	27	13	19	19
3	17	18	12	22	18	18	12	16	17
4	17	19	16	24	19	16	14	20	19
5	46	49	43	42	19	23	44	40	38
6	139	116	133	131	60	35	131	127	107
7	243	211	238	236	126	133	242	211	194
8	620	660	623	583	189	94	627	623	485
9	103	105	99	102	236	137	102	105	102
10	103	105	569	549	119	138	524	561	522
11	482	509	503	504	612	462	487	497	508
12	523	541	511	510	510	510	523	523	510
13	524	542	512	511	511	511	524	524	511
14	521	515	515	515	618	536	486	521	515
15	524	515	515	515	618	536	486	521	515
16	544	617	688	617	512	462	574	688	575
17	555	555	555	555	555	555	555	555	555
18	653	620	760	581	448	311	589	641	586
19	473	522	609	452	350	279	419	484	443
20	378	415	408	393	274	226	393	378	370
21	268	216	208	244	185	141	216	222	186
22	112	111	100	112	104	81	107	100	95
23	112	111	100	112	104	81	107	100	95
24	40	47	50	73	62	36	48	44	52
25	7765	7013	7306	6911	5880	4830	6909	6965	5837
26	7350	7111	7050	6919	5871	4845	7477	6919	5818
27	6249	8504	8814	8385	6949	5420	7821	8163	6867

Hr Ending	Vehicle Flow							Average	Average
	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday		
1	21	17	25	24	50	67	22	32	32
2	10	8	15	13	20	27	13	19	19
3	17	18	12	22	18	18	12	16	17
4	17	19	16	24	19	16	14	20	19
5	46	49	43	42	19	23	44	40	38
6	139	116	133	131	60	35	131	127	107
7	243	211	238	236	126	133	242	211	194
8	620	660	623	583	189	94	627	623	485
9	103	105	99	102	236	137	102	105	102
10	103	105	569	549	119	138	524	561	522
11	482	509	503	504	612	462	487	497	508
12	523	541	511	510	510	510	523	523	510
13	524	515	515	515	618	536	486	521	515
14	521	515	515	515	618	536	486	521	515
15	524	515	515	515	618	536	486	521	515
16	544	617	688	617	512	462	574	688	575
17	555	555	555	555	555	555	555	555	555
18	653	620	760	581	448	311	589	641	586
19	473	522	609	452	350	279	419	484	443
20	378	415	408	393	274	226	393	378	370
21	268	216	208	244	185	141	216	222	186
22	112	111	100	112	104	81	107	100	95
23	112	111	100	112	104	81	107	100	95
24	40	47	50	73	62	36	48	44	52
25	7765	7013	7306	6911	5880	4830	6909	6965	5837
26	7350	7111	7050	6919	5871	4845	7477	6919	5818
27	6249	8504	8814	8385	6949	5420	7821	8163	6867





Road Data Services Ltd

Class No	Vehicle Description	Class No	Vehicle Description
1	Car, Light Van, Taxi	5	Rigid 2 Axle HGV + 2 Axle (Close coupled) Trailer
1	Light Goods Vehicle	6	Rigid 3 Axle HGV + 2 Axle Drawbar Trailer
1	Car or Light Goods Vehicle + 1 Axle Caravan or Trailer	6	Rigid 3 Axle HGV + 3 Axle Drawbar Trailer
1	Car or Light Goods Vehicle + 2 Axle Caravan or Trailer	7	Artic, 2 Axle Tractor + 1 Axle Semi-Trailer
2	Medium / Large Goods Vehicle	8	Artic, 2 Axle Tractor + 2 Axle Semi-Trailer
3	Rigid 3 Axle Heavy Goods Vehicle	9	Artic, 2 Axle Tractor + 3 Axle Semi-Trailer
3	Rigid 3 Axle Heavy Goods Vehicle	10	Artic, 3 Axle Tractor + 1 Axle Semi-Trailer
4	Rigid 4 Axle Heavy Goods Vehicle	10	Artic, 3 Axle Tractor + 2 Axle Semi-Trailer
4	Rigid 4 Axle Heavy Goods Vehicle	11	Artic, 3 Axle Tractor + 3 Axle Semi-Trailer
5	Rigid 2 Axle HGV + 2 Axle Drawbar Trailer	12	Bus or Coach, 2 Axle
5	Rigid 2 Axle HGV + 3 Axle Drawbar Trailer	12	Bus or cCoach, 3 Axle
5	Rigid 2 Axle HGV + 1 Axle Caravan or Trailer	13	Vehicle with 7 or more Axles

Classification Classes: Car/Van: 1 OGV1/Bus: 2,3,5,6,7,12 OGV2: 4,8,9,10,11,13



Hinckley

Thursday 5th September 2024

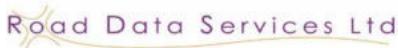
Junction: 1

Approach: A447 Ashby Road

TIME	Left to A47 Normandy Way (E)				Ahead to B4667 Ashby Road				Right to A47 Normandy Way (W)			
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:30 - 07:45	9	3	12	15.9	79	4	83	88.2	82	0	82	82.0
07:45 - 08:00	7	0	7	7.0	95	2	97	99.6	81	2	83	85.6
Hourly Total	16	3	19	22.9	174	6	180	187.8	163	2	165	167.6
08:00 - 08:15	4	0	4	4.0	92	4	96	101.2	61	4	65	70.2
08:15 - 08:30	5	1	6	7.3	104	1	105	106.3	83	6	89	96.8
08:30 - 08:45	6	3	9	12.9	99	3	102	105.9	68	2	70	72.6
08:45 - 09:00	2	2	4	6.6	108	5	113	119.5	55	3	58	61.9
Hourly Total	17	6	23	30.8	403	13	416	432.9	267	15	282	301.5
09:00 - 09:15	8	1	9	10.3	95	3	98	101.9	49	8	57	67.4
09:15 - 09:30	14	0	14	14.0	81	2	83	85.6	38	6	44	51.8
Hourly Total	22	1	23	24.3	176	5	181	187.5	87	14	101	119.2
TOTAL	55	10	65	78.0	753	24	777	808.2	517	31	548	588.3

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

16:30 - 16:45	9	1	10	11.3	111	1	112	113.3	80	3	83	86.9
16:45 - 17:00	13	1	14	15.3	121	3	124	127.9	55	3	58	61.9
Hourly Total	22	2	24	26.6	232	4	236	241.2	135	6	141	148.8
17:00 - 17:15	14	1	15	16.3	121	1	122	123.3	52	2	54	56.6
17:15 - 17:30	9	1	10	11.3	120	1	121	122.3	60	1	61	62.3
17:30 - 17:45	10	1	11	12.3	113	0	113	113.0	86	1	87	88.3
17:45 - 18:00	11	1	12	13.3	87	1	88	89.3	69	0	69	69.0
Hourly Total	44	4	48	53.2	441	3	444	447.9	267	4	271	276.2
18:00 - 18:15	17	4	21	26.2	78	3	81	84.9	71	2	73	75.6
18:15 - 18:30	12	0	12	12.0	63	1	64	65.3	61	1	62	63.3
Hourly Total	29	4	33	38.2	141	4	145	150.2	132	3	135	138.9
TOTAL	95	10	105	118.0	814	11	825	839.3	534	13	547	563.9



Hinckley

Thursday 5th September 2024

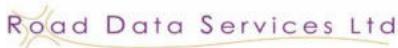
Junction: 1

Approach: A47 Normandy Way East

TIME	Left to B4667 Ashby Road			Ahead to A47 Normandy Way (W)				Right to A447 Ashby Road				
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:30 - 07:45	19	0	19	19.0	142	3	145	148.9	2	1	3	4.3
07:45 - 08:00	33	0	33	33.0	155	2	157	159.6	5	1	6	7.3
Hourly Total	52	0	52	52.0	297	5	302	308.5	7	2	9	11.6
08:00 - 08:15	25	1	26	27.3	150	7	157	166.1	7	1	8	9.3
08:15 - 08:30	19	2	21	23.6	116	4	120	125.2	3	1	4	5.3
08:30 - 08:45	20	0	20	20.0	148	9	157	168.7	6	1	7	8.3
08:45 - 09:00	42	2	44	46.6	124	5	129	135.5	5	1	6	7.3
Hourly Total	106	5	111	117.5	538	25	563	595.5	21	4	25	30.2
09:00 - 09:15	33	1	34	35.3	96	14	110	128.2	3	2	5	7.6
09:15 - 09:30	28	0	28	28.0	92	7	99	108.1	8	0	8	8.0
Hourly Total	61	1	62	63.3	188	21	209	236.3	11	2	13	15.6
TOTAL	219	6	225	232.8	1023	51	1074	1140.3	39	8	47	57.4

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

16:30 - 16:45	33	0	33	33.0	99	2	101	103.6	4	1	5	6.3
16:45 - 17:00	38	0	38	38.0	122	1	123	124.3	12	2	14	16.6
Hourly Total	71	0	71	71.0	221	3	224	227.9	16	3	19	22.9
17:00 - 17:15	45	1	46	47.3	137	1	138	139.3	7	0	7	7.0
17:15 - 17:30	48	1	49	50.3	125	3	128	131.9	5	2	7	9.6
17:30 - 17:45	38	0	38	38.0	139	1	140	141.3	7	0	7	7.0
17:45 - 18:00	49	1	50	51.3	114	0	114	114.0	2	1	3	4.3
Hourly Total	180	3	183	186.9	515	5	520	526.5	21	3	24	27.9
18:00 - 18:15	38	0	38	38.0	93	0	93	93.0	3	0	3	3.0
18:15 - 18:30	36	0	36	36.0	114	0	114	114.0	5	0	5	5.0
Hourly Total	74	0	74	74.0	207	0	207	207.0	8	0	8	8.0
TOTAL	325	3	328	331.9	943	8	951	961.4	45	6	51	58.8



Hinckley

Thursday 5th September 2024

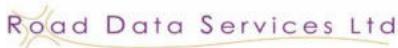
Junction: 1

Approach: B4667 Ashby Road

TIME	Left to A47 Normandy Way (W)			Ahead to A447 Ashby Road			Right to A47 Normandy Way (E)					
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:30 - 07:45	23	0	23	23.0	49	1	50	51.3	30	1	31	32.3
07:45 - 08:00	30	0	30	30.0	60	4	64	69.2	33	0	33	33.0
Hourly Total	53	0	53	53.0	109	5	114	120.5	63	1	64	65.3
08:00 - 08:15	34	1	35	36.3	52	3	55	58.9	24	1	25	26.3
08:15 - 08:30	41	3	44	47.9	48	2	50	52.6	20	0	20	20.0
08:30 - 08:45	33	1	34	35.3	47	2	49	51.6	19	1	20	21.3
08:45 - 09:00	26	2	28	30.6	58	2	60	62.6	30	0	30	30.0
Hourly Total	134	7	141	150.1	205	9	214	225.7	93	2	95	97.6
09:00 - 09:15	32	0	32	32.0	52	3	55	58.9	34	1	35	36.3
09:15 - 09:30	27	1	28	29.3	43	2	45	47.6	19	4	23	28.2
Hourly Total	59	1	60	61.3	95	5	100	106.5	53	5	58	64.5
TOTAL	246	8	254	264.4	409	19	428	452.7	209	8	217	227.4

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

16:30 - 16:45	32	0	32	32.0	71	3	74	77.9	40	2	42	44.6
16:45 - 17:00	19	0	19	19.0	76	2	78	80.6	30	0	30	30.0
Hourly Total	51	0	51	51.0	147	5	152	158.5	70	2	72	74.6
17:00 - 17:15	28	0	28	28.0	91	2	93	95.6	34	0	34	34.0
17:15 - 17:30	30	0	30	30.0	93	1	94	95.3	53	0	53	53.0
17:30 - 17:45	19	0	19	19.0	85	2	87	89.6	39	0	39	39.0
17:45 - 18:00	17	0	17	17.0	70	2	72	74.6	42	1	43	44.3
Hourly Total	94	0	94	94.0	339	7	346	355.1	168	1	169	170.3
18:00 - 18:15	29	0	29	29.0	60	0	60	60.0	43	0	43	43.0
18:15 - 18:30	31	0	31	31.0	67	5	72	78.5	33	0	33	33.0
Hourly Total	60	0	60	60.0	127	5	132	138.5	76	0	76	76.0
TOTAL	205	0	205	205.0	613	17	630	652.1	314	3	317	320.9



Hinckley

Thursday 5th September 2024

Junction: 1

Approach: A47 Normandy Way West

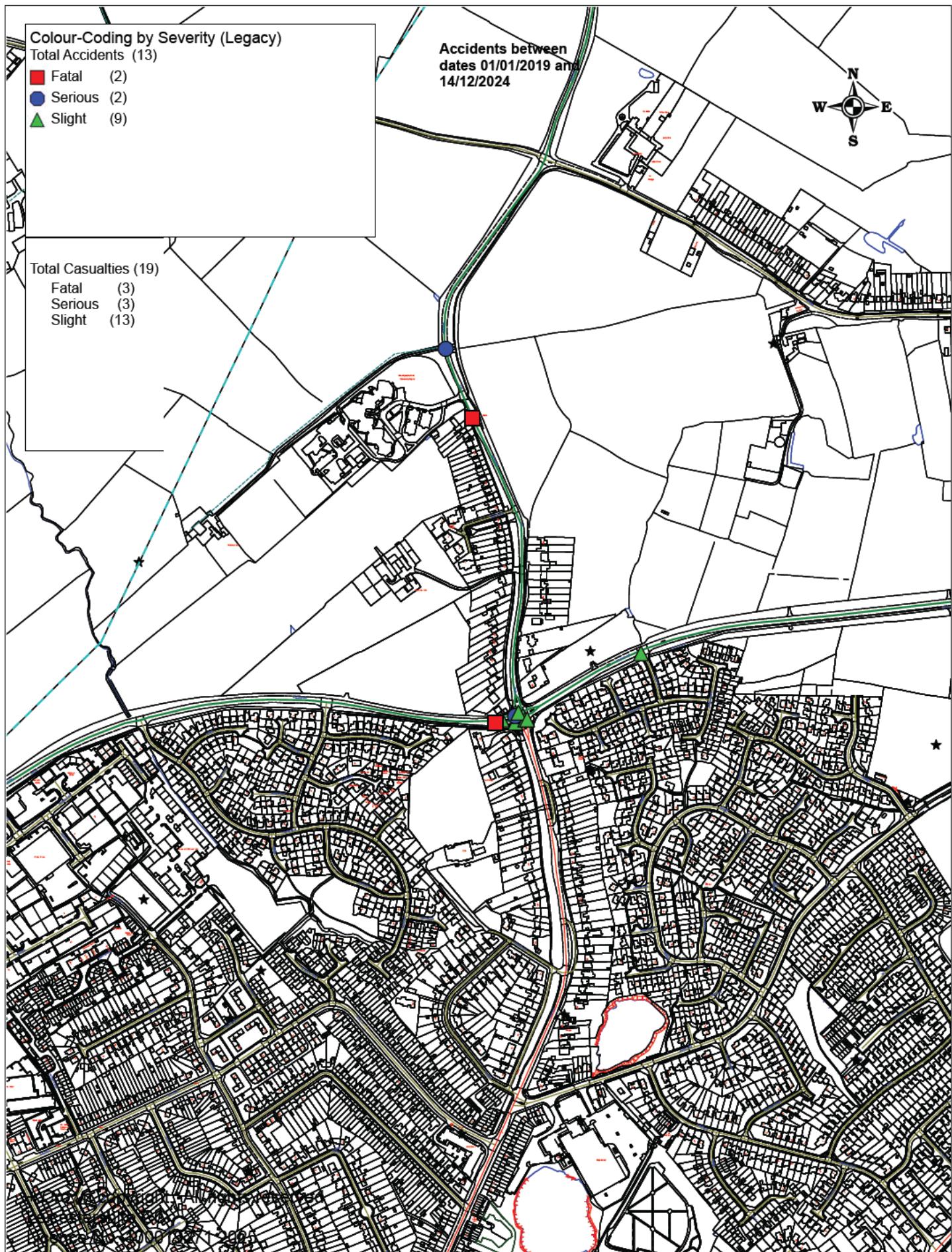
TIME	Left to A447 Ashby Road			Ahead to A47 Normandy Way (E)				Right to B4667 Ashby Road				
	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:30 - 07:45	51	3	54	57.9	97	5	102	108.5	8	0	8	8.0
07:45 - 08:00	43	2	45	47.6	79	5	84	90.5	17	0	17	17.0
Hourly Total	94	5	99	105.5	176	10	186	199.0	25	0	25	25.0
08:00 - 08:15	56	6	62	69.8	106	9	115	126.7	14	0	14	14.0
08:15 - 08:30	36	5	41	47.5	97	7	104	113.1	27	0	27	27.0
08:30 - 08:45	53	6	59	66.8	112	9	121	132.7	23	0	23	23.0
08:45 - 09:00	39	5	44	50.5	111	5	116	122.5	17	0	17	17.0
Hourly Total	184	22	206	234.6	426	30	456	495.0	81	0	81	81.0
09:00 - 09:15	34	3	37	40.9	91	9	100	111.7	14	1	15	16.3
09:15 - 09:30	32	7	39	48.1	97	9	106	117.7	17	1	18	19.3
Hourly Total	66	10	76	89.0	188	18	206	229.4	31	2	33	35.6
TOTAL	344	37	381	429.1	790	58	848	923.4	137	2	139	141.6

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

16:30 - 16:45	67	5	72	78.5	121	5	126	132.5	13	0	13	13.0
16:45 - 17:00	82	1	83	84.3	131	1	132	133.3	9	0	9	9.0
Hourly Total	149	6	155	162.8	252	6	258	265.8	22	0	22	22.0
17:00 - 17:15	92	4	96	101.2	101	2	103	105.6	13	0	13	13.0
17:15 - 17:30	99	0	99	99.0	118	2	120	122.6	9	0	9	9.0
17:30 - 17:45	90	3	93	96.9	104	1	105	106.3	8	0	8	8.0
17:45 - 18:00	89	0	89	89.0	127	0	127	127.0	18	0	18	18.0
Hourly Total	370	7	377	386.1	450	5	455	461.5	48	0	48	48.0
18:00 - 18:15	47	1	48	49.3	107	1	108	109.3	19	0	19	19.0
18:15 - 18:30	52	1	53	54.3	105	2	107	109.6	23	0	23	23.0
Hourly Total	99	2	101	103.6	212	3	215	218.9	42	0	42	42.0
TOTAL	618	15	633	652.5	914	14	928	946.2	112	0	112	112.0

APPENDIX E

PERSONAL INJURY ACCIDENT DATA



 Leicestershire County Council	Her Majesty's Office (c) Crown Copyright	SCALE	1 : 7560
	DATE	05/02/2025	
	DRAWING No.		
	DRAWN BY		

ADC Hinckley



Accidents between dates: 01/01/2019 and 14/12/2024

Selection: ; Refined using Accidents within selected Polygons -Data Requests 2025 ("ADC Hinckley 05.02.2025")

Table 1 - Accidents by Month	2019	2020	2021	2022	2023	2024	Total
January	-	2	-	1	-	-	3
February	-	-	-	-	-	-	0
March	-	-	-	-	-	-	0
April	-	-	-	-	-	1	1
May	-	-	-	-	-	1	1
June	-	-	-	-	1	-	1
July	1	-	-	-	-	-	1
August	-	-	-	-	-	-	0
September	-	-	-	-	-	-	0
October	-	-	-	-	-	1	1
November	-	2	-	2	-	-	4
December	-	1	-	-	-	-	1
TOTAL	1	5	0	3	1	3	13

Table 2 - Casualties by Month	2019	2020	2021	2022	2023	2024	Total
January	-	3	-	1	-	-	4
February	-	-	-	-	-	-	0
March	-	-	-	-	-	-	0
April	-	-	-	-	-	2	2
May	-	-	-	-	-	1	1
June	-	-	-	-	1	-	1
July	1	-	-	-	-	-	1
August	-	-	-	-	-	-	0
September	-	-	-	-	-	-	0
October	-	-	-	-	-	3	3
November	-	3	-	3	-	-	6
December	-	1	-	-	-	-	1
TOTAL	1	7	0	4	1	6	19

Table 3 - All Accidents by Severity	2019	2020	2021	2022	2023	2024	Total
Fatal	0	0	0	0	1	1	2
Serious	0	0	0	2	0	0	2
Slight	1	5	0	1	0	2	9
TOTAL	1	5	0	3	1	3	13

Table 4 - Casualties by Severity	2019	2020	2021	2022	2023	2024	Total
Fatal	0	0	0	0	1	2	3
Serious	0	0	0	2	0	1	3
Slight	1	7	0	2	0	3	13
TOTAL	1	7	0	4	1	6	19

Table 5 - Pedestrian Accidents by Severity	2019	2020	2021	2022	2023	2024	Total
Fatal	0	0	0	0	0	0	0
Serious	0	0	0	0	0	0	0
Slight	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0



Accidents between dates: 01/01/2019 and 14/12/2024

Selection: ; Refined using Accidents within selected Polygons -Data Requests 2025 ("ADC Hinckley 05.02.2025")

Table 6 - Cycle Accidents by Severity	2019	2020	2021	2022	2023	2024	Total
Fatal	0	0	0	0	0	0	0
Serious	0	0	0	0	0	0	0
Slight	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

Table 7 - Motor Vehicle Only Accidents by Severity	2019	2020	2021	2022	2023	2024	Total
Fatal	0	0	0	0	1	1	2
Serious	0	0	0	2	0	0	2
Slight	1	5	0	1	0	2	9
TOTAL	1	5	0	3	1	3	13

Table 8 - 60 Plus Accidents by Severity	2019	2020	2021	2022	2023	2024	Total
Fatal	0	0	0	0	0	0	0
Serious	0	0	0	1	0	0	1
Slight	0	0	0	0	0	1	1
TOTAL	0	0	0	1	0	1	2

Table 9 - Child Accidents by Severity	2019	2020	2021	2022	2023	2024	Total
Fatal	0	0	0	0	0	0	0
Serious	0	0	0	0	0	0	0
Slight	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

Table 10 - P2W Accidents by Severity	2019	2020	2021	2022	2023	2024	Total
Fatal	0	0	0	0	1	0	1
Serious	0	0	0	0	0	0	0
Slight	0	0	0	0	0	0	0
TOTAL	0	0	0	0	1	0	1

Accidents between dates 01/01/2019 and 14/12/2024 (71) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data
 Requests 2025 ("ADC Hinckley 05.02.2025")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900701	02/07/2019	443090	295700	Fine without high winds	Dry	Daylight	Slight

Location: A47 NORMANDY WAY HINCKLEY JW ASHBY ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	N	W
Car	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000052	15/01/2020	443102	295710	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A47 NORMANDY WAY, HINCKLEY JUNCTION WITH B4667 ASHBY ROAD

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	NE	W
Car	Mid Junction - on roundabout or main road	Turning right	W	S

Casualties:

Class	Severity
Driver / Rider	Slight
Driver / Rider	Slight

Accidents between dates 01/01/2019 and 14/12/2024 (71) months

Notes:

; Refined using Accidents within selected Polygons -Data

Requests 2025 ("ADC Hinckley 05.02.2025")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000056	24/01/2020	443280	295805	Other	Wet/Damp	Darkness: street lights present and lit	Slight

Location: A47 NORMANDY WAY HINCKLEY JW CORNWALL WAY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	NE	SW
Car	Jct Approach	Going ahead other	NE	SW
Car	Entering main road	Turning right	SE	NE
Van / Goods 3.5 tonnes mgw and under	Cleared junction or waiting/parked at junction exit	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates 01/01/2019 and 14/12/2024 (71) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data

Requests 2025 ("ADC Hinckley 05.02.2025")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000904	20/11/2020	443095	295710	Raining without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: A47 NORMANDY WAY HINCKLEY JW ASHBY ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	E	N
Car	Mid Junction - on roundabout or main road	Going ahead other	W	SE

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000927	30/11/2020	443090	295715	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: A47 NORMANDY WAY HINCKLEY JW ASHBY ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	S	N
Car	Entering main road	Turning right	N	W

Casualties:

Class	Severity
Driver / Rider	Slight
Driver / Rider	Slight

Accidents between dates 01/01/2019 and 14/12/2024 (71) months

Notes:

; Refined using Accidents within selected Polygons -Data

Requests 2025 ("ADC Hinckley 05.02.2025")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000985	16/12/2020	443105	295705	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: A47 NORMANDY WAY HINCKLEY JW ASHBY ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	W	S
Car	Mid Junction - on roundabout or main road	Going ahead other	E	W

Casualties:

Class	Severity
Vehicle	Slight
Passenger	

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200088	29/01/2022	443090	295710	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Serious

Location: A47 NORMANDY WAY HINCKLEY JW ASHBY ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates 01/01/2019 and 14/12/2024 (71) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data

Requests 2025 ("ADC Hinckley 05.02.2025")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200944	03/11/2022	443095	295715	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A47 NORMANDY WAY HINCKLEY JW ASHBY ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	E	N
Car	Mid Junction - on roundabout or main road	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202201013	20/11/2022	442985	296265	Raining without high winds	Wet/Damp	Daylight	Serious

Location: A447 ASHBY ROAD HINCKLEY AT ENTRANCE TO HOSPITAL.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning left	S	W
Car	Jct Approach	Stopping	S	N
Car	Jct Approach	Going ahead other	S	N

Casualties:

Class	Severity
Vehicle	Slight
Passenger	Serious
Vehicle	Serious
Passenger	Serious

Accidents between dates 01/01/2019 and 14/12/2024 (71) months

Selection: Notes:

; Refined using Accidents within selected Polygons -Data

Requests 2025 ("ADC Hinckley 05.02.2025")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300531	30/06/2023	443025	296160	Fine without high winds	Dry	Daylight	Fatal

Location: A447 ASHBY ROAD HINCKLEY OUTSIDE NUMBER 249.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	U-turn	N	N
Motorcycle over 500cc	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	N	S

Casualties:

Class	Severity
Driver / Rider	Fatal

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400300	05/04/2024	443070	295705	Fine without high winds	Dry	Daylight	Slight

Location: A47 NORMANDY WAY HINCKLEY JW ASHBY ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Going ahead	W	E
Car	Jct Approach	Going ahead but held up	W	E

Casualties:

Class	Severity
Driver / Rider	Slight
Driver / Rider	Slight

Accidents between dates 01/01/2019 and 14/12/2024 (71) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data

Requests 2025 ("ADC Hinckley 05.02.2025")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400415	12/05/2024	443108	295705	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A47 NORMANDY WAY HINCKLEY JW ASHBY ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates 01/01/2019 and 14/12/2024 (71) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data

Requests 2025 ("ADC Hinckley 05.02.2025")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400984	18/10/2024	443060	295700	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Fatal

Location: A47 NORMANDY WAY HINCKLEY 40M W ASHBY ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	W	E
Car	Not at, or within 20M of Jct	Going ahead	W	E
Car	Not at, or within 20M of Jct	Going ahead	E	W

Casualties:

Class	Severity
Driver / Rider	Very serious
Vehicle	Fatal
Passenger	
Driver / Rider	Fatal

Number of records in selection: 13

APPENDIX F

HIGHWAY BOUNDARY DATA



Section 1a: Roads, Footpaths and Verges

The following section shows the extent of publicly maintainable roads, footpaths and verges in and about the site.



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Site Boundary

Public

Highway maintainable at public expense as defined under S36 of the Highways Act.

Private

Road has not been adopted as a highway maintainable at public expense.

Members of the public may still have the right to use the road in their vehicles or on foot but the responsibility for and cost of maintenance is held privately.

PMH/S38

Prospectively Maintainable Highway - Road is not currently adopted as a highway maintainable at public expense but the relevant authority has indicated through proposals, bonds, bond waivers or other means that they may adopt the road for maintenance at a future date.

Highways Agency

This road is managed and maintained by the Highways Agency.

Other Maintainable

Where identified please refer to the Notes box on the next page.

Roads investigated are shown coloured on the plan and listed by status in the table. Uncoloured roads have not been checked.

APPENDIX G

MULTI MODAL TRICS DATA

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
ES	EAST SUSSEX	3 days
HC	HAMPSHIRE	3 days
HF	HERTFORDSHIRE	2 days
KC	KENT	4 days
SC	SURREY	1 days
WS	WEST SUSSEX	6 days
03	SOUTH WEST	
DC	DORSET	1 days
04	EAST ANGLIA	
CA	CAMBRIDGESHIRE	1 days
NF	NORFOLK	7 days
05	EAST MIDLANDS	
LE	LEICESTERSHIRE	1 days
06	WEST MIDLANDS	
ST	STAFFORDSHIRE	1 days
08	NORTH WEST	
AC	CHESHIRE WEST & CHESTER	1 days
09	NORTH	
DH	DURHAM	2 days
IM	ISLE OF MAN	3 days
11	SCOTLAND	
AS	ABERDEENSHIRE	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: 50 to 248 (units:)
 Range Selected by User: 50 to 250 (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: 01/01/16 to 18/09/24

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	4 days
Tuesday	16 days
Wednesday	6 days
Thursday	10 days
Friday	1 days

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

Selected survey types:

Manual count	37 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5
Edge of Town	19
Neighbourhood Centre (PPS6 Local Centre)	13

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	21
Village	13
Out of Town	1
No Sub Category	2

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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	16 days - Selected
Servicing vehicles Excluded	63 days - Selected

Secondary Filtering selection:Use Class:

C3 37 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 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:

1,001 to 5,000	12 days
5,001 to 10,000	13 days
10,001 to 15,000	8 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days

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

Population within 5 miles:

5,001 to 25,000	9 days
25,001 to 50,000	13 days
50,001 to 75,000	7 days
75,001 to 100,000	8 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	7 days
1.1 to 1.5	23 days
1.6 to 2.0	7 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	23 days
No	14 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 37 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	AC-03-A-06	DETACHED HOUSES	CHESHIRE WEST & CHESTER
	COMMON LANE		
	NEAR CHESTER		
	WAVERTON		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	99	
	Survey date: FRIDAY	29/04/22	Survey Type: MANUAL
2	AS-03-A-02	MIXED HOUSES	ABERDEENSHIRE
	FARROCHIE ROAD		
	STONEHAVEN		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	131	
	Survey date: WEDNESDAY	20/04/22	Survey Type: MANUAL
3	CA-03-A-08	DETACHED & SEMI-DETACHED	CAMBRIDGESHIRE
	GIDDING ROAD		
	SAWTRY		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	83	
	Survey date: THURSDAY	13/10/22	Survey Type: MANUAL
4	DC-03-A-11	MIXED HOUSES	DORSET
	A350		
	SHAFTESBURY		
	Edge of Town		
	No Sub Category		
	Total No of Dwellings:	141	
	Survey date: TUESDAY	31/10/23	Survey Type: MANUAL
5	DH-03-A-01	SEMI DETACHED	DURHAM
	GREENFIELDS ROAD		
	BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	50	
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL
6	DH-03-A-02	MIXED HOUSES	DURHAM
	LEAZES LANE		
	BISHOP AUCKLAND		
	ST HELEN AUCKLAND		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	125	
	Survey date: MONDAY	27/03/17	Survey Type: MANUAL
7	ES-03-A-07	MIXED HOUSES & FLATS	EAST SUSSEX
	NEW ROAD		
	HAILSHAM		
	HELLINGLY		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	91	
	Survey date: THURSDAY	07/11/19	Survey Type: MANUAL
8	ES-03-A-11	MIXED HOUSES	EAST SUSSEX
	BISHOPS LANE		
	RINGMER		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	105	
	Survey date: THURSDAY	28/09/23	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	ES-03-A-12	MIXED HOUSES & FLATS	EAST SUSSEX
	HOREBEECH LANE		
	HORAM		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	123	
	<i>Survey date: TUESDAY</i>	03/10/23	<i>Survey Type: MANUAL</i>
10	HC-03-A-23	HOUSES & FLATS	HAMPSHIRE
	CANADA WAY		
	LIPHOOK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	62	
	<i>Survey date: TUESDAY</i>	19/11/19	<i>Survey Type: MANUAL</i>
11	HC-03-A-27	MIXED HOUSES	HAMPSHIRE
	DAIRY ROAD		
	ANDOVER		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	73	
	<i>Survey date: TUESDAY</i>	16/11/21	<i>Survey Type: MANUAL</i>
12	HC-03-A-38	MIXED HOUSES & FLATS	HAMPSHIRE
	CROW LANE		
	RINGWOOD		
	CROW		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	195	
	<i>Survey date: WEDNESDAY</i>	26/06/24	<i>Survey Type: MANUAL</i>
13	HF-03-A-03	MIXED HOUSES	HERTFORDSHIRE
	HARE STREET ROAD		
	BUNTINGFORD		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	160	
	<i>Survey date: MONDAY</i>	08/07/19	<i>Survey Type: MANUAL</i>
14	HF-03-A-06	MIXED HOUSES & FLATS	HERTFORDSHIRE
	A505		
	ROYSTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	180	
	<i>Survey date: TUESDAY</i>	28/11/23	<i>Survey Type: MANUAL</i>
15	IM-03-A-03	MIXED HOUSES	ISLE OF MAN
	MAIN ROAD		
	COLBY		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	111	
	<i>Survey date: TUESDAY</i>	21/05/24	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

16	IM-03-A-04	MIXED HOUSES	ISLE OF MAN
	NEW CASTLETON ROAD		
	DOUGLAS		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	73	
	Survey date: MONDAY	20/05/24	
17	IM-03-A-06	MIXED HOUSES	<i>Survey Type: MANUAL</i>
	MOORAGH PROMENADE	ISLE OF MAN	
	RAMSEY		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	129	
	Survey date: THURSDAY	23/05/24	
18	KC-03-A-03	MIXED HOUSES & FLATS	<i>Survey Type: MANUAL</i>
	HYTHE ROAD	KENT	
	ASHFORD		
	WILLESBOROUGH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	51	
	Survey date: THURSDAY	14/07/16	
19	KC-03-A-08	MIXED HOUSES	<i>Survey Type: MANUAL</i>
	MAIDSTONE ROAD	KENT	
	CHARING		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	159	
	Survey date: TUESDAY	22/05/18	
20	KC-03-A-10	MIXED HOUSES	<i>Survey Type: MANUAL</i>
	HEADCORN ROAD	KENT	
	STAPLEHURST		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	106	
	Survey date: TUESDAY	09/05/23	
21	KC-03-A-12	MIXED HOUSES & FLATS	<i>Survey Type: MANUAL</i>
	WESTERN LINK	KENT	
	FAVERSHAM		
	DAVINGTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	186	
	Survey date: TUESDAY	19/09/23	
22	LE-03-A-02	DETACHED & OTHERS	<i>Survey Type: MANUAL</i>
	MELBOURNE ROAD	LEICESTERSHIRE	
	IBSTOCK		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	85	
	Survey date: THURSDAY	28/06/18	
23	NF-03-A-25	MIXED HOUSES & FLATS	<i>Survey Type: MANUAL</i>
	WOODFARM LANE	NORFOLK	
	GORLESTON-ON-SEA		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	55	
	Survey date: TUESDAY	21/09/21	

LIST OF SITES relevant to selection parameters (Cont.)

24	NF-03-A-27	MIXED HOUSES & FLATS	NORFOLK
	YARMOUTH ROAD		
	NEAR NORWICH		
	BLOFIELD		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	93	
	<i>Survey date: THURSDAY</i>	16/09/21	<i>Survey Type: MANUAL</i>
25	NF-03-A-33	MIXED HOUSES	NORFOLK
	LONDON ROAD		
	ATTLEBOROUGH		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	143	
	<i>Survey date: THURSDAY</i>	29/09/22	<i>Survey Type: MANUAL</i>
26	NF-03-A-34	MIXED HOUSES	NORFOLK
	NORWICH ROAD		
	SWAFFHAM		
	Edge of Town		
	Out of Town		
	Total No of Dwellings:	80	
	<i>Survey date: TUESDAY</i>	27/09/22	<i>Survey Type: MANUAL</i>
27	NF-03-A-36	MIXED HOUSES	NORFOLK
	LONDON ROAD		
	WYMONDHAM		
	Edge of Town		
	No Sub Category		
	Total No of Dwellings:	75	
	<i>Survey date: THURSDAY</i>	29/09/22	<i>Survey Type: MANUAL</i>
28	NF-03-A-39	MIXED HOUSES	NORFOLK
	HEATH DRIVE		
	HOLT		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	212	
	<i>Survey date: TUESDAY</i>	27/09/22	<i>Survey Type: MANUAL</i>
29	NF-03-A-52	MIXED HOUSES	NORFOLK
	LYNNSPORT WAY		
	KING'S LYNN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	130	
	<i>Survey date: TUESDAY</i>	07/11/23	<i>Survey Type: MANUAL</i>
30	SC-03-A-09	MIXED HOUSES & FLATS	SURREY
	AMLETS LANE		
	CRANLEIGH		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	136	
	<i>Survey date: TUESDAY</i>	24/05/22	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

31	ST-03-A-07	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	BEACONSIDE		
	STAFFORD		
	MARSTON GATE		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	248	
	Survey date: WEDNESDAY	22/11/17	
32	WS-03-A-07	BUNGALOWS	<i>Survey Type: MANUAL</i> WEST SUSSEX
	EMMS LANE		
	NEAR HORSHAM		
	BROOKS GREEN		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	57	
	Survey date: THURSDAY	19/10/17	
33	WS-03-A-12	MIXED HOUSES	<i>Survey Type: MANUAL</i> WEST SUSSEX
	MADGWICK LANE		
	CHICHESTER		
	WESTHAMPNETT		
	Edge of Town		
	Village		
	Total No of Dwellings:	152	
	Survey date: WEDNESDAY	16/06/21	
34	WS-03-A-14	MIXED HOUSES	<i>Survey Type: MANUAL</i> WEST SUSSEX
	TODDINGTON LANE		
	LITTLEHAMPTON		
	WICK		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	117	
	Survey date: WEDNESDAY	20/10/21	
35	WS-03-A-16	DETACHED & SEMI-DETACHED	<i>Survey Type: MANUAL</i> WEST SUSSEX
	BRACKLESHAM LANE		
	BRACKLESHAM BAY		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	58	
	Survey date: WEDNESDAY	09/11/22	
36	WS-03-A-18	MIXED HOUSES & FLATS	<i>Survey Type: MANUAL</i> WEST SUSSEX
	LONDON ROAD		
	HASSOCKS		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	156	
	Survey date: MONDAY	15/05/23	
37	WS-03-A-23	MIXED HOUSES & FLATS	<i>Survey Type: MANUAL</i> WEST SUSSEX
	TURNERS HILL ROAD		
	EAST GRINSTEAD		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	197	
	Survey date: TUESDAY	14/05/24	
			<i>Survey Type: MANUAL</i>

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.

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): 1.72

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	37	120	0.071	37	120	0.265	37	120	0.336
08:00 - 09:00	37	120	0.134	37	120	0.340	37	120	0.474
09:00 - 10:00	37	120	0.136	37	120	0.167	37	120	0.303
10:00 - 11:00	37	120	0.125	37	120	0.153	37	120	0.278
11:00 - 12:00	37	120	0.124	37	120	0.134	37	120	0.258
12:00 - 13:00	37	120	0.150	37	120	0.141	37	120	0.291
13:00 - 14:00	37	120	0.144	37	120	0.143	37	120	0.287
14:00 - 15:00	37	120	0.147	37	120	0.163	37	120	0.310
15:00 - 16:00	37	120	0.238	37	120	0.159	37	120	0.397
16:00 - 17:00	37	120	0.253	37	120	0.156	37	120	0.409
17:00 - 18:00	37	120	0.311	37	120	0.149	37	120	0.460
18:00 - 19:00	37	120	0.237	37	120	0.131	37	120	0.368
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.070				2.101			4.171

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*FACT. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	50 - 248 (units:)
Survey date date range:	01/01/16 - 18/09/24
Number of weekdays (Monday-Friday):	37
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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 TAXIS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

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	37	120	0.002	37	120	0.002	37	120	0.004
08:00 - 09:00	37	120	0.007	37	120	0.006	37	120	0.013
09:00 - 10:00	37	120	0.003	37	120	0.003	37	120	0.006
10:00 - 11:00	37	120	0.002	37	120	0.002	37	120	0.004
11:00 - 12:00	37	120	0.002	37	120	0.002	37	120	0.004
12:00 - 13:00	37	120	0.003	37	120	0.003	37	120	0.006
13:00 - 14:00	37	120	0.002	37	120	0.002	37	120	0.004
14:00 - 15:00	37	120	0.002	37	120	0.002	37	120	0.004
15:00 - 16:00	37	120	0.004	37	120	0.005	37	120	0.009
16:00 - 17:00	37	120	0.004	37	120	0.004	37	120	0.008
17:00 - 18:00	37	120	0.003	37	120	0.002	37	120	0.005
18:00 - 19:00	37	120	0.001	37	120	0.001	37	120	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.035			0.034				0.069

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*FACT. Trip rates are then rounded to 3 decimal places.

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

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

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	37	120	0.002	37	120	0.001	37	120	0.003
08:00 - 09:00	37	120	0.001	37	120	0.001	37	120	0.002
09:00 - 10:00	37	120	0.003	37	120	0.002	37	120	0.005
10:00 - 11:00	37	120	0.003	37	120	0.003	37	120	0.006
11:00 - 12:00	37	120	0.003	37	120	0.003	37	120	0.006
12:00 - 13:00	37	120	0.003	37	120	0.004	37	120	0.007
13:00 - 14:00	37	120	0.002	37	120	0.002	37	120	0.004
14:00 - 15:00	37	120	0.002	37	120	0.002	37	120	0.004
15:00 - 16:00	37	120	0.003	37	120	0.003	37	120	0.006
16:00 - 17:00	37	120	0.000	37	120	0.001	37	120	0.001
17:00 - 18:00	37	120	0.001	37	120	0.000	37	120	0.001
18:00 - 19:00	37	120	0.001	37	120	0.000	37	120	0.001
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.024			0.022			0.046	

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*FACT. Trip rates are then rounded to 3 decimal places.

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

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

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	37	120	0.000	37	120	0.000	37	120	0.000
08:00 - 09:00	37	120	0.000	37	120	0.000	37	120	0.000
09:00 - 10:00	37	120	0.000	37	120	0.000	37	120	0.000
10:00 - 11:00	37	120	0.000	37	120	0.000	37	120	0.000
11:00 - 12:00	37	120	0.000	37	120	0.000	37	120	0.000
12:00 - 13:00	37	120	0.000	37	120	0.000	37	120	0.000
13:00 - 14:00	37	120	0.000	37	120	0.000	37	120	0.000
14:00 - 15:00	37	120	0.000	37	120	0.000	37	120	0.000
15:00 - 16:00	37	120	0.000	37	120	0.000	37	120	0.000
16:00 - 17:00	37	120	0.000	37	120	0.000	37	120	0.000
17:00 - 18:00	37	120	0.000	37	120	0.000	37	120	0.000
18:00 - 19:00	37	120	0.000	37	120	0.000	37	120	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.000			0.000			0.000	

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*FACT. Trip rates are then rounded to 3 decimal places.

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

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

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	37	120	0.002	37	120	0.010	37	120	0.012
08:00 - 09:00	37	120	0.003	37	120	0.019	37	120	0.022
09:00 - 10:00	37	120	0.003	37	120	0.005	37	120	0.008
10:00 - 11:00	37	120	0.003	37	120	0.001	37	120	0.004
11:00 - 12:00	37	120	0.002	37	120	0.002	37	120	0.004
12:00 - 13:00	37	120	0.003	37	120	0.002	37	120	0.005
13:00 - 14:00	37	120	0.004	37	120	0.003	37	120	0.007
14:00 - 15:00	37	120	0.004	37	120	0.004	37	120	0.008
15:00 - 16:00	37	120	0.013	37	120	0.005	37	120	0.018
16:00 - 17:00	37	120	0.012	37	120	0.006	37	120	0.018
17:00 - 18:00	37	120	0.009	37	120	0.007	37	120	0.016
18:00 - 19:00	37	120	0.007	37	120	0.004	37	120	0.011
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.065			0.068			0.133	

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*FACT. Trip rates are then rounded to 3 decimal places.

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

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

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	37	120	0.079	37	120	0.376	37	120	0.455
08:00 - 09:00	37	120	0.157	37	120	0.564	37	120	0.721
09:00 - 10:00	37	120	0.164	37	120	0.222	37	120	0.386
10:00 - 11:00	37	120	0.157	37	120	0.204	37	120	0.361
11:00 - 12:00	37	120	0.162	37	120	0.177	37	120	0.339
12:00 - 13:00	37	120	0.193	37	120	0.186	37	120	0.379
13:00 - 14:00	37	120	0.190	37	120	0.183	37	120	0.373
14:00 - 15:00	37	120	0.198	37	120	0.212	37	120	0.410
15:00 - 16:00	37	120	0.396	37	120	0.209	37	120	0.605
16:00 - 17:00	37	120	0.387	37	120	0.215	37	120	0.602
17:00 - 18:00	37	120	0.463	37	120	0.204	37	120	0.667
18:00 - 19:00	37	120	0.347	37	120	0.183	37	120	0.530
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.893			2.935				5.828

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*FACT. Trip rates are then rounded to 3 decimal places.

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

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

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	37	120	0.017	37	120	0.043	37	120	0.060
08:00 - 09:00	37	120	0.040	37	120	0.105	37	120	0.145
09:00 - 10:00	37	120	0.039	37	120	0.041	37	120	0.080
10:00 - 11:00	37	120	0.025	37	120	0.035	37	120	0.060
11:00 - 12:00	37	120	0.038	37	120	0.035	37	120	0.073
12:00 - 13:00	37	120	0.035	37	120	0.030	37	120	0.065
13:00 - 14:00	37	120	0.032	37	120	0.031	37	120	0.063
14:00 - 15:00	37	120	0.037	37	120	0.033	37	120	0.070
15:00 - 16:00	37	120	0.094	37	120	0.050	37	120	0.144
16:00 - 17:00	37	120	0.061	37	120	0.039	37	120	0.100
17:00 - 18:00	37	120	0.043	37	120	0.039	37	120	0.082
18:00 - 19:00	37	120	0.044	37	120	0.029	37	120	0.073
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.505			0.510				1.015

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*FACT. Trip rates are then rounded to 3 decimal places.

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

MULTI-MODAL BUS/TRAM PASSENGERS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

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	37	120	0.000	37	120	0.015	37	120	0.015
08:00 - 09:00	37	120	0.002	37	120	0.027	37	120	0.029
09:00 - 10:00	37	120	0.002	37	120	0.009	37	120	0.011
10:00 - 11:00	37	120	0.005	37	120	0.004	37	120	0.009
11:00 - 12:00	37	120	0.004	37	120	0.004	37	120	0.008
12:00 - 13:00	37	120	0.005	37	120	0.005	37	120	0.010
13:00 - 14:00	37	120	0.005	37	120	0.002	37	120	0.007
14:00 - 15:00	37	120	0.006	37	120	0.006	37	120	0.012
15:00 - 16:00	37	120	0.023	37	120	0.005	37	120	0.028
16:00 - 17:00	37	120	0.013	37	120	0.003	37	120	0.016
17:00 - 18:00	37	120	0.010	37	120	0.002	37	120	0.012
18:00 - 19:00	37	120	0.006	37	120	0.001	37	120	0.007
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.081			0.083				0.164

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*FACT. Trip rates are then rounded to 3 decimal places.

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

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

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	37	120	0.000	37	120	0.009	37	120	0.009
08:00 - 09:00	37	120	0.000	37	120	0.007	37	120	0.007
09:00 - 10:00	37	120	0.000	37	120	0.002	37	120	0.002
10:00 - 11:00	37	120	0.000	37	120	0.000	37	120	0.000
11:00 - 12:00	37	120	0.000	37	120	0.000	37	120	0.000
12:00 - 13:00	37	120	0.000	37	120	0.001	37	120	0.001
13:00 - 14:00	37	120	0.000	37	120	0.000	37	120	0.000
14:00 - 15:00	37	120	0.001	37	120	0.000	37	120	0.001
15:00 - 16:00	37	120	0.002	37	120	0.000	37	120	0.002
16:00 - 17:00	37	120	0.003	37	120	0.000	37	120	0.003
17:00 - 18:00	37	120	0.007	37	120	0.000	37	120	0.007
18:00 - 19:00	37	120	0.005	37	120	0.000	37	120	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.018			0.019			0.037	

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*FACT. Trip rates are then rounded to 3 decimal places.

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

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

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	37	120	0.000	37	120	0.000	37	120	0.000
08:00 - 09:00	37	120	0.000	37	120	0.000	37	120	0.000
09:00 - 10:00	37	120	0.000	37	120	0.000	37	120	0.000
10:00 - 11:00	37	120	0.000	37	120	0.000	37	120	0.000
11:00 - 12:00	37	120	0.000	37	120	0.000	37	120	0.000
12:00 - 13:00	37	120	0.000	37	120	0.000	37	120	0.000
13:00 - 14:00	37	120	0.000	37	120	0.000	37	120	0.000
14:00 - 15:00	37	120	0.000	37	120	0.000	37	120	0.000
15:00 - 16:00	37	120	0.000	37	120	0.000	37	120	0.000
16:00 - 17:00	37	120	0.000	37	120	0.000	37	120	0.000
17:00 - 18:00	37	120	0.000	37	120	0.000	37	120	0.000
18:00 - 19:00	37	120	0.000	37	120	0.000	37	120	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.000			0.000			0.000	

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*FACT. Trip rates are then rounded to 3 decimal places.

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

MULTI-MODAL PUBLIC TRANSPORT USERS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

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	37	120	0.000	37	120	0.024	37	120	0.024
08:00 - 09:00	37	120	0.002	37	120	0.034	37	120	0.036
09:00 - 10:00	37	120	0.002	37	120	0.012	37	120	0.014
10:00 - 11:00	37	120	0.005	37	120	0.005	37	120	0.010
11:00 - 12:00	37	120	0.004	37	120	0.004	37	120	0.008
12:00 - 13:00	37	120	0.005	37	120	0.005	37	120	0.010
13:00 - 14:00	37	120	0.005	37	120	0.002	37	120	0.007
14:00 - 15:00	37	120	0.006	37	120	0.006	37	120	0.012
15:00 - 16:00	37	120	0.025	37	120	0.005	37	120	0.030
16:00 - 17:00	37	120	0.017	37	120	0.003	37	120	0.020
17:00 - 18:00	37	120	0.017	37	120	0.002	37	120	0.019
18:00 - 19:00	37	120	0.011	37	120	0.001	37	120	0.012
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.099			0.103			0.202	

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*FACT. Trip rates are then rounded to 3 decimal places.

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): 1.72

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	37	120	0.098	37	120	0.454	37	120	0.552
08:00 - 09:00	37	120	0.202	37	120	0.721	37	120	0.923
09:00 - 10:00	37	120	0.208	37	120	0.279	37	120	0.487
10:00 - 11:00	37	120	0.189	37	120	0.244	37	120	0.433
11:00 - 12:00	37	120	0.206	37	120	0.219	37	120	0.425
12:00 - 13:00	37	120	0.236	37	120	0.225	37	120	0.461
13:00 - 14:00	37	120	0.232	37	120	0.219	37	120	0.451
14:00 - 15:00	37	120	0.245	37	120	0.255	37	120	0.500
15:00 - 16:00	37	120	0.527	37	120	0.269	37	120	0.796
16:00 - 17:00	37	120	0.477	37	120	0.262	37	120	0.739
17:00 - 18:00	37	120	0.533	37	120	0.251	37	120	0.784
18:00 - 19:00	37	120	0.408	37	120	0.217	37	120	0.625
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		3.561			3.615				7.176

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*FACT. Trip rates are then rounded to 3 decimal places.

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

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

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	37	120	0.057	37	120	0.233	37	120	0.290
08:00 - 09:00	37	120	0.110	37	120	0.307	37	120	0.417
09:00 - 10:00	37	120	0.108	37	120	0.142	37	120	0.250
10:00 - 11:00	37	120	0.097	37	120	0.121	37	120	0.218
11:00 - 12:00	37	120	0.095	37	120	0.105	37	120	0.200
12:00 - 13:00	37	120	0.117	37	120	0.110	37	120	0.227
13:00 - 14:00	37	120	0.116	37	120	0.114	37	120	0.230
14:00 - 15:00	37	120	0.121	37	120	0.132	37	120	0.253
15:00 - 16:00	37	120	0.210	37	120	0.133	37	120	0.343
16:00 - 17:00	37	120	0.219	37	120	0.133	37	120	0.352
17:00 - 18:00	37	120	0.277	37	120	0.131	37	120	0.408
18:00 - 19:00	37	120	0.217	37	120	0.117	37	120	0.334
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		1.744			1.778				3.522

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*FACT. Trip rates are then rounded to 3 decimal places.

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

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

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	37	120	0.010	37	120	0.027	37	120	0.037
08:00 - 09:00	37	120	0.016	37	120	0.024	37	120	0.040
09:00 - 10:00	37	120	0.022	37	120	0.019	37	120	0.041
10:00 - 11:00	37	120	0.022	37	120	0.024	37	120	0.046
11:00 - 12:00	37	120	0.023	37	120	0.023	37	120	0.046
12:00 - 13:00	37	120	0.025	37	120	0.023	37	120	0.048
13:00 - 14:00	37	120	0.022	37	120	0.023	37	120	0.045
14:00 - 15:00	37	120	0.021	37	120	0.025	37	120	0.046
15:00 - 16:00	37	120	0.021	37	120	0.018	37	120	0.039
16:00 - 17:00	37	120	0.027	37	120	0.017	37	120	0.044
17:00 - 18:00	37	120	0.028	37	120	0.014	37	120	0.042
18:00 - 19:00	37	120	0.018	37	120	0.012	37	120	0.030
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.255			0.249			0.504	

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.

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

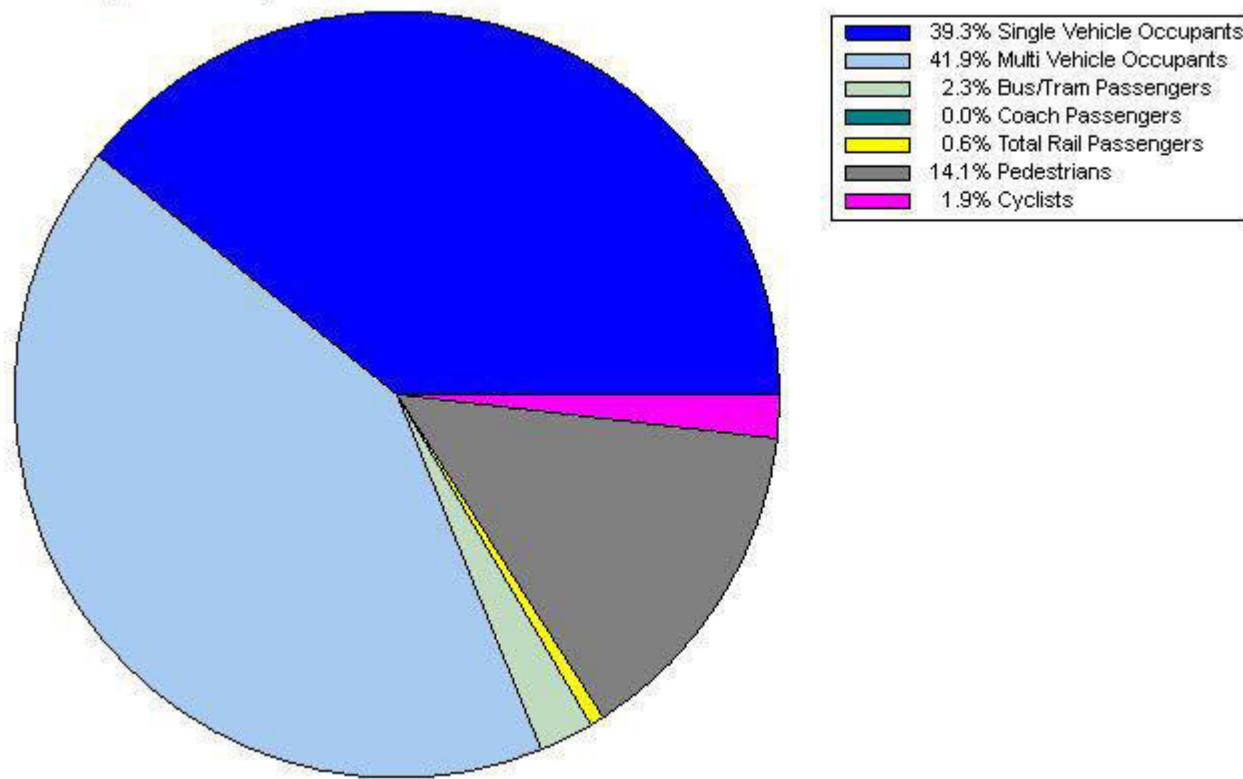
MULTI-MODAL MOTOR CYCLES**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

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	37	120	0.000	37	120	0.001	37	120	0.001
08:00 - 09:00	37	120	0.001	37	120	0.001	37	120	0.002
09:00 - 10:00	37	120	0.001	37	120	0.001	37	120	0.002
10:00 - 11:00	37	120	0.000	37	120	0.001	37	120	0.001
11:00 - 12:00	37	120	0.001	37	120	0.001	37	120	0.002
12:00 - 13:00	37	120	0.001	37	120	0.001	37	120	0.002
13:00 - 14:00	37	120	0.001	37	120	0.001	37	120	0.002
14:00 - 15:00	37	120	0.001	37	120	0.001	37	120	0.002
15:00 - 16:00	37	120	0.000	37	120	0.000	37	120	0.000
16:00 - 17:00	37	120	0.002	37	120	0.001	37	120	0.003
17:00 - 18:00	37	120	0.002	37	120	0.001	37	120	0.003
18:00 - 19:00	37	120	0.001	37	120	0.001	37	120	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.011			0.011			0.022	

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*FACT. Trip rates are then rounded to 3 decimal places.

Modal Split Percentages

Time Range/Peak Period Selection

Direction: Totals / Use All Times

APPENDIX H

PRTM OUTPUTS

Land East of Ashby Road, Hinckley

Parent Zone Trip Distribution + AOL

3852.011

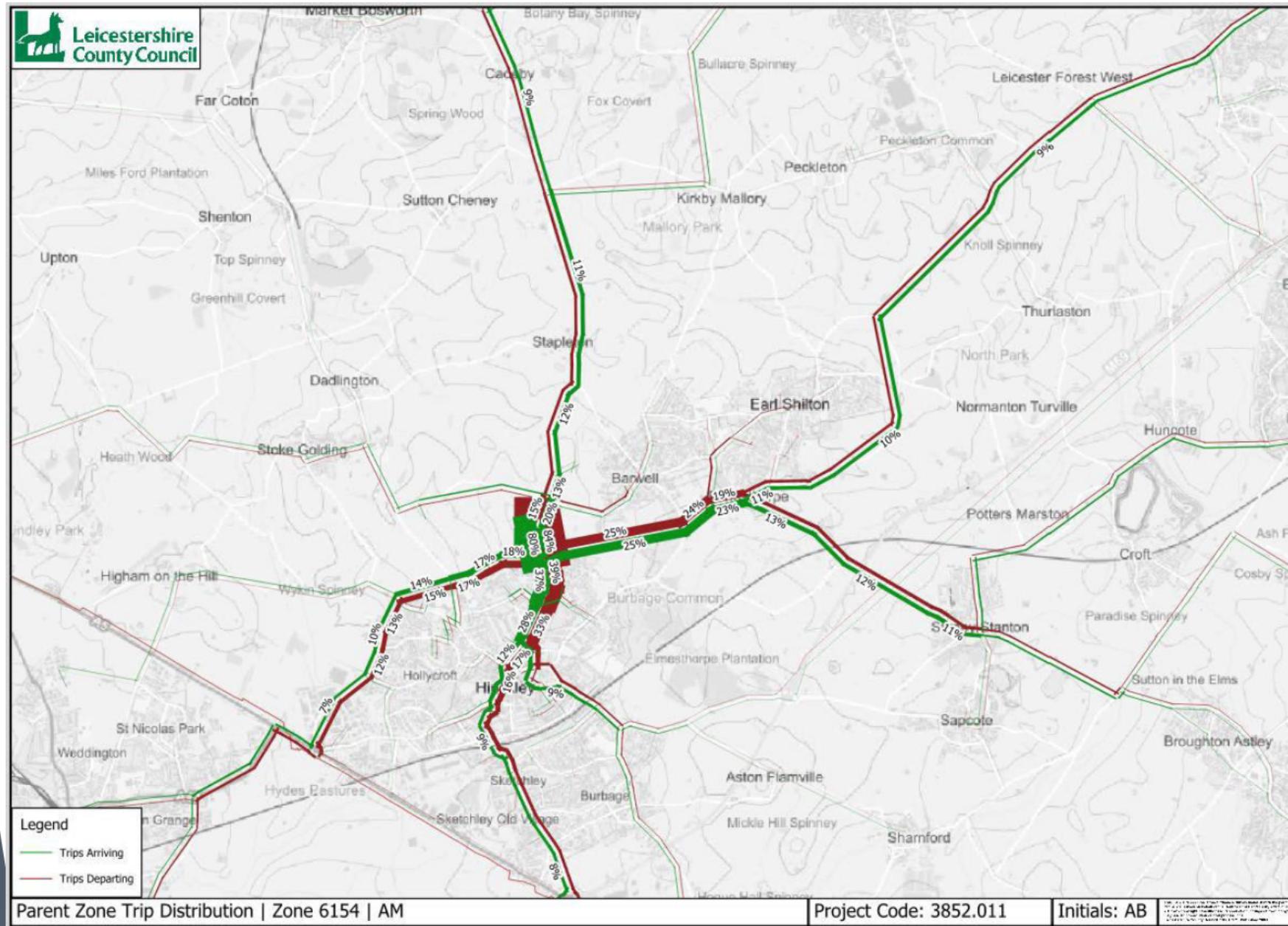
Alisha Baskcomb, Transport Modeller

Created on 10/02/2025

CONFIDENTIAL

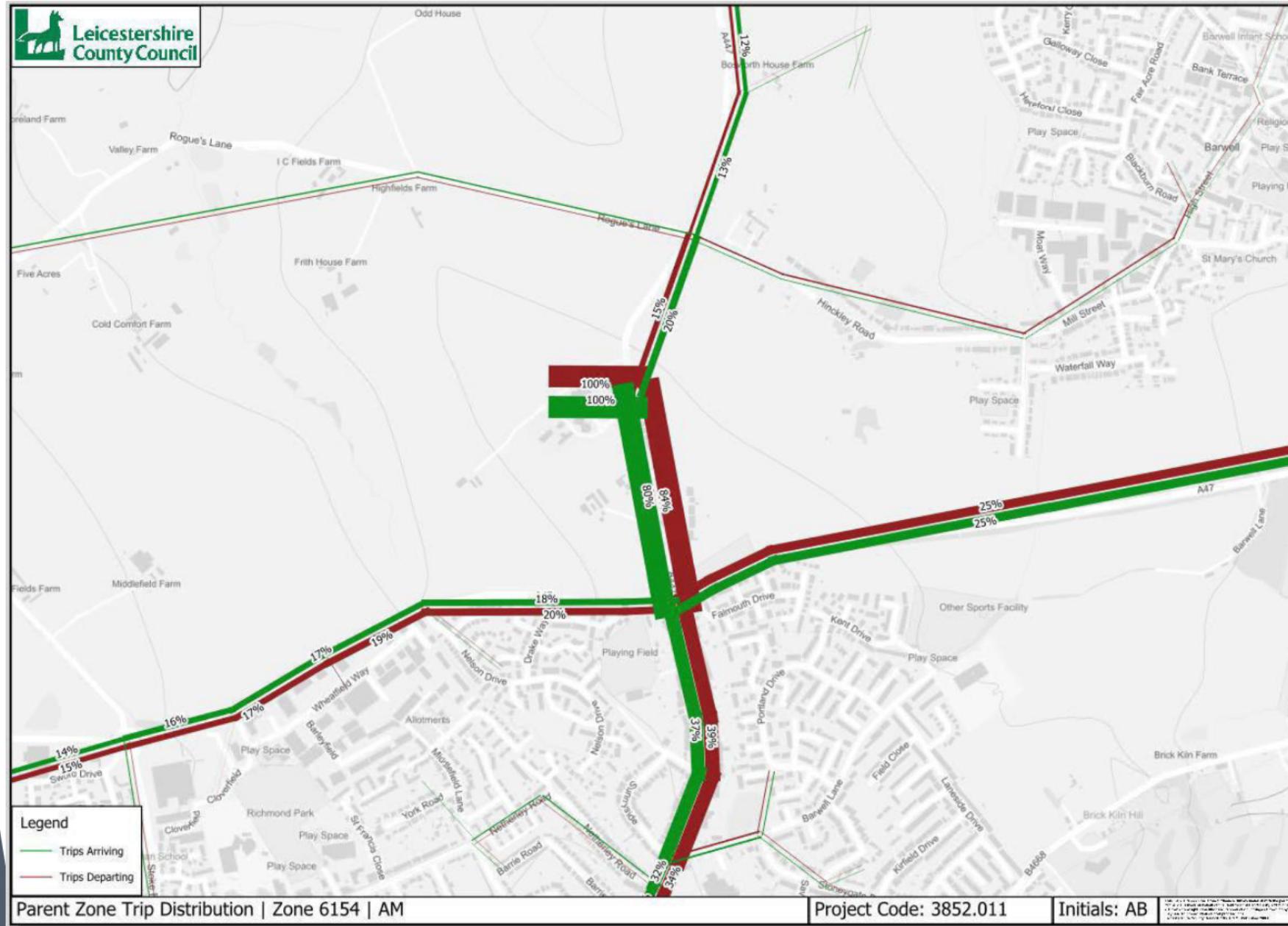
Parent Zone 6154 Trip Distribution - AM

Strategic scale



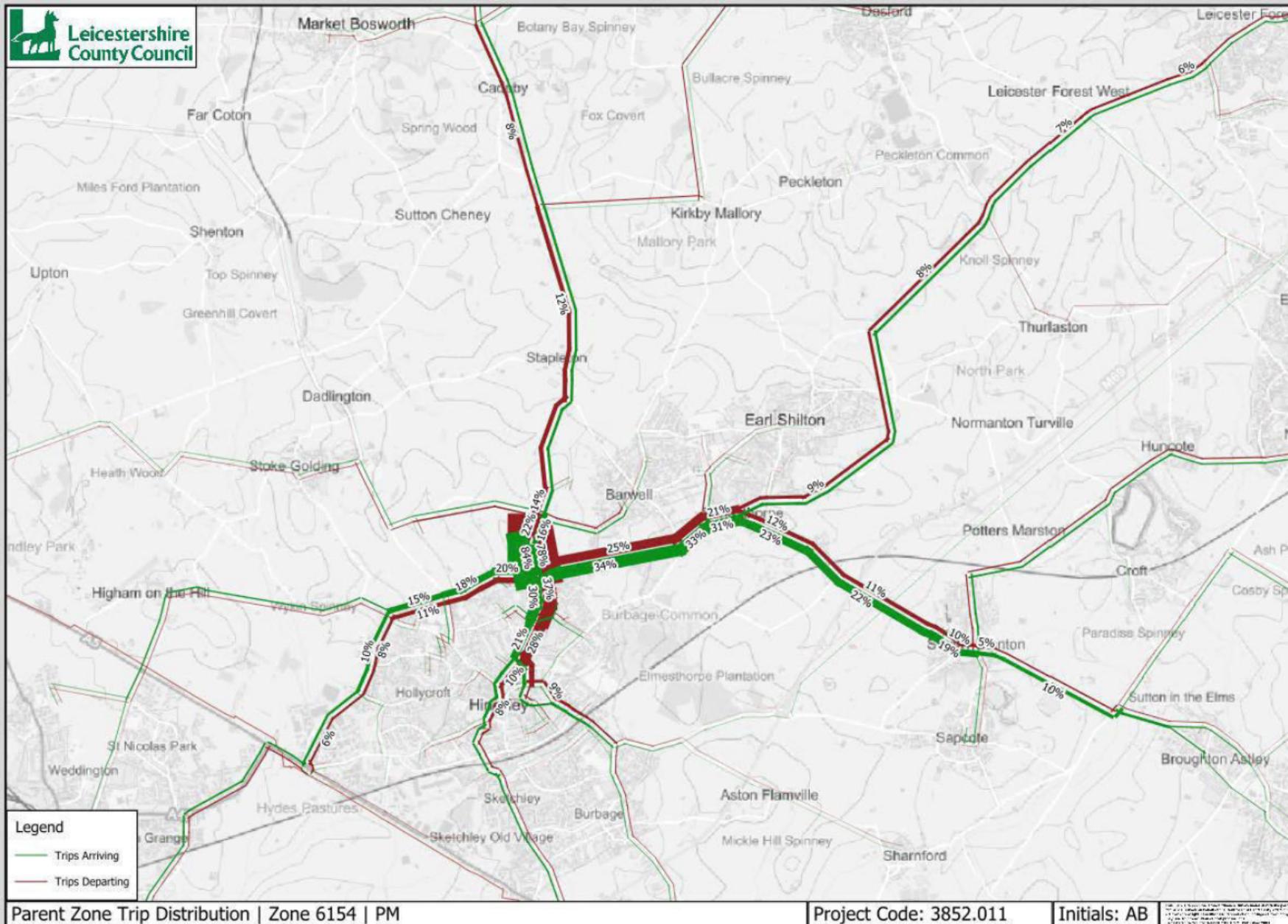
Parent Zone 6154 Trip Distribution - AM

Local scale



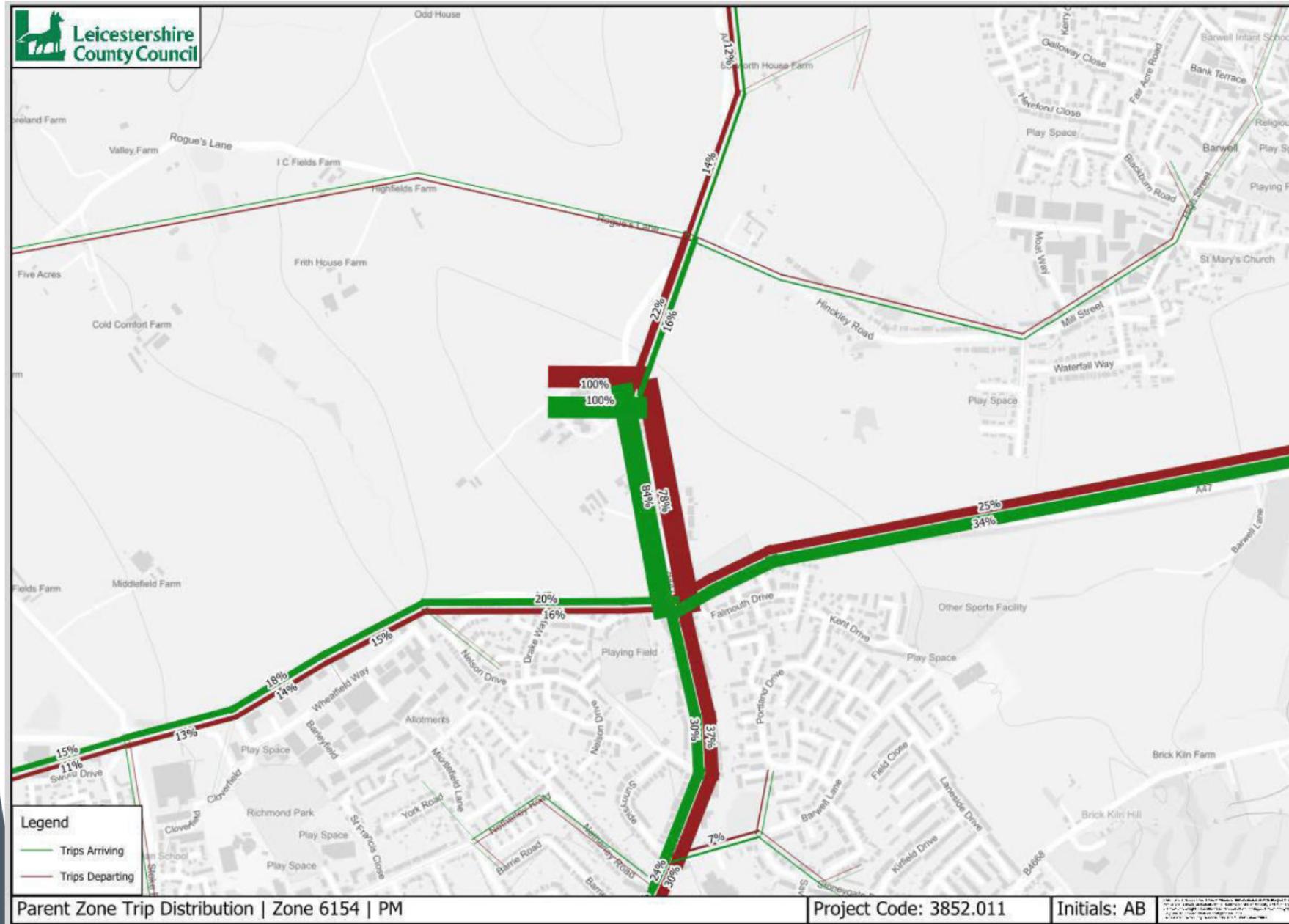
Parent Zone 6154 Trip Distribution - PM

Strategic scale



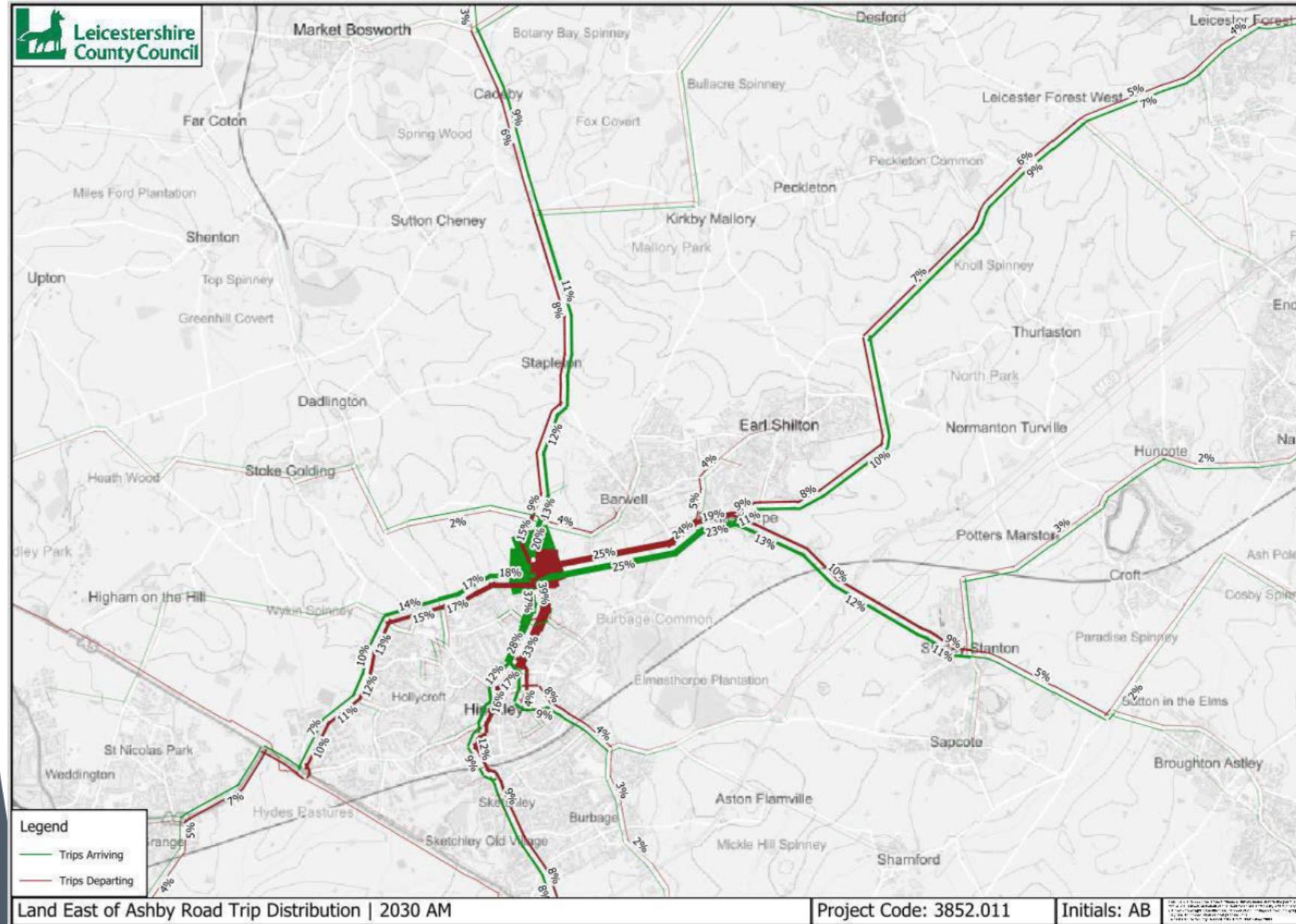
Parent Zone 6154 Trip Distribution - PM

Local scale



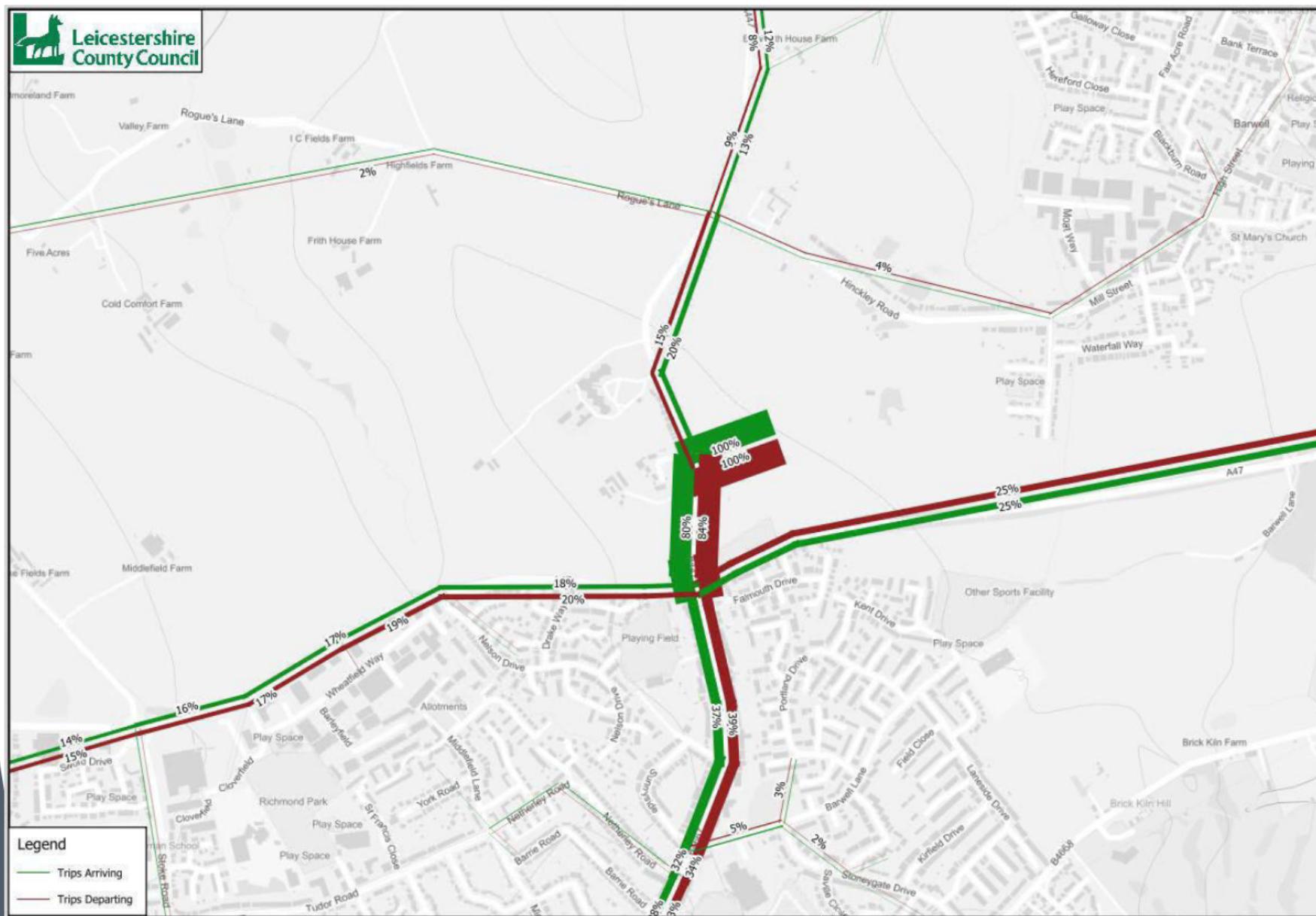
Land East of Ashby Road Trip Distribution - 2030 AM

Strategic scale



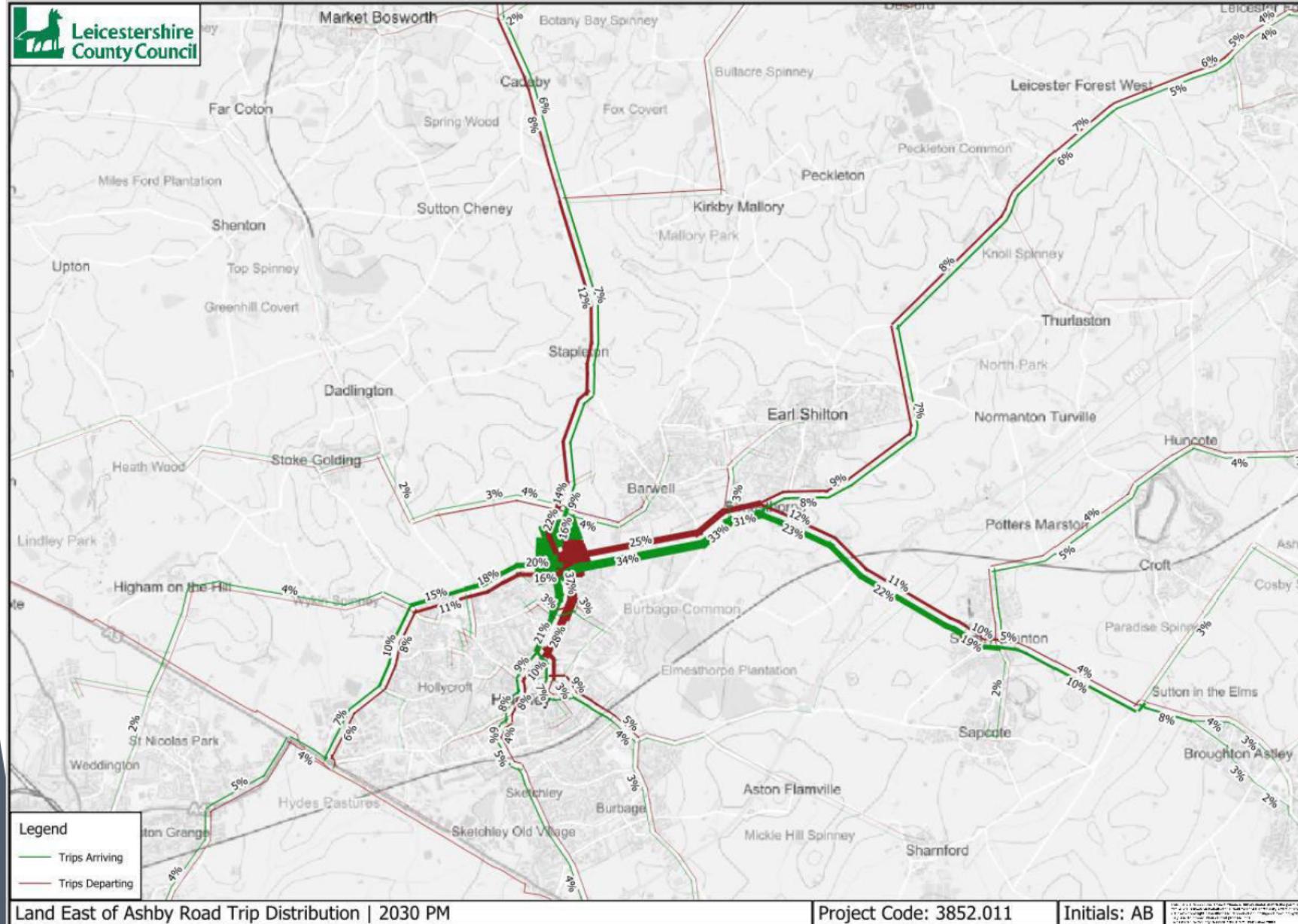
Land East of Ashby Road Trip Distribution - 2030 AM

Local scale



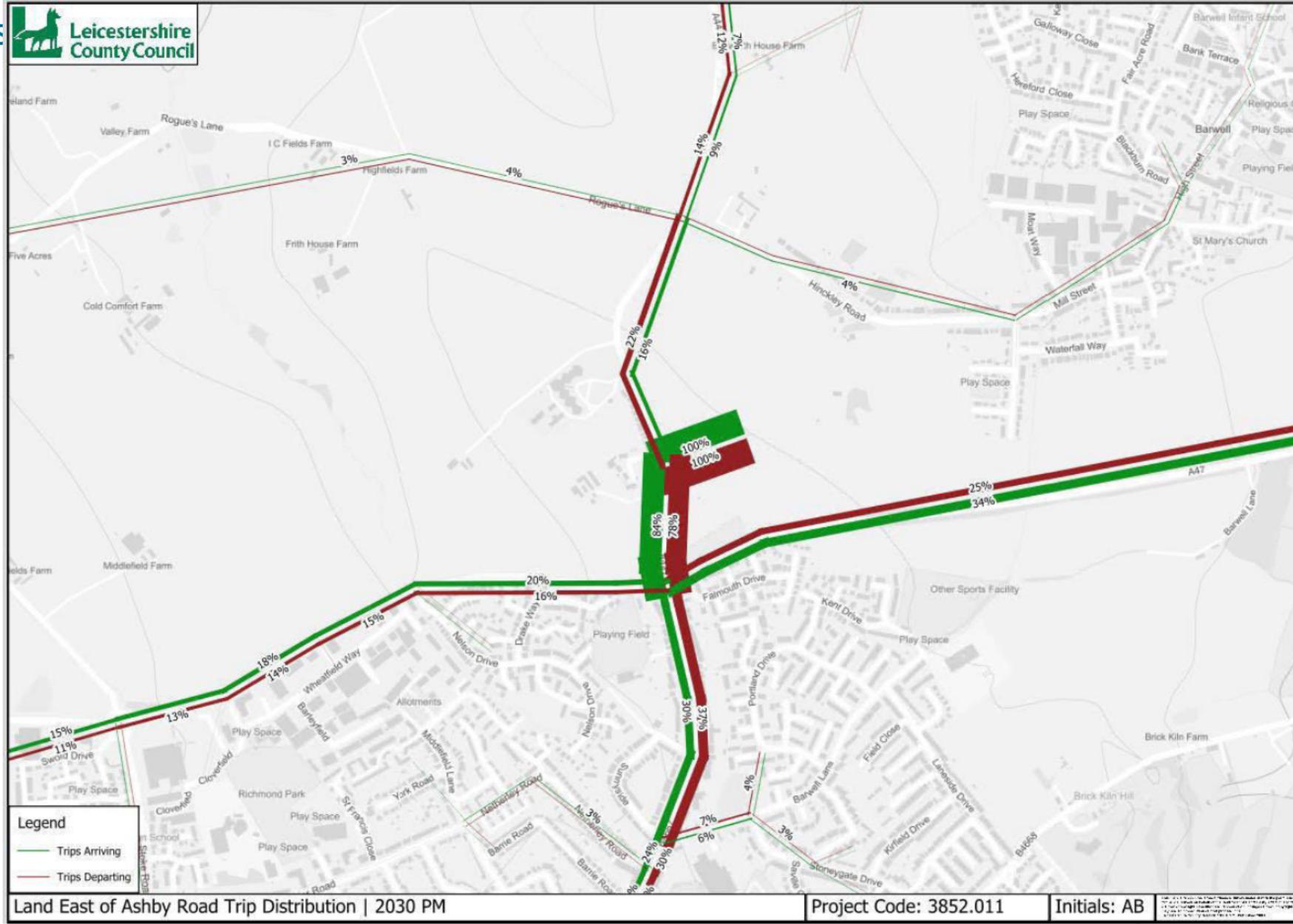
Land East of Ashby Road Trip Distribution - 2030 PM

Strategic scale



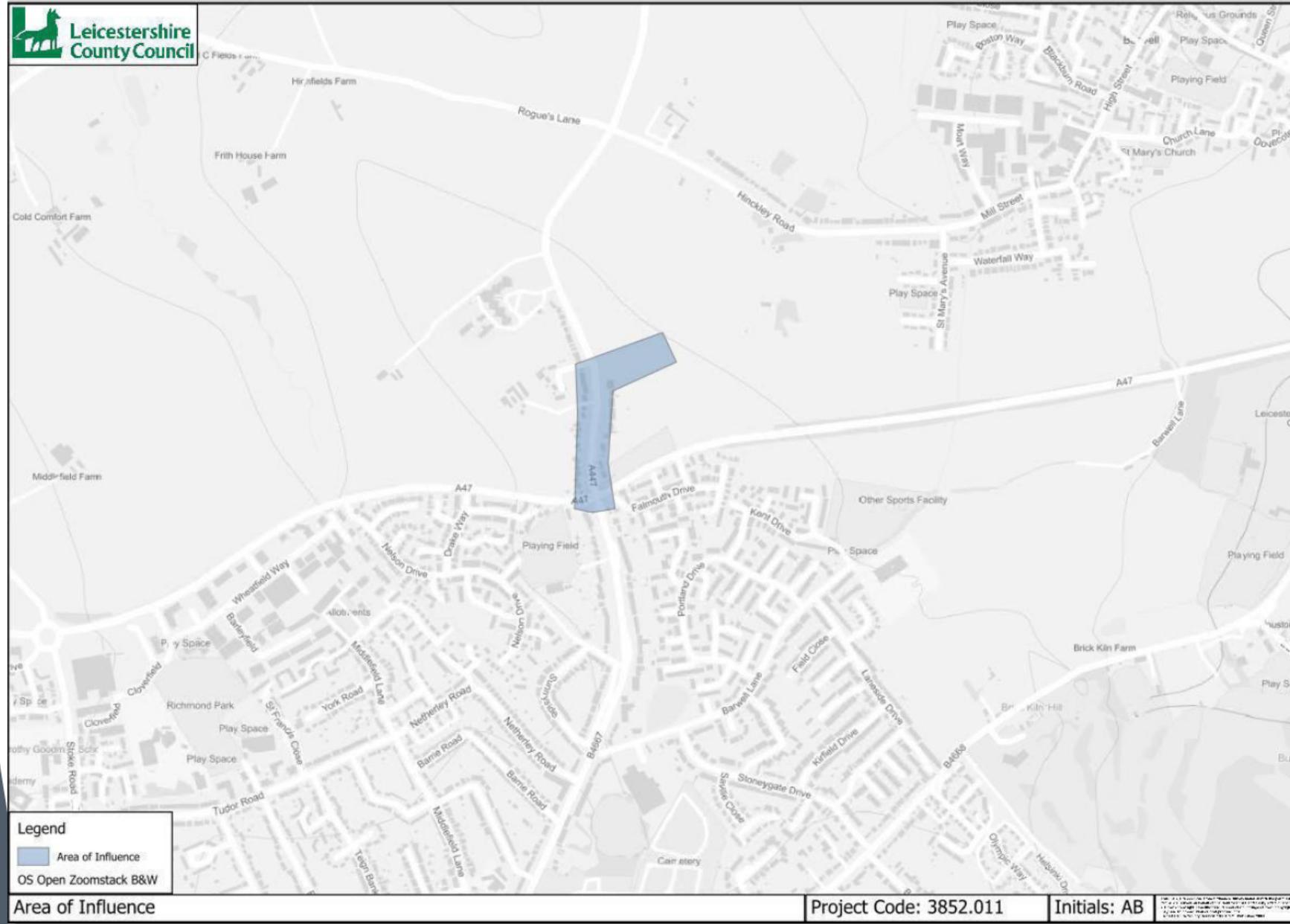
Land East of Ashby Road Trip Distribution - 2030 PM

Local s



Development Area of Influence

Defined by a change in 30 two-way PCU in 2029, 'Do Something' - 'Do Nothing'



Area of Influence

Project Code: 3852.01

Initials: A

APPENDIX I

PRTM FURNESSED MATRICES

Site Access/A447 Junction									A47/A447/ Ashby Road Signalled Junction													
A = A447 to the North B = Site Access C = A447 to the South									A = A447 to the North B = A47 East C = Ashby Road D = A47 West													
Observed Counts - 2024									AM													
AM									PM													
A	0	0	761	761	A	0	0	806	806	A	0	30	410	321	761	A	0	54	485	267	806	
B	0	0	0	0	B	0	0	0	0	B	29	0	103	613	745	B	39	0	173	535	747	
C	484	0	0	484	C	777	0	0	777	C	229	103	0	145	477	C	359	156	0	96	611	
Total	484	0	761	761	Total	777	0	806	806	Total	226	454	81	0	761	D	379	466	39	0	884	
PRTM Flows									AM													
2024 DN AM									PM													
A	724	A	685	685	A	724	A	685	685	A	622	0	685	685	496	B	744	806	806	806	806	
B	0	B	0	0	B	0	B	0	0	B	966	A	756	616	942	756	C	520	673	673	673	673
C	496	C	622	622	C	499	C	667	667	C	515	D	822	918	496	D	622	888	699	873	873	
Total	496	Total	622	622	Total	499	Total	667	667	Total	499	Total	667	918	496	Total	622	888	699	873	873	
2030 DN AM									2030 DN PM													
A	723	A	610	610	A	723	A	610	610	A	667	0	610	610	499	B	966	1071	1071	1071	1071	
B	0	B	0	0	B	0	B	0	0	B	777	C	667	1148	499	C	515	684	684	684	684	
C	499	C	667	667	C	499	C	705	705	C	999	D	996	1148	499	D	667	995	741	1081	1081	
Total	499	Total	667	667	Total	499	Total	705	705	Total	512	Total	705	1148	499	Total	667	886	666	1148	1148	
2030 DS AM									2030 DS PM													
A	726	A	617	617	A	726	A	617	617	A	763	B	970	1087	512	B	763	631	631	631	631	
B	47	B	27	27	B	47	B	27	27	B	521	C	999	1087	512	C	521	697	697	697	697	
C	512	C	705	705	C	512	C	1157	1157	C	999	D	1148	1148	512	D	999	1129	1129	1129	1129	
Total	507	Total	673	673	Total	507	Total	828	828	Total	512	Total	705	1148	507	Total	673	898	685	1157	1157	

Prior Matrix + Targets									From observed matrix												
2030 DN AM									From PRTM												
2030 DN AM									2030 DN PM												
A	0	0	761	761	A	0	0	806	806	A	0	30	410	321	760	A	0	54	485	267	731
B	0	0	0	0	B	0	0	0	0	B	29	0	103	613	967	B	39	0	173	535	1012
C	484	0	0	484	C	777	0	0	822	C	229	103	0	145	472	C	359	156	0	96	622
Total	487	0	760	760	Total	822	0	731	731	Total	487	717	644	1285	935	Total	822	783	739	1106	1085
2030 DS AM									2030 DS PM												
A	0	3	761	763	A	0	7	806	738	A	0	30	410	321	800	A	0	54	485	267	752
B	8	0	40	47	B	6	0	21	27	B	29	0	103	613	971	B	39	0	173	535	1028
C	484	13	0	500	C	777	38	0	860	C	229	103	0	145	478	C	359	156	0	96	635
Total	495	16	800	800	Total	828	45	752	752	Total	500	729	663	1294	938	Total	860	790	749	1110	1095

Furnessed Matrices

2030 DN AM									2030 DN PM												
2030 DS AM									2030 DS PM												
2030 DN AM									2030 DN PM												
A	0	0	760	760	A	0	0	731	731	A	0	30	406	324	760	A	0	41	444	247	732
B	0	0	0	0	B	0	0	0	0	B	33	0	132	802	967	B	41	0	235	736	1012
C	487	0	0	487	C	822	0	0	822	C	206	109	0	157	472	C	340	161	0	121	622
Total	487	0	760	760	Total	822	0	731	731	Total	488	719	644	1283	935	Total	824	785	737	1104	1084
2030 DS AM									2030 DS PM												
A	0	3	760	763	A	0	7	731	738	A	0	33	429	338	800	A	0	46	456	250	752
B	8	0	39	47	B	7	0	20	27	B	35	0	133	803	971	B	47	0	238	743	1028
C	487	13	0	500	C	822	38	0	860	C	215	111	0	152	478	C	358	162	0	115	635
Total	495	16	799	799	Total	829	45	751	751	Total	501	731	662	1293	938	Total	862	792	747	1108	1094

APPENDIX J

PICADY REPORT – SITE ACCESS JUNCTION

Junctions 9	
PICADY 9 - Priority Intersection Module	
Version: 9.5.0.6896 © Copyright TRL Limited, 2018	
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: Proposed site access junction.j9

Path: C:\Users\ADC\OneDrive - ADC Infrastructure Limited\ADC Projects\ADC3280 Land East of Ashby Road, Hinckley\Calculations\Junction Models

Report generation date: 04/04/2025 11:36:31

»2030 Furness 'Do Something' , AM

»2030 Furness 'Do Something' , PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2030 Furness 'Do Something'						
Stream B-AC	0.1	9.71	0.12	0.1	10.73	0.08
Stream C-AB	0.1	4.64	0.04	0.5	3.99	0.17

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Proposed site access junction
Location	Hinckley
Site number	Site access
Date	28/11/2024
Version	v1
Status	Preliminary
Identifier	S.A
Client	Davidsons Group
Jobnumber	ADC3280
Enumerator	ADC-TOSHIBA-AIO\ADC
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Furness 'Do Something'	AM	ONE HOUR	07:45	09:15	15
D2	2030 Furness 'Do Something'	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2030 Furness 'Do Something', AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
0	Proposed site access	T-Junction	Two-way		0.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A447 (north)		Major
B	Site Access		Minor
C	A447 (south)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A447 (south)	7.55			200.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	2.75	120	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for AB	Slope for AC	Slope for C-A	Slope for C-B
0	B-A	564	0.096	0.242	0.152	0.346
0	B-C	682	0.097	0.246	-	-
0	C-B	690	0.249	0.249	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Furness 'Do Something'	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O.D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A447 (north)		✓	763	100.000
B - Site Access		✓	47	100.000
C - A447 (south)		✓	500	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - A447 (north)	B - Site Access	C - A447 (south)
	A - A447 (north)	0	3	760
B - Site Access	8	0	39	
C - A447 (south)	487	13	0	

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - A447 (north)	B - Site Access	C - A447 (south)
	A - A447 (north)	0	0	2
B - Site Access	0	0	0	
C - A447 (south)	2	0	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.12	9.71	0.1	A
C-AB	0.04	4.64	0.1	A
C-A				
AB				
AC				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	500	0.071	35	0.1	7.738	A
C-AB	18	802	0.022	18	0.0	4.633	A
C-A	358			358			
AB	2			2			
AC	572			572			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	468	0.090	42	0.1	8.450	A
C-AB	25	830	0.030	25	0.0	4.511	A
C-A	425			425			
AB	3			3			
AC	683			683			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	423	0.122	52	0.1	9.697	A
C-AB	37	874	0.043	37	0.1	4.353	A
C-A	513			513			
AB	3			3			
AC	837			837			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	423	0.122	52	0.1	9.705	A
C-AB	37	874	0.043	37	0.1	4.357	A
C-A	513			513			
AB	3			3			
AC	837			837			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	468	0.090	42	0.1	8.461	A
C-AB	25	831	0.030	25	0.0	4.522	A
C-A	425			425			
AB	3			3			
AC	683			683			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	500	0.071	35	0.1	7.750	A
C-AB	18	802	0.023	18	0.0	4.640	A
C-A	358			358			
AB	2			2			
AC	572			572			

2030 Furness 'Do Something', PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
0	Proposed site access	T-Junction	Two-way		0.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2030 Furness 'Do Something'	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A447 (north)		✓	738	100.000
B - Site Access		✓	27	100.000
C - A447 (south)		✓	860	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - A447 (north)	B - Site Access	C - A447 (south)
A - A447 (north)	0	7	731	
B - Site Access	7	0	20	
C - A447 (south)	822	38	0	

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - A447 (north)	B - Site Access	C - A447 (south)
A - A447 (north)	0	0	0	0
B - Site Access	0	0	0	0
C - A447 (south)	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	10.73	0.1	B
C-AB	0.17	3.99	0.5	A
C-A				
AB				
AC				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	465	0.044	20	0.0	8.097	A
C-AB	78	981	0.079	77	0.1	3.984	A
C-A	570			570			
AB	5			5			
AC	550			550			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	425	0.057	24	0.1	8.983	A
C-AB	116	1048	0.111	116	0.2	3.863	A
C-A	657			657			
AB	6			6			
AC	657			657			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	365	0.081	30	0.1	10.714	B
C-AB	199	1148	0.174	198	0.5	3.795	A
C-A	748			748			
AB	8			8			
AC	805			805			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	365	0.081	30	0.1	10.725	B
C-AB	200	1149	0.174	200	0.5	3.804	A
C-A	747			747			
AB	8			8			
AC	805			805			

17:45 - 18:00

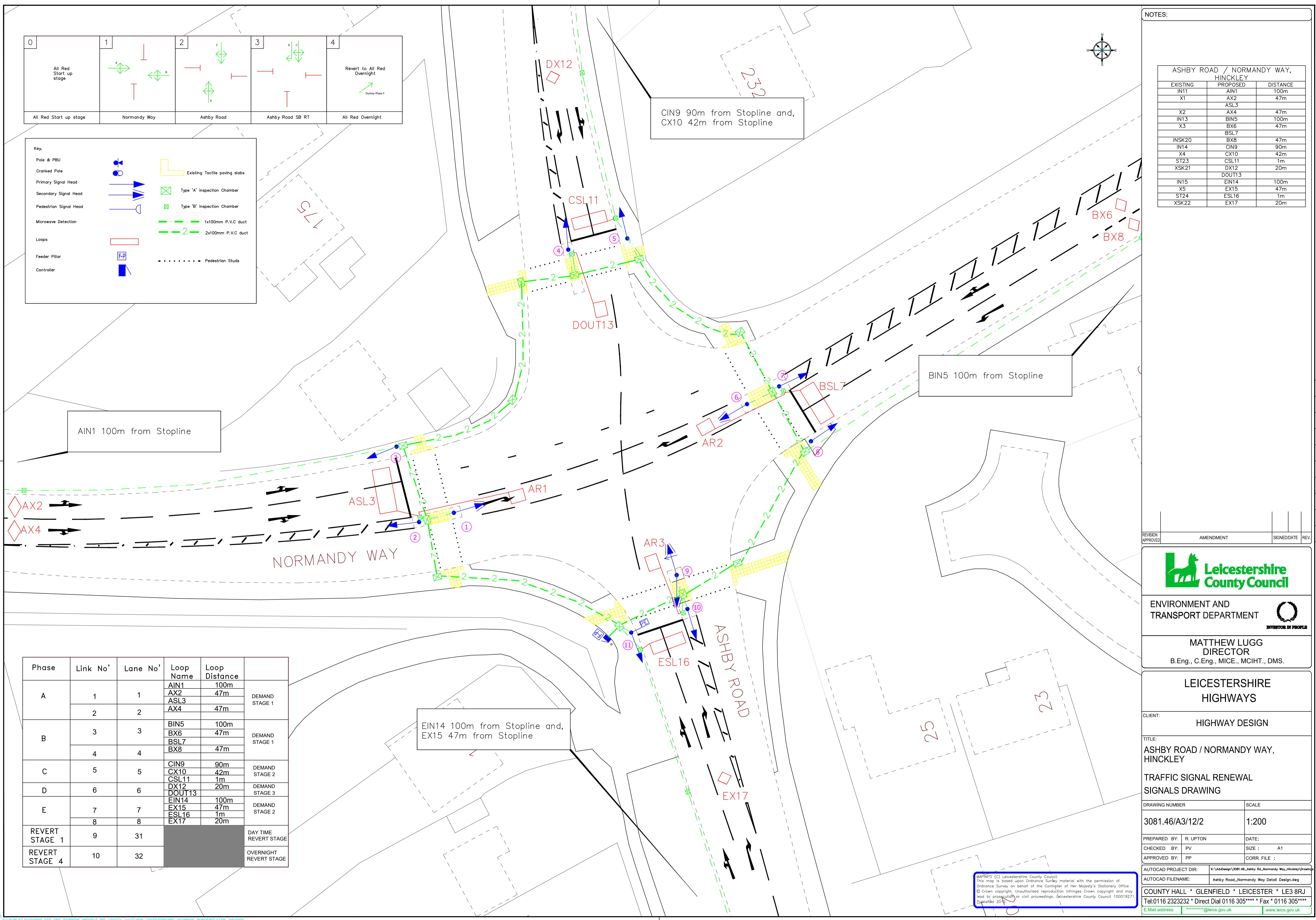
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	425	0.057	24	0.1	8.993	A
C-AB	117	1049	0.112	118	0.3	3.876	A
C-A	656			656			
AB	6			6			
AC	657			657			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	464	0.044	20	0.0	8.109	A
C-AB	78	981	0.080	79	0.2	3.993	A
C-A	569			569			
AB	5			5			
AC	550			550			

APPENDIX E

LINSIG REPORT - A47/A447/B4667 CROSSROADS



Project data

Project	Ashby Road / Normandy Way
Program date	04-01-2013
Version	1
Programmer	Paul Hodgkiss
Country	The UK
City	Hinckley
Street1	Ashby Road
Street2	Normandy Way
Controller type	1
12NC	0
Serial number	0
Report created at	1/9/2013 1:37 PM
Database file	Ashby Rd Normandy Way.cpf
Tool version	8.0.22.20312

Detailed description: * This is memofield DESCRIPTION

FACILITIES MODES AND PRIORITIES

FACILITIES

Facility	Enabled
Manual Control	1
Manual Step On Mode	0
CLF	1
UTC Facility	1
Hurry Call Mode	0
Priority	0

MODES AND PRIORITY

Mode	PRIO	Dem. set leave	Dem. set enter
Hurry call (high priority)	1	-	-
Urban Traffic Control (UTC)	4	-	-
Hurry call (std priority)	-1	-	-
Manual control	2	Demandset 2	-
Cableless linking facility (CLF)	5	-	-
Vehicle actuated (VA)	6	-	-
Simple fix time (FT)	7	-	-
Public service vehicle priority	-1	-	-
Selected cableless linking	3	-	-
Selected vehicle actuated	3	-	-
Selected fix time	3	Demandset 2	-

Use hurry call (high priority) mode for all red moves: 1

STREAMS AND STAGES

STREAM

ID	Name	Type	Stu	Art	swoff	All Red
1	STREAM1	Junction	***	***	***	***

STAGE

ID	Description	Stream	Set move before stage	Set move in stage	Ripple Change
1	STAGE1	1	0	1	0
2	STAGE2	1	0	1	0
3	STAGE3	1	0	1	0
4	AllRed	1	0	1	0

Phases in stages

	A	B	C	D	E	F
1	X	X	-	-	-	-
2	-	-	X	-	X	-
3	-	-	X	X	-	-
4	-	-	-	-	-	X

PHASES**Types**

ID	Phase	Site Phase	Description	Type	APH	Demand	NCH	WL	TAC	NODEMAND
1	A	A	Normandy Way EastBND	T	-	Start of Green	1	0	0	0
2	B	B	Normandy Way WestBND	T	-	Start of Green	1	0	0	0
3	C	C	Ashby Road SouthBND	T	-	Start of Green	1	0	0	0
4	D	D	Ashby Road SouthBND RTA	I	C	Start of Green	1	0	0	0
5	E	E	Ashby Road NorthBND	T	-	Start of Green	1	0	0	0
6	F	F	Dummy All Red Overnight	-	-	Start of Green	1	0	0	1

CONDITIONS

ID	Phase	Type	Appearance type	Termination type
1	A	T	Always	At end of stage
2	B	T	Always	At end of stage
3	C	T	Always	At end of stage
4	D	I	Always	At end of stage
5	E	T	Always	At end of stage
6	F	-	Always	At end of stage

TIMINGS

ID	Phase	Type	Min green	Min red	Red/amber	Amber	Pre-timed
1	A	T	7	1	2	3	0
2	B	T	7	1	2	3	0
3	C	T	7	1	2	3	0
4	D	I	4	1			0
5	E	T	7	1	2	3	0
6	F	-	4	1			0

PEDESTRIAN TIMINGS

ID	Phase	Type	Period V	Period VI	Period VII	Period VIII
1	A	T				
2	B	T				
3	C	T				
4	D	I				
5	E	T				
6	F	-				

Note: Use of zero second blackout is not current Department of Transport policy and should be discouraged

Revertive demands

ID	Phase	Type	RDC	Start-up	2	3	4	5	6	7	8
1	A	T	A	1	1	0	0	0	0	0	0
2	B	T	B	1	1	0	0	0	0	0	0
3	C	T	C	1	1	0	0	0	0	0	0
4	D	I	C	1	0	0	0	0	0	0	0
5	E	T	E	1	1	0	0	0	0	0	0
6	F	-	-	0	0	0	0	0	0	0	0

Switches

Lamp type: Halogen (70/30)

ID	Phase	Type	SWR	SWA	SWG	SWWL
1	A	T	R01	A01	G01	
2	B	T	R02	A02	G02	
3	C	T	R03	A03	G03	
4	D	I			G04	
5	E	T	R05	A05	G05	
6	F	-				

MINIMUM GREEN

PHASE	MIN	MAX
A	5	15
B	5	15
C	5	15
D	4	15
E	5	15
F	0	10

MAXIMUM GREEN

PHASE	MIN	MAX
A	0	100
B	0	100
C	0	100
D	0	100
E	0	100
F	0	100

.	MIN	MAX
Minimum green	3	150
Maximum green	0	100
Starting intergreen	8	8

PHASE TIMING SETS

PHASE	TYPE
A	T
B	T
C	T
D	I
E	T
F	-

Regular maximus

	1	2	3	4
A	20	16	20	12
B	20	16	20	12
C	28	20	32	16
D	12	12	6	6
E	28	25	32	16
F				

Alternative maximums

	1	2	3	4
A				
B				
C				
D				
E				
F				

Variable blackout/red periods

	1	2	3	4
A				
B				
C				
D				
E				
F				

Minimum green

	1	2	3	4
A				
B				
C				
D				
E				
F				

PSVP inhibition times

	1	2	3	4
A				
B				
C				
D				
E				
F				

PSVP maximum green times

	1	2	3	4
A				
B				

	1	2	3	4
C				
D				
E				
F				

PHASE MATRICES

Starting intergreen 8

Handset maximum 15

Opposing and conflicting

	A	B	C	D	E	F
A	-	-	C	C	C	C
B	-	-	C	C	C	C
C	C	C	-	-	-	C
D	C	C	-	-	C	C
E	C	C	-	C	-	C
F	C	C	C	C	C	-

Intergreen times

	A	B	C	D	E	F
A			7	6	7	3
B			5	5	5	3
C	7	7				3
D	7	7			5	3
E	6	6		4		3
F	2	2	2	2	2	

Handset intergreen limits

	A	B	C	D	E	F
A			5	5	5	3
B			5	5	5	3
C	5	5				3
D	5	5			5	3
E	5	5		4		3
F	2	2	2	2	2	

RLM additional intergreens

	A	B	C	D	E	F
A						
B						
C						
D						
E						
F						

RLM phase inhibits

	A	B	C	D	E	F
A	-	-	-	-	-	-
B	-	-	-	-	-	-
C	-	-	-	-	-	-
D	-	-	-	-	-	-
E	-	-	-	-	-	-
F	-	-	-	-	-	-

PHASE DELAYS

FIXED TIME**FIXEDTIME TO CURRENT MAXIMUM**

STREAM	Fixed
STREAM1	1

Phase	Demand	Extend
A	1	1
B	1	1
C	1	1
D	1	1
E	1	1
F	0	0

STAGE MOVES**Move sets**

Mode	SET
Hurry call (high priority)	1
Urban Traffic Control (UTC)	1
Hurry call (std priority)	1
Manual control	1
Cableless linking facility (CLF)	1
Vehicle actuated (VA)	1
Simple fix time (FT)	1
Public service vehicle priority	1

Set 1

	1	2	3	4
1	-	A	2	A
2	A	-	A	A
3	A	1	-	A
4	A	A	2	-

Set 2

	1	2	3	4
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-

Set 3

	1	2	3	4
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-

Set 4

	1	2	3	4
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-

Set 5

	1	2	3	4
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-

Set 6

	1	2	3	4
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-

Set 7

	1	2	3	4
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-

	1	2	3	4
3	-	-	-	-
4	-	-	-	-

Set 8

	1	2	3	4
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-

STREAM 1

No	Mode	FromStage	ToStage	1	2	3	4	5	6	7	8	9	D	I	E	X
1	PSVP	1	2	1	1	1	0	0	0	0	0	0	D	D	D	D
1	FT	1	2	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	1	2	1	1	1	0	0	0	0	0	0	D	D	D	D
1	CLF	1	2	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	1	2	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	1	2	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	1	2	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	1	2	0	0	0	0	0	0	0	0	0	D	D	D	D
5	HCH	1	2	0	0	0	0	0	0	0	0	0	D	D	D	D
5	UTC	1	2	1	1	0	0	0	0	0	0	0	D	D	D	D
5	HCL	1	2	1	0	0	0	0	0	0	0	0	D	D	D	D
5	MAN	1	2	1	0	0	0	0	0	0	0	0	D	D	D	D
5	CLF	1	2	1	1	0	0	0	0	0	0	0	D	D	D	D
5	VA	1	2	1	1	1	0	0	0	0	0	0	U	D	D	D
5	FT	1	2	1	1	1	0	0	0	0	0	0	D	D	D	D
5	PSVP	1	2	1	1	1	0	0	0	0	0	0	D	D	D	D
1	PSVP	1	4	1	1	1	0	0	0	0	0	0	D	D	D	D
1	FT	1	4	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	1	4	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	1	4	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	1	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	1	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	1	4	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	1	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	PSVP	2	3	1	1	1	0	0	0	0	0	0	D	D	D	D
1	FT	2	3	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	2	3	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	2	3	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	2	3	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	2	3	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	2	3	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	2	3	0	0	0	0	0	0	0	0	0	D	D	D	D
1	PSVP	2	4	1	1	1	0	0	0	0	0	0	D	D	D	D
1	FT	2	4	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	2	4	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	2	4	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	2	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	2	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	PSVP	2	1	1	1	1	0	0	0	0	0	0	D	D	D	D
1	FT	2	1	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	2	1	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	2	1	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	2	1	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	2	1	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	2	1	1	1	0	0	0	0	0	0	0	D	D	D	D

No	Mode	FromStage	ToStage	1	2	3	4	5	6	7	8	9	D	I	E	X
1	HCH	2	1	0	0	0	0	0	0	0	0	0	D	D	D	D
1	PSVP	3	4	1	1	1	0	0	0	0	0	0	D	D	D	D
1	FT	3	4	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	3	4	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	3	4	1	1	1	0	0	0	0	0	0	D	D	D	D
1	MAN	3	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	3	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	3	4	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	3	4	1	0	0	0	0	0	0	0	0	D	D	D	D
1	PSVP	3	1	1	1	1	0	0	0	0	0	0	D	D	D	D
1	FT	3	1	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	3	1	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	3	1	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	3	1	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	3	1	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	3	1	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	3	1	0	0	0	0	0	0	0	0	0	D	D	D	D
5	HCH	3	1	0	0	0	0	0	0	0	0	0	D	D	D	D
5	UTC	3	1	1	1	0	0	0	0	0	0	0	D	D	D	D
5	HCL	3	1	1	0	0	0	0	0	0	0	0	D	D	D	D
5	MAN	3	1	1	0	0	0	0	0	0	0	0	D	D	D	D
5	CLF	3	1	1	1	0	0	0	0	0	0	0	D	D	D	D
5	VA	3	1	1	1	1	0	0	0	0	0	0	D	D	D	D
5	FT	3	1	1	1	1	0	0	0	0	0	0	D	D	D	D
5	PSVP	3	1	1	1	1	0	0	0	0	0	0	D	D	D	D
1	PSVP	4	1	1	1	1	0	0	0	0	0	0	D	D	D	D
1	FT	4	1	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	4	1	1	1	1	0	0	0	0	0	0	U	D	D	D
1	CLF	4	1	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	4	1	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	4	1	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	4	1	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	4	1	0	0	0	0	0	0	0	0	0	D	D	D	D
1	PSVP	4	2	1	1	1	0	0	0	0	0	0	D	D	D	D
1	FT	4	2	1	1	1	0	0	0	0	0	0	D	D	D	D
1	VA	4	2	1	1	1	0	0	0	0	0	0	D	D	D	D
1	CLF	4	2	1	1	0	0	0	0	0	0	0	D	D	D	D
1	MAN	4	2	1	0	0	0	0	0	0	0	0	D	D	D	D
1	HCL	4	2	1	0	0	0	0	0	0	0	0	D	D	D	D
1	UTC	4	2	1	1	0	0	0	0	0	0	0	D	D	D	D
1	HCH	4	2	0	0	0	0	0	0	0	0	0	D	D	D	D
5	HCH	4	2	0	0	0	0	0	0	0	0	0	D	D	D	D
5	UTC	4	2	1	1	0	0	0	0	0	0	0	D	D	D	D
5	HCL	4	2	1	0	0	0	0	0	0	0	0	D	D	D	D
5	MAN	4	2	1	0	0	0	0	0	0	0	0	D	D	D	D
5	CLF	4	2	1	1	0	0	0	0	0	0	0	D	D	D	D
5	VA	4	2	1	1	1	0	0	0	0	0	0	U	D	D	D
5	FT	4	2	1	1	1	0	0	0	0	0	0	D	D	D	D
5	PSVP	4	2	1	1	1	0	0	0	0	0	0	D	D	D	D

MANUAL STAGE SELECTION

	1
But 1	1
But 2	2
But 3	3
But 4	-
But 5	-
But 6	-
But 7	-
But 8	-
But 9	-
But 10	-
But 11	-
But 12	-
But 13	-
But 14	-
But 15	-
But 16	-

Detectors

Application

ID	Detector	Type	Phase	DTO	DTC	DTG1	DTG2	DKS	DEM	CANCEL
1	AIN1	Vehicle loop	A					-	0	0
2	AX2	Vehicle loop	A			4		-	1	0
3	ASL3	Vehicle loop	A					-	1	0
4	AX4	Vehicle loop	A			4		-	1	0
5	BIN5	Vehicle loop	B					-	0	0
6	BX6	Vehicle loop	B			4		-	1	0
7	BSL7	Vehicle loop	B					-	1	0
8	BX8	Vehicle loop	B			4		-	1	0
9	CIN9	Vehicle loop	C					-	0	0
10	CX10	Vehicle loop	C			4		-	1	0
11	CSL11	Vehicle loop	C					-	1	0
12	DX12	Vehicle loop	D					-	1	0
13	DOUT13	Vehicle loop	D	2	4	1.6		-	1	1
14	EIN14	Vehicle loop	E					-	0	0
15	EX15	Vehicle loop	E			4		-	1	0
16	ESL16	Vehicle loop	E					-	1	0
17	EX17	Vehicle loop	E			2		-	1	0
18	AR1	Vehicle loop	F			2		-	0	0
19	AR2	Vehicle loop	F			2		-	0	0
20	AR3	Vehicle loop	F			2		-	0	0

Hardware

ID	Detector	Type	Inv	Unit	Nr	Occ1	Noc1	Occ2	Noc2	Occ3	Noc3	Occ4	Noc4	ErrState	OkCount
1	AIN1	Vehicle loop	0	MTS4E-1	1	30	900	30	1800					Occupied	32
2	AX2	Vehicle loop	0	MTS4E-1	2	30	900	30	1800					Occupied	32
3	ASL3	Vehicle loop	0	MTS4E-1	3	30	900	30	1800					Occupied	32
4	AX4	Vehicle loop	0	MTS4E-1	4	30	900	30	1800					Occupied	32
5	BIN5	Vehicle loop	0	MTS4E-2	1	30	900	30	1800					Occupied	32
6	BX6	Vehicle loop	0	MTS4E-2	2	30	900	30	1800					Occupied	32
7	BSL7	Vehicle loop	0	MTS4E-2	3	30	900	30	1800					Occupied	32
8	BX8	Vehicle loop	0	MTS4E-2	4	30	900	30	1800					Occupied	32
9	CIN9	Vehicle loop	0	MTS4E-3	1	30	900	30	1800					Occupied	32
10	CX10	Vehicle loop	0	MTS4E-3	2	30	900	30	1800					Occupied	32
11	CSL11	Vehicle loop	0	MTS4E-3	3	30	900	30	1800					Occupied	32
12	DX12	Vehicle loop	0	MTS4E-3	4	30	900	30	1800					Occupied	32
13	DOUT13	Vehicle loop	0	MTS4E-4	1	30	900	30	1800					Occupied	32
14	EIN14	Vehicle loop	0	MTS4E-4	2	30	900	30	1800					Occupied	32
15	EX15	Vehicle loop	0	MTS4E-4	3	30	900	30	1800					Occupied	32
16	ESL16	Vehicle loop	0	MTS4E-4	4	30	900	30	1800					Occupied	32
17	EX17	Vehicle loop	0	MTS4E-5	1	30	900	30	1800					Occupied	32
18	AR1	Vehicle loop	0	MTS4E-5	2	30	900	30	1800					Occupied	32
19	AR2	Vehicle loop	0	MTS4E-5	3	30	900	30	1800					Occupied	32

ID	Detector	Type	Inv	Unit	Nr	Occ1	Noc1	Occ2	Noc2	Occ3	Noc3	Occ4	Noc4	ErrState	OkCount
20	AR3	Vehicle loop	0	MTS4E-5	4	30	900	30	1800					Occupied	32

Supervision time

Day	On time	Off time
Monday	00:00	24:00
Tuesday	00:00	24:00
Wednesday	00:00	24:00
Thursday	00:00	24:00
Friday	00:00	24:00
Saturday	00:00	24:00
Sunday	00:00	24:00

MASTER TIME CLOCK**MTC table**

ID	Function	Arg1	Arg2	Start	End	M	N	W	T	F	S	S	1	2	3	4	5	6	7	8	Description
1	Timing set	2	0	07:00:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
2	Timing set	1	0	07:30:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
3	Timing set	2	0	09:30:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
4	Timing set	3	0	15:00:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
5	Timing set	2	0	18:00:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
6	Timing set	4	0	22:00:00	24:00:00	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
7	Timing set	2	0	07:30:00	24:00:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
8	Timing set	4	0	22:00:00	24:00:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
9	Timing set	2	0	08:00:00	24:00:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
10	Timing set	4	0	22:00:00	24:00:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
11	User function 1	1	0	06:00:00	23:30:00	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	

CONFLICT EXTENSION RED

ID	From phase	To phase	Det	Max
1	A	C	AR1	6
2	A	E	AR1	6
3	A	C	AR2	6
4	A	E	AR2	6
5	B	C	AR1	6
6	B	E	AR1	6
7	B	C	AR2	6
8	B	E	AR2	6
9	C	A	AR3	6
10	C	B	AR3	6
11	E	A	AR3	6
12	E	B	AR3	6
13	C	A	DOUT13	6
14	C	B	DOUT13	6

CABLELESS LINKING FACILITY

Plans

Global settings

Sync. Mode: Continuous

Sync. Day: Monday

Ref. time: 02:00

Functions and actions

OTU**Units**

GENERAL INTEGRAL OTU OPTIONS

Integral OTU: -

DISCRETE OTU

ID	Invert control bits	Invert reply bits
1	0	1

Control and reply bits**CONTROL BITS**

ID	Function	Arg	Label
1	F	1	F1
2	F	2	F2
3	F	3	F3
4	F	4	F4
5	-	0	
6	-	0	
7	-	0	
8	-	0	
9	-	0	
10	-	0	
11	-	0	
12	-	0	
13	-	0	
14	-	0	
15	-	0	
16	TO	0	TO

REPLY BITS

ID	Function	Arg	Label
1	G	1	G1
2	G	2	G2
3	G	3	G3
4	G	4	G4
5	UF	1	PC
6	-	0	
7	-	0	
8	-	0	
9	-	0	
10	CF	0	CF
11	DF	0	DF
12	LF	0	LF
13	UF	2	RF1
14	UF	3	RF2
15	LE	0	LE
16	CRB	0	CRB

RTC

Synchronisation time (UTC TS input)	12:00
Confirm time (UTC RT output)	12:0:0

SPECIAL UTC REPLY BITS

.	G1/G2	RR
Manual mode operative	0	1
Manual mode selected	0	1
No lamp power (excluding RLM and PT)	1	.
Normal not selected on the manual panel	0	1

UG405 Bit Mapping**Settings**

Enable UG405	0
OTU System Code Number(SCN)	

CONTROL BITS

ID	Function	Arg	Label	Controller SCN	UG405 Name	Bit Index
1	F	1	F1		-	
2	F	2	F2		-	
3	F	3	F3		-	
4	F	4	F4		-	
5	-	0			-	
6	-	0			-	
7	-	0			-	
8	-	0			-	
9	-	0			-	
10	-	0			-	
11	-	0			-	
12	-	0			-	
13	-	0			-	
14	-	0			-	
15	-	0			-	
16	TO	0	TO		-	

REPLY BITS

ID	Function	Arg	Label	Controller SCN	UG405 Name	Bit Index
1	G	1	G1		-	
2	G	2	G2		-	
3	G	3	G3		-	
4	G	4	G4		-	
5	UF	1	PC		-	
6	-	0			-	
7	-	0			-	
8	-	0			-	
9	-	0			-	
10	CF	0	CF		-	
11	DF	0	DF		-	
12	LF	0	LF		-	
13	UF	2	RF1		-	
14	UF	3	RF2		-	
15	LE	0	LE		-	
16	CRB	0	CRB		-	

UTC FAULT LOGGING REPLY BITS (FLOG)

General Faults and Events

Fault ID	Fault/Event Names	Flog1	Flog2	Flog3	Flog4
0	POWERFAIL	0	0	0	0
1	Mains Low	0	0	0	0
2	CPU-B CRC CODE (CRC check failed)	0	0	0	0
3	CPU-B CRC DATA (configuration error)	0	0	0	0
4	CPU-B LCM (error in current measuring)	0	0	0	0
6	CPU-B LCM DIAG (communication problem)	0	0	0	0
7	CPU-B LOT SLOW	0	0	0	0
8	CPU-A ALARM (CPU-A has switched the lights off.)	0	0	0	0
9	XP ALARM	0	0	0	0
10	USER ALARM	0	0	0	0
11	MAINS SYNC	0	0	0	0
13	LOC-LOC	0	0	0	0
14	CPU-B COM CPU-A	0	0	0	0
25	CPU-A COM CPU-B	0	0	0	0
28	CPU-A (EXT)	0	0	0	0
52	DEADLOCK SG	0	0	0	0
81	PHASE INH SG ON	0	0	0	0
100	CPU-A XLM name	0	0	0	0
101	CONFLICT	0	0	0	0
102	OMS ERROR	0	0	0	0
110	PARAM LOG 1	0	0	0	0
151	BATTERY ERROR	0	0	0	0
193	DIMMING FAIL	0	0	0	0
194	DIMMING OK	0	0	0	0
217	MIMIC MODE ON	0	0	0	0
218	CPU-A/B ID	0	0	0	0
243	WATCHDOG	0	0	0	0
250	MAINS OFF	0	0	0	0

Functional safety errors

Fault ID	Error Names	Flog1	Flog2	Flog3	Flog4
0	Switch off	0	0	0	0
1	Conflict between SG1 and SG2	0	0	0	0
2	Minimum timing violation of SG in state S	0	0	0	0
3	Maximum timing violation of SG in state S	0	0	0	0
4	Sequence error for SG in state S	0	0	0	0
5	Minimum timing violation of stream XP in state S	0	0	0	0
6	Maximum timing violation of stream XP in state S	0	0	0	0
7	Sequence error for stream XP in state S	0	0	0	0

Unit Errors

Fault ID	Error Names	Flog1	Flog2	Flog3	Flog4
1	LCM unit has failed or is missing	0	0	0	0
9	PAR-IO16 Error	0	0	0	0
10	Integral OTU has lost communication with the in-station or off-line due to F bit timeout.	0	0	0	0
11	MTS4E detector panel Error	0	0	0	0
13	Manual panel Error	0	0	0	0

Lamp switch errors

Fault ID	Error Names	Flog1	Flog2	Flog3	Flog4
0	All switches	0	0	0	0

Lamp errors

Fault ID	Error Names	Flog1 FIRST LAMP	Flog1 SECOND LAMP	Flog1 LAST LAMP	Flog2 FIRST LAMP	Flog2 SECOND LAMP	Flog2 LAST LAMP	Flog3 FIRST LAMP	Flog3 SECOND LAMP	Flog3 LAST LAMP	Flog4 FIRST LAMP	Flog4 SECOND LAMP	Flog4 LAST LAMP
0	All Lamps	0	0	0	0	0	0	0	0	0	0	0	0

Detector errors

ID	Detectors	Flog1 Fault	Flog1 Active alarm	Flog1 Inactive alarm	Flog1 Override	Flog2 Fault	Flog2 Active alarm	Flog2 Inactive alarm	Flog2 Override	Flog3 Fault	Flog3 Active alarm	Flog3 Inactive alarm	Flog3 Override	Flog4 Fault	Flog4 Active alarm	Flog4 Inactive alarm	Flog4 Override
1	AIN1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	AX2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	ASL3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	AX4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	BIN5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	BX6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	BSL7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	BX8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	CIN9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	CX10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	CSL11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	DX12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	DOUT13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	EIN14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	EX15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	ESL16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	EX17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	AR1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	AR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	AR3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

HURRY CALLS

PUBLIC SERVICE VEHICLE PRIORITY

SPEED ASSESSMENT AND SPEED DISCRIMINATION

GENERAL PURPOSE I/O

Hardware

INPUTS

ID	Input	Invert	Toggle	Unit	Bit	Flag
1	UTC_I1	0	0	IO1616-1	1	
2	UTC_I2	0	0	IO1616-1	2	
3	UTC_I3	0	0	IO1616-1	3	
4	UTC_I4	0	0	IO1616-1	4	
5	UTC_I5	0	0	IO1616-1	5	
6	UTC_I6	0	0	IO1616-1	6	
7	UTC_I7	0	0	IO1616-1	7	
8	UTC_I8	0	0	IO1616-1	8	
9	UTC_I9	0	0	IO1616-1	9	
10	UTC_I10	0	0	IO1616-1	10	
11	UTC_I11	0	0	IO1616-1	11	
12	UTC_I12	0	0	IO1616-1	12	
13	UTC_I13	0	0	IO1616-1	13	
14	UTC_I14	0	0	IO1616-1	14	
15	UTC_I15	0	0	IO1616-1	15	
16	UTC_I16	0	0	IO1616-1	16	
17	DIM_IN	0	0	DIMMING	1	DIMR

OUTPUTS

ID	Output	Invert	Unit	Bit	Flag
1	MOVA31	0	IO1616-2	1	
2	MOVA32	0	IO1616-2	2	
3	UTC_O1	0	IO1616-1	1	
4	UTC_O2	0	IO1616-1	2	
5	UTC_O3	0	IO1616-1	3	
6	UTC_O4	0	IO1616-1	4	
7	UTC_O5	0	IO1616-1	5	
8	UTC_O6	0	IO1616-1	6	
9	UTC_O7	0	IO1616-1	7	
10	UTC_O8	0	IO1616-1	8	
11	UTC_O9	0	IO1616-1	9	
12	UTC_O10	1	IO1616-1	10	
13	UTC_O11	1	IO1616-1	11	
14	UTC_O12	1	IO1616-1	12	
15	UTC_O13	1	IO1616-1	13	
16	UTC_O14	1	IO1616-1	14	
17	UTC_O15	1	IO1616-1	15	
18	UTC_O16	0	IO1616-1	16	
19	DIM_OUT	0	DIMMING	1	DIMA

APPLICATION BUILDING BLOCKS

Event Pulses

ID	Name	Type	R	InType	On	OFF
1	Stage1	2	1	0	100	0
2	Stage4	2	1	0	100	0

VM FUNCTIONS

OTU

```

rf_2(arg) = cfa;
urG1() = (stgc(0)==1) && (stgr(0,0,0));
urDR1() = dr(A) || dr(B);
urG2() = (stgc(0)==2) && (stgr(0,0,0));
urDR2() = dr(C) || dr(E);
urG3() = (stgc(0)==3) && (stgr(0,0,0));
urDR3() = dr(C) || dr(D);
urG4() = (stgc(0)==4) && (stgr(0,0,0));
urDR4() = dr(F);

```

CLF

UTC

```

r_uf1() = fcg(C);
r_uf2() = rf1(A) || rf1(B) || rf1(C) || rf1(E);
r_uf3() = rf2(A) || rf2(B) || rf2(C) || rf2(E);

```

PSVP

Hurry call

Phase delays

Phase delays

Streams

```

roffsync() = okoff(0);
mac1_swon(t) = yellow_period(0,t);
macon1() = minon(xp)==0;
macoff1() = (macm(xp) <= 1) && (mact(xp) <= tson(7));

```

Detectors

Phases

```
pd_ALL(ph)
```

```
if ((xsf(XSF_PSET_ERR) != AUTOSET_STATE_DONE) && (xsf(XSF_PSET_ERR) != AUTOSET_STATE_ERROR)) then return (1); endif
end

pe_ALL(ph) = ngp1(ph);
```

Timing sets

Dummy detectors

Modes

```
rHCH() = rar(xp);
rUTC() = ufav(xp)||ufpv(xp);
rMAN() = mpman(xp);
rCLF() = clfp && (clfi == 0);
rVA() = 1;
rFT() = 1;
rSCLF() = clfp && (mpclf(xp) || clfmp);
rSVA() = mpva(xp);
rSFT() = mpft(xp);
```

Integral OTU

```
otu_dstate(d) = get(h_xdet_sts, d) & DET_BEZET_MASK;
otu_dfault(d) = get(h_xdet_sts, d) & DETFAULT_MASK;
otu_dcnt(d) = get(h_xdet_cnt, d);
```

Conflict extension red

Stage moves - HCH

```
mHCH1_4d() = rar(xp);
mHCH2_4d() = rar(xp);
mHCH3_4d() = rar(xp);
```

Stage moves - HCL

```
mHCL1_2d() = FALSE;
mHCL1_3_2d() = FALSE;
mHCL1_4d() = FALSE;
mHCL2_3d() = FALSE;
mHCL2_4d() = FALSE;
mHCL2_1d() = FALSE;
mHCL3_4d() = FALSE;
mHCL3_1d() = FALSE;
```

```

mHCL3_2_1d() = FALSE;
mHCL4_1d() = FALSE;
mHCL4_2d() = FALSE;
mHCL4_3_2d() = FALSE;

```

Stage moves - VA

```

mVA1_2d() = dSTGd(1, 2);
mVA1_2e() = dSTGe(1, 2);
mVA1_2i() = FALSE;
mVA1_3_2d() = dr(D);
mVA1_3_2e() = dSTGe(1, 2);
mVA1_3_2i() = FALSE;
mVA1_4d() = evp(2);
mVA1_4e() = dSTGe(1, 4);
mVA1_4i() = FALSE;
mVA2_3d() = dr(D) && (dr(A) || dr(B));
mVA2_3e() = dSTGe(2, 3);
mVA2_3i() = FALSE;
mVA2_4d() = evp(2);
mVA2_4e() = dSTGe(2, 4);
mVA2_4i() = FALSE;
mVA2_1d() = dr(A) || dr(B) || evp(1);
mVA2_1e() = dSTGe(2, 1);
mVA2_1i() = FALSE;
mVA3_4d() = evp(2);
mVA3_4e() = dSTGe(3, 4);
mVA3_4i() = FALSE;
mVA3_1d() = dr(A) || dr(B) || evp(1);
mVA3_1e() = dSTGe(3, 1);
mVA3_1i() = FALSE;
mVA3_2_1d() = dSTGd(3, 2);
mVA3_2_1e() = dSTGe(3, 1);
mVA3_2_1i() = FALSE;
mVA4_1d() = dr(A) || dr(B) || evp(1);
mVA4_1e() = dSTGe(4, 1);
mVA4_1i() = FALSE;
mVA4_2d() = dSTGd(4, 2);
mVA4_2e() = dSTGe(4, 2);
mVA4_2i() = FALSE;
mVA4_3_2d() = dr(D) && (dr(A) || dr(B));
mVA4_3_2e() = dSTGe(4, 2);
mVA4_3_2i() = FALSE;

```

Stage moves - FT

```

mFT1_2d() = dSTGd(1, 2);
mFT1_2e() = dSTGe(1, 2);
mFT1_2i() = FALSE;
mFT1_3_2d() = dSTGd(1, 3);
mFT1_3_2e() = dSTGe(1, 2);
mFT1_3_2i() = FALSE;
mFT1_4d() = dSTGd(1, 4);
mFT1_4e() = dSTGe(1, 4);
mFT1_4i() = FALSE;
mFT2_3d() = dSTGd(2, 3);
mFT2_3e() = dSTGe(2, 3);
mFT2_3i() = FALSE;
mFT2_4d() = dSTGd(2, 4);
mFT2_4e() = dSTGe(2, 4);
mFT2_4i() = FALSE;
mFT2_1d() = dSTGd(2, 1);
mFT2_1e() = dSTGe(2, 1);
mFT2_1i() = FALSE;
mFT3_4d() = dSTGd(3, 4);
mFT3_4e() = dSTGe(3, 4);
mFT3_4i() = FALSE;
mFT3_1d() = dSTGd(3, 1);
mFT3_1e() = dSTGe(3, 1);
mFT3_1i() = FALSE;
mFT3_2_1d() = dSTGd(3, 2);
mFT3_2_1e() = dSTGe(3, 1);
mFT3_2_1i() = FALSE;
mFT4_1d() = dSTGd(4, 1);
mFT4_1e() = dSTGe(4, 1);
mFT4_1i() = FALSE;
mFT4_2d() = dSTGd(4, 2);
mFT4_2e() = dSTGe(4, 2);
mFT4_2i() = FALSE;
mFT4_3_2d() = dSTGd(4, 3);
mFT4_3_2e() = dSTGe(4, 2);
mFT4_3_2i() = FALSE;

```

Stage moves - CLF

```

mCLF1_2d() = dCLFd(1, 2);
mCLF1_2i() = dCLFi(1, 2);
mCLF1_3_2d() = dCLFd(1, 3);
mCLF1_3_2i() = dCLFi(1, 2);
mCLF1_4d() = dCLFd(1, 4);
mCLF1_4i() = dCLFi(1, 4);
mCLF2_3d() = dCLFd(2, 3);

```

```

mCLF2_3i() = dCLFi(2, 3);
mCLF2_4d() = dCLFd(2, 4);
mCLF2_4i() = dCLFi(2, 4);
mCLF2_1d() = dCLFd(2, 1);
mCLF2_1i() = dCLFi(2, 1);
mCLF3_4d() = dCLFd(3, 4);
mCLF3_4i() = dCLFi(3, 4);
mCLF3_1d() = dCLFd(3, 1);
mCLF3_1i() = dCLFi(3, 1);
mCLF3_2_1d() = dCLFd(3, 2);
mCLF3_2_1i() = dCLFi(3, 1);
mCLF4_1d() = dCLFd(4, 1);
mCLF4_1i() = dCLFi(4, 1);
mCLF4_2d() = dCLFd(4, 2);
mCLF4_2i() = dCLFi(4, 2);
mCLF4_3_2d() = dCLFd(4, 3);
mCLF4_3_2i() = dCLFi(4, 2);

```

Stage moves - UTC
mUTC1_2d() = dUTCd(1, 2); mUTC1_2i() = dUTCi(1, 2); mUTC1_3_2d() = dUTCd(1, 3); mUTC1_3_2i() = dUTCi(1, 2); mUTC1_4d() = dUTCd(1, 4); mUTC1_4i() = dUTCi(1, 4); mUTC2_3d() = dUTCd(2, 3); mUTC2_3i() = dUTCi(2, 3); mUTC2_4d() = dUTCd(2, 4); mUTC2_4i() = dUTCi(2, 4); mUTC2_1d() = dUTCd(2, 1); mUTC2_1i() = dUTCi(2, 1); mUTC3_4d() = dUTCd(3, 4); mUTC3_4i() = dUTCi(3, 4); mUTC3_1d() = dUTCd(3, 1); mUTC3_1i() = dUTCi(3, 1); mUTC3_2_1d() = dUTCd(3, 2); mUTC3_2_1i() = dUTCi(3, 1); mUTC4_1d() = dUTCd(4, 1); mUTC4_1i() = dUTCi(4, 1); mUTC4_2d() = dUTCd(4, 2); mUTC4_2i() = dUTCi(4, 2); mUTC4_3_2d() = dUTCd(4, 3); mUTC4_3_2i() = dUTCi(4, 2);

Stage moves - PSVP

```

mPSVP1_2d() = dSTGd(1, 2);
mPSVP1_2e() = dSTGe(1, 2);
mPSVP1_2i() = FALSE;
mPSVP1_3_2d() = dSTGd(1, 3);
mPSVP1_3_2e() = dSTGe(1, 2);
mPSVP1_3_2i() = FALSE;
mPSVP1_4d() = dSTGd(1, 4);
mPSVP1_4e() = dSTGe(1, 4);
mPSVP1_4i() = FALSE;
mPSVP2_3d() = dSTGd(2, 3);
mPSVP2_3e() = dSTGe(2, 3);
mPSVP2_3i() = FALSE;
mPSVP2_4d() = dSTGd(2, 4);
mPSVP2_4e() = dSTGe(2, 4);
mPSVP2_4i() = FALSE;
mPSVP2_1d() = dSTGd(2, 1);
mPSVP2_1e() = dSTGe(2, 1);
mPSVP2_1i() = FALSE;
mPSVP3_4d() = dSTGd(3, 4);
mPSVP3_4e() = dSTGe(3, 4);
mPSVP3_4i() = FALSE;
mPSVP3_1d() = dSTGd(3, 1);
mPSVP3_1e() = dSTGe(3, 1);
mPSVP3_1i() = FALSE;
mPSVP3_2_1d() = dSTGd(3, 2);
mPSVP3_2_1e() = dSTGe(3, 1);
mPSVP3_2_1i() = FALSE;
mPSVP4_1d() = dSTGd(4, 1);
mPSVP4_1e() = dSTGe(4, 1);
mPSVP4_1i() = FALSE;
mPSVP4_2d() = dSTGd(4, 2);
mPSVP4_2e() = dSTGe(4, 2);
mPSVP4_2i() = FALSE;
mPSVP4_3_2d() = dSTGd(4, 3);
mPSVP4_3_2e() = dSTGe(4, 2);
mPSVP4_3_2i() = FALSE;

```

Stage moves - MAN

```

mMAN1_2d() = mstg(xp)==2;
mMAN1_3_2d() = mstg(xp)==3;
mMAN1_4d() = mstg(xp)==4;
mMAN2_3d() = mstg(xp)==3;
mMAN2_4d() = mstg(xp)==4;

```

```

mMAN2_1d() = mstg(xp)==1;
mMAN3_4d() = mstg(xp)==4;
mMAN3_1d() = mstg(xp)==1;
mMAN3_2_1d() = mstg(xp)==2;
mMAN4_1d() = mstg(xp)==1;
mMAN4_2d() = mstg(xp)==2;
mMAN4_3_2d() = mstg(xp)==3;

```

Stage moves - General

```

dSTGd(f,t) = drs(t);
dSTGe(f,t) = exm(t);
dUTCd(f,t) = uF(t) || (uFD(t) && (uD(t) || drs(t)));
dUTCi(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0 || ex(t)));
dCLFd(f,t) = cIM(t) || (cDD(t) && drs(t)) || (cPS(t) && drs(t));
dCLFi(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
dPSVPd(f,t) = drs(t);
dPSVPe(f,t) = exm(t);
dSTGd1() = dr(A) || dr(B);
dSTGe1() = er(A) || er(B);
dPSVPd1() = pdp(A) || pdp(B);
dPSVPe1() = pep(A) || pep(B);
dUTCd1(t) = uF(t) || (uFD(t) && (uD(t) || dr(A) || dr(B)));
dUTCi1(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0 || ex(t)));
dCLFd1(t) = cIM(t) || (cDD(t) && (dr(A) || dr(B)) || (cPS(t) && (dr(A) || dr(B)));
dCLFi1(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
dSTGd2() = dr(C) || dr(E);
dSTGe2() = er(C) || er(E);
dPSVPd2() = pdp(C) || pdp(E);
dPSVPe2() = pep(C) || pep(E);
dUTCd2(t) = uF(t) || (uFD(t) && (uD(t) || dr(C) || dr(E)));
dUTCi2(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0 || ex(t)));
dCLFd2(t) = cIM(t) || (cDD(t) && (dr(C) || dr(E)) || (cPS(t) && (dr(C) || dr(E)));
dCLFi2(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
dSTGd3() = dr(C) || dr(D);
dSTGe3() = er(C) || er(D);
dPSVPd3() = pdp(C) || pdp(D);
dPSVPe3() = pep(C) || pep(D);
dUTCd3(t) = uF(t) || (uFD(t) && (uD(t) || dr(C) || dr(D)));
dUTCi3(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0 || ex(t)));
dCLFd3(t) = cIM(t) || (cDD(t) && (dr(C) || dr(D))) || (cPS(t) && (dr(C) || dr(D)));
dCLFi3(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
dSTGd4() = dr(F);
dSTGe4() = er(F);
dPSVPd4() = pdp(F);
dPSVPe4() = pep(F);

```

```
dUTCd4(t) = uF(t) || (uFD(t) && (uD(t) || dr(F)));
dUTCi4(f,t) = ((uF(f) || uFD(f)) && ((uGO(xp)==0 || ex(t)));
dCLFd4(t) = cIM(t) || (cDD(t) && (dr(F))) || (cPS(t) && (dr(F)));
dCLFi4(f,t) = cIM(f) || cDD(f) || cH(xp) || (cPS(t) && ex(t));
```

User functions

```
post_100ms()
outputs;
Leds;
end

outputs()
cout(MOVA31,evp(1));
cout(MOVA32,evp(2));
end

Leds()
if (fcrog(C) && ddo(AR1)) || (fcrog(E) && ddo(AR1)) then
cmled(0,1);
else
cmled(0,0);
endif

if (fcrog(C) && ddo(AR2)) || (fcrog(E) && ddo(AR2)) then
cmled(1,1);
else
cmled(1,0);
endif

if (fcrog(A) && ddo(AR3)) || (fcrog(B) && ddo(AR3)) then
cmled(2,1);
else
cmled(2,0);
endif

if (fcrog(A) && ddo(DOUT13)) || (fcrog(B) && ddo(DOUT13)) then
cmled(3,1);
else
cmled(3,0);
endif
end
```

SYSTEM PARAMETERS

UK Parameters

Name	Description	Min	Max	Def	-
MAN_TIMEOUT	Manual control timeout	60	600	300	300
MAN_DEMAND_ERROR	Duration of the manual demand error indication	0	60	5	5
MAN_ENABLE	Manual control enabled.	0	1	1	1
DFM_FUNC	Bit mask specifying behavior of DFM indicator	0	999	1	1
CLF_TIMER_SYNC	Duration of the CLF group Timer Synchronisation Signal	0	0	0	0
UTC_TS	Time in HH:MM used for COTU_TS	0	2359	0	1200
UTC_FORCE_TIMEOUT	The force bit watchdog timeout	120	300	200	200
UTC_FORCE_ACCEPT	The force accept timeout in system ticks.	1	10	4	4
UTC_LO_DELAY	Delay in seconds before COTU_LO changes is accepted.	0	99	10	10
UTC_RT_HOUR	Hours used for RT reply bit (-1 = any hour).	-1	23	0	12
UTC_RT_MIN	Minutes used for RT reply bit (-1 = any minute).	-1	59	0	0
UTC_RT_SEC	Seconds used for RT reply bit	-1	59	0	0
UTC_RT_DURATION	Duration of the RT reply bit in seconds	1	10	3	3
UTC(CG)_DURATION	Duration of the CG reply bit in seconds	1	10	3	3
UTC(TSR)_DURATION	Duration of the TSR reply bit in seconds	1	10	3	3
UTC(G1G2)_FUNC	Bit mask specifying behavior of G1/G2 reply bits	0	255	1	1
UTC(RR)_FUNC	Bit mask specifying behavior of RR reply bit	0	255	14	14
UTC(PV)_ACCEPT	The PV accept time in system ticks	0	255	0	0
UTC(PV)_HOLD	The PV hold time in system ticks	0	255	0	0
UKSTG_DIM_ALARM	The maximum time [in hours] for dimmed operation(-1 = solar cell disabled, 0 = enabled without timeout processing)	-1	100	24	24
UKSTG_DIM_FILTER	The call/cancel delay [in sec] for the DIM relais	0	255	0	0
UTC(CRB)_PULSE_ON_TIME	CRB On Timer	0	1800	600	120
UTC(CRB)_PULSE_OFF_TIME	CRB Off Timer	0	10	2	2

System Parameters

Name	Description	Min	Max	-
SYS_TSRC	System time source type; 0 = crystal, 1 = mains frequency (default)	1	1	1
MMI8408	XMMI: 8 x 40 MMI	0	1	1
XIN_L	XIN_L: Number of logging lines	1	999	10
XOUT_L	XOUT_L: Number of logging lines	1	999	10
XDET_L	XDET_L: Number of logging lines	1	999	100
XDET_F	XDET_F: Status in case of fault	0	2	0
XSG_L	XSG_L: Number of logging lines	0	999	10
XHTTP	XHTTP: Presence of web server	0	1	1
XHTTP_PORT	XHTTP_PORT: Webserver port	0	65535	80
XHTTP_SES	XHTTP_SES:	0	65535	200
XDLS	XDLS: Daylight saving	0	1	1
XLM_MAL	XLM_MAL: Go to major alarm if power reference(s) are not set	0	1	0
XLM_RLM	XLM_RLM: RLM callback interval in 0.1 [s]	0	100	10
XLM_T	XLM_T: Tracking off / on	0	20	5
XLM_TF	XLM_TF: Tracking filter	1	20	8
XLM_NV	XLM_NV: Nominal (bright) voltage	0	240	230
XLM_MON	XLM_MON: Monitoring type	0	10	3
XLM_AC	XLM_AC: Automatic calibration	0	1	1
XLM_DIM	XLM_DIM: Bright Dim Calibration off / on	0	1	1
CLF_SYNC	CLF Synchronisation option.	0	3	3
CLF_SYNC_WDAY	CLF Weekly sync is done on..	1	7	1
CLF_TIMER_SYNC	Duration of the CLF group Timer Synchronisation Signal	0	2400	200
CLF_NON_BASE_TIME	Select base time or non base time (0 or 1)	0	1	0
XIOTU_RTS	RTS activated after # received characters (use 1, 2 or 3)	1	3	1
XIOTU_SCOOT	Default bit number used for scoot counted detectors (0 to 7)	0	7	0
XIOTU_CTS	CTS timeout per 10ms	4	10	6
UKMP_TYPE	UK Manual panel type (0=std, 1=ped, 2=multiple stages)	0	2	2
ENGTERM_SIM_PORT	Engterm simulation socket	0	99999	50001
ENGTERM_BAUD	Engterm baudrate	0	99999	9600

Name	Description	Min	Max	-
HCH_ALLRED	Use HCH for all red stage moves	0	1	1
HCH_SWOFF	Use HCH for switch off stage moves	0	1	0
PT_SYNC	Synchronize move to part time mode	0	1	1
CLF_MANUAL_STEP	Enable the Manual Step	0	1	0
CLF_DEFAULT_PLAN		-1	999	0
CLF_MANUAL_MEMOS	Memo for the manual step	0	1	0
COMPRESS_HARDWARE	Compress Hardware	0	1	0

MEMO FIELDS

HISTORY	
Description	Text in the History text block between: --CREDAT-- and --UPDATE--
Contents	* This is memofield HISTORY

B_HISTORY	
Description	Text in the History text block between: --CREDAT-- and --UPDATE-- (AMSEC1.CNF)
Contents	; This is memofield HISTORY_B

ABC_INC	
Description	Code at the end of the file before the end of file remark (AMSEC1.CNF)
Contents	; This is memofield AMSEC_INC

XP1_INC	
Description	Code at the begin of the file, juts below History, under the heading 'XP1_INC'.
Contents	<i>/* This is memofield XP1_INC */</i>

XP2_INC	
Description	Code under the heading 'XP2_INC', just before the 'XIN INPUTS' definitions.
Contents	<i>/* This is memofield XP2_INC */</i>

XP3_INC	
Description	Code under the heading 'XP3_INC', at the end of the file.
Contents	<i>/* This is memofield XP3_INC */</i> P("MPDISO.R1") { P(0);D(1); P(1);D(1); P(2);D(1); P(3);D(1); P(4);D(1); P(5);D(1); P(6);D(1); P(7);D(1); }

SADAT_INC	
Description	Code at end of the file. (SADAT.CNF)
Contents	<i>/* This is memofield SADAT_INC */</i>

DESCRIPTION	
Description	Detailed project description
Contents	* This is memofield DESCRIPTION

VMFUNC_INC1	
Description	VMFUNC process conditions
Contents	<i>/* This is memofield VMFUNC_INC1 */</i>

VMFUNC_INC2	
Description	VMFUNC process conditions
Contents	<i>/* This is memofield VMFUNC_INC2 */</i>

HARDWARE CONFIGURATION

Number of Devices	*	Optional Devices	*
LCM	2	Manual panel type	Multi stage
MTS4E	5	Dimming Operating	2
IO1616	2	Manual Panel Flashing	1
Dummy Detectors	0	Solar Cell Monitor	Disabled

Configuration

LCM	MTS4E	IO1616-IN	IO1616-OUT
DEVICE: LCM	DEVICE: MTS4E	DEVICE: IO1616-IN	DEVICE: IO1616-OUT
--- 01 ---	--- 01 ---	--- 01 ---	--- 01 ---
01: A (R)	01: AIN1	01: UTC_I1	01: UTC_O1
02: A (A)	02: AX2	02: UTC_I2	02: UTC_O2
03: A (G)	03: ASL3	03: UTC_I3	03: UTC_O3
04: B (R)	04: AX4	04: UTC_I4	04: UTC_O4
05: B (A)	--- 02 ---	05: UTC_I5	05: UTC_O5
06: B (G)	01: BIN5	06: UTC_I6	06: UTC_O6
07: C (R)	02: BX6	07: UTC_I7	07: UTC_O7
08: C (A)	03: BSL7	08: UTC_I8	08: UTC_O8
09: C (G)	04: BX8	09: UTC_I9	09: UTC_O9
10: -	--- 03 ---	10: UTC_I10	10: UTC_O10
11: -	01: CIN9	11: UTC_I11	11: UTC_O11
12: D (G)	02: CX10	12: UTC_I12	12: UTC_O12
--- 02 ---	03: CSL11	13: UTC_I13	13: UTC_O13
01: E (R)	04: DX12	14: UTC_I14	14: UTC_O14
02: E (A)	--- 04 ---	15: UTC_I15	15: UTC_O15
03: E (G)	01: DOUT13	16: UTC_I16	16: UTC_O16
04: -	02: EIN14	--- 02 ---	--- 02 ---
05: -	03: EX15	01: -	01: MOVA31
06: -	04: ESL16	02: -	02: MOVA32
07: -	--- 05 ---	03: -	03: -
08: -	01: EX17	04: -	04: -
09: -	02: AR1	05: -	05: -
10: -	03: AR2	06: -	06: -
11: -	04: AR3	07: -	07: -
12: -	--- 06 ---	08: -	08: -
--- 03 ---	01: -	09: -	09: -
01: -	02: -	10: -	10: -
02: -	03: -	11: -	11: -
03: -	04: -	12: -	12: -
04: -	--- 07 ---	13: -	13: -
05: -	01: -	14: -	14: -
06: -	02: -	15: -	15: -
07: -	03: -	16: -	16: -
08: -	04: -	--- 03 ---	--- 03 ---
09: -	--- 08 ---	01: -	01: -
10: -	01: -	02: -	02: -
11: -	02: -	03: -	03: -
12: -	03: -	04: -	04: -
--- 04 ---	04: -	05: -	05: -
01: -	--- 09 ---	06: -	06: -
02: -	01: -	07: -	07: -
03: -	02: -	08: -	08: -
04: -	03: -	09: -	09: -
05: -	04: -	10: -	10: -
06: -	--- 10 ---	11: -	11: -
07: -	01: -	12: -	12: -
08: -	02: -	13: -	13: -
09: -	03: -	14: -	14: -
10: -	04: -	15: -	15: -
11: -	--- 11 ---	16: -	16: -
12: -	01: -	--- 04 ---	--- 04 ---
--- 05 ---	02: -	01: -	01: -
01: -	03: -	02: -	02: -
02: -	04: -	03: -	03: -
03: -	--- 12 ---	04: -	04: -
04: -	01: -	05: -	05: -
05: -	02: -	06: -	06: -
06: -	03: -	07: -	07: -
07: -	04: -	08: -	08: -
08: -	--- 13 ---	09: -	09: -
09: -	01: -	10: -	10: -
10: -	02: -	11: -	11: -
11: -	03: -	12: -	12: -
12: -	04: -	13: -	13: -
--- 06 ---	--- 14 ---	14: -	14: -
01: -	01: -	15: -	15: -
02: -	02: -	16: -	16: -
03: -	03: -	--- 05 ---	--- 05 ---
04: -	04: -	01: -	01: -
05: -	--- 15 ---	02: -	02: -
06: -	01: -	03: -	03: -
07: -	02: -	04: -	04: -
08: -	03: -	05: -	05: -

LCM	MTS4E	IO1616-IN	IO1616-OUT
09: -	04: -	06: -	06: -
10: -	--- 16 ---	07: -	07: -
11: -	01: -	08: -	08: -
12: -	02: -	09: -	09: -
--- 07 ---	03: -	10: -	10: -
01: -	04: -	11: -	11: -
02: -	--- 17 ---	12: -	12: -
03: -	01: -	13: -	13: -
04: -	02: -	14: -	14: -
05: -	03: -	15: -	15: -
06: -	04: -	16: -	16: -
07: -	--- 18 ---	--- 06 ---	--- 06 ---
08: -	01: -	01: -	01: -
09: -	02: -	02: -	02: -
10: -	03: -	03: -	03: -
11: -	04: -	04: -	04: -
12: -	--- 19 ---	05: -	05: -
--- 08 ---	01: -	06: -	06: -
01: -	02: -	07: -	07: -
02: -	03: -	08: -	08: -
03: -	04: -	09: -	09: -
04: -	--- 20 ---	10: -	10: -
05: -	01: -	11: -	11: -
06: -	02: -	12: -	12: -
07: -	03: -	13: -	13: -
08: -	04: -	14: -	14: -
09: -	--- 21 ---	15: -	15: -
10: -	01: -	16: -	16: -
11: -	02: -	--- 07 ---	--- 07 ---
12: -	03: -	01: -	01: -
--- 09 ---	04: -	02: -	02: -
01: -	--- 22 ---	03: -	03: -
02: -	01: -	04: -	04: -
03: -	02: -	05: -	05: -
04: -	03: -	06: -	06: -
05: -	04: -	07: -	07: -
06: -	--- 23 ---	08: -	08: -
07: -	01: -	09: -	09: -
08: -	02: -	10: -	10: -
09: -	03: -	11: -	11: -
10: -	04: -	12: -	12: -
11: -	--- 24 ---	13: -	13: -
12: -	01: -	14: -	14: -
	02: -	15: -	15: -
	03: -	16: -	16: -
	04: -	--- 08 ---	--- 08 ---
	--- 25 ---	01: -	01: -
	01: -	02: -	02: -
	02: -	03: -	03: -
	03: -	04: -	04: -
	04: -	05: -	05: -
	--- 26 ---	06: -	06: -
	01: -	07: -	07: -
	02: -	08: -	08: -
	03: -	09: -	09: -
	04: -	10: -	10: -
	--- 27 ---	11: -	11: -
	01: -	12: -	12: -
	02: -	13: -	13: -
	03: -	14: -	14: -
	04: -	15: -	15: -
	--- 28 ---	16: -	16: -
	01: -		
	02: -		
	03: -		
	04: -		
	--- 29 ---		
	01: -		
	02: -		
	03: -		
	04: -		
	--- 30 ---		
	01: -		
	02: -		
	03: -		
	04: -		
	--- 31 ---		
	01: -		
	02: -		
	03: -		
	04: -		
	--- 32 ---		
	01: -		
	02: -		
	03: -		
	04: -		

IOT State

LCM	MTS4E	IO1616-IN	IO1616-OUT
LCM	MTS4E	IO1616-IN	IO1616-OUT
Unit Addr *	Unit Addr *	Unit Addr *	Unit Addr *
=====	=====	=====	=====
01 01 A (R)	01 01 AIN1	01 01 UTC_I1	01 01 UTC_O1
01 02 A (A)	01 02 AX2	01 02 UTC_I2	01 02 UTC_O2
01 03 A (G)	01 03 ASL3	01 03 UTC_I3	01 03 UTC_O3
01 04 B (R)	01 04 AX4	01 04 UTC_I4	01 04 UTC_O4
01 05 B (A)		01 05 UTC_I5	01 05 UTC_O5
01 06 B (G)	02 01 BIN5	01 06 UTC_I6	01 06 UTC_O6
01 07 C (R)	02 02 BX6	01 07 UTC_I7	01 07 UTC_O7
01 08 C (A)	02 03 BSL7	01 08 UTC_I8	01 08 UTC_O8
01 09 C (G)	02 04 BX8	01 09 UTC_I9	01 09 UTC_O9
01 12 D (G)		01 10 UTC_I10	01 10 UTC_O10
	03 01 CIN9	01 11 UTC_I11	01 11 UTC_O11
	03 02 CX10	01 12 UTC_I12	01 12 UTC_O12
	03 03 CSL11	01 13 UTC_I13	01 13 UTC_O13
	03 04 DX12	01 14 UTC_I14	01 14 UTC_O14
		01 15 UTC_I15	01 15 UTC_O15
	04 01 DOUT13	01 16 UTC_I16	01 16 UTC_O16
	04 02 EIN14		
	04 03 EX15		
	04 04 ESL16		
	05 01 EX17		
	05 02 AR1		
	05 03 AR2		
	05 04 AR3		

LAMP MONITORING**Phase Lamp Types**

ID	Phase	Description	Type	Red	Amber	Green	Wait	MonR A	Action A	MonR B	Action B	MonA	MonG
1	A	Normandy Way EastBND	T	Elite TLED 48	Elite TLED 48	Elite TLED 48	-	Safety 1/2	None	None	None	Maintenance	Maintenance
2	B	Normandy Way WestBND	T	Elite TLED 48	Elite TLED 48	Elite TLED 48	-	Safety 1/2	None	None	None	Maintenance	Maintenance
3	C	Ashby Road SouthBND	T	Elite TLED 48	Elite TLED 48	Elite TLED 48	-	Safety 1/2	None	None	None	Maintenance	Maintenance
4	D	Ashby Road SouthBND RTA	I	-	-	Elite TLED 48	-	None	None	None	None	None	Maintenance
5	E	Ashby Road NorthBND	T	Elite TLED 48	Elite TLED 48	Elite TLED 48	-	Safety 1/2	None	None	None	Maintenance	Maintenance
6	F	Dummy All Red Overnight	-	-	-	-	-	None	None	None	None	None	None

Report executed at 1/9/2013 1:37 PM

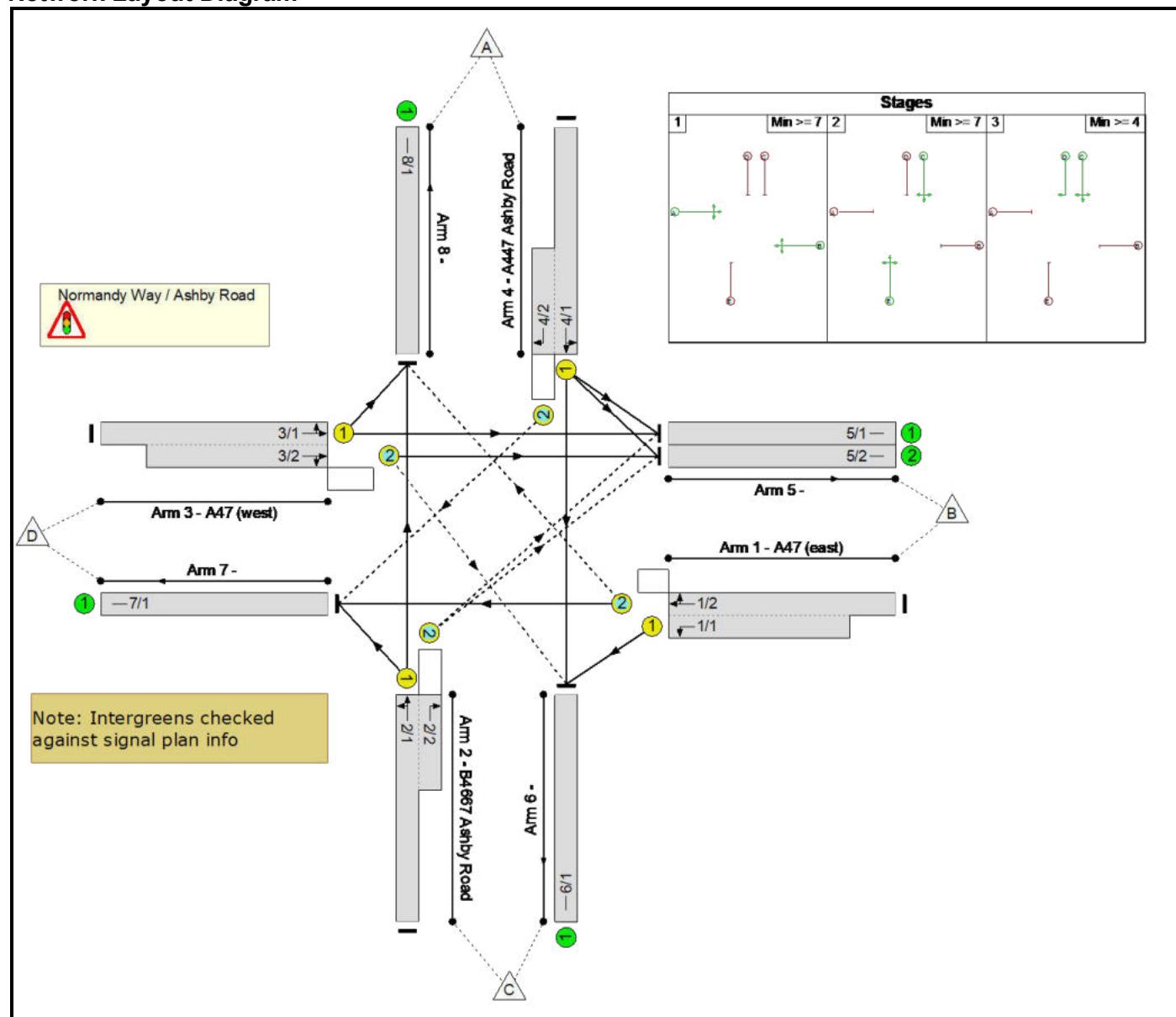
Full Input Data And Results

Full Input Data And Results

User and Project Details

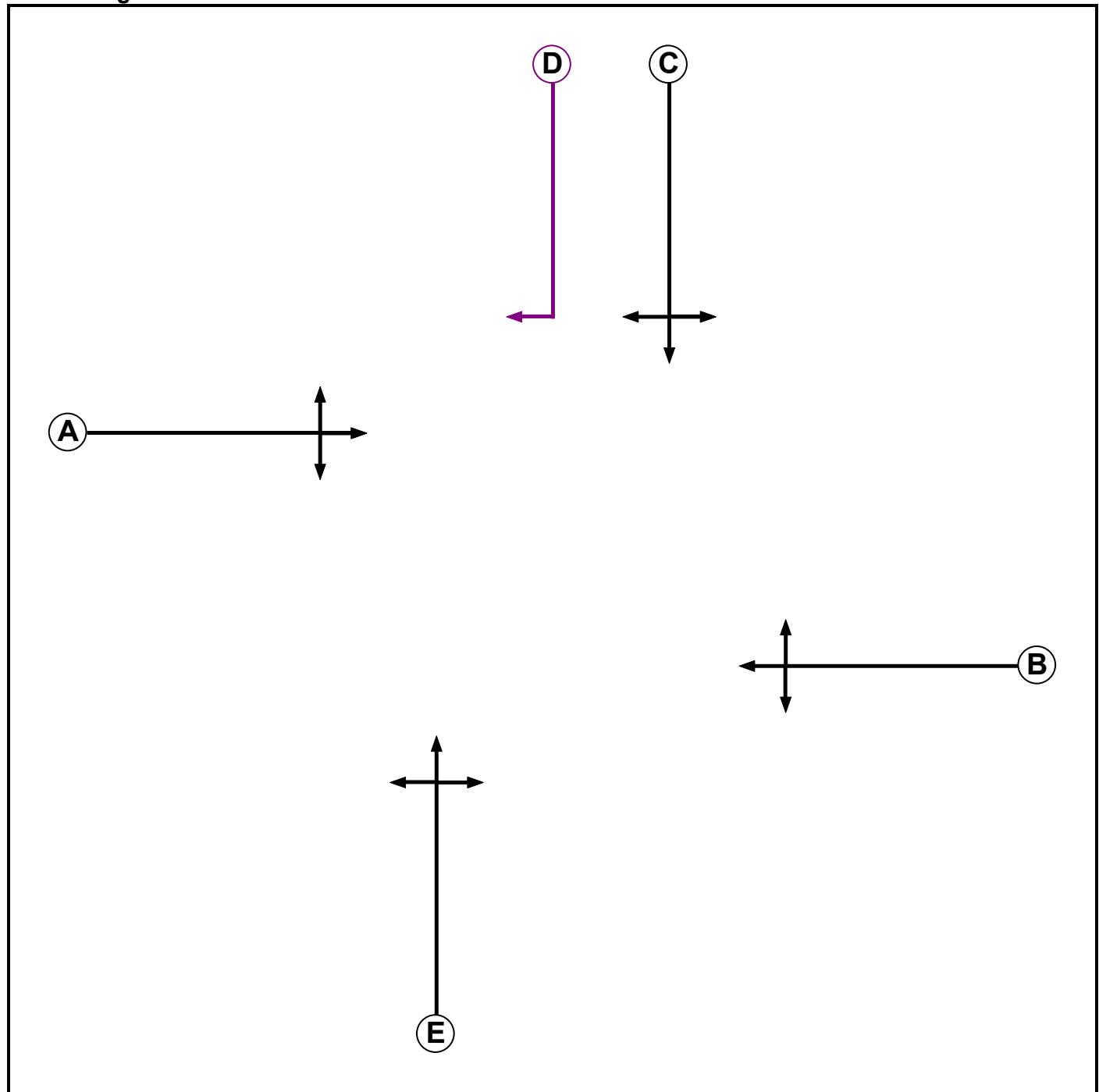
Project:	Land east of Ashby Road, Hinckley
Title:	A47 Normandy Way / B4667 Ashby Road
Location:	
Client:	Davidsons Developments Ltd
Additional detail:	
File name:	Junction 1 Ashby Road-A47 crossroads.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Ind. Arrow	C	4	4
E	Traffic		7	7

Full Input Data And Results

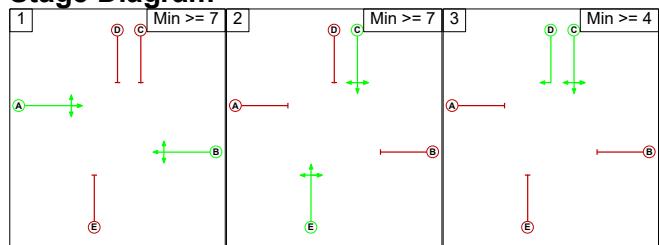
Phase Intergreens Matrix

		Starting Phase				
		A	B	C	D	E
Terminating Phase	A	-	7	6	7	
	B	-	5	5	5	
	C	7	7	-	-	
	D	7	7	-	7	
	E	6	6	-	4	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	C E
3	C D

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage		
		1	2	3
From Stage	1	7	X	
	2	7		4
	3	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Normandy Way / Ashby Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (A47 (east))	8/1 (Right)	1439	0	3/1	1.09	All	2.00	2.00	0.50	2	2.00
				3/2	1.09	To 5/2 (Ahead)					
2/2 (B4667 Ashby Road)	5/1 (Right)	1439	0	4/1	1.09	All	3.00	-	0.50	3	3.00
	5/2 (Right)	1439	0	4/1	1.09	All					
3/2 (A47 (west))	6/1 (Right)	1439	0	1/2	1.09	To 7/1 (Ahead)	3.00	3.00	0.50	3	3.00
				1/1	1.09	All					
4/2 (A447 Ashby Road)	7/1 (Right)	1439	0	2/1	1.09	All	3.00	-	0.50	3	3.00

Full Input Data And Results

Lane Input Data

Junction: Normandy Way / Ashby Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A47 (east))	U	B	2	3	19.1	Geom	-	3.00	0.00	Y	Arm 6 Left	15.00
1/2 (A47 (east))	O	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 7 Ahead	Inf
2/1 (B4667 Ashby Road)	U	E	2	3	60.0	Geom	-	2.90	0.00	Y	Arm 8 Right	20.00
2/2 (B4667 Ashby Road)	O	E	2	3	6.3	Geom	-	2.90	0.00	Y	Arm 7 Left	14.00
3/1 (A47 (west))	U	A	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 8 Ahead	Inf
3/2 (A47 (west))	O	A	2	3	15.7	Geom	-	4.50	0.00	Y	Arm 5 Right	25.00
4/1 (A447 Ashby Road)	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Left	12.00
4/2 (A447 Ashby Road)	O	CD	2	3	7.0	Geom	-	2.75	0.00	Y	Arm 6 Ahead	Inf
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2024 observed AM'	08:00	09:00	01:00	
2: '2024 observed PM'	16:00	17:00	01:00	
3: '2030 'Do Nothing' AM'	08:00	09:00	01:00	
4: '2030 'Do Nothing' PM'	16:00	17:00	01:00	
5: '2030 'Do Something' AM'	08:00	09:00	01:00	
6: '2030 'Do Something' PM'	16:00	17:00	01:00	

Full Input Data And Results

Scenario 1: '2024 observed AM' (FG1: '2024 observed AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	30	410	321	761
	B	29	0	103	613	745
	C	229	103	0	145	477
	D	226	454	81	0	761
	Tot.	484	587	594	1079	2744

Traffic Lane Flows

Lane	Scenario 1: 2024 observed AM
Junction: Normandy Way / Ashby Road	
1/1 (short)	103
1/2 (with short)	745(In) 642(Out)
2/1 (with short)	477(In) 374(Out)
2/2 (short)	103
3/1 (with short)	761(In) 361(Out)
3/2 (short)	400
4/1 (with short)	761(In) 440(Out)
4/2 (short)	321
5/1	202
5/2	385
6/1	594
7/1	1079
8/1	484

Full Input Data And Results

Lane Saturation Flows

Junction: Normandy Way / Ashby Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 (east))	3.00	0.00	Y	Arm 6 Left	15.00	100.0 %	1741	1741
1/2 (A47 (east))	3.00	0.00	Y	Arm 7 Ahead	Inf	95.5 %	1909	1909
				Arm 8 Right	20.00	4.5 %		
2/1 (B4667 Ashby Road)	2.90	0.00	Y	Arm 7 Left	14.00	38.8 %	1829	1829
				Arm 8 Ahead	Inf	61.2 %		
2/2 (B4667 Ashby Road)	2.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1797	1797
3/1 (A47 (west))	3.10	0.00	Y	Arm 5 Ahead	Inf	37.4 %	1839	1839
				Arm 8 Left	20.00	62.6 %		
3/2 (A47 (west))	4.50	0.00	Y	Arm 5 Ahead	Inf	79.8 %	2040	2040
				Arm 6 Right	25.00	20.3 %		
4/1 (A447 Ashby Road)	3.00	0.00	Y	Arm 5 Left	12.00	6.8 %	1899	1899
				Arm 6 Ahead	Inf	93.2 %		
4/2 (A447 Ashby Road)	2.75	0.00	Y	Arm 7 Right	23.00	100.0 %	1774	1774
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2024 observed PM' (FG2: '2024 observed PM ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	54	485	267	806
	B	39	0	173	535	747
	C	359	156	0	96	611
	D	379	466	39	0	884
	Tot.	777	676	697	898	3048

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2024 observed PM
Junction: Normandy Way / Ashby Road	
1/1 (short)	173
1/2 (with short)	747(In) 574(Out)
2/1 (with short)	611(In) 455(Out)
2/2 (short)	156
3/1 (with short)	884(In) 413(Out)
3/2 (short)	471
4/1 (with short)	806(In) 539(Out)
4/2 (short)	267
5/1	139
5/2	537
6/1	697
7/1	898
8/1	777

Full Input Data And Results

Lane Saturation Flows

Junction: Normandy Way / Ashby Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 (east))	3.00	0.00	Y	Arm 6 Left	15.00	100.0 %	1741	1741
1/2 (A47 (east))	3.00	0.00	Y	Arm 7 Ahead	Inf	93.2 %	1905	1905
				Arm 8 Right	20.00	6.8 %		
2/1 (B4667 Ashby Road)	2.90	0.00	Y	Arm 7 Left	14.00	21.1 %	1863	1863
				Arm 8 Ahead	Inf	78.9 %		
2/2 (B4667 Ashby Road)	2.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1797	1797
3/1 (A47 (west))	3.10	0.00	Y	Arm 5 Ahead	Inf	8.2 %	1801	1801
				Arm 8 Left	20.00	91.8 %		
3/2 (A47 (west))	4.50	0.00	Y	Arm 5 Ahead	Inf	91.7 %	2055	2055
				Arm 6 Right	25.00	8.3 %		
4/1 (A447 Ashby Road)	3.00	0.00	Y	Arm 5 Left	12.00	10.0 %	1891	1891
				Arm 6 Ahead	Inf	90.0 %		
4/2 (A447 Ashby Road)	2.75	0.00	Y	Arm 7 Right	23.00	100.0 %	1774	1774
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2030 'Do Nothing' AM' (FG3: '2030 'Do Nothing' AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	30	406	324	760
	B	33	0	132	802	967
	C	206	109	0	157	472
	D	249	580	106	0	935
	Tot.	488	719	644	1283	3134

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2030 'Do Nothing' AM
Junction: Normandy Way / Ashby Road	
1/1 (short)	132
1/2 (with short)	967(In) 835(Out)
2/1 (with short)	472(In) 363(Out)
2/2 (short)	109
3/1 (with short)	935(In) 444(Out)
3/2 (short)	491
4/1 (with short)	760(In) 436(Out)
4/2 (short)	324
5/1	265
5/2	454
6/1	644
7/1	1283
8/1	488

Full Input Data And Results

Lane Saturation Flows

Junction: Normandy Way / Ashby Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 (east))	3.00	0.00	Y	Arm 6 Left	15.00	100.0 %	1741	1741
1/2 (A47 (east))	3.00	0.00	Y	Arm 7 Ahead	Inf	96.0 %	1909	1909
				Arm 8 Right	20.00	4.0 %		
2/1 (B4667 Ashby Road)	2.90	0.00	Y	Arm 7 Left	14.00	43.3 %	1821	1821
				Arm 8 Ahead	Inf	56.7 %		
2/2 (B4667 Ashby Road)	2.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1797	1797
3/1 (A47 (west))	3.10	0.00	Y	Arm 5 Ahead	Inf	43.9 %	1847	1847
				Arm 8 Left	20.00	56.1 %		
3/2 (A47 (west))	4.50	0.00	Y	Arm 5 Ahead	Inf	78.4 %	2039	2039
				Arm 6 Right	25.00	21.6 %		
4/1 (A447 Ashby Road)	3.00	0.00	Y	Arm 5 Left	12.00	6.9 %	1899	1899
				Arm 6 Ahead	Inf	93.1 %		
4/2 (A447 Ashby Road)	2.75	0.00	Y	Arm 7 Right	23.00	100.0 %	1774	1774
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2030 'Do Nothing' PM' (FG4: '2030 'Do Nothing' PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	41	444	247	732
	B	41	0	235	736	1012
	C	340	161	0	121	622
	D	443	583	58	0	1084
	Tot.	824	785	737	1104	3450

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2030 'Do Nothing' PM
Junction: Normandy Way / Ashby Road	
1/1 (short)	235
1/2 (with short)	1012(In) 777(Out)
2/1 (with short)	622(In) 461(Out)
2/2 (short)	161
3/1 (with short)	1084(In) 594(Out)
3/2 (short)	490
4/1 (with short)	732(In) 485(Out)
4/2 (short)	247
5/1	253
5/2	532
6/1	737
7/1	1104
8/1	824

Full Input Data And Results

Lane Saturation Flows

Junction: Normandy Way / Ashby Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 (east))	3.00	0.00	Y	Arm 6 Left	15.00	100.0 %	1741	1741
1/2 (A47 (east))	3.00	0.00	Y	Arm 7 Ahead	Inf	94.7 %	1907	1907
				Arm 8 Right	20.00	5.3 %		
2/1 (B4667 Ashby Road)	2.90	0.00	Y	Arm 7 Left	14.00	26.2 %	1853	1853
				Arm 8 Ahead	Inf	73.8 %		
2/2 (B4667 Ashby Road)	2.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1797	1797
3/1 (A47 (west))	3.10	0.00	Y	Arm 5 Ahead	Inf	25.4 %	1823	1823
				Arm 8 Left	20.00	74.6 %		
3/2 (A47 (west))	4.50	0.00	Y	Arm 5 Ahead	Inf	88.2 %	2050	2050
				Arm 6 Right	25.00	11.8 %		
4/1 (A447 Ashby Road)	3.00	0.00	Y	Arm 5 Left	12.00	8.5 %	1895	1895
				Arm 6 Ahead	Inf	91.5 %		
4/2 (A447 Ashby Road)	2.75	0.00	Y	Arm 7 Right	23.00	100.0 %	1774	1774
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2030 'Do Something' AM' (FG5: '2030 'Do Something' AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	33	429	338	800
	B	35	0	133	803	971
	C	215	111	0	152	478
	D	251	587	100	0	938
	Tot.	501	731	662	1293	3187

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2030 'Do Something' AM
Junction: Normandy Way / Ashby Road	
1/1 (short)	133
1/2 (with short)	971(In) 838(Out)
2/1 (with short)	478(In) 367(Out)
2/2 (short)	111
3/1 (with short)	938(In) 446(Out)
3/2 (short)	492
4/1 (with short)	800(In) 462(Out)
4/2 (short)	338
5/1	268
5/2	463
6/1	662
7/1	1293
8/1	501

Full Input Data And Results

Lane Saturation Flows

Junction: Normandy Way / Ashby Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 (east))	3.00	0.00	Y	Arm 6 Left	15.00	100.0 %	1741	1741
1/2 (A47 (east))	3.00	0.00	Y	Arm 7 Ahead	Inf	95.8 %	1909	1909
				Arm 8 Right	20.00	4.2 %		
2/1 (B4667 Ashby Road)	2.90	0.00	Y	Arm 7 Left	14.00	41.4 %	1824	1824
				Arm 8 Ahead	Inf	58.6 %		
2/2 (B4667 Ashby Road)	2.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1797	1797
3/1 (A47 (west))	3.10	0.00	Y	Arm 5 Ahead	Inf	43.7 %	1847	1847
				Arm 8 Left	20.00	56.3 %		
3/2 (A47 (west))	4.50	0.00	Y	Arm 5 Ahead	Inf	79.7 %	2040	2040
				Arm 6 Right	25.00	20.3 %		
4/1 (A447 Ashby Road)	3.00	0.00	Y	Arm 5 Left	12.00	7.1 %	1898	1898
				Arm 6 Ahead	Inf	92.9 %		
4/2 (A447 Ashby Road)	2.75	0.00	Y	Arm 7 Right	23.00	100.0 %	1774	1774
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2030 'Do Something' PM' (FG6: '2030 'Do Something' PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	46	456	250	752
	B	47	0	238	743	1028
	C	358	162	0	115	635
	D	457	584	53	0	1094
	Tot.	862	792	747	1108	3509

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2030 'Do Something' PM
Junction: Normandy Way / Ashby Road	
1/1 (short)	238
1/2 (with short)	1028(In) 790(Out)
2/1 (with short)	635(In) 473(Out)
2/2 (short)	162
3/1 (with short)	1094(In) 605(Out)
3/2 (short)	489
4/1 (with short)	752(In) 502(Out)
4/2 (short)	250
5/1	252
5/2	540
6/1	747
7/1	1108
8/1	862

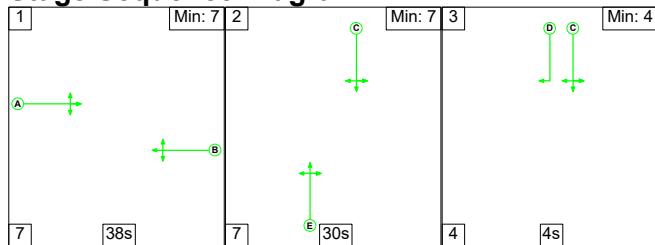
Full Input Data And Results

Lane Saturation Flows

Junction: Normandy Way / Ashby Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A47 (east))	3.00	0.00	Y	Arm 6 Left	15.00	100.0 %	1741	1741
1/2 (A47 (east))	3.00	0.00	Y	Arm 7 Ahead	Inf	94.1 %	1906	1906
				Arm 8 Right	20.00	5.9 %		
2/1 (B4667 Ashby Road)	2.90	0.00	Y	Arm 7 Left	14.00	24.3 %	1857	1857
				Arm 8 Ahead	Inf	75.7 %		
2/2 (B4667 Ashby Road)	2.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1797	1797
3/1 (A47 (west))	3.10	0.00	Y	Arm 5 Ahead	Inf	24.5 %	1822	1822
				Arm 8 Left	20.00	75.5 %		
3/2 (A47 (west))	4.50	0.00	Y	Arm 5 Ahead	Inf	89.2 %	2052	2052
				Arm 6 Right	25.00	10.8 %		
4/1 (A447 Ashby Road)	3.00	0.00	Y	Arm 5 Left	12.00	9.2 %	1893	1893
				Arm 6 Ahead	Inf	90.8 %		
4/2 (A447 Ashby Road)	2.75	0.00	Y	Arm 7 Right	23.00	100.0 %	1774	1774
5/1	Infinite Saturation Flow					Inf	Inf	Inf
5/2	Infinite Saturation Flow					Inf	Inf	Inf
6/1	Infinite Saturation Flow					Inf	Inf	Inf
7/1	Infinite Saturation Flow					Inf	Inf	Inf
8/1	Infinite Saturation Flow					Inf	Inf	Inf

Scenario 1: '2024 observed AM' (FG1: '2024 observed AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

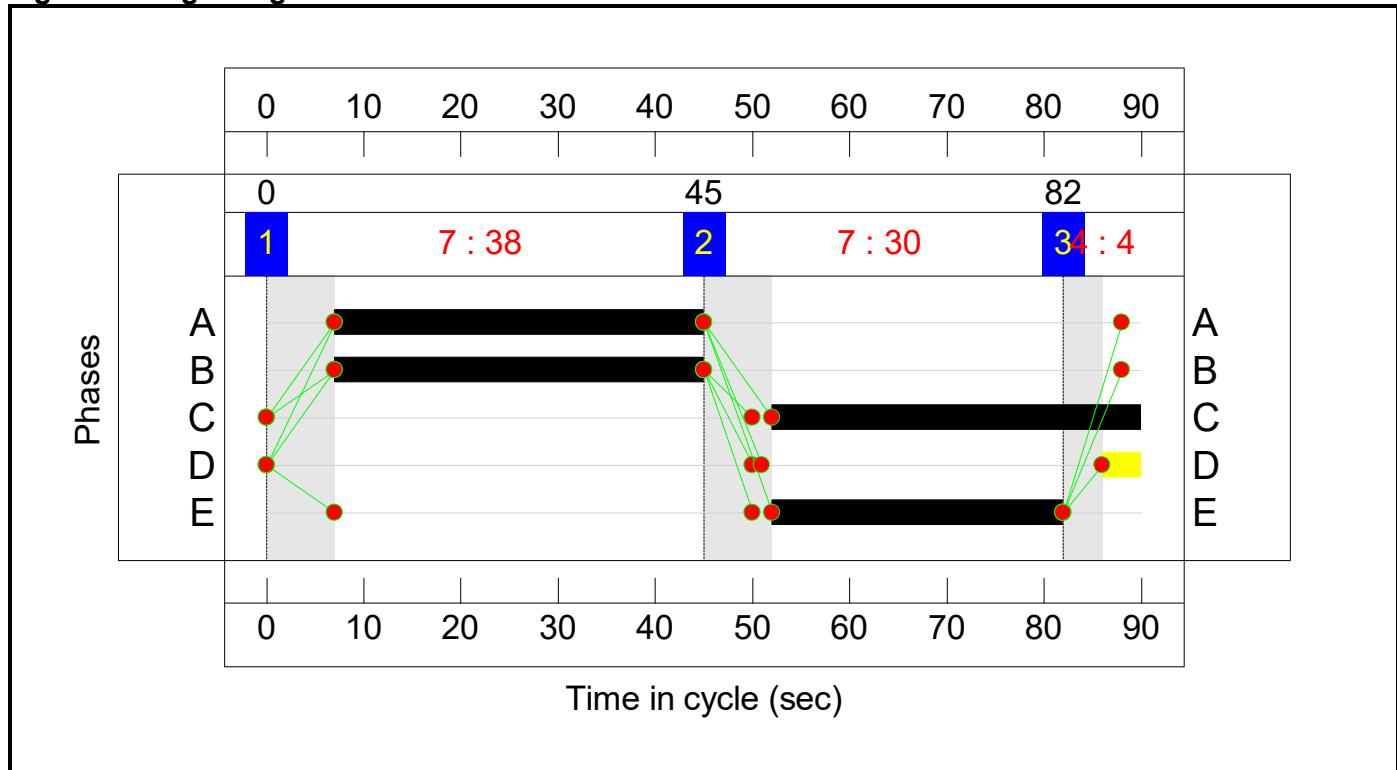


Stage Timings

Stage	1	2	3
Duration	38	30	4
Change Point	0	45	82

Full Input Data And Results

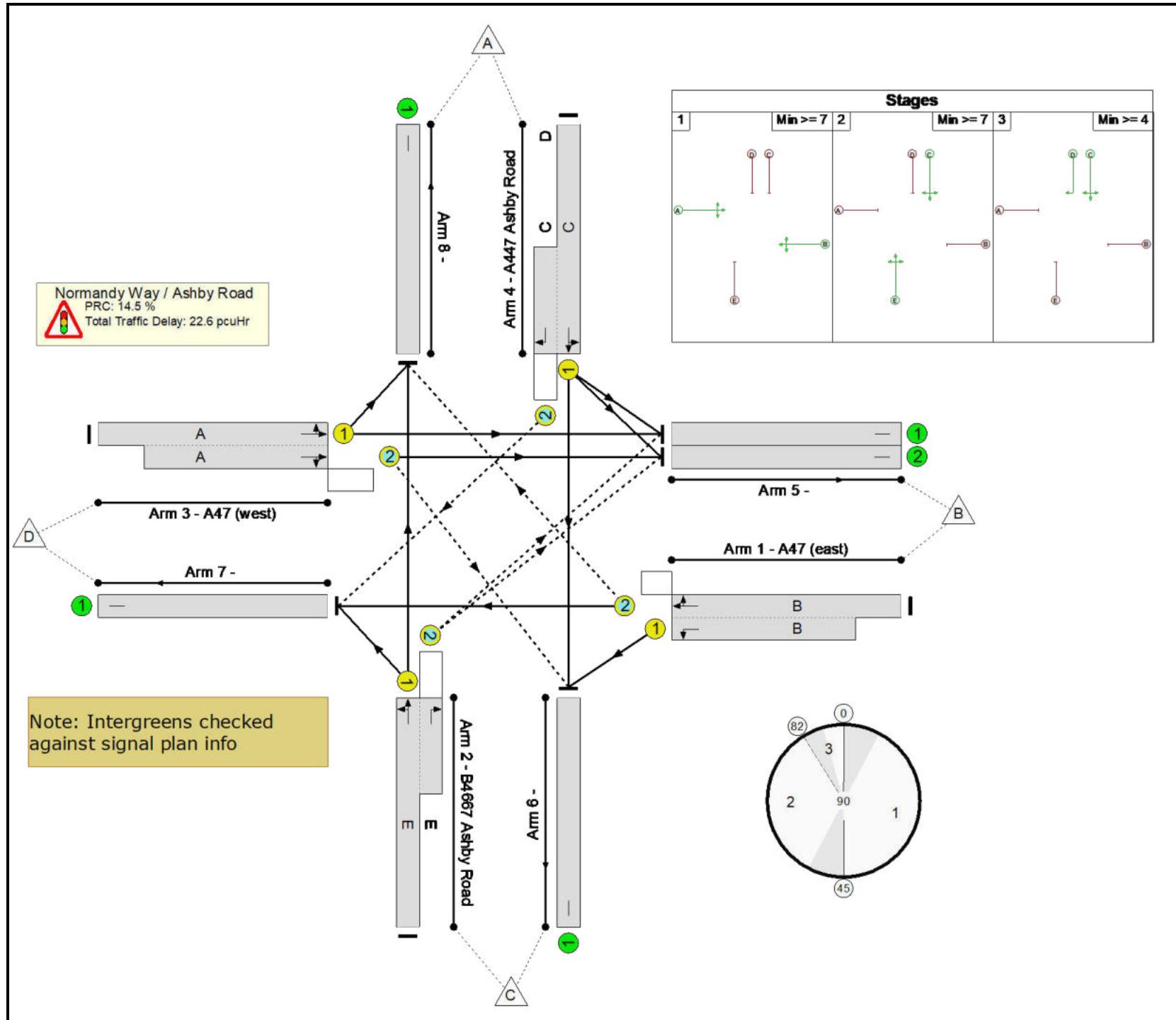
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	N/A	-	-		-	-	-	-	-	-	78.6%
Normandy Way / Ashby Road	-	-	N/A	-	-		-	-	-	-	-	-	78.6%
1/2+1/1	A47 (east) Left Ahead Right	O+U	N/A	N/A	B		1	38	-	745	1909:1741	817+131	78.6 : 78.6%
2/1+2/2	B4667 Ashby Road Right Left Ahead	U+O	N/A	N/A	E		1	30	-	477	1829:1797	550+151	68.0 : 68.0%
3/1+3/2	A47 (west) Ahead Right Left	U+O	N/A	N/A	A		1	38	-	761	1839:2040	694+769	52.0 : 52.0%
4/1+4/2	A447 Ashby Road Left Ahead Right	U+O	N/A	N/A	C	D	1	38	4	761	1899:1774	562+410	78.2 : 78.3%
5/1		U	N/A	N/A	-		-	-	-	202	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	385	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	594	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1079	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	484	Inf	Inf	0.0%

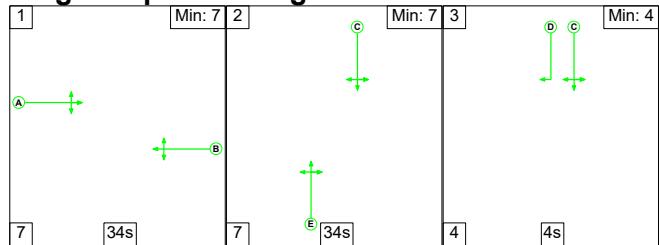
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	384	118	32	15.7	5.2	1.7	22.6	-	-	-	-
Normandy Way / Ashby Road	-	-	384	118	32	15.7	5.2	1.7	22.6	-	-	-	-
1/2+1/1	745	745	29	0	0	4.3	1.8	0.0	6.2	29.7	13.6	1.8	15.4
2/1+2/2	477	477	103	0	0	3.1	1.1	0.4	4.6	34.5	8.2	1.1	9.3
3/1+3/2	761	761	80	0	1	3.8	0.5	0.4	4.8	22.5	7.0	0.5	7.5
4/1+4/2	761	761	172	118	31	4.5	1.8	0.8	7.1	33.5	9.3	1.8	11.1
5/1	202	202	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	594	594	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1079	1079	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	484	484	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): PRC Over All Lanes (%):		14.5 14.5	Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		22.58 22.58	Cycle Time (s): 90				

Full Input Data And Results

Scenario 2: '2024 observed PM' (FG2: '2024 observed PM', Plan 1: 'Network Control Plan 1')

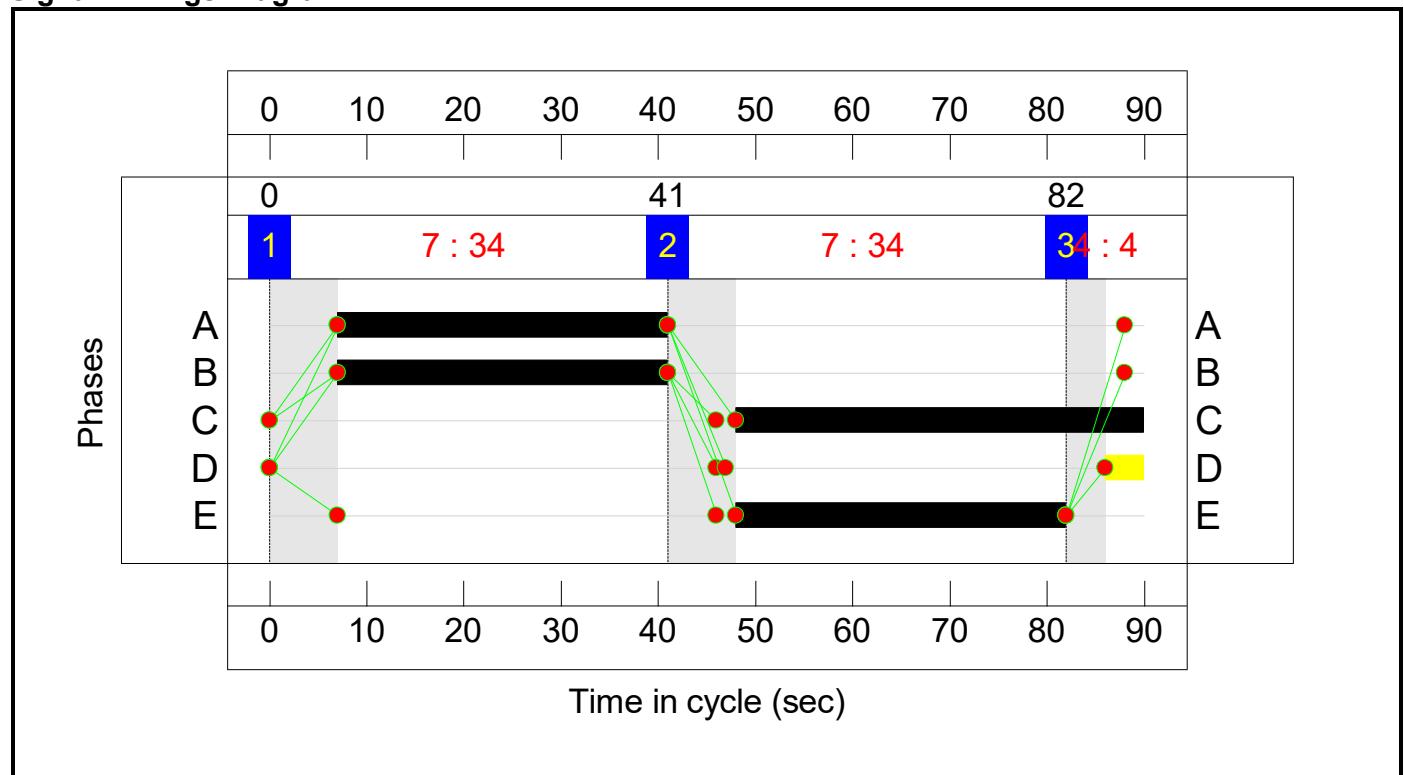
Stage Sequence Diagram



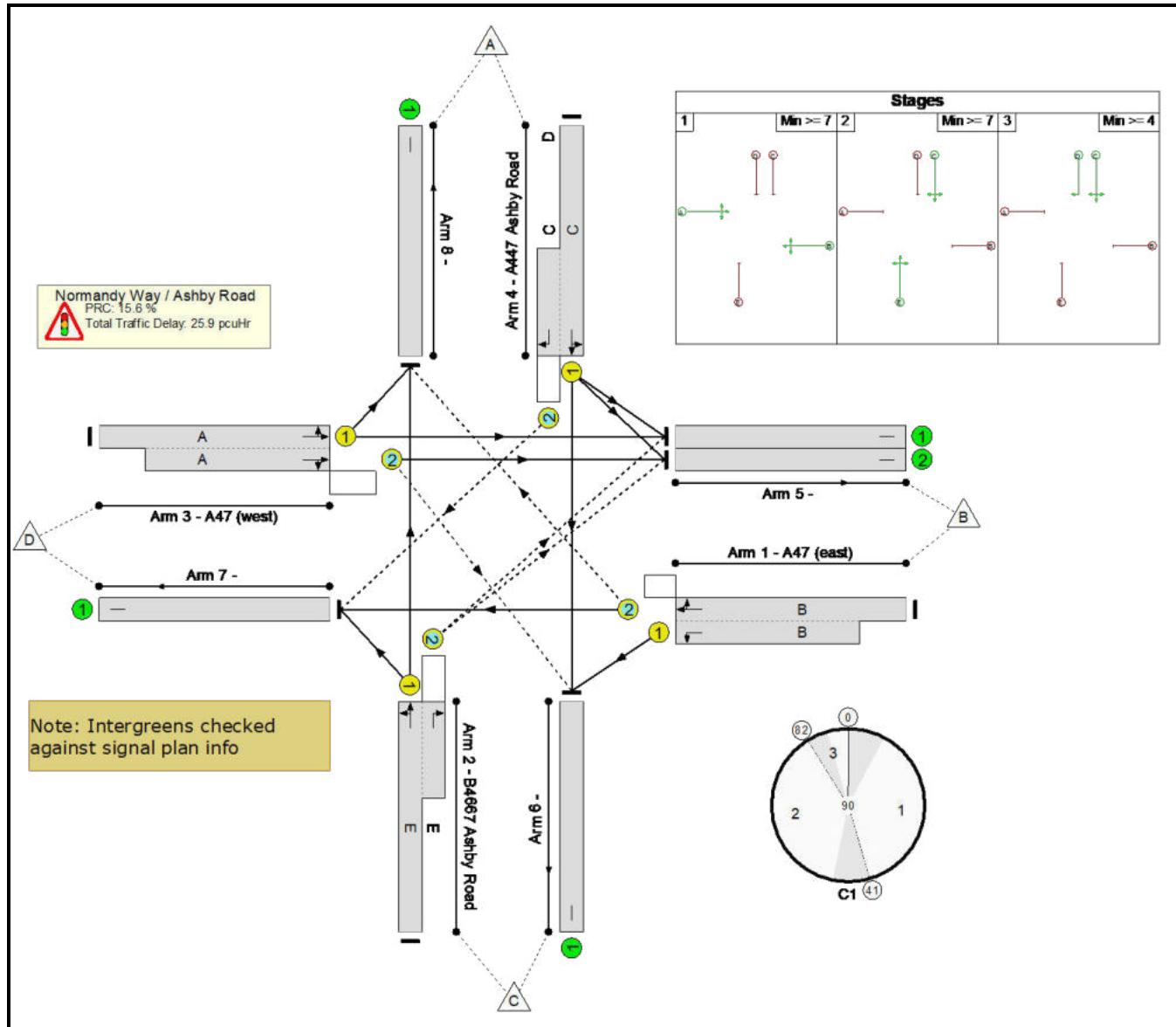
Stage Timings

Stage	1	2	3
Duration	34	34	4
Change Point	0	41	82

Signal Timings Diagram



Full Input Data And Results **Network Layout Diagram**



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	N/A	-	-		-	-	-	-	-	-	77.8%
Normandy Way / Ashby Road	-	-	N/A	-	-		-	-	-	-	-	-	77.8%
1/2+1/1	A47 (east) Left Ahead Right	O+U	N/A	N/A	B		1	34	-	747	1905:1741	741+223	77.5 : 77.5%
2/1+2/2	B4667 Ashby Road Right Left Ahead	U+O	N/A	N/A	E		1	34	-	611	1863:1797	600+206	75.9 : 75.9%
3/1+3/2	A47 (west) Ahead Right Left	U+O	N/A	N/A	A		1	34	-	884	1801:2055	635+725	65.0 : 65.0%
4/1+4/2	A447 Ashby Road Left Ahead Right	U+O	N/A	N/A	C	D	1	42	4	806	1891:1774	693+343	77.8 : 77.8%
5/1	U	N/A	N/A	-			-	-	-	139	Inf	Inf	0.0%
5/2	U	N/A	N/A	-			-	-	-	537	Inf	Inf	0.0%
6/1	U	N/A	N/A	-			-	-	-	697	Inf	Inf	0.0%
7/1	U	N/A	N/A	-			-	-	-	898	Inf	Inf	0.0%
8/1	U	N/A	N/A	-			-	-	-	777	Inf	Inf	0.0%

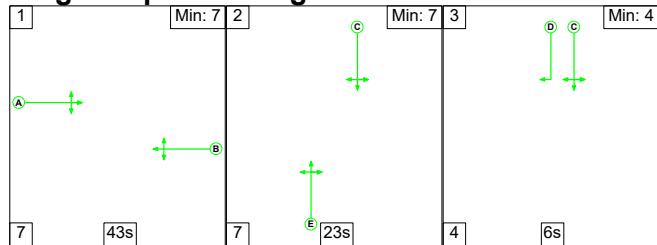
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	381	110	9	18.0	5.9	2.0	25.9	-	-	-	-
Normandy Way / Ashby Road	-	-	381	110	9	18.0	5.9	2.0	25.9	-	-	-	-
1/2+1/1	747	747	39	0	0	4.7	1.7	0.1	6.5	31.3	12.4	1.7	14.1
2/1+2/2	611	611	156	0	0	3.7	1.5	0.8	6.1	35.9	10.6	1.5	12.1
3/1+3/2	884	884	39	0	0	5.4	0.9	0.2	6.4	26.2	9.3	0.9	10.2
4/1+4/2	806	806	148	110	9	4.1	1.7	1.0	6.8	30.5	12.2	1.7	13.9
5/1	139	139	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	697	697	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	898	898	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	777	777	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): PRC Over All Lanes (%):		15.6 15.6	Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		25.87 25.87	Cycle Time (s): 90				

Full Input Data And Results

Scenario 3: '2030 'Do Nothing' AM' (FG3: '2030 'Do Nothing' AM', Plan 1: 'Network Control Plan 1')

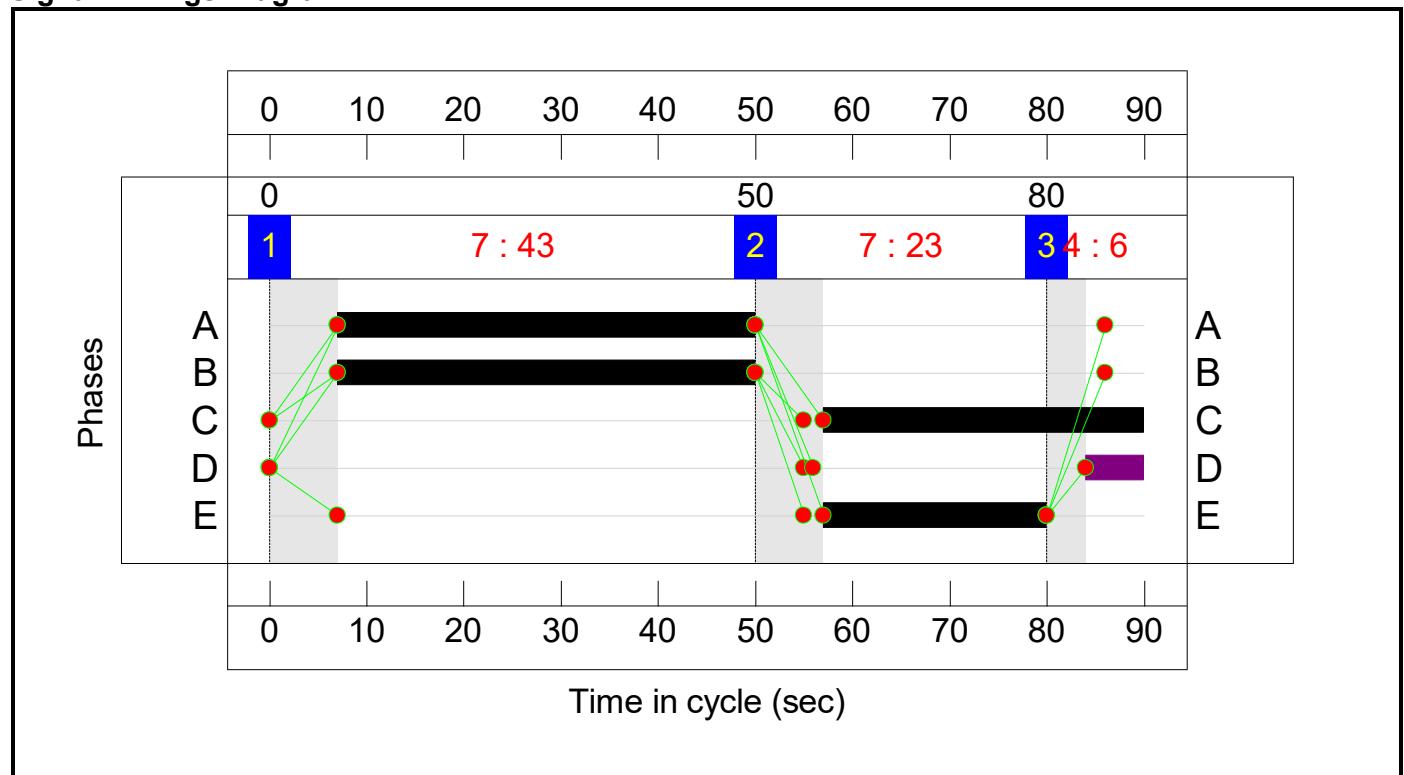
Stage Sequence Diagram



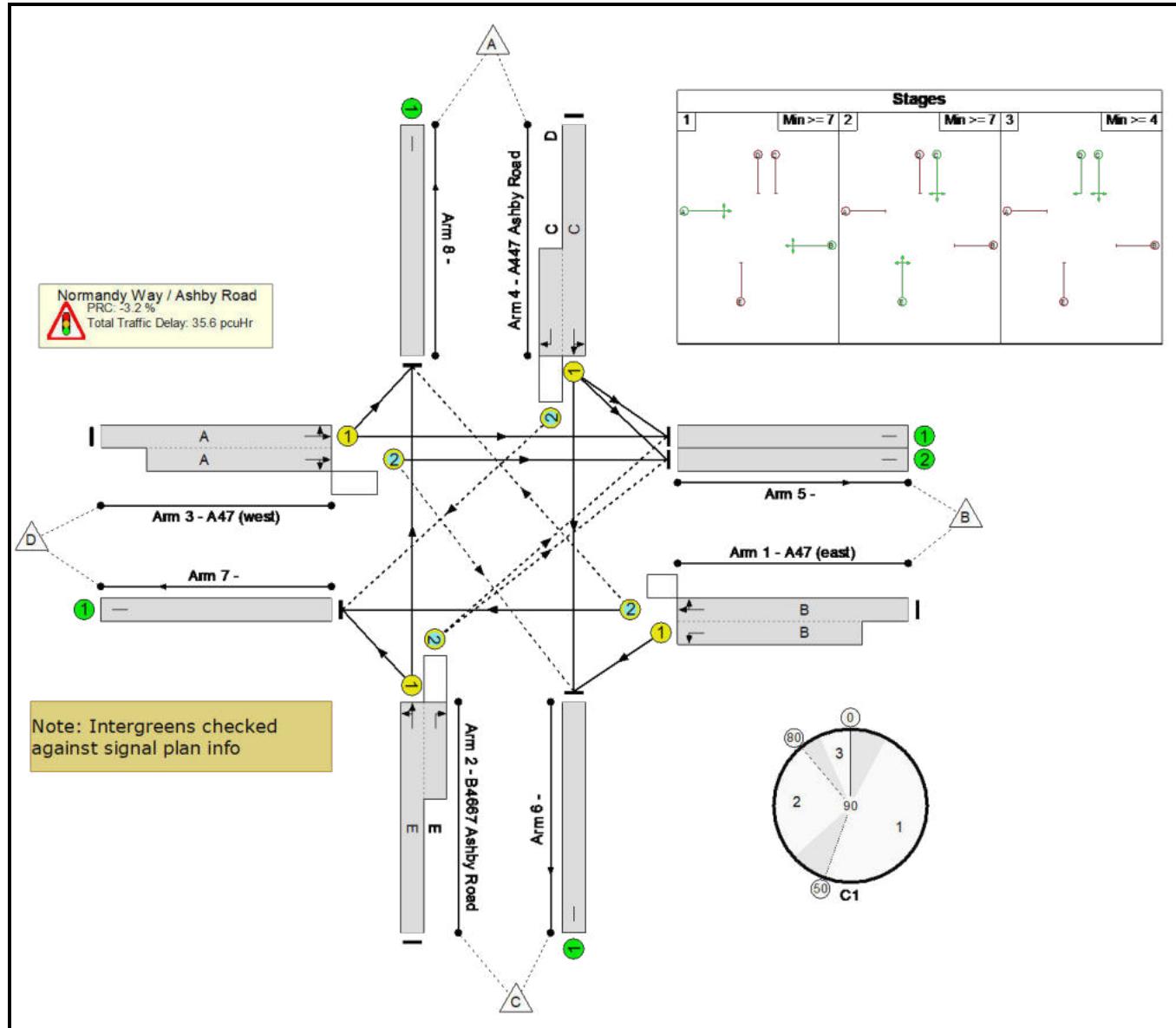
Stage Timings

Stage	1	2	3
Duration	43	23	6
Change Point	0	50	80

Signal Timings Diagram



Full Input Data And Results **Network Layout Diagram**



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	N/A	-	-	-	-	-	-	-	-	-	92.8%
Normandy Way / Ashby Road	-	-	N/A	-	-	-	-	-	-	-	-	-	92.8%
1/2+1/1	A47 (east) Left Ahead Right	O+U	N/A	N/A	B		1	43	-	967	1909:1741	907+143	92.1 : 92.1%
2/1+2/2	B4667 Ashby Road Right Left Ahead	U+O	N/A	N/A	E		1	23	-	472	1821:1797	434+130	83.6 : 83.6%
3/1+3/2	A47 (west) Ahead Right Left	U+O	N/A	N/A	A		1	43	-	935	1847:2039	561+621	79.1 : 79.1%
4/1+4/2	A447 Ashby Road Left Ahead Right	U+O	N/A	N/A	C	D	1	33	6	760	1899:1774	471+349	92.6 : 92.8%
5/1	U	N/A	N/A	-		-	-	-	-	265	Inf	Inf	0.0%
5/2	U	N/A	N/A	-		-	-	-	-	454	Inf	Inf	0.0%
6/1	U	N/A	N/A	-		-	-	-	-	644	Inf	Inf	0.0%
7/1	U	N/A	N/A	-		-	-	-	-	1283	Inf	Inf	0.0%
8/1	U	N/A	N/A	-		-	-	-	-	488	Inf	Inf	0.0%

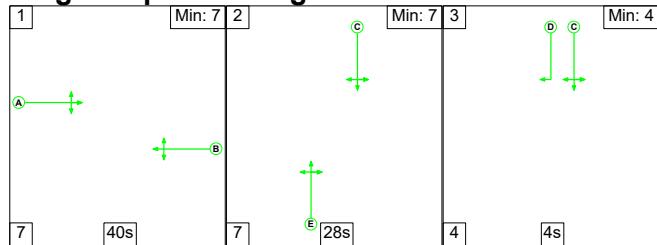
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	251	158	164	18.6	14.8	2.1	35.6	-	-	-	-
Normandy Way / Ashby Road	-	-	251	158	164	18.6	14.8	2.1	35.6	-	-	-	-
1/2+1/1	967	967	33	0	0	5.3	5.2	0.0	10.5	39.1	18.8	5.2	23.9
2/1+2/2	472	472	109	0	0	3.9	2.4	0.5	6.8	51.8	9.0	2.4	11.4
3/1+3/2	935	935	37	0	69	4.0	1.9	0.8	6.7	25.8	8.2	1.9	10.0
4/1+4/2	760	760	71	158	95	5.4	5.4	0.8	11.6	55.0	10.8	5.4	16.2
5/1	265	265	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	454	454	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	644	644	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1283	1283	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	488	488	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): PRC Over All Lanes (%):		-3.2 -3.2	Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		35.61 35.61	Cycle Time (s): 90				

Full Input Data And Results

Scenario 4: '2030 'Do Nothing' PM' (FG4: '2030 'Do Nothing' PM', Plan 1: 'Network Control Plan 1')

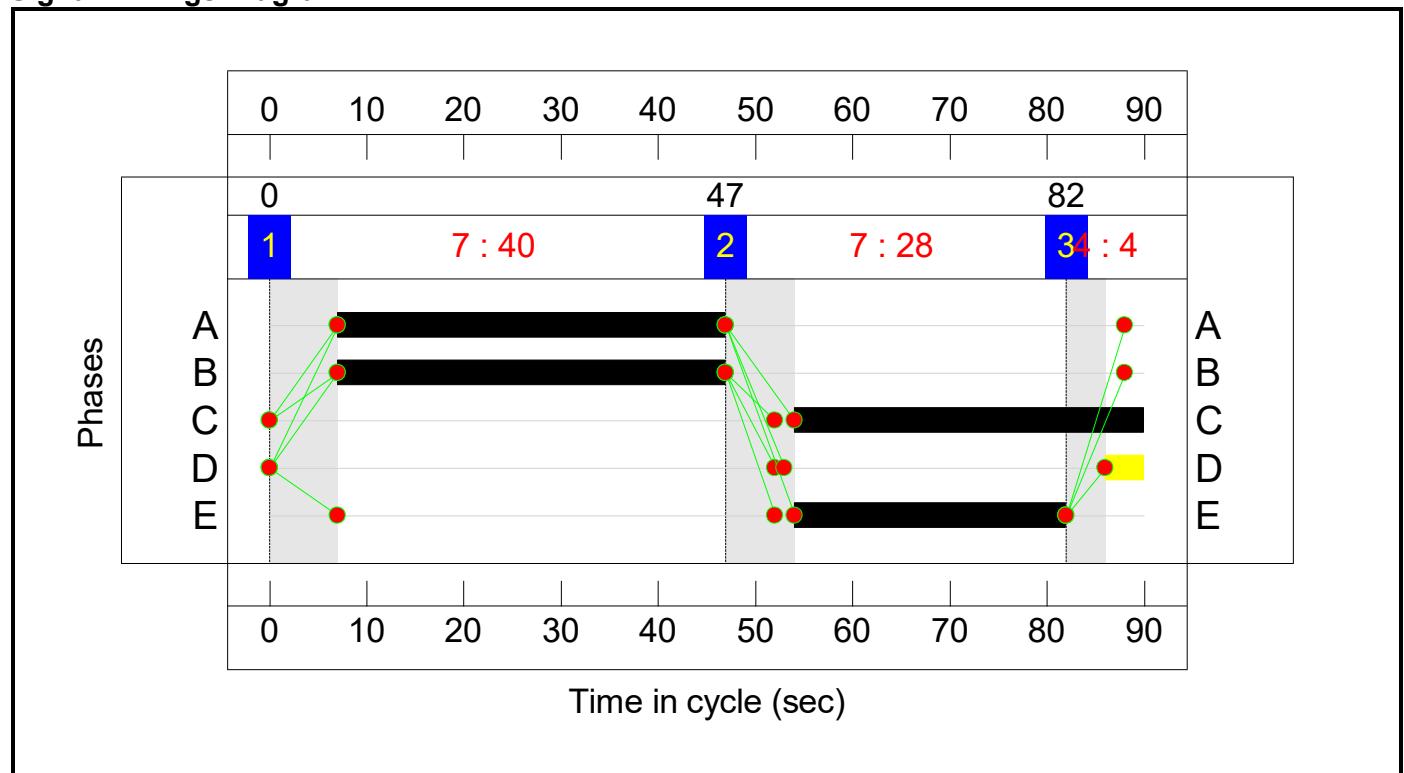
Stage Sequence Diagram



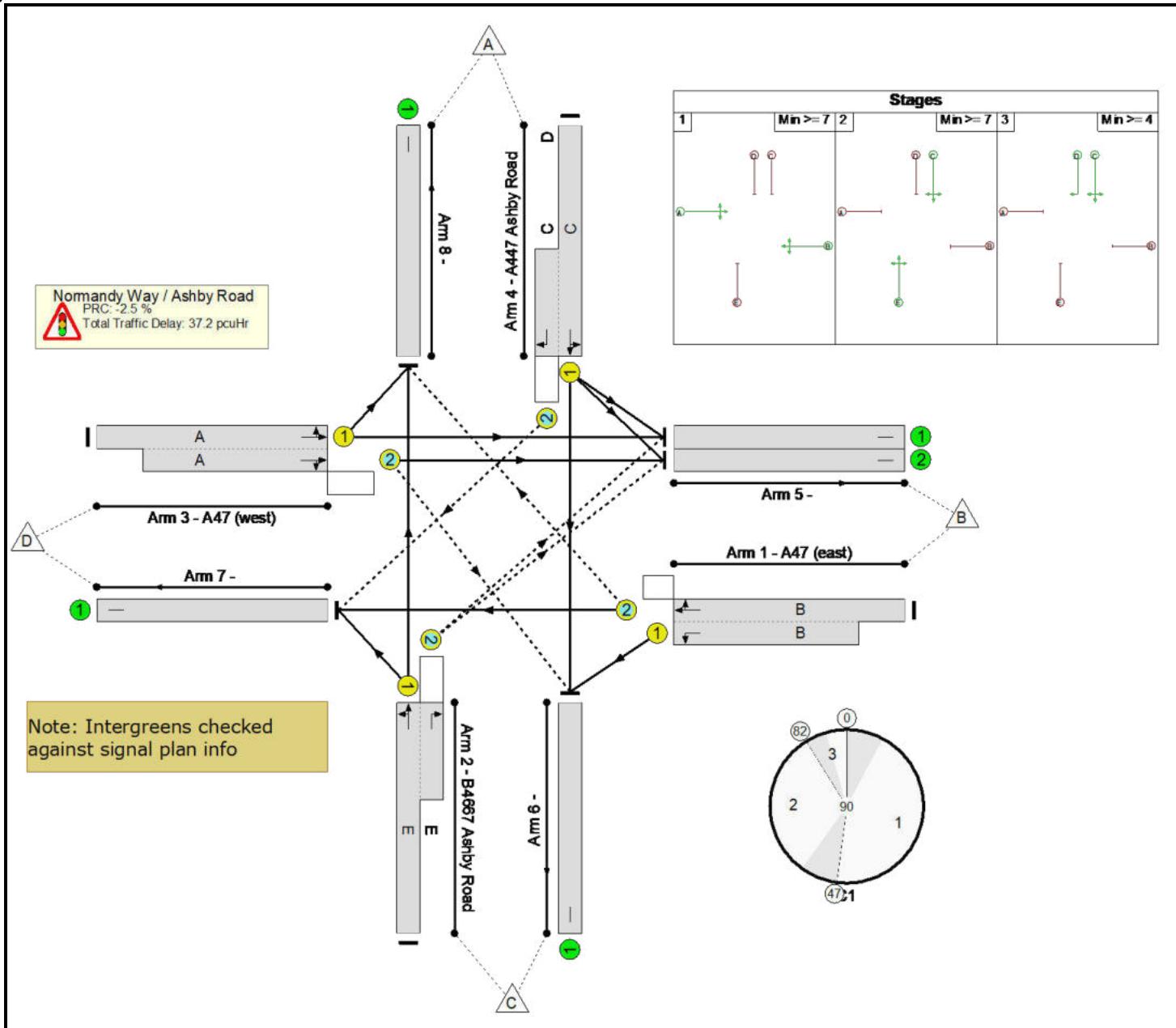
Stage Timings

Stage	1	2	3
Duration	40	28	4
Change Point	0	47	82

Signal Timings Diagram



Full Input Data And Results **Network Layout Diagram**



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	N/A	-	-	-	-	-	-	-	-	-	92.2%
Normandy Way / Ashby Road	-	-	N/A	-	-	-	-	-	-	-	-	-	92.2%
1/2+1/1	A47 (east) Left Ahead Right	O+U	N/A	N/A	B		1	40	-	1012	1907:1741	842+255	92.2 : 92.2%
2/1+2/2	B4667 Ashby Road Right Left Ahead	U+O	N/A	N/A	E		1	28	-	622	1853:1797	506+177	91.2 : 91.2%
3/1+3/2	A47 (west) Ahead Right Left	U+O	N/A	N/A	A		1	40	-	1084	1823:2050	750+619	79.2 : 79.2%
4/1+4/2	A447 Ashby Road Left Ahead Right	U+O	N/A	N/A	C	D	1	36	4	732	1895:1774	607+278	79.9 : 88.9%
5/1	U	N/A	N/A	-		-	-	-	-	253	Inf	Inf	0.0%
5/2	U	N/A	N/A	-		-	-	-	-	532	Inf	Inf	0.0%
6/1	U	N/A	N/A	-		-	-	-	-	737	Inf	Inf	0.0%
7/1	U	N/A	N/A	-		-	-	-	-	1104	Inf	Inf	0.0%
8/1	U	N/A	N/A	-		-	-	-	-	824	Inf	Inf	0.0%

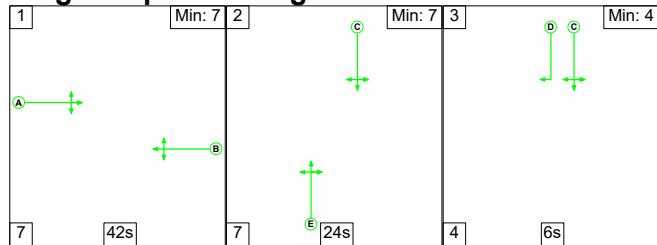
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	276	118	113	21.0	14.0	2.3	37.2	-	-	-	-
Normandy Way / Ashby Road	-	-	276	118	113	21.0	14.0	2.3	37.2	-	-	-	-
1/2+1/1	1012	1012	41	0	0	5.9	5.3	0.1	11.3	40.1	17.7	5.3	23.0
2/1+2/2	622	622	159	0	2	4.8	4.5	0.8	10.1	58.2	12.5	4.5	17.0
3/1+3/2	1084	1084	30	0	28	5.7	1.9	0.4	7.9	26.4	11.9	1.9	13.8
4/1+4/2	732	732	46	118	83	4.7	2.3	0.9	7.9	38.9	11.7	2.3	14.0
5/1	253	253	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	532	532	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	737	737	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1104	1104	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	824	824	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): PRC Over All Lanes (%):		-2.5 -2.5	Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		37.19 37.19	Cycle Time (s): 90				

Full Input Data And Results

Scenario 5: '2030 'Do Something' AM' (FG5: '2030 'Do Something' AM', Plan 1: 'Network Control Plan 1')

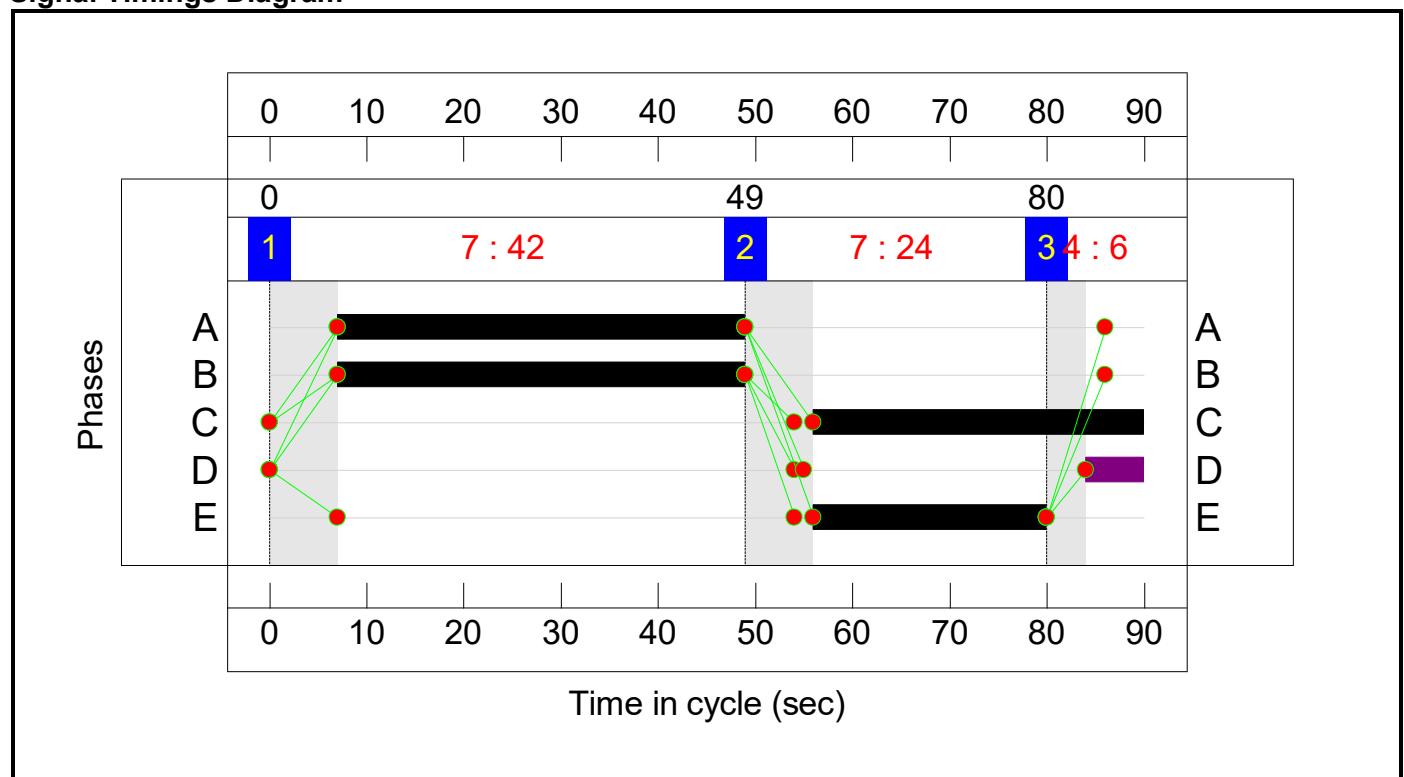
Stage Sequence Diagram



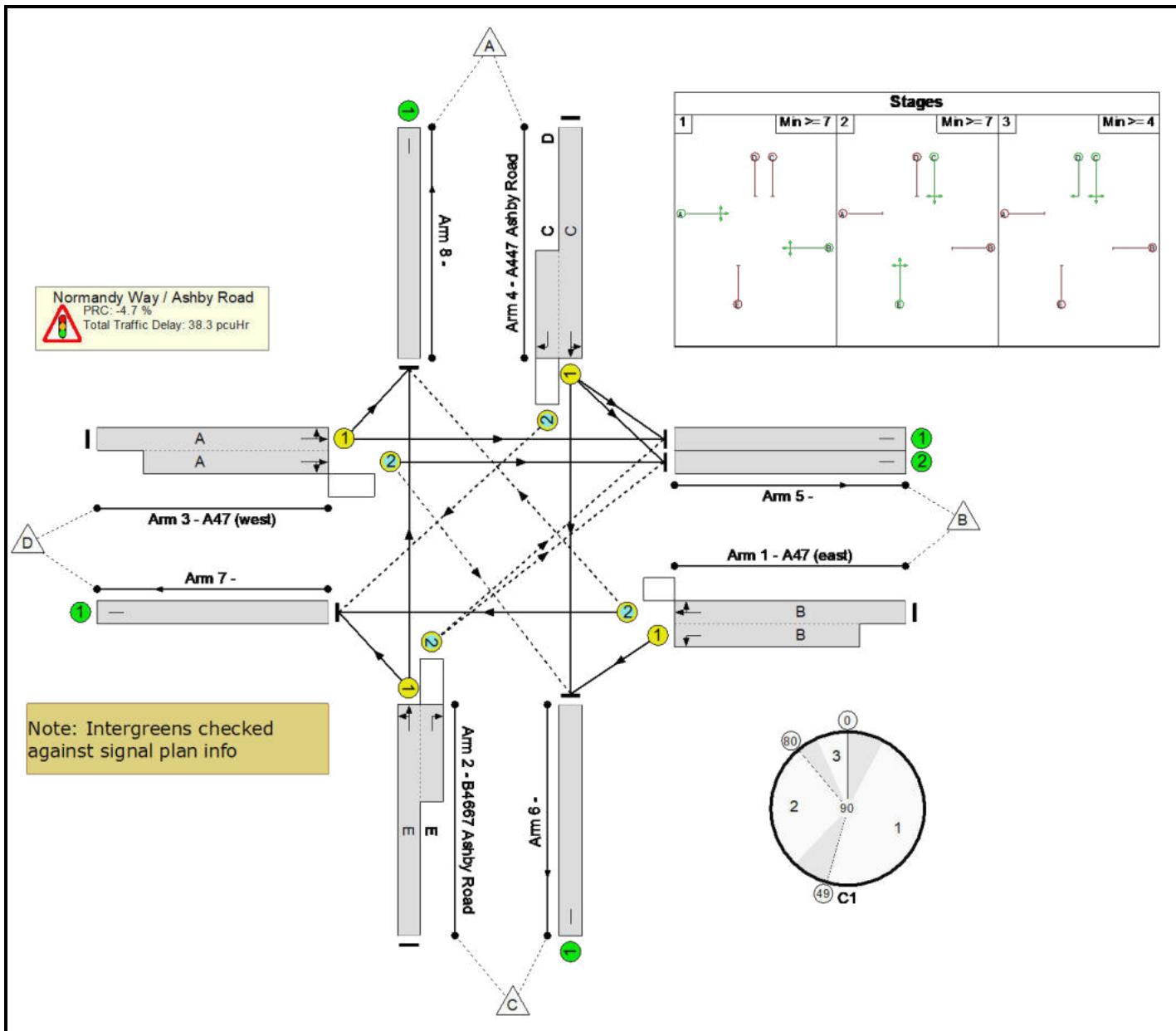
Stage Timings

Stage	1	2	3
Duration	42	24	6
Change Point	0	49	80

Signal Timings Diagram



Full Input Data And Results **Network Layout Diagram**



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	N/A	-	-	-	-	-	-	-	-	-	94.3%
Normandy Way / Ashby Road	-	-	N/A	-	-	-	-	-	-	-	-	-	94.3%
1/2+1/1	A47 (east) Left Ahead Right	O+U	N/A	N/A	B		1	42	-	971	1909:1741	889+141	94.3 : 94.3%
2/1+2/2	B4667 Ashby Road Right Left Ahead	U+O	N/A	N/A	E		1	24	-	478	1824:1797	450+136	81.6 : 81.6%
3/1+3/2	A47 (west) Ahead Right Left	U+O	N/A	N/A	A		1	42	-	938	1847:2040	554+612	80.4 : 80.4%
4/1+4/2	A447 Ashby Road Left Ahead Right	U+O	N/A	N/A	C	D	1	34	6	800	1898:1774	494+361	93.4 : 93.7%
5/1	U	N/A	N/A	-		-	-	-	-	268	Inf	Inf	0.0%
5/2	U	N/A	N/A	-		-	-	-	-	463	Inf	Inf	0.0%
6/1	U	N/A	N/A	-		-	-	-	-	662	Inf	Inf	0.0%
7/1	U	N/A	N/A	-		-	-	-	-	1293	Inf	Inf	0.0%
8/1	U	N/A	N/A	-		-	-	-	-	501	Inf	Inf	0.0%

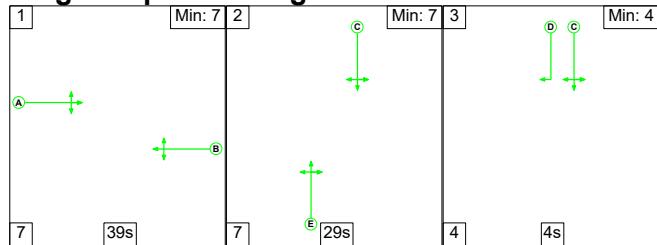
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	255	158	171	19.3	16.8	2.2	38.3	-	-	-	-
Normandy Way / Ashby Road	-	-	255	158	171	19.3	16.8	2.2	38.3	-	-	-	-
1/2+1/1	971	971	35	0	0	5.6	6.7	0.0	12.3	45.7	19.9	6.7	26.6
2/1+2/2	478	478	111	0	0	3.8	2.1	0.5	6.5	48.9	9.0	2.1	11.1
3/1+3/2	938	938	26	0	74	4.2	2.0	0.8	7.0	26.9	8.3	2.0	10.4
4/1+4/2	800	800	83	158	97	5.6	6.0	0.8	12.4	56.0	12.2	6.0	18.2
5/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	463	463	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	662	662	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1293	1293	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	501	501	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): PRC Over All Lanes (%):		-4.7 -4.7	Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		38.28 38.28	Cycle Time (s): 90				

Full Input Data And Results

Scenario 6: '2030 'Do Something' PM' (FG6: '2030 'Do Something' PM', Plan 1: 'Network Control Plan 1')

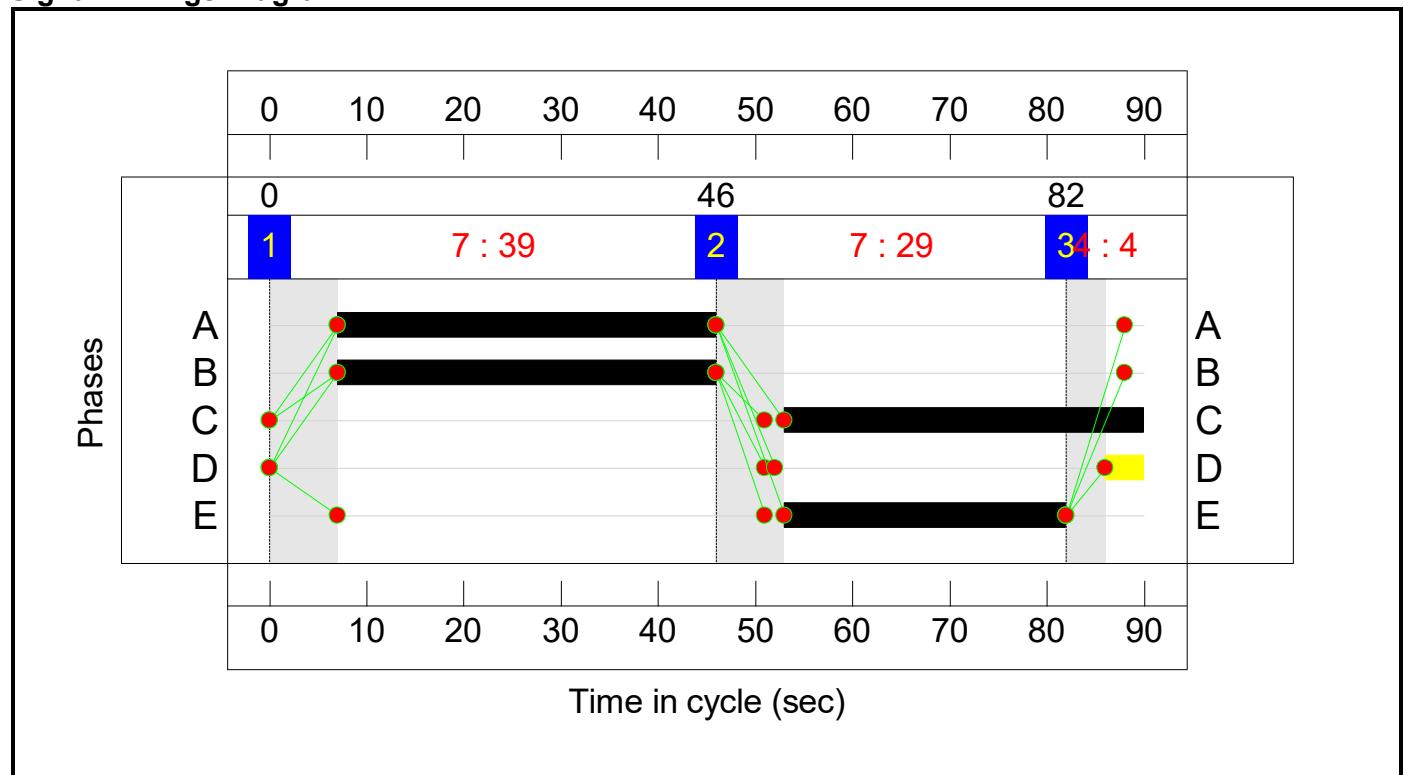
Stage Sequence Diagram



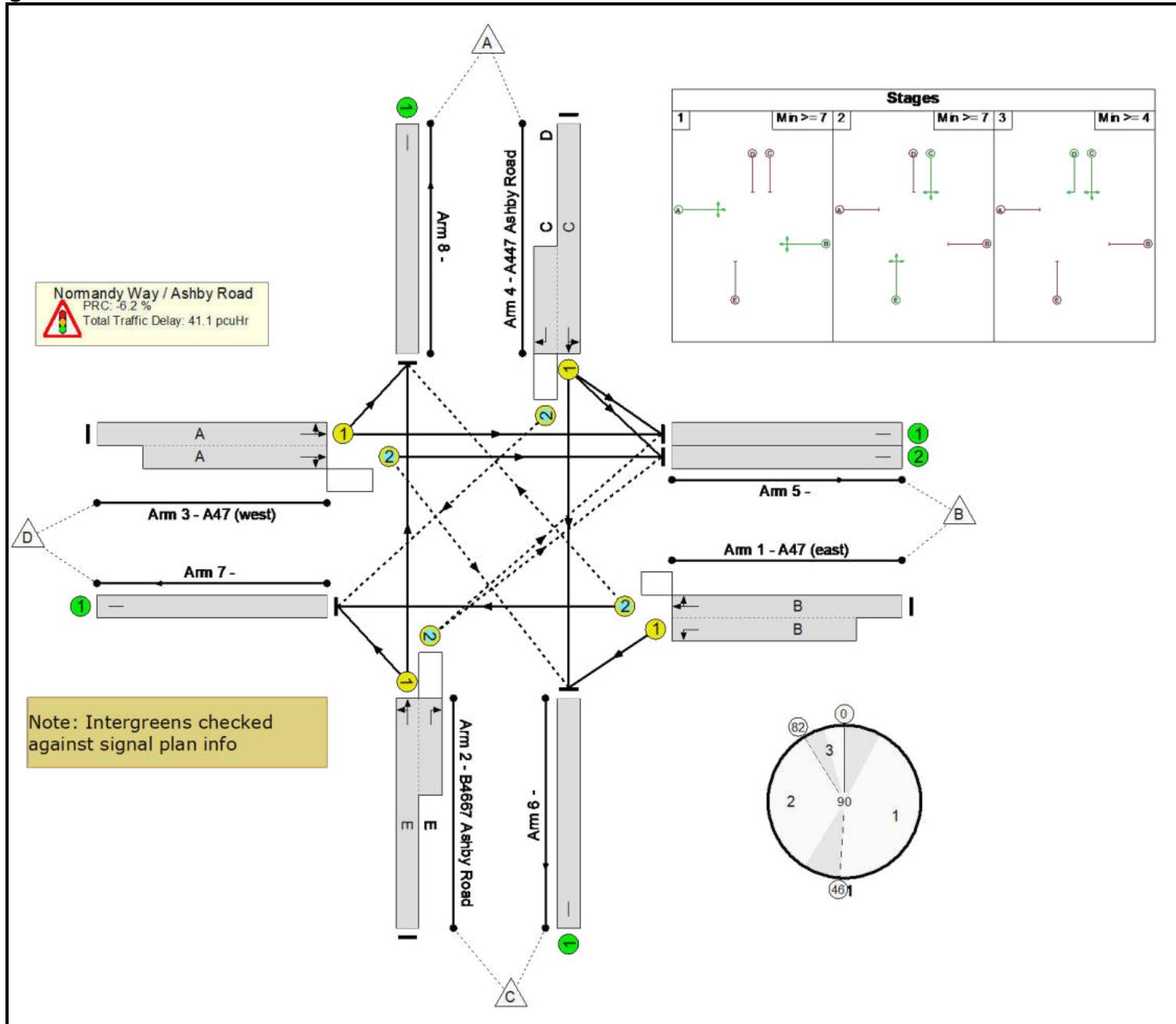
Stage Timings

Stage	1	2	3
Duration	39	29	4
Change Point	0	46	82

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	N/A	-	-		-	-	-	-	-	-	95.6%
Normandy Way / Ashby Road	-	-	N/A	-	-		-	-	-	-	-	-	95.6%
1/2+1/1	A47 (east) Left Ahead Right	O+U	N/A	N/A	B		1	39	-	1028	1906:1741	826+249	95.6 : 95.6%
2/1+2/2	B4667 Ashby Road Right Left Ahead	U+O	N/A	N/A	E		1	29	-	635	1857:1797	523+178	90.5 : 91.2%
3/1+3/2	A47 (west) Ahead Right Left	U+O	N/A	N/A	A		1	39	-	1094	1822:2052	739+597	81.9 : 81.9%
4/1+4/2	A447 Ashby Road Left Ahead Right	U+O	N/A	N/A	C	D	1	37	4	752	1893:1774	623+278	80.5 : 90.0%
5/1		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	540	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	747	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1108	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	862	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A47 Normandy Way / B4667 Ashby Road	-	-	271	118	123	21.7	17.0	2.3	41.1	-	-	-	-
Normandy Way / Ashby Road	-	-	271	118	123	21.7	17.0	2.3	41.1	-	-	-	-
1/2+1/1	1028	1028	47	0	0	6.3	8.1	0.2	14.5	50.9	18.7	8.1	26.7
2/1+2/2	635	635	157	0	5	4.8	4.3	0.8	9.9	56.1	12.8	4.3	17.1
3/1+3/2	1094	1094	16	0	37	6.0	2.2	0.4	8.6	28.2	12.4	2.2	14.7
4/1+4/2	752	752	51	118	81	4.7	2.4	1.0	8.1	38.7	12.2	2.4	14.6
5/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	540	540	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	747	747	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1108	1108	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	862	862	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): PRC Over All Lanes (%):		-6.2 -6.2	Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		41.06 41.06	Cycle Time (s): 90				