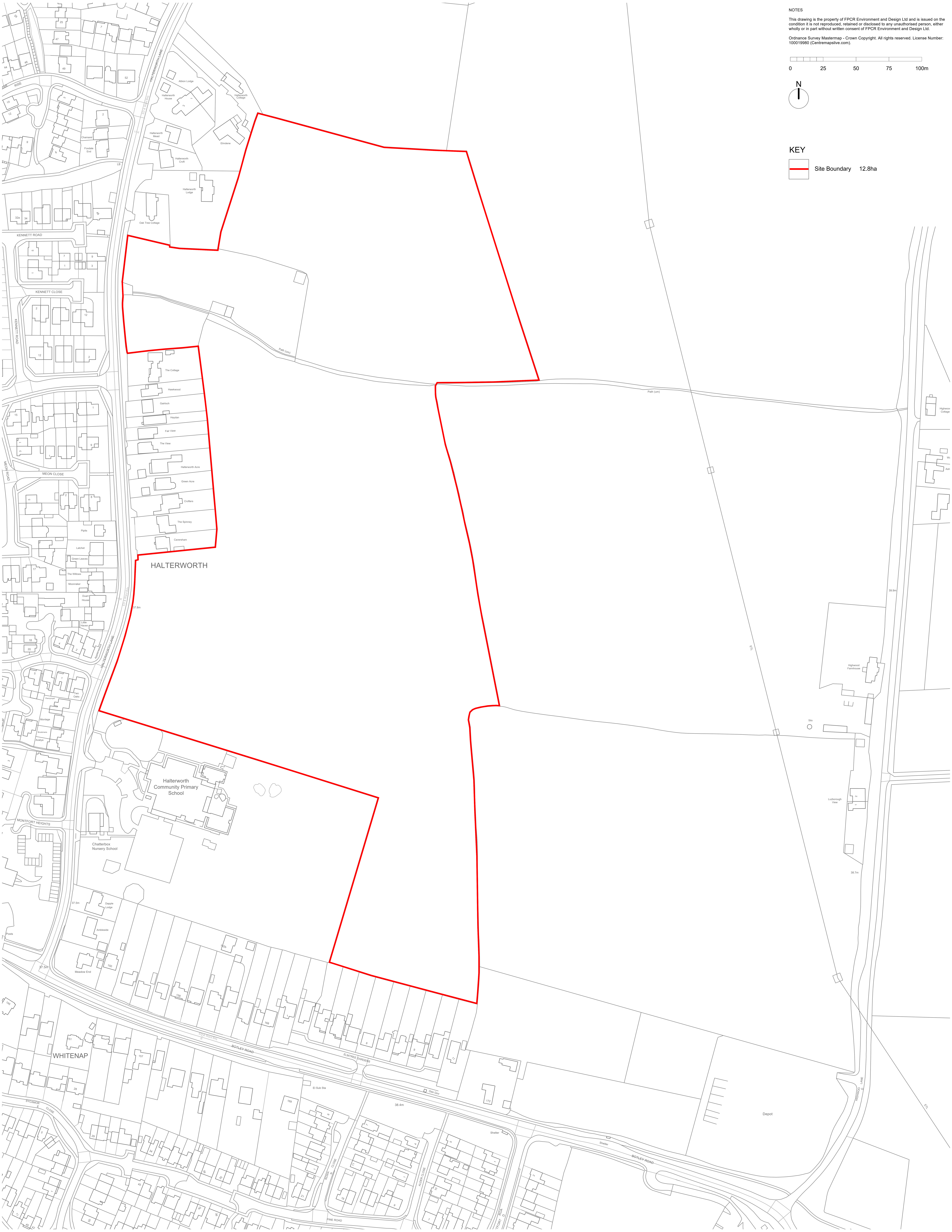
Appendix 1.1

Location Plan

"This page has been left blank intentionally".



NOTES

This drawing is the property of FPCR Environment and Design Ltd and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without written consent of FPCR Environment and Design Ltd.

Ordnance Survey Mastermap - Crown Copyright. All rights reserved. License Number: 100019980 (Centremapslive.com).

0 25 50 75 100m

N

KEY

Site Boundary 12.8ha

9840
Halterworth Lane, Romsey
Gladman Developments Ltd

Location Plan

S1 1:1250 @ A1
January 2024 CTH / KMN
09840-FPCR-ZZ-ZZ-DR-L-0004 issue P02

Project Code - Originator - Zone - Level - Type - Role - Drawing Number

masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture

fpcr

FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby
DE74 2RH

t: 01509 672772
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

File: K:\9800\9840\LANDS\Plans\09840-FPCR-ZZ-ZZ-DR-L-0002 P09.vwx

"This page has been left blank intentionally".

Appendix 1.2

Development Framework Plan

"This page has been left blank intentionally".

KEY

- Site Boundary 12.8ha
- Proposed Residential Development Area 7.10ha up to 270 dwellings @ 38dph
- Land for Potential Expansion of Primary School 1.09ha
- Potential Primary School and Visitor Car Parking (0.06ha)
- Potential Site Access (Vehicular)
- Internal Roads (Circa 0.10ha through POS)

Green Infrastructure (4.45ha)

- Existing hedgerows and trees to be retained
- Proposed Structural Landscape Woodland/Trees/Hedgerow
- Proposed Area of Open Space
- Proposed Public Open Space
- Proposed Play (LEAP)
- Proposed SuDS Basin / Ecology Pond

- Existing Public Right of Way (PRoW - with reference)
- Proposed Footpaths
- Existing Veteran Tree Root Protection Area

Public Open Space Policy LHW1 – Test Valley Borough Council (2011-2029)			
Green Infrastructure Type (the provision of open space to a standard of at least 3 hectares per 1,000 population comprising:)	Local Plan Requirement	Proposed	Provision Above Requirement
Outdoor Sports Facilities	1.0ha per 1000 population = 0.65ha	Off Site Provision	**n/a**
Parks and public gardens	0.4ha per 1000 population = 0.26ha	**0.49**	**0.23ha**
Informal recreation areas	0.8ha per 1000 population = 0.52ha	**3.92ha** (including existing GI)	**3.40ha**
Provision for children and teenagers	0.6ha per 1000 population = 0.39ha	**0.04**	**- 0.35ha**
Allotments	0.2ha per 1000 population = 0.13ha	Off Site Provision	Off Site Provision
NB: Above Calculations based on 270 dwellings at 2.4 persons per dwelling (= 648 pop)			
NB: Internal Roads (Circa 0.10ha through open space) and Land for Potential Primary School Car Park and Visitor Parking (0.06ha)		**circa 0.16** (Total road access through open space)	**n/a**

9840
Halterworth Lane, Romsey
Gladman Developments Ltd

Development Framework

S3 1:1250 @ A1
January 2024 MPS / KMN
09840-FPCR-ZZ-ZZ-DR-L-0002 issue P09
Project Code - Originator - Zone - Level - Type - Role - Drawing Number

fpcr
masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture
FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby
DE74 2RH
t: 01509 672772
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

File: K:\9800\9840\LANDS\Plans\09840-FPCR-ZZ-ZZ-DR-L-0002-P09.vwx

"This page has been left blank intentionally".

Appendix 1.3

Land Use and Access Parameter Plan

"This page has been left blank intentionally".

NOTES

0 25 50 75 100m

N

KEY

- Site Boundary
- Proposed Development Area
- Proposed Extension to Primary School
- Proposed Site Accesses
- Indicative roads including highway, verge, tree planting and footpath (road location may vary by 10m in all directions)
- Green Infrastructure to include SuDS, Pumping Station, Planting, Footpaths and Play Facilities
- Existing Public Right of Way
- Existing Hedgerows and Trees
- Existing Veteran Tree Root Protection Area

9840
Halterworth Lane, Romsey
Gladman Developments Ltd

Land Use and Access Parameter Plan

S3 1:1250 @ A1
January 2024 MPS / KMN
09840-FPCR-ZZ-ZZ-DR-L-0003 issue P03
Project Code - Originator - Zone - Level - Type - Role - Drawing Number

masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture

FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby
DE74 2RH

t: 01509 672772
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

File: K:\9800\9840\LANDS\Plans\09840-FPCR-ZZ-ZZ-DR-L-0002 P09.vwx

"This page has been left blank intentionally".

Appendix 6.1

Transport Assessment

"This page has been left blank intentionally".

Prime
Transport Planning

Appendix 6.1:

Transport Assessment

Halterworth Lane, Romsey,
Hampshire

Client: Gladman Developments Ltd

Document Control		
Report Reference	P21004/TA	
Document Version	Final Revision A	
File Reference	N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\7.Reports\TA	
Date	January 2024	
Client	Gladman Developments Ltd	
	Name	**Position**
Written By	Edward Atherton Ben Gaze	Graduate Transport Planner Senior Transport Planner
Checked & Approved By	David Stoddart	Associate Director

CONTENTS

APPENDICES

Appendix A	Scoping Correspondence
Appendix B	Figures
Appendix C	Raw Traffic Data
Appendix D	Traffic Flow Diagrams
Appendix E	Technical Drawings
Appendix F	WCHAR
Appendix G	National Road Traffic Projections Calculation
Appendix H	TRICS Output
Appendix I	2011 MTW Distribution Calculation
Appendix J	Capacity Assessment Report Outputs
Appendix K	Accident Plot & Reports
Appendix L	Stage 1 Road Safety Audit

This page has been left intentionally blank

1 INTRODUCTION

1.1 Purpose of Report

1.1.1 This Transport Assessment (TA) considers the highways and transportation implications associated with a proposed residential development on land at Halterworth Lane, Romsey, Hampshire.

1.1.2 This document has been produced to form part of an outline planning application for demolition of existing buildings and the erection of up to 270 dwellings, including affordable housing, with land for the potential future expansion of Halterworth Primary School, public open space, structural planting and landscaping, sustainable drainage system (SuDS) and vehicular access points. All matters reserved except for means of vehicular access.

1.1.3 Test Valley Brough Council (TVBC) is the Local Planning Authority (LPA) for the area, whilst Hampshire County Council (HCC) is the Local Highway Authority (LHA).

1.1.4 Prime Transport Planning (Prime) has produced this TA on behalf of the Applicant, Gladman Developments Ltd (Gladman). It has been prepared alongside a Travel Plan (TP), which should be read in conjunction with this TA. The TP outlines the Applicant's commitment to promoting and encouraging travel by sustainable modes.

1.1.5 Both documents form appendices to an Environmental Statement (ES) which has been prepared as part of an Environmental Impact Assessment (EIA). Chapter 6 Traffic and Transport links to this TA as well as the TP.

1.1.6 This TA has been prepared in accordance with the Government's Planning Practice Guidance: Transport evidence bases in plan making and decision taking (2014) and Travel Plans, Transport Assessments and Statements (2015), as well as the Department for Transport's (DfT) Guidance on Transport Assessment (GTA) (2007) and DfT Circular 01/2022 Strategic Road Network and the Delivery of Sustainable Development (2022).

1.1.7 Given that this document supports the EIA, elements of the assessment have also been undertaken in line with the Institute of Environmental Management and Assessment (IEMA) Guidelines: *Environmental Assessment of Traffic and Movement* (2023) (the 2023 IEMA Guidelines) which are detailed further in ES Chapter 6.

1.1.8 The conclusions and recommendations contained herein have been drawn based on information available and obtained in advance of the planning submission to which this report relates.

1.1.9 Reasonable checks have been carried out on any third-party information used in the preparation of this report but, nonetheless, Prime accepts no liability for the accuracy or otherwise of this data.

1.1.10 Third-party rights are excluded for the use of information contained within this report.

1.2 Scope of Report

1.2.1 As stated above, this report has been prepared in accordance with *Transport evidence bases in plan making and decision taking,* which replaced the DfT's GTA in 2014. However, the new document is not a like-for-like replacement for GTA, providing no guidance on the production of Transport Assessments to accompany developments. The latest guidance instead helps local planning authorities assess strategic transport needs to reflect and, where appropriate, mitigate these in their Local Plan.

1.2.2 More relevant information is provided within the PPG under *Travel Plans, Transport Assessments and Statements,* however, this also does not provide the level of detailed guidance that was contained within DfT's GTA.

1.2.3 Given that GTA was in place for 7-years, Prime believes that assessment in-line with the document still represents industry best-practice, particularly for aspects where the current guidance lacks the necessary detail to form a robust assessment.

1.2.4 An email-based scoping exercise was undertaken with the LHA, with an initial Scoping Note (SN) highlighting the proposed methodology being submitted to the highway officers at HCC on 11th September 2023, and HCC responding on 27th October 2023 with further discussions taking place up to 31st October.

1.2.5 Given the Site's proximity to the strategic road network (SRN), namely the M27, the SN was also sent to National Highways (NH) on 13th November 2023, with NH responding on 4th December 2023. The original SN and both the HCC and NH response are provided in Appendix A.

1.2.6 The remainder of this report is structured as follows:

- Section 2 describes the relevant local and national transport policy and guidance;
- Section 3 describes the existing situation in terms of the Site, local highway network and site visit observations;
- Section 4 details the baseline traffic survey data used for the traffic impact assessment and proposed Site access design;
- Section 5 details the development proposal including the access strategy and parking arrangements;
- Section 6 details access to the Site by sustainable modes of travel, which includes walking, cycling and public transport and provides a summary of the TP;
- Section 7 discusses the traffic forecasting methodology and trip generation of the development proposals;
- Section 8 presents the results of a traffic impact assessment which considers the ability of the proposed Site accesses and off-site junctions to accommodate the traffic likely to be generated by the proposed development;

- Section 9 reviews the recent accident records for the local highway network and presents a Stage 1 Road Safey Audit along with a Designers' Response; and
- Section 10 concludes the findings of the TA.

This page has been left intentionally blank

2 TRANSPORT POLICY & GUIDANCE

2.1 Introduction

2.1.1 It is important that any new developments conform to and compliment national and local planning policy. This section details the policies that are relevant to the development.

2.2 National Planning Policy Framework

2.2.1 The current *National Planning Policy Framework* (NPPF) was published in December 2023 and sets out the Government's current planning policies. At the heart of NPPF is *'a presumption in favour of sustainable development'* as detailed in paragraphs 10 and 11.

2.2.2 Section 9 of the NPPF, *Promoting sustainable transport*, outlines the important role that the planning system has in facilitating sustainable development. It states in paragraph 109 that:

> *'Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health.'*

2.2.3 The document offers guidance for planning policies including:

- supporting appropriate mixes of land uses;
- minimising the number and length of journeys;
- actively involving local highway authorities, transport infrastructure providers and operators and neighbouring councils in order to align strategies and investments for supporting sustainable travel; and
- providing high quality walking and cycling networks and associated supporting facilities such as cycle parking.

2.2.4 Paragraph 114 of the NPPF provides direction for the assessment of sites for development, stating:

> *'…it should be ensured that:*
>
> *a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
>
> *b) safe and suitable access to the site can be achieved for all users; and*
>
> *c) 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;*

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.'

2.2.5 In determining planning applications, paragraph 115 states that:

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

2.2.6 Paragraph 116 continues:

'Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

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

2.2.7 Paragraph 117 highlights the need for planning applications for developments that will *'generate significant amounts of movement'* to be accompanied by a Transport Assessment or Transport Statement and a Travel Plan so that the *'likely impacts of the proposal can be assessed'*.

2.2.8 Paragraph 102 highlights the importance of access to open spaces as well as opportunities for sport and physical activity in the context of the health and well-being of communities. Paragraph 104 continues to include the importance of access to and the enhancement of public rights of way (PRoW).

2.3 Planning Practice Guidance

2.3.1 The theme of sustainable development runs throughout Planning Practice Guidance, with the detailed elements regarding transport being focussed in the following sections:

- Transport evidence bases in plan making and decision taking; and
- Travel Plans, Transport Assessments and Statements.

2.3.2 Both sections of the Guidance provide significant amounts of detail on the information types and sources that are appropriate for helping LPAs to take forward their Local Plan with an appropriate evidence base. The Guidance is also a useful reference for assessing schemes such as the development which this report accompanies.

2.4 DfT Circular 01/2022 Strategic Road Network and the Delivery of Sustainable Development (2022)

2.4.1 Written by the DfT for its executive arm NH, this document provides an update of Circular 02/2013, and therefore sets out the way in which NH will engage in the planning system to deliver sustainable development, whilst safeguarding the primary purpose of the strategic road network.

2.4.2 The Circular aligns with the NPPF in implying the need for mitigation when development would have an *'unacceptable safety impact or the residual cumulative impacts would be severe'*.

2.4.3 The Circular does however move away from the 'predict and provide' approach and prioritises vision-led approaches including 'vision and validate', 'decide and provide' and 'monitor and manage'. It also places a clear ethos on the importance of maximising the potential for sustainable travel initiatives and places this ahead of capacity enhancements on the SRN. Travel Plans are cited as being an effective means to help incentivise the use of sustainable modes.

2.4.4 Early engagement with NH is encouraged and overarching details of acceptable assessment methodologies are presented.

2.5 Planning for the Future (2023)

2.5.1 This document is a *'guide to working with National Highways on planning matters'*. It details the motorway and trunk road authority's role in the planning process and links with Circular 01/2022. The following six planning values are outlined:

- Maintain safety;
- Engage early;
- Work openly;
- Share evidence;
- Share knowledge and experience; and
- Work collaboratively.

2.5.2 The importance of early engagement with NH is highlighted and this has been undertaken for this project.

2.6 Active Travel England Standing Advice Note: Active Travel and Sustainable Development

2.6.1 Active Travel England (ATE) is a statutory consultee on all new residential developments in England which exceed 150 residential units. This particular document is intended specifically for LPAs outside of Greater London and sets out how ATE will assess new development proposals. The document states that TAs must:

- *'Forecast the multi-modal movements generated by a development, quantifying the additional trip generation and the distribution and assignment;*
- *Provide a qualitative analysis of the current infrastructure in the surrounding area (which may include using the Cycling Level of Service Tool in LTN 1/20), taking into account how additional movements across all modes of transport will impact upon the capacity of public transport, walking, wheeling and cycling networks; and*
- *Provide detail (and justification) of any proposed improvements to infrastructure and the proposed delivery mechanism, as well as any other supporting strategies that seek to enable an increase in walking, wheeling and cycling rates.'*

2.6.2 The document also provides guidance on street design, stating:

- *'Within the red line boundary of the site, any new or improved residential/local streets should be designed (no centre line, horizontal deflection, narrow width) and signed for vehicles to travel at a maximum speed of 20mph, while other streets should be designed and signed for speeds of no more than 30mph.'*

2.6.3 It should be noted that ATE acknowledge that their latest guidance is largely emphasising existing guidance set out in national planning policy documentation, notably NPPF and Manual for Streets.

2.7 Manual for Streets and Technical Guidance Notes

2.7.1 *Manual for Streets* (MfS) was published on behalf of the DfT and Communities and Local Government in March 2007 and provides advice for the design of residential streets in England and Wales.

2.7.2 The focus of MfS is to demonstrate the:

> *'benefits that flow from good design and assigns a higher priority to pedestrians and cyclists, setting out an approach to residential streets that recognises their role in creating places that work for all members of the community. MfS refocuses on the place function of residential streets, giving clear guidance on how to achieve well-designed streets and spaces that serve the community in a range of ways' (MfS page 7).*

2.7.3 The guidance addresses many common design principles and discusses detailed design issues, often presenting recommended design criteria. Some of the key principles of MfS include:

- The need to shift from focusing on designing for motor vehicles to designing streets around the needs of pedestrians, cyclists and public transport users which in turn enhances safety;
- Good design can help to create and strengthen a sense of place and community;
- Creating streets that are permeable and offer good quality connections to main destinations for all road users;
- Inclusive design that recognises the needs of people of all ages and abilities; and
- Cost-effective construction often by avoiding over-designing.

2.7.4 In September 2010 a companion document *Manual for Streets 2 - wider application of the principles* (MfS2) was published. This document expands on some of the design principles of MfS and provides examples of places where designs based on these principles have been implemented.

2.7.5 HCC has produced a series of *Technical Guidance Notes* to replace its *Companion Document to Manual for Streets* which, for a time, sat alongside MfS.

2.8 Hampshire Local Transport Plan 4 (LTP4)

2.8.1 HCC is currently developing the fourth iteration of its LTP which will guide transport policy in Hampshire up to 2050. At the time of writing this TA a draft version of LTP4 is the latest available version of the document on HCC's website. Whilst the document is in draft, HCC clearly states that its predecessor, LTP3, *'is no longer relevant to today's challenges and opportunities'*, therefore we consider LTP4 to represent current policy.

2.8.2 At the core of LTP4 are two guiding principles which are as follows:

- **Guiding Principle 1**: Significantly reduce dependency on the private car; and
- **Guiding Principle 2**: Provide a transport system that promotes high quality, prosperous places and puts people first.

2.8.3 To deliver these principles, the following policies are outlined in Part D of LTP4:

- **Policy C1**: Putting people and places at the heart of our decisions;
- **Policy C2**: Efficient and sustainable movement of goods;
- **Policy C3**: Transport strategies and schemes to be developed in accordance with consideration of all users (Road User Utility Framework);
- **Policy C4**: Place climate change at the heart of decision-making;
- **Policy C5**: Support local living and reduce demands on transport;
- **Policy C6**: Encourage sustainable travel behaviour;
- **Policy C7**: A Safe Systems approach for Hampshire;
- **Policy C8**: Managing the harmful health effects of poor air quality and noise disturbance due to transport; and
- **Policy C9**: Protecting the environment.

2.9 Test Valley Borough Revised Local Plan DPD

2.9.1 The Test Valley Borough Revised Local Plan (2011-2029) was adopted in January 2016 and forms the main part of the Development Plan for the Borough.

2.9.2 The document sets out a vision for the future development of the Borough between 2011-2029, which is to 'create a Test Valley community where everyone has the opportunity to fulfil their potential and to enjoy a good quality of life'.

2.9.3 The Local Plan has eight key themes, which are as follows:

- Local Communities;
- Local Economy;
- Environment;
- Leisure;
- Health and Wellbeing;
- Transport;
- Community Safety; and
- Education and Learning.

2.9.4 Within the document, 15 objectives are set out, with Objective 13 related to *Transport,* which states the following:

> *'Encourage use of public transport, cycling and walking networks to help reduce reliance on cars and provide choice'.*

2.9.5 Further to this, Chapter 9 of the document is dedicated to *Transport* and outlines transport related policies, which are as follows:

Policy T1: Managing Movement

2.9.6 This policy is particularly relevant to the Site and states that development will be permitted provided that:

- *'Its location is connected with existing and proposed pedestrian, cycle and public transport links to key destinations and networks; and*
- *Measures are in place to minimise its impact on the highway network and rights of way network and pedestrian, cycle or public transport users; and*
- *The internal layout, access and highway network is safe, attractive in character, functional and accessible for all users and does not discourage existing and proposed users; and*
- *It does not have an adverse impact on the function, safety and character of and accessibility to the local or strategic highway network or rights of way network; and*

- *Provision is made to support and promote the use of sustainable transport, including the submission of a site travel plan where appropriate.'*

2.9.7 The document explains the above policy by stating that 'to encourage sustainable modes of transport, the location, design and layout of development will need to show primacy being given to walking, cycling and public transport'. Notably, the DPD goes on to acknowledge that the above must be viewed in the context of the development location, stating that 'the Council recognises that in some rural locations and for some proposals this will not be practical'.

Policy T2: Parking Standards

2.9.8 This policy states that development will be required to provide parking in accordance with the standards set out in Annex G, which presents minimum standards for residential development depending on dwelling size. These standards are presented in the Table 2.1 extracted from page 178 of the DPD:

Table 2.1: Minimum Standards for Residential Development

Dwelling Size	Minimum Car Parking Requirement	Cycle Storage Provision
1 bedroom unit	1 space per unit *	1
2 bedroom unit	2 spaces per unit *	2
3 bedroom unit	2 spaces per unit *	2
4+ bedroom unit	3 spaces per unit *	2
* Visitor parking of at least 1 space per 5 dwellings, for schemes of 5+ dwellings, will be required in addition to these figures.		

2.9.9 The DPD requires the submission of a Transport Statement or TA and a TP for developments 'which generate significant amounts of traffic', and goes on to explain that, 'the assessment should reflect the scale of the development being proposed, the impact on the strategic and local highway network and identify measures which will be put in place to reduce its impact to acceptable levels'. The DPD also notes the importance of ensuring appropriate visibility for all highway users can be achieved and, in new residential areas, that particular attention is required to mitigate the impact of the private car, with emphasis given to pedestrians, cyclists and public transport.

2.10 Test Valley (South) Local Cycling and Walking Infrastructure Plan (2022)

2.10.1 As set out in national government policy, Local Cycling and Walking Infrastructure Plans (LCWIPs) are a way for local authorities to identify need for improvements to walking and cycling infrastructure. This forms part of wider national and local policy to encourage modal shift away from private cars and towards active travel.

2.10.2 This LCWIP has been produced to cover the southern part of Test Valley, which includes Romsey and the surrounding area. The LCWIP is of interest to this TA because it identifies multiple roads within the vicinity of the Site as being top priority for improvements to active travel infrastructure.

2.10.3 The LCWIP identifies Botley Road as Primary Route 280 and Halterworth Lane as Secondary Route 332. Members of the public have made several comments on these roads, with comments relating to school time congestion and safety on Halterworth Lane in the vicinity of Halterworth Primary School.

2.11 Romsey Town Access Plan SPD (2015)

2.11.1 Adopted in 2015, the Romsey Town Access Plan (RTAP) sets out a strategy for improving access to amenities and services in Romsey. The RTAP identifies increasing volumes of vehicular traffic in the Romsey area (it should be noted that this document was published before the Covid-19 pandemic) and explains the importance of encouraging modal shift, stating:

> *‘Good accessibility within the town will encourage individuals to walk and cycle more frequently to use facilities nearby, helping to reduce car use and the associated road congestion.’*

2.11.2 The RTAP goes on to state that:

> *‘In practice this means ensuring that paths and cycleways, particularly to local key destinations, are direct, attractive, safe, and that road crossings are in the right position to achieve maximum use and to reduce problems of severance.’*

2.12 A Vision for Romsey 2022 - 2042

2.12.1 This is the latest documentation produced as part of the ‘Romsey Future’ project, an ongoing project which seeks to set out a strategic vision for Romsey, which will enable the town to adapt to the socio-economic changes it will face over the next 20 years.

2.12.2 The document is split into a series of ‘Ambitions’, the first of these being to make Romsey a ‘*well connected*’ town. The document states that, as the town continues to grow, there will be increased pressure on Romsey’s highway network. It also points out that the town’s population is ageing and that this will likely result in a greater demand for better public transport.

2.12.3 To address these problems, the following strategies are proposed:

- *‘Ensure that the transport and accessibility needs of the community are communicated and actively advocated for, making sure Romsey is well connected and an easy place for all to move around;*
- *Contribute to the enhancement of Romsey’s walking and cycling infrastructure;*
- *Work with partners to understand Romsey’s car parking needs and share relevant information; and*

- *Support improved access to and information about public and community transport and provide a platform to engage with partners around transport and accessibility needs for everyone.'*

2.13 Summary

2.13.1 This section has outlined national and local transport policies and guidance which are applicable to the development Site. How the Site conforms to and complements these policies and guidance will be discussed in the following sections of this report, where relevant.

This page has been left intentionally blank

3 EXISTING SITUATION

3.1 Site Description

3.1.1 The application Site is currently undeveloped and agricultural in use. It is located on the eastern edge of the town of Romsey, circa 2km from the town centre.

3.1.2 Halterworth Lane, together with the rear gardens of residential properties which front Halterworth Lane, form the western boundary of the Site, while agricultural land forms the northern and eastern boundaries of the Site. To the south, the Site is bounded by grounds associated with Halterworth Primary School and the rear gardens of residential properties which front Elmtree Gardens.

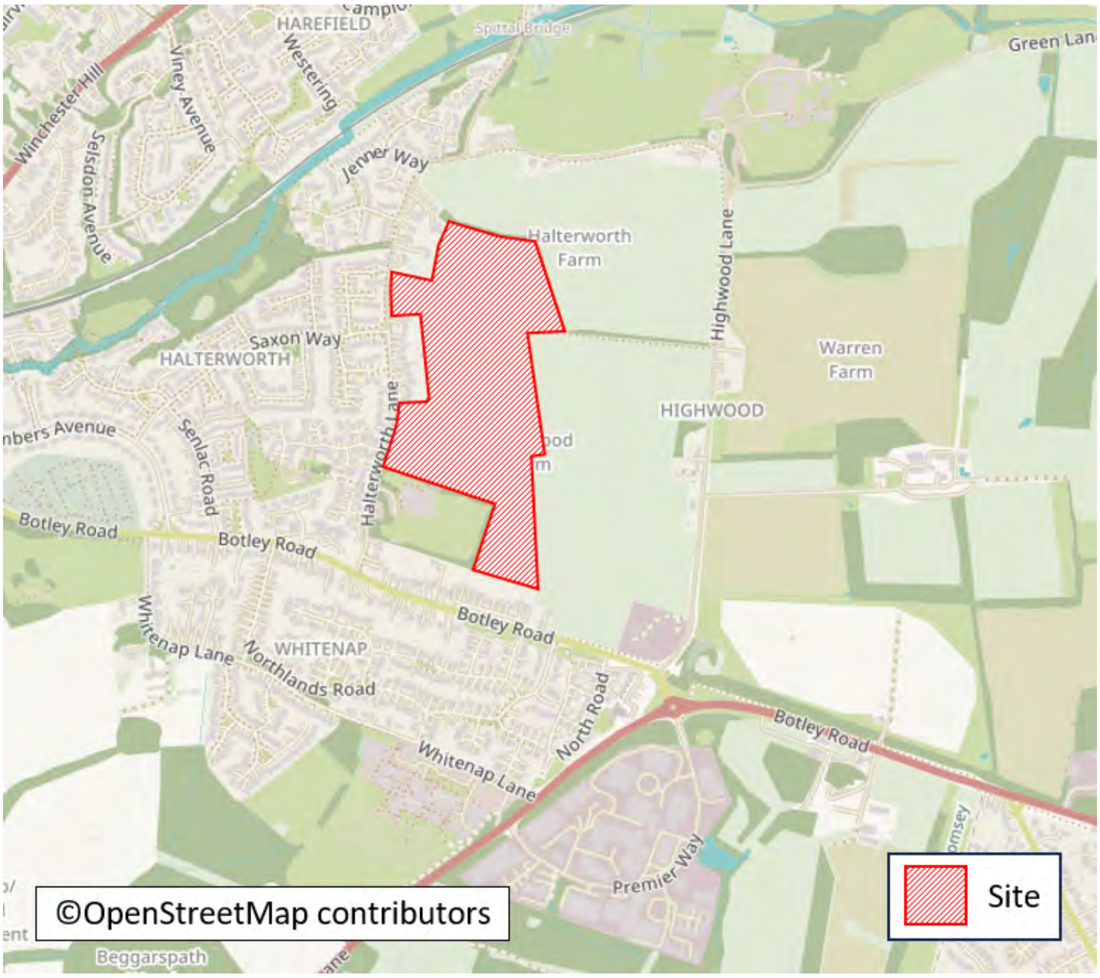
3.1.3 The direct frontage to Halterworth Lane is split over two sections, with existing residential properties located between each section of frontage. The northern frontage measures circa 85m in length, while the southern frontage measures circa 115m in length.

3.1.4 Two agricultural access points into the Site are provided on Halterworth Lane, one on each section of frontage. The access point provided along the northern frontage provides access to Public Right of Way footpath 198/15/1, which provides a connection between Halterworth Lane and Highwood Lane.

3.1.5 The centre of Romsey is located circa 4km to the north-west of North Baddesley, 10km to the west of Chandler's Ford, 14km to the north-west of Southampton city centre, 19km to the south-west of central Winchester and 27km to the south-east of Salisbury.

3.1.6 The location of the Site, in the context of Romsey and the local highway network, is illustrated in Image 3.1.

Image 3.1: Site Location and Local Highway Network



3.2 Public Rights of Way

3.2.1 Image 3.2 shows the Public Rights of Way (PRoW) network in proximity to the Site, this being an annotated extract from HCC's online mapping system[1] with footpaths being highlighted in purple and a bridleway highlighted green.

[1] https://maps.hants.gov.uk/rightsofwaydefinitivemap/largemap accessed 07/12/23

Image 3.2: Extract from HCC's Online Mapping System Depicting the Public Rights of Way

Source: https://maps.hants.gov.uk/rightsofwaydefinitivemap/

3.2.2 As stated earlier in this section, PRoW footpath 198/15/1 runs horizontally through the Site, providing a connection between Halterworth Lane and Highwood Lane.

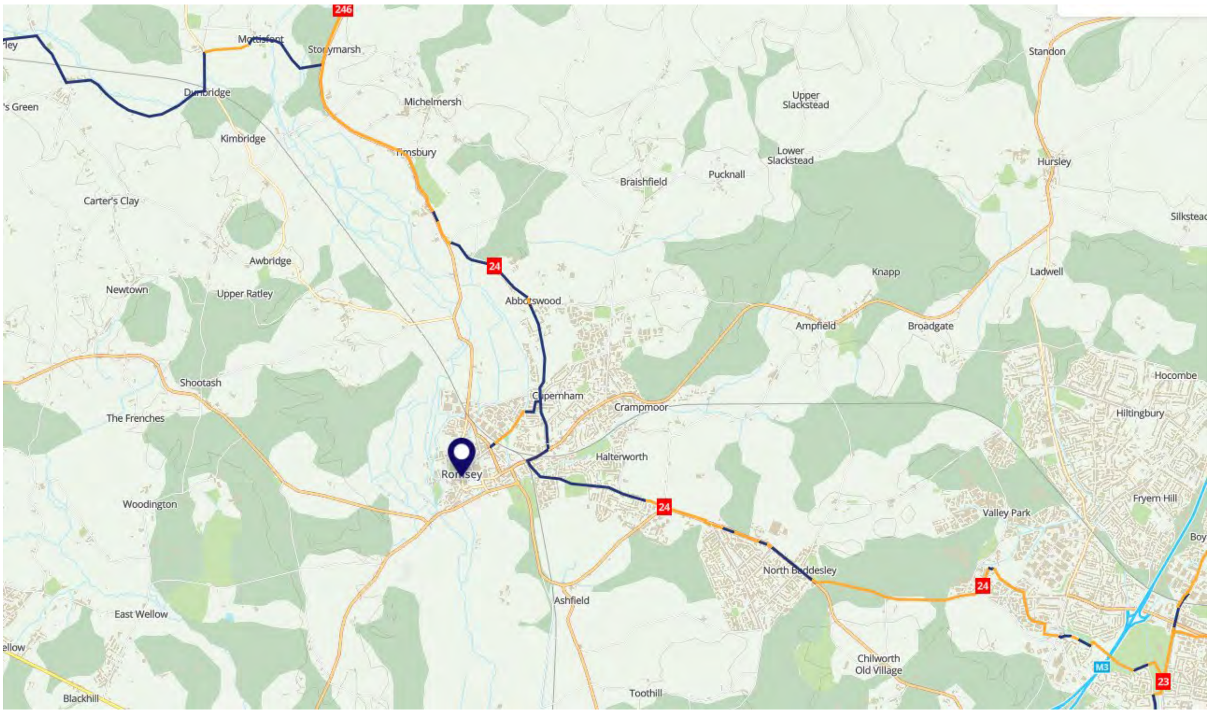
3.2.3 A second PRoW, PRoW 197/503/1, extends westwards from Halterworth Lane and provides a connection to the edge of Romsey town centre via Tadburn Meadows Local Nature Reserve. Not only will these footpaths provide future residents of the Site with a direct connection into Romsey town centre, but they will also facilitate a pedestrian connection which is mainly isolated from any vehicular traffic, providing a safe and pleasant walking experience.

3.2.4 A bridleway connects Green Lane with Crampmoor Lane north-east of the Site.

3.3 Cycle Facilities

3.3.1 Image 3.3, an extract from the Ordnance Survey website[2], shows the cycle network in proximity to the Site. The orange lines are off-road or traffic-free while the navy blue lines are on-road routes.

Image 3.3: National Cycle Network



3.3.2 Image 3.3 shows that Botley Road forms part of National Cycle Route (NCR) 24, with it comprising both off-road/traffic-free and on-road sections. Opposite the Botley Road/Montfort Road priority-controlled junction, a shared foot/cycle way commences, which forms part of NCR 24 and extends in a south-eastward direction. Locally, NCR 24 provides a connection to Romsey town centre and North Baddesley, while further afield it provides a connection between Bath and Eastleigh.

3.3.3 The route also connects to NCR 23, which connects Reading to Southampton via Basingstoke and Winchester. North of Romsey, NCR 24 connects with NCR 246 which has long traffic-free sections, including the Test Way, and runs north to Kintbury via Andover.

[2] https://explore.osmaps.com/location?lat=50.992046&lon=-1.473648&zoom=13.5297&style=Standard&type=2d&locationName=U2FsdGVkX19xDiVaSMmMCLLzOvltvbONHpQL3%2Bj6vE0%3D&locationCoordinates=-1.4997630177834194%2C50.989111745370685&locationBbox=-1.5088%2C50.9805%2C-1.4599%2C51.0098&overlays=os-ncn-layer accessed 07/12/23

3.4 Local Highway Network

Halterworth Lane

3.4.1 As mentioned above, Halterworth Lane traverses the western boundary of the Site, with the frontage split over two sections. It is a two-way single carriageway, which runs on a north to south alignment and provides a connection to Highwood Lane/Jenner Way and Botley Road, to the north and south respectively, with all junctions being priority-controlled. The road primarily acts as a local access collector road but also links Botley Road with the A3090 Winchester Road.

3.4.2 Beyond its junctions with Highwood Lane and Jenner Way, it extends north for circa 240m before forming a level crossing with the Eastleigh-Romsey railway line with signage on the approach to the level crossing, in both directions, requiring drivers to stop when lights show. It then extends north for another 160m and forms a priority-controlled junction with the A3090 Winchester Road. Signage provided at both the A3090 Winchester Road and Botley Road junctions indicate to drivers that the road is subject to width restrictions of 6’-6’’.

3.4.3 Halterworth Lane has a carriageway width of circa 7.0m, with circa 2.0m wide footways provided on both sides for most of its length. It predominantly provides frontage to residential properties, with Halterworth Primary School located towards the southern end of the road. It is subject to a 30mph speed limit and street lighting is provided.

3.4.4 A combination of single yellow lines and ‘School Keep Clear’ markings are provided along some sections of the carriageway to restrict parking on Halterworth Lane during school drop-off and pick-up times. A traffic regulation order (TRO) is in place to restrict parking between 0800-0900 and 1400-1600 as indicated by signage. The restrictions also create a chicane effect with vehicles having to slow down and wait for on-coming vehicles to pass.

3.4.5 A parking beat survey has been undertaken to gain an understanding of the nature of on-street parking along Halterworth Lane, particularly during school drop-off and pick-up times, with further details provided later in this section.

3.4.6 Several hail and ride bus stops are located along the carriageway, with further details regarding these stops and their associated services are provided in Section 5.

Botley Road

3.4.7 Botley Road is a two-way single carriageway, which runs on a slight north-west to south-east alignment and provides a connection between the A3090 Winchester Road and the A27/Premier Way. To the south-east of its roundabout junction with the A27/Premier Way, Botley Road begins to form part of the A27 route and runs directly into Southampton via North Baddesley. As described earlier in this section, it forms a priority-controlled junction with Halterworth Lane.

3.4.8 Botley Road has a carriageway width of circa 7.0m, with circa 2.0m wide footways provided on both sides, with the northern footway becoming a shared foot/cycleway opposite its priority-controlled junction with Montfort Road (as previously established, Botley Road forms part of NCR 24). It predominantly provides frontage to residential properties and side roads, while also providing frontage to local businesses and Botley Road park and play area. It is subject to a 30mph speed limit and street lighting is provided.

3.4.9 An uncontrolled crossing, comprising carriageway narrowing, dropped kerbs, tactile paving and reflective bollards, is provided across the carriageway, circa 60m to the north-west of its junction with Halterworth Lane, with pedestrian refuge islands sporadically provided along the carriageway in its entirety. A toucan crossing is provided a short distance to the south-east of its junction with Montfort Road, at the location where the footway becomes a shared foot/cycleway.

3.4.10 A north-westbound bus stop is provided a short distance to the north-west of its junction with Halterworth Lane, with its corresponding south-eastbound stop located circa 100m to the south-east of the junction. Further details regarding these stops and their associated services are provided in Section 5.

A27

3.4.11 The A27 is a strategic route which locally provides a connection to junction 3 of the M27 via the A3057 and M271, and a direct to Southampton via North Baddesley.

3.4.12 Locally, it is a two-way single carriageway, which is subject to national speed limit (60mph for cars and motorcycles). To the south-east of its junction with Botley Road/Premier Way, a combination of a footway and shared foot/cycleway is provided in its northern verge on approach and when travelling through North Baddesley. To the south-west of its junction with Botley Road/Premier Way, a footway is provided in both verges between its junction with Whitenap Lane and its junction with Premier Way, where street lighting is also provided to enable pedestrians walking from Romsey to Abbey Park Industrial Estate to do so in a safe and convenient manner.

3.4.13 From its junction with Botley Road/Premier Way to its junction with Castle Lane in North Baddesley, its forms part of NCR 24.

3.5 Site Visit Observations

3.5.1 Numerous site visits have been undertaken, which took place during the PM peak on Wednesday 30th June 2021, the AM peak on Thursday 1st July 2021 and the AM peak on Thursday 9th December 2021, which have aided in the compilation of this TA.

3.5.2 Traffic was witnessed to be slow-moving in the town centre but flowing much more freely on the arterial routes away from the town centre, such as the A27, A3057 and the A3090. No major queues or delays were witnessed on the roads and junctions local to the Site. The level crossing did not appear to be activated very frequently.

3.5.3 Footways in the area are of a good, modern standard and are well-maintained. Good levels of natural surveillance are present on footways and pedestrian cut-through paths. No major issues were experienced when crossing roads.

3.5.4 Some cycling activity observed on Botley Road. Cycling and scootering was found to be popular during school periods when many escorted children cycled or scootered on the footways on Halterworth Lane. On-street parking on Halterworth Lane was commonplace during school drop-off and pick-up times but quickly dispersed after the associated 30-minute school periods.

This page has been left intentionally blank

4 BASELINE TRAFFIC DATA

4.1 Traffic Flow Surveys

4.1.1 As agreed with HCC Highways during scoping discussions, manual classified turning count (MCC) surveys were undertaken at the following junctions:

1. Halterworth Lane/Jenner Way;
2. Halterworth Lane/Highwood Lane;
3. A3090 Winchester Road/Halterworth Lane;
4. Botley Road/Halterworth Lane;
5. A27/Botley Road/Premier Way;
6. A27 Rownhams Lane;
7. A27/A3057 (Ashfield roundabout); and
8. M271/A3057/Coldharbour Lane (Romsey Road roundabout).

4.1.2 The location of the MCC surveys are shown geographically on Figure 1 in Appendix B, while the raw traffic survey data is included in Appendix C.

4.1.3 The MCC surveys were carried out by the independent traffic data collection specialist Paul Castle Associates, between 07:00 and 10:00 and 14:45 and 19:00 to ensure that the commuter and school peaks were surveyed, allowing the morning (AM) and evening (PM) peak hours to be determined. A survey of queue lengths on the various approaches to the above junctions was undertaken as part of these surveys.

4.1.4 The MCC surveys took place on Tuesday 7th November 2023 when the weather was largely cold and wet, which may have put people off walking, cycling and using public transport, potentially opting for the convenience of the private car instead, mean that traffic flows may have been higher than average levels in the area. The surveys avoided the storm and associated weather warnings that were in place during the previous week.

4.1.5 The utilisation of the results of these surveys, in ascertaining the capacity of the abovementioned junctions, is described in Section 7.

4.1.6 The traffic survey data has been interrogated to derive the AM and PM peak hours of the local highway network, which are as follows:

- AM Peak: 0800-0900; and
- PM Peak: 1615-1715.

4.1.7 It was established that the PM peak for junctions 1-7 was 1615-1715, however, for junction 8 the PM peak was found to be 1800-1900, as such the later peak has been used to assess junction 8.

4.1.8 Traffic Flow Diagrams 1 and 2, included in Appendix D, summarise these 2023 Baseline peak hour traffic flows and queue lengths. In order to aid the capacity assessment modelling detailed in Sections 7 and 8, the three user classes surveyed have been condensed into two, with buses added to the 'HGVs' user class. The queue length surveys recorded the maximum queue lengths every five minutes at the various junctions surveyed. Queues were measured as stationary and/or slow-moving traffic less than 5mph.

4.1.9 In order to validate the Baseline peak hour traffic flows, they have been compared with data obtained from automatic traffic counters (ATC). The ATCs were installed at the following locations:

a. Halterworth Lane (Northern Site Frontage);

b. Halterworth Lane (Southern Site Frontage);

c. Botley Road (South-East of Halterworth Lane);

d. A27 (South-West of Botley Road/Premier Way); and

e. Botley Road (South-East of A27/Premier Way).

4.1.10 The ATCs were installed for 7 days from Tuesday 7th November 2023 to Wednesday 13th November 2023, however, for the purpose of the comparison exercise, the flows associated with Tuesday 7th, Wednesday 8th and Thursday 9th have been established and the 3-day average flow has been calculated for each peak in both directions for all links. Use of these 3 days aligns with DfT TAG Unit M1.2 guidelines, with Monday excluded as several highway authorities do not consider Mondays to be neutral, particularly with increased flexible working following the Covid-19 pandemic.

4.1.11 The location and duration of the ATC surveys was agreed with HCC Highways during scoping discussions. The periods of both the MCCs and ATCs were 'neutral' in line with DfT TAG Unit M1.2.

4.2 Data Validation

4.2.1 Table 4.1 provides a comparison of the flows and presents a GEH[3] and flow acceptability calculation which is typically used in strategic traffic model calibration and validation and is presented in TAG guidance. GEH is used to compare two sets of traffic data to consider a varying range of traffic flows. The GEH and flow criteria sets reasonable tolerances for deviation in traffic flow.

[3] https://en.wikipedia.org/wiki/GEH_statistic accessed 13/12/23

Table 4.1: Comparison of Traffic Flows for Validation

Peak	Direction	MCC	ATC	Abs Diff	% Diff	GEH	GEH Acceptable	Flow Acceptable
Halterworth Lane (Northern Site Frontage)								
AM	Northbound	198	180	18	9.8%	1.3	YES	YES
	Southbound	153	146	7	4.8%	0.6	YES	YES
	2-Way	**351**	**326**	**25**	**7.6%**	1.3	YES	YES
PM	Northbound	154	131	23	17.9%	2.0	YES	YES
	Southbound	163	140	23	16.7%	1.9	YES	YES
	2-Way	**317**	**270**	**47**	**17.3%**	2.7	YES	YES
Halterworth Lane (Southern Site Frontage)								
AM	Northbound	211	202	9	4.5%	0.6	YES	YES
	Southbound	151	144	7	4.9%	0.6	YES	YES
	2-Way	**362**	**346**	**16**	**4.6%**	0.9	YES	YES
PM	Northbound	165	163	2	1.2%	0.2	YES	YES
	Southbound	133	114	19	16.7%	1.7	YES	YES
	2-Way	**298**	**277**	**21**	**7.6%**	1.2	YES	YES
Botley Road South-East of Halterworth Lane								
AM	South-Eastbound	360	348	12	3.3%	0.6	YES	YES
	North-Westbound	407	402	5	1.3%	0.3	YES	YES
	2-Way	**767**	**750**	**17**	**2.3%**	0.6	YES	YES
PM	South-Eastbound	388	353	35	9.8%	1.8	YES	YES
	North-Westbound	364	413	-49	-11.9%	2.5	YES	YES
	2-Way	**752**	**766**	**-14**	**-1.9%**	0.5	YES	YES
A27 South-West of Botley Road/Premier Way								
AM	North-Eastbound	750	745	5	0.7%	0.2	YES	YES
	South-Westbound	638	601	37	6.2%	1.5	YES	YES
	2-Way	**1388**	**1345**	**43**	**3.2%**	1.2	YES	YES
PM	North-Eastbound	662	691	-29	-4.2%	1.1	YES	YES
	South-Westbound	515	513	2	0.5%	0.1	YES	YES
	2-Way	**1177**	**1203**	**-26**	**-2.2%**	0.8	YES	YES
Botley Road South-East of A27/Premier Way								
AM	South-Eastbound	882	871	11	1.3%	0.4	YES	YES
	North-Westbound	1065	1056	9	0.8%	0.3	YES	YES
	2-Way	**1947**	**1927**	**20**	**1.0%**	0.4	YES	YES
PM	South-Eastbound	976	969	7	0.7%	0.2	YES	YES
	North-Westbound	833	859	-26	-3.1%	0.9	YES	YES
	2-Way	**1809**	**1829**	**-20**	**-1.1%**	0.5	YES	YES

4.2.2 The comparison shows that the MCC and 3-day average ATC flows are very similar with the largest difference occurring at the Halterworth Lane northern Site frontage, with a two-way flow difference in the PM peak of 47.

4.2.3 In accordance with the validation criteria, all flows are within statistically recognised degrees of tolerance and there therefore valid for assessment purposes. Furthermore, the MCC flows were predominantly higher than the 3-day average ATC flows, meaning that the eventual impact assessment detailed in Section 8 should be considered to be particularly robust.

4.3 Strategic Road Network Data

4.3.1 In relation to the strategic highway network, within their scoping response dated 4th December 2023, NH stated that the M27 junction 3 slip roads/M271 junction should also be assessed. The DFT *Tag Unit M1.2* document states that traffic surveys '*should typically be carried out during a 'neutral', or representative, month'*, further confirming the neutral period to be from March to November. As such, given that the next available neutral month is March, the traffic flows for this junction have been extracted from the TA associated with Whitenap development (ref. 22/01213/OUTS), which is still a live application. The assessment of the impact at M27 junction 3 has been considered in a separate *SRN Capacity Note*.

4.4 Traffic Speeds

4.4.1 The observed traffic speeds on Halterworth Lane adjacent to each section of the Site frontage were also measured via the two ATCs listed 'a.' and 'b.' above. The ATC for the northern Site frontage was attached to a lighting column circa 50m to the north of Saxon Way, while the ATC for the southern Site frontage was attached to a lighting column located circa 50m to the north of Benedict Close. The duration and location of the ATC surveys was agreed with HCC Highways during scoping discussions, with a summary of the speed survey results shown in Table 4.2 below.

Table 4.2: Recorded Speeds along Halterworth Lane in the Vicinity of the Site

Road/Direction	Speed (mph)	
	Average	85th %ile
Northern Site Frontage Northbound	26.3	31.4
Northern Site Frontage Southbound	25.4	31.3
Southern Site Frontage Northbound	23.5	28.7
Southern Site Frontage Southbound	21.4	27.0

4.4.2 The results of the speed surveys show the average speeds and 85th percentile speeds adjacent to the southern Site frontage in both directions to be lower than the prevailing 30mph speed limit. The 85th percentile speeds adjacent to the northern Site frontage in both directions are slightly above 30mph which is perhaps not surprising as this section of Halterworth Lane is less built-up than the southern section.

4.4.3 The raw data from both the MCC and ATC surveys is provided in Appendix C. Use of the speed surveys results have been used in the design of the proposed Site accesses as detailed in Section 5.1.

4.5 Parking Beat Survey

4.5.1 To gain a better understanding of parking along Halterworth Lane, particularly during drop-off and pick-up times associated with Halterworth Primary School, a parking beat survey, carried out by Paul Castle Associates, was completed on Tuesday 7th November 2023, the same day as the MCCs.

4.5.2 The survey concentrated on Halterworth Lane from its junction with Saxon Way to its junction with Botley Road, Saxon Way from its junction with Halterworth Lane to its junction with Kennett Road and Benedict Close from its junction with Halterworth Lane to its just junction with the first northern cul-de-sac.

4.5.3 From viewing the Halterworth Primary School website, the school start time is 0855. The school finish time is split between year groups, with reception classes finishing at 1525, years 1 and 2 at 1530 and years 3 to 6 at 1535.

4.5.4 As such, parking information was gathered during the following time periods:

- 0830-0930 to cover the school drop-off period; and
- 1430-1600 to cover the school pick-up period.

4.5.5 It should be noted that the surveyor established that there were 33 legal parking spaces along Halterworth Lane, based on each space measuring 5.0m in length. Tables 4.3 and 4.4 present the results of the parking beat survey along Halterworth Lane, with the raw data provided in Appendix C.

Table 4.3: Results of Parking Beat Surveys on Halterworth Lane - AM Drop-Off Period

Time Period	No. Spaces Available	No. Spaces Occupied	Parking Stress
08:30	5	28	85%
08:35	0	33	100%
08:40	0	33	100%
08:45	0	33	100%
08:50	0	33	100%
08:55	0	33	100%
09:00	9	24	73%
09:05	10	23	70%
09:10	11	22	67%
09:15	13	20	61%
09:20	15	18	55%
09:25	15	18	55%
09:30	14	19	58%

4.5.6 The above table demonstrates that most legal parking spaces are occupied at 0830 (85%), before all legal parking spaces become occupied at 08:35 until 08:55, which is understandable given the 08:55 school start time. After 08:55, the number of available legal parking spaces begins to incrementally increase until the survey was completed at 09:30. The parking spaces were therefore fully occupied for around 25-minutes.

4.5.7 Within the parking survey report, it also states that a small number of cars were parked on single yellow lines (Mon-Fri 8-9am & 2-4pm) on Halterworth Lane between 08:40 and 08:55, while some cars were also parked on Saxon Way and Benedict Close.

Table 4.4: Results of Parking Beat Surveys on Halterworth Lane - PM Pick-Up Period

Time Period	No. Spaces Available	No. Spaces Occupied	Parking Stress
14:30	10	23	70%
14:35	9	24	73%
14:40	11	22	67%
14:45	11	22	67%
14:50	6	27	82%
14:55	5	28	85%
15:00	0	33	100%
15:05	1	32	97%
15:10	0	33	100%
15:15	0	33	100%
15:20	0	33	100%
15:25	0	33	100%
15:30	0	33	100%
15:35	0	33	100%
15:40	4	29	88%
15:45	12	21	64%
15:50	19	14	42%
15:55	20	13	39%
16:00	20	13	39%

4.5.8 The above table demonstrates that the most legal parking spaces are occupied by 14:50 (82%), before all legal parking spaces become occupied at 15:00 until 15:35, except for at 15:05 (97%). This understandable given the school finishes between 15:25 and 15:35 depending on the year of the class. After 15:35, the number of available legal parking spaces begins to incrementally increase until the survey is complete at 16:30. All legal parking spaces were therefore occupied for around 35-minutes.

4.5.9 Within the parking survey report, it also states that a small number of cars were illegally parked on Halterworth Lane between 15:15 and 15:35, while some cars were also parked on Saxon Way and Benedict Close.

5 DEVELOPMENT PROPOSAL

5.1 Development Description

5.1.1 Gladman is seeking outline planning permission for the demolition of existing buildings and the erection of up to 270 dwellings, including affordable housing, with land for the potential future expansion of Halterworth Primary School, public open space, structural planting and landscaping, sustainable drainage system (SuDS) and vehicular access points. All matters reserved except for means of vehicular access.

5.1.2 This planning application reserves land for the potential future expansion of the primary school; the expansion itself will be subject to a future separate application should such proposals come forward.

5.1.3 A Development Framework Plan (DFP) has been produced by FPCR and forms part of the supporting documentation for the planning application. It is not included within this document as it has the potential to be revised up to the point of submission and therefore to avoid conflicting and superseded layouts being submitted within the various planning documents, it is omitted from this report. The planning documents should be available via HCC's online planning portal.

5.1.4 The DFP is indicative only but shows that the Site is to be accessed via two new single priority-controlled junctions located on Halterworth Lane. The proposed dwellings will be spread across most of the Site, two play areas will be provided in the northern and southern parts of the Site, while open space will be provided throughout the Site. The area for the potential expansion to the primary school is to the immediate east of the school, in the south-east corner of the Site.

5.1.5 As part of the development proposals, the Applicant is willing to provide parking bays within the development Site to provide additional car parking options at school pick-up and drop-off times and for use by visitors to the residents of the development.

5.1.6 The section of PRoW 198/15/1 within the Site will be incorporated into the Development Proposals and upgraded with improved surfacing and signage. The Applicant is willing to provide funding to allow HCC to upgrade the section of this PRoW where it passes beyond the Site boundary running east to Highwood Lane, providing a greater degree of permeability and amenity for pedestrians. Additional scenic footpaths are also proposed though the precise detailed will be subject to reserved matters.

5.2 Access Strategy

5.2.1 As stated above, the Site will be served by two new simple priority-controlled junctions on Halterworth Lane, both of which will comprise a 5.5m wide carriageway, 6.0m corner radii with corner tapers and 2 x 2.0m wide footways, which will connect to the existing footway provision on the eastern side of Halterworth Lane. Uncontrolled crossings, comprising dropped kerbs and tactile paving, will also be provided across each of the vehicular access points. The northern vehicular access is illustrated on Drawing P21004-001C and the southern vehicular access illustrated on Drawing P21004-002B, both of which are provided in Appendix E.

5.2.2 Based on the stopping sight distance (SSD) calculation in MfS2, with reference to the worst case observed 85th percentile speeds presented in Table 3.2, for the northern access point, visibility splays of 2.4m x 46m (31.3mph) would be required for visibility to the left and right on exit, while for the southern access point, a visibility splay of 2.4m x 41m (28.7mph) would be required to the left on exit and a visibility splay of 2.4m x 38m (27.0mph) would be required to the right on exit.

5.2.3 Whilst the internal layout is subject to a separate reserved matters application(s), it is envisaged that the two proposed Site accesses will be connected, as suggested on the DFP, forming a spine road.

5.2.4 As part of the development proposals, several off-site uncontrolled crossings, comprising dropped kerbs and tactile paving, will be provided along Halterworth Lane adjacent to the Site, two of which will be provided directly to the north and south of the proposed northern vehicular access, with another provided a short distance to the north to align with PRoW 198/15/1. In addition, an uncontrolled crossing will also be provided a short distance to the north of the proposed southern vehicular access, with another provided adjacent to the south-western corner of the Site aligning with a potential dedicated pedestrian access.

5.2.5 The proposed access arrangement has been subject to an independent Stage 1 Road Safety Audit (RSA) which is detailed in Section 9.

5.3 Access for Commercial Vehicles

5.3.1 The dimensions suggested for the proposed Site access points will ensure an allowance is made for the largest vehicles expected to regularly access the Site, such as refuse collection vehicles. Corner tapers have been included in the access design following the RSA detailed in Section 9.

5.3.2 To demonstrate that the proposed Site access junctions will be safe and suitable for larger vehicles but without overdesigning, a swept path analysis has been undertaken for a typical non-commercial refuse collection vehicle, which is the largest vehicle expected to regularly access the Site. The swept path analysis for the refuse collection vehicle has been illustrated in Drawings P21004-003A and P21004-004A in Appendix E, which demonstrates that the vehicle can safely access and egress the Site in forward gear.

5.4 Internal Layout

5.4.1 In accordance with MfS the design speed of the access road will be 20mph. While the internal layout will be subject to a separate reserved matters application(s) by the eventual housebuilder(s), it is expected that it will be based on MfS design guidance meaning that the layout will focus on the needs of pedestrians, cyclists, and public transport users, create a sense of place and community, create permeable streets offering good quality connections and recognise the needs of people of all ages and abilities. All of these should be achieved without over-designing.

5.5 Development Parking

5.5.1 As the final housing mix is not known and subject to future submissions, calculations relating to detailed parking provision have not been undertaken. An eventual reserved matters application(s) will specify sufficient parking, both in terms of numbers and dimensions, to comply with the relevant standards at the time of submission. At the time of writing, the current minimum standards are provided in Table 2.1 in Section 2.

5.5.2 It is expected that each house will be provided with electric vehicle (EV) charging point in line with NPPF and UK Building Regulations.

5.6 School Parking

5.6.1 The proposed southern access is located on a section of Halterworth Lane that is subject to single yellow parking restrictions, so the provision of the access should not displace parking, or at least legal parking, though there is an unrestricted section outside of the two properties to the north of the access location.

5.6.2 Drawing P21004-002B shows a suggested amendment to the existing TRO in the form of double yellow lines to protect the junction. Should HCC wish, the existing single yellow line to the north could be extended to keep the visibility splay to the right on exit clear. The Applicant will fund any such TRO modifications via Section 106 Agreement.

5.6.3 Whilst the proposed access arrangement, particularly the southern access, will not displace any legal parking associated with school trips, the Applicant recognises that on-street parking on Halterworth Lane associated with the primary school can cause nuisance to existing residents and other road users. The development Site should not be expected to add to any on-street parking issues as the entirety of the Site is within a reasonable walking distance, though we recognise that some parents/guardians may drop-of/pick-up as part of a linked trip i.e. to/from work. School parking does not appear to occur at the northern Site frontage based on site visit observations.

5.6.4 Nevertheless, the Applicant recognises that the proposed development offers the opportunity to provide additional parking for the school. The access drawing provided to HCC as part of pre-application discussions presented an indicative parking area to the south of the southern access, though this area is likely to be used as public open space. The Applicant is however happy to provide some parking for school trips, and visitors to the development, inside the Site. The DFP suggests that this could take the form of parking laybys along the internal spine road.

5.6.5 We note the comment made by HCC in its scoping response, which stated that the provision of such parking '*has the potential to discourage travelling to and from school sustainably and increase travel* *to the school via private car'.* As such, further consideration and discussion will be needed. The Applicant is willing to accept a condition requiring a reasonable number of parking spaces to be provided following further discussions with HCC, however, as this matter relates to the internal layout, the detail of the parking arrangement will be subject to reserved matters.

5.7 Summary

5.7.1 As described in this section, the development proposals, particularly the Site access, will conform to national and local policy guidance including TVBC Objective 13 and policies T1 and T2, along with the two Guiding Principles and Policies C1, C3, C5, C6 and C7 of HCC's LTP4. The design of the access road will conform to the guidance of MfS.

5.7.2 The design principles help the Site to conform to NPPF guidance including paragraph 114 in terms of creating *'safe and suitable access',* and paragraph 116 in giving priority to pedestrian and cycle movements, and creating safe and attractive places which minimise conflicts between traffic and cyclists or pedestrians and considers the *'needs of people with disabilities and reduced mobility'.*

6 ACCESS BY SUSTAINABLE MODES

6.1 Introduction to Sustainable Modes of Transport

6.1.1 National and local transport planning policy centres on the importance of sustainable development, meaning that new developments should be located in areas where there is access to sustainable modes of travel, or where sustainable modes of travel can be introduced. The *National Design Guide* (2021) defines sustainable transport modes as:

> *'Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, low and ultra low emission vehicles, car sharing and public transport.'*

6.1.2 Walking, cycling and public transport are commonly regarded to be the most sustainable modes of transportation. This section of the report will describe how the Site can be accessed by these modes.

6.1.3 This section should be read in conjunction with the *Walking, Cycling and Horse-Riding Assessment Report* (WCHAR), which has also been produced and is provided in Appendix F.

6.2 Access on Foot

6.2.1 The Site is located circa 2km from Romsey town centre and, as previously discussed, is well-connected to good quality pedestrian and cycling infrastructure on Halterworth Lane and Botley Road. Wide street-lit footways are adjacent to the Site which create an environment conducive to walking. This infrastructure also includes pedestrian refuge islands, guard rails, formal push-button signal-controlled crossing points, tactile paving, dropped kerbs and parking restrictions (double yellow and single yellow lines and zig-zag markings) which serve to prevent visibility obstructions for pedestrians when crossing the carriageway. The Site also benefits from the PRoW that runs through it and connects to 197/503/1, via Halterworth Lane, which provide largely traffic-free connections towards Romsey town centre.

6.2.2 As detailed in Section 5, as part of the development proposals, several uncontrolled crossings, comprising dropped kerbs and tactile paving, will be provided along Halterworth Lane in proximity to the Site, which will further improve the surrounding pedestrian infrastructure.

6.2.3 It is noted that many of the uncontrolled crossings along Halterworth Lane include dropped kerbs but lack tactile paving. In order to improve accessibility and safety for visually impaired pedestrians and better define the crossing points, the Applicant is willing to provide tactile paving at Halterworth Lane's junctions with Bolney Road, Montford Heights, Benedict Close, Saxon Way, Seward Rise, Jenner Way and Hestia Close, as well as at the existing dropped kerb crossing on Halterworth Lane between Highwood Lane and Jenner Way, should HCC consider these improvements to be beneficial.

6.2.4 Research has indicated that acceptable walking distances depend on a number of factors, including the quality of the development, the type of amenity offered, the surrounding area, and other local facilities. The Chartered Institution of Highways and Transportation (CIHT) document entitled *Providing for Journeys on Foot* (2000) suggests walking distances which are relevant to this application. These distances are shown in Table 6.1.

Table 6.1: Suggested Acceptable Walking Distances

Criteria	Town Centres (m)	Commuting/School/ Sightseeing (m)	Elsewhere/Local Services (m)
Desirable	200	500	400
Acceptable	400	1000	800
Preferred Maximum	800	2000	1200

Source: CIHT Document Providing for Journeys on Foot (2000)

6.2.5 In order to highlight the Site's accessibility on foot, an indicative walking isochrone has been produced using the Geographic Information System (GIS) software Visography TRACC. Figure 2 in Appendix B represents the Site's walking catchment with the CIHT's *Preferred Maximum* distances of 1200m and 2000m for local service and commuting/school trips illustrated.

6.2.6 To provide an accurate representation of the future highway and PRoW network, the Site's proposed vehicular access points have been manually added to the network used for the isochrone. The accessibility distance is based on an origin/destination point in the approximate centre of the developed portion of the Site.

6.2.7 Table 5.2 below summarises the distance and the typical time it would take to walk from the centre of the Site to some of the local amenities and centres of employment and education identified in Figure 2 in Appendix B via the road/footway network. It provides a comparison against those distances recommended in the CIHT's *Providing for Journeys on Foot*. The time it takes is based on a walking speed of 4.8kph which corresponds with the TRACC default, which itself is based on advice in the DfT document *Transport Connectivity Travel Time Indicators: Guidance Notes*.

Table 6.2: Walking Distance and Time Taken from Site to Local Amenities

Amenity	Distance from Site (m)	Preferred Max Walk Distance (m)	Walk Time (mm:ss)
Halterworth Primary School	373	2000	04:46
Convenience Store	631	1200	07:55
Post Office/Convenience Store	662	1200	08:18
Tadburn Meadows Local Nature Reserve	702	1200	08:47
Botley Road Park	1019	1200	12:54
St Swithun's Church	1076	1200	13:29
Luzborough Public House	1097	1200	13:49
Stroud King Edward VI School	1249	2000	15:38
The Mountbatten School	1316	2000	16:34
Co-op	1420	1200	17:48
Abbey Park Industrial Estate	1815	2000	22:51
Abbeywell Surgery	2014	1200/2000	25:13
Romsey Rapids Sports Complex	2196	1200	27:29
Romsey Hospital	2232	2000	27:57
Winchester Hill Business Park	2236	2000	28:06

6.2.8 The results in Table 6.2 show that a convenience store, a post office/convenience store and Tadburn Meadows Local Nature Reserve can be reached within the acceptable walking distance of 800m for local service trips, while Botley Road park, St Swithun's church and Luzborough public house can be reached within the preferred maximum walking distance of 1200m. Although situated outside of the 1200 catchment, a Co-op food store, Abbeywell surgery and Romsey Rapids Sports Complex can be reached via foot within 28 minutes. Halterworth Primary School can be reached within the desirable distance of 500m for educational trips, while Stroud King Edward VI Preparatory School and The Mountbatten Secondary School can be reached within the preferred maximum walking distance of 2000m. Abbey Park Industrial Estate, Romsey Hospital and Winchester Hill Business Park, which may provide employment opportunities for future residents of the Site, can be reached via foot within 29 minutes.

6.2.9 Also, as can be seen in Figure 2 in Appendix B, the edge of Romsey town centre falls within the 2000m catchment, meaning that a significantly larger range of amenities and services not included in Table 6.2, which also provide an extensive range of employment opportunities, are within walking distance from the Site.

6.2.10 Given the evidence presented in Figure 2 in Appendix B and Table 6.2, walking can be considered to be a realistic and viable method of travel indicating that the Site's location is accessible via this sustainable mode.

6.3 Access by Cycle

6.3.1 It is widely recognised that cycling can offer an attractive alternative to short car trips, particularly those under 8km, but also as part of longer journeys by public transport.

6.3.2 The CIHT document *Cycle Friendly Infrastructure* (2004) states in paragraph 2.3 that:

> *'Three quarters of journeys by all modes of travel are less than five miles (8km) and half under two miles (3.2km) (DoT 1993, table 2a). These are distances that can be cycled comfortably by a reasonably fit person.'*

6.3.3 LTN 1/20 *Cycle Infrastructure Design* states similar, that:

> *'Two out of every three personal trips are less than five miles [8km] in length - an achievable distance to cycle for most people'.*

6.3.4 As mentioned in Section 3, Botley Road forms part of NCR 24, a partly segregated cycle route providing a convenient cycle connection into Romsey town centre. The route also connects to NCR 23, facilitating a cycle connection to Southampton and NCR 246 to Andover and Kintbury.

6.3.5 A cycling isochrone showing the Site's catchment has also been produced using TRACC and is shown as Figure 3 in Appendix B. The figure illustrates 2000m, 5000m and 8000m catchment ranges, which equate 10, 25 and 40-minute journey times respectively and are based on the somewhat conservative or leisurely cycle speed of 12kph. Anecdotally, commuting cyclists are generally thought to travel at speeds between 15-20kph so a greater catchment may be more realistic.

6.3.6 The cycling distances and times to a selection of key local centres of education, employment and amenities, as well as neighbouring settlements, are shown in Table 6.3, although the cycle times detailed in the table are based on a cycling speed of 16kph which corresponds with the TRACC default, which the software developer has based on DfT advice. It should be noted that some of the cycle distances may differ from the walking distances as cycling along PRoW is legally not allowed unless designated as cycleways, bridleways or byways.

Table 6.3: Cycling Distance and Time Taken from Site to Local Centres of Employment, Education, Amenities and Neighbouring Settlements

Employment/ Education/ Amenity/ Settlement	Distance from Site (m)	Cycle Time (mm:ss)
Halterworth Primary School	373	01:52
Convenience Store	631	02:28
Post Office/Convenience Store	662	02:36
Tadburn Meadows Local Nature Reserve	702	03:27
Botley Road Park	1064	04:44
St Swithun's Church	1076	04:10
Luzborough Public House	1097	04:35
Stroud King Edward VI School	1249	04:47
The Mountbatten School	1351	05:35
Co-op	1465	05:43
Abbey Park Industrial Estate	1820	07:32
Abbeywell Surgery	2060	08:50
Romsey Hospital	2278	08:45
Winchester Hill Business Park	2281	09:14
Romsey Rapids Sports Complex	2632	10:02
Romsey Railway Station	2640	10:07
Romsey Town Centre	2731	10:26
Test Valley Business Park	2922	11:45
North Baddesley	3207	12:05
Granger Farm Sports Complex	3212	12:33
Romsey Academy	3343	12:37
Frobisher Industrial Estate	3406	12:51
Belbins Business Park	3703	13:58
Romsey Industrial Estate	3788	14:18
Abbotswood Nature Reserve	3970	17:07
Ampfield	4095	15:32
Yokesford Hill Industrial Estate	4440	16:44
Braishfield	4572	17:21
M27 Services	5197	19:31
University of Southampton Science Park	5674	21:31
Chandlers Ford Industrial Estate	6928	26:05
Chandler's Ford	7699	28:56
Awbridge	7935	29:51
Nusling Industrial Estate	8239	31:51
Adanac Business Park	9446	35:26

6.3.7 Table 6.3 illustrates that there is a considerable range of local amenities, places of employment, places of education and settlements within the cycle catchment. The local amenities mentioned in the ‘Access on Foot’ section above are less than an 11-minute cycle ride from the Site.

6.3.8 An examination of Table 6.3 shows that Romsey town centre, Test Valley Business Park, Frosbisher Industrial Estate, Belbins Business Park, Romsey Industrial Estate and Yokesford Hill Industrial Estate, all of which provide an extensive level of employment opportunities for future residents of the Site, as well as Granger Farm Sports Complex, Romsey Academy, Abbotswood Nature Reserve and the settlements of North Baddesley, Ampfield and Braishfield, are all located within a 5000m distance from the Site and an 18-minute cycle ride. Romsey train station, which provides cycle parking, is also located within the 5000m catchment and can be reached within an 11-minute cycle ride. The University of Southampton Science Park, Nusling Industrial Estate and Adanac Business Park, as well as the settlements of Chandler's Ford (including large scale industrial estate) and Awbridge, are all located within the 8000m catchment.

6.3.9 Given the evidence presented in Figure 3 in Appendix B and Table 6.3, cycling can be considered a realistic and viable method of travel indicating that the Site's location is accessible via this sustainable mode.

6.3.10 Clearly the Site location and the surrounding infrastructure will mean that travel on foot and by cycle will be realistic and convenient modes of travel for future residents of the Site. The potential numbers of walking and cycling trips that the Site will generate will be discussed in Section 7 of this report, but clearly the scale of the Site is not such that it will disadvantage existing pedestrians and cyclists.

6.4 Access by Local Bus Services

6.4.1 As mentioned in Section 3, there are bus stops located on Halterworth Lane and Botley Road, with the walking distance to these stops and the corresponding walking time (based on a walking speed of 4.8kph) summarised in Table 6.4 below.

Table 6.4: Walking Distance and Time to Bus Stops

Bus Stop	Distance (m)	Walking Time (mm:ss)
Halterworth Lane opp Footway to Kennett Road	305	03:49
Halterworth Lane adj Footway to Kennett Road	378	04:44
Botley Road adj Halterworth Lane	507	06:21
Botley Road opp Halterworth Lane	568	07:07

6.4.2 As Table 6.4 shows, the Halterworth Lane bus stops, which provide access to the 35 service, can be reached within 5 minutes on foot, while the Botley Road bus stops, which provide access to the 4 and 5 services, can be reached within 8 minutes on foot.

6.4.3 The bus stops located on Halterworth Lane are hail and ride stops with limited infrastructure (flag pole and timetable for southbound stop but no infrastructure at northbound stop), while the bus stops located on Botley Road comprise flag and timetable information, a bus cage and raised kerbs.

6.4.4 Table 6.5 summarises the services that can be accessed at these bus stops. The information below has been obtained from Traveline (https://www.traveline.info).

Table 6.5: Summary of Bus Services

Service	Route	Weekday Frequency	Weekend Frequency	
		Monday - Friday	Saturday	Sunday
4	Romsey - Southampton City Centre	2 services per hour	2 services per hour	1 service per hour
5	Romsey - Boyatt Wood	1 service per hour	1 service every 2 hours	No service
35	Braishfield - Romsey	1 service per day	No service	No service

6.4.5 The no. 4 service is the most frequent service, operating from Monday to Sunday and providing two services an hour on a weekday and Saturday, while providing one service per hour on a Sunday. The service, which operates from the Botley Road bus stops, enables passengers to travel to and from Southampton and Romsey town centre as well as other destinations. On a weekday, the first morning service departs from the Botley Road adjacent Halterworth Lane stop at 0609 hours, arriving at the Westquay stop in Southampton city centre at 0645 hours, with the journey taking 36 minutes. The last evening service departs from the Vincent's Walk bus stop in Southampton city centre at 2155 hours, arriving at the Botley Road opposite Halterworth Lane at 2233 hours, with the journey taking 38 minutes.

6.4.6 The no. 5 offers hourly services between Romsey town centre and Boyatt Wood via Eastleigh town centre Monday to Friday, and a service every two hours on Saturdays. The no. 35 services between Romsey and Braishfield which calls at the Halterworth Lane and Saxon Way stops is more limited, with just a single service Monday to Friday.

6.4.7 Given Southampton's role as the region's primary economic centre, the 4-bus service will provide future residents of the Site with access to an extensive range of amenities, services, education and employment opportunities. The no. 5 service supplements this with hourly journeys to Eastleigh town centre which offers multiple employment, retail and leisure opportunities as well as a train station and is close to Southampton Airport.

6.4.8 The Applicant is willing to upgrade the Halterworth Lane stops opposite and adjacent to Kennett Road to include raised boarding areas, shelter, seating and timetable information. Whilst it is recognised that the 35 service which calls at this stop is limited to one service per day, there may be opportunities in the future to enhance this service or introduce new services which call on Halterworth Lane, and said upgrade will help to enhance the attractiveness of such services.

6.4.9 The Applicant is also willing to fund the provision of shelters at the two Botley Road bus stops opposite and adjacent to Halterworth Lane to enhance passenger convenience, particularly during inclement weather.

6.5 Access by Rail

6.5.1 The nearest train station to the Site is Romsey, which is managed by South Western Railway and provides multiple direct services throughout the day to Chandlers Ford (7 minutes), Southampton Central (11 minutes), Eastleigh (13 minutes), Southampton Airport Parkway (17 minutes), Salisbury (18 minutes), Portsmouth Harbour (59 minutes) and Bath Spa (73 minutes), with each service stopping at various other stations along each route. These times are the fastest journey options at the time of writing taken from the National Rail website[4].

6.5.2 The service to Southampton runs 3 times per hour, thus, the frequency and speed of the Romsey to Southampton service will likely be popular amongst future resident of the Site, some of whom will likely work in Southampton City Centre.

6.5.3 The station provides a car park comprising 20 spaces, as well as an extensive range of facilities including refreshment facilities, toilets, pay phones, waiting rooms, customer help points, ticket machines and a ticket office.

6.5.4 A total of 14 sheltered cycle parking spaces are also available at the station, which may encourage some future residents of the Site to travel to and from the station by cycle. As established earlier in this section, the station is located within a 11-minute cycle ride from the Site.

6.5.5 The short car journey to the station should be considered a sustainable trip when the train is chosen for mid to long distance trips.

6.5.6 Connection to a greater range of rail services can be made from Eastleigh and Southampton train stations which are accessible by bus.

6.6 Framework Travel Plan

6.6.1 In line with best practice at a national and local scale, a TP has been produced and submitted as part of this planning application. The document forms the start of an ongoing process to encourage and monitor the use of sustainable modes of travel and should be read in conjunction with this TA. As many aspects of the TP will be applicable to this TA, a summary of the key points is as follows:

- Outlines the key local and national objectives of the TP process;
- Sets targets for the reduction of car/van driver trips by between 5 and 10%;
- Indicates potential measures that can be implemented to achieve these targets; and
- Provides details of how the TP will be managed, monitored and reviewed.

[4] https://www.nationalrail.co.uk/ accessed 14/12/23

6.7 Summary

6.7.1 This section of the report has demonstrated that the Site is in a sustainable location where local amenities and neighbouring local settlements are within nationally recognised acceptable walking and cycling distances.

6.7.2 It has been demonstrated that a variety of day-to-day amenities are within reasonable walking and cycling distances, as are employment opportunities and schools.

6.7.3 In respect of public transport, the bus services which operate in proximity to the Site run frequently and provide connections to and from various destinations including Southampton, Eastleigh and Romsey town centre.

6.7.4 Romsey train station, accessible via bus and bicycle, also enables passengers to travel to and from several destinations including Chandlers Ford, Southampton Central, Salisbury, Southampton Airport Parkway, Bath Spa and Portsmouth Harbour. Southampton Central and Eastleigh stations can also be accessed by bus.

6.7.5 A key theme of national and local transport planning policy is that development should be located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. As detailed in Section 2 of this report, the NPPF states that *'significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes'*, as well as providing *'safe and suitable'* access for all.

6.7.6 The good level of accessibility of the Site and improvements in the form of new footway connections at the proposed Site accesses, PRoW connection and enhancement and bus stop upgrades helps the Site to align with the Guiding Principles and policies C1, C3, C5, C6 and C7 of HCC's LTP4 and TVBC Objective 13 and Policy T1.

This page has been left intentionally blank

7 TRAFFIC FORECASTING

7.1 Introduction

7.1.1 This section of the report details the methodology used to predict the demand associated with the development. It then provides an assessment of the impact that it is likely to have on the highway network and discusses whether any mitigation measures are required to accommodate the additional trips generated by the development.

7.2 Forecast Traffic Growth

7.2.1 The forecast year of assessment is 2028, which is when the Applicant expects that the development proposals will begin to be occupied. Whilst it is unlikely that the full quantum of development will be occupied by 2028, full build-out has been considered for assessment purposes. During scoping discussions, HCC Highways agreed with this forecast year. A second forecast year will be considered for the impact assessment at M27 junction 3 which is detailed in the separate *SRN Capacity Note.*

7.2.2 The 2023 Baseline traffic flows, shown in Traffic Flow Diagrams 1 and 2 in Appendix D, were factored assessment year using the DfT software TEMPro (Trip End Model Presentation Program) version 8.1. This package allows access to data used in the National Trip End Model (NTEM) and is the industry standard method of applying background traffic growth.

7.2.3 As the study area primarily spans four Mid Layer Super Output Areas (MSOA), Test Valley 010, 011, 012 and 013, TEMPro factors were derived for each. Trip end growth factors for car drivers were derived and adjusted by the Core National Transport Model (NTM) dataset for 'A roads'. Whilst the study area also includes 'minor roads', the predominate road classification at key junctions is A roads which is why this classification adjustment has been made.

7.2.4 As TEMPro is not strictly applicable to heavy vehicles, the DfT's National Road Traffic Projections (NRTP) 2022 have been used to derive factors to consider HGV growth. The linear calculations used to derive the growth are provided in Appendix G.

7.2.5 Before applying the traffic growth factors derived from the above methods, the trips from local committed development have been considered.

7.3 Committed Development

7.3.1 Only two committed developments were agreed with HCC during pre-application discussions (Appendix A), these being Whitenap and Kings Chase South, however, as this application includes an EIA, the EIA coordinators have undertaken a thorough search of recent planning applications and allocations. Prime have reviewed the list and included the following applications as committed developments, with further details of the reasoning and logic provided in ES Chapter 6: Traffic and

Transport. It is acknowledged that several of these applications do not benefit from planning permission, but have still been included as being committed based on EIA guidance:

- 14/00726/OUTS - Land at Rownhams: 320 dwellings & 60 unit extra care home (consented);
- 16/02432/OUTS - Land at Hoe Lane: 300 dwellings (outline consent);
- 20/00599/FULLS - Land off Braishfield Road: 64 dwellings (consented);
- 22/01213/OUTS - Whitenap - A New Neighbourhood; Large scale development including 1,100 dwellings (pending);
- 22/03069/OUTS - Proposed extension of Abbey Park: 18,600 sqm of B1, B2 & B8 employment use (pending); and
- 23/00964/OUTS - Land at Kings Chase South: 310 dwellings (pending).

7.3.2 As TEMPro includes government derived planning forecasts, and in line with TAG guidance, it is appropriate to manually adjust the planning assumptions within the database software to remove the numbers of dwellings associated with the committed development, which would otherwise result in double-counting.

7.3.3 It is important to note that although the Test Valley 010 and 011 MSOAs do not comprise the Site or any of the committed developments, the former is located adjacent to the Site and the latter includes the town centre, while both comprise large built-up areas covering nearly all of Romsey in its entirety. As such, they both serve as a proxy for growth in the vicinity of the Site location. The planning assumptions associated with these MSOAs have not been adjusted.

7.3.4 The 300 dwellings associated with the Hoe Lane Site are geographically located in the Test Valley 012 MSOA, which contains 247 additional households between 2023 and 2028, so only the respective 247 have been removed rather than apply negative growth.

7.3.5 The Abbey Park development is also located within the Test Valley 012 MSOA, however, as this is an employment development, it is also necessary to adjust the job assumptions. The total floor area of the extension is 18,600sqm. Applying a density of 1 job per 47/36/77 sqm to the B1/B2/B8 total floor area as per the *Employment Densities Guide 3rd Edition* (2015), results in a forecast of 382 jobs. The Test Valley 012 MSOA contains 44 additional jobs between 2023 and 2028, which have therefore been removed rather than apply negative growth.

7.3.6 The Whitenap, Braishfield Road and Kings Chase South developments total 1,472 dwellings and are geographically located in the Test Valley 013 MSOA, which contains 161 additional households between 2023 and 2023, so, again, only the respective 161 households have been removed rather than apply negative growth.

7.3.7 A comparative summary of the reductions in the household and job planning assumptions are shown in Tables 7.1 and 7.2.

Table 7.1: TEMPro Default and Alternative Planning Assumptions between 2023 and 2028 - Households

Area	Default Assumptions			Alternative Assumptions		
	Base HH	Future HH	Difference	Base HH	Future HH	Difference
Test Valley 012	5163	5410	247	5163	5163	0
Test Valley 013	3101	3262	161	3101	3101	0

Table 7.2: TEMPro Default and Alternative Planning Assumptions between 2023 and 2028 - Jobs

Area	Default Assumptions			Alternative Assumptions		
	Base HH	Future HH	Difference	Base HH	Future HH	Difference
Test Valley 012	3286	3330	44	3286	3286	0

7.3.8 The resulting TEMPro and NRTP growth factors derived from the above are shown in Table 7.3 below.

Table 7.3: Traffic Growth Factors 2023-2028

User Class - Source	Lights - TEMPro		NRTP (Heavies)
Area	AM	PM	Both
Test Valley 010	1.0317	1.0320	1.0102
Test Valley 011	1.0407	1.0410	
Test Valley 012	0.9984	0.9959	
Test Valley 013	1.0061	1.0042	
Average	**1.0192**	**1.0183**	-

7.3.9 Given that the study area spans four MSOAs, the average of the factors for the four has been applied.

7.3.10 The average growth factors shown in Table 7.3 above have been applied to the 2023 Baseline traffic flows resulting in the 2028 Future Baseline traffic flows and are shown in Traffic Flow Diagrams 3 and 4.

7.3.11 The trips associated with the committed development are shown in Traffic Flow Diagrams 5-18.

7.4 Vehicular Trip Generation

7.4.1 In order to determine the traffic generation associated with the proposed development, the TRICS 7.10.2 database has been used. This industry-standard database contains traffic generation surveys of numerous sites of various land use types across the UK and Eire.

7.4.2 A summary of the key selections applied in order to derive the sample is as follows:

- Land use category - houses privately owned;
- Regions excluded - London, Northern Ireland and Eire;
- No. dwelling range selection - 50 to 4,334 units (50 to 918 actual);
- Date range - 02/03/13 to 01/03/23;

- Weekend surveys excluded;
- Selected locations - edge of town and
- Location sub categories - residential zone.

7.4.3 The above selections returned a sample of 47 sites, however, 16 sites were removed due to them containing flats or bungalows and 4 sites were removed because they were surveyed during the Covid-19 pandemic period. The results of these surveys would have skewed the trip rates of the sample.

7.4.4 The full reports of the TRICS data and selection process are included in Appendix H.

7.4.5 The derived trip rates were then applied to the 270 dwellings resulting in the trip generation. The likely 12-hour (residential sites in TRICS are typically only surveyed between 7am and 7pm) trip generation of the Site is shown in Table 7.4, with the AM and PM peak hours highlighted in bold font.

7.4.6 The below trip rates were accepted by HCC Highways and NH during scoping discussions (Appendix A).

Table 7.4: 12 Hour TRICS Derived Trip Rates and Trip Generation for 270 Dwellings

	Trip Rates			Trip Generation		
Time	Arrivals	Departures	Totals	Arrivals	Departures	Totals
07:00-08:00	0.074	0.305	0.379	20	82	102
08:00-09:00	**0.137**	**0.381**	**0.518**	**37**	**103**	**140**
09:00-10:00	0.131	0.161	0.292	35	43	78
10:00-11:00	0.116	0.143	0.259	31	39	70
11:00-12:00	0.124	0.132	0.256	33	36	69
12:00-13:00	0.153	0.132	0.285	41	36	77
13:00-14:00	0.148	0.148	0.296	40	40	80
14:00-15:00	0.150	0.171	0.321	41	46	87
15:00-16:00	0.247	0.153	0.400	67	41	108
16:00-17:00	0.249	0.145	0.394	67	39	106
17:00-18:00	**0.350**	**0.151**	**0.501**	**95**	**41**	**136**
18:00-19:00	0.288	0.146	0.434	78	39	117
Daily (12hr)	**2.167**	**2.168**	**4.335**	**585**	**585**	**1170**

7.4.7 As the above table shows, the Site is likely to generate in the region of 140 two-way trips in the AM peak hour and 136 two-way trips in the PM peak hour, which equates to just over 2 new trips per minute at the Site accesses before dissipating across the local highway network.

7.4.8 It is important to note that the above trip rates should be considered as robust as they have been applied to both the open market and the affordable elements of the Site. Trip rates associated with affordable housing tend to be lower, although it would be fully justified to use them based on TRICS best practice advice. Also, it should be noted that no allowance has been made for any future reduction in car travel based or any potential increased use of sustainable modes of travel.

7.4.9 Furthermore, the above assessment should be considered to be robust as it has not discounted any traffic associated with the existing on-site buildings, which are set to be demolished.

7.5 Multimodal Trip Generation

7.5.1 The number of non-car trips likely to be generated by the Site has been forecast using 2011 Census Method of Travel to Work (MTW) data. The Test Valley (E02004823) MSOA has been selected as it comprises a large built-up area immediately adjacent to the Site, which the proposed development will extend even further. The travel characteristics of this neighbouring MSOA are likely to be more representative of the proposed development than the more rural MSOA in which the Site sits. The trip ends for each method of travel have been downloaded from Nomis (http://www.nomisweb.co.uk).

7.5.2 Several of the transport mode categories have been manually removed from the data for reasons including it being unrealistic that they will be used by residents of the Site (i.e. underground); or that they will not generate a trip (i.e. not in employment).

7.5.3 As the vehicular trips were calculated using TRICS, factors have been derived between them and the census car driver trips (3,110). The factors equate to 4.5% and 4.4% in the respective AM and PM peaks. They have then been applied to the other census modes to forecast the likely number of multimodal trips generated by the Site. Table 7.5 provides the forecast multimodal trips.

Table 7.5: Forecast Multimodal Person Trips Based on Census MTW

Method of Travel to Work	Census Trips	Mode %	AM Trips	PM Trips
Work mainly at or from home	448	9.9%	20	20
Train	153	3.4%	7	7
Bus, minibus or coach	82	1.8%	4	4
Driving a car or van	3,110	68.4%	140	136
Passenger in a car or van	241	5.3%	11	11
Bicycle	153	3.4%	7	7
On foot	357	7.9%	16	16
Trips Excluding WFH	**4,096**	**-**	**185**	**181**
All Modes	**4,544**	**100%**	**205**	**201**
		Factors	4.5%	4.4%

7.5.4 Based on the figures in Table 7.5, the Site is forecast to generate 185 and 181 total people physical trips in the AM and PM peaks respectively, with around 20 people working from home, although this figure is likely to be higher given the increase in working from home following the Covid-19 pandemic.

7.5.5 Following driving a car being the most common method of travel likely to be used by residents of the Site, walking trips are expected to account for 16 trips in each peak, equating to 7.9%, car passenger trips are expected to account for 11 trips in each peak equating to 5.3%, trips via train travel and bicycle trips are each expected to account for 7 trips in each peak, equating to a combined 6.8%, while trips via bus travel are expected to account for 4 trips in each peak, equating to 1.8%.

7.6 Trip Distribution

7.6.1 Traffic generated by the development proposal has been distributed on to the highway network based on 2011 Census MTW data (as agreed with HCC Highways and NH during scoping discussions) for car drivers using the Test Valley 012 MSOA, which contains the Site, as well as Test Valley 010 MSOA, which contains a large portion of the adjacent built-up area of Romsey. Origin-destination pairs containing 15 trips or less were removed from the data, accounting for less than 15% of the total trips, to make the data more manageable and to eliminate less common and generally longer distance trips from the dataset.

7.6.2 The main commuter destinations/origins (urban areas, industrial estates, business parks etc.) within each workplace MSOA were identified and the most likely route from/to the Site, referred to as the primary route, was derived using web-based route planning software (Google Maps). Whilst some destinations may have more than one suitable route available, the most efficient routes (based on travel time and distance) have been chosen in order to concentrate the traffic on these routes within the exercise, forming a worst-case assessment.

7.6.3 15 routes through the study area have been identified and are shown in Table 7.6 with a summary of the percentage of development trips that will be distributed along each also shown.

Table 7.6: Distribution Summary

Route	Typical Destination	Route %
A27 South-East	Central & North Southampton	5.5%
A27 West	Salisbury	4.9%
A3057 North via Braishfield Road	Andover	3.4%
A3057 North via Town Centre	Andover	3.4%
A3057 South	North & West Southampton	5.4%
A3090 North	Winchester	17.8%
A3090 South	Lyndhurst	1.8%
A36 West	Landford & Downton	0.5%
Castle Lane	Chandlers Ford & Eastleigh	13.4%
Cupernham Lane via Botley Road West	Romsey Industrial Estate & Romsey Hospital	1.6%
Cupernham Lane via Halterworth Lane	Central Romsey & Budds Lane Industrial Estate	8.2%
Flexford Road	West Chandlers Ford	0.2%
M271	Central & Western Southampton	23.5%
Rownhams Lane South	North & West Southampton	6.4%
Town Centre via Botley Road West	Central Romsey	4.2%

7.6.4 For assessment purposes, the assumption has been made that 60% of the development traffic will use the proposed southern Site access with 40% using the proposed northern Site access, this being on the basis that the DFP shows larger a slightly larger developable area on the southern part of the Site.

7.6.5 The distribution is shown diagrammatically in Traffic Flow Diagram 19 with details of the distribution calculation and data provided in Appendix I. The distributed development traffic is shown in Traffic Flow Diagrams 20 and 21.

7.7 Assessment Scenarios

7.7.1 The forecast assessment scenarios presented during pre-application discussions (Appendix A) have been expanded in order to align the assessment with the IEMA Guidelines, particularly for the consideration of the impact of the development proposals on their own and cumulatively with committed developments.

7.7.2 The assessment scenarios are summarised in Table 7.7 along with their main purpose, be it ES or TA and ES, along with the respective traffic flow diagram references.

Table 7.7: Assessment Scenarios

Scenario	Main Purpose	Flow Diagram
2023 Baseline	TA & ES	3 & 4
2028 Future Baseline	ES	5 & 6
2028 Future Baseline plus Development	ES	22 & 23
2028 Without Development (2028 Future Baseline plus committed development)	TA & ES	24 & 25
2028 With Development (2028 Without Development plus Development – cumulative impact scenario)	TA & ES	26 & 27

7.7.3 The traffic impact of the development proposals is considered in Section 8.

This page has been left intentionally blank

8 TRAFFIC IMPACT ASSESSMENT

8.1 Absolute and Percentage Impact

8.1.1 Having derived estimated traffic flows for the forecast year in the Without and With Development scenarios it is possible to compare expected traffic flows within the study area.

8.1.2 Table 8.1 provides a comparison of flows in the forecast year for the 2028 Without and 2028 With Development scenarios summarising the difference. This exercise has been carried out all off-site study junctions with the exception of M27 junction 3 which is considered in a separate *SRN Capacity Note*.

Table 8.1: Comparison of Two-way Traffic Flows through Study Area Junctions - 2028 Without and 2028 With Development

Junction	2028 AM Peak				2028 PM Peak			
	Without Dev	With Dev	Abs Diff	% Diff	Without Dev	With Dev	Abs Diff	% Diff
1. Halterworth Lane/Jenner Way	417	463	46	11.0%	343	392	49	14.3%
2. Halterworth Lane/Highwood Lane	932	978	46	4.9%	839	888	49	5.8%
3. A3090 Winchester Road/Halterworth Lane	1572	1618	46	2.9%	1222	1268	46	3.8%
4. Botley Road/Halterworth Lane	1157	1251	94	8.1%	1024	1116	92	9.0%
5. A27/Botley Road/Premier Way	3083	3159	76	2.5%	2869	2942	73	2.5%
6. A27/Rownhams Lane	2302	2338	36	1.6%	2188	2223	35	1.6%
7. A27/A3057 (Ashfield roundabout)	2865	2906	41	1.4%	2852	2891	39	1.4%
8. M271/A3057/Coldharbour Lane (Romsey Road roundabout)	2421	2463	42	1.7%	2748	2788	40	1.5%
9. Halterworth Lane Level Crossing	912	958	46	5.0%	804	853	49	6.1%

8.1.1 Based on the flow differences in Table 8.1, the greatest impact of the development will be on the Botley Road/Halterworth Lane junction, with an increase of 94 two-way trips (8.1%) in the AM peak and 92 two-way trips (9.0%) in the PM peak.

8.1.2 The A27/Botley Road/Premier Way junction is expected to experience an increase of 76 two-way trips (2.5%) in the AM peak and 73 two-way trips (2.5%) in the PM peak.

8.1.3 The Halterworth Lane/Jenner Way junction and Halterworth Lane/Highwood Lane junctions are both expected to experience an increase of 46 two-way trips (11.0%/4.9%) in the AM peak and 49 two-way trips (14.3%/5.8%) in the PM peak.

8.1.4 The A3090 Winchester Road/Halterworth Lane junction is expected to experience an increase of 46 two-way trips (AM 2.9%/PM 3.8%) in each peak.

8.1.5 The Romsey Road roundabout is expected to experience an increase of 42 two-way trips (1.7%) in the AM peak and 40 two-way trips (1.5%) in the PM peak.

8.1.6 The Ashfield roundabout is expected to experience an increase of 41 two-way trips (1.4%) in the AM peak and 39 two-way trips (1.4%) in the PM peak.

8.1.7 The A27/Rownhams Lane junction is expected to experience an increase of 36 two-way trips (1.6%) in the AM peak and 35 two-way trips (1.6%) in the PM peak.

8.1.8 The proposed development is forecast to add 46 (5.0%) and 49 (6.1%) two-way trips to the Halterworth Lane level crossing in the respective peak hours.

8.1.9 GTA suggests that an increase of 30 two-way trips is a useful point of reference regarding traffic impact at junctions, implying that any increase in trips less than this figure is unlikely to cause a detrimental impact. As such, capacity assessments have been undertaken at all off-site study area junctions along with the proposed Site accesses.

8.2 Junction Capacity Assessment

8.2.1 As all junctions are/will be priority-controlled and roundabouts, the capacity assessment has been undertaken using the industry standard software Junctions 10, developed by TRL software. This software includes the PICADY module which is used to model priority-controlled junctions and the ARCADY module which is used to model roundabouts.

8.2.2 When interpreting the results, the capacity of each arm or movement is calculated as the Ratio of Flow to Capacity (RFC) with 0.85 representing the practical capacity threshold of the arm and 1.00 representing the theoretical capacity threshold. It is above the practical capacity threshold where capacity problems may begin to occur while exceeding the theoretical capacity means that arms are over capacity.

8.2.3 Modelled queues are shown in passenger car units (PCUs), this being equivalent to a distance of 5.75m which is the length of road space (car length plus gap length) that a typical car will occupy when queueing. In order to convert the traffic flows into PCUs, which is the requisite input flow unit required in the modelling software, a factor of 2.0 has been applied to the heavy vehicle user class, while cars effectively have a factor of 1.0. These factors are widely accepted in transport modelling.

8.2.4 Junction geometry has been coded into the models based on a mixture of aerial photography, OS mapping and geometry used in the TA associated with the Whitenap development.

8.2.5 Traffic flows were initially input based on the 'ONE HOUR' (ODTAB) option which synthesises a 'peak within a peak' at the middle of the time period modelled and is generally seen as being the worst-case form of assessment in terms of impact. However, where this has led to results that appear unrealistic, other flow input methods have been considered.

8.2.6 The results of the capacity assessment for each of the junctions are described below. The proposed Site access points have been assessed for the With Development scenario only.

8.2.7 All model report outputs are included in Appendix J.

Proposed Site Access Junctions

8.2.8 As noted in Section 5, it is proposed that the development will be accessed from two new simple priority-controlled junctions on Halterworth Lane.

8.2.9 Table 8.2 and 8.3 below provide a summary of the results of the capacity assessment of the proposed northern and southern Site access junctions respectively. The assessments have been based on the geometry shown on Drawing P21004-001C (Northern Site Access) and Drawing P21004-002B (Southern Site Access) in Appendix E and undertaken for the 2028 With Development scenario.

Table 8.2: Junction Capacity Assessment Results - Northern Site Access

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2028 With Development				
Proposed Northern Site Access	0.09	0.1	0.04	0.0
Halterworth Lane (Southern Arm)	0.02	0.0	0.06	0.1

Table 8.3: Junction Capacity Assessment Results - Southern Site Access

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2028 With Development				
Proposed Southern Site Access	0.14	0.2	0.06	0.1
Halterworth Lane (Southern Arm)	0.03	0.0	0.08	0.1

8.2.10 The results show that the proposed Site access points will provide sufficient capacity to serve the development and operate with a considerable level of spare capacity. Whilst a 60/40 south/north assumption has been made in terms of the proportions of development traffic that will use each access, as detailed in Section 7.6, clearly the level of spare capacity will mean that each access will be able to accommodate different proportions.

Halterworth Lane/Jenner Way

8.2.11 The results of the capacity assessment are shown in Table 8.4.

Table 8.4: Junction Capacity Assessment Results - Halterworth Lane/Jenner Way

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2023 Baseline				
Halterworth Lane (Southern Arm)	0.45	0.8	0.28	0.4
Jenner Way	0.04	0.0	0.02	0.0
2028 Future Baseline				
Halterworth Lane (Southern Arm)	0.46	0.8	0.29	0.4
Jenner Way	0.04	0.0	0.02	0.0
2028 Future Baseline + Development				
Halterworth Lane (Southern Arm)	0.54	1.1	0.32	0.5
Jenner Way	0.04	0.0	0.02	0.0
2028 Without Development				
Halterworth Lane (Southern Arm)	0.49	1.0	0.37	0.6
Jenner Way	0.04	0.0	0.02	0.0
2028 With Development				
Halterworth Lane (Southern Arm)	0.57	1.3	0.41	0.7
Jenner Way	0.04	0.0	0.02	0.0

8.2.12 The results show that the junction will continue to operate with a considerable level of spare capacity with the development in place, with the highest RFC being 0.57 on the Halterworth Lane southern arm in the AM peak.

Halterworth Lane/Highwood Lane

8.2.13 A ONE HOUR profile was initially used in this model, however it showed a poor level of calibration between modelled and observed queues. The observed flow profile for this junction was reviewed and a summary of the flows and profile is provided in Table 8.5 below.

Table 8.5: Observed Flow Profile - Halterworth Lane/Highwood Lane

Time	Flow	%
0800-0815	193	22.8%
0815-0830	219	25.9%
0830-0845	227	26.8%
0845-0900	207	24.5%
0800-0900	**846**	**100.0%**
1615-1630	179	23.6%
1630-1645	209	27.6%
1645-1700	166	21.9%
1700-1715	204	26.9%
1615-1715	**758**	**100.0%**

8.2.14 Both peak profiles appear relatively flat (i.e. close to 25%), particularly in the AM peak hour. As such, the use of a FLAT profile, rather than the bell-shaped curve of the synthesised peak used in the ONE

HOUR option, is therefore appropriate, justified and provides a better level of calibration. The results are provided in 8.6 below.

Table 8.6: Junction Capacity Assessment Results - Halterworth Lane/Highwood Lane

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2023 Baseline				
Halterworth Lane (Northern Arm)	0.74	2.7	0.65	1.8
Highwood Lane	0.41	0.7	0.48	0.9
2028 Future Baseline				
Halterworth Lane (Northern Arm)	0.75	3.0	0.66	1.9
Highwood Lane	0.42	0.7	0.48	1.0
2028 Future Baseline + Development				
Halterworth Lane (Northern Arm)	0.79	3.5	0.74	2.8
Highwood Lane	0.43	0.8	0.49	1.0
2028 Without Development				
Halterworth Lane (Northern Arm)	0.84	5.1	0.70	2.3
Highwood Lane	0.45	0.8	0.51	1.1
2028 With Development				
Halterworth Lane (Northern Arm)	0.88	6.5	0.79	3.6
Highwood Lane	0.45	0.8	0.52	1.1

8.2.15 The results show that the junction will operate with spare capacity with the development in place in 2028, with the Halterworth Lane northern arm expected to operate slightly above the practical capacity threshold (0.85) with an RFC of 0.88 in the AM peak. However, it is important to note that the committed development traffic results in a 0.09 increase in RFC in this peak compared to just 0.04 as a result of the proposed development. The junction is shown to operate below the practical capacity threshold without the committed development traffic in the AM peak and below it with both the development traffic and committed development traffic in the PM peak.

8.2.16 The 0.04 RFC increase as a result of the development can be considered to be a negligible level of impact.

A3090 Winchester Road/Halterworth Lane

8.2.17 A ONE HOUR profile was initially used in this model, however it showed a poor level of calibration between modelled and observed queues. The observed flow profile for this junction was reviewed and a summary of the flows and profile is provided in Table 8.7.

Table 8.7: Observed Flow Profile

Time	Flow	%
0800-0815	312	21.2%
0815-0830	359	24.3%
0830-0845	391	26.5%
0845-0900	413	28.0%
0800-0900	**1475**	**100.0%**
1615-1630	270	23.8%
1630-1645	290	25.5%
1645-1700	268	23.6%
1700-1715	308	27.1%
1615-1715	**1136**	**100.0%**

8.2.18 Both peak profiles appear flat (i.e. close to 25%), particularly in the PM peak hour. As such, the use of a FLAT profile, rather than the bell-shaped curve of the synthesised peak used in the ONE HOUR option, is therefore appropriate, justified and provides a better level of calibration. The results are provided in 8.8 below.

Table 8.8: Junction Capacity Assessment Results - A3090 Winchester Road/Halterworth Lane

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2023 Baseline				
Halterworth Lane	0.81	4.2	0.63	1.7
A3090 Winchester Road (Western Arm)	0.61	1.9	0.48	1.0
2028 Future Baseline				
Halterworth Lane	0.84	4.9	0.64	1.8
A3090 Winchester Road (Western Arm)	0.62	2.0	0.49	1.0
2028 Future Baseline + Development				
Halterworth Lane	0.92	9.2	0.67	2
A3090 Winchester Road (Western Arm)	0.63	2.2	0.52	1.2
2028 Without Development				
Halterworth Lane	0.91	8.2	0.71	2.5
A3090 Winchester Road (Western Arm)	0.69	2.9	0.52	1.2
2028 With Development				
Halterworth Lane	0.99	19.8	0.75	2.9
A3090 Winchester Road (Western Arm)	0.71	3.1	0.55	1.3

8.2.19 The results show that the Halterworth Lane arm is expected to operate close to the theoretical capacity threshold (1.00) with an RFC of 0.99 in the AM peak with the development in place in 2028. However, it is important to note that the '2028 With Development' scenario also includes committed development traffic. The development traffic increases the RFC by 0.08 with is just 0.01 greater than the committed development traffic and should be considered to be a negligible impact.

Botley Road/Halterworth Lane

8.2.20 The results of the capacity assessment are shown in Table 8.9.

Table 8.9: Junction Capacity Assessment Results - Botley Road/Halterworth Lane

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2023 Baseline				
Halterworth Lane	0.42	0.7	0.29	0.4
Botley Road (Eastern Arm)	0.27	0.6	0.25	0.5
2028 Future Baseline				
Halterworth Lane	0.43	0.7	0.30	0.4
Botley Road (Eastern Arm)	0.27	0.6	0.26	0.5
2028 Future Baseline + Development				
Halterworth Lane	0.59	1.4	0.38	0.6
Botley Road (Eastern Arm)	0.33	0.7	0.39	0.9
2028 Without Development				
Halterworth Lane	0.53	1.1	0.34	0.5
Botley Road (Eastern Arm)	0.33	0.8	0.35	0.8
2028 With Development				
Halterworth Lane	0.71	2.3	0.42	0.7
Botley Road (Eastern Arm)	0.39	1.1	0.49	1.4

8.2.21 The results show that the junction will continue to operate with a considerable level of spare capacity with the development in place, with the highest RFC being 0.71 on the Halterworth Lane arm in the AM peak.

A27/Botley Road/Premier Way

8.2.22 The geometry for this junction has been extracted from the TA associated with the Whitenap development. The results of the capacity assessment are shown in Table 8.10.

Table 8.10: Junction Capacity Assessment Results - A27/Botley Road/Premier Way - Existing Layout

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2023 Baseline				
1 - A27 (North-Eastern Arm)	0.78	3.6	0.57	1.4
2 - Premier Way	0.05	0.1	0.20	0.2
3 - A27 (South-Western Arm)	0.57	1.4	0.50	1.0
4 - Botley Road	0.65	1.9	0.57	1.4
2028 Future Baseline				
1 - A27 (North-Eastern Arm)	0.80	3.9	0.58	1.4
2 - Premier Way	0.05	0.1	0.20	0.3
3 - A27 (South-Western Arm)	0.59	1.4	0.52	1.1
4 - Botley Road	0.67	2.0	0.59	1.4
2028 Future Baseline + Development				
1 - A27 (North-Eastern Arm)	0.82	4.4	0.60	1.5
2 - Premier Way	0.05	0.1	0.21	0.3
3 - A27 (South-Western Arm)	0.60	1.5	0.54	1.2
4 - Botley Road	0.72	2.5	0.61	1.5
2028 Without Development				
1 - A27 (North-Eastern Arm)	0.98	19.0	0.67	2.1
2 - Premier Way	0.09	0.1	0.49	1.0
3 - A27 (South-Western Arm)	0.73	2.6	0.68	2.1
4 - Botley Road	0.80	4.0	0.72	2.6
2028 With Development				
1 - A27 (North-Eastern Arm)	1.00	25.3	0.69	2.3
2 - Premier Way	0.09	0.1	0.50	1.0
3 - A27 (South-Western Arm)	0.74	2.8	0.72	2.5
4 - Botley Road	0.86	5.6	0.74	2.9

8.2.23 The results show that the A27 north-eastern arm is expected to operate at the theoretical capacity threshold (1.00) with an RFC of 1.00 in the AM peak in the 2028 Without Development scenario, while it is expected to operate with spare capacity in the PM peak. In the 2028 Future Baseline + Development scenario, the A27 north-eastern arm operates with an RFC of 0.82 in the AM peak, demonstrating that the proposed development has a negligible impact on the junction.

8.2.24 In the 2028 With Development scenario, all remaining arms are expected to operate with a considerable level of spare capacity.

8.2.25 Prime are aware from reviewing the Whitenap TA that there are mitigation measures proposed for this junction. A drawing illustrating the proposed mitigation measures is provided on page 66 of the Whitenap TA. The measures include a combination of flare and merge lengthening and the provision of a ghost island right turn at the Highwood Lane junction. It is understood that the proposed layout is acceptable to HCC in principle. The layout including the mitigation measures proposed by the Whitenap scheme has been modelled, with the results summarised in Table 8.11.

Table 8.11: Junction Capacity Assessment Results - A27/Botley Road/Premier Way - Proposed Layout (Whitenap)

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2023 Baseline				
1 - A27 (North-Eastern Arm)	0.69	2.3	0.51	1.1
2 - Premier Way	0.05	0.1	0.20	0.2
3 - A27 (South-Western Arm)	0.53	1.2	0.47	0.9
4 - Botley Road	0.48	1.0	0.42	0.7
2028 Future Baseline				
1 - A27 (North-Eastern Arm)	0.71	2.4	0.52	1.1
2 - Premier Way	0.05	0.1	0.20	0.3
3 - A27 (South-Western Arm)	0.55	1.2	0.48	0.9
4 - Botley Road	0.50	1.0	0.43	0.8
2028 Future Baseline + Development				
1 - A27 (North-Eastern Arm)	0.72	2.6	0.54	1.2
2 - Premier Way	0.05	0.1	0.21	0.3
3 - A27 (South-Western Arm)	0.56	1.3	0.50	1.0
4 - Botley Road	0.53	1.1	0.45	0.8
2028 Without Development				
1 - A27 (North-Eastern Arm)	0.86	6.0	0.60	1.5
2 - Premier Way	0.09	0.1	0.49	1.0
3 - A27 (South-Western Arm)	0.68	2.1	0.63	1.7
4 - Botley Road	0.59	1.4	0.52	1.1
2028 With Development				
1 - A27 (North-Eastern Arm)	0.88	6.9	0.61	1.6
2 - Premier Way	0.09	0.1	0.50	1.0
3 - A27 (South-Western Arm)	0.69	2.2	0.66	2.0
4 - Botley Road	0.63	1.7	0.54	1.2

8.2.26 The results of the proposed mitigation scheme show that it should offer fairly considerable benefit. All arms will operate well below the practical capacity threshold in the PM peak and only one arm will operate slightly above it in the AM peak, with the impact of the development traffic on this arm increasing the RFC by just 0.02.

A27/Rownhams Lane

8.2.27 The geometry for this junction has been extracted from the TA associated with the Whitenap development. The results of the capacity assessment are shown in Table 8.12.

Table 8.12: Junction Capacity Assessment Results - A27/Rownhams Lane

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2023 Baseline				
1 - A27 (W)/Rownhams Lane - Stream B-AC	0.78	3.4	0.47	0.9
1 - A27 (W)/Rownhams Lane - Stream C-AB	0.66	2.0	0.64	1.8
2 - A27 (E)/Rownhams Lane Link - Stream B-AC	0.04	0.0	0.06	0.1
2 - A27 (E)/Rownhams Lane Link - Stream C-B	0.00	0.0	0.00	0.0
3 - Rownhams Lane/Rownhams Lane Link - Stream B-AC	0.07	0.1	0.05	0.0
3 - Rownhams Lane/Rownhams Lane Link - Stream C-AB	0.05	0.1	0.06	0.1
2028 Future Baseline				
1 - A27 (W)/Rownhams Lane - Stream B-AC	0.80	3.8	0.48	0.9
1 - A27 (W)/Rownhams Lane - Stream C-AB	0.68	2.2	0.66	2.0
2 - A27 (E)/Rownhams Lane Link - Stream B-AC	0.05	0.0	0.06	0.1
2 - A27 (E)/Rownhams Lane Link - Stream C-B	0.00	0.0	0.00	0.0
3 - Rownhams Lane/Rownhams Lane Link - Stream B-AC	0.08	0.1	0.05	0.0
3 - Rownhams Lane/Rownhams Lane Link - Stream C-AB	0.05	0.1	0.06	0.1
2028 Future Baseline + Development				
1 - A27 (W)/Rownhams Lane - Stream B-AC	0.81	3.9	0.50	1.0
1 - A27 (W)/Rownhams Lane - Stream C-AB	0.69	2.4	0.67	2.1
2 - A27 (E)/Rownhams Lane Link - Stream B-AC	0.05	0.0	0.06	0.1
2 - A27 (E)/Rownhams Lane Link - Stream C-B	0.00	0.0	0.00	0.0
3 - Rownhams Lane/Rownhams Lane Link - Stream B-AC	0.08	0.1	0.05	0.0
3 - Rownhams Lane/Rownhams Lane Link - Stream C-AB	0.05	0.1	0.06	0.1
2028 Without Development				
1 - A27 (W)/Rownhams Lane - Stream B-AC	0.99	15.0	0.53	1.1
1 - A27 (W)/Rownhams Lane - Stream C-AB	0.76	3.6	0.82	5.2
2 - A27 (E)/Rownhams Lane Link - Stream B-AC	0.05	0.1	0.07	0.1
2 - A27 (E)/Rownhams Lane Link - Stream C-B	0.00	0.0	0.00	0.0
3 - Rownhams Lane/Rownhams Lane Link - Stream B-AC	0.08	0.1	0.05	0.0
3 - Rownhams Lane/Rownhams Lane Link - Stream C-AB	0.05	0.1	0.06	0.1
2028 With Development				
1 - A27 (W)/Rownhams Lane - Stream B-AC	1.00	16.1	0.55	1.2
1 - A27 (W)/Rownhams Lane - Stream C-AB	0.78	4.0	0.83	5.7
2 - A27 (E)/Rownhams Lane Link - Stream B-AC	0.05	0.1	0.07	0.1
2 - A27 (E)/Rownhams Lane Link - Stream C-B	0.00	0.0	0.00	0.0
3 - Rownhams Lane/Rownhams Lane Link - Stream B-AC	0.08	0.1	0.05	0.0
3 - Rownhams Lane/Rownhams Lane Link - Stream C-AB	0.05	0.1	0.06	0.1

8.2.28 The results show that the Rownhams Lane arm on the western fork of the junction is expected to operate at the theoretical capacity threshold (1.00) with an RFC of 1.00 in the AM peak in the 2028 With Development scenario, while it is expected to operate with spare capacity in the PM peak.

8.2.29 In the '2028 Future Baseline + Development' scenario, the Rownhams Lane arm on the western fork operates with an RFC of 0.81 in the AM peak, increasing it by just 0.01, demonstrating that the proposed development has a negligible impact on the junction. The committed development traffic increases the RFC on the equivalent arm by 0.18.

A27/A3057

8.2.30 The geometry for this junction has been extracted from the TA associated with the Whitenap development. The results of the capacity assessment are shown in Table 8.13.

Table 8.13: Junction Capacity Assessment Results - A27/A3057

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2023 Baseline				
1 - A27 (North-Eastern Arm)	0.41	0.7	0.42	0.7
2 - A3057	0.53	1.2	0.42	0.7
3 - A27 (North-Western Arm)	0.50	1.0	0.53	1.1
2028 Future Baseline				
1 - A27 (North-Eastern Arm)	0.42	0.8	0.43	0.8
2 - A3057	0.54	1.2	0.42	0.8
3 - A27 (North-Western Arm)	0.51	1.1	0.54	1.2
2028 Future Baseline + Development				
1 - A27 (North-Eastern Arm)	0.44	0.8	0.44	0.8
2 - A3057	0.55	1.3	0.44	0.8
3 - A27 (North-Western Arm)	0.51	1.1	0.54	1.2
2028 Without Development				
1 - A27 (North-Eastern Arm)	0.62	1.6	0.66	1.9
2 - A3057	0.69	2.3	0.58	1.4
3 - A27 (North-Western Arm)	0.63	1.8	0.68	2.1
2028 With Development				
1 - A27 (North-Eastern Arm)	0.64	1.8	0.67	2.0
2 - A3057	0.70	2.4	0.60	1.5
3 - A27 (North-Western Arm)	0.64	1.8	0.69	2.2

8.2.31 The results show that the junction will continue to operate with a considerable level of spare capacity with the development in place, with the highest RFC being 0.70 on the A3057 arm in the AM peak.

M271/A3057/Coldharbour Lane

8.2.32 The geometry for this junction has been extracted from the TA associated with the Whitenap development. The results of the capacity assessment are shown in Table 8.14.

Table 8.14: Junction Capacity Assessment Results - M271/A3057/Coldharbour Lane

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2023 Baseline				
1 - A3057 (Northern Arm)	0.38	0.7	0.45	0.8
2 - A3057 (South-Eastern Arm)	0.29	0.4	0.27	0.4
3 - M271	0.34	0.5	0.37	0.6
4 - Coldharbour Lane	0.01	0.0	0.01	0.0
2028 Future Baseline				
1 - A3057 (Northern Arm)	0.39	0.7	0.46	0.9
2 - A3057 (South-Eastern Arm)	0.29	0.4	0.28	0.4
3 - M271	0.35	0.6	0.38	0.6
4 - Coldharbour Lane	0.01	0.0	0.01	0.0
2028 Future Baseline + Development				
1 - A3057 (Northern Arm)	0.41	0.7	0.47	0.9
2 - A3057 (South-Eastern Arm)	0.30	0.4	0.28	0.4
3 - M271	0.35	0.6	0.39	0.6
4 - Coldharbour Lane	0.01	0.0	0.01	0.0
2028 Without Development				
1 - A3057 (Northern Arm)	0.49	1.0	0.59	1.4
2 - A3057 (South-Eastern Arm)	0.32	0.5	0.32	0.5
3 - M271	0.42	0.7	0.48	0.9
4 - Coldharbour Lane	0.01	0.0	0.01	0.0
2028 With Development				
1 - A3057 (Northern Arm)	0.51	1.1	0.59	1.5
2 - A3057 (South-Eastern Arm)	0.33	0.5	0.32	0.5
3 - M271	0.42	0.8	0.49	1.0
4 - Coldharbour Lane	0.01	0.0	0.01	0.0

8.2.33 The results show that the junction will continue to operate with a considerable level of spare capacity with the development in place, with the highest RFC being 0.59 on the A3057 northern arm in the PM peak.

8.3 Halterworth Lane Level Crossing

8.3.1 As well as the off-site study junctions, the Halterworth Lane level crossing located to the north of the Site has also been assessed. In order to establish the current level of delay and queueing at the level crossing, a level crossing survey was carried out by Paul Castle Associates on Tuesday 7th November 2023, the same day as the MCCs and parking beat survey.

8.3.2 Information was gathered during the AM and PM peak periods, with the survey recording the queue lengths during the time that the level crossing barrier was down.

8.3.3 Table 8.15 below presents the results of the level crossing survey in the AM peak, with the raw data provided in Appendix C.

Table 8.15: Results of Halterworth Lane Level Crossing Survey - AM Peak

Barrier Up	Barrier Down	Barrier Down Duration	NB Queue	SB Queue
07:00:53	07:01:15	00:22	0	2
07:11:11	07:11:35	00:24	0	0
08:02:26	**08:02:45**	**00:19**	**5**	**4**
08:13:51	**08:14:17**	**00:26**	**2**	**5**
08:51:26	**08:52:10**	**00:44**	**22**	**6**
09:03:40	09:04:04	00:24	4	8
09:11:15	09:11:42	00:27	0	0

8.3.4 As established in Section 4, the AM peak hour of the MCC data was found to be 08:00-09:00, thus, the following analysis focusses on this particular hour with the values associated with this hour highlighted bold in the table above.

8.3.5 Table 8.15 demonstrates that between 08:00 and 09:00 the barrier was down three times, totalling 89 seconds, which is equivalent to just 2.5% of the hour. The longest duration it was down for was 44 seconds (08:51:26 to 08:52:10), when a northbound queue of 22 vehicles formed, the highest recorded queue during the AM peak hour, and a southbound queue of 6 vehicles formed by the time the barrier went back up.

8.3.6 As shown on Traffic Flow Diagram 17 in Appendix D, between 08:00 and 09:00, a total of 27 northbound committed development trips and 43 southbound committed development trips, are expected to pass through the level crossing.

8.3.7 As shown on Traffic Flow Diagram 20 in Appendix D, between 08:00 and 09:00, a total of 34 northbound development trips and 12 southbound development trips are expected to pass through the level crossing. As such, the impact of the development trips on the queueing at the level crossing, in both directions, is best described as negligible. It should also be noted that the number of development trips passing through the level crossing is fewer than the trips associated with the committed development sites.

8.3.8 The proposed development and committed development sites are expected to result in a combined 61 northbound trips and 56 southbound trips passing through the level crossing, which on average equates to one trip approximately every minute in each direction.

8.3.9 As per Table 8.15 above, in the AM peak hour the highest recorded northbound queue was 22 vehicles, while the highest recorded southbound queue was 6 vehicles, both of which formed in 44 seconds. Adding one vehicle in each direction in this period would result in a northbound queue of 23 vehicles and a southbound queue of 7 vehicles.

8.3.10 Table 8.16 below presents the results of the level crossing survey in the PM peak, with the raw data provided in Appendix C.

Table 8.16: Results of Link Count Survey at Halterworth Lane Level Crossing - PM Peak

Barrier Up	Barrier Down	Barrier Down Duration	NB Queue	SB Queue
15:03:56	15:04:22	00:26	3	5
15:10:50	15:11:10	00:20	3	4
15:59:47	16:00:06	00:19	0	3
16:09:30	16:09:50	00:20	0	3
17:03:19	**17:03:37**	**00:18**	**4**	**6**
17:11:54	**17:12:17**	**00:23**	**8**	**5**
17:40:02	17:40:42	00:40	12	8

8.3.11 As established in Section 4, the PM peak hour of the MCC data was found to be 16:15-17:15, thus, the following analysis focusses on this particular hour with the values associated with this hour highlighted bold in the table above.

8.3.12 Table 8.16 demonstrates that between 16:15 and 17:15 the barrier was down two times, totalling 41 seconds, which is equivalent to just 1.1% of the hour. The longest duration it was down for was 23 seconds (17:11:54 to 17:12:17), whereby a northbound queue of 8 cars and a southbound queue of 5 cars formed by the time the barrier went back up.

8.3.13 As shown on Traffic Flow Diagram 18 in Appendix D, between 16:15 and 17:15, a total of 48 northbound committed development trips and 9 southbound committed development trips, are expected to pass through the level crossing.

8.3.14 As shown on Traffic Flow Diagram 21 in Appendix D, between 16:15 and 17:15, a total of 15 northbound development trips and 34 southbound development trips are expected to pass through the level crossing. As such, the impact of the development trips on the queueing at the level crossing, in both directions, is best described as negligible. It should also be noted that the number of development trips passing through the level crossing is fewer than the trips associated with the committed development sites as per the AM peak.

8.3.15 The proposed development and committed development sites are expected to result in a combined 63 northbound trips and 43 southbound trips passing through the level crossing, which equates to one northbound trip approximately every minute and less than one southbound trip approximately every minute.

8.3.16 As per Table 8.16 above, the highest recorded northbound queue was 8 vehicles, while the highest recorded southbound queue was 5 vehicles, both of which formed in 23 seconds. Adding one vehicle in each direction would result in a northbound queue of 9 vehicles and a southbound queue of 6 vehicles.

8.3.17 As the queue lengths were longer in the AM peak, we have considered their practical impact during this peak as a worst case. As stated earlier in this section, a 5.75m length is the length of road space (car length plus gap length) that a typical vehicle will occupy when queuing. Applying this length to calculate the approximate queue length in metres, the 23 northbound vehicles would result in a queue measuring circa 132m, which would extend from the level crossing to a short distance south-west of Hestia Close. Applying this length to the 7 southbound vehicles would result in a queue length measuring circa 40m, which would extend from the level crossing to Riverside house and the petrol filling station/garage.

8.3.18 In order to encourage queuing drivers not to block these side roads and accesses during the limited times of the day that the queues from the level crossing may otherwise block them, the Applicant is willing to provide 'Keep Clear' road markings on Halterworth Lane at its junctions with Hestia Close and St Swithun's Close south and north of the level crossing respectively, and at the accesses to Riverside House and the petrol filling station/garage north of the level crossing. Whilst the Keep Clear markings would extend the queues slightly further, they would not block other side roads or accesses.

8.4 Summary

8.4.1 This section has presented the results of the capacity assessments used to determine the suitability of the proposed Site accesses and suitability of the surrounding highway network to accommodate the development proposal. It has also considered mitigation measures proposed at two junctions as part of the Whitenap application.

8.4.2 It has been demonstrated that the off-site study junctions will operate with spare capacity with the development and committed developments in place. The cumulative impact on the Halterworth Lane level crossing has been considered, and only an addition vehicle is forecast to be added to the back of the queue when the barriers are down. The wider impact on the local highway network has been shown to be negligible and the proposed Site accesses will operate with sufficient capacity to serve the development.

8.4.3 The introduction of the development traffic will be in accordance with TVBC Policy T1 and will not result in an *'unacceptable impact on highway safety'* nor have a *'severe'* impact on the operation of the highway network in terms of safety and capacity.

This page has been left intentionally blank

9 HIGHWAY SAFETY

9.1 Collision Data

9.1.1 Personal injury accident data has been purchased from HCC for the five-year period between 1st September 2018 and 31st August 2023.

9.1.2 The study area all study area junctions and the links (roads) in between them.

9.1.3 The study area was agreed with HCC Highways during scoping discussions (Appendix A) and a plan illustrating the location of the recorded accidents and the accident reports are provided in Appendix K.

9.1.4 In total there were 34 accidents within the extensive study area, 24 of which were classed as 'slight' injury accidents and 10 of which were classed as 'serious'. There were no fatal accidents. The annual breakdown is shown in Table 9.1 below.

Table 9.1: Summary of Reported Personal Injury Accidents

Year	Severity			Total
	Slight	Serious	Fatal	
2018 (From 01/09/2018)	3	1	-	**4**
2019	3	3	-	**6**
2020	3	1	-	**4**
2021	7	1	-	**8**
2022	7	2	-	**9**
2023 (Up to 31/08/2023)	1	2	-	**3**
Total	**24**	**10**	**-**	**34**
Severity %	**71%**	**29%**	**-**	**100%**

9.1.5 The results show some variation in the number of accidents, with the number of annual accidents peaking at 9, which occurred in 2022. The total number of accidents is relatively low given the size of the study area and the strategic nature of many of the roads.

9.1.6 The accidents have occurred at various locations across the study area, however, the following paragraphs group the accidents into geographic locations to aid in the identification of any common causation factors on the highway network. This review has focused on serious accidents and accidents involving vulnerable road users (pedestrians, cyclists and motorcyclists).

Halterworth Lane/Jenner Way Junction

9.1.7 During the study period, one slight accident occurred at the Halterworth Lane/Jenner Way junction and involved a car and pedal cycle. Within the accidents report, it states that the pedal cycle was turning right onto Jenner Way from Halterworth Lane, before the car travelling behind collided into it after beginning to overtake. As a result, the rider fell of the pedal cycle and sustained slight injuries. There were no causation factors provided within the report.

A3090 Winchester Road/Winchester Hill

9.1.8 During the study period, four collisions occurred along the A3090, between its junction with Crampmoor Lane and its junction with Cupernham Lane, all of which were classed as slight in terms of severity.

9.1.9 The accidents involved collisions between two cars, a car and pedal cycle, a car and mobility scooter, while there was reported to have been a single vehicle collision involving a motorcycle. Some of the collisions occurred in the evening hours when it was dark and/or when the road surface was wet and damp. The causation factors included 'failed to look properly', 'failed to judge other persons path or speed', 'failed to signal/misleading signal', 'poor turn or manoeuvre' and 'careless/reckless/in a hurry'.

Botley Road

9.1.10 During the study period, nine collisions occurred along Botley Road, between its junction with the A3090 Winchester Road and the roundabout with the A27 and Premier Way, five of which were classed as serious in terms of severity with four classed as slight.

9.1.11 The first serious accident involved a car and pedal cycle, whereby the driver of the car exited Tadburn Road onto Botley Road without giving way. As a result, the car collided with the pedal cycle, which had been navigating Botley Road, causing the rider to fall off and sustain serious injuries. The causation factors were listed to be 'failed to look properly' and 'failed to judge other persons path or speed' in relation to the driver of the car.

9.1.12 The second serious accident occurred at the Botley Road/Highwood Lane junction and involved an HGV and pedal cycle, both of which were travelling along Botley Road in a south-eastbound direction. Within the report, it states that the HGV was travelling behind the pedal cycle, when the driver of the HGV made the decision to overtake the pedal cycle. Whilst in the process of overtaking, the HGV collided with the pedal cycle causing the rider to fall off and sustain serious injuries. The causation factor was listed to be 'passing too close to cyclist, horse rider or pedestrian' in relation to the driver of the HGV.

9.1.13 The third serious accident occurred at the Botley Road/North Road junction and was reported to have been a rear end shunt collision involving three cars, all of which were travelling along Botley Road in a south-eastbound direction. Within the report, it states that car 3 travelling at the back collided into the rear of the middle car 2, which in turn collided into the rear of the front car 1. As a result, the driver of car 3 sustained serious injuries. The accident occurred when the road surface was wet/damp, with the causation factors listed to be 'slippery road (due to weather)', 'failed to judge other persons path or speed' and 'following too close' in relation to the driver of car 3.

9.1.14 The fourth serious accident occurred at the Botley Road/Elmtree Gardens junction and involved a car and a pedal cyclist, both of which were travelling along Botley Road in a north-westbound direction. Within the report, it states that the car was travelling in front and the driver applied the brakes, which led to the rider of the pedal cycle not braking in time. As a result, the rider fell off the pedal cycle and sustained serious injuries. The causation factors were listed to be 'failed to judge other persons path or speed' and 'sudden braking' in relation to both the driver of the car and rider of the pedal cycle, as well as 'poor turn or manoeuvre' in relation to the driver.

9.1.15 The final serious accident occurred at the Botley Road/Rosedale Avenue junction and involved a car and pedestrian. Within the report, it states that the pedestrian stepped out into the carriageway into the path of the north-westbound car. As a result of the collision, the pedestrian sustained serious injuries. The causation factors were listed to be 'failed to judge vehicles path or speed', 'failed to look properly' and 'disability or illness, mental or physical' in relation to the pedestrian.

9.1.16 The slight accidents involved collisions between two cars and a car and pedal cycle, while one was reported to have been a single vehicle collision involving a car. One of the accidents occurred when the road surface was wet and damp. The causation factors included 'failed to look properly', 'following too close', 'defective brakes', 'distraction outside vehicle' and 'illness or disability, mental or physical'.

A27/Botley Road/Premier Way Junction

9.1.17 During the study period, four collisions occurred at the A27/Botley Road/Premier Way roundabout junction, all of which were classed as slight in terms of severity.

9.1.18 The accidents involved collisions between two cars, a car and motorcycle, while there was reported to have been two single vehicle collisions, both of which involved a motorcycle. Both single vehicle collisions occurred when the road surface was wet and damp. The causation factors included 'failed to look properly', 'inexperienced or learner driver/rider', 'inexperience with type of vehicle' and 'poor or defective road surface'.

A27 Botley Road

9.1.19 During the study period, two collisions occurred along the A27 Botley Road, between its junction with the A27, Botley Road and Premier Way and its junction with Rownhams Lane, one which was classed as serious in terms of severity and one classed as slight.

9.1.20 The serious accident occurred circa 240m to the south-east of the A27/Botley Road/Premier Way junction and involved a car and motorcycle, both of which were travelling in a north-westbound direction. Within the report, it states that the motorcycle was travelling along the A27 Botley Road, when the rider failed to see the stationary car ahead, which had been waiting in a queue. As a result, the rider of the motorcycle fell off and sustained serious injuries. The causation factors were listed to be 'failed to judge other persons path of speed' and 'failed to look properly' in relation to the rider of the motorcycle.

9.1.21 The slight accident was reported to have been a single vehicle collision involving a car. Within the report, it states that the driver lost control of the car before colliding with roadside furniture. The causation factor was listed to be 'illness or disability, mental or physical'.

A27 Luzborough Lane

9.1.22 During the study period, two collisions occurred along the A27 Luzborough Lane, between its junction with the A27, Botley Road and Premier Way and its junction with the A3057, one which was classed as serious in terms of severity and one classed as slight.

9.1.23 The serious accident occurred circa 300m to the south-west of the A27/Botley Road/Premier Way junction and involved two cars, which were travelling in opposite directions. Within the report, it states that the south-westbound car crossed into the opposite lane for unknown reasons, before causing a head-on collision with the north-eastbound car. As a result, the driver of the north-eastbound car sustained serious injuries. The accident occurred in adverse weather conditions when the road surface was wet and damp, with the causation factors listed to be 'rain, sleet, snow or fog' and 'poor turn or manoeuvre' in relation to the driver of the south-westbound car.

9.1.24 The slight accident involved a car and an HGV and was reported to have been a side-on collision. The causation factors were listed to be 'failed to look properly' and 'poor turn or manoeuvre'.

A3057

9.1.25 During the study period, six collisions occurred along the A3057, between its roundabouts with the A27 and the M271 and Coldharbour Lane, two of which were classed as serious in terms of severity with four classed as slight.

9.1.26 The first serious accident occurred at the A3057/Hoe Lane junction and involved a car and motorcycle, both of which were travelling in a north-westbound direction. Within the report, it states that the motorcycle was travelling along the A3057 when the rider failed to see the stationary car ahead which had been waiting to turn right onto Hoe Lane. As a result, the rider of the motorcycle fell off and sustained serious injuries. The causation factors were listed to be 'traveling too fast for conditions' and 'failed to look properly' in relation to the rider of the motorcycle.

9.1.27 The second serious accident occurred circa 350m to the north-west of the A3057/Hoe Lane junction and was reported to have been a single vehicle collision involving a car. Within the report, it states that the car had been travelling in a north-westbound direction, when the driver lost control of the vehicle and left the carriageway to the nearside, before colliding with a tree and overturning. The accident occurred in the evening hours when it was dark and in adverse weather conditions when the road surface was wet and damp. The causation factors were listed to be 'exceeding speed limit' and 'impaired by alcohol'.

9.1.28 The slight accidents involved collisions between two cars, one of which occurred when the road surface was wet and damp, while there was reported to have been two single vehicle collisions, both of which involved a car, with one occurring in the evening hours when it was dark. The causation factors included 'failed to judge other persons path or speed', 'distraction in vehicle', 'careless/reckless/in a hurry', 'travelling too fast for conditions', 'swerved' and 'sudden braking'.

M271/A3057/Coldharbour Lane Junction (Romsey Road roundabout)

9.1.29 During the study period, five collisions occurred at the Romsey Road roundabout, all of which were classed as slight in terms of severity.

9.1.30 Three accidents involved collisions between two cars, while there was reported to have been two single vehicle collisions, both of which involved a car. One of the single vehicle collisions occurred in the evening hours when it was dark and when the road surface was wet and damp. The causation factors included 'fatigue', 'illness or disability, mental or physical', 'travelling too fast for conditions', 'slippery road (due to weather)', 'loss of control', poor turn or manoeuvre', 'failed to look properly', 'overloaded or poorly loaded vehicle or trailer' and 'tyres illegal, defective or under inflated'.

Remaining Accidents

9.1.31 One serious accident occurred on Seward Close and involved a car and pedal cycle. Within the report, it states that the driver of the car failed to see the pedal cycle, before causing a collision between the two. As a result, the rider of the pedal cycle sustained serious injuries, with the causation factor listed as 'passing too close to cyclist, horse rider or pedestrian' for the driver of the car and 'cyclist entering road from pavement' for the rider of the pedal cycle.

Casualties

9.1.32 Table 9.2 summarises the number of casualties and a breakdown of the road user classifications of the casualties.

Table 9.2: Summary of Reported Casualties

Year	Severity			Total	% of all Casualties
	Slight	Serious	Fatal		
Vehicle Driver	22	2	0	**24**	**55%**
Vehicle Passenger	5	1	0	**6**	**14%**
Motorcycle Rider	3	2	0	**5**	**11%**
Cyclist	4	4	0	**8**	**18%**
Pedestrian	0	1	0	**1**	**2%**
Total	**34**	**10**	**0**	**44**	**100%**

9.1.33 The table above shows that the 34 recorded accidents, which took place within the study area during the abovementioned time period, resulted in a total of 44 casualties; 34 of these casualties had slight injuries and 10 had serious injuries. There were no fatal injuries.

Collision Summary

9.1.34 The above shows that within the agreed study area there have been 34 injury accidents during the five-year period between 1st September 2018 and 31st August 2023, resulting in 44 casualties, the majority of which resulted in slight injuries. There were no fatal accidents anywhere on the study network during the 5-year period.

9.1.35 The total number of accidents is relatively low given the scale of the study area and the strategic nature of many of the roads. Furthermore, it is important to note that no accidents occurred due to highway design and very few accidents occurred in proximity to the Site, with none occurring along the Site frontage.

9.2 Road Safety Audit & Designers' Response

Road Safety Audit

9.2.1 The independent consultant six:TEN Highways & Traffic Ltd (six:TEN) was commissioned to undertake a Stage 1 RSA of an earlier version of the proposed access arrangement, extracts of which are included in Appendix Two of the RSA.

9.2.2 The RSA was undertaken by two Society of Road Safety Auditors qualified professionals who undertook a site visit as part of the RSA on Wednesday 15th November 2023. The RSA was carried out based on the DMRB document *GG119 Rev2 – Road Safety Audit*. A copy of the RSA is provided in Appendix L.

9.2.3 The RSA identified two 'problems', both of which are detailed below along with a Designers' Response provided to each. The problems relate to 'Junctions'; no problems relate to 'Local Alignment', 'Walking, Cycling or Horse Riding' and 'Traffic Signs, Carriageway Markings and Lighting'. The drawings presented in this TA take into account the recommendations of the auditor.

9.2.4 A copy of the Stage 1 RSA report is included in Appendix L.

RSA Item 2.3.1

Location: At the proposed junctions on Halterworth Lane

Summary: Junction intervisibility splays may be obscured by parked vehicles

It was observed on site that vehicles were parked on the eastern side of Halterworth Lane close to the proposed junctions. There is a risk that the parked vehicles may obscure the junction intervisibility splays. Obstructions within the junction intervisibility splays may increase the risk of failure to give-way or side impact type collisions between those exiting the junctions and those travelling along Halterworth Lane.

Recommendation

It is recommended that the parking situation along Halterworth Lane is investigated, and amendments made to the design to ensure adequate junction intervisibility splays can be achieved at both the proposed junctions.

<u>Designers' Response to 2.3.1</u>

9.2.5 This is noted and agreed. As per Section 5, Drawing P21004-002B shows a suggested amendment to the existing TRO provided along Halterworth Lane, in the location of the proposed southern access, from a single yellow line to double yellow lines, to further protect the junction. Should HCC wish, the existing single yellow line to the north could be extended, or replaced with double yellow lines, to help keep the visibility splay to the right on exit clear. The Applicant will fund any such TRO modifications via Section 106 Agreement.

9.2.6 Whilst the proposed access arrangement, particularly the southern access, will not displace any legal parking associated with school trips, it is apparent that on-street parking on Halterworth Lane associated with the primary school can cause nuisance to existing residents and other road users. Although the proposed development is not be expected to significantly add to any on-street parking issues given that it is within easy walking distance to the school, the Applicant recognises that the proposed development offers the opportunity to provide additional parking for the school. As such, the Applicant is happy to provide some parking for school trips, and visitors to the development, inside the Site. The DFP suggests that this could take the form of parking laybys along the internal spine road.

<u>RSA Item 2.3.2</u>

Location: At the proposed junctions on Halterworth Lane

Summary: Excessive vehicular encroachment into opposing lanes when turning into/out of the proposed access roads

The refuse vehicle swept path analysis provided for audit shows the vehicle encroaching wholly into the opposing lanes when turning into/out of the proposed access roads. Whilst it is recognised that some encroachment may occur, this excessive encroachment by a refuse vehicle into the opposing traffic lanes may increase the risk of low-speed head-on or side-impact collisions.

Recommendation

It is recommended that amendments should be made to the proposed designs to ensure any vehicle encroachment into opposing lanes is kept to a minimum.

<u>Designers' Response to 2.3.1</u>

9.2.7 The observation is accepted and the proposed access junction designs have been updated to include corner tapers to better accommodate the movement of larger vehicles without being detrimental to other road users. These updates are shown on the drawings provided in Appendix E.

10 SUMMARY AND CONCLUSION

10.1 Summary

10.1.1 This Transport Assessment (TA) considers the highways and transportation implications associated with a proposed development, on land at Halterworth Lane, Romsey, Hampshire. It forms and appendix to ES Chapter 6: Traffic and Transport which it should be read alongside of, along with a TP.

10.1.2 This document has been produced to form part of an outline planning application for the demolition of existing buildings and the erection of up to 270 dwellings, including affordable housing, with land for the potential future expansion of Halterworth Primary School, public open space, structural planting and landscaping, sustainable drainage system (SuDS) and vehicular access points. All matters reserved except for means of vehicular access.

10.1.3 The Site will be served by two new simple priority-controlled junctions on Halterworth Lane, these being the most common junction types locally. Both of which will comprise a 5.5m wide carriageway, 6.0m corner radii and 2 x 2.0m wide footways, which will connect to the existing shared footway provision on the eastern side of Halterworth Lane. An uncontrolled crossing, comprising dropped kerbs and tactile paving, will also be provided across the carriageway at each of the vehicular access points. Additional uncontrolled crossings will also be provided on Halterworth Lane to aid the safe crossing of the road for pedestrians of all abilities. The proposed Site access arrangement has been subject to an independent Stage 1 RSA which has not raised any significant issues.

10.1.4 It has been demonstrated that the proposed Site access is suitable larger vehicles, such as refuse collection vehicles, with said vehicles being able to access and egress the Site in a forward gear.

10.1.5 PRoW 198/15/1 runs through the Site and as such it will be incorporated into the proposals and upgraded with improved surfacing and signage, with new scenic footpaths proposed running through the Site, including a dedicated pedestrian access south of the southern proposed Site access. The Applicant is also willing to provide funding to allow the section of PRoW 198/15/1 that runs east beyond the Site boundary to be upgraded by HCC.

10.1.6 The Applicant is willing to provide tactile paving at a number of crossing points on Halterworth Lane that are currently devoid of them, to the benefit of visually impaired pedestrians, subject to the view of HCC.

10.1.7 An assessment has been undertaken of the Site's level of accessibility by sustainable modes, from which it can be concluded that realistic options exist for access to local amenities, education and employment opportunities on foot, by cycle and by public transport.

10.1.8 The Applicant is happy to upgrade the closest pair of bus stops on Halterworth Lane to include raised boarding areas, shelter, seating and timetable information. They are also willing to provide shelters at the pair of bus stops on Botley Road adjacent to Halterworth Lane. These measures will help to encourage bus travel by future and existing residents.

10.1.9 A robust traffic forecasting exercise has been undertaken in order to assess the impact at key junctions on the local highway network and at the proposed Site accesses. The scope of this assessment and many of the forecast parameters were agreed with HCC as part of pre-application discussions.

10.1.10 The results of the junction capacity assessment show that the proposed accesses will operate with ample spare capacity to serve the proposals. It also shows that the local junctions will continue to operate with spare capacity in 2028 with the development in place along with background traffic growth and traffic from several committed developments.

10.1.11 NH has requested that an impact assessment is undertaken at M27 junction 3. This assessment is detailed in the separate document *SRN Capacity Note.*

10.1.12 A review of the accident data within the study area has been undertaken for the five-year period between 1st September 2018 and 31st August 2023. The data was purchased from HCC. There were 34 injury accidents during the study period, the majority of which were slight in nature and only very few occurring in proximity to the Site. It is therefore concluded that there are no deficiencies in the existing highway network, or existing safety issues within the vicinity of the Site, that would be exacerbated by the development proposals.

10.1.13 The proposals comply with national and local policy, including HCC's LTP4 and TVBC's Revised Local Plan DPD.

10.2 Conclusion

10.2.1 It is concluded that the proposed development would not result in an '*unacceptable impact on highway safety*' nor have a '*severe'* impact on the operation of the highway network in terms of safety and capacity. The impact is best described as negligible.

10.2.2 As the proposal complies with local and national planning policy and guidance with respect to sustainable accessibility, safety and impact on the highway network, there are no highways or transportation related reasons why planning permission should not be granted. Should the highway authority have any concerns, we would be happy to consult further with them.

APPENDIX A

SCOPING CORRESPONDENCE

This page has been left intentionally blank

Ben Gaze

From: Spinney, Fraser [redacted]
Sent: 31 October 2023 13:38
To: David Stoddart
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Hi David,

Apologies, yes you are right. I tend to cover Winchester and Test Valley so must have got muddled.

Sorry again.

Kind regards,

Fraser
Fraser Spinney
Senior Transport Planner
[redacted]

Highways Development Planning
Hampshire County Council
3rd Floor, Elizabeth II Court South, Winchester,
The Castle Winchester SO23 8UD

Hampshire County Council

Hampshire County Council operates a pre-application highway advice service for developers.
Hampshire County Council welcomes and encourages discussions before a developer submits a planning application.
Please follow this link for further information
Pre-Application guidance for developers

From: David Stoddart [redacted]>
Sent: Tuesday, October 31, 2023 1:25 PM
To: Spinney, Fraser [redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi Fraser,

Just one last query. You've stated that parking should be in line with Winchester City Council's standards; shouldn't it be in line with Test Valley BC's?

Kind regards

Dave

David Stoddart
Associate Director
Prime Transport Planning

DD: +[redacted]

www.primetp.co.uk

From: David Stoddart
Sent: Tuesday, October 31, 2023 11:12 AM
To: Spinney, Fraser <[redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Many thanks Fraser.

David Stoddart
Associate Director
Prime Transport Planning

DD: [redacted]

www.primetp.co.uk

From: Spinney, Fraser [redacted]>
Sent: Tuesday, October 31, 2023 11:10 AM
To: David Stoddart [redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Hi Dave,

Given the weather warnings and flooding I would agree that it would be better to postpone these to next week. I can confirm agreement to the proposed ATC surveys shown in your email.

Kind regards,

Fraser

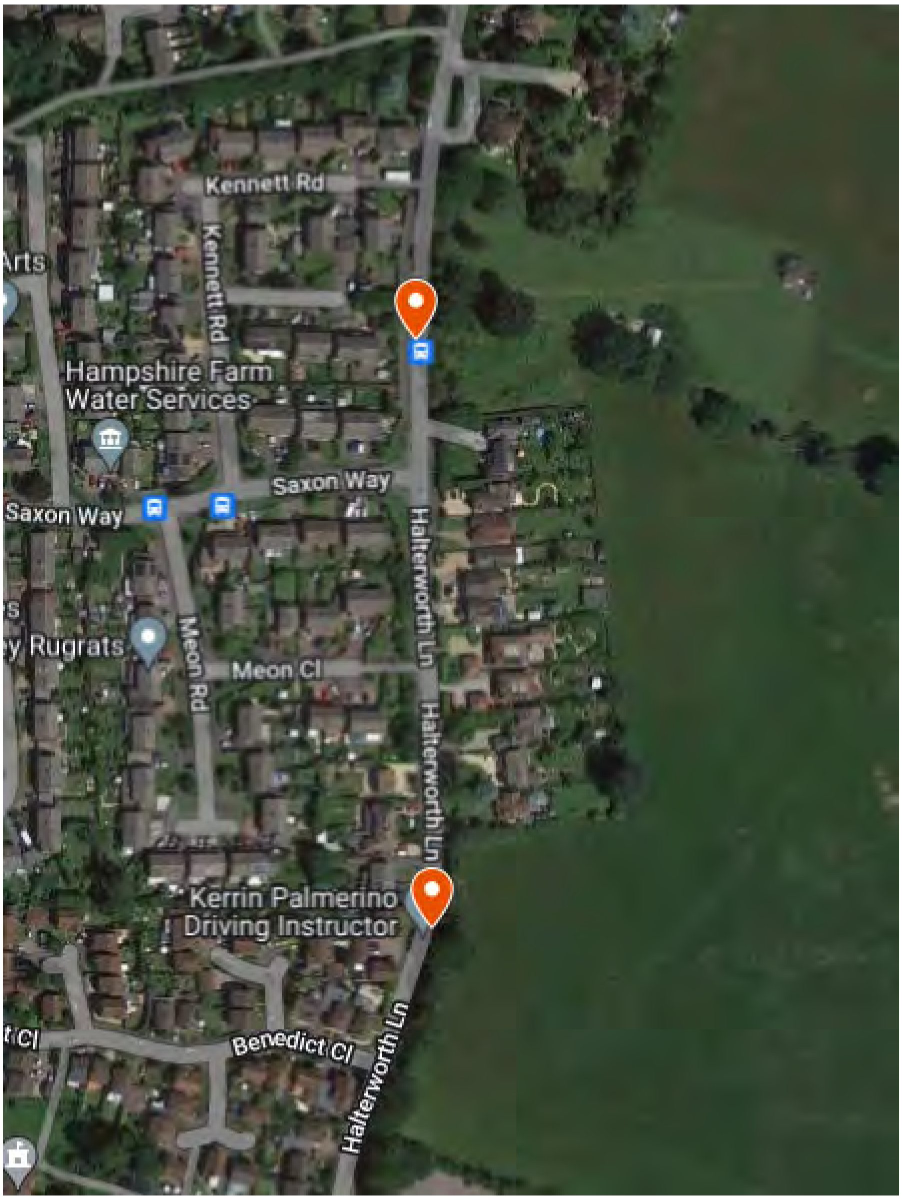
From: David Stoddart [redacted]>
Sent: Tuesday, October 31, 2023 10:55 AM
To: Spinney, Fraser [redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Hi Fraser,

Thanks for getting back to me. I'm pleased to see that our suggested scope is largely acceptable to you.

Given the local weather warnings for this week along with some flooding over the weekend, we will likely be postponing our traffic surveys until next week. But I just wanted to confirm our ATC locations with you. The ones on

Halterworth Lane will be used for proposed site access visibility splay purposes. As such we have carefully chosen a couple of locations that should strike a balance between being close to the proposed site accesses but in locations where speeds will likely be higher than the alternative locations (remembering that ATCs need to be tethered to street furniture). These locations are shown on the map (orange pins) and Street View captures below:



North of Saxon Way:

North of Benedict Close:

As per your suggestion of undertaking additional ATCs to validate our turning counts, adding them on approach to every single junction would seem excessive. We therefore suggest focussing them where the concentration of our development traffic will be greatest, not forgetting that we will have the two ATCs on Halterworth Lane and a link count at the level crossing. As such we propose them in the locations below (orange pins):

I would be grateful for your confirmation of the acceptability of these locations.

Kind regards

Dave

David Stoddart
Associate Director
Prime Transport Planning

DD: +[redacted]

www.primetp.co.uk

From: Spinney, Fraser [redacted]
Sent: Friday, October 27, 2023 11:18 AM
To: David Stoddart [redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Hi Dave,

Apologies for the delay in responding, please see attached our response to this pre-application.

Kind regards,

Fraser
Fraser Spinney
Senior Transport Planner
[redacted]

Highways Development Planning
Hampshire County Council
3rd Floor, Elizabeth II Court South, Winchester,
The Castle Winchester SO23 8UD

Hampshire County Council operates a pre-application highway advice service for developers.
Hampshire County Council welcomes and encourages discussions before a developer submits a planning application.
Please follow this link for further information
[Pre-Application guidance for developers]

From: David Stoddart [redacted]>
Sent: Thursday, October 26, 2023 1:53 PM
To: Spinney, Fraser [redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Hi Fraser,

Any update on your response? Ideally we'd like to survey next week.

Kind regards

Dave

David Stoddart
Associate Director
Prime Transport Planning

DD: [redacted]

www.primetp.co.uk

From: David Stoddart
Sent: Friday, October 20, 2023 5:40 PM
To: Spinney, Fraser <[redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Thanks Fraser,

I look forward to your response.

Kind regards

Dave

David Stoddart
Associate Director
Prime Transport Planning

DD: +[redacted]

www.primetp.co.uk

From: Spinney, Fraser [redacted]
Sent: Friday, October 20, 2023 2:16 PM
To: David Stoddart [redacted]k>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Hi David,

My response is with my manager for senior sign-off so it should be with you early next week. I don't anticipate there being anything outside of the scope of the TA that we would require for the Environmental Impact Assessment.

Kind regards,

Fraser

Fraser Spinney
Senior Transport Planner
[redacted]

Highways Development Planning
Hampshire County Council
3rd Floor, Elizabeth II Court South, Winchester,
The Castle Winchester SO23 8UD

Hampshire County Council

Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information
[Pre-Application guidance for developers]

From: David Stoddart [redacted]>
Sent: Friday, October 20, 2023 12:39 PM
To: Spinney, Fraser [redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey
Importance: High

> **Caution:** This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi Fraser,

How are things going with your review of our suggested scope? We could really do with pressing on with the traffic surveys so if you could get back to me asap, it will really help us to progress.

Also, the site has triggered the need for an environmental impact assessment so we will be preparing a Traffic Environmental Statement chapter. We will prepare it in line with the 2023 IEMA Guidelines but if there is anything that you feel should be specifically addressed outside of the scope of our TA, I would appreciate it if you could let me know as part of your response.

Kind regards

Dave

David Stoddart
Associate Director
Prime Transport Planning

DD: +[redacted]

www.primetp.co.uk

From: David Stoddart
Sent: Thursday, October 5, 2023 10:44 AM
To: Spinney, Fraser [redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Hi Fraser,

I was wondering how you were getting on reviewing our suggested scope? We are keen to instruct the traffic surveys so if you were able to get back to us on that element, potentially in advance of a full response, it would be much appreciated.

Kind regards

Dave

David Stoddart
Associate Director

Prime Transport Planning

DD: +[redacted]

www.primetp.co.uk

From: Spinney, Fraser <[redacted]>
Sent: Tuesday, September 19, 2023 9:28 AM
To: David Stoddart [redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Morning David,

Thank you, I will pass this onto our engineer for their comments.

Kind regards,

Fraser
Fraser Spinney
Senior Transport Planner
[redacted]

Highways Development Planning
Hampshire County Council
3rd Floor, Elizabeth II Court South, Winchester,
The Castle Winchester SO23 8UD

Hampshire County Council

Hampshire County Council operates a pre-application highway advice service for developers.
Hampshire County Council welcomes and encourages discussions before a developer submits a planning application.
Please follow this link for further information
[Pre-Application guidance for developers]

From: David Stoddart <[redacted]>
Sent: Tuesday, September 19, 2023 9:26 AM
To: Spinney, Fraser [redacted]
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

> **Caution:** This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Morning Fraser,

Please find attached a revised northern access drawing. We have had to move the access slightly in order to avoid the root protection area of a veteran tree following a tree survey. Any comments on this as part of your pre-app response would be welcomed.

Kind regards

Dave

David Stoddart
Associate Director
Prime Transport Planning

DD: +[redacted]

www.primetp.co.uk

From: David Stoddart
Sent: Monday, September 11, 2023 4:35 PM
To: Spinney, Fraser [redacted]>
Subject: RE: HCC Pre Application Request : Halterworth Lane, Romsey

Good afternoon Fraser,

Please find attached our Scoping Checklist which details the development proposals and our suggested scope of assessment along with the appendices which we reference. Please feel free to populate the column titled 'LHA Comments' with your thoughts, alternatively a more standard response is fine.

Hopefully all should be relatively self-explanatory for now, but happy to run through over the phone/Teams if you have any queries.

Kind regards

Dave

David Stoddart
Associate Director
Prime Transport Planning

DD: +[redacted]

www.primetp.co.uk

From: Spinney, Fraser [redacted]>
Sent: Wednesday, August 30, 2023 10:50 AM
To: David Stoddart [redacted]>
Subject: FW: HCC Pre Application Request : Halterworth Lane, Romsey

Dear Mr. Stoddart,

Thank you for requesting pre application advice for Halterworth Lane, Romsey. I will be the Highways Development Planning officer reviewing your submission. Could you please send the documents you would like me to review to me directly. You should have received an invoice for this pre-application service, and I would be grateful if you could confirm when this has been paid. If you need a copy of this invoice please let me know and I can arrange for that to be sent.

On receipt of the documentation and confirmation of payment I will commence the review. Our 21-day period for the review commences on receipt of all the information and payment.

I trust the above is clear and in the meantime if you have any questions please do not hesitate to contact me.

Kind Regards

Fraser
Fraser Spinney
Senior Transport Planner
[redacted]

Highways Development Planning
Hampshire County Council
2nd Floor Elizabeth II Court West
The Castle Winchester SO23 8UD

Hampshire County Council operates a pre-application highway advice service for developers.
Hampshire County Council welcomes and encourages discussions before a developer submits a planning application.
Please follow this link for further information
[Pre-Application guidance for developers]

From: Highways Development Planning <highways.development.planning@hants.gov.uk>
Sent: Monday, August 21, 2023 10:34 AM
To: [redacted]
Cc: Highways Development Planning <highways.development.planning@hants.gov.uk>
Subject: HCC Pre Application Request : Halterworth Lane, Romsey

Thank you for your recent Pre-Application advice submission seeking highway advice from Hampshire County Council. Please find below a copy of your submission form.

Your application will be allocated to a Highways Development Planning officer who will make contact to allow the next steps to be completed.

Below sets out the details of the next steps of the process and additional actions that are required before a review can commence.

Submission Information

Please send the submission of information to be reviewed along with the attached completed pre-application request form to your allocated Highways Development Planning officer.

Invoicing

An invoice will be sent for payment within 5 working days. Please confirm payment of this invoice with the Highway Development Planning officer dealing with you application.

It should be noted that the pre-application process will not start until confirmation of payment has been received.

In the meantime if you have any enquiries relating to your application before an Highways Development Planning officer has been allocated please contact us via email at highways.development.planning@hants.gov.uk

Submitted Form

Category	Category 7
LPA	Test Valley Borough Council
Stage of Application	Outline
Development Name	Halterworth Lane, Romsey
Development Address	Land east of Halterworth Lane, Romsey.
Description of Proposal	Outline application for circa 300 dwellings (final numbers TBC) with all matters reserved except for access. Access will likely be via two priority controlled junctions off Halterworth Lane.
Developer	Gladman
Applicant Details	Prime Transport Planning -David Stoddart - [redacted]
Meetings Required At	Inception
Is the application confidential	No
Additional information	We would like to agree a scope for a supporting Transport Assessment and Travel Plan including confirmation of committed developments and any local highway schemes of note. We would also like early feedback on the proposed access arrangement. Further details will be sent in the coming weeks.

Kind Regards

The Highways Development Planning Team

Hampshire 2050

Hampshire County Council

Hampshire 2050
The Castle
Winchester, Hampshire SO23 8UL

Telephone 0300 555 1375
Fax 01962 847055
www.hants.gov.uk

Head of Development Planning

Enquiries to Fraser Spinney

Direct Line 03707704089

Date 27/10/2023

My reference 6/3/4/342

Your reference

Email [redacted]

For attention of David Stoddart

The following comments relate to the information submitted in the Scoping Checklist (SC) for up to 270 dwellings on land to the east of Halterworth Lane, Romsey dated 11 September 2023, as well as the relevant Appendices.

Existing conditions

The site is bound by Halterworth Lane to the west which is subject to a 30mph speed limit. To the south of the site is Halterworth primary school and residential dwellings providing a buffer between the site and Botley Road. The site is bound by agricultural land to the east and north. The site is currently used for agricultural purposes and has no vehicular trips associated with its existing use.

Walking and cycling

A WCHAR will be required in support of any forthcoming planning application. This should assess the routes to key services and amenities, education facilities and bus stops, as well as Romsey train station. Any deficiencies in the routes should be identified, as well as any opportunities to improve the pedestrian and cycle infrastructure.

The applicant should also look at the pedestrian and cycle provision associated with the Whitenap development (planning reference 22/01213/OUTS) and explore how this development can tie-in with and enhance those connections. It should be noted, as set out in the County Council's formal response to the application, the scope of off-site improvements necessary to support this development is yet to be agreed by the Highway Authority and therefore further dialogue on this will be required going forward.

Southern Test Valley LCWIP should also be reviewed which considers improvements to local walking and cycling provision in the immediate vicinity of the site.

Sustainable modes
Details relating to the bus stops in the vicinity of the site and Romsey train station should be included within the TA. This should include a summary of services available, frequency and destinations, as well as an assessment of the pedestrian and cycle infrastructure connecting the site to the bus stop and the distance between them. This should be included in the WCHAR.

Accident history
The SC outlines that the scope of any forthcoming review of accident history will include the following junctions and highway network between these:

- Jenner Way/Halterworth Lane
- Halterworth Lane/Highwood Lane
- A3090 Winchester Road/Halterworth Lane
- Botley Road/Halterworth Lane
- A27/Botley Road/Premier Way
- A27/Rownhams Lane
- A27/A3057 (Ashfield Roundabout)
- M271/A3057/Coldharbour Lane (Romsey Road Roundabout)

The scope of this assessment is agreed. The SC mentions that Personal Injury Accident (PIA) data will be obtained. This should be obtained from Hampshire Constabulary for the most recently available five-year period. This can be obtained via emailing collision.records@hampshire.pnn.police.uk.

Traffic surveys
In order to obtain an understanding of the existing traffic situation it is proposed that Manual Classified Count (MCC) and queue length surveys will be undertaken at the same junctions that are contained in the review of accident history. In addition to these junctions, the Romsey Road roundabout will be surveyed, which provides access to the M271, as well as a link count and queue length survey at the Halterworth Lane level crossing to the north of the site. This scope of surveys is agreed.

It is proposed that these surveys will be undertaken between 0700-1000 and 1530-1830 on either a Tuesday, Wednesday, or Thursday. It should be noted that this should be conducted in a neutral month outside of school holidays.

Two separate Automatic Traffic Count (ATC) surveys are also proposed to be conducted in close proximity to each of the proposed site access locations in order to derive flows and speed information which will inform the access design. The SC states that the location of these ATC surveys have been submitted in Figure 1 of Appendix I, however this is not clearly shown so the highway authority are unable to comment on the acceptability of the proposed location of these surveys. These surveys should also be conducted on a neutral day in a neutral month outside of school holidays. It is recommended that ATC surveys are used at other junctions within the scope of the MCC survey to provide a more reliable traffic situation.

Access

The proposed access arrangement is two simple priority access points from Haltwerworth Lane as the site frontage is split into two sections. The northern access has been shown in Drawing P21004-001, with the southern access shown in Drawing P21004-002.

As per the request in the submitted information, the highway authority can confirm that a Stage 1 Road Safety Audit (RSA1) will be required for the proposed site access arrangement.

The principle of two simple priority accesses could be acceptable in principle, but there is further information required in order for this to be confirmed.

Firstly, the visibility splays for the northern access have been drawn as 2.4m x 51m to the right on exit and 2.4m x 48 to the left. Given that Halterworth Lane is subject to a 30mph speed limit this would be acceptable. However, the southern access visibility splays have been drawn as 2.4m x 37m to the right on exit and 2.4m x 38m to the left. This is below standard, as an access on a 30mph road should have visibility splays of 2.4m x 43m in either direction unless measured speeds are provided and the 85th percentile recorded speeds are below 30mph.

The Scoping Checklist explains that the visibility splays have been based on speed surveys conducted a ‘few years ago’, but when these were conducted and the results of this have not been provided. It is noted that the visibility splays for any forthcoming application will be based on updated measured speeds. The results of these updated surveys details of when they take place should be submitted alongside this at that stage.

It should be confirmed whether the access road to each site access will be subject to a 20mph design speed. The access geometry appear acceptable but swept path analysis will be required for all relevant vehicle movements. It also appears that the southern access is sited directly opposite a private driveway. It should be considered whether this can be moved further south to avoid this arrangement.

The principle of the circa 20 space car park proposed for school pick-up/drop-off will be commented on in more detail in the parking section of this response. In terms of design, the geometry for the car park is required and this should include aisle widths. These should be a minimum of 6m as per Manual for Streets. Visibility splays are also required for the car park access.

There are a number of trees that will be affected by the proposed access strategy. These appear to be private and not highway trees, but this should be confirmed.

Refuse and servicing

The internal layout of the site should be designed to accommodate refuse and service vehicles with no conflict between movements of the largest vehicle that will access the site in either direction. Tracking should be submitted that shows that these vehicles can manoeuvre around the site and access and egress the site in a forward gear.

Parking

The SC sets out that parking is be agreed at the reserved matters stage. Whilst this is true regarding the layout and dimensions of parking, HCC as the highway authority need to be satisfied that the parking proposed on site will be sufficient to accommodate the demand as if not this can lead to overspill parking onto the local highway network and potential subsequent safety concerns. The guidance that should be used to inform the parking provision is Winchester City Councils parking standards. These can be found at Car Parking Standards Supplementary Planning Document (Adopted) - Winchester City Council.

A car park comprising circa 20 spaces is proposed off of the southern access with the intention of this being used for school drop-off/pick-up for the nearby Halterworth primary school. The majority of pupils at Haltwerworth primary school will live within a desirable walking distance to the site and would be likely to travel to school via sustainable modes, whether that be walking or cycling. Parking provision this close to the school being provided by this development for school pick-up/drop-off has the potential to discourage travelling to and from school sustainably and increase travel to the school via private car.

That being said, there are known parking issues associated with the school pick-up and drop-off periods. On that basis, a car park may be useful to alleviate some of the current parking issues, but it has the potential to compound these issues and encourage more people to drive closer to the school. If a car park is to be pursued, it should be explored whether the car park could be provided in the vicinity of the northern access to the site so that it helps to alleviate parking concerns in the direct vicinity of the school.

Details of how a car park for the purposes of school pick-up/drop-off would be managed and maintained will need to be provided to ensure that this car park would not be used by local residents for parking.

Traffic generation
The TRICS database has been interrogated to try and establish an estimated trip rate for the proposed privately owned residential dwellings. The two-way vehicle trip rate proposed for the AM peak is 0.518 and for the PM peak it is 0.501. When applied to the proposed 270 dwellings, this would result in 140 two-way vehicle trips in the AM peak and 135 in the PM peak. This is accepted.

Traffic distribution
It is proposed that the vehicle trips generated by the proposals will be distributed in accordance with Census 2011 journey to work data for the MSOA in which the site is located. This methodology is acceptable and the distribution should be presented in the TA.

Traffic growth
It is proposed that TEMPRO growth factors for the MSOA in which the site is located will be applied to the observed survey traffic flows to establish a 2028 future year scenario. The TC states that this will be manually adjusted to remove any committed development to avoid double counting. This is accepted but vehicle trips associated with the agreed committed development should be added for the purposes of junction capacity assessment.

Committed development
The SC has identified that the Whitenap development, under planning reference 22/01213/OUTS, will be considered as committed development as this an allocated development and queried whether the application for the Kings Chase South development (planning ref 23/00964/OUTS) should be considered. It is recommended that this is included in assessments of the impact of the proposed development on the local highway network for robustness.

Junction capacity assessment
It is proposed that the scope of the junctions included in the accident review will also be the scope of the junction capacity assessment. This scope is agreed.

The proposed scenarios for assessment are the 2023 Baseline scenario based on the observed traffic flows and the future opening year of 2028 both with and without development. This future scenario should include the committed development traffic as outlined above.

For the assessment of the proposed vehicle site accesses, it should be explained how the development related trips are assigned to each access. It is anticipated that this will be done on the basis of proximity of access to the residential dwellings, but the number of trips anticipated to use each access should be provided to inform the assessment of the operation of both accesses.

Travel Plan
A Framework Travel Plan will need to be submitted alongside a Transport Assessment should a planning application be submitted. This Travel Plan should set out clear aims and objectives, and an action plan of measures to 3 encourage sustainable transport choices to and from the site. The Travel Plan will need to meet the criteria set out in the Hampshire County Council Guidance on Development-related Travel Plans (2009).

Yours sincerely,

Gemma McCart
Team Leader – Highways Development Planning

SCOPING CHECKLIST FOR: Up to 270 dwellings on land to the east of Halterworth Lane, Romsey, Hampshire

HIGHWAY AUTHORITY: Hampshire County Council (HCC)

DATE PREPARED: 11/09/23

Ref	Item	Intention	LHA Comments
1	Level of planning approval sought? e.g. outline, full.	Outline with all matters reserved except for the main vehicular access points.	
2	Size and description of development proposals.	Circa 270 dwellings - Please see 'Location Plan' and 'Figure 1' in Appendix I for location of site.	
3	Description of existing land uses, existing trip distribution.	Agricultural land - no existing trips assumed.	
4	Does the development involve the relocation of an existing use?	No.	
5	What transport based supporting documents will be produced?	Transport Assessment and Framework Travel Plan.	
6	Are traffic surveys of the existing conditions available or required?	A distribution exercise has been undertaken using 2011 Census Method of Travel to Work (MTW) data for the local area (see attached calculations in Appendix II). Figures 2-4 in Appendix II illustrate the distribution percentages and two-way peak hour flows. Based on the results, we propose to undertake manual classified turning count (MCC) and queue length surveys at the following junctions, unless alternative data sources are available: 1. Jenner Way/Halterworth Lane; 2. Halterworth Lane/Highwood Lane; 3. A3090 Winchester Road/Halterworth Lane; 4. Botley Road/Halterworth Lane; 5. A27/Botley Road/Premier Way; 6. A27/Rownhams Lane; 7. A27/A3057 (Ashfield Roundabout); and	

		8. M271/A3057/Coldharbour Lane (Romsey Road Roundabout). Although not illustrated on Figures 2-4, 29% of the development flows are likely to pass through the Romsey Road Roundabout, equivalent to 41 and 39 development trips in the AM and PM peaks respectively. As such, MCC and queue length surveys are also proposed at this junction. A link count and queue length survey will be undertaken at the Halterworth Lane level crossing to the north of the site (9). The traffic surveys are intended to be undertaken between 0700-1000 and 1530-1830 hours on a neutral weekday (Tuesday, Wednesday or Thursday). Two separate ATC surveys are proposed in proximity to each site access point in order to derive flows and speeds for use in the access design. The locations of the above proposed traffic surveys are shown in Figure 1 in Appendix I. Please advise if the survey locations are acceptable for the purposes of the assessment.	
7	Details of any other developments to be taken into account.	We are aware of: 22/01213/OUTS: Whitenap, Romsey - A New Neighbourhood; and 23/00964/OUTS: Kings Chase South, Romsey. As Whitenap is allocated, we believe it should be included as a committed development. Kings Chase South is not allocated and not consented – please advise if this should be treated as a committed development, it is likely to only add a small number of trips to our study area. Please advise if there are any other developments that we should treat as being committed.	
8	Details of any adjacent highway improvement proposals by others.	We are aware of the proposed improvement works associated with Whitenap at the following junctions: • A27/Botley Road/Premier Way; and • A27/Rownhams Lane. We would be grateful if HCC could confirm the status of the above proposals and whether	

<table>
<tr><td></td><td></td><td>we should assess the existing layout and the proposed layouts.
<u>Please advise if there are any other highway improvement schemes that need to be taken account of.</u></td><td></td></tr>
<tr><td>9</td><td>When are the critical periods for assessments?</td><td>Weekday AM and PM peaks derived from surveys mentioned above.</td><td></td></tr>
<tr><td>10</td><td>When would the site be fully operational?</td><td>Pre 2028 (assumed).</td><td></td></tr>
<tr><td>11</td><td>What are the assessment years?</td><td>2023 - Observed flows only.
2028 - 5 years post submission - with and w/out development.</td><td></td></tr>
<tr><td>12</td><td>Traffic growth factors?</td><td>TEMPRO growth for local MSOA manually adjusted with any committed development removed from planning assumptions to remove double counting.</td><td></td></tr>
<tr><td>13</td><td>How will vehicular trip generation be derived for the proposal?</td><td>Vehicular trip rates have been derived from the TRICS database for houses privately owned and are presented in the table below, together with the resulting trip generation for 270 dwellings, note we have not adjusted for adorable dwellings.
<table>
<tr><th rowspan="2">Time</th><th colspan="3">Trip Rates</th><th colspan="3">Trip Generation</th></tr>
<tr><th>Arrivals</th><th>Departures</th><th>Totals</th><th>Arrivals</th><th>Departures</th><th>Totals</th></tr>
<tr><td>08:00-09:00</td><td>0.137</td><td>0.381</td><td>0.518</td><td>37</td><td>103</td><td>140</td></tr>
<tr><td>17:00-18:00</td><td>0.350</td><td>0.151</td><td>0.501</td><td>95</td><td>41</td><td>136</td></tr>
</table>
The TRICS output is attached in Appendix lll.
<u>Please confirm acceptance of the above trip rates for the purposes of the assessment.</u></td><td></td></tr>
<tr><td>14</td><td>How will non-car mode trip generation be derived for the proposal?</td><td>Factors will be derived between forecast vehicular trips described at Point 13 above and car driver trips from local census MTW data. These factors will then be applied to the other modes reflecting the census modal split.</td><td></td></tr>
<tr><td>15</td><td>Would traffic from adjacent sites be attracted to the site?</td><td>100% newly generated trips.</td><td></td></tr>
</table>

	Pass-by traffic?		
16	What is the assumed trip distribution?	Trips generated by the site to be distributed in accordance with MTW information derived from local census data detailed in Point 6.	
17	What is the extent of the accident study area to be considered?	See suggested study area in Figure 1 in Appendix I. Although not illustrated on Figure 1, the M271/A3057/Coldharbour Lane junction is to be included in the study area, as well as the stretch of the A3057 which connects said junction to the A27/A3057 junction. Accident data will be obtained from HCC for the latest five-year period. Please advise if the suggested accident study area is acceptable	
18	Capacity tests required for the proposed and following existing junctions.	Formal capacity assessment at proposed site access points and at the junctions mentioned in Point 6 above. Please advise if there are any other junctions you feel we should assess.	
19	Are adjacent junctions or links likely to become overloaded?	To be confirmed through capacity assessment.	
20	Is a new or modified highway access likely?	The site frontage is split into two parts. As such, it is proposed that the site would be accessed via two separate simple priority junctions. In relation to the northern access, Drawing P21004-001 depicts the suggested access strategy, while the southern access is illustrated on Drawing P21004-002. Both drawings are provided in Appendix IV. Both access points will comprise a 5.5m wide access road, 6.0m corner radii and 2 x 2.0m wide footways which will connect to the existing footway provision on the eastern side of Halterworth Lane. Comments welcome on suggested access arrangements at an early stage and please advise if a Stage 1 RSA will be required for the proposed site accesses.	
21	What are the visibility requirements? Are those requirements met?	As mentioned above, the site will be accessed via two separate simple priority junctions from Halterworth Lane, which is subject to a 30mph speed limit. In relation to the northern access, visibility splays of 2.4m x 51m to the right on exit and 2.4m x 48m to the left on exit have been shown on Drawing P21004-001. In relation to the southern access, visibility splays of 2.4m x 37m to the right on exit and 2.4m x 38m to the	

		left on exit have been shown on Drawing P21004-002. It is important to note that the visibility splays have been calculated based on previous speed surveys undertaken a few years ago. The visibility splays will be updated based on speed survey data following the new ATC surveys (as mentioned in Point 6).	
22	What level of car parking is required?	To be agreed at Reserved Matters stage, however, please advise on most current local guidance such that reference can be made in the Transport Assessment. As part of the development proposals, a car park comprising circa 20 spaces will be offered off the southern access road. The provision of such a car park will help allow parents/guardians from to drop-off/pick-up their children at/from the nearby Halterworth Primary School, therefore improving the overall safety and capacity of Halterworth Lane during these periods. A separate footpath will also be provided, which will connect the car park to Halterworth Lane. The proposed car park is illustrated on Drawing P21004-002. <u>Comments on the potential car park are welcome.</u>	
23	Are special provisions required for cyclists, pedestrians, those with a disability or public transport?	To be reviewed as part of the Transport Assessment. <u>Will a WCHAR be required?</u>	
24	What planning policy should the development comply with?	• NPPF; • MfS/MfS2 & HCC Companion Document; • HCC Local Transport Plan 3: Long Term Strategy (2011-2031); • Test Valley Borough Revised Local Plan (2011-2029); • Test Valley Access Plan SPD; • Romsey Town Access Plan SPD; and • Romsey Future (2015-2035); <u>Please advise if any more documents should be taken into account.</u>	
25	Are there any other special circumstances relevant to this	<u>Please advise.</u>	

	proposal?		

ATTACHMENTS: -

APPENDIX I **PLANS & FIGURES**

SITE LOCATION PLAN (RED LINE)

FIGURE 1 - SITE LOCATION, TRAFFIC SURVEY LOCATION AND ACCIDENT STUDY AREA PLAN

FIGURE 2 - DISTRIBUTION: PERCENTAGES

FIGURE 3 - DISTRIBUTION: AM PEAK HOUR TWO-WAY FLOWS

FIGURE 4 - DISTRIBUTION: PM PEAK HOUR TWO-WAY FLOWS

APPENDIX II **MTW DISTRIBUTION CALCULATIONS**

APPENDIX III **TRIP RATES**

APPENDIX IV **PROPOSED ACCESS DRAWINGS**

DRAWING P21004-001: PROPOSED ACCESS STRATEGY - NORTHERN FRONTAGE

DRAWING P21004-002: PROPOSED ACCESS STRATEGY - SOUTHERN FRONTAGE

From:	Patrick Blake
To:	David Stoddart
Cc:	Planning SE; Beata Ginn; Colclough, Joseph; Doyle, Simon/LON
Subject:	RE: NH/23/03699 Pre-app Request - Up to 260 dwellings off Halterworth Lane, Romsey, Test Valley, Hampshire
Date:	04 December 2023 11:14:43

For the attention of: David Stoddart, Prime Transport Planning (for Gladman)

Site: Land to the east of Halterworth Lane, Romsey, Test Valley, Hampshire

Proposal: Up to 270 dwellings

Our Reference: NH/23/03699

Pre-Application Response

Dear David,

National Highways has been appointed by the Secretary of State for Transport as a strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). The SRN is a critical national asset and as such National Highways works to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

We have reviewed the materials you sent by email on 13th November 2023 concerning the proposed housing development on land to the east of Halterworth Lane, Romsey, Test Valley, Hampshire. Our interests in this case are in the safe and efficient operation of the M27 at and in the vicinity of M27 Junctions 2 and 3 and also the M271 to the north and south of M27 Junction 3.

Sufficient information about the site, the proposed development and potential vehicular impacts are included in the Scoping Checklist and supporting appendices to allow National Highways to provide the following response.

When a planning application is submitted, we will expect to see a Transport Assessment (TA) which includes as a minimum:

- the site context and local highway network and a review of personal injury accidents within the vicinity of the site for the most recent three year period;
- the appropriateness of the local pedestrian, cycle and public transport networks with reference to opportunities for potential staff to travel via sustainable transport modes as a genuine alternative to single occupancy vehicle trips;
- a detailed description of the development proposals (including details concerning the proposed parking, access and servicing arrangements);
- an assessment of forecast vehicular trips generated by the site (carried out

with reference to the TRICS database); and

- a broad summary of key national and local transport planning policies applicable to the development and how the development accords with these policies.

In addition to asking for any comments or concerns National Highways might have with the proposals broadly speaking, you specifically asked for National Highways' thoughts on the exclusion of M27 Junction 3 from the assessment (more particularly, your suggestion that a formal capacity assessment of M27 Junction 3 would not be required).

Thee development is not allocated and (ii) traffic operations at and in the vicinity of M27 Junction 3 are a concern. In this respect, National Highways is particularly concerned with traffic queuing and safety issues associated with (a) the eastern westbound off-slip, (b) the western eastbound off-slip and (c) the southern northbound approach to M27 Junction 3. Traffic operating conditions (including queuing) currently present capacity and safety related challenges.

Accordingly, National Highways would like M27 Junction 3 included in the assessment.

This means that:
- M27 Junction 3 should be included as an additional (tenth) location for data collection (see Ref 6, Scoping Checklist);
- the review of personal injury accidents should include M27 Junction 3 (see Ref 17, Scoping Checklist);
- M27 Junction 3 should be included in the list of junctions subject to *'formal capacity assessment'* (see Ref 18, Scoping Checklist); and
- DfT Circular 01/2022 should be added to the list of documents to be taken into account (see Ref 24, Scoping Checklist).

In addition:
- future traffic forecasts and capacity assessments must account for all committed and adopted Local Plan development significantly impacting M27 Junction 3 as a minimum (see Ref 7, Scoping Checklist).

In this respect, the TEMPro version that will be used must be specified and agreed to by the Local Highway Authorities. National Highways is happy to have TEMPro growth *'manually adjusted with any committed development removed from planning assumptions to remove double counting'* (see Ref 12, Scoping Checklist).

National Highways accepts the trip rates and distribution methodology proposed in the Scoping Note.

National Highways' appreciates the opportunity to provide pre-app input and would welcome a meeting to discuss the proposals, modelling and the potential impact on the SRN. Given Hampshire County Council's interests, a joint meeting with Hampshire County Council may be helpful.

Kind Regards

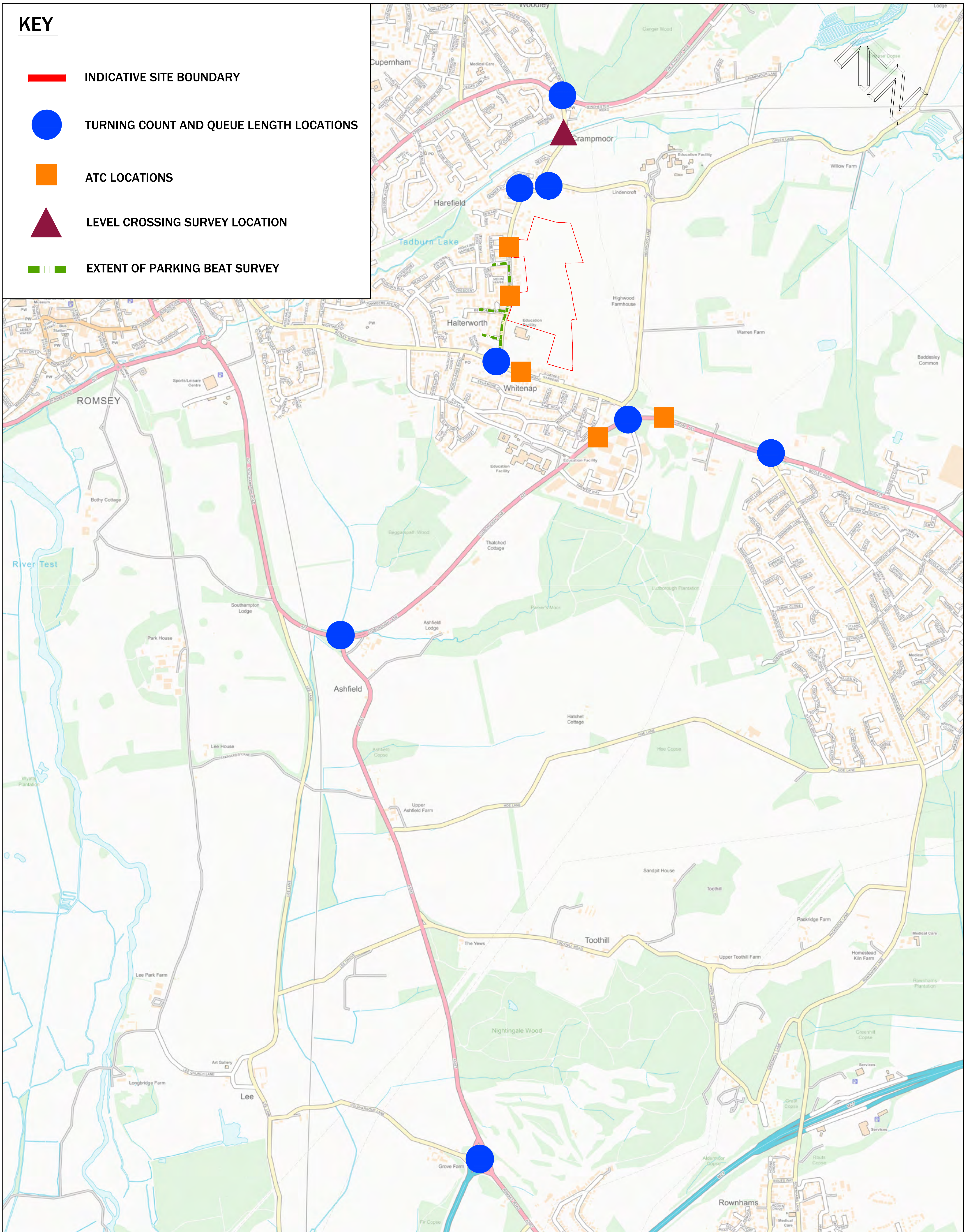
Patrick Blake, Area 3 Spatial Planning Manager
Highways England | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ
Tel: +44 (0) 300 4701043 | **Mobile**: + 44 (0) 7825 024024
Web: https://nationalhighways.co.uk
GTN: 0300 470 1043

This page has been left intentionally blank

APPENDIX B

FIGURES

This page has been left intentionally blank



Rev	Date	By	Revision notes
*	*	*	*

DISCLAIMER

- PROPOSALS ARE PRELIMINARY ONLY, NOT FOR CONSTRUCTION PURPOSES
- PROPOSALS WILL BE SUBJECT TO UTILITY AND DRAINAGE INVESTIGATIONS
- PROPOSALS WILL BE SUBJECT TO EXTENT OF ADOPTED HIGHWAY
- DO NOT SCALE THIS DRAWING. DIMENSIONS ARE FOR REPRESENTATIONAL AND INFORMATIONAL PURPOSES ONLY AND SUBJECT TO DETAILED DESIGN
- THIS DRAWING MUST ONLY BE USED FOR THE PURPOSE FOR WHICH IT HAS BEEN SUPPLIED

Project

HALTERWORTH LANE, ROMSEY, HAMPSHIRE

Title

TRAFFIC SURVEY LOCATION PLAN

Drawn by: CM

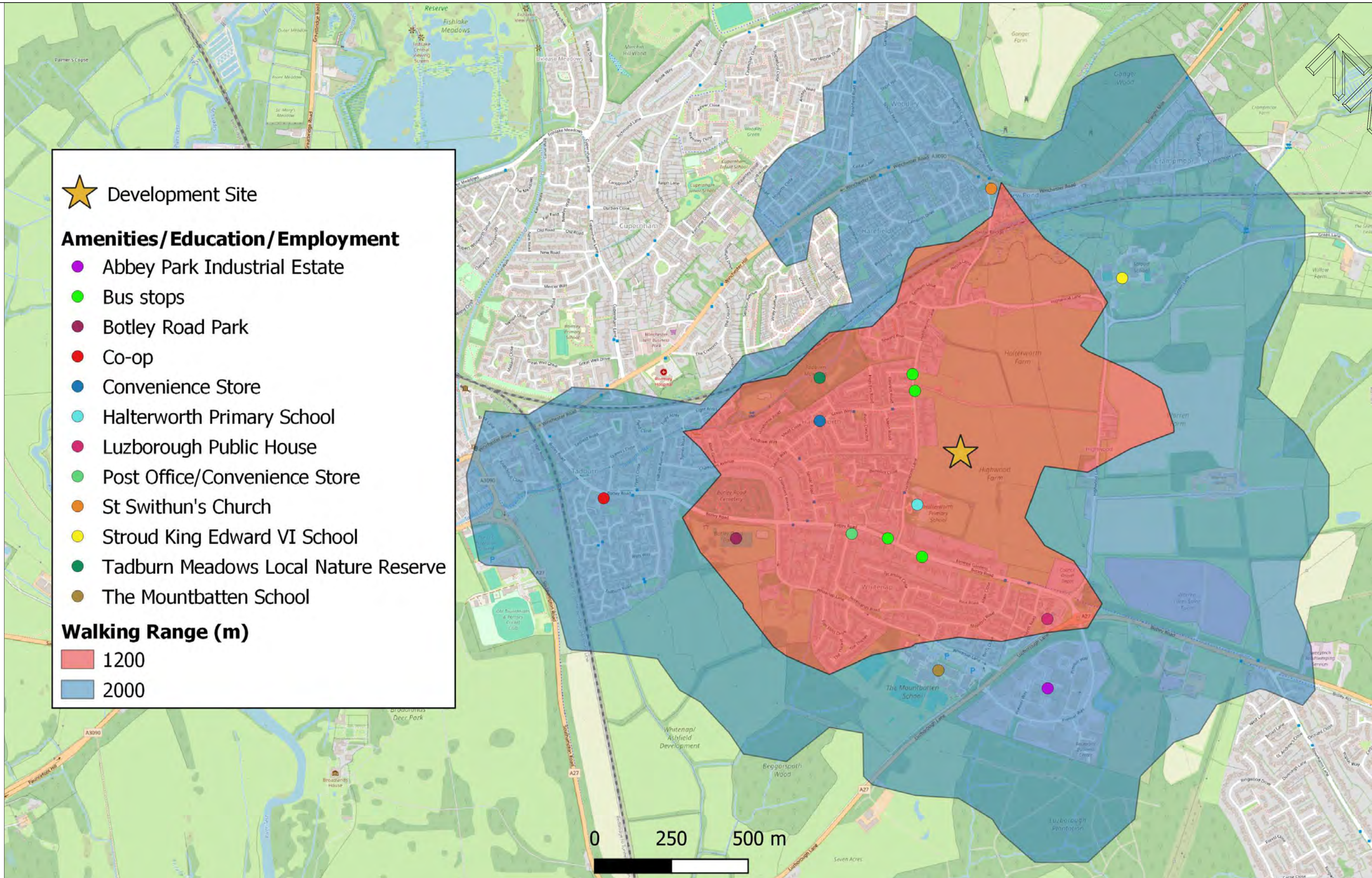
Issue date: 15 DEC 2023

Scale(s): NTS

Drawing No: FIGURE 1

Status: INFORMATION

This page has been left intentionally blank



Prime Transport Planning
9 Hurricane Court
Liverpool International Business Park | Estuary Boulevard | Liverpool | L24 8RL
www.primetp.co.uk | 0151 728 1860

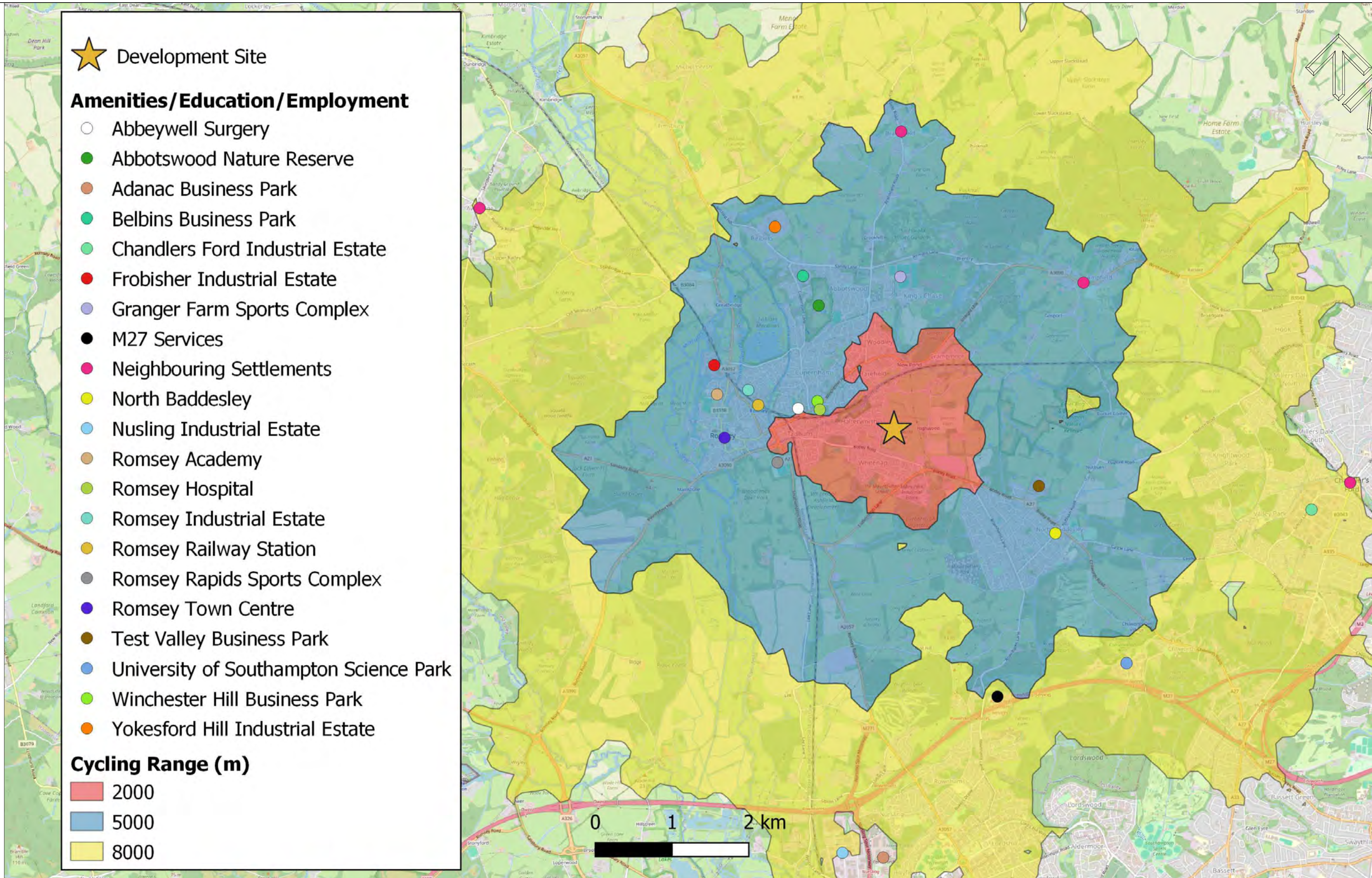
Rev	Date	By	Revision notes
*	*	*	*

DISCLAIMER
- PROPOSALS ARE PRELIMINARY ONLY, NOT FOR CONSTRUCTION PURPOSES
- PROPOSALS WILL BE SUBJECT TO UTILITY AND DRAINAGE INVESTIGATIONS
- PROPOSALS WILL BE SUBJECT TO EXTENT OF ADOPTED HIGHWAY
- DO NOT SCALE THIS DRAWING. DIMENSIONS ARE FOR REPRESENTATIONAL AND INFORMATIONAL PURPOSES ONLY AND SUBJECT TO DETAILED DESIGN
- THIS DRAWING MUST ONLY BE USED FOR THE PURPOSE FOR WHICH IT HAS BEEN SUPPLIED

Project
HALTERWORTH LANE, ROMSEY, HAMPSHIRE

Title
WALKING ISOCHRONE

Drawn by: CM
Issue date: 14 DECEMBER 2023
Scale(s): NTS
Drawing No: FIGURE 2
Status: INFORMATION



Prime
Transport Planning
9 Hurricane Court
Liverpool International Business Park | Estuary Boulevard | Liverpool | L24 8RL
www.primetp.co.uk | 0151 728 1860

Rev	Date	By	Revision notes
*	*	*	*

DISCLAIMER

- PROPOSALS ARE PRELIMINARY ONLY, NOT FOR CONSTRUCTION PURPOSES
- PROPOSALS WILL BE SUBJECT TO UTILITY AND DRAINAGE INVESTIGATIONS
- PROPOSALS WILL BE SUBJECT TO EXTENT OF ADOPTED HIGHWAY
- DO NOT SCALE THIS DRAWING. DIMENSIONS ARE FOR REPRESENTATIONAL AND INFORMATIONAL PURPOSES ONLY AND SUBJECT TO DETAILED DESIGN
- THIS DRAWING MUST ONLY BE USED FOR THE PURPOSE FOR WHICH IT HAS BEEN SUPPLIED

Project

HALTERWORTH LANE, ROMSEY, HAMPSHIRE

Title

CYCLING ISOCHRONE

Drawn by: CM

Issue date: 14 DECEMBER 2023

Scale(s): NTS

Drawing No: FIGURE 3

Status: INFORMATION

This page has been left intentionally blank

APPENDIX C

RAW TRAFFIC DATA

This page has been left intentionally blank

Romsey, Tuesday 7th November 2023

Junction: 1
Approach: Halterworth Lane East

	Left to Halterworth Lane (South)					Ahead to Jenner Way				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	4	0	0	4	4.0	0	0	0	0	0.0
07:15 - 07:30	8	0	0	8	8.0	0	0	0	0	0.0
07:30 - 07:45	16	0	0	16	16.0	0	0	0	0	0.0
07:45 - 08:00	19	1	0	20	21.3	2	1	0	3	4.3
Hourly Total	47	1	0	48	49.3	2	1	0	3	4.3
08:00 - 08:15	24	0	0	24	24.0	3	0	0	3	3.0
08:15 - 08:30	41	0	0	41	41.0	1	0	0	1	1.0
08:30 - 08:45	45	0	0	45	45.0	0	0	0	0	0.0
08:45 - 09:00	38	0	0	38	38.0	0	0	0	0	0.0
Hourly Total	148	0	0	148	148.0	4	0	0	4	4.0
09:00 - 09:15	9	0	1	10	11.0	2	0	0	2	2.0
09:15 - 09:30	8	0	0	8	8.0	0	0	0	0	0.0
09:30 - 09:45	10	0	0	10	10.0	3	0	0	3	3.0
09:45 - 10:00	8	0	0	8	8.0	0	0	0	0	0.0
Hourly Total	35	0	1	36	37.0	5	0	0	5	5.0
TOTAL	230	1	1	232	234.3	11	1	0	12	13.3
14:45 - 15:00	21	0	0	21	21.0	2	0	0	2	2.0
Hourly Total	21	0	0	21	21.0	2	0	0	2	2.0
15:00 - 15:15	28	0	0	28	28.0	3	0	0	3	3.0
15:15 - 15:30	32	0	0	32	32.0	2	0	0	2	2.0
15:30 - 15:45	18	0	0	18	18.0	2	0	0	2	2.0
15:45 - 16:00	21	0	0	21	21.0	3	0	0	3	3.0
Hourly Total	99	0	0	99	99.0	10	0	0	10	10.0
16:00 - 16:15	12	0	0	12	12.0	6	0	0	6	6.0
16:15 - 16:30	42	0	0	42	42.0	1	0	0	1	1.0
16:30 - 16:45	35	0	1	36	37.0	2	1	0	3	4.3
16:45 - 17:00	20	0	0	20	20.0	3	0	0	3	3.0
Hourly Total	109	0	1	110	111.0	12	1	0	13	14.3
17:00 - 17:15	43	0	0	43	43.0	5	0	0	5	5.0
17:15 - 17:30	39	0	0	39	39.0	7	0	0	7	7.0
17:30 - 17:45	37	0	1	38	39.0	10	0	0	10	10.0
17:45 - 18:00	30	0	0	30	30.0	3	0	0	3	3.0
Hourly Total	149	0	1	150	151.0	25	0	0	25	25.0
TOTAL	378	0	2	380	382.0	49	1	0	50	51.3

Romsey, Tuesday 7th November 2023

Junction: 1
Approach: Halterworth Lane South

	Left to Jenner Way					Right to Halterworth Lane (East)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	18	1	0	19	20.3
07:15 - 07:30	1	0	0	1	1.0	23	0	0	23	23.0
07:30 - 07:45	0	0	0	0	0.0	27	1	0	28	29.3
07:45 - 08:00	3	0	0	3	3.0	38	0	1	39	40.0
Hourly Total	**4**	**0**	**0**	**4**	**4.0**	**106**	**2**	**1**	**109**	**112.6**
08:00 - 08:15	2	0	0	2	2.0	47	0	0	47	47.0
08:15 - 08:30	4	0	0	4	4.0	41	0	0	41	41.0
08:30 - 08:45	1	0	0	1	1.0	42	0	1	43	44.0
08:45 - 09:00	3	0	0	3	3.0	52	0	0	52	52.0
Hourly Total	**10**	**0**	**0**	**10**	**10.0**	**182**	**0**	**1**	**183**	**184.0**
09:00 - 09:15	0	0	0	0	0.0	31	0	0	31	31.0
09:15 - 09:30	4	0	0	4	4.0	16	0	0	16	16.0
09:30 - 09:45	0	0	0	0	0.0	28	0	0	28	28.0
09:45 - 10:00	2	0	0	2	2.0	18	0	0	18	18.0
Hourly Total	**6**	**0**	**0**	**6**	**6.0**	**93**	**0**	**0**	**93**	**93.0**
TOTAL	**20**	**0**	**0**	**20**	**20.0**	**381**	**2**	**2**	**385**	**389.6**

14:45 - 15:00	1	0	0	1	1.0	22	0	0	22	22.0
Hourly Total	**1**	**0**	**0**	**1**	**1.0**	**22**	**0**	**0**	**22**	**22.0**
15:00 - 15:15	1	0	0	1	1.0	10	0	0	10	10.0
15:15 - 15:30	0	0	0	0	0.0	25	0	0	25	25.0
15:30 - 15:45	2	0	0	2	2.0	41	0	0	41	41.0
15:45 - 16:00	1	0	0	1	1.0	47	0	0	47	47.0
Hourly Total	**4**	**0**	**0**	**4**	**4.0**	**123**	**0**	**0**	**123**	**123.0**
16:00 - 16:15	2	0	0	2	2.0	21	0	0	21	21.0
16:15 - 16:30	1	0	0	1	1.0	20	0	0	20	20.0
16:30 - 16:45	6	0	0	6	6.0	30	0	0	30	30.0
16:45 - 17:00	10	0	0	10	10.0	27	0	0	27	27.0
Hourly Total	**19**	**0**	**0**	**19**	**19.0**	**98**	**0**	**0**	**98**	**98.0**
17:00 - 17:15	7	0	0	7	7.0	26	0	0	26	26.0
17:15 - 17:30	3	0	0	3	3.0	26	0	0	26	26.0
17:30 - 17:45	4	0	0	4	4.0	24	0	0	24	24.0
17:45 - 18:00	1	0	0	1	1.0	29	0	0	29	29.0
Hourly Total	**15**	**0**	**0**	**15**	**15.0**	**105**	**0**	**0**	**105**	**105.0**
TOTAL	**39**	**0**	**0**	**39**	**39.0**	**348**	**0**	**0**	**348**	**348.0**

Romsey, Tuesday 7th November 2023

Junction: 1
Approach: Jenner Way

	Ahead to Halterworth Lane (East)					Right to Halterworth Lane (South)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	2	0	0	2	2.0	2	0	0	2	2.0
07:15 - 07:30	3	0	0	3	3.0	2	0	0	2	2.0
07:30 - 07:45	7	0	0	7	7.0	1	0	0	1	1.0
07:45 - 08:00	6	0	0	6	6.0	4	0	0	4	4.0
Hourly Total	18	0	0	18	18.0	9	0	0	9	9.0
08:00 - 08:15	2	0	0	2	2.0	6	0	0	6	6.0
08:15 - 08:30	1	0	0	1	1.0	2	0	0	2	2.0
08:30 - 08:45	1	0	0	1	1.0	8	0	0	8	8.0
08:45 - 09:00	3	0	0	3	3.0	3	0	0	3	3.0
Hourly Total	7	0	0	7	7.0	19	0	0	19	19.0
09:00 - 09:15	2	0	0	2	2.0	1	0	0	1	1.0
09:15 - 09:30	3	0	0	3	3.0	1	0	0	1	1.0
09:30 - 09:45	2	0	0	2	2.0	0	0	0	0	0.0
09:45 - 10:00	5	0	0	5	5.0	4	0	0	4	4.0
Hourly Total	12	0	0	12	12.0	6	0	0	6	6.0
TOTAL	37	0	0	37	37.0	34	0	0	34	34.0
14:45 - 15:00	3	0	0	3	3.0	2	0	0	2	2.0
Hourly Total	3	0	0	3	3.0	2	0	0	2	2.0
15:00 - 15:15	4	0	0	4	4.0	1	0	0	1	1.0
15:15 - 15:30	2	0	0	2	2.0	2	0	0	2	2.0
15:30 - 15:45	1	0	0	1	1.0	1	0	0	1	1.0
15:45 - 16:00	3	0	0	3	3.0	0	0	0	0	0.0
Hourly Total	10	0	0	10	10.0	4	0	0	4	4.0
16:00 - 16:15	2	0	0	2	2.0	3	0	0	3	3.0
16:15 - 16:30	0	0	0	0	0.0	1	0	0	1	1.0
16:30 - 16:45	1	0	0	1	1.0	4	0	0	4	4.0
16:45 - 17:00	2	0	0	2	2.0	4	0	0	4	4.0
Hourly Total	5	0	0	5	5.0	12	0	0	12	12.0
17:00 - 17:15	1	0	0	1	1.0	1	0	0	1	1.0
17:15 - 17:30	1	0	0	1	1.0	3	0	0	3	3.0
17:30 - 17:45	5	0	0	5	5.0	1	0	0	1	1.0
17:45 - 18:00	2	0	0	2	2.0	1	0	0	1	1.0
Hourly Total	9	0	0	9	9.0	6	0	0	6	6.0
TOTAL	27	0	0	27	27.0	24	0	0	24	24.0

Romsey, Tuesday 7th November 2023

Junction: 2
Approach: Halterworth Lane North

	Left to Highwood Lane					Right to Halterworth Lane (West)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	31	0	0	31	31.0	4	0	0	4	4.0
07:15 - 07:30	53	0	0	53	53.0	8	0	0	8	8.0
07:30 - 07:45	59	0	0	59	59.0	15	0	0	15	15.0
07:45 - 08:00	71	0	0	71	71.0	18	1	0	19	20.3
Hourly Total	**214**	**0**	**0**	**214**	**214.0**	**45**	**1**	**0**	**46**	**47.3**
08:00 - 08:15	71	0	0	71	71.0	26	0	0	26	26.0
08:15 - 08:30	73	0	0	73	73.0	40	0	0	40	40.0
08:30 - 08:45	70	0	0	70	70.0	45	0	0	45	45.0
08:45 - 09:00	51	0	0	51	51.0	36	0	0	36	36.0
Hourly Total	**265**	**0**	**0**	**265**	**265.0**	**147**	**0**	**0**	**147**	**147.0**
09:00 - 09:15	77	0	0	77	77.0	10	0	1	11	12.0
09:15 - 09:30	59	0	0	59	59.0	8	0	0	8	8.0
09:30 - 09:45	54	0	0	54	54.0	10	0	0	10	10.0
09:45 - 10:00	54	0	0	54	54.0	8	0	0	8	8.0
Hourly Total	**244**	**0**	**0**	**244**	**244.0**	**36**	**0**	**1**	**37**	**38.0**
TOTAL	**723**	**0**	**0**	**723**	**723.0**	**228**	**1**	**1**	**230**	**232.3**
14:45 - 15:00	33	0	0	33	33.0	22	0	0	22	22.0
Hourly Total	**33**	**0**	**0**	**33**	**33.0**	**22**	**0**	**0**	**22**	**22.0**
15:00 - 15:15	39	0	0	39	39.0	28	0	0	28	28.0
15:15 - 15:30	40	1	0	41	42.3	34	0	0	34	34.0
15:30 - 15:45	56	0	0	56	56.0	19	0	0	19	19.0
15:45 - 16:00	52	0	0	52	52.0	22	0	0	22	22.0
Hourly Total	**187**	**1**	**0**	**188**	**189.3**	**103**	**0**	**0**	**103**	**103.0**
16:00 - 16:15	64	0	0	64	64.0	18	0	0	18	18.0
16:15 - 16:30	51	0	0	51	51.0	39	0	0	39	39.0
16:30 - 16:45	54	0	0	54	54.0	30	1	0	31	32.3
16:45 - 17:00	51	0	0	51	51.0	22	0	0	22	22.0
Hourly Total	**220**	**0**	**0**	**220**	**220.0**	**109**	**1**	**0**	**110**	**111.3**
17:00 - 17:15	59	0	0	59	59.0	46	0	0	46	46.0
17:15 - 17:30	63	0	0	63	63.0	46	0	0	46	46.0
17:30 - 17:45	47	0	0	47	47.0	44	0	1	45	46.0
17:45 - 18:00	21	0	0	21	21.0	32	0	0	32	32.0
Hourly Total	**190**	**0**	**0**	**190**	**190.0**	**168**	**0**	**1**	**169**	**170.0**
TOTAL	**630**	**1**	**0**	**631**	**632.3**	**402**	**1**	**1**	**404**	**406.3**

Romsey, Tuesday 7th November 2023

Junction: 2
Approach: Highwood Lane

	Ahead to Halterworth Lane (West)					Right to Halterworth Lane (North)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	18	0	0	18	18.0
07:15 - 07:30	0	0	0	0	0.0	24	1	0	25	26.3
07:30 - 07:45	1	0	0	1	1.0	30	0	0	30	30.0
07:45 - 08:00	3	1	0	4	5.3	56	0	0	56	56.0
Hourly Total	**4**	**1**	**0**	**5**	**6.3**	**128**	**1**	**0**	**129**	**130.3**
08:00 - 08:15	1	0	0	1	1.0	46	0	0	46	46.0
08:15 - 08:30	2	0	0	2	2.0	62	0	0	62	62.0
08:30 - 08:45	0	0	0	0	0.0	68	0	0	68	68.0
08:45 - 09:00	2	0	0	2	2.0	63	0	0	63	63.0
Hourly Total	**5**	**0**	**0**	**5**	**5.0**	**239**	**0**	**0**	**239**	**239.0**
09:00 - 09:15	1	0	0	1	1.0	43	0	0	43	43.0
09:15 - 09:30	0	0	0	0	0.0	36	0	0	36	36.0
09:30 - 09:45	3	0	0	3	3.0	34	0	0	34	34.0
09:45 - 10:00	0	0	0	0	0.0	44	0	0	44	44.0
Hourly Total	**4**	**0**	**0**	**4**	**4.0**	**157**	**0**	**0**	**157**	**157.0**
TOTAL	**13**	**1**	**0**	**14**	**15.3**	**524**	**1**	**0**	**525**	**526.3**
14:45 - 15:00	1	0	0	1	1.0	49	0	0	49	49.0
Hourly Total	**1**	**0**	**0**	**1**	**1.0**	**49**	**0**	**0**	**49**	**49.0**
15:00 - 15:15	3	0	0	3	3.0	40	1	0	41	42.3
15:15 - 15:30	0	0	0	0	0.0	59	0	0	59	59.0
15:30 - 15:45	1	0	0	1	1.0	55	0	0	55	55.0
15:45 - 16:00	2	0	0	2	2.0	33	0	0	33	33.0
Hourly Total	**6**	**0**	**0**	**6**	**6.0**	**187**	**1**	**0**	**188**	**189.3**
16:00 - 16:15	0	0	0	0	0.0	59	0	0	59	59.0
16:15 - 16:30	4	0	0	4	4.0	65	0	0	65	65.0
16:30 - 16:45	7	0	1	8	9.0	85	0	0	85	85.0
16:45 - 17:00	1	0	0	1	1.0	63	0	0	63	63.0
Hourly Total	**12**	**0**	**1**	**13**	**14.0**	**272**	**0**	**0**	**272**	**272.0**
17:00 - 17:15	2	0	0	2	2.0	70	0	0	70	70.0
17:15 - 17:30	0	0	0	0	0.0	48	0	0	48	48.0
17:30 - 17:45	3	0	0	3	3.0	71	0	0	71	71.0
17:45 - 18:00	1	0	0	1	1.0	66	0	0	66	66.0
Hourly Total	**6**	**0**	**0**	**6**	**6.0**	**255**	**0**	**0**	**255**	**255.0**
TOTAL	**25**	**0**	**1**	**26**	**27.0**	**763**	**1**	**0**	**764**	**765.3**

Romsey, Tuesday 7th November 2023

Junction: 2
Approach: Halterworth Lane West

	Left to Halterworth Lane (North)					Ahead to Highwood Lane				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	20	1	0	21	22.3	0	0	0	0	0.0
07:15 - 07:30	25	0	0	25	25.0	1	0	0	1	1.0
07:30 - 07:45	30	1	0	31	32.3	4	0	0	4	4.0
07:45 - 08:00	43	0	0	43	43.0	1	0	1	2	3.0
Hourly Total	118	2	0	120	122.6	6	0	1	7	8.0
08:00 - 08:15	45	0	0	45	45.0	4	0	0	4	4.0
08:15 - 08:30	38	0	0	38	38.0	4	0	0	4	4.0
08:30 - 08:45	39	0	1	40	41.0	4	0	0	4	4.0
08:45 - 09:00	52	0	0	52	52.0	3	0	0	3	3.0
Hourly Total	174	0	1	175	176.0	15	0	0	15	15.0
09:00 - 09:15	30	0	0	30	30.0	3	0	0	3	3.0
09:15 - 09:30	18	0	0	18	18.0	1	0	0	1	1.0
09:30 - 09:45	29	0	0	29	29.0	1	0	0	1	1.0
09:45 - 10:00	20	0	0	20	20.0	3	0	0	3	3.0
Hourly Total	97	0	0	97	97.0	8	0	0	8	8.0
TOTAL	389	2	1	392	395.6	29	0	1	30	31.0
14:45 - 15:00	23	0	0	23	23.0	2	0	0	2	2.0
Hourly Total	23	0	0	23	23.0	2	0	0	2	2.0
15:00 - 15:15	14	0	0	14	14.0	0	0	0	0	0.0
15:15 - 15:30	25	0	0	25	25.0	2	0	0	2	2.0
15:30 - 15:45	39	0	0	39	39.0	3	0	0	3	3.0
15:45 - 16:00	46	0	0	46	46.0	4	0	0	4	4.0
Hourly Total	124	0	0	124	124.0	9	0	0	9	9.0
16:00 - 16:15	18	0	0	18	18.0	5	0	0	5	5.0
16:15 - 16:30	16	0	0	16	16.0	4	0	0	4	4.0
16:30 - 16:45	30	0	0	30	30.0	1	0	0	1	1.0
16:45 - 17:00	27	0	0	27	27.0	2	0	0	2	2.0
Hourly Total	91	0	0	91	91.0	12	0	0	12	12.0
17:00 - 17:15	25	0	0	25	25.0	2	0	0	2	2.0
17:15 - 17:30	27	0	0	27	27.0	0	0	0	0	0.0
17:30 - 17:45	27	0	0	27	27.0	2	0	0	2	2.0
17:45 - 18:00	31	0	0	31	31.0	0	0	0	0	0.0
Hourly Total	110	0	0	110	110.0	4	0	0	4	4.0
TOTAL	348	0	0	348	348.0	27	0	0	27	27.0

Romsey, Tuesday 7th November 2023

Junction: 3
Approach: A3090 Winchester Road East

	Left to Halterworth Lane					Ahead to A3090 Winchester Road (West)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	9	0	0	9	9.0	32	0	0	32	32.0
07:15 - 07:30	10	0	0	10	10.0	37	0	1	38	39.0
07:30 - 07:45	11	0	0	11	11.0	44	0	0	44	44.0
07:45 - 08:00	15	1	0	16	17.3	43	1	0	44	45.3
Hourly Total	45	1	0	46	47.3	156	1	1	158	160.3
08:00 - 08:15	19	0	0	19	19.0	40	0	0	40	40.0
08:15 - 08:30	18	0	0	18	18.0	45	1	0	46	47.3
08:30 - 08:45	13	0	0	13	13.0	74	0	0	74	74.0
08:45 - 09:00	19	0	0	19	19.0	98	2	0	100	102.6
Hourly Total	69	0	0	69	69.0	257	3	0	260	263.9
09:00 - 09:15	24	0	0	24	24.0	86	1	0	87	88.3
09:15 - 09:30	12	0	0	12	12.0	81	2	0	83	85.6
09:30 - 09:45	15	0	0	15	15.0	77	1	0	78	79.3
09:45 - 10:00	11	0	0	11	11.0	70	1	0	71	72.3
Hourly Total	62	0	0	62	62.0	314	5	0	319	325.5
TOTAL	176	1	0	177	178.3	727	9	1	737	749.7
14:45 - 15:00	10	0	0	10	10.0	30	0	0	30	30.0
Hourly Total	10	0	0	10	10.0	30	0	0	30	30.0
15:00 - 15:15	12	0	0	12	12.0	33	0	0	33	33.0
15:15 - 15:30	23	0	0	23	23.0	70	3	0	73	76.9
15:30 - 15:45	15	0	0	15	15.0	56	0	1	57	58.0
15:45 - 16:00	16	0	0	16	16.0	51	0	0	51	51.0
Hourly Total	66	0	0	66	66.0	210	3	1	214	218.9
16:00 - 16:15	13	0	0	13	13.0	60	0	0	60	60.0
16:15 - 16:30	20	0	0	20	20.0	55	0	0	55	55.0
16:30 - 16:45	14	0	0	14	14.0	59	0	0	59	59.0
16:45 - 17:00	16	0	0	16	16.0	52	0	0	52	52.0
Hourly Total	63	0	0	63	63.0	226	0	0	226	226.0
17:00 - 17:15	25	0	0	25	25.0	60	0	0	60	60.0
17:15 - 17:30	25	0	0	25	25.0	56	0	0	56	56.0
17:30 - 17:45	12	0	0	12	12.0	59	0	0	59	59.0
17:45 - 18:00	13	0	0	13	13.0	55	0	0	55	55.0
Hourly Total	75	0	0	75	75.0	230	0	0	230	230.0
TOTAL	214	0	0	214	214.0	696	3	1	700	704.9

Romsey, Tuesday 7th November 2023

Junction: 3
Approach: Halterworth Lane

	Left to A3090 Winchester Road (West)					Right to A3090 Winchester Road (East)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	25	1	0	26	27.3	12	0	0	12	12.0
07:15 - 07:30	34	1	0	35	36.3	17	0	0	17	17.0
07:30 - 07:45	41	0	0	41	41.0	20	0	0	20	20.0
07:45 - 08:00	62	1	0	63	64.3	30	0	0	30	30.0
Hourly Total	162	3	0	165	168.9	79	0	0	79	79.0
08:00 - 08:15	56	0	0	56	56.0	36	1	0	37	38.3
08:15 - 08:30	70	0	0	70	70.0	31	0	0	31	31.0
08:30 - 08:45	78	0	1	79	80.0	29	0	0	29	29.0
08:45 - 09:00	81	0	0	81	81.0	34	0	0	34	34.0
Hourly Total	285	0	1	286	287.0	130	1	0	131	132.3
09:00 - 09:15	50	0	0	50	50.0	21	0	0	21	21.0
09:15 - 09:30	34	0	0	34	34.0	17	0	0	17	17.0
09:30 - 09:45	50	0	0	50	50.0	15	0	0	15	15.0
09:45 - 10:00	45	0	0	45	45.0	16	0	0	16	16.0
Hourly Total	179	0	0	179	179.0	69	0	0	69	69.0
TOTAL	626	3	1	630	634.9	278	1	0	279	280.3

14:45 - 15:00	54	0	0	54	54.0	11	0	0	11	11.0
Hourly Total	54	0	0	54	54.0	11	0	0	11	11.0
15:00 - 15:15	43	1	0	44	45.3	13	0	0	13	13.0
15:15 - 15:30	61	1	0	62	63.3	21	0	0	21	21.0
15:30 - 15:45	73	0	0	73	73.0	22	0	0	22	22.0
15:45 - 16:00	66	0	0	66	66.0	22	0	0	22	22.0
Hourly Total	243	2	0	245	247.6	78	0	0	78	78.0
16:00 - 16:15	69	0	0	69	69.0	10	0	0	10	10.0
16:15 - 16:30	65	0	0	65	65.0	14	0	0	14	14.0
16:30 - 16:45	78	0	0	78	78.0	22	0	0	22	22.0
16:45 - 17:00	74	1	0	75	76.3	23	0	0	23	23.0
Hourly Total	286	1	0	287	288.3	69	0	0	69	69.0
17:00 - 17:15	73	0	0	73	73.0	24	0	0	24	24.0
17:15 - 17:30	63	0	0	63	63.0	17	0	0	17	17.0
17:30 - 17:45	67	0	0	67	67.0	21	0	0	21	21.0
17:45 - 18:00	76	0	0	76	76.0	19	0	0	19	19.0
Hourly Total	279	0	0	279	279.0	81	0	0	81	81.0
TOTAL	862	3	0	865	868.9	239	0	0	239	239.0

Romsey, Tuesday 7th November 2023

Junction: 3
Approach: A3090 Winchester Road West

	Ahead to A3090 Winchester Road (East)					Right to Halterworth Lane				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	50	0	0	50	50.0	25	0	0	25	25.0
07:15 - 07:30	54	0	0	54	54.0	55	0	0	55	55.0
07:30 - 07:45	59	1	0	60	61.3	67	0	0	67	67.0
07:45 - 08:00	76	1	0	77	78.3	70	0	0	70	70.0
Hourly Total	239	2	0	241	243.6	217	0	0	217	217.0
08:00 - 08:15	83	0	1	84	85.0	76	0	0	76	76.0
08:15 - 08:30	100	0	0	100	100.0	94	0	0	94	94.0
08:30 - 08:45	91	3	0	94	97.9	102	0	0	102	102.0
08:45 - 09:00	101	2	0	103	105.6	75	1	0	76	77.3
Hourly Total	375	5	1	381	388.5	347	1	0	348	349.3
09:00 - 09:15	85	2	0	87	89.6	64	0	0	64	64.0
09:15 - 09:30	89	2	0	91	93.6	54	0	1	55	56.0
09:30 - 09:45	81	1	0	82	83.3	50	0	0	50	50.0
09:45 - 10:00	73	2	0	75	77.6	48	0	0	48	48.0
Hourly Total	328	7	0	335	344.1	216	0	1	217	218.0
TOTAL	942	14	1	957	976.2	780	1	1	782	784.3
14:45 - 15:00	45	0	0	45	45.0	42	0	0	42	42.0
Hourly Total	45	0	0	45	45.0	42	0	0	42	42.0
15:00 - 15:15	53	0	0	53	53.0	57	0	0	57	57.0
15:15 - 15:30	41	2	0	43	45.6	57	1	0	58	59.3
15:30 - 15:45	42	1	0	43	44.3	51	0	0	51	51.0
15:45 - 16:00	37	1	0	38	39.3	55	0	0	55	55.0
Hourly Total	173	4	0	177	182.2	220	1	0	221	222.3
16:00 - 16:15	48	0	1	49	50.0	71	0	0	71	71.0
16:15 - 16:30	42	0	0	42	42.0	74	0	0	74	74.0
16:30 - 16:45	46	0	0	46	46.0	70	1	0	71	72.3
16:45 - 17:00	49	0	0	49	49.0	53	0	0	53	53.0
Hourly Total	185	0	1	186	187.0	268	1	0	269	270.3
17:00 - 17:15	45	0	0	45	45.0	81	0	0	81	81.0
17:15 - 17:30	47	0	1	48	49.0	84	0	0	84	84.0
17:30 - 17:45	50	0	0	50	50.0	77	0	1	78	79.0
17:45 - 18:00	43	0	0	43	43.0	48	0	0	48	48.0
Hourly Total	185	0	1	186	187.0	290	0	1	291	292.0
TOTAL	588	4	2	594	601.2	820	2	1	823	826.6

Romsey, Tuesday 7th November 2023

Junction: 4
Approach: Halterworth Lane

	Left to Botley Road (East)					Right to Botley Road (West)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	13	1	0	14	15.3	4	0	0	4	4.0
07:15 - 07:30	14	0	0	14	14.0	7	0	0	7	7.0
07:30 - 07:45	22	0	0	22	22.0	4	0	0	4	4.0
07:45 - 08:00	29	0	0	29	29.0	8	1	0	9	10.3
Hourly Total	**78**	**1**	**0**	**79**	**80.3**	**23**	**1**	**0**	**24**	**25.3**
08:00 - 08:15	21	0	0	21	21.0	13	1	0	14	15.3
08:15 - 08:30	23	0	0	23	23.0	21	0	0	21	21.0
08:30 - 08:45	16	0	0	16	16.0	17	0	0	17	17.0
08:45 - 09:00	16	0	0	16	16.0	24	0	0	24	24.0
Hourly Total	**76**	**0**	**0**	**76**	**76.0**	**75**	**1**	**0**	**76**	**77.3**
09:00 - 09:15	24	0	0	24	24.0	12	0	0	12	12.0
09:15 - 09:30	15	0	0	15	15.0	5	0	0	5	5.0
09:30 - 09:45	7	0	0	7	7.0	8	0	0	8	8.0
09:45 - 10:00	21	0	0	21	21.0	6	0	0	6	6.0
Hourly Total	**67**	**0**	**0**	**67**	**67.0**	**31**	**0**	**0**	**31**	**31.0**
TOTAL	**221**	**1**	**0**	**222**	**223.3**	**129**	**2**	**0**	**131**	**133.6**
14:45 - 15:00	14	0	0	14	14.0	9	0	0	9	9.0
Hourly Total	**14**	**0**	**0**	**14**	**14.0**	**9**	**0**	**0**	**9**	**9.0**
15:00 - 15:15	12	0	0	12	12.0	13	0	0	13	13.0
15:15 - 15:30	10	0	0	10	10.0	4	0	0	4	4.0
15:30 - 15:45	7	0	0	7	7.0	17	0	0	17	17.0
15:45 - 16:00	30	0	0	30	30.0	21	0	0	21	21.0
Hourly Total	**59**	**0**	**0**	**59**	**59.0**	**55**	**0**	**0**	**55**	**55.0**
16:00 - 16:15	13	0	0	13	13.0	4	0	0	4	4.0
16:15 - 16:30	21	0	0	21	21.0	4	0	0	4	4.0
16:30 - 16:45	18	0	0	18	18.0	9	1	0	10	11.3
16:45 - 17:00	16	0	0	16	16.0	14	0	1	15	16.0
Hourly Total	**68**	**0**	**0**	**68**	**68.0**	**31**	**1**	**1**	**33**	**35.3**
17:00 - 17:15	16	0	0	16	16.0	13	0	0	13	13.0
17:15 - 17:30	17	0	0	17	17.0	12	0	0	12	12.0
17:30 - 17:45	14	0	0	14	14.0	11	0	1	12	13.0
17:45 - 18:00	13	0	0	13	13.0	12	0	0	12	12.0
Hourly Total	**60**	**0**	**0**	**60**	**60.0**	**48**	**0**	**1**	**49**	**50.0**
TOTAL	**201**	**0**	**0**	**201**	**201.0**	**143**	**1**	**2**	**146**	**149.3**

Romsey, Tuesday 7th November 2023

Junction: 4
Approach: Botley Road East

	Ahead to Botley Road (West)					Right to Halterworth Lane				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	40	0	0	40	40.0	8	1	0	9	10.3
07:15 - 07:30	64	0	0	64	64.0	17	1	0	18	19.3
07:30 - 07:45	77	0	1	78	79.0	18	0	0	18	18.0
07:45 - 08:00	61	0	0	61	61.0	20	0	0	20	20.0
Hourly Total	**242**	**0**	**1**	**243**	**244.0**	**63**	**2**	**0**	**65**	**67.6**
08:00 - 08:15	73	0	0	73	73.0	21	0	0	21	21.0
08:15 - 08:30	75	0	0	75	75.0	26	0	0	26	26.0
08:30 - 08:45	80	0	1	81	82.0	32	0	0	32	32.0
08:45 - 09:00	72	0	1	73	74.0	26	0	0	26	26.0
Hourly Total	**300**	**0**	**2**	**302**	**304.0**	**105**	**0**	**0**	**105**	**105.0**
09:00 - 09:15	56	0	1	57	58.0	11	0	0	11	11.0
09:15 - 09:30	59	0	0	59	59.0	16	0	0	16	16.0
09:30 - 09:45	60	1	1	62	64.3	15	0	0	15	15.0
09:45 - 10:00	49	0	1	50	51.0	12	0	0	12	12.0
Hourly Total	**224**	**1**	**3**	**228**	**232.3**	**54**	**0**	**0**	**54**	**54.0**
TOTAL	**766**	**1**	**6**	**773**	**780.3**	**222**	**2**	**0**	**224**	**226.6**
14:45 - 15:00	70	0	0	70	70.0	24	0	0	24	24.0
Hourly Total	**70**	**0**	**0**	**70**	**70.0**	**24**	**0**	**0**	**24**	**24.0**
15:00 - 15:15	69	0	1	70	71.0	10	0	0	10	10.0
15:15 - 15:30	79	1	0	80	81.3	31	0	0	31	31.0
15:30 - 15:45	75	1	1	77	79.3	26	0	0	26	26.0
15:45 - 16:00	59	0	0	59	59.0	10	0	0	10	10.0
Hourly Total	**282**	**2**	**2**	**286**	**290.6**	**77**	**0**	**0**	**77**	**77.0**
16:00 - 16:15	83	0	1	84	85.0	24	0	0	24	24.0
16:15 - 16:30	65	0	1	66	67.0	27	0	0	27	27.0
16:30 - 16:45	63	0	0	63	63.0	25	0	0	25	25.0
16:45 - 17:00	67	0	2	69	71.0	29	0	0	29	29.0
Hourly Total	**278**	**0**	**4**	**282**	**286.0**	**105**	**0**	**0**	**105**	**105.0**
17:00 - 17:15	62	0	1	63	64.0	22	0	0	22	22.0
17:15 - 17:30	61	0	0	61	61.0	17	0	0	17	17.0
17:30 - 17:45	73	0	0	73	73.0	20	0	0	20	20.0
17:45 - 18:00	80	0	1	81	82.0	27	0	0	27	27.0
Hourly Total	**276**	**0**	**2**	**278**	**280.0**	**86**	**0**	**0**	**86**	**86.0**
TOTAL	**906**	**2**	**8**	**916**	**926.6**	**292**	**0**	**0**	**292**	**292.0**

Romsey, Tuesday 7th November 2023

Junction: 4
Approach: Botley Road West

	Left to Halterworth Lane					Ahead to Botley Road (East)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	6	0	0	6	6.0	37	2	0	39	41.6
07:15 - 07:30	6	0	0	6	6.0	43	0	1	44	45.0
07:30 - 07:45	12	1	0	13	14.3	58	1	0	59	60.3
07:45 - 08:00	15	0	1	16	17.0	67	0	2	69	71.0
Hourly Total	39	1	1	41	43.3	205	3	3	211	217.9
08:00 - 08:15	14	0	0	14	14.0	69	0	0	69	69.0
08:15 - 08:30	19	0	0	19	19.0	65	0	0	65	65.0
08:30 - 08:45	35	0	1	36	37.0	68	0	1	69	70.0
08:45 - 09:00	40	0	0	40	40.0	78	1	2	81	84.3
Hourly Total	108	0	1	109	110.0	280	1	3	284	288.3
09:00 - 09:15	5	0	0	5	5.0	80	0	2	82	84.0
09:15 - 09:30	8	0	0	8	8.0	49	0	0	49	49.0
09:30 - 09:45	8	0	0	8	8.0	50	0	1	51	52.0
09:45 - 10:00	9	2	0	11	13.6	33	0	1	34	35.0
Hourly Total	30	2	0	32	34.6	212	0	4	216	220.0
TOTAL	177	3	2	182	187.9	697	4	10	711	726.2
14:45 - 15:00	10	0	0	10	10.0	54	0	0	54	54.0
Hourly Total	10	0	0	10	10.0	54	0	0	54	54.0
15:00 - 15:15	15	0	0	15	15.0	47	0	1	48	49.0
15:15 - 15:30	22	0	0	22	22.0	55	0	1	56	57.0
15:30 - 15:45	14	0	0	14	14.0	67	0	0	67	67.0
15:45 - 16:00	11	0	0	11	11.0	71	0	1	72	73.0
Hourly Total	62	0	0	62	62.0	240	0	3	243	246.0
16:00 - 16:15	9	0	0	9	9.0	63	0	0	63	63.0
16:15 - 16:30	11	0	0	11	11.0	93	0	0	93	93.0
16:30 - 16:45	13	0	0	13	13.0	84	0	0	84	84.0
16:45 - 17:00	19	0	0	19	19.0	72	0	2	74	76.0
Hourly Total	52	0	0	52	52.0	312	0	2	314	316.0
17:00 - 17:15	16	0	0	16	16.0	65	0	1	66	67.0
17:15 - 17:30	15	0	0	15	15.0	67	0	0	67	67.0
17:30 - 17:45	13	0	0	13	13.0	66	1	1	68	70.3
17:45 - 18:00	14	0	0	14	14.0	64	0	0	64	64.0
Hourly Total	58	0	0	58	58.0	262	1	2	265	268.3
TOTAL	182	0	0	182	182.0	868	1	7	876	884.3

Romsey, Tuesday 7th November 2023

Junction: 5
Approach: Botley Road

	Left to A27 (East)					Ahead to Premier Way					Right to A27 (West)					U-Turn				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	77	3	0	80	83.9	3	0	0	3	3.0	23	1	0	24	25.3	0	0	0	0	0.0
07:15 - 07:30	78	1	1	80	82.3	8	0	0	8	8.0	34	1	0	35	36.3	0	0	0	0	0.0
07:30 - 07:45	108	1	0	109	110.3	6	0	0	6	6.0	38	0	0	38	38.0	0	0	0	0	0.0
07:45 - 08:00	130	0	2	132	134.0	6	0	0	6	6.0	39	0	0	39	39.0	0	0	0	0	0.0
Hourly Total	**393**	**5**	**3**	**401**	**410.5**	**23**	**0**	**0**	**23**	**23.0**	**134**	**2**	**0**	**136**	**138.6**	**0**	**0**	**0**	**0**	**0.0**
08:00 - 08:15	119	1	1	121	123.3	7	0	0	7	7.0	36	0	0	36	36.0	0	0	0	0	0.0
08:15 - 08:30	123	0	0	123	123.0	10	0	0	10	10.0	53	0	0	53	53.0	0	1	0	1	2.3
08:30 - 08:45	129	5	0	134	140.5	18	0	0	18	18.0	45	2	0	47	49.6	0	0	0	0	0.0
08:45 - 09:00	116	1	2	119	122.3	13	0	0	13	13.0	53	0	0	53	53.0	0	0	0	0	0.0
Hourly Total	**487**	**7**	**3**	**497**	**509.1**	**48**	**0**	**0**	**48**	**48.0**	**187**	**2**	**0**	**189**	**191.6**	**0**	**1**	**0**	**1**	**2.3**
09:00 - 09:15	138	3	2	143	148.9	11	0	0	11	11.0	35	1	0	36	37.3	0	0	0	0	0.0
09:15 - 09:30	85	0	0	85	85.0	2	1	0	3	4.3	26	0	0	26	26.0	0	0	0	0	0.0
09:30 - 09:45	83	0	1	84	85.0	3	0	0	3	3.0	18	0	1	19	20.0	1	0	0	1	1.0
09:45 - 10:00	72	0	1	73	74.0	4	0	0	4	4.0	23	0	0	23	23.0	0	0	0	0	0.0
Hourly Total	**378**	**3**	**4**	**385**	**392.9**	**20**	**1**	**0**	**21**	**22.3**	**102**	**1**	**1**	**104**	**106.3**	**1**	**0**	**0**	**1**	**1.0**
TOTAL	**1258**	**15**	**10**	**1283**	**1312.5**	**91**	**1**	**0**	**92**	**93.3**	**423**	**5**	**1**	**429**	**436.5**	**1**	**1**	**0**	**2**	**3.3**
16:00 - 16:15	94	1	0	95	96.3	2	0	0	2	2.0	8	1	0	9	10.3	0	0	0	0	0.0
16:15 - 16:30	142	0	1	143	144.0	2	0	0	2	2.0	21	1	0	22	23.3	0	0	0	0	0.0
16:30 - 16:45	154	1	0	155	156.3	3	0	0	3	3.0	17	0	0	17	17.0	0	0	0	0	0.0
16:45 - 17:00	115	1	1	117	119.3	6	1	0	7	8.3	34	0	0	34	34.0	0	0	0	0	0.0
Hourly Total	**505**	**3**	**2**	**510**	**515.9**	**13**	**1**	**0**	**14**	**15.3**	**80**	**2**	**0**	**82**	**84.6**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	118	1	0	119	120.3	2	0	0	2	2.0	21	0	0	21	21.0	0	0	0	0	0.0
17:15 - 17:30	125	0	0	125	125.0	3	0	0	3	3.0	22	0	0	22	22.0	0	0	0	0	0.0
17:30 - 17:45	134	0	2	136	138.0	1	0	0	1	1.0	32	0	0	32	32.0	0	0	0	0	0.0
17:45 - 18:00	97	4	0	101	106.2	1	0	0	1	1.0	19	0	0	19	19.0	0	0	0	0	0.0
Hourly Total	**474**	**5**	**2**	**481**	**489.5**	**7**	**0**	**0**	**7**	**7.0**	**94**	**0**	**0**	**94**	**94.0**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	101	0	1	102	103.0	1	0	0	1	1.0	9	0	0	9	9.0	0	0	0	0	0.0
18:15 - 18:30	77	1	1	79	81.3	1	0	0	1	1.0	16	0	0	16	16.0	0	0	0	0	0.0
18:30 - 18:45	73	0	1	74	75.0	2	0	0	2	2.0	14	0	0	14	14.0	0	0	0	0	0.0
18:45 - 19:00	62	1	0	63	64.3	0	0	0	0	0.0	12	0	0	12	12.0	0	0	0	0	0.0
Hourly Total	**313**	**2**	**3**	**318**	**323.6**	**4**	**0**	**0**	**4**	**4.0**	**51**	**0**	**0**	**51**	**51.0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**1292**	**10**	**7**	**1309**	**1329.0**	**24**	**1**	**0**	**25**	**26.3**	**225**	**2**	**0**	**227**	**229.6**	**0**	**0**	**0**	**0**	**0.0**

Romsey, Tuesday 7th November 2023

Junction: 5
Approach: A27 East

	Left to Premier Way					Ahead to A27 (West)					Right to Botley Road					U-Turn				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	15	0	0	15	15.0	58	1	1	60	62.3	60	2	0	62	64.6	0	0	0	0	0.0
07:15 - 07:30	21	0	0	21	21.0	88	0	2	90	92.0	92	2	0	94	96.6	0	0	0	0	0.0
07:30 - 07:45	20	0	0	20	20.0	86	3	0	89	92.9	104	2	2	108	112.6	0	0	0	0	0.0
07:45 - 08:00	19	0	0	19	19.0	91	1	1	93	95.3	107	0	0	107	107.0	0	0	0	0	0.0
Hourly Total	**75**	**0**	**0**	**75**	**75.0**	**323**	**5**	**4**	**332**	**342.5**	**363**	**6**	**2**	**371**	**380.8**	**0**	**0**	**0**	**0**	**0.0**
08:00 - 08:15	20	0	0	20	20.0	94	1	1	96	98.3	153	2	1	156	159.6	0	0	0	0	0.0
08:15 - 08:30	19	0	0	19	19.0	102	0	0	102	102.0	151	1	0	152	153.3	0	0	0	0	0.0
08:30 - 08:45	19	0	0	19	19.0	94	1	0	95	96.3	160	0	0	160	160.0	0	0	0	0	0.0
08:45 - 09:00	27	1	0	28	29.3	92	7	0	99	108.1	117	1	1	119	121.3	0	0	0	0	0.0
Hourly Total	**85**	**1**	**0**	**86**	**87.3**	**382**	**9**	**1**	**392**	**404.7**	**581**	**4**	**2**	**587**	**594.2**	**0**	**0**	**0**	**0**	**0.0**
09:00 - 09:15	23	0	0	23	23.0	79	3	0	82	85.9	80	3	1	84	88.9	0	0	0	0	0.0
09:15 - 09:30	15	0	0	15	15.0	70	3	0	73	76.9	76	2	1	79	82.6	1	0	0	1	1.0
09:30 - 09:45	10	1	0	11	12.3	73	0	0	73	73.0	80	7	3	90	102.1	2	0	0	2	2.0
09:45 - 10:00	13	1	0	14	15.3	69	2	0	71	73.6	81	0	3	84	87.0	0	0	0	0	0.0
Hourly Total	**61**	**2**	**0**	**63**	**65.6**	**291**	**8**	**0**	**299**	**309.4**	**317**	**12**	**8**	**337**	**360.6**	**3**	**0**	**0**	**3**	**3.0**
TOTAL	**221**	**3**	**0**	**224**	**227.9**	**996**	**22**	**5**	**1023**	**1056.6**	**1261**	**22**	**12**	**1295**	**1335.6**	**3**	**0**	**0**	**3**	**3.0**
16:00 - 16:15	3	0	0	3	3.0	96	1	1	98	100.3	123	0	1	124	125.0	0	0	0	0	0.0
16:15 - 16:30	7	0	0	7	7.0	83	2	0	85	87.6	113	4	1	118	124.2	0	0	0	0	0.0
16:30 - 16:45	5	1	0	6	7.3	107	1	0	108	109.3	120	0	2	122	124.0	0	0	0	0	0.0
16:45 - 17:00	4	0	0	4	4.0	79	0	0	79	79.0	99	2	3	104	109.6	0	0	0	0	0.0
Hourly Total	**19**	**1**	**0**	**20**	**21.3**	**365**	**4**	**1**	**370**	**376.2**	**455**	**6**	**7**	**468**	**482.8**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	2	0	0	2	2.0	86	1	0	87	88.3	109	1	1	111	113.3	0	0	0	0	0.0
17:15 - 17:30	4	0	0	4	4.0	80	0	0	80	80.0	102	1	0	103	104.3	0	0	0	0	0.0
17:30 - 17:45	1	0	0	1	1.0	78	1	0	79	80.3	103	0	0	103	103.0	0	0	0	0	0.0
17:45 - 18:00	5	0	0	5	5.0	60	1	0	61	62.3	115	1	0	116	117.3	4	0	0	4	4.0
Hourly Total	**12**	**0**	**0**	**12**	**12.0**	**304**	**3**	**0**	**307**	**310.9**	**429**	**3**	**1**	**433**	**437.9**	**4**	**0**	**0**	**4**	**4.0**
18:00 - 18:15	2	0	0	2	2.0	61	1	0	62	63.3	98	0	2	100	102.0	0	0	0	0	0.0
18:15 - 18:30	4	0	0	4	4.0	59	0	0	59	59.0	79	0	0	79	79.0	0	0	0	0	0.0
18:30 - 18:45	1	0	0	1	1.0	40	0	0	40	40.0	83	1	0	84	85.3	0	0	0	0	0.0
18:45 - 19:00	1	0	0	1	1.0	47	1	0	48	49.3	93	0	0	93	93.0	0	0	0	0	0.0
Hourly Total	**8**	**0**	**0**	**8**	**8.0**	**207**	**2**	**0**	**209**	**211.6**	**353**	**1**	**2**	**356**	**359.3**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**39**	**1**	**0**	**40**	**41.3**	**876**	**9**	**1**	**886**	**898.7**	**1237**	**10**	**10**	**1257**	**1280.0**	**4**	**0**	**0**	**4**	**4.0**

Romsey, Tuesday 7th November 2023

Junction: 5
Approach: Premier Way

	Left to A27 (West)					Ahead to Botley Road					Right to A27 (East)					U-Turn				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	2	0	0	2	2.0	1	0	0	1	1.0	1	1	0	2	3.3	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0.0	3	0	0	3	3.0	3	0	0	3	3.0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0.0	2	0	0	2	2.0	2	1	0	3	4.3	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0.0	6	0	0	6	6.0	4	0	0	4	4.0	0	0	0	0	0.0
Hourly Total	2	0	0	2	2.0	12	0	0	12	12.0	10	2	0	12	14.6	0	0	0	0	0.0
08:00 - 08:15	1	1	0	2	3.3	2	0	0	2	2.0	0	0	0	0	0.0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0.0	2	0	0	2	2.0	3	0	0	3	3.0	0	0	0	0	0.0
08:30 - 08:45	1	0	0	1	1.0	3	0	0	3	3.0	9	0	0	9	9.0	0	0	0	0	0.0
08:45 - 09:00	4	0	0	4	4.0	6	0	0	6	6.0	2	1	0	3	4.3	0	0	0	0	0.0
Hourly Total	6	1	0	7	8.3	13	0	0	13	13.0	14	1	0	15	16.3	0	0	0	0	0.0
09:00 - 09:15	1	0	0	1	1.0	1	0	0	1	1.0	7	0	0	7	7.0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0.0	4	0	0	4	4.0	4	2	0	6	8.6	0	0	0	0	0.0
09:30 - 09:45	3	2	0	5	7.6	1	0	0	1	1.0	6	0	0	6	6.0	1	0	0	1	1.0
09:45 - 10:00	1	2	0	3	5.6	3	0	0	3	3.0	4	0	0	4	4.0	0	0	0	0	0.0
Hourly Total	5	4	0	9	14.2	9	0	0	9	9.0	21	2	0	23	25.6	1	0	0	1	1.0
TOTAL	13	5	0	18	24.5	34	0	0	34	34.0	45	5	0	50	56.5	1	0	0	1	1.0
16:00 - 16:15	13	2	0	15	17.6	8	0	0	8	8.0	31	0	0	31	31.0	0	0	0	0	0.0
16:15 - 16:30	11	1	0	12	13.3	8	0	0	8	8.0	14	0	0	14	14.0	0	0	0	0	0.0
16:30 - 16:45	11	0	0	11	11.0	18	0	0	18	18.0	16	0	0	16	16.0	0	0	0	0	0.0
16:45 - 17:00	12	0	0	12	12.0	5	1	0	6	7.3	22	0	0	22	22.0	0	0	0	0	0.0
Hourly Total	47	3	0	50	53.9	39	1	0	40	41.3	83	0	0	83	83.0	0	0	0	0	0.0
17:00 - 17:15	11	0	0	11	11.0	26	0	0	26	26.0	32	0	0	32	32.0	0	0	0	0	0.0
17:15 - 17:30	2	0	0	2	2.0	5	0	0	5	5.0	22	0	0	22	22.0	0	0	0	0	0.0
17:30 - 17:45	7	0	0	7	7.0	15	0	0	15	15.0	21	0	0	21	21.0	0	0	0	0	0.0
17:45 - 18:00	7	0	0	7	7.0	8	0	0	8	8.0	14	0	0	14	14.0	0	0	0	0	0.0
Hourly Total	27	0	0	27	27.0	54	0	0	54	54.0	89	0	0	89	89.0	0	0	0	0	0.0
18:00 - 18:15	1	0	0	1	1.0	2	0	0	2	2.0	23	0	0	23	23.0	0	0	0	0	0.0
18:15 - 18:30	1	0	0	1	1.0	5	0	0	5	5.0	7	0	0	7	7.0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0.0	3	0	0	3	3.0	7	0	0	7	7.0	0	0	0	0	0.0
18:45 - 19:00	1	0	0	1	1.0	0	0	0	0	0.0	1	0	0	1	1.0	0	0	0	0	0.0
Hourly Total	3	0	0	3	3.0	10	0	0	10	10.0	38	0	0	38	38.0	0	0	0	0	0.0
TOTAL	77	3	0	80	83.9	103	1	0	104	105.3	210	0	0	210	210.0	0	0	0	0	0.0

Romsey, Tuesday 7th November 2023

Junction: 5
Approach: A27 West

	Left to Botley Road					Ahead to A27 (East)					Right to Premier Way					U-Turn				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	8	0	0	8	8.0	37	2	0	39	41.6	2	0	0	2	2.0	3	0	0	3	3.0
07:15 - 07:30	18	2	0	20	22.6	41	0	1	42	43.0	4	0	0	4	4.0	1	0	0	1	1.0
07:30 - 07:45	37	0	0	37	37.0	54	0	0	54	54.0	5	0	0	5	5.0	3	0	0	3	3.0
07:45 - 08:00	54	0	0	54	54.0	80	5	1	86	93.5	5	1	0	6	7.3	8	0	0	8	8.0
Hourly Total	**117**	**2**	**0**	**119**	**121.6**	**212**	**7**	**2**	**221**	**232.1**	**16**	**1**	**0**	**17**	**18.3**	**15**	**0**	**0**	**15**	**15.0**
08:00 - 08:15	79	0	0	79	79.0	94	1	1	96	98.3	2	0	0	2	2.0	9	0	0	9	9.0
08:15 - 08:30	90	1	0	91	92.3	102	2	1	105	108.6	1	0	0	1	1.0	11	0	2	13	15.0
08:30 - 08:45	105	0	0	105	105.0	72	1	0	73	74.3	1	0	0	1	1.0	13	0	3	16	19.0
08:45 - 09:00	45	1	0	46	47.3	91	3	2	96	101.9	5	0	0	5	5.0	11	0	1	12	13.0
Hourly Total	**319**	**2**	**0**	**321**	**323.6**	**359**	**7**	**4**	**370**	**383.1**	**9**	**0**	**0**	**9**	**9.0**	**44**	**0**	**6**	**50**	**56.0**
09:00 - 09:15	21	0	0	21	21.0	50	2	0	52	54.6	1	0	0	1	1.0	1	0	0	1	1.0
09:15 - 09:30	24	0	0	24	24.0	47	0	0	47	47.0	0	0	0	0	0.0	3	0	0	3	3.0
09:30 - 09:45	23	1	0	24	25.3	59	2	0	61	63.6	2	1	0	3	4.3	1	0	0	1	1.0
09:45 - 10:00	20	0	0	20	20.0	47	5	0	52	58.5	1	0	0	1	1.0	1	0	0	1	1.0
Hourly Total	**88**	**1**	**0**	**89**	**90.3**	**203**	**9**	**0**	**212**	**223.7**	**4**	**1**	**0**	**5**	**6.3**	**6**	**0**	**0**	**6**	**6.0**
TOTAL	**524**	**5**	**0**	**529**	**535.5**	**774**	**23**	**6**	**803**	**838.9**	**29**	**2**	**0**	**31**	**33.6**	**65**	**0**	**6**	**71**	**77.0**
16:00 - 16:15	47	1	0	48	49.3	91	1	1	93	95.3	0	2	0	2	4.6	6	0	0	6	6.0
16:15 - 16:30	81	3	0	84	87.9	86	1	0	87	88.3	0	0	0	0	0.0	1	0	0	1	1.0
16:30 - 16:45	56	0	0	56	56.0	87	0	0	87	87.0	0	0	0	0	0.0	5	0	0	5	5.0
16:45 - 17:00	63	0	0	63	63.0	92	0	0	92	92.0	6	0	0	6	6.0	3	0	0	3	3.0
Hourly Total	**247**	**4**	**0**	**251**	**256.2**	**356**	**2**	**1**	**359**	**362.6**	**6**	**2**	**0**	**8**	**10.6**	**15**	**0**	**0**	**15**	**15.0**
17:00 - 17:15	78	0	0	78	78.0	89	1	2	92	95.3	1	0	0	1	1.0	7	0	0	7	7.0
17:15 - 17:30	49	1	0	50	51.3	113	1	0	114	115.3	1	0	0	1	1.0	3	0	0	3	3.0
17:30 - 17:45	63	1	0	64	65.3	87	1	0	88	89.3	0	0	0	0	0.0	1	0	0	1	1.0
17:45 - 18:00	48	0	0	48	48.0	81	0	1	82	83.0	0	0	0	0	0.0	1	0	0	1	1.0
Hourly Total	**238**	**2**	**0**	**240**	**242.6**	**370**	**3**	**3**	**376**	**382.9**	**2**	**0**	**0**	**2**	**2.0**	**12**	**0**	**0**	**12**	**12.0**
18:00 - 18:15	61	0	0	61	61.0	82	0	0	82	82.0	1	0	0	1	1.0	8	0	0	8	8.0
18:15 - 18:30	46	0	0	46	46.0	67	1	0	68	69.3	2	0	0	2	2.0	4	0	0	4	4.0
18:30 - 18:45	28	0	0	28	28.0	62	0	1	63	64.0	0	0	0	0	0.0	2	0	0	2	2.0
18:45 - 19:00	25	0	0	25	25.0	48	0	0	48	48.0	1	0	0	1	1.0	4	1	0	5	6.3
Hourly Total	**160**	**0**	**0**	**160**	**160.0**	**259**	**1**	**1**	**261**	**263.3**	**4**	**0**	**0**	**4**	**4.0**	**18**	**1**	**0**	**19**	**20.3**
TOTAL	**645**	**6**	**0**	**651**	**658.8**	**985**	**6**	**5**	**996**	**1008.8**	**12**	**2**	**0**	**14**	**16.6**	**45**	**1**	**0**	**46**	**47.3**

Romsey, Tuesday 7th November 2023

Junction: 6
Approach: A27 East

	Left to Rownhams Lane					Ahead to A27 (West)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	1	0	0	1	1.0	91	3	1	95	99.9
07:15 - 07:30	1	0	0	1	1.0	137	1	1	139	141.3
07:30 - 07:45	7	0	0	7	7.0	136	5	1	142	149.5
07:45 - 08:00	5	0	0	5	5.0	113	1	1	115	117.3
Hourly Total	14	0	0	14	14.0	477	10	4	491	508.0
08:00 - 08:15	8	0	0	8	8.0	160	2	0	162	164.6
08:15 - 08:30	10	0	0	10	10.0	163	2	0	165	167.6
08:30 - 08:45	13	0	0	13	13.0	161	1	0	162	163.3
08:45 - 09:00	12	0	0	12	12.0	135	7	0	142	151.1
Hourly Total	43	0	0	43	43.0	619	12	0	631	646.6
09:00 - 09:15	12	0	0	12	12.0	121	5	0	126	132.5
09:15 - 09:30	8	0	0	8	8.0	96	6	0	102	109.8
09:30 - 09:45	3	0	0	3	3.0	98	6	0	104	111.8
09:45 - 10:00	0	0	0	0	0.0	105	3	2	110	115.9
Hourly Total	23	0	0	23	23.0	420	20	2	442	470.0

TOTAL	80	0	0	80	80.0	1516	42	6	1564	1624.6

14:45 - 15:00	7	0	0	7	7.0	117	0	0	117	117.0
Hourly Total	7	0	0	7	7.0	117	0	0	117	117.0
15:00 - 15:15	8	0	0	8	8.0	112	0	1	113	114.0
15:15 - 15:30	5	0	0	5	5.0	107	2	0	109	111.6
15:30 - 15:45	6	0	0	6	6.0	101	3	0	104	107.9
15:45 - 16:00	5	0	0	5	5.0	99	1	0	100	101.3
Hourly Total	24	0	0	24	24.0	419	6	1	426	434.8
16:00 - 16:15	9	0	0	9	9.0	161	0	1	162	163.0
16:15 - 16:30	7	0	0	7	7.0	137	6	0	143	150.8
16:30 - 16:45	8	0	0	8	8.0	167	2	1	170	173.6
16:45 - 17:00	6	0	0	6	6.0	122	2	0	124	126.6
Hourly Total	30	0	0	30	30.0	587	10	2	599	614.0
17:00 - 17:15	5	0	0	5	5.0	127	2	0	129	131.6
17:15 - 17:30	7	0	0	7	7.0	113	0	0	113	113.0
17:30 - 17:45	5	0	0	5	5.0	117	2	0	119	121.6
17:45 - 18:00	5	0	0	5	5.0	103	2	0	105	107.6
Hourly Total	22	0	0	22	22.0	460	6	0	466	473.8

TOTAL	83	0	0	83	83.0	1583	22	3	1608	1639.6

Romsey, Tuesday 7th November 2023

Junction: 6
Approach: Rownhams Lane

	Left to A27 (West)					Right to A27 (East)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	44	0	0	44	44.0	6	0	0	6	6.0
07:15 - 07:30	65	0	1	66	67.0	5	0	0	5	5.0
07:30 - 07:45	75	0	1	76	77.0	10	0	0	10	10.0
07:45 - 08:00	101	0	0	101	101.0	8	0	0	8	8.0
Hourly Total	285	0	2	287	289.0	29	0	0	29	29.0
08:00 - 08:15	110	0	1	111	112.0	5	0	0	5	5.0
08:15 - 08:30	109	0	1	110	111.0	4	0	0	4	4.0
08:30 - 08:45	107	0	0	107	107.0	3	0	0	3	3.0
08:45 - 09:00	97	1	1	99	101.3	4	0	0	4	4.0
Hourly Total	423	1	3	427	431.3	16	0	0	16	16.0
09:00 - 09:15	60	0	1	61	62.0	4	0	0	4	4.0
09:15 - 09:30	64	0	2	66	68.0	6	0	0	6	6.0
09:30 - 09:45	67	2	2	71	75.6	8	0	0	8	8.0
09:45 - 10:00	56	0	1	57	58.0	3	0	0	3	3.0
Hourly Total	247	2	6	255	263.6	21	0	0	21	21.0
TOTAL	955	3	11	969	983.9	66	0	0	66	66.0

TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
14:45 - 15:00	74	1	1	76	78.3	5	0	0	5	5.0
Hourly Total	74	1	1	76	78.3	5	0	0	5	5.0
15:00 - 15:15	66	1	0	67	68.3	2	1	0	3	4.3
15:15 - 15:30	51	1	0	52	53.3	3	0	0	3	3.0
15:30 - 15:45	55	2	0	57	59.6	8	0	0	8	8.0
15:45 - 16:00	52	0	0	52	52.0	9	0	0	9	9.0
Hourly Total	224	4	0	228	233.2	22	1	0	23	24.3
16:00 - 16:15	60	0	1	61	62.0	7	0	0	7	7.0
16:15 - 16:30	67	0	0	67	67.0	8	0	0	8	8.0
16:30 - 16:45	65	0	2	67	69.0	5	0	0	5	5.0
16:45 - 17:00	62	0	3	65	68.0	4	0	0	4	4.0
Hourly Total	254	0	6	260	266.0	24	0	0	24	24.0
17:00 - 17:15	66	0	0	66	66.0	5	0	0	5	5.0
17:15 - 17:30	64	0	0	64	64.0	3	0	0	3	3.0
17:30 - 17:45	70	0	0	70	70.0	5	0	0	5	5.0
17:45 - 18:00	86	0	1	87	88.0	10	0	0	10	10.0
Hourly Total	286	0	1	287	288.0	23	0	0	23	23.0
TOTAL	838	5	8	851	865.5	74	1	0	75	76.3

Romsey, Tuesday 7th November 2023

Junction: 6
Approach: A27 West

	Ahead to A27 (East)					Right to Rownhams Lane				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	81	4	0	85	90.2	27	1	0	28	29.3
07:15 - 07:30	97	2	1	100	103.6	25	1	1	27	29.3
07:30 - 07:45	123	1	0	124	125.3	49	0	0	49	49.0
07:45 - 08:00	159	5	1	165	172.5	48	0	2	50	52.0
Hourly Total	460	12	2	474	491.6	149	2	3	154	159.6
08:00 - 08:15	144	1	1	146	148.3	69	1	1	71	73.3
08:15 - 08:30	156	1	0	157	158.3	80	0	1	81	82.0
08:30 - 08:45	107	5	0	112	118.5	94	1	0	95	96.3
08:45 - 09:00	120	4	3	127	135.2	86	1	0	87	88.3
Hourly Total	527	11	4	542	560.3	329	3	2	334	339.9
09:00 - 09:15	117	5	0	122	128.5	79	0	3	82	85.0
09:15 - 09:30	92	2	0	94	96.6	55	1	0	56	57.3
09:30 - 09:45	111	2	0	113	115.6	39	0	1	40	41.0
09:45 - 10:00	77	2	0	79	81.6	38	2	1	41	44.6
Hourly Total	397	11	0	408	422.3	211	3	5	219	227.9

TOTAL	1384	34	6	1424	1474.2	689	8	10	707	727.4

14:45 - 15:00	83	2	0	85	87.6	61	0	0	61	61.0
Hourly Total	83	2	0	85	87.6	61	0	0	61	61.0
15:00 - 15:15	91	2	0	93	95.6	82	0	1	83	84.0
15:15 - 15:30	112	1	0	113	114.3	116	0	1	117	118.0
15:30 - 15:45	115	0	0	115	115.0	107	1	1	109	111.3
15:45 - 16:00	113	1	0	114	115.3	93	0	0	93	93.0
Hourly Total	431	4	0	435	440.2	398	1	3	402	406.3
16:00 - 16:15	127	2	0	129	131.6	86	0	2	88	90.0
16:15 - 16:30	161	1	0	162	163.3	87	0	0	87	87.0
16:30 - 16:45	168	1	1	170	172.3	83	0	0	83	83.0
16:45 - 17:00	148	1	0	149	150.3	81	0	0	81	81.0
Hourly Total	604	5	1	610	617.5	337	0	2	339	341.0
17:00 - 17:15	154	2	2	158	162.6	87	0	1	88	89.0
17:15 - 17:30	147	1	0	148	149.3	109	0	0	109	109.0
17:30 - 17:45	153	0	0	153	153.0	90	0	2	92	94.0
17:45 - 18:00	129	3	1	133	137.9	65	0	0	65	65.0
Hourly Total	583	6	3	592	602.8	351	0	3	354	357.0

TOTAL	1701	17	4	1722	1748.1	1147	1	8	1156	1165.3

Romsey, Tuesday 7th November 2023

Junction: 7
Approach: A27 East

	Left to A3057					Ahead to A27 (West)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	45	2	0	47	49.6	35	0	2	37	39.0
07:15 - 07:30	51	0	1	52	53.0	53	2	1	56	59.6
07:30 - 07:45	48	4	0	52	57.2	56	1	0	57	58.3
07:45 - 08:00	70	0	0	70	70.0	47	1	1	49	51.3
Hourly Total	**214**	**6**	**1**	**221**	**229.8**	**191**	**4**	**4**	**199**	**208.2**
08:00 - 08:15	62	0	0	62	62.0	75	1	0	76	77.3
08:15 - 08:30	79	1	2	82	85.3	65	0	0	65	65.0
08:30 - 08:45	93	2	2	97	101.6	67	1	3	71	75.3
08:45 - 09:00	65	2	0	67	69.6	76	4	1	81	87.2
Hourly Total	**299**	**5**	**4**	**308**	**318.5**	**283**	**6**	**4**	**293**	**304.8**
09:00 - 09:15	50	1	0	51	52.3	59	3	0	62	65.9
09:15 - 09:30	42	2	0	44	46.6	65	0	0	65	65.0
09:30 - 09:45	39	3	1	43	47.9	50	3	0	53	56.9
09:45 - 10:00	31	2	0	33	35.6	57	1	0	58	59.3
Hourly Total	**162**	**8**	**1**	**171**	**182.4**	**231**	**7**	**0**	**238**	**247.1**
TOTAL	**675**	**19**	**6**	**700**	**730.7**	**705**	**17**	**8**	**730**	**760.1**

16:00 - 16:15	70	2	1	73	76.6	76	2	0	78	80.6
16:15 - 16:30	57	3	0	60	63.9	64	3	0	67	70.9
16:30 - 16:45	72	1	0	73	74.3	68	2	0	70	72.6
16:45 - 17:00	75	0	0	75	75.0	68	0	0	68	68.0
Hourly Total	**274**	**6**	**1**	**281**	**289.8**	**276**	**7**	**0**	**283**	**292.1**
17:00 - 17:15	110	2	0	112	114.6	79	0	0	79	79.0
17:15 - 17:30	52	1	0	53	54.3	71	0	0	71	71.0
17:30 - 17:45	77	2	0	79	81.6	62	0	0	62	62.0
17:45 - 18:00	48	0	1	49	50.0	64	0	0	64	64.0
Hourly Total	**287**	**5**	**1**	**293**	**300.5**	**276**	**0**	**0**	**276**	**276.0**
18:00 - 18:15	39	2	0	41	43.6	55	0	0	55	55.0
18:15 - 18:30	28	1	0	29	30.3	48	0	0	48	48.0
18:30 - 18:45	29	0	0	29	29.0	31	0	0	31	31.0
18:45 - 19:00	32	3	0	35	38.9	34	0	0	34	34.0
Hourly Total	**128**	**6**	**0**	**134**	**141.8**	**168**	**0**	**0**	**168**	**168.0**
TOTAL	**689**	**17**	**2**	**708**	**732.1**	**720**	**7**	**0**	**727**	**736.1**

Romsey, Tuesday 7th November 2023

Junction: 7
Approach: A3057

	Left to A27 (West)					Right to A27 (East)					U-Turn				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	69	7	0	76	85.1	21	3	0	24	27.9	0	0	0	0	0.0
07:15 - 07:30	138	7	0	145	154.1	49	0	1	50	51.0	0	0	0	0	0.0
07:30 - 07:45	137	11	0	148	162.3	62	1	1	64	66.3	1	0	0	1	1.0
07:45 - 08:00	147	7	0	154	163.1	76	6	0	82	89.8	0	0	0	0	0.0
Hourly Total	**491**	**32**	**0**	**523**	**564.6**	**208**	**10**	**2**	**220**	**235.0**	**1**	**0**	**0**	**1**	**1.0**
08:00 - 08:15	121	2	0	123	125.6	89	1	2	92	95.3	0	0	0	0	0.0
08:15 - 08:30	148	7	1	156	166.1	94	3	3	100	106.9	0	1	0	1	2.3
08:30 - 08:45	116	5	1	122	129.5	70	2	1	73	76.6	0	0	0	0	0.0
08:45 - 09:00	112	7	0	119	128.1	60	5	0	65	71.5	0	0	0	0	0.0
Hourly Total	**497**	**21**	**2**	**520**	**549.3**	**313**	**11**	**6**	**330**	**350.3**	**0**	**1**	**0**	**1**	**2.3**
09:00 - 09:15	117	6	0	123	130.8	60	2	0	62	64.6	0	0	0	0	0.0
09:15 - 09:30	94	5	0	99	105.5	50	0	0	50	50.0	0	0	0	0	0.0
09:30 - 09:45	99	10	0	109	122.0	43	3	0	46	49.9	0	0	0	0	0.0
09:45 - 10:00	116	7	0	123	132.1	37	4	0	41	46.2	0	0	0	0	0.0
Hourly Total	**426**	**28**	**0**	**454**	**490.4**	**190**	**9**	**0**	**199**	**210.7**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**1414**	**81**	**2**	**1497**	**1604.3**	**711**	**30**	**8**	**749**	**796.0**	**1**	**1**	**0**	**2**	**3.3**
16:00 - 16:15	86	3	0	89	92.9	55	4	0	59	64.2	0	0	0	0	0.0
16:15 - 16:30	79	4	0	83	88.2	87	3	0	90	93.9	0	0	0	0	0.0
16:30 - 16:45	103	3	1	107	111.9	63	0	0	63	63.0	0	0	0	0	0.0
16:45 - 17:00	101	3	0	104	107.9	65	0	0	65	65.0	0	0	0	0	0.0
Hourly Total	**369**	**13**	**1**	**383**	**400.9**	**270**	**7**	**0**	**277**	**286.1**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	106	2	0	108	110.6	65	1	0	66	67.3	0	0	0	0	0.0
17:15 - 17:30	108	2	0	110	112.6	69	1	0	70	71.3	0	0	0	0	0.0
17:30 - 17:45	107	1	0	108	109.3	46	1	0	47	48.3	0	0	0	0	0.0
17:45 - 18:00	126	0	0	126	126.0	64	1	1	66	68.3	0	0	0	0	0.0
Hourly Total	**447**	**5**	**0**	**452**	**458.5**	**244**	**4**	**1**	**249**	**255.2**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	97	2	0	99	101.6	53	0	0	53	53.0	0	0	0	0	0.0
18:15 - 18:30	115	2	0	117	119.6	39	0	0	39	39.0	0	0	0	0	0.0
18:30 - 18:45	91	4	0	95	100.2	30	0	0	30	30.0	0	0	0	0	0.0
18:45 - 19:00	104	2	0	106	108.6	33	1	0	34	35.3	0	0	0	0	0.0
Hourly Total	**407**	**10**	**0**	**417**	**430.0**	**155**	**1**	**0**	**156**	**157.3**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**1223**	**28**	**1**	**1252**	**1289.4**	**669**	**12**	**1**	**682**	**698.6**	**0**	**0**	**0**	**0**	**0.0**

Romsey, Tuesday 7th November 2023

Junction: 7
Approach: A27 West

	Ahead to A27 (East)					Right to A3057				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	31	1	0	32	33.3	112	3	0	115	118.9
07:15 - 07:30	23	2	0	25	27.6	109	5	0	114	120.5
07:30 - 07:45	49	1	0	50	51.3	128	6	0	134	141.8
07:45 - 08:00	45	0	1	46	47.0	117	3	0	120	123.9
Hourly Total	**148**	**4**	**1**	**153**	**159.2**	**466**	**17**	**0**	**483**	**505.1**
08:00 - 08:15	60	0	1	61	62.0	139	6	1	146	154.8
08:15 - 08:30	80	0	0	80	80.0	143	6	0	149	156.8
08:30 - 08:45	46	0	0	46	46.0	125	2	0	127	129.6
08:45 - 09:00	33	2	2	37	41.6	121	7	1	129	139.1
Hourly Total	**219**	**2**	**3**	**224**	**229.6**	**528**	**21**	**2**	**551**	**580.3**
09:00 - 09:15	42	0	0	42	42.0	111	6	0	117	124.8
09:15 - 09:30	35	1	0	36	37.3	86	2	0	88	90.6
09:30 - 09:45	35	1	0	36	37.3	87	8	0	95	105.4
09:45 - 10:00	53	5	0	58	64.5	78	6	0	84	91.8
Hourly Total	**165**	**7**	**0**	**172**	**181.1**	**362**	**22**	**0**	**384**	**412.6**
TOTAL	**532**	**13**	**4**	**549**	**569.9**	**1356**	**60**	**2**	**1418**	**1498.0**
16:00 - 16:15	59	3	1	63	67.9	139	5	0	144	150.5
16:15 - 16:30	57	0	0	57	57.0	159	6	0	165	172.8
16:30 - 16:45	65	0	0	65	65.0	169	4	0	173	178.2
16:45 - 17:00	47	1	0	48	49.3	121	2	0	123	125.6
Hourly Total	**228**	**4**	**1**	**233**	**239.2**	**588**	**17**	**0**	**605**	**627.1**
17:00 - 17:15	77	2	2	81	85.6	140	1	0	141	142.3
17:15 - 17:30	78	1	0	79	80.3	136	2	1	139	142.6
17:30 - 17:45	73	0	0	73	73.0	157	2	0	159	161.6
17:45 - 18:00	20	0	0	20	20.0	187	4	0	191	196.2
Hourly Total	**248**	**3**	**2**	**253**	**258.9**	**620**	**9**	**1**	**630**	**642.7**
18:00 - 18:15	33	1	0	34	35.3	131	3	0	134	137.9
18:15 - 18:30	20	0	0	20	20.0	136	3	0	139	142.9
18:30 - 18:45	0	2	1	3	6.6	120	1	0	121	122.3
18:45 - 19:00	21	0	0	21	21.0	105	0	0	105	105.0
Hourly Total	**74**	**3**	**1**	**78**	**82.9**	**492**	**7**	**0**	**499**	**508.1**
TOTAL	**550**	**10**	**4**	**564**	**581.0**	**1700**	**33**	**1**	**1734**	**1777.9**

Romsey, Tuesday 7th November 2023

Junction: 8
Approach: A3057 North

	Ahead to A3057 (South)					Ahead to M271					Right to Coldharbour Lane					U-Turn				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	27	0	0	27	27.0	65	3	3	71	77.9	0	0	0	0	0.0	0	0	0	0	0.0
07:15 - 07:30	40	1	1	42	44.3	88	6	2	96	105.8	0	0	0	0	0.0	0	0	0	0	0.0
07:30 - 07:45	60	2	2	64	68.6	95	2	0	97	99.6	0	0	0	0	0.0	0	0	0	0	0.0
07:45 - 08:00	58	0	0	58	58.0	96	9	0	105	116.7	1	1	0	2	3.3	0	0	0	0	0.0
Hourly Total	185	3	3	191	197.9	344	20	5	369	400.0	1	1	0	2	3.3	0	0	0	0	0.0
08:00 - 08:15	51	0	0	51	51.0	111	1	2	114	117.3	0	0	0	0	0.0	1	0	0	1	1.0
08:15 - 08:30	63	1	1	65	67.3	119	11	1	131	146.3	0	0	0	0	0.0	1	0	0	1	1.0
08:30 - 08:45	78	0	1	79	80.0	122	7	3	132	144.1	0	0	0	0	0.0	1	0	0	1	1.0
08:45 - 09:00	56	0	0	56	56.0	100	5	1	106	113.5	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	248	1	2	251	254.3	452	24	7	483	521.2	0	0	0	0	0.0	3	0	0	3	3.0
09:00 - 09:15	50	4	0	54	59.2	120	7	0	127	136.1	0	0	0	0	0.0	0	0	0	0	0.0
09:15 - 09:30	55	1	0	56	57.3	104	11	0	115	129.3	0	0	0	0	0.0	0	0	0	0	0.0
09:30 - 09:45	40	1	0	41	42.3	110	8	0	118	128.4	0	0	0	0	0.0	0	0	0	0	0.0
09:45 - 10:00	44	0	0	44	44.0	115	6	0	121	128.8	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	189	6	0	195	202.8	449	32	0	481	522.6	0	0	0	0	0.0	0	0	0	0	0.0
TOTAL	622	10	5	637	655.0	1245	76	12	1333	1443.8	1	1	0	2	3.3	3	0	0	3	3.0
16:00 - 16:15	41	0	0	41	41.0	77	8	0	85	95.4	0	0	0	0	0.0	0	0	0	0	0.0
16:15 - 16:30	42	0	0	42	42.0	106	8	0	114	124.4	0	0	0	0	0.0	0	0	0	0	0.0
16:30 - 16:45	57	0	0	57	57.0	104	9	0	113	124.7	0	0	0	0	0.0	0	0	0	0	0.0
16:45 - 17:00	93	0	4	97	101.0	107	6	0	113	120.8	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	233	0	4	237	241.0	394	31	0	425	465.3	0	0	0	0	0.0	0	0	0	0	0.0
17:00 - 17:15	65	1	2	68	71.3	121	6	0	127	134.8	0	0	0	0	0.0	1	0	0	1	1.0
17:15 - 17:30	69	0	0	69	69.0	131	4	0	135	140.2	0	0	0	0	0.0	0	0	0	0	0.0
17:30 - 17:45	87	0	0	87	87.0	162	5	0	167	173.5	0	0	0	0	0.0	0	0	0	0	0.0
17:45 - 18:00	88	0	0	88	88.0	138	2	0	140	142.6	1	0	0	1	1.0	0	0	0	0	0.0
Hourly Total	309	1	2	312	315.3	552	17	0	569	591.1	1	0	0	1	1.0	1	0	0	1	1.0
18:00 - 18:15	80	0	0	80	80.0	120	1	0	121	122.3	0	0	0	0	0.0	0	0	0	0	0.0
18:15 - 18:30	72	0	0	72	72.0	140	3	0	143	146.9	0	0	0	0	0.0	0	0	0	0	0.0
18:30 - 18:45	82	0	0	82	82.0	138	2	0	140	142.6	0	0	0	0	0.0	0	0	0	0	0.0
18:45 - 19:00	79	1	0	80	81.3	154	2	0	156	158.6	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	313	1	0	314	315.3	552	8	0	560	570.4	0	0	0	0	0.0	0	0	0	0	0.0
TOTAL	855	2	6	863	871.6	1498	56	0	1554	1626.8	1	0	0	1	1.0	1	0	0	1	1.0

Romsey, Tuesday 7th November 2023

Junction: 8
Approach: A3057 South

	Left to M271					Left to Coldharbour Lane					Ahead to A3057 (North)					U-Turn				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	85	0	0	85	85.0	1	0	0	1	1.0	27	0	0	27	27.0	0	0	0	0	0.0
07:15 - 07:30	77	0	0	77	77.0	0	0	0	0	0.0	68	0	0	68	68.0	0	0	0	0	0.0
07:30 - 07:45	98	1	0	99	100.3	0	0	0	0	0.0	79	0	0	79	79.0	0	0	0	0	0.0
07:45 - 08:00	98	0	0	98	98.0	0	0	0	0	0.0	96	1	0	97	98.3	0	0	0	0	0.0
Hourly Total	358	1	0	359	360.3	1	0	0	1	1.0	270	1	0	271	272.3	0	0	0	0	0.0
08:00 - 08:15	73	1	0	74	75.3	0	0	0	0	0.0	95	1	1	97	99.3	1	0	0	1	1.0
08:15 - 08:30	54	1	0	55	56.3	0	0	0	0	0.0	85	0	5	90	95.0	1	0	0	1	1.0
08:30 - 08:45	55	0	0	55	55.0	0	0	0	0	0.0	64	1	0	65	66.3	1	0	0	1	1.0
08:45 - 09:00	69	0	0	69	69.0	0	0	0	0	0.0	72	1	0	73	74.3	0	0	0	0	0.0
Hourly Total	251	2	0	253	255.6	0	0	0	0	0.0	316	3	6	325	334.9	3	0	0	3	3.0
09:00 - 09:15	63	1	0	64	65.3	0	0	0	0	0.0	57	1	0	58	59.3	0	0	0	0	0.0
09:15 - 09:30	53	4	0	57	62.2	0	0	0	0	0.0	66	1	0	67	68.3	0	0	0	0	0.0
09:30 - 09:45	55	1	0	56	57.3	1	0	0	1	1.0	58	0	0	58	58.0	0	0	1	1	2.0
09:45 - 10:00	55	1	0	56	57.3	0	0	0	0	0.0	57	2	0	59	61.6	0	0	0	0	0.0
Hourly Total	226	7	0	233	242.1	1	0	0	1	1.0	238	4	0	242	247.2	0	0	1	1	2.0
TOTAL	835	10	0	845	858.0	2	0	0	2	2.0	824	8	6	838	854.4	3	0	1	4	5.0
16:00 - 16:15	37	0	0	37	37.0	2	0	0	2	2.0	54	0	0	54	54.0	0	0	0	0	0.0
16:15 - 16:30	42	0	0	42	42.0	1	0	0	1	1.0	63	2	0	65	67.6	0	0	0	0	0.0
16:30 - 16:45	46	2	0	48	50.6	0	0	0	0	0.0	45	1	2	48	51.3	0	0	0	0	0.0
16:45 - 17:00	51	1	0	52	53.3	0	0	0	0	0.0	39	1	0	40	41.3	0	0	0	0	0.0
Hourly Total	176	3	0	179	182.9	3	0	0	3	3.0	201	4	2	207	214.2	0	0	0	0	0.0
17:00 - 17:15	64	0	0	64	64.0	0	0	0	0	0.0	42	0	0	42	42.0	0	0	0	0	0.0
17:15 - 17:30	68	0	0	68	68.0	1	0	0	1	1.0	49	0	1	50	51.0	0	0	0	0	0.0
17:30 - 17:45	82	2	0	84	86.6	1	0	0	1	1.0	43	1	0	44	45.3	0	0	0	0	0.0
17:45 - 18:00	74	2	0	76	78.6	1	0	0	1	1.0	64	0	0	64	64.0	0	0	0	0	0.0
Hourly Total	288	4	0	292	297.2	3	0	0	3	3.0	198	1	1	200	202.3	0	0	0	0	0.0
18:00 - 18:15	44	1	1	46	48.3	1	0	0	1	1.0	61	0	0	61	61.0	0	0	0	0	0.0
18:15 - 18:30	67	0	0	67	67.0	0	0	0	0	0.0	75	0	0	75	75.0	1	0	0	1	1.0
18:30 - 18:45	71	3	0	74	77.9	0	0	0	0	0.0	56	0	1	57	58.0	2	0	0	2	2.0
18:45 - 19:00	78	0	0	78	78.0	0	0	0	0	0.0	81	0	0	81	81.0	0	0	0	0	0.0
Hourly Total	260	4	1	265	271.2	1	0	0	1	1.0	273	0	1	274	275.0	3	0	0	3	3.0
TOTAL	724	11	1	736	751.3	7	0	0	7	7.0	672	5	4	681	691.5	3	0	0	3	3.0

Romsey, Tuesday 7th November 2023

Junction: 8
Approach: M271

	Left to Coldharbour Lane					Ahead to A3057 (North)					Right to A3057 (South)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	86	5	1	92	99.5	23	0	0	23	23.0
07:15 - 07:30	2	0	0	2	2.0	97	6	0	103	110.8	33	1	0	34	35.3
07:30 - 07:45	3	0	0	3	3.0	114	3	1	118	122.9	37	3	1	41	45.9
07:45 - 08:00	1	0	0	1	1.0	132	12	0	144	159.6	48	1	0	49	50.3
Hourly Total	6	0	0	6	6.0	429	26	2	457	492.8	141	5	1	147	154.5
08:00 - 08:15	0	0	0	0	0.0	118	4	0	122	127.2	35	3	0	38	41.9
08:15 - 08:30	1	0	0	1	1.0	115	4	1	120	126.2	53	0	0	53	53.0
08:30 - 08:45	1	0	0	1	1.0	125	10	0	135	148.0	43	0	0	43	43.0
08:45 - 09:00	1	0	0	1	1.0	125	6	1	132	140.8	46	0	0	46	46.0
Hourly Total	3	0	0	3	3.0	483	24	2	509	542.2	177	3	0	180	183.9
09:00 - 09:15	0	0	0	0	0.0	108	4	1	113	119.2	30	1	0	31	32.3
09:15 - 09:30	0	0	0	0	0.0	89	5	0	94	100.5	41	0	0	41	41.0
09:30 - 09:45	0	0	0	0	0.0	88	8	1	97	108.4	34	0	0	34	34.0
09:45 - 10:00	1	0	0	1	1.0	90	7	1	98	108.1	23	0	0	23	23.0
Hourly Total	1	0	0	1	1.0	375	24	3	402	436.2	128	1	0	129	130.3
TOTAL	10	0	0	10	10.0	1287	74	7	1368	1471.2	446	9	1	456	468.7
16:00 - 16:15	0	0	0	0	0.0	74	8	0	82	92.4	46	4	0	50	55.2
16:15 - 16:30	0	0	0	0	0.0	108	11	0	119	133.3	40	1	0	41	42.3
16:30 - 16:45	0	0	0	0	0.0	104	6	0	110	117.8	35	0	0	35	35.0
16:45 - 17:00	1	0	0	1	1.0	98	5	1	104	111.5	39	0	0	39	39.0
Hourly Total	1	0	0	1	1.0	384	30	1	415	455.0	160	5	0	165	171.5
17:00 - 17:15	0	0	0	0	0.0	110	3	0	113	116.9	47	1	0	48	49.3
17:15 - 17:30	0	0	0	0	0.0	108	4	0	112	117.2	50	1	0	51	52.3
17:30 - 17:45	1	0	0	1	1.0	115	3	1	119	123.9	54	1	0	55	56.3
17:45 - 18:00	1	0	0	1	1.0	92	4	1	97	103.2	58	1	0	59	60.3
Hourly Total	2	0	0	2	2.0	425	14	2	441	461.2	209	4	0	213	218.2
18:00 - 18:15	1	0	0	1	1.0	122	1	0	123	124.3	67	1	0	68	69.3
18:15 - 18:30	1	0	0	1	1.0	124	0	1	125	126.0	74	0	0	74	74.0
18:30 - 18:45	0	0	0	0	0.0	142	0	1	143	144.0	75	0	0	75	75.0
18:45 - 19:00	0	0	0	0	0.0	116	1	1	118	120.3	56	1	0	57	58.3
Hourly Total	2	0	0	2	2.0	504	2	3	509	514.6	272	2	0	274	276.6
TOTAL	5	0	0	5	5.0	1313	46	6	1365	1430.8	641	11	0	652	666.3

Romsey, Tuesday 7th November 2023

Junction: 8
Approach: Coldharbour Lane

	Left to A3057 (North)					Ahead to A3057 (South)					Right to M271				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
07:15 - 07:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
07:45 - 08:00	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	1	0	0	1	1.0	0	0	0	0	0.0	3	0	0	3	3.0
08:00 - 08:15	1	0	0	1	1.0	0	0	0	0	0.0	1	0	0	1	1.0
08:15 - 08:30	1	0	0	1	1.0	0	0	0	0	0.0	1	0	0	1	1.0
08:30 - 08:45	0	0	0	0	0.0	1	0	0	1	1.0	1	0	0	1	1.0
08:45 - 09:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	2	0	0	2	2.0	1	0	0	1	1.0	3	0	0	3	3.0
09:00 - 09:15	1	0	0	1	1.0	0	0	0	0	0.0	2	0	0	2	2.0
09:15 - 09:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
09:30 - 09:45	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
Hourly Total	2	0	0	2	2.0	0	0	0	0	0.0	3	0	0	3	3.0
TOTAL	5	0	0	5	5.0	1	0	0	1	1.0	9	0	0	9	9.0
16:00 - 16:15	2	0	0	2	2.0	3	0	0	3	3.0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0.0	2	0	0	2	2.0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0.0	1	0	0	1	1.0	0	0	0	0	0.0
16:45 - 17:00	1	0	0	1	1.0	1	0	0	1	1.0	4	0	0	4	4.0
Hourly Total	3	0	0	3	3.0	7	0	0	7	7.0	4	0	0	4	4.0
17:00 - 17:15	1	0	0	1	1.0	1	0	0	1	1.0	1	0	0	1	1.0
17:15 - 17:30	1	0	0	1	1.0	2	0	0	2	2.0	2	0	0	2	2.0
17:30 - 17:45	0	0	0	0	0.0	2	0	0	2	2.0	3	0	0	3	3.0
17:45 - 18:00	0	0	0	0	0.0	1	0	0	1	1.0	3	0	0	3	3.0
Hourly Total	2	0	0	2	2.0	6	0	0	6	6.0	9	0	0	9	9.0
18:00 - 18:15	0	0	0	0	0.0	3	0	0	3	3.0	0	0	0	0	0.0
18:15 - 18:30	1	0	0	1	1.0	0	0	0	0	0.0	2	0	0	2	2.0
18:30 - 18:45	0	0	0	0	0.0	1	0	0	1	1.0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
Hourly Total	1	0	0	1	1.0	4	0	0	4	4.0	4	0	0	4	4.0
TOTAL	6	0	0	6	6.0	17	0	0	17	17.0	17	0	0	17	17.0

Romsey A1, Halterworth Lane

Direction: Northbound

Hour Beginning	Tue 07/11/2023	Wed 08/11/2023	Thu 09/11/2023	Fri 10/11/2023	Sat 11/11/2023	Sun 12/11/2023	Mon 13/11/2023	5-Day Ave.	7-Day Ave.
00:00	0	1	2	1	7	5	0	1	2
01:00	0	0	0	0	2	3	0	0	1
02:00	1	1	0	0	3	1	0	0	1
03:00	1	1	1	3	4	2	2	2	2
04:00	2	6	4	3	1	3	4	4	3
05:00	8	12	11	9	1	4	7	9	7
06:00	27	23	30	28	8	7	33	28	22
07:00	119	114	99	97	21	12	106	107	81
08:00	190	153	198	164	46	24	126	166	129
09:00	96	99	95	118	97	53	74	96	90
10:00	90	66	67	80	120	64	59	72	78
11:00	79	72	68	70	107	78	71	72	78
12:00	77	76	75	69	92	99	66	73	79
13:00	61	66	71	79	96	72	68	69	73
14:00	71	60	50	67	66	72	67	63	65
15:00	126	86	121	131	65	75	126	118	104
16:00	114	124	154	122	72	66	95	122	107
17:00	120	125	140	124	78	42	120	126	107
18:00	80	90	114	95	65	30	97	95	82
19:00	44	56	66	57	39	28	46	54	48
20:00	30	22	33	35	24	17	37	31	28
21:00	21	21	20	29	23	14	19	22	21
22:00	9	15	24	24	17	10	14	17	16
23:00	3	4	9	11	9	5	4	6	6
Total									
12H(7-19)	1223	1131	1252	1216	925	687	1075	1179	1073
16H(6-22)	1345	1253	1401	1365	1019	753	1210	1315	1192
18H(6-24)	1357	1272	1434	1400	1045	768	1228	1338	1215
24H(0-24)	1369	1293	1452	1416	1063	786	1241	1354	1231
AM Peak	08:00	08:00	08:00	08:00	10:00	11:00	08:00	08:00	08:00
	190	**153**	**198**	**164**	**120**	**78**	**126**	**166**	**129**
PM Peak	15:00	17:00	16:00	15:00	13:00	12:00	15:00	17:00	17:00
	126	**125**	**154**	**131**	**96**	**99**	**126**	**126**	**107**

Direction: Southbound

Hour Beginning	Tue 07/11/2023	Wed 08/11/2023	Thu 09/11/2023	Fri 10/11/2023	Sat 11/11/2023	Sun 12/11/2023	Mon 13/11/2023	5-Day Ave.	7-Day Ave.
00:00	0	0	1	2	8	5	3	1	3
01:00	1	0	1	1	1	2	0	1	1
02:00	0	0	1	1	0	0	0	0	0
03:00	0	0	1	0	1	1	0	0	0
04:00	0	1	0	0	0	1	3	1	1
05:00	3	4	5	3	1	1	4	4	3
06:00	15	26	19	24	4	1	17	20	15
07:00	61	72	77	53	19	4	72	67	51
08:00	153	132	153	144	30	34	129	142	111
09:00	42	47	54	72	64	34	59	55	53
10:00	47	61	46	65	74	47	52	54	56
11:00	51	61	56	62	82	74	59	58	64
12:00	74	48	66	76	87	81	65	66	71
13:00	48	61	74	67	86	71	75	65	69
14:00	69	60	61	84	63	67	63	67	67
15:00	102	78	107	123	50	61	102	102	89
16:00	123	133	163	127	73	63	118	133	114
17:00	159	142	158	123	55	47	128	142	116
18:00	74	93	93	93	47	31	74	85	72
19:00	47	61	64	58	21	32	48	56	47
20:00	28	26	36	33	17	13	32	31	26
21:00	16	29	24	23	51	8	25	23	25
22:00	9	13	17	13	17	9	12	13	13
23:00	9	5	5	18	12	3	7	9	8
Total									
12H(7-19)	1003	988	1108	1089	730	614	996	1037	933
16H(6-22)	1109	1130	1251	1227	823	668	1118	1167	1047
18H(6-24)	1127	1148	1273	1258	852	680	1137	1189	1068
24H(0-24)	1131	1153	1282	1265	863	690	1147	1196	1076
AM Peak	08:00	08:00	08:00	08:00	11:00	11:00	08:00	08:00	08:00
	153	**132**	**153**	**144**	**82**	**74**	**129**	**142**	**111**
PM Peak	17:00	17:00	16:00	16:00	12:00	12:00	17:00	17:00	17:00
	159	**142**	**163**	**127**	**87**	**81**	**128**	**142**	**116**

Romsey A1, Halterworth Lane

Direction: Northbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Tue 7 Nov 2023	1369	30.7	25.6	4.9	5	38	89	450	589	172	21	4	1	0	0	0
Wed 8 Nov 2023	1293	31.1	26.2	4.8	4	17	67	407	569	198	27	2	0	2	0	0
Thu 9 Nov 2023	1452	31.5	26.3	5.1	6	29	90	395	656	236	29	9	2	0	0	0
Fri 10 Nov 2023	1416	31.1	25.9	5.0	7	40	71	443	621	192	39	3	0	0	0	0
Sat 11 Nov 2023	1063	32.2	27.2	4.9	1	19	36	233	524	204	37	8	1	0	0	0
Sun 12 Nov 2023	786	32.2	27.4	4.7	4	6	14	190	371	172	23	5	1	0	0	0
Mon 13 Nov 2023	1241	31.0	25.8	5.0	8	27	75	402	508	199	20	2	0	0	0	0
5 Day Ave.	1354	31.1	25.9	4.9	6	30	78	419	589	199	27	4	1	0	0	0
7 Day Ave.	1231	31.4	26.3	4.9	5	25	63	360	548	196	28	5	1	0	0	0

Paul Castle Associates

Direction: Southbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Tue 7 Nov 2023	1131	30.8	24.8	5.8	20	46	134	334	431	142	19	3	2	0	0	0
Wed 8 Nov 2023	1153	31.3	25.4	5.7	15	37	102	354	440	167	32	4	2	0	0	0
Thu 9 Nov 2023	1282	31.3	25.4	5.7	17	50	121	349	522	188	29	6	0	0	0	0
Fri 10 Nov 2023	1265	30.8	24.8	5.8	21	45	148	399	448	171	30	2	1	0	0	0
Sat 11 Nov 2023	863	32.5	26.6	5.7	10	24	44	221	359	163	32	8	1	1	0	0
Sun 12 Nov 2023	690	32.3	26.7	5.5	7	11	39	181	291	127	27	7	0	0	0	0
Mon 13 Nov 2023	1147	30.1	24.0	5.9	30	44	166	379	395	113	13	4	3	0	0	0
5 Day Ave.	1196	30.9	24.9	5.8	21	44	134	363	447	156	25	4	2	0	0	0
7 Day Ave.	1076	31.3	25.4	5.7	17	37	108	317	412	153	26	5	1	0	0	0

Romsey A2, Halterworth Lane

Direction: Northbound

Hour Beginning	Tue 07/11/2023	Wed 08/11/2023	Thu 09/11/2023	Fri 10/11/2023	Sat 11/11/2023	Sun 12/11/2023	Mon 13/11/2023	5-Day Ave.	7-Day Ave.
00:00	1	1	3	3	8	6	0	2	3
01:00	0	0	0	0	3	6	1	0	1
02:00	0	1	0	0	4	1	0	0	1
03:00	1	1	3	3	4	2	3	2	2
04:00	2	6	4	3	1	3	3	4	3
05:00	4	9	6	4	2	2	4	5	4
06:00	22	21	28	21	8	6	26	24	19
07:00	105	98	100	77	14	11	95	95	71
08:00	194	211	201	116	45	23	188	182	140
09:00	83	94	78	90	91	56	59	81	79
10:00	93	55	62	82	123	76	49	68	77
11:00	75	79	70	82	113	81	63	74	80
12:00	77	84	81	77	105	107	70	78	86
13:00	74	60	75	88	97	90	67	73	79
14:00	79	61	63	78	84	103	65	69	76
15:00	129	107	138	141	87	105	133	130	120
16:00	160	164	165	45	96	60	135	134	118
17:00	145	141	174	40	96	42	156	131	113
18:00	89	108	120	107	74	40	116	108	93
19:00	67	57	78	60	41	43	69	66	59
20:00	42	39	47	33	25	21	49	42	37
21:00	32	39	30	37	16	15	28	33	28
22:00	19	24	31	28	0	12	18	24	19
23:00	5	6	11	14	1	3	5	8	6
Total									
12H(7-19)	1303	1262	1327	1023	1025	794	1196	1222	1133
16H(6-22)	1466	1418	1510	1174	1115	879	1368	1387	1276
18H(6-24)	1490	1448	1552	1216	1116	894	1391	1419	1301
24H(0-24)	1498	1466	1568	1229	1138	914	1402	1433	1316
AM Peak	08:00	08:00	08:00	08:00	10:00	11:00	08:00	08:00	08:00
	194	211	201	116	123	81	188	182	140
PM Peak	16:00	16:00	17:00	15:00	12:00	12:00	17:00	16:00	15:00
	160	164	174	141	105	107	156	134	120

Direction: Southbound

Hour Beginning	Tue 07/11/2023	Wed 08/11/2023	Thu 09/11/2023	Fri 10/11/2023	Sat 11/11/2023	Sun 12/11/2023	Mon 13/11/2023	5-Day Ave.	7-Day Ave.
00:00	0	0	0	2	7	5	2	1	2
01:00	0	0	1	0	1	5	0	0	1
02:00	1	0	1	2	2	0	2	1	1
03:00	0	0	2	0	1	1	0	0	1
04:00	0	2	0	0	0	1	5	1	1
05:00	7	8	5	5	4	1	5	6	5
06:00	23	34	30	24	3	1	24	27	20
07:00	101	102	100	78	18	5	90	94	71
08:00	150	151	131	91	49	44	120	129	105
09:00	92	75	81	80	106	55	72	80	80
10:00	53	61	52	64	66	73	48	56	60
11:00	44	48	61	57	73	80	39	50	57
12:00	61	53	51	83	89	73	59	61	67
13:00	56	52	66	62	98	65	69	61	67
14:00	70	49	50	79	62	63	51	60	61
15:00	102	98	110	104	51	61	88	100	88
16:00	104	105	133	33	66	43	105	96	84
17:00	107	115	131	26	54	40	112	98	84
18:00	85	78	82	79	41	31	75	80	67
19:00	46	52	62	57	20	28	61	56	47
20:00	25	22	30	24	14	13	23	25	22
21:00	17	29	21	23	14	5	17	21	18
22:00	7	14	16	11	0	9	9	11	9
23:00	4	3	7	13	2	2	9	7	6
Total									
12H(7-19)	1025	987	1048	836	773	633	928	965	890
16H(6-22)	1136	1124	1191	964	824	680	1053	1094	996
18H(6-24)	1147	1141	1214	988	826	691	1071	1112	1011
24H(0-24)	1155	1151	1223	997	841	704	1085	1122	1022
AM Peak	08:00	08:00	08:00	08:00	09:00	11:00	08:00	08:00	08:00
	150	151	131	91	106	80	120	129	105
PM Peak	17:00	17:00	16:00	15:00	13:00	12:00	17:00	15:00	15:00
	107	115	133	104	98	73	112	100	88

Romsey A2, Halterworth Lane

Direction: Northbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Tue 7 Nov 2023	1498	27.4	22.4	4.9	12	85	335	624	393	42	4	3	0	0	0	0
Wed 8 Nov 2023	1466	27.7	22.2	5.2	38	96	277	610	391	50	3	1	0	0	0	0
Thu 9 Nov 2023	1568	28.6	23.4	5.0	14	79	222	655	504	82	11	1	0	0	0	0
Fri 10 Nov 2023	1229	29.3	23.7	5.4	23	63	161	425	461	90	5	1	0	0	0	0
Sat 11 Nov 2023	1138	29.9	24.9	4.9	11	39	79	404	494	97	13	1	0	0	0	0
Sun 12 Nov 2023	914	30.4	25.4	4.9	3	33	56	293	422	93	11	2	1	0	0	0
Mon 13 Nov 2023	1402	27.7	22.3	5.2	12	119	284	534	399	51	1	2	0	0	0	0
5 Day Ave.	1433	28.1	22.8	5.1	20	88	256	570	430	63	5	2	0	0	0	0
7 Day Ave.	1316	28.7	23.5	5.1	16	73	202	506	438	72	7	2	0	0	0	0

Paul Castle Associates

Direction: Southbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Tue 7 Nov 2023	1155	25.4	19.7	5.6	54	187	336	390	168	18	1	1	0	0	0	0
Wed 8 Nov 2023	1151	26.2	20.4	5.6	39	178	279	428	199	23	5	0	0	0	0	0
Thu 9 Nov 2023	1223	27.2	21.5	5.5	46	117	234	520	263	41	1	1	0	0	0	0
Fri 10 Nov 2023	997	27.6	21.8	5.6	29	98	201	373	257	36	3	0	0	0	0	0
Sat 11 Nov 2023	841	27.6	22.4	5.1	12	59	161	357	217	32	3	0	0	0	0	0
Sun 12 Nov 2023	704	28.9	24.0	4.7	3	25	90	271	271	40	4	0	0	0	0	0
Mon 13 Nov 2023	1085	26.4	20.4	5.8	48	167	245	396	202	23	4	0	0	0	0	0
5 Day Ave.	1122	26.6	20.7	5.6	43	149	259	421	218	28	3	0	0	0	0	0
7 Day Ave.	1022	27.0	21.4	5.4	33	119	221	391	225	30	3	0	0	0	0	0

Romsey A3, Botley Road

Direction: Eastbound

Hour Beginning	Tue 07/11/2023	Wed 08/11/2023	Thu 09/11/2023	Fri 10/11/2023	Sat 11/11/2023	Sun 12/11/2023	Mon 13/11/2023	5-Day Ave.	7-Day Ave.
00:00	5	4	4	3	23	17	3	4	8
01:00	0	4	0	3	9	17	2	2	5
02:00	3	1	2	2	7	3	3	2	3
03:00	4	1	4	1	6	7	1	2	3
04:00	6	14	5	12	7	8	16	11	10
05:00	34	27	33	34	12	9	29	31	25
06:00	93	83	99	90	37	19	93	92	73
07:00	287	297	276	289	70	39	278	285	219
08:00	355	332	358	350	163	109	355	350	289
09:00	278	254	246	248	250	153	257	257	241
10:00	235	223	247	212	252	192	226	229	227
11:00	211	216	204	216	276	220	213	212	222
12:00	278	283	279	278	308	255	276	279	280
13:00	284	273	275	289	277	210	265	277	268
14:00	253	224	258	240	238	228	250	245	242
15:00	302	356	320	364	220	200	320	332	297
16:00	379	336	345	341	229	180	354	351	309
17:00	321	275	320	292	201	146	339	309	271
18:00	238	236	217	243	139	112	242	235	204
19:00	168	170	174	182	115	96	165	172	153
20:00	111	105	104	99	73	58	106	105	94
21:00	71	79	74	74	107	25	64	72	71
22:00	45	72	43	65	62	33	39	53	51
23:00	15	43	13	39	50	3	17	25	26
Total									
12H(7-19)	3421	3305	3345	3362	2623	2044	3375	3362	3068
16H(6-22)	3864	3742	3796	3807	2955	2242	3803	3802	3458
18H(6-24)	3924	3857	3852	3911	3067	2278	3859	3881	3535
24H(0-24)	3976	3908	3900	3966	3131	2339	3913	3933	3590
AM Peak	08:00	08:00	08:00	08:00	11:00	11:00	08:00	08:00	08:00
	355	332	358	350	276	220	355	350	289
PM Peak	16:00	15:00	16:00	15:00	12:00	12:00	16:00	16:00	16:00
	379	356	345	364	308	255	354	351	309

Direction: Westbound

Hour Beginning	Tue 07/11/2023	Wed 08/11/2023	Thu 09/11/2023	Fri 10/11/2023	Sat 11/11/2023	Sun 12/11/2023	Mon 13/11/2023	5-Day Ave.	7-Day Ave.
00:00	5	7	5	7	33	28	8	6	13
01:00	4	3	6	3	8	24	2	4	7
02:00	1	1	1	1	11	3	1	1	3
03:00	5	3	3	3	13	8	5	4	6
04:00	7	7	13	10	6	6	7	9	8
05:00	42	38	47	38	19	7	45	42	34
06:00	101	123	106	109	46	35	104	109	89
07:00	307	336	324	323	73	44	318	322	246
08:00	403	386	416	401	173	98	384	398	323
09:00	282	291	286	303	289	161	297	292	273
10:00	299	252	301	249	343	244	257	272	278
11:00	265	246	271	237	333	237	251	254	263
12:00	276	271	283	262	311	266	263	271	276
13:00	304	307	296	313	287	241	305	305	293
14:00	310	299	310	293	276	257	299	302	292
15:00	361	378	410	385	247	222	404	388	344
16:00	384	378	477	388	227	202	423	410	354
17:00	360	343	395	344	280	157	391	367	324
18:00	255	273	243	278	208	123	271	264	236
19:00	224	188	210	205	134	111	228	211	186
20:00	140	117	146	117	105	78	129	130	119
21:00	109	122	114	122	90	51	114	116	103
22:00	54	85	49	89	82	31	46	65	62
23:00	11	49	9	52	53	9	13	27	28
Total									
12H(7-19)	3806	3760	4012	3776	3047	2252	3863	3843	3502
16H(6-22)	4380	4310	4588	4329	3422	2527	4438	4409	3999
18H(6-24)	4445	4444	4646	4470	3557	2567	4497	4500	4089
24H(0-24)	4509	4503	4721	4532	3647	2643	4565	4566	4160
AM Peak	08:00	08:00	08:00	08:00	10:00	10:00	08:00	08:00	08:00
	403	386	416	401	343	244	384	398	323
PM Peak	16:00	15:00	16:00	16:00	12:00	12:00	16:00	16:00	16:00
	384	378	477	388	311	266	423	410	354

Romsey A4, A27 Luzborough Lane

Direction: Eastbound

Hour Beginning	Tue 07/11/2023	Wed 08/11/2023	Thu 09/11/2023	Fri 10/11/2023	Sat 11/11/2023	Sun 12/11/2023	Mon 13/11/2023	5-Day Ave.	7-Day Ave.
00:00	10	0	11	14	18	30	8	9	13
01:00	3	10	11	7	13	14	1	6	8
02:00	2	1	5	8	10	3	4	4	5
03:00	4	5	3	3	9	4	4	4	5
04:00	8	8	9	5	8	6	6	7	7
05:00	27	22	23	25	15	10	24	24	21
06:00	85	97	99	84	26	20	81	89	70
07:00	367	361	339	311	62	38	319	339	257
08:00	741	795	698	706	170	103	749	738	566
09:00	309	313	284	321	315	175	320	309	291
10:00	303	299	276	308	412	321	294	296	316
11:00	346	317	361	381	514	407	347	350	382
12:00	388	373	353	401	493	393	362	375	395
13:00	333	385	355	378	430	468	349	360	385
14:00	386	383	406	413	415	407	369	391	397
15:00	590	563	559	649	434	344	562	585	529
16:00	631	747	694	630	435	307	670	674	588
17:00	627	598	653	508	331	219	606	598	506
18:00	439	426	478	317	222	150	373	407	344
19:00	288	244	362	260	137	106	285	288	240
20:00	219	214	215	143	90	74	188	196	163
21:00	145	176	177	129	91	54	130	151	129
22:00	88	122	74	107	128	35	60	90	88
23:00	27	47	31	46	75	16	24	35	38
Total									
12H(7-19)	5460	5560	5456	5323	4233	3332	5320	5424	4955
16H(6-22)	6197	6291	6309	5939	4577	3586	6004	6148	5558
18H(6-24)	6312	6460	6414	6092	4780	3637	6088	6273	5683
24H(0-24)	6366	6506	6476	6154	4853	3704	6135	6327	5742
AM Peak	08:00	08:00	08:00	08:00	11:00	11:00	08:00	08:00	08:00
	741	**795**	**698**	**706**	**514**	**407**	**749**	**738**	**566**
PM Peak	16:00	16:00	16:00	15:00	12:00	13:00	16:00	16:00	16:00
	631	**747**	**694**	**649**	**493**	**468**	**670**	**674**	**588**

Direction: Westbound

Hour Beginning	Tue 07/11/2023	Wed 08/11/2023	Thu 09/11/2023	Fri 10/11/2023	Sat 11/11/2023	Sun 12/11/2023	Mon 13/11/2023	5-Day Ave.	7-Day Ave.
00:00	6	4	7	3	11	17	6	5	8
01:00	2	4	6	2	6	12	1	3	5
02:00	5	4	3	2	5	1	7	4	4
03:00	7	6	6	5	4	6	3	5	5
04:00	13	12	10	14	14	4	13	12	11
05:00	46	45	39	42	19	12	35	41	34
06:00	177	185	170	173	67	32	165	174	138
07:00	480	491	473	413	155	91	441	460	363
08:00	633	615	554	570	275	147	607	596	486
09:00	414	389	425	449	383	235	379	411	382
10:00	368	293	385	390	468	296	306	348	358
11:00	288	301	345	354	398	319	313	320	331
12:00	328	296	323	324	381	309	302	315	323
13:00	307	320	328	347	357	294	314	323	324
14:00	325	310	304	357	353	314	309	321	325
15:00	383	426	385	440	294	237	370	401	362
16:00	514	492	532	489	233	181	483	502	418
17:00	439	402	399	361	183	138	390	398	330
18:00	280	290	269	269	164	99	247	271	231
19:00	155	169	190	151	119	91	152	163	147
20:00	87	113	103	90	66	52	85	96	85
21:00	68	57	73	66	75	30	71	67	63
22:00	44	60	45	56	76	21	34	48	48
23:00	13	16	19	27	33	7	11	17	18
Total									
12H(7-19)	4759	4625	4722	4763	3644	2660	4461	4666	4233
16H(6-22)	5246	5149	5258	5243	3971	2865	4934	5166	4667
18H(6-24)	5303	5225	5322	5326	4080	2893	4979	5231	4733
24H(0-24)	5382	5300	5393	5394	4139	2945	5044	5303	4800
AM Peak	08:00	08:00	08:00	08:00	10:00	11:00	08:00	08:00	08:00
	633	**615**	**554**	**570**	**468**	**319**	**607**	**596**	**486**
PM Peak	16:00	16:00	16:00	16:00	12:00	14:00	16:00	16:00	16:00
	514	**492**	**532**	**489**	**381**	**314**	**483**	**502**	**418**

Romsey A5, A27 Botley Road

Direction: Eastbound

Hour Beginning	Tue 07/11/2023	Wed 08/11/2023	Thu 09/11/2023	Fri 10/11/2023	Sat 11/11/2023	Sun 12/11/2023	Mon 13/11/2023	5-Day Ave.	7-Day Ave.
00:00	19	7	19	23	40	43	8	15	23
01:00	5	17	19	17	20	26	3	12	15
02:00	6	3	12	12	16	7	8	8	9
03:00	7	9	8	10	15	9	4	8	9
04:00	16	13	18	17	20	13	18	16	16
05:00	67	62	60	70	34	20	54	63	52
06:00	180	191	161	172	60	39	158	172	137
07:00	630	633	658	560	142	81	629	622	476
08:00	872	853	888	816	282	180	833	852	675
09:00	617	668	591	650	479	271	596	624	553
10:00	477	487	464	541	547	410	478	489	486
11:00	490	500	534	587	700	529	534	529	553
12:00	513	543	513	641	684	587	583	559	581
13:00	586	583	516	610	640	608	518	563	580
14:00	604	570	587	634	582	554	544	588	582
15:00	824	798	805	970	585	490	797	839	753
16:00	950	1008	950	923	620	482	913	949	835
17:00	946	871	960	773	473	325	900	890	750
18:00	613	552	612	507	346	262	576	572	495
19:00	417	324	424	379	234	198	376	384	336
20:00	236	249	225	240	159	129	241	238	211
21:00	206	225	221	186	146	85	176	203	178
22:00	127	163	127	163	180	78	92	134	133
23:00	48	62	51	94	114	18	46	60	62
Total									
12H(7-19)	8122	8066	8078	8212	6080	4779	7901	8076	7320
16H(6-22)	9161	9055	9109	9189	6679	5230	8852	9073	8182
18H(6-24)	9336	9280	9287	9446	6973	5326	8990	9268	8377
24H(0-24)	9456	9391	9423	9595	7118	5444	9085	9390	8502
AM Peak	08:00	08:00	08:00	08:00	11:00	11:00	08:00	08:00	08:00
	872	**853**	**888**	**816**	**700**	**529**	**833**	**852**	**675**
PM Peak	16:00	16:00	17:00	15:00	12:00	13:00	16:00	16:00	16:00
	950	**1008**	**960**	**970**	**684**	**608**	**913**	**949**	**835**

Direction: Westbound

Hour Beginning	Tue 07/11/2023	Wed 08/11/2023	Thu 09/11/2023	Fri 10/11/2023	Sat 11/11/2023	Sun 12/11/2023	Mon 13/11/2023	5-Day Ave.	7-Day Ave.
00:00	11	15	17	20	47	42	17	16	24
01:00	11	13	16	5	17	38	3	10	15
02:00	8	8	7	8	15	9	8	8	9
03:00	14	13	12	14	17	12	8	12	13
04:00	23	21	24	26	21	8	16	22	20
05:00	91	87	84	91	42	17	82	87	71
06:00	273	289	256	265	111	66	264	269	218
07:00	773	749	774	679	227	131	736	742	581
08:00	1058	1074	1037	981	395	244	1011	1032	829
09:00	696	710	646	644	595	392	653	670	619
10:00	602	477	595	622	684	480	518	563	568
11:00	535	527	506	583	624	473	543	539	542
12:00	541	526	556	590	591	539	515	546	551
13:00	517	584	551	620	569	501	541	563	555
14:00	623	595	598	660	591	492	583	612	592
15:00	689	686	683	722	461	468	709	698	631
16:00	850	863	865	813	417	379	812	841	714
17:00	750	719	734	648	440	265	683	707	606
18:00	566	550	563	506	383	240	477	532	469
19:00	343	368	376	314	236	196	381	356	316
20:00	225	255	212	194	176	132	232	224	204
21:00	163	131	170	188	131	93	167	164	149
22:00	114	123	131	156	156	60	75	120	116
23:00	29	37	46	84	99	19	28	45	49
Total									
12H(7-19)	8200	8060	8108	8068	5977	4604	7781	8043	7257
16H(6-22)	9204	9103	9122	9029	6631	5091	8825	9057	8144
18H(6-24)	9347	9263	9299	9269	6886	5170	8928	9221	8309
24H(0-24)	9505	9420	9459	9433	7045	5296	9062	9376	8460
AM Peak	08:00	08:00	08:00	08:00	10:00	10:00	08:00	08:00	08:00
	1058	**1074**	**1037**	**981**	**684**	**480**	**1011**	**1032**	**829**
PM Peak	16:00	16:00	16:00	16:00	12:00	12:00	16:00	16:00	16:00
	850	**863**	**865**	**813**	**591**	**539**	**812**	**841**	**714**

This page has been left intentionally blank

Parking Beat Survey

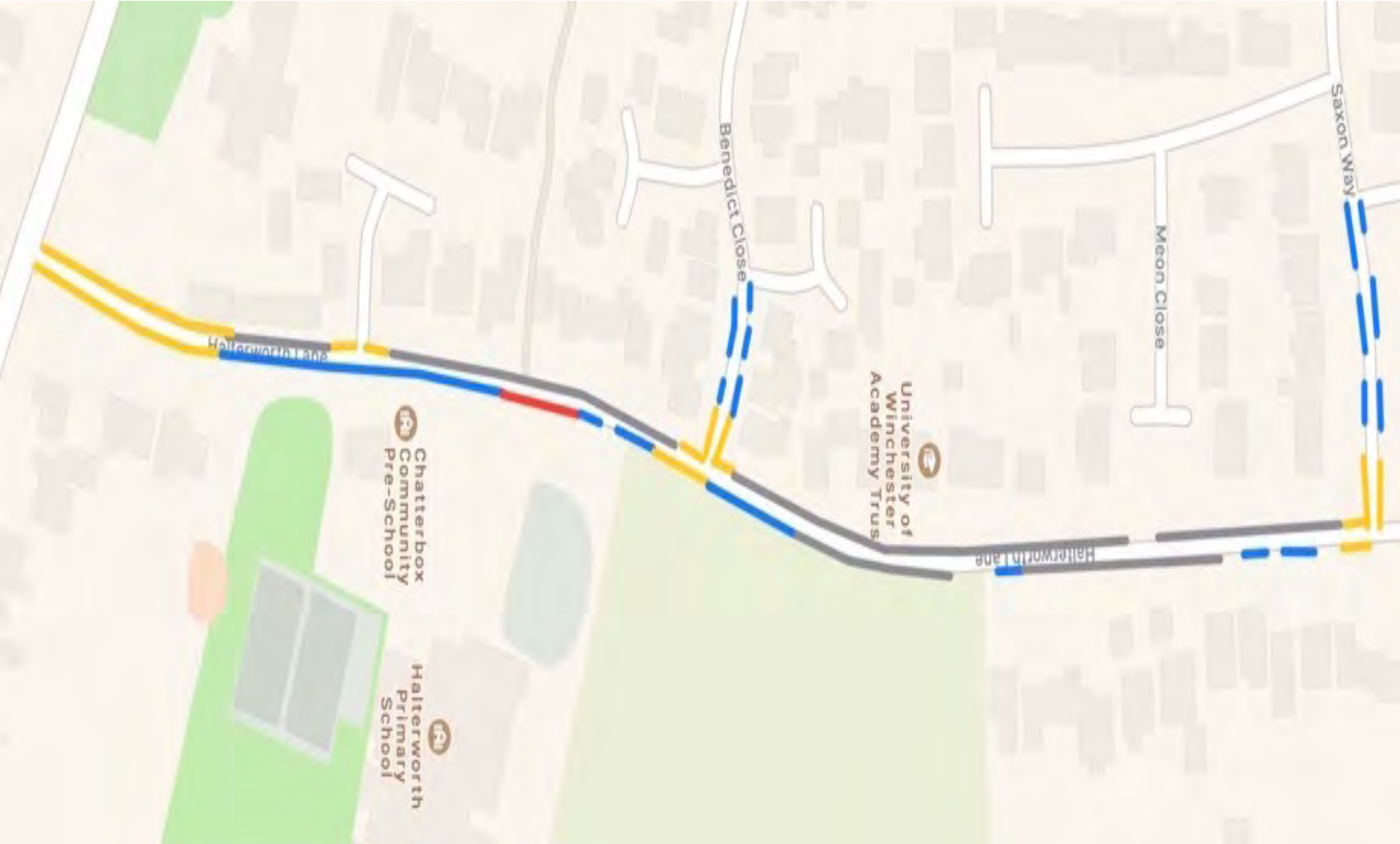
Halterworth Primary School

Tuesday 7th November 2023

Created by Bert Ramos

SURVEY DETAILS

Survey Type	PARKING BEAT SURVEY
Methodology Guidance	London Borough of Lambeth
Site	Halterworth Primary School
Survey Area	As advised by client
Date/s	Tuesday 7th November 2023
Time/s	08:30-09:30 & 14:30-16:00hrs
Beat Frequency	Snapshot
Unit for 1 Unmarked Lengthwise Space (m)	5
Unit for 1 Unmarked Crosswise Space (m	2.5
Areas Excluded From Survey	Private parking spaces, private roads and off road parking (unless requested in survey specification).
Sections of road excluded from parking capacity calculation	First 7.5m from junction mouth (for reasons of highway safety). Crossovers, dropped kerbs, build-outs, traffic islands, 24/7 illegal parking. Sections of legal lengthwise parking between illegal parking (crossover, dropped kerbs, double yellow etc) that measure less than the unit specified for 1 space. Where the width of the road is such that parking on both sides would cause an obstruction. In this instance one side of the road has been excluded from the capacity calculation.
Parking excluded from stress calculation	Skips or any other non-vehicle occupying a parking space (but noted separately if observed). Any illegal parking on double yellow lines, crossovers, keep clear lines etc (but noted separately if observed).
Terminology	"Parking Stress" - Calculation to express the number of parked vehicles as a percentage of available parking for each parking type. Stress can be over 100% if cars are small and/or parked very closely together. "Parking Capacity Calculation" - Measurement of each length of road between illegal parking (e.g. crossovers, traffic islands, double yellow etc) converted into parking spaces by rounding down to the nearest unit assigned to one parking space and dividing this figure by the unit. "Lengthwise Parking" - Vehicles parked in a lengthwise orientation with wheels parallel to the kerbside. "Crosswise Parking" - Vehicles parked in a crosswise orientation (as seen in car parks or wide sections of road)



Key

Unrestricted Parking

Unrestricted Kerb

Restricted Parking

Single Yellow Line

Yellow Zig Zag Line

No Parking

Double Yellow Lines

North

PARKING STRESS TABLES

Restriction 1 — Unrestricted Kerb

Tuesday 7th November 2023

Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	08:30 Occupied	08:30 Spaces	08:30 Stress (%)	08:35 Occupied	08:35 Spaces	08:35 Stress (%)	08:40 Occupied	08:40 Spaces	08:40 Stress (%)	08:45 Occupied	08:45 Spaces	08:45 Stress (%)	08:50 Occupied	08:50 Spaces	08:50 Stress (%)	08:55 Occupied	08:55 Spaces	08:55 Stress (%)
Saxon Way	30	6	0	6	3	3	50%	5	1	83%	5	1	83%	5	1	83%	4	2	67%	4	2	67%
Halterworth Lane	165	33	0	33	28	5	85%	33	0	100%	33	0	100%	33	0	100%	33	0	100%	33	0	100%
Benedict Close	30	6	0	6	0	6	0%	0	6	0%	6	0	100%	7	0	117%	7	0	117%	6	0	100%
Total	**225**	**45**	**0**	**45**	**31**	**14**	**69%**	**38**	**7**	**84%**	**44**	**1**	**98%**	**45**	**1**	**100%**	**44**	**2**	**98%**	**43**	**2**	**96%**

Tuesday 7th November 2023

Location	09:00 Occupied	09:00 Spaces	09:00 Stress (%)	09:05 Occupied	09:05 Spaces	09:05 Stress (%)	09:10 Occupied	09:10 Spaces	09:10 Stress (%)	09:15 Occupied	09:15 Spaces	09:15 Stress (%)	09:20 Occupied	09:20 Spaces	09:20 Stress (%)	09:25 Occupied	09:25 Spaces	09:25 Stress (%)
Saxon Way	2	4	33%	2	4	33%	0	6	0%	0	6	0%	0	6	0%	0	6	0%
Halterworth Lane	24	9	73%	23	10	70%	22	11	67%	20	13	61%	18	15	55%	18	15	55%
Benedict Close	0	6	0%	0	6	0%	0	6	0%	0	6	0%	0	6	0%	0	6	0%
Total	**26**	**19**	**58%**	**25**	**20**	**56%**	**22**	**23**	**49%**	**20**	**25**	**44%**	**18**	**27**	**40%**	**18**	**27**	**40%**

Tuesday 7th November 2023

Location	09;30 Occupied	09;30 Spaces	09;30 Stress (%)	14:30 Occupied	14:30 Spaces	14:30 Stress (%)	14:35 Occupied	14:35 Spaces	14:35 Stress (%)	14:40 Occupied	14:40 Spaces	14:40 Stress (%)	14:45 Occupied	14:45 Spaces	14:45 Stress (%)	14:50 Occupied	14:50 Spaces	14:50 Stress (%)
Saxon Way	0	6	0%	1	5	17%	1	5	17%	2	4	33%	2	4	33%	4	2	67%
Halterworth Lane	19	14	58%	23	10	70%	24	9	73%	22	11	67%	22	11	67%	27	6	82%
Benedict Close	0	6	0%	0	6	0%	0	6	0%	0	6	0%	0	6	0%	0	6	0%
Total	**19**	**26**	**42%**	**24**	**21**	**53%**	**25**	**20**	**56%**	**24**	**21**	**53%**	**24**	**21**	**53%**	**31**	**14**	**69%**

Tuesday 7th November 2023

Location	14:55 Occupied	14:55 Spaces	14:55 Stress (%)	15:00 Occupied	15:00 Spaces	15:00 Stress (%)	15:05 Occupied	15:05 Spaces	15:05 Stress (%)	15:10 Occupied	15:10 Spaces	15:10 Stress (%)	15:15 Occupied	15:15 Spaces	15:15 Stress (%)	15:20 Occupied	15:20 Spaces	15:20 Stress (%)
Saxon Way	5	1	83%	6	0	100%	7	0	117%	7	0	117%	7	0	117%	7	0	117%
Halterworth Lane	28	5	85%	33	0	100%	32	1	97%	33	0	100%	33	0	100%	33	0	100%
Benedict Close	0	6	0%	0	6	0%	0	6	0%	0	6	0%	0	6	0%	0	6	0%
Total	**33**	**12**	**73%**	**39**	**6**	**87%**	**39**	**7**	**87%**	**40**	**6**	**89%**	**40**	**6**	**89%**	**40**	**6**	**89%**

Tuesday 7th November 2023

Location	15:25 Occupied	15:25 Spaces	15:25 Stress (%)	15:30 Occupied	15:30 Spaces	15:30 Stress (%)	15:35 Occupied	15:35 Spaces	15:35 Stress (%)	15:40 Occupied	15:40 Spaces	15:40 Stress (%)	15:45 Occupied	15:45 Spaces	15:45 Stress (%)	15:50 Occupied	15:50 Spaces	15:50 Stress (%)	15:55 Occupied	15:55 Spaces	15:55 Stress (%)	16:00 Occupied	16:00 Spaces	16:00 Stress (%)
Saxon Way	7	0	117%	7	0	117%	6	0	100%	5	1	83%	3	3	50%	3	3	50%	1	5	17%	1	5	17%
Halterworth Lane	33	0	100%	33	0	100%	33	0	100%	29	4	88%	21	12	64%	14	19	42%	13	20	39%	13	20	39%
Benedict Close	0	6	0%	1	5	17%	6	0	100%	7	0	117%	7	0	117%	5	1	83%	1	5	17%	1	5	17%
Total	**40**	**6**	**89%**	**41**	**5**	**91%**	**45**	**0**	**100%**	**41**	**5**	**91%**	**31**	**15**	**69%**	**22**	**23**	**49%**	**15**	**30**	**33%**	**15**	**30**	**33%**

Restriction 2 — Single Yellow Line (Mon-Fri 8-9am & 2-4pm)

Tuesday 7th November 2023

Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	08:30 Occupied	08:30 Spaces	08:30 Stress (%)	08:35 Occupied	08:35 Spaces	08:35 Stress (%)	08:40 Occupied	08:40 Spaces	08:40 Stress (%)	08:45 Occupied	08:45 Spaces	08:45 Stress (%)	08:50 Occupied	08:50 Spaces	08:50 Stress (%)	08:55 Occupied	08:55 Spaces	08:55 Stress (%)
Halterworth Lane	400	80	0	80	0	80	0%	0	80	0%	4	76	5%	9	71	11%	8	72	10%	1	79	1%
Total	**400**	**80**	**0**	**80**	**0**	**80**	**0%**	**0**	**80**	**0%**	**4**	**76**	**5%**	**9**	**71**	**11%**	**8**	**72**	**10%**	**1**	**79**	**1%**

Tuesday 7th November 2023

Location	09:00 Occupied	09:00 Spaces	09:00 Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)
Halterworth Lane	0	80	0%	0	80	0%	0	80	0%	0	80	0%	0	80	0%	0	80	0%
Total	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**

Tuesday 7th November 2023

Location	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)
Halterworth Lane	0	80	0%	0	80	0%	0	80	0%	0	80	0%	0	80	0%	0	80	0%
Total	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**

Tuesday 7th November 2023

Location	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)
Halterworth Lane	0	80	0%	0	80	0%	0	80	0%	0	80	0%	0	80	0%	0	80	0%
Total	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**

Tuesday 7th November 2023

Location	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)	N/a Occupied	N/a Spaces	N/a Stress (%)
Halterworth Lane	0	80	0%	0	80	0%	0	80	0%	0	80	0%	0	80	0%	0	80	0%	0	80	0%	0	80	0%
Total	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**	**0**	**80**	**0%**

Illegal/Obstructive Parking

Tuesday 7th November 2023 (all times)

Location	Description	08:30 Occupied	08:35 Occupied	08:40 Occupied	08:45 Occupied	08:50 Occupied	08:55 Occupied	09:00 Occupied	09:05 Occupied	09:10 Occupied	09:15 Occupied	09:20 Occupied	09:25 Occupied	09;30 Occupied	14:30 Occupied	14:35 Occupied	14:40 Occupied
Halterworth Lane	Single Yellow	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location	Description	14:45 Occupied	14:50 Occupied	14:55 Occupied	15:00 Occupied	15:05 Occupied	15:10 Occupied	15:15 Occupied	15:20 Occupied	15:25 Occupied	15:30 Occupied	15:35 Occupied	15:40 Occupied	15:45 Occupied	15:50 Occupied	15:55 Occupied	16:00 Occupied
Halterworth Lane	Single Yellow	0	0	0	0	0	0	1	4	5	6	8	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	1	4	5	6	8	0	0	0	0	0

PARKING CAPACITY MEASUREMENTS

A working table showing kerbside measurements for each parking type.

Location	Side of Road & Measuring Orientation	Parking Type	Section Length (m)	Crosswise Spaces or Lengthwise Marked Bays	Number of Crosswise Spaces or Marked Bays	Unit Round Down (If Lengthwise & Unmarked)	Total Spaces
Saxon Way	N W-E	Unrestricted Kerb	2.3			0	0
Saxon Way	N W-E	Crossover	8.1			5	1
Saxon Way	N W-E	Unrestricted Kerb	8.4			5	1
Saxon Way	N W-E	Crossover	9.2			5	1
Saxon Way	N W-E	Unrestricted Kerb	7.4			5	1
Saxon Way	N W-E	Crossover	8.2			5	1
Saxon Way	N W-E	Double Yellow Lines	19.3			15	3
Saxon Way	S E-W	Double Yellow Lines	19.6			15	3
Saxon Way	S E-W	Crossover	5.9			5	1
Saxon Way	S E-W	Unrestricted Kerb	3.8			0	0
Saxon Way	S E-W	Crossover	3.8			0	0
Saxon Way	S E-W	Unrestricted Kerb	10.2			10	2
Saxon Way	S E-W	Crossover	6.4			5	1
Saxon Way	S E-W	Unrestricted Kerb	14.1			10	2
Halterworth Lane	W N-S	Double Yellow Lines	5.6			5	1
Halterworth Lane	W N-S	Single Yellow Line (Mon-Fri 8-9am & 2-4pm)	54.1			50	10
Halterworth Lane	W N-S	Crossover	6.8			5	1
Halterworth Lane	W N-S	Single Yellow Line (Mon-Fri 8-9am & 2-4pm)	134.9			130	26
Halterworth Lane	W N-S	Double Yellow Lines	4.3			0	0
Halterworth Lane	W N-S	Junction	13.8			10	2
Halterworth Lane	W N-S	Double Yellow Lines	4.6			0	0
Halterworth Lane	W N-S	Single Yellow Line (Mon-Fri 8-9am & 2-4pm)	105.9			105	21
Halterworth Lane	W N-S	Double Yellow Lines	4.2			0	0
Halterworth Lane	W N-S	Junction	13.1			10	2
Halterworth Lane	W N-S	Double Yellow Lines	5.8			5	1
Halterworth Lane	W N-S	Single Yellow Line (Mon-Fri 8-9am & 2-4pm)	24.3			20	4
Halterworth Lane	W N-S	Double Yellow Lines	58.4			55	11
Halterworth Lane	E S-N	Double Yellow Lines	54.2			50	10
Halterworth Lane	E S-N	Unrestricted Kerb	101.3			100	20
Halterworth Lane	E S-N	Yellow Zig Zag Lines	35.3			35	7
Halterworth Lane	E S-N	Unrestricted Kerb	13.6			10	2
Halterworth Lane	E S-N	Crossover	6.1			5	1
Halterworth Lane	E S-N	Unrestricted Kerb	10.3			10	2
Halterworth Lane	E S-N	Double Yellow Lines	19.7			15	3
Halterworth Lane	E S-N	Unrestricted Kerb	37.8			35	7
Halterworth Lane	E S-N	Single Yellow Line (Mon-Fri 8-9am & 2-4pm)	52.3			50	10
Halterworth Lane	E S-N	Crossover	15.4			15	3
Halterworth Lane	E S-N	Unrestricted Kerb	4.3			0	0
Halterworth Lane	E S-N	Single Yellow Line (Mon-Fri 8-9am & 2-4pm)	45.6			45	9
Halterworth Lane	E S-N	Crossover	6.1			5	1
Halterworth Lane	E S-N	Unrestricted Kerb	6.2			5	1
Halterworth Lane	E S-N	Crossover	7.5			5	1
Halterworth Lane	E S-N	Unrestricted Kerb	8.3			5	1
Halterworth Lane	E S-N	Crossover	6.1			5	1
Halterworth Lane	E S-N	Double Yellow Lines	6.2			5	1
Benedict Close	N E-W	Double Yellow Lines	12.7			10	2
Benedict Close	N E-W	Unrestricted Kerb	5.1			5	1
Benedict Close	N E-W	Crossover	3.7			0	0
Benedict Close	N E-W	Unrestricted Kerb	7.2			5	1
Benedict Close	N E-W	Crossover	4.7			0	0

Benedict Close	N E-W	Unrestricted Kerb	9.3			5	1
Benedict Close	S W-E	Unrestricted Kerb	6.2			5	1
Benedict Close	S W-E	Crossover	3.6			0	0
Benedict Close	S W-E	Unrestricted Kerb	13.3			10	2
Benedict Close	S W-E	Crossover	4.6			0	0
Benedict Close	S W-E	Unrestricted Kerb	3.1			0	0
Benedict Close	S W-E	Double Yellow Lines	12.6			10	2

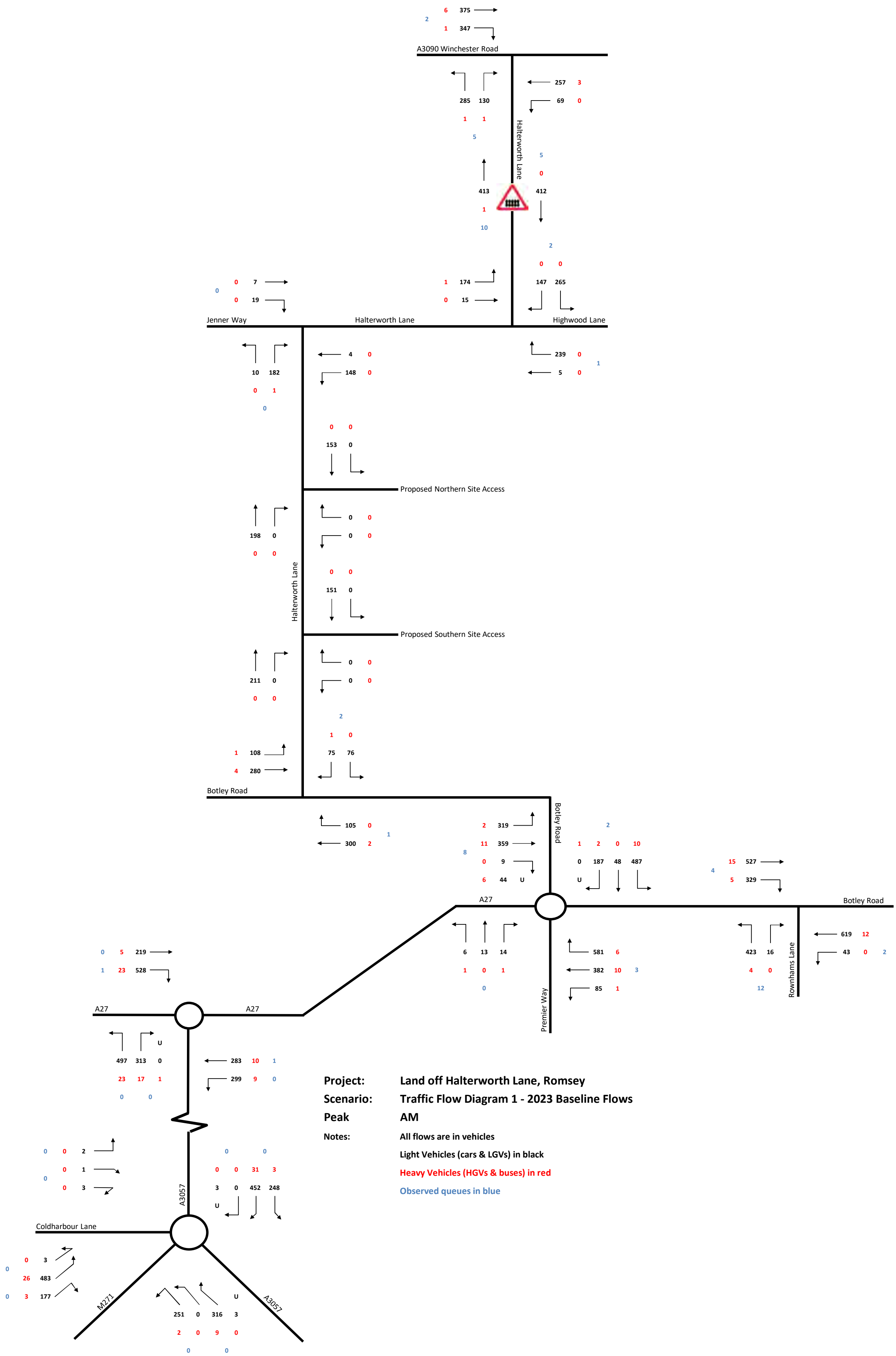
APPENDIX D

TRAFFIC FLOW DIAGRAMS

This page has been left intentionally blank

Traffic Flow Diagrams			
Reference	Scenario	Peak	Derivation
1	Traffic Flow Diagram 1 - 2023 Baseline Flows	AM	Raw Data
2	Traffic Flow Diagram 2 - 2023 Baseline Flows	PM	Raw Data
3	Traffic Flow Diagram 3 - 2028 Future Baseline Flows	AM	1*TEMPro
4	Traffic Flow Diagram 4 - 2028 Future Baseline Flows	PM	2*TEMPro
5	Traffic Flow Diagram 5 - Committed Development Flows	AM	16/02432/OUTS
6	Traffic Flow Diagram 6 - Committed Development Flows	PM	16/02432/OUTS
7	Traffic Flow Diagram 7 - Committed Development Flows	AM	20/00599/FULLS
8	Traffic Flow Diagram 8 - Committed Development Flows	PM	20/00599/FULLS
9	Traffic Flow Diagram 9 - Committed Development Flows	AM	23/00964/OUTS
10	Traffic Flow Diagram 10 - Committed Development Flows	PM	23/00964/OUTS
11	Traffic Flow Diagram 11 - Committed Development Flows	AM	14/00726/OUTS
12	Traffic Flow Diagram 12 - Committed Development Flows	PM	14/00726/OUTS
13	Traffic Flow Diagram 13 - Committed Development Flows	AM	22/01213/OUTS
14	Traffic Flow Diagram 14 - Committed Development Flows	PM	22/01213/OUTS
15	Traffic Flow Diagram 15 - Committed Development Flows	AM	22/03069/OUTS
16	Traffic Flow Diagram 16 - Committed Development Flows	PM	22/03069/OUTS
17	Traffic Flow Diagram 17 - Total Committed Development Flows	AM	5+7+9+11+13+15
18	Traffic Flow Diagram 18 - Total Committed Development Flows	PM	6+8+10+12+14+16
19	Traffic Flow Diagram 19 - Development Traffic Distribution	Both	MTW Census
20	Traffic Flow Diagram 20 - Development Traffic Flows	AM	19*TRICS
21	Traffic Flow Diagram 21 - Development Traffic Flows	PM	19*TRICS
22	Traffic Flow Diagram 22 - 2028 Future Baseline + Development Flows	AM	3+20
23	Traffic Flow Diagram 23 - 2028 Future Baseline + Development Flows	PM	4+21
24	Traffic Flow Diagram 24 - 2028 Without Development Flows	AM	3+17
25	Traffic Flow Diagram 25 - 2028 Without Development Flows	PM	4+18
26	Traffic Flow Diagram 26 - 2028 With Development Flows	AM	20+24
27	Traffic Flow Diagram 27 - 2028 With Development Flows	PM	21+25

Prime
Transport Planning



Project: **Land off Halterworth Lane, Romsey**

Scenario: **Traffic Flow Diagram 1 - 2023 Baseline Flows**

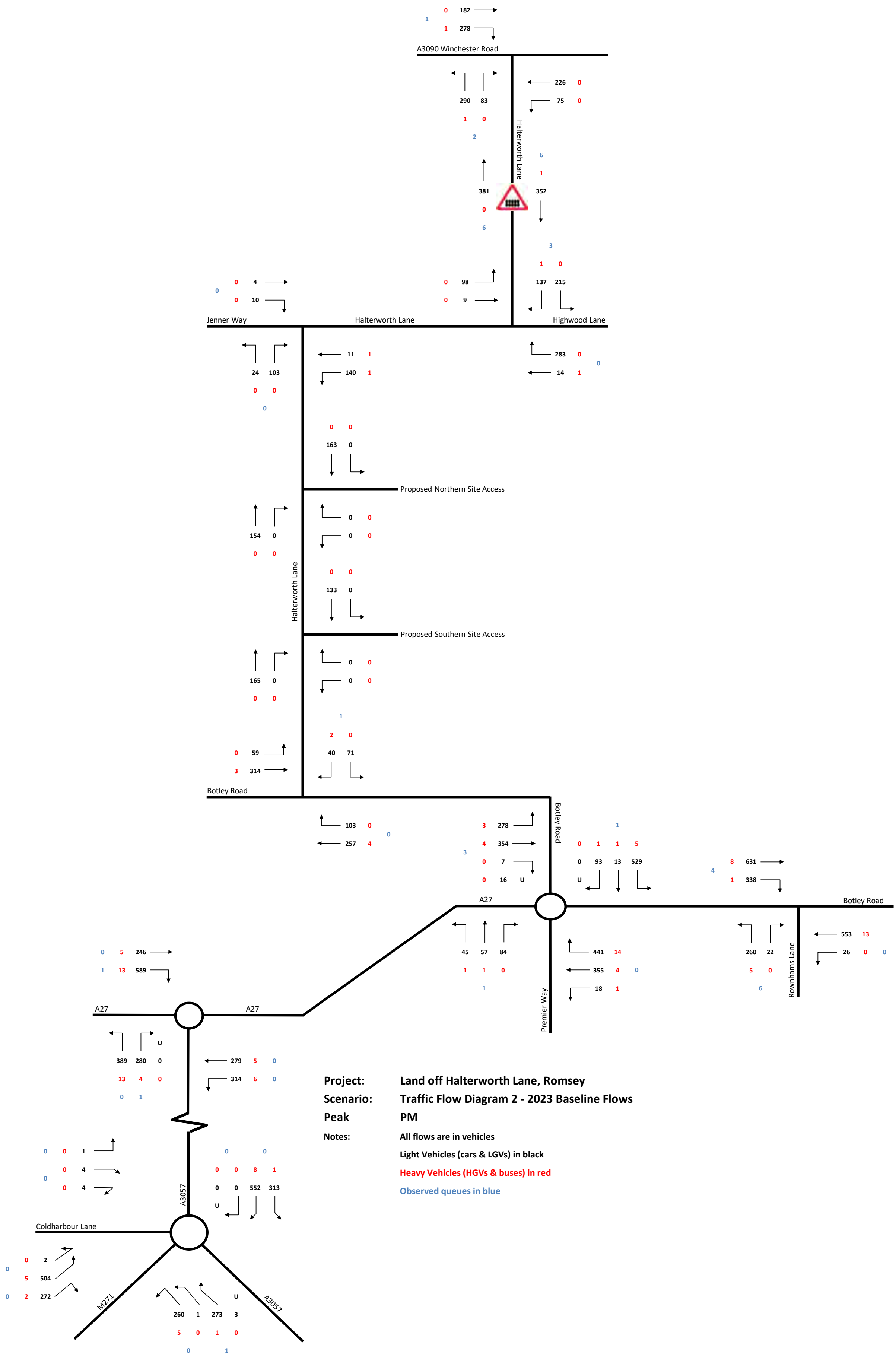
Peak **AM**

Notes: All flows are in vehicles

Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red

Observed queues in blue



Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 2 - 2023 Baseline Flows

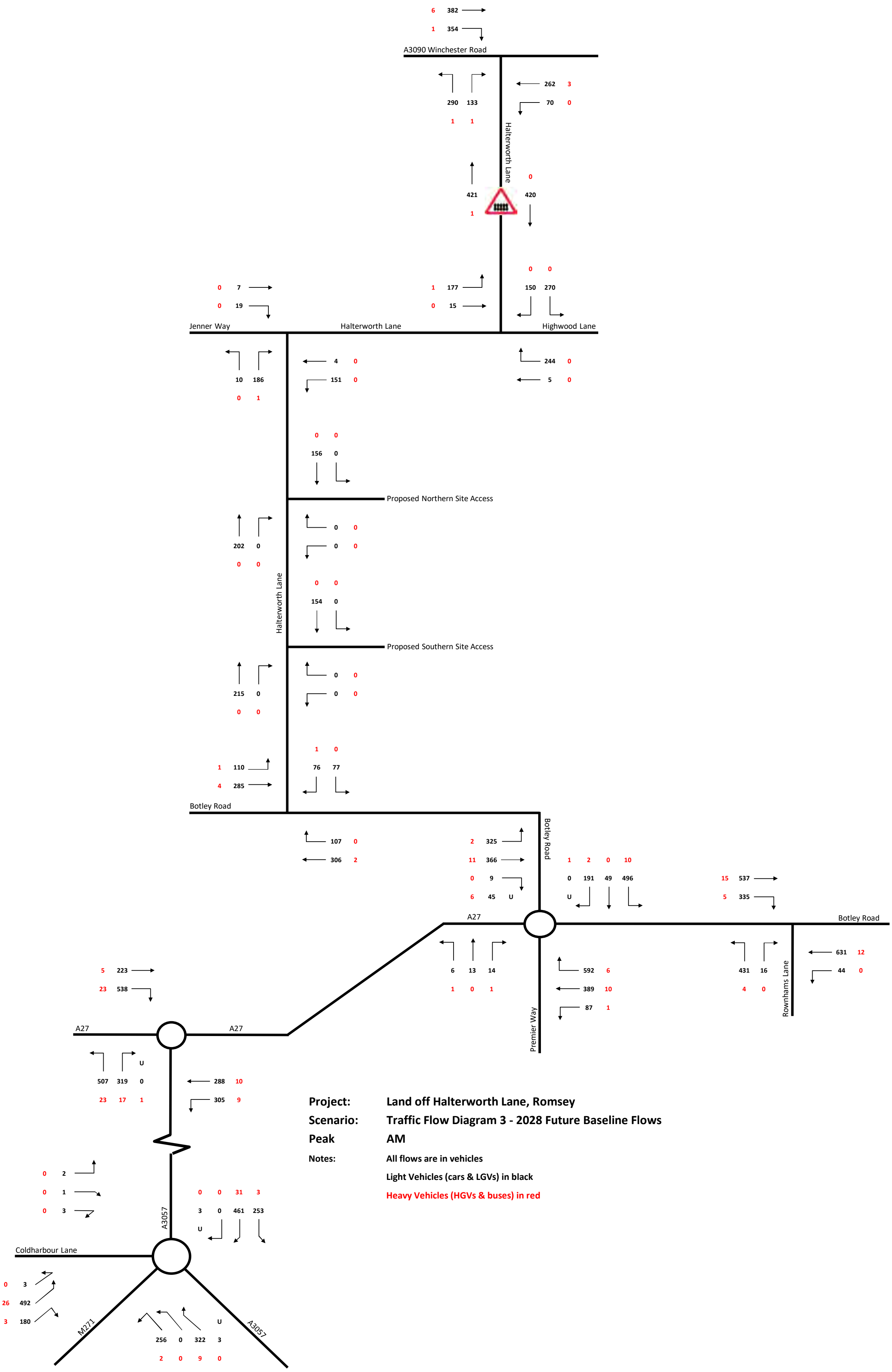
Peak PM

Notes: All flows are in vehicles

Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red

Observed queues in blue



Project: **Land off Halterworth Lane, Romsey**

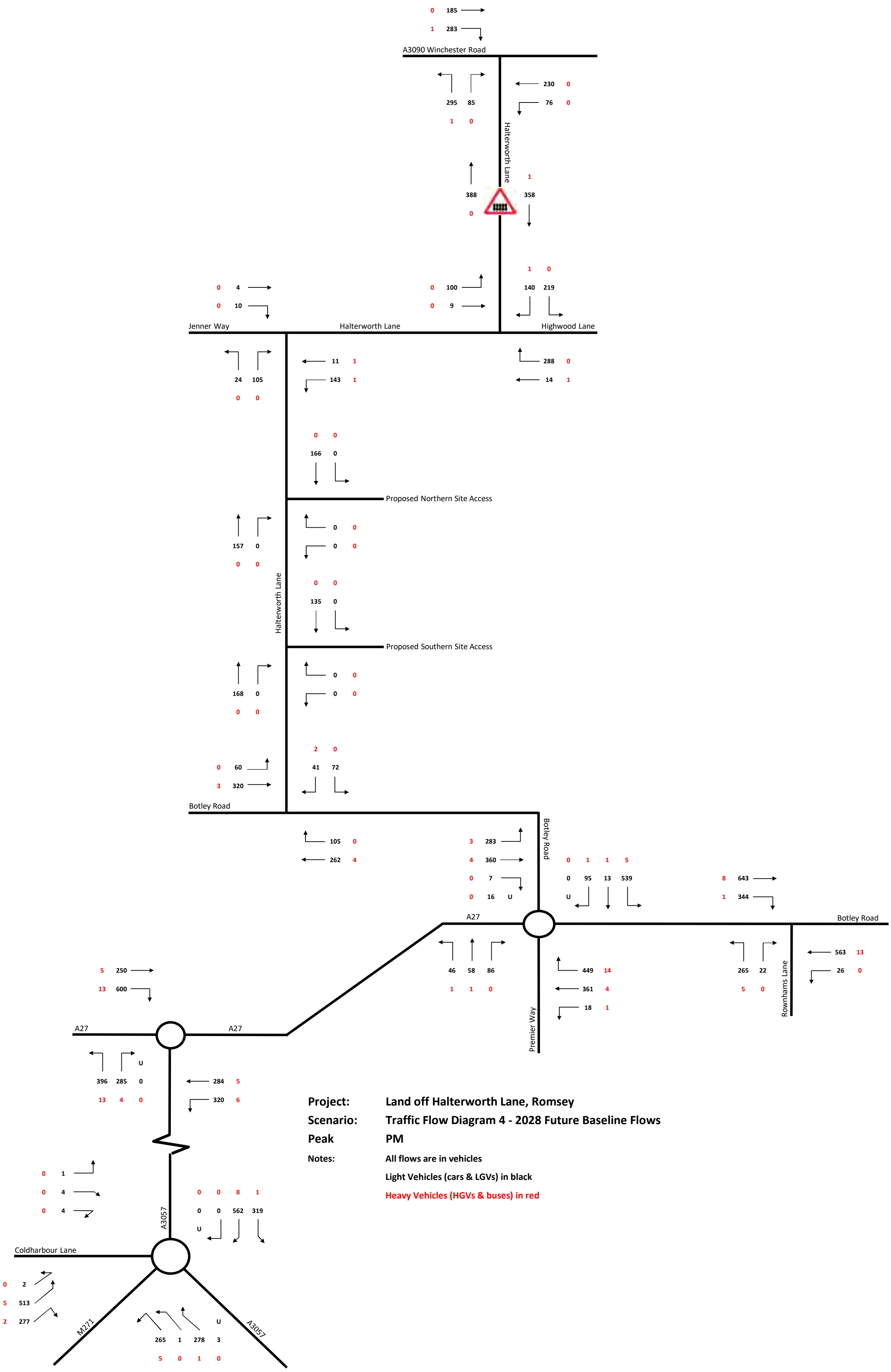
Scenario: **Traffic Flow Diagram 3 - 2028 Future Baseline Flows**

Peak **AM**

Notes: **All flows are in vehicles**

Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red



Project: **Land off Halterworth Lane, Romsey**

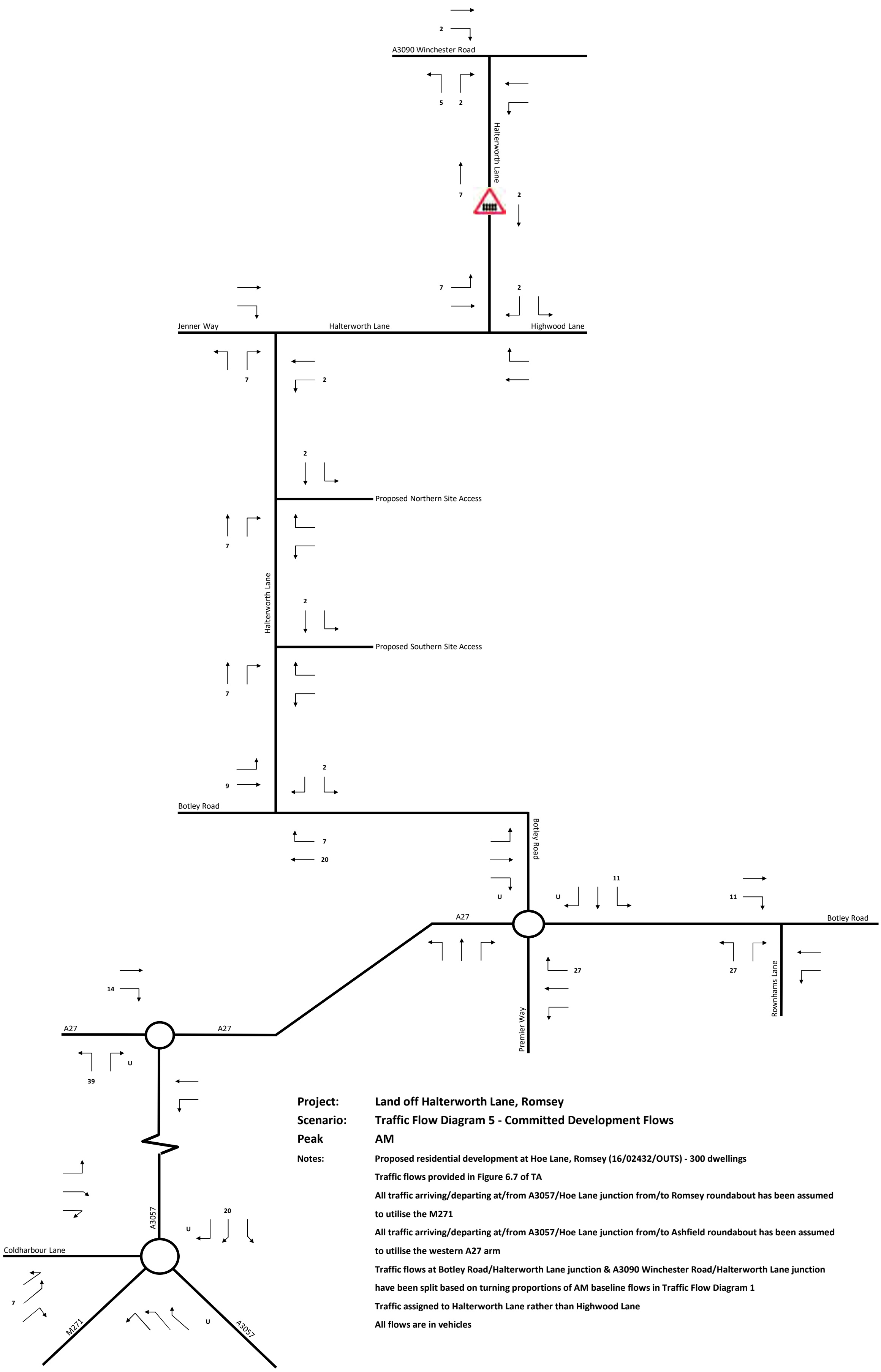
Scenario: **Traffic Flow Diagram 4 - 2028 Future Baseline Flows**

Peak **PM**

Notes: **All flows are in vehicles**

Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red



Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 5 - Committed Development Flows

Peak AM

Notes:

Proposed residential development at Hoe Lane, Romsey (16/02432/OUTS) - 300 dwellings

Traffic flows provided in Figure 6.7 of TA

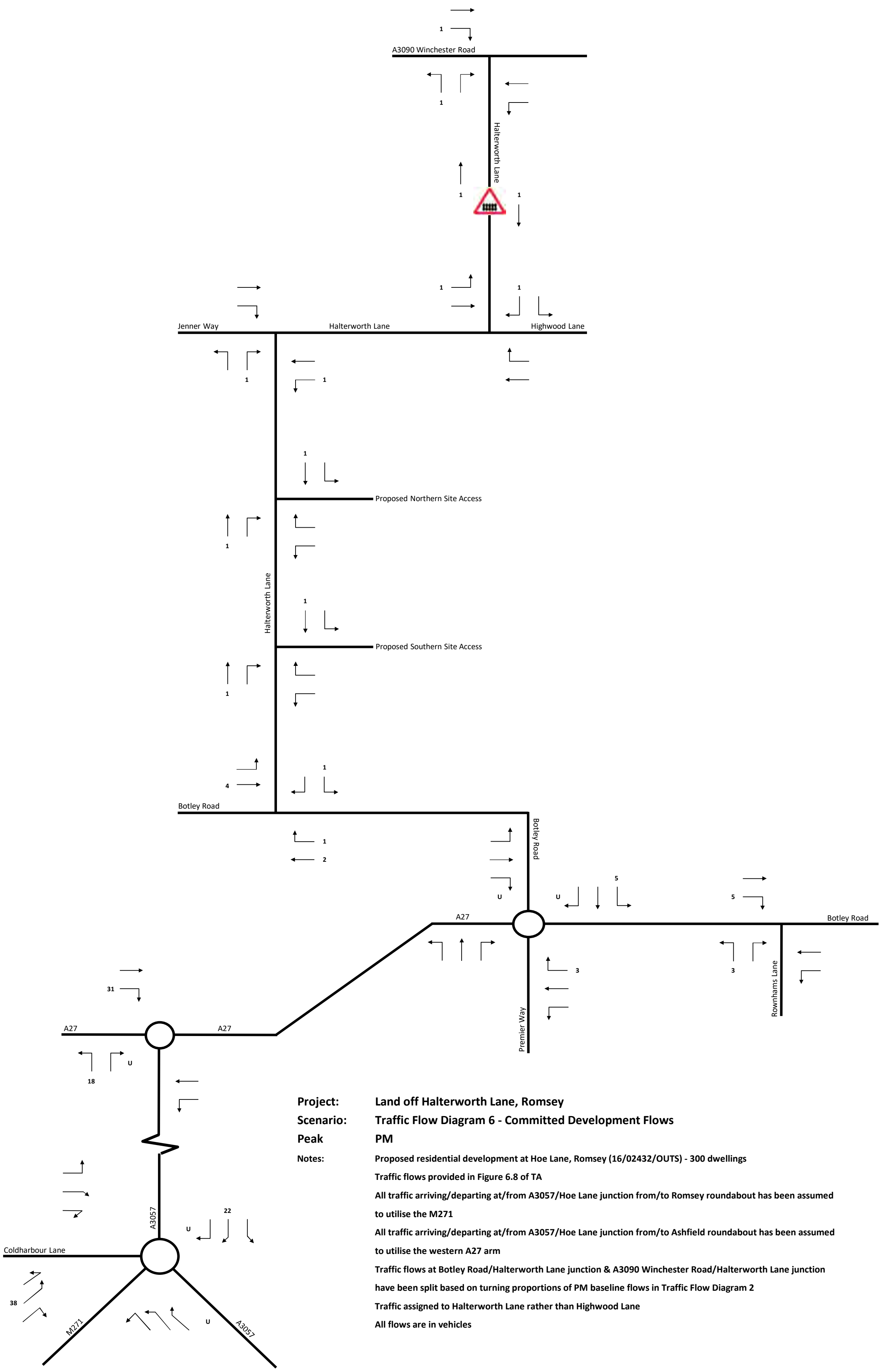
All traffic arriving/departing at/from A3057/Hoe Lane junction from/to Romsey roundabout has been assumed to utilise the M271

All traffic arriving/departing at/from A3057/Hoe Lane junction from/to Ashfield roundabout has been assumed to utilise the western A27 arm

Traffic flows at Botley Road/Halterworth Lane junction & A3090 Winchester Road/Halterworth Lane junction have been split based on turning proportions of AM baseline flows in Traffic Flow Diagram 1

Traffic assigned to Halterworth Lane rather than Highwood Lane

All flows are in vehicles



Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 6 - Committed Development Flows

Peak PM

Notes:

Proposed residential development at Hoe Lane, Romsey (16/02432/OUTS) - 300 dwellings

Traffic flows provided in Figure 6.8 of TA

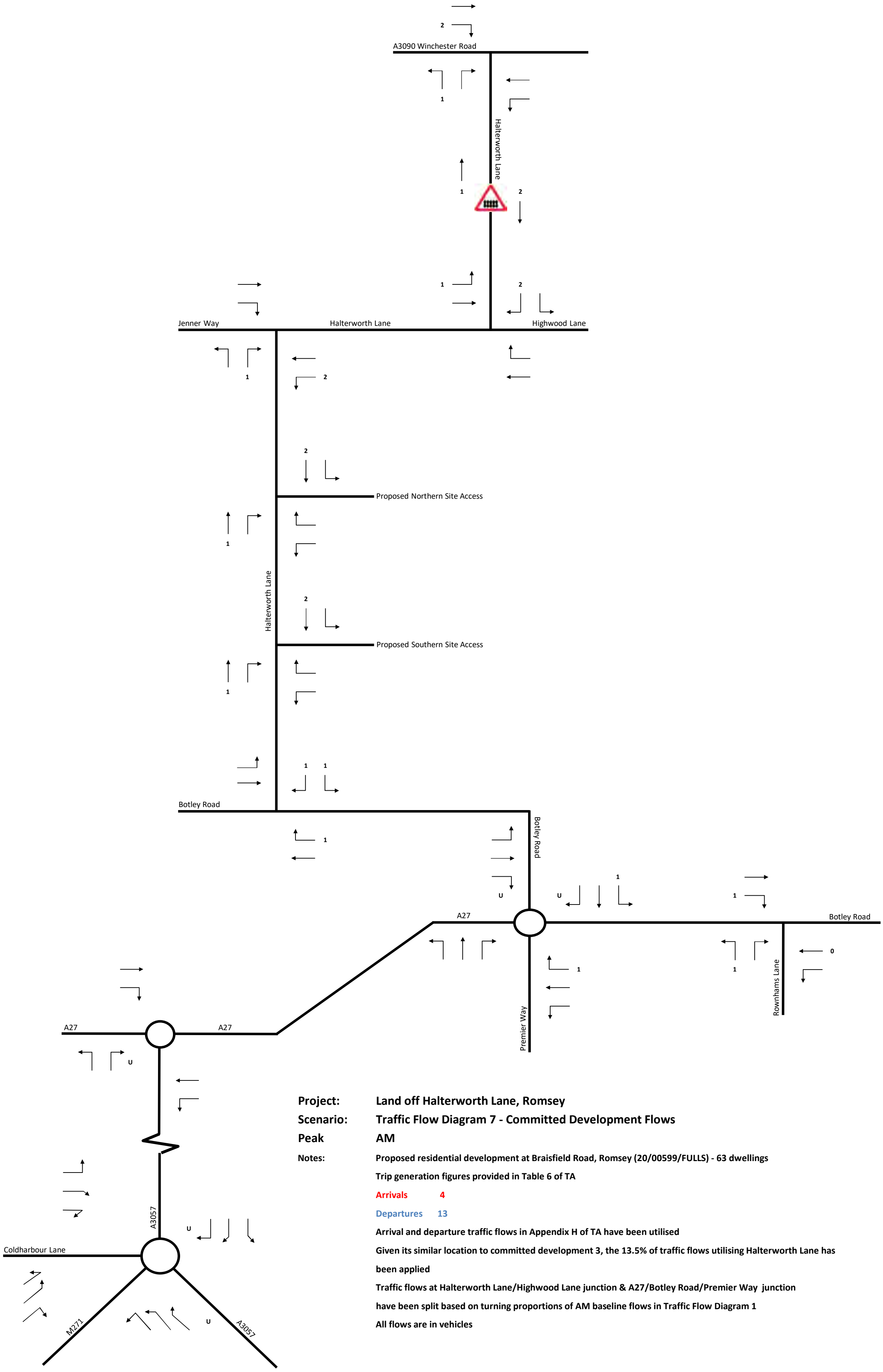
All traffic arriving/departing at/from A3057/Hoe Lane junction from/to Romsey roundabout has been assumed to utilise the M271

All traffic arriving/departing at/from A3057/Hoe Lane junction from/to Ashfield roundabout has been assumed to utilise the western A27 arm

Traffic flows at Botley Road/Halterworth Lane junction & A3090 Winchester Road/Halterworth Lane junction have been split based on turning proportions of PM baseline flows in Traffic Flow Diagram 2

Traffic assigned to Halterworth Lane rather than Highwood Lane

All flows are in vehicles



Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 7 - Committed Development Flows

Peak AM

Notes: Proposed residential development at Braisfield Road, Romsey (20/00599/FULLS) - 63 dwellings

Trip generation figures provided in Table 6 of TA

Arrivals 4

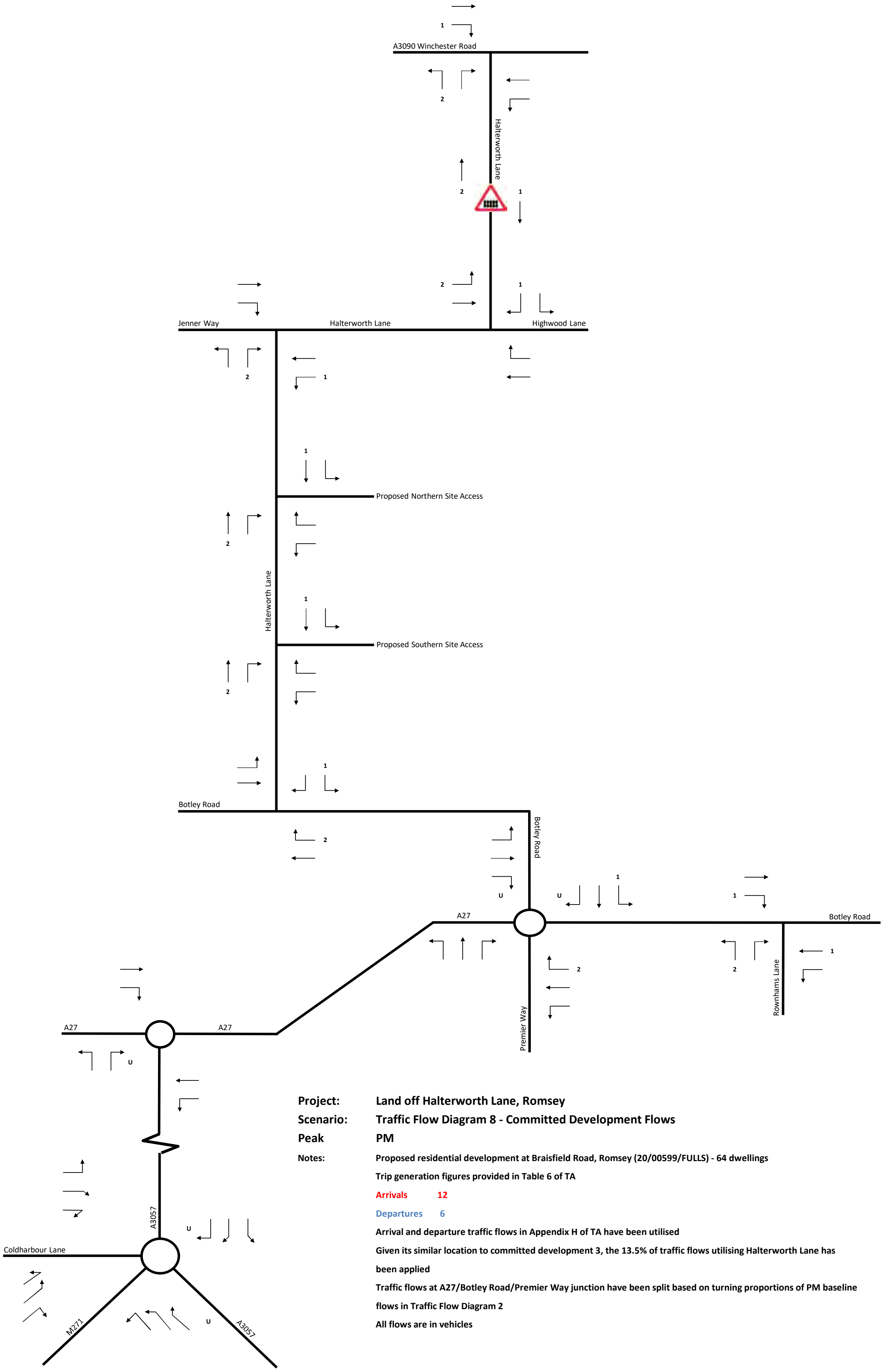
Departures 13

Arrival and departure traffic flows in Appendix H of TA have been utilised

Given its similar location to committed development 3, the 13.5% of traffic flows utilising Halterworth Lane has been applied

Traffic flows at Halterworth Lane/Highwood Lane junction & A27/Botley Road/Premier Way junction have been split based on turning proportions of AM baseline flows in Traffic Flow Diagram 1

All flows are in vehicles



Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 8 - Committed Development Flows

Peak PM

Notes:

Proposed residential development at Braisfield Road, Romsey (20/00599/FULLS) - 64 dwellings

Trip generation figures provided in Table 6 of TA

Arrivals 12

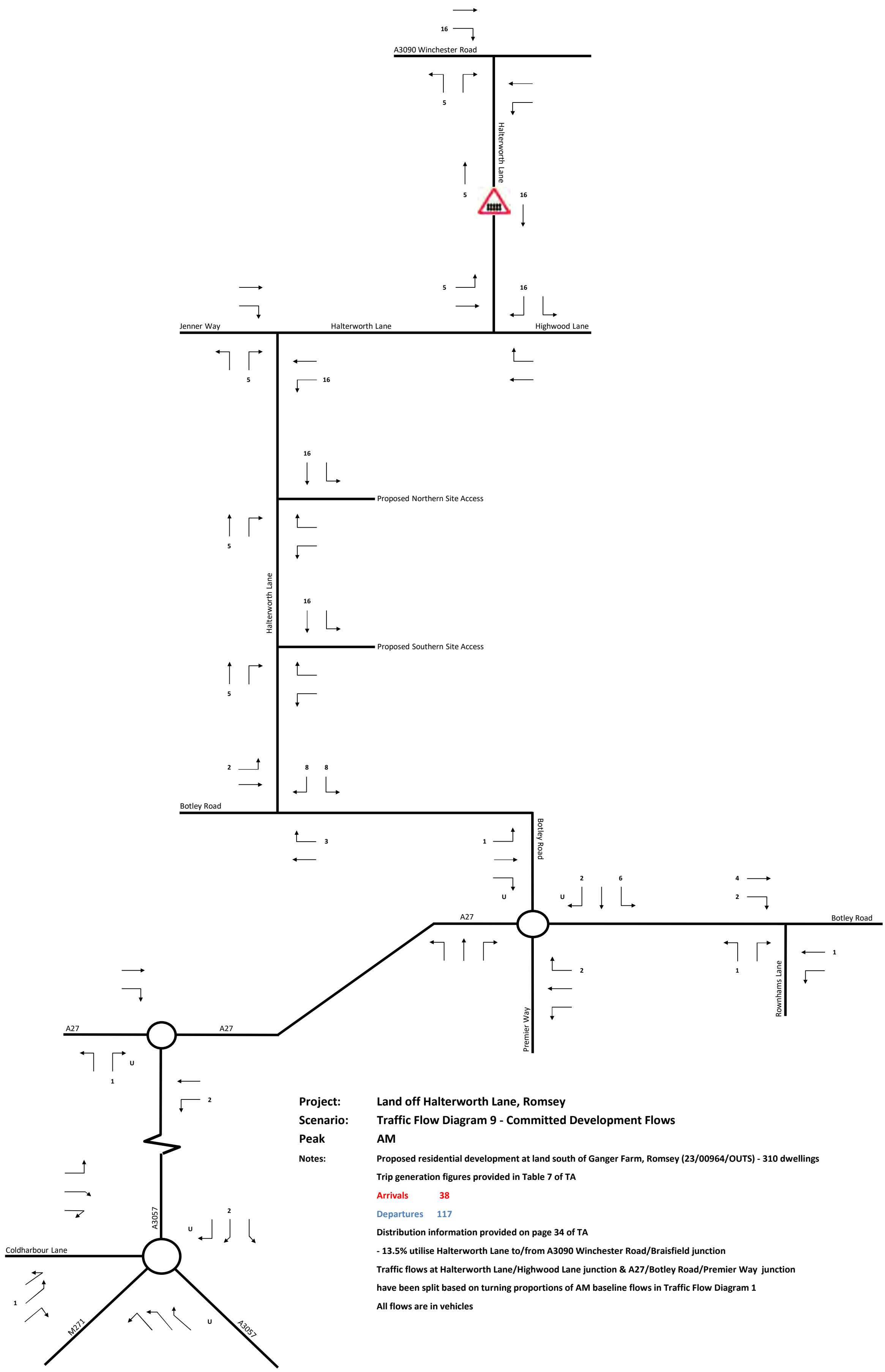
Departures 6

Arrival and departure traffic flows in Appendix H of TA have been utilised

Given its similar location to committed development 3, the 13.5% of traffic flows utilising Halterworth Lane has been applied

Traffic flows at A27/Botley Road/Premier Way junction have been split based on turning proportions of PM baseline flows in Traffic Flow Diagram 2

All flows are in vehicles



Project: **Land off Halterworth Lane, Romsey**

Scenario: **Traffic Flow Diagram 9 - Committed Development Flows**

Peak **AM**

Notes: Proposed residential development at land south of Ganger Farm, Romsey (23/00964/OUTS) - 310 dwellings

Trip generation figures provided in Table 7 of TA

Arrivals 38

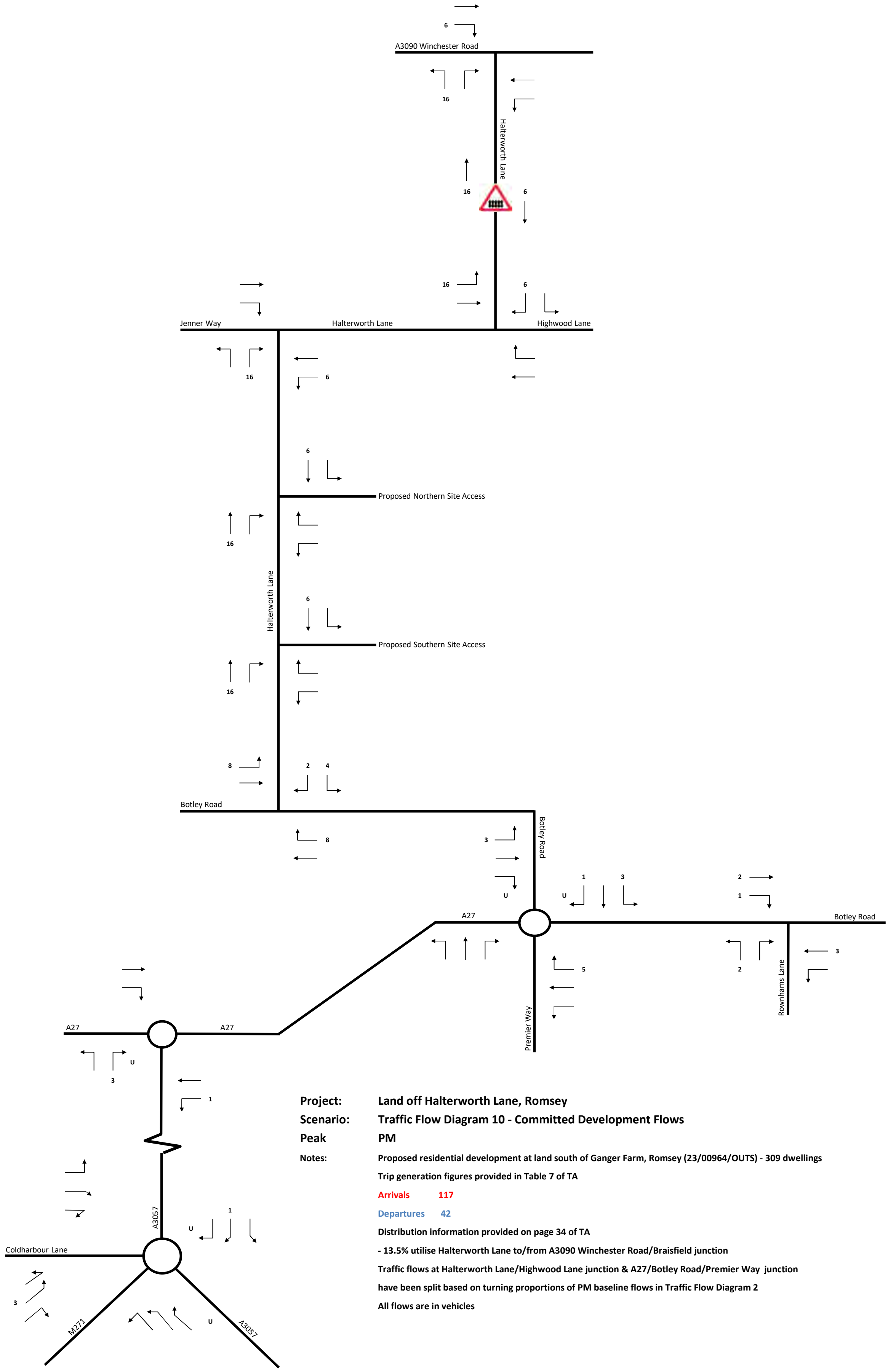
Departures 117

Distribution information provided on page 34 of TA

- 13.5% utilise Halterworth Lane to/from A3090 Winchester Road/Braisfield junction

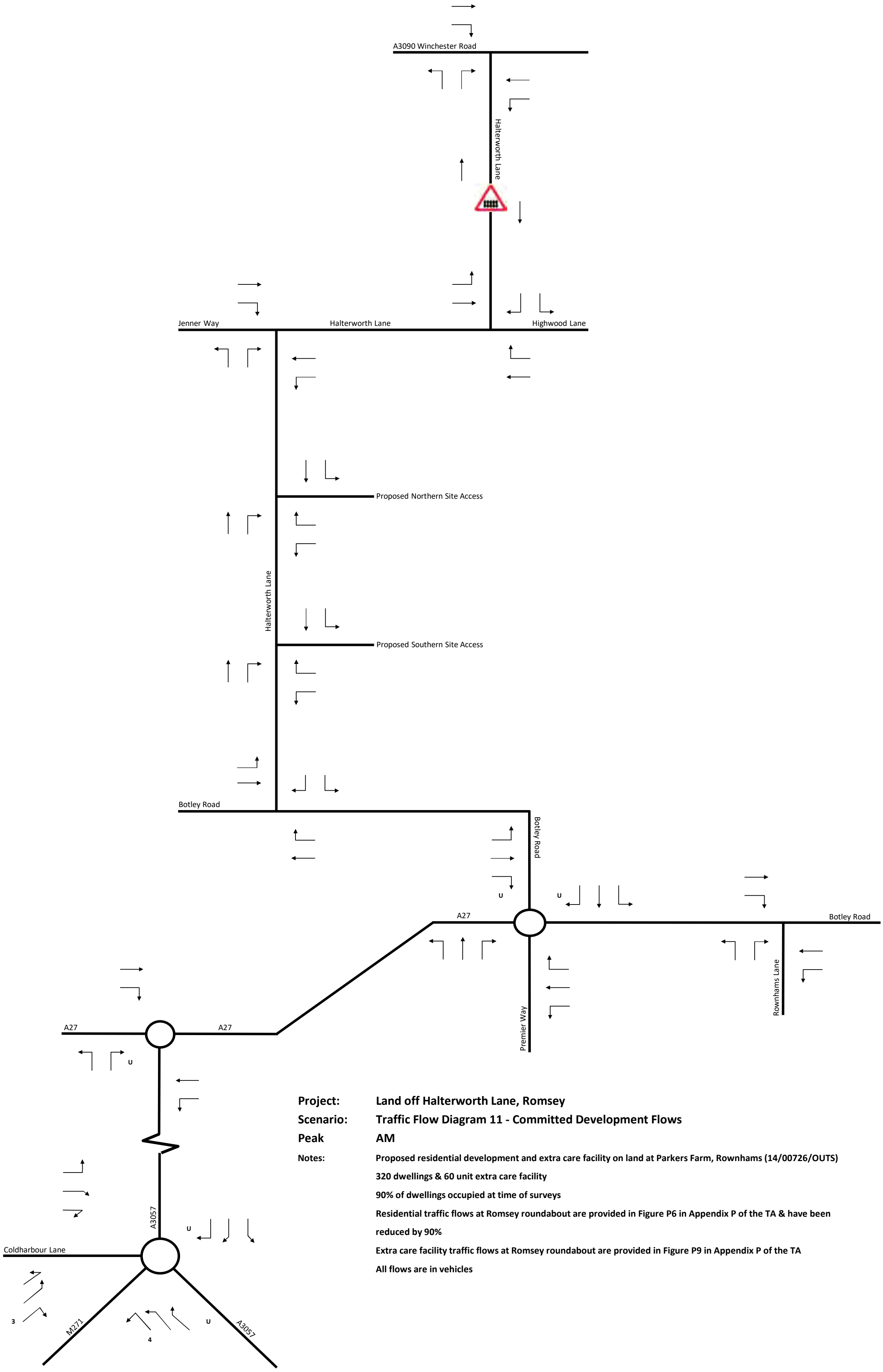
Traffic flows at Halterworth Lane/Highwood Lane junction & A27/Botley Road/Premier Way junction have been split based on turning proportions of AM baseline flows in Traffic Flow Diagram 1

All flows are in vehicles



Project:	**Land off Halterworth Lane, Romsey**
Scenario:	**Traffic Flow Diagram 10 - Committed Development Flows**
Peak	**PM**
Notes:	**Proposed residential development at land south of Ganger Farm, Romsey (23/00964/OUTS) - 309 dwellings**
	Trip generation figures provided in Table 7 of TA
	Arrivals 117
	Departures 42
	Distribution information provided on page 34 of TA
	- 13.5% utilise Halterworth Lane to/from A3090 Winchester Road/Braisfield junction
	Traffic flows at Halterworth Lane/Highwood Lane junction & A27/Botley Road/Premier Way junction
	have been split based on turning proportions of PM baseline flows in Traffic Flow Diagram 2
	All flows are in vehicles

Prime
Transport Planning



Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 11 - Committed Development Flows

Peak AM

Notes: Proposed residential development and extra care facility on land at Parkers Farm, Rownhams (14/00726/OUTS)

320 dwellings & 60 unit extra care facility

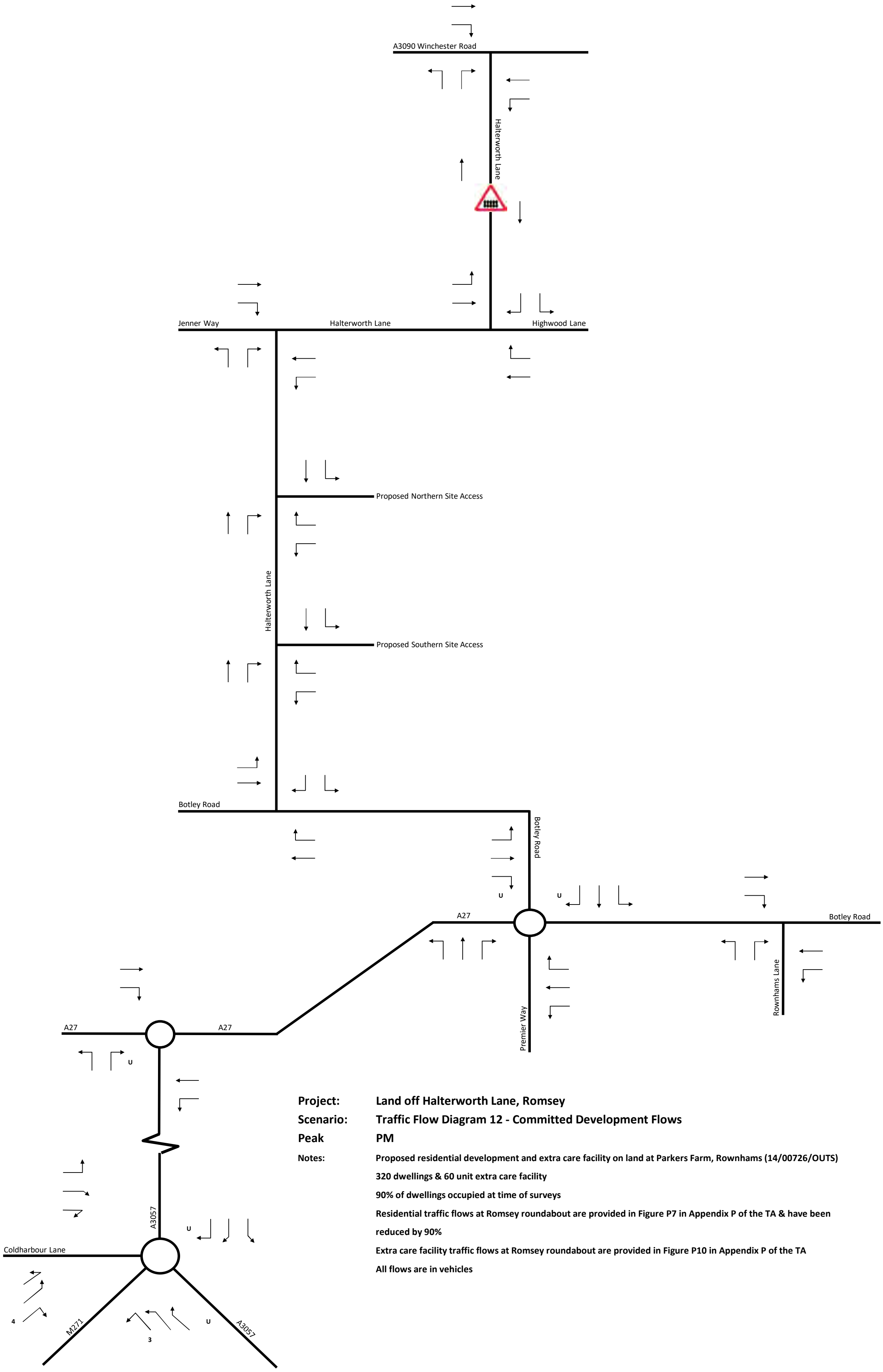
90% of dwellings occupied at time of surveys

Residential traffic flows at Romsey roundabout are provided in Figure P6 in Appendix P of the TA & have been reduced by 90%

Extra care facility traffic flows at Romsey roundabout are provided in Figure P9 in Appendix P of the TA

All flows are in vehicles

Prime
Transport Planning



Project: **Land off Halterworth Lane, Romsey**

Scenario: **Traffic Flow Diagram 12 - Committed Development Flows**

Peak **PM**

Notes:

Proposed residential development and extra care facility on land at Parkers Farm, Rownhams (14/00726/OUTS)

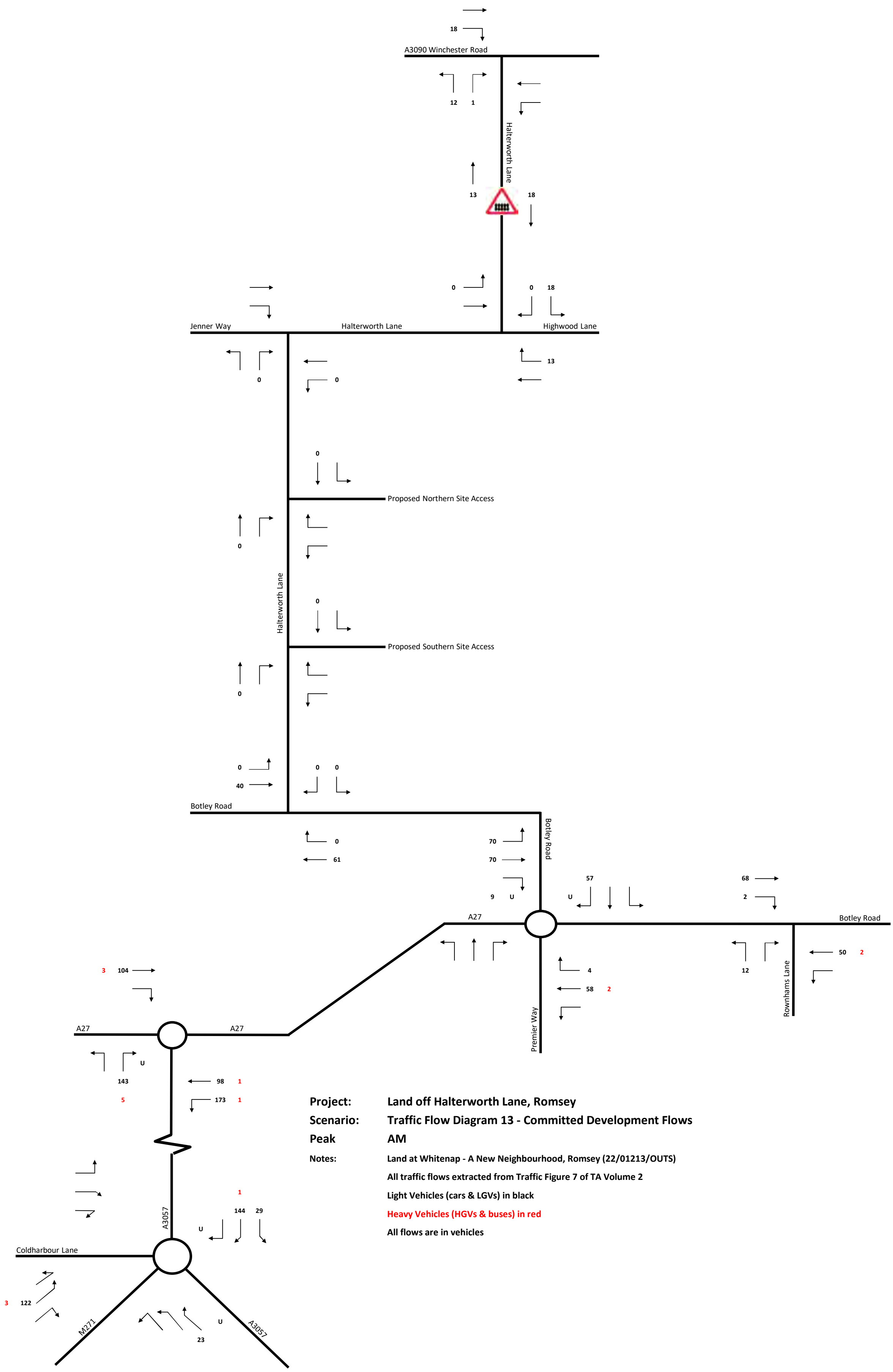
320 dwellings & 60 unit extra care facility

90% of dwellings occupied at time of surveys

Residential traffic flows at Romsey roundabout are provided in Figure P7 in Appendix P of the TA & have been reduced by 90%

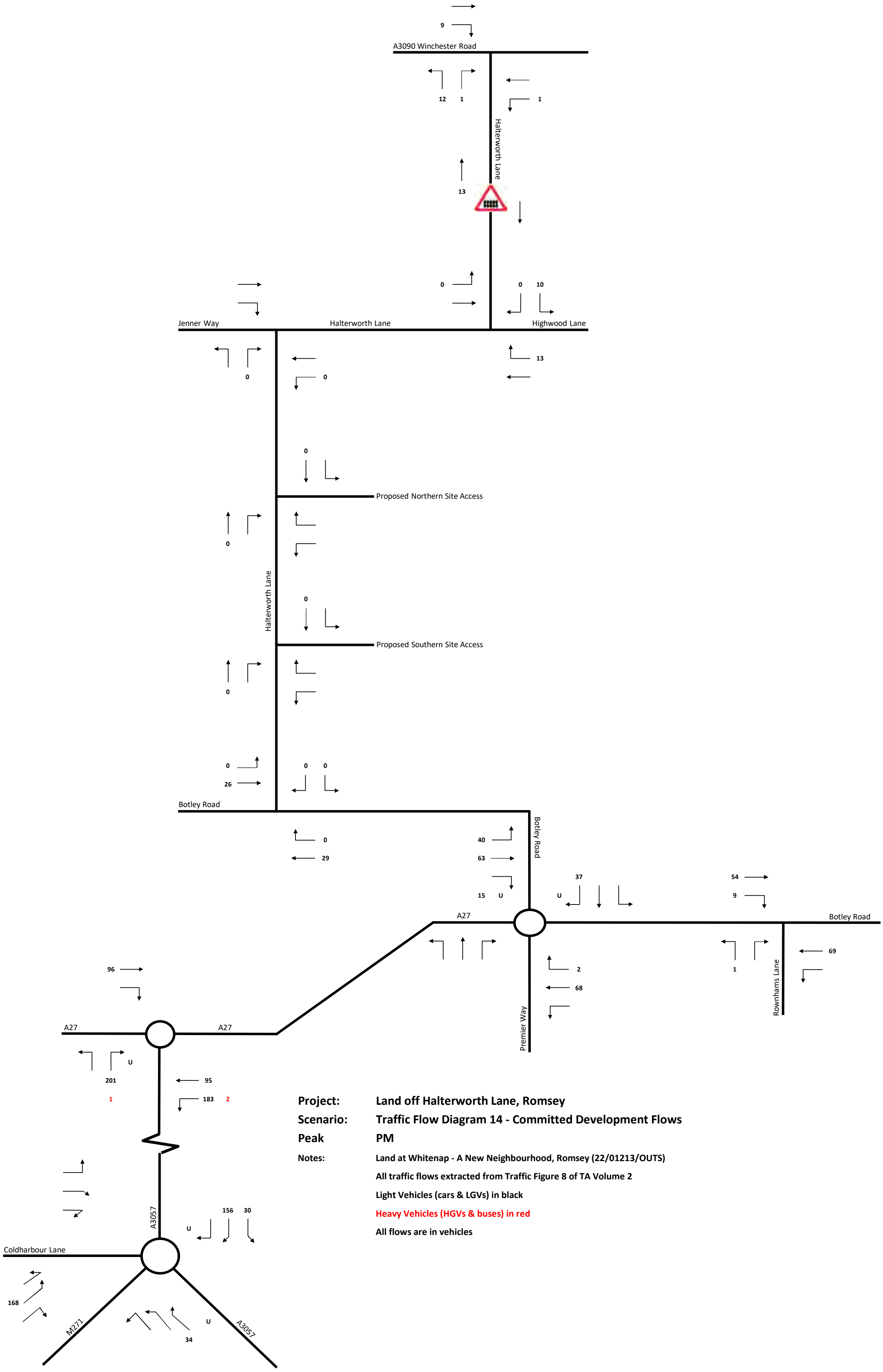
Extra care facility traffic flows at Romsey roundabout are provided in Figure P10 in Appendix P of the TA

All flows are in vehicles



Project:	**Land off Halterworth Lane, Romsey**
Scenario:	**Traffic Flow Diagram 13 - Committed Development Flows**
Peak	**AM**
Notes:	**Land at Whitenap - A New Neighbourhood, Romsey (22/01213/OUTS)**
	All traffic flows extracted from Traffic Figure 7 of TA Volume 2
	Light Vehicles (cars & LGVs) in black
	Heavy Vehicles (HGVs & buses) in red
	All flows are in vehicles

Prime
Transport Planning



Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 14 - Committed Development Flows

Peak PM

Notes: Land at Whitenap - A New Neighbourhood, Romsey (22/01213/OUTS)

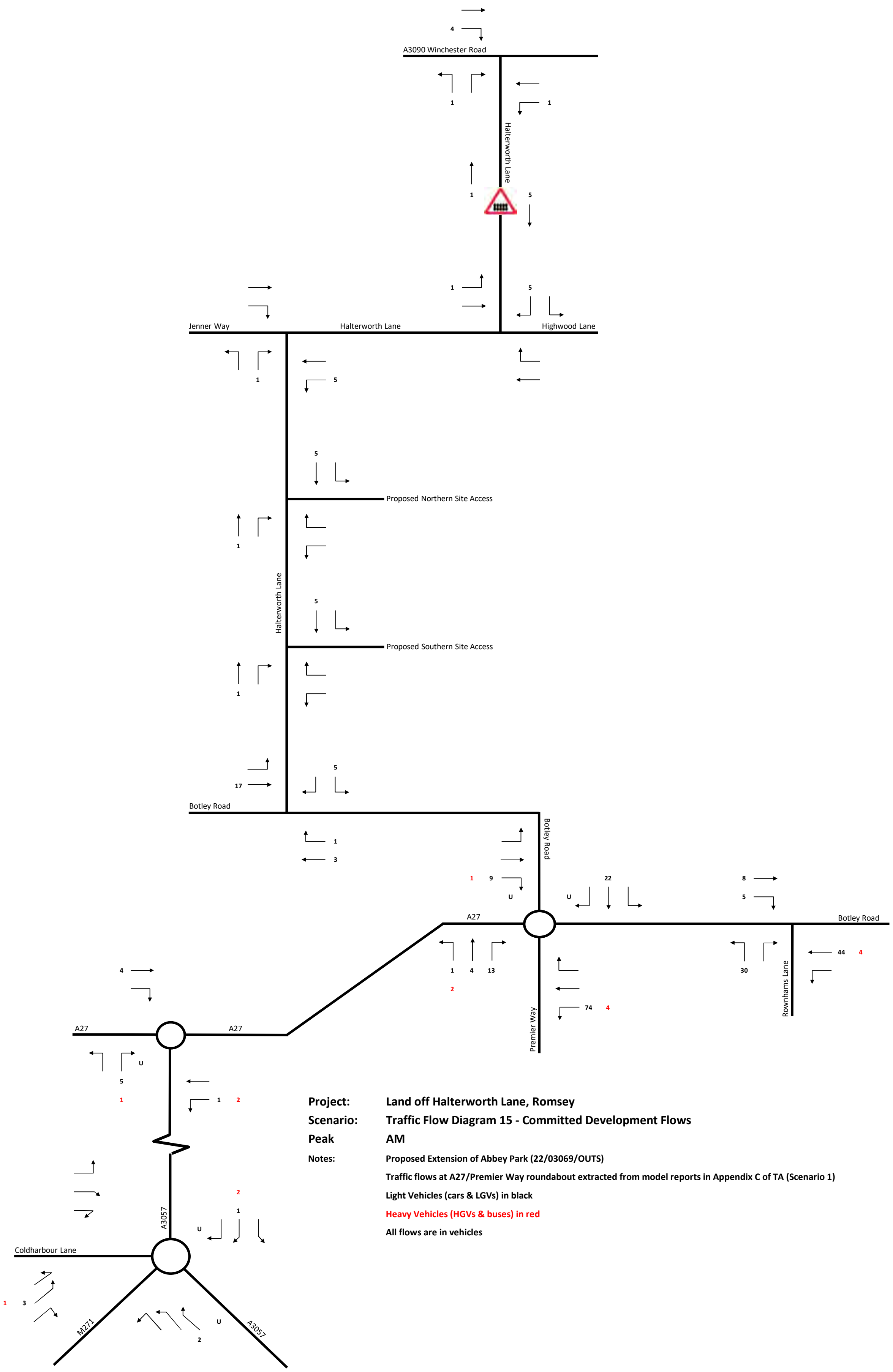
All traffic flows extracted from Traffic Figure 8 of TA Volume 2

Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red

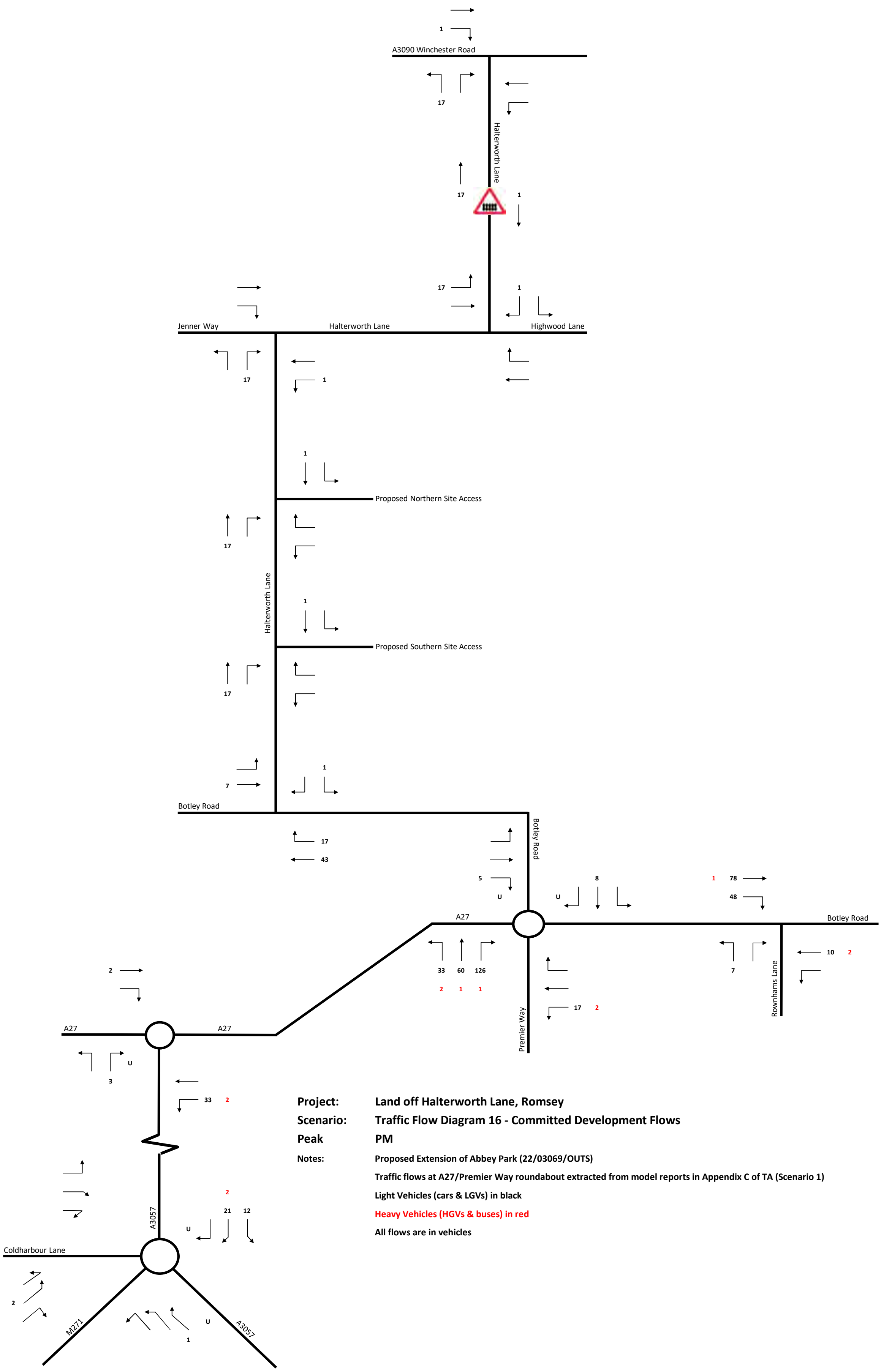
All flows are in vehicles

Prime Transport Planning



Project:	**Land off Halterworth Lane, Romsey**
Scenario:	**Traffic Flow Diagram 15 - Committed Development Flows**
Peak	**AM**
Notes:	**Proposed Extension of Abbey Park (22/03069/OUTS)**
	Traffic flows at A27/Premier Way roundabout extracted from model reports in Appendix C of TA (Scenario 1)
	Light Vehicles (cars & LGVs) in black
	Heavy Vehicles (HGVs & buses) in red
	All flows are in vehicles

Prime
Transport Planning



Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 16 - Committed Development Flows

Peak PM

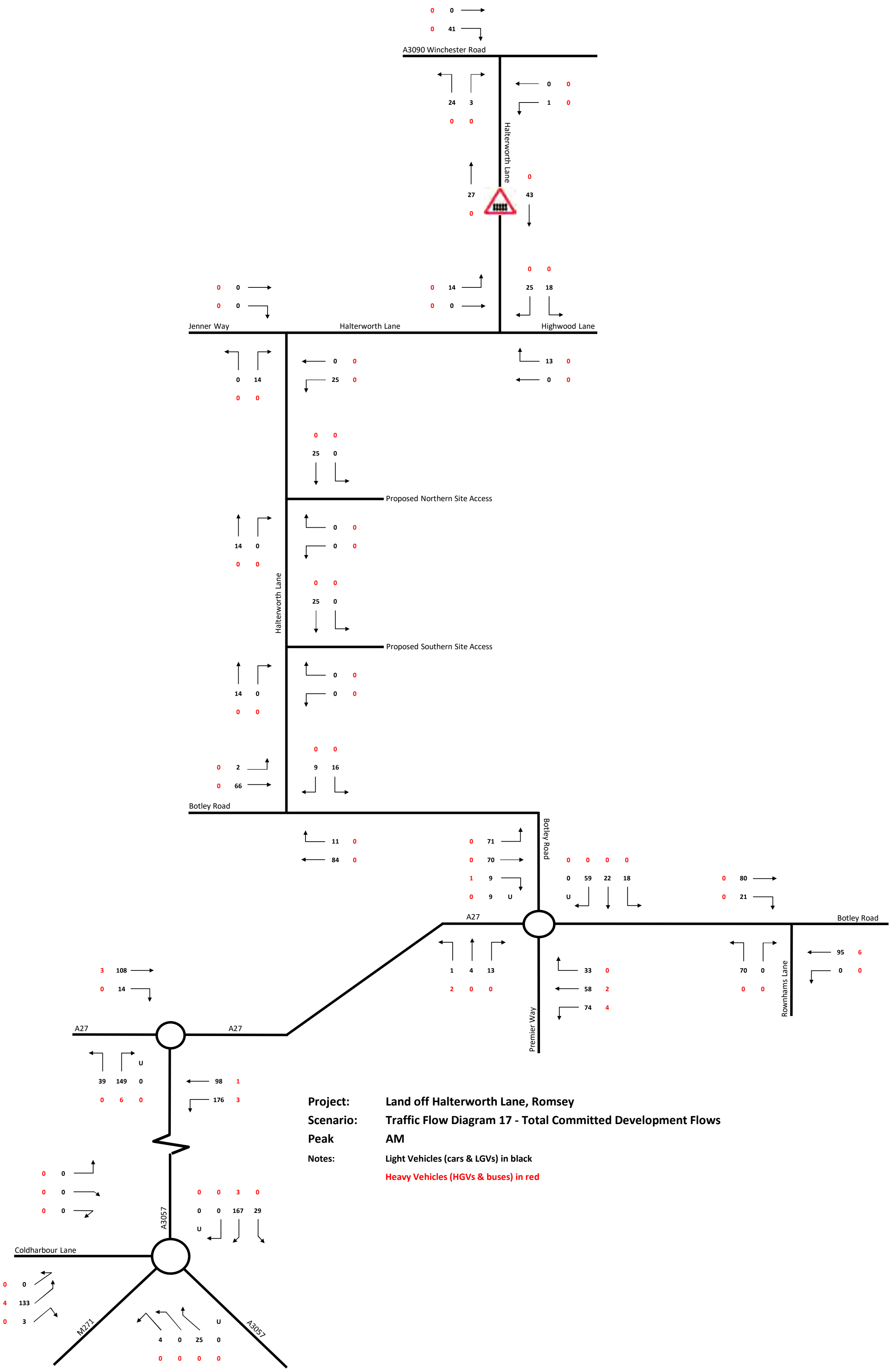
Notes: Proposed Extension of Abbey Park (22/03069/OUTS)

Traffic flows at A27/Premier Way roundabout extracted from model reports in Appendix C of TA (Scenario 1)

Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red

All flows are in vehicles



Project: Land off Halterworth Lane, Romsey

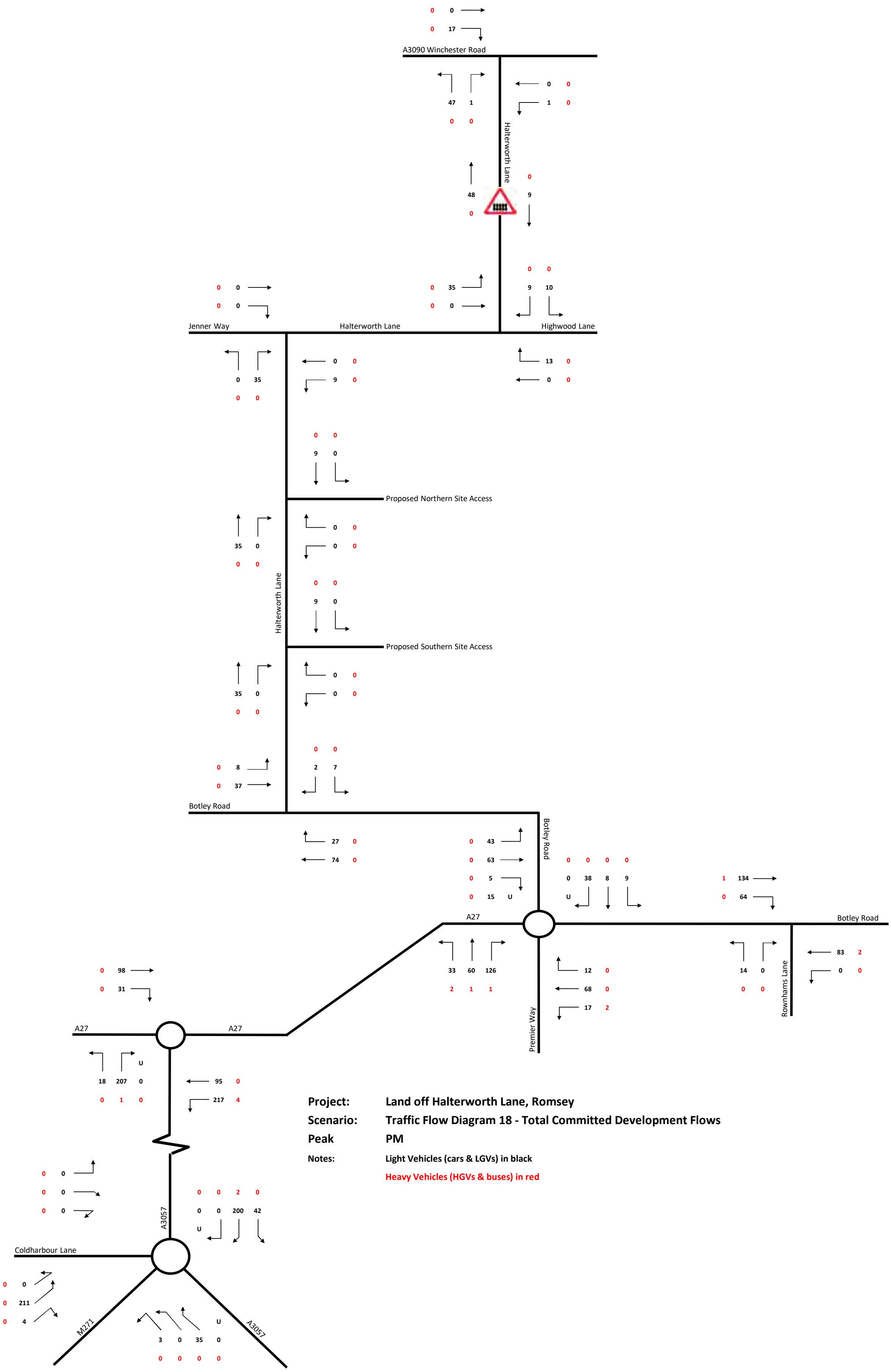
Scenario: Traffic Flow Diagram 17 - Total Committed Development Flows

Peak AM

Notes: Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red

Prime
Transport Planning



Project: Land off Halterworth Lane, Romsey

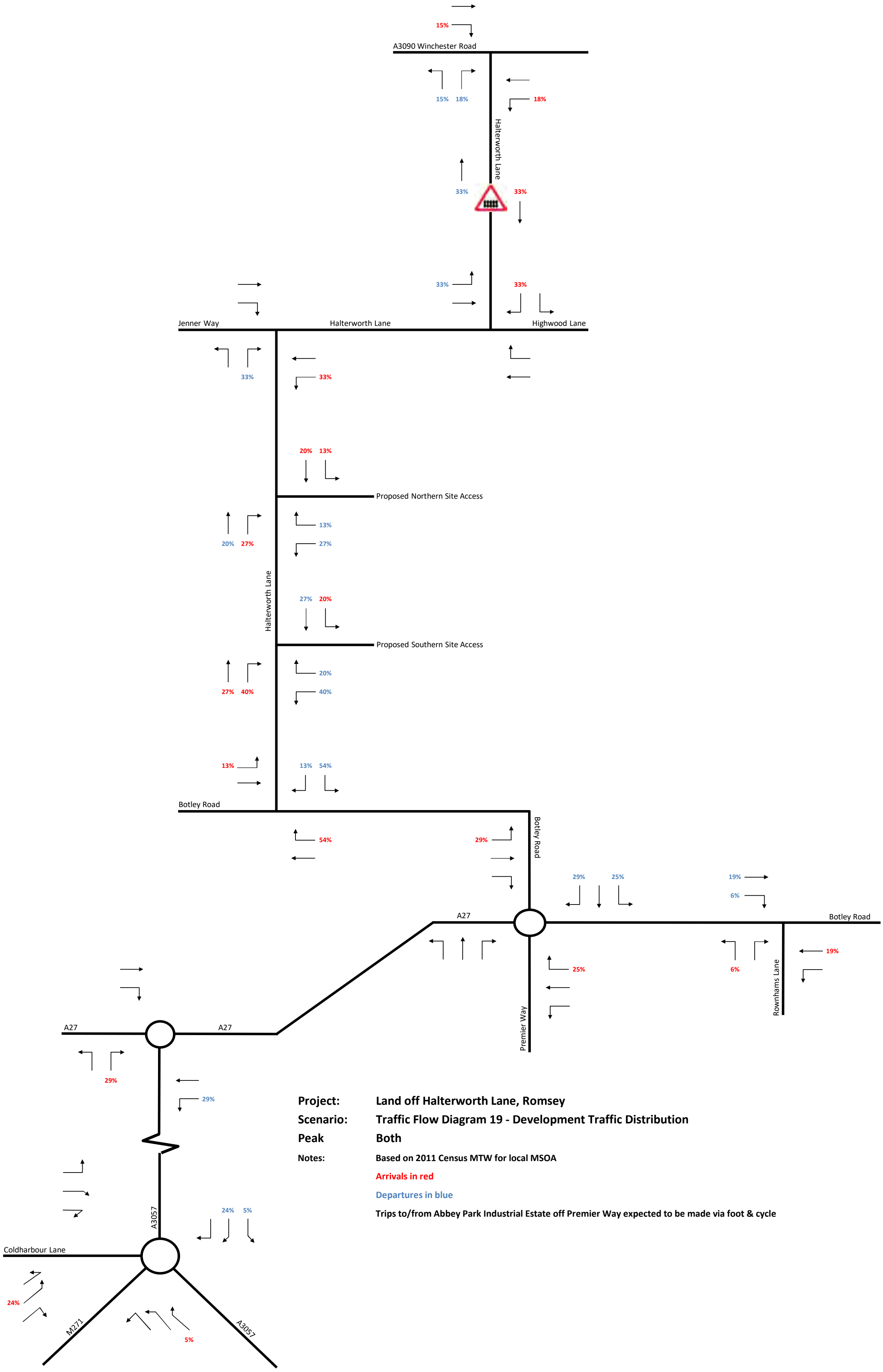
Scenario: Traffic Flow Diagram 18 - Total Committed Development Flows

Peak PM

Notes: Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red

Prime Transport Planning



Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 19 - Development Traffic Distribution

Peak Both

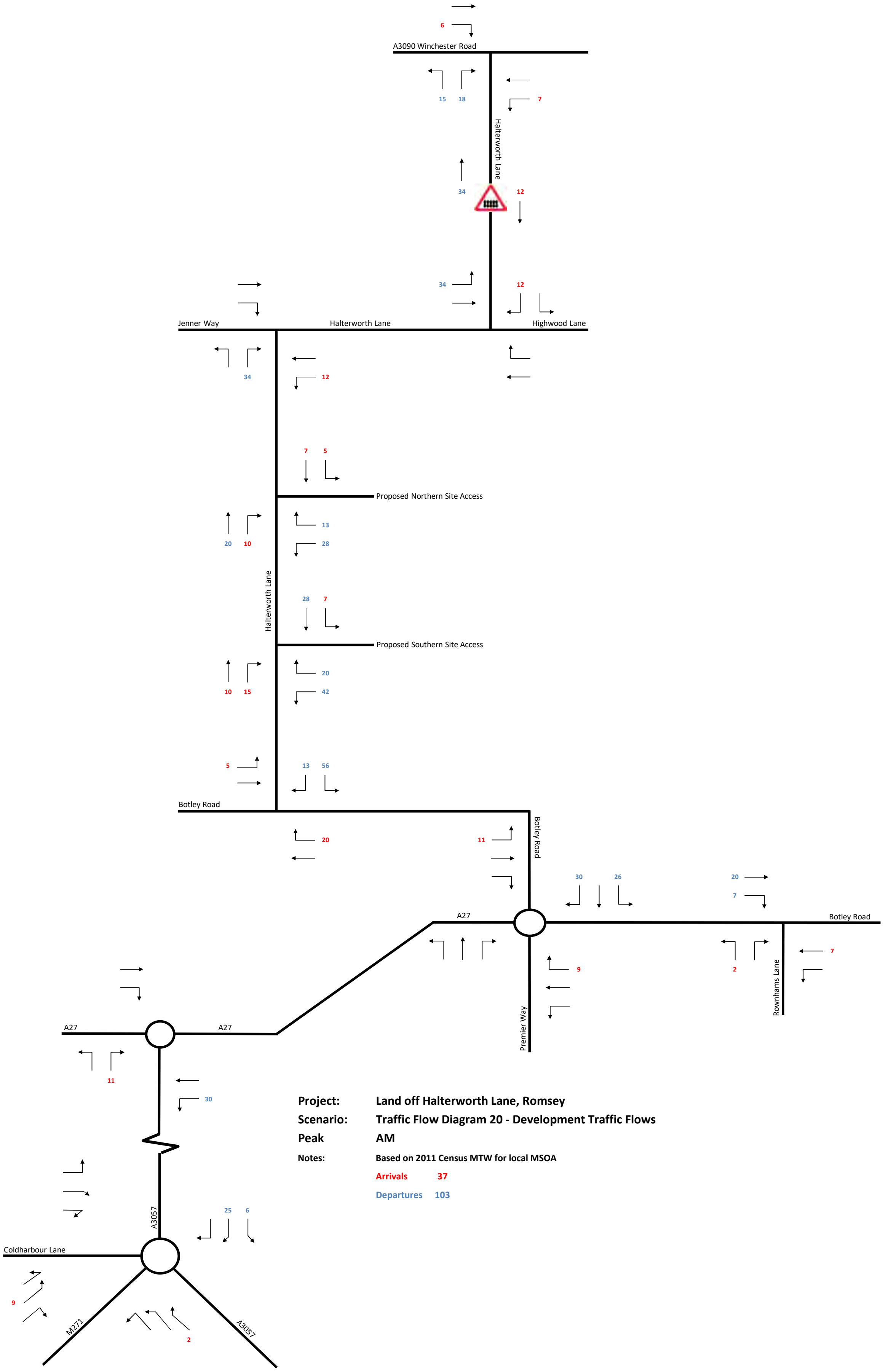
Notes: Based on 2011 Census MTW for local MSOA

Arrivals in red

Departures in blue

Trips to/from Abbey Park Industrial Estate off Premier Way expected to be made via foot & cycle

Prime Transport Planning



Project: **Land off Halterworth Lane, Romsey**

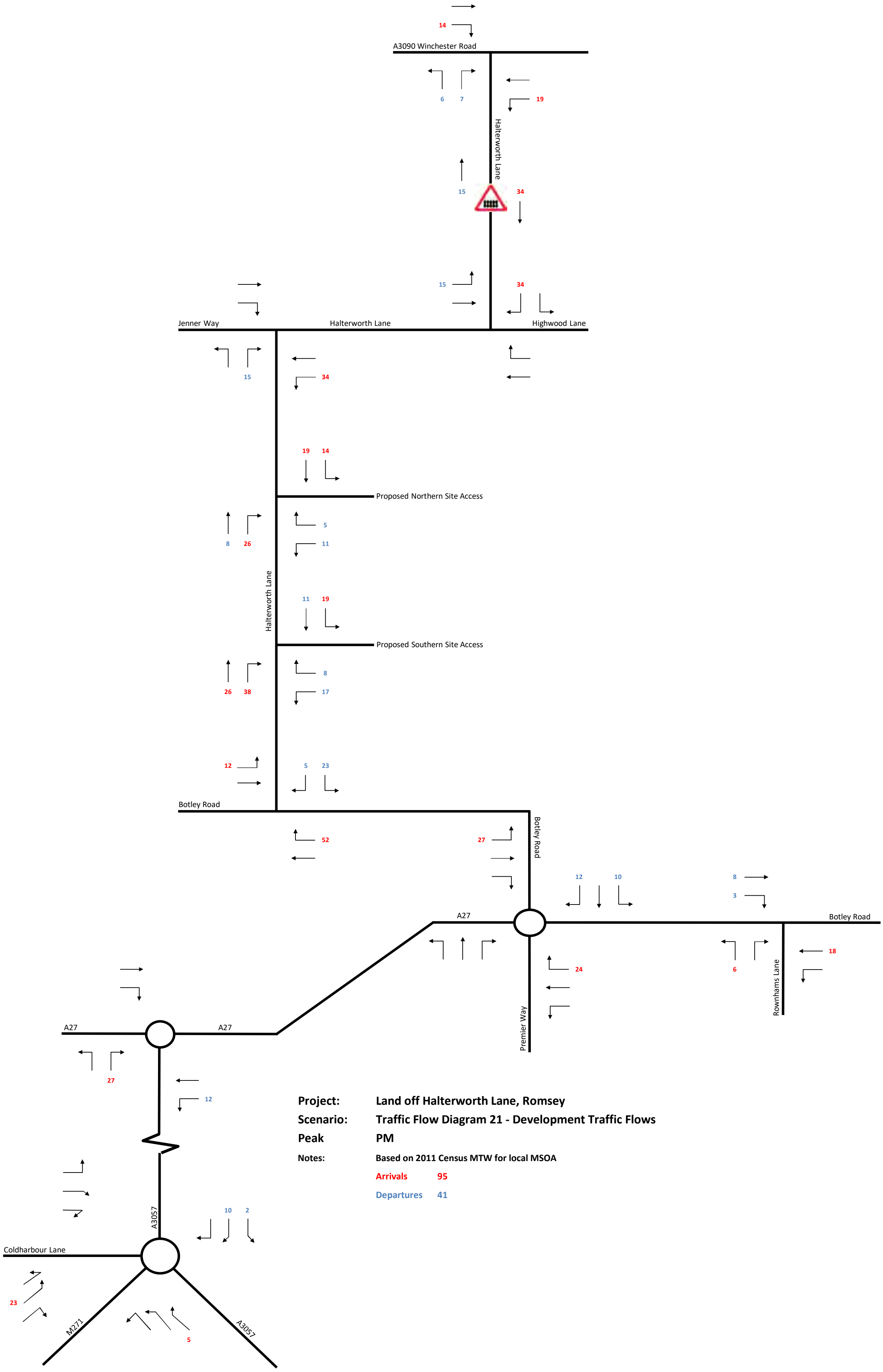
Scenario: **Traffic Flow Diagram 20 - Development Traffic Flows**

Peak **AM**

Notes: **Based on 2011 Census MTW for local MSOA**

Arrivals **37**

Departures **103**



Project: Land off Halterworth Lane, Romsey

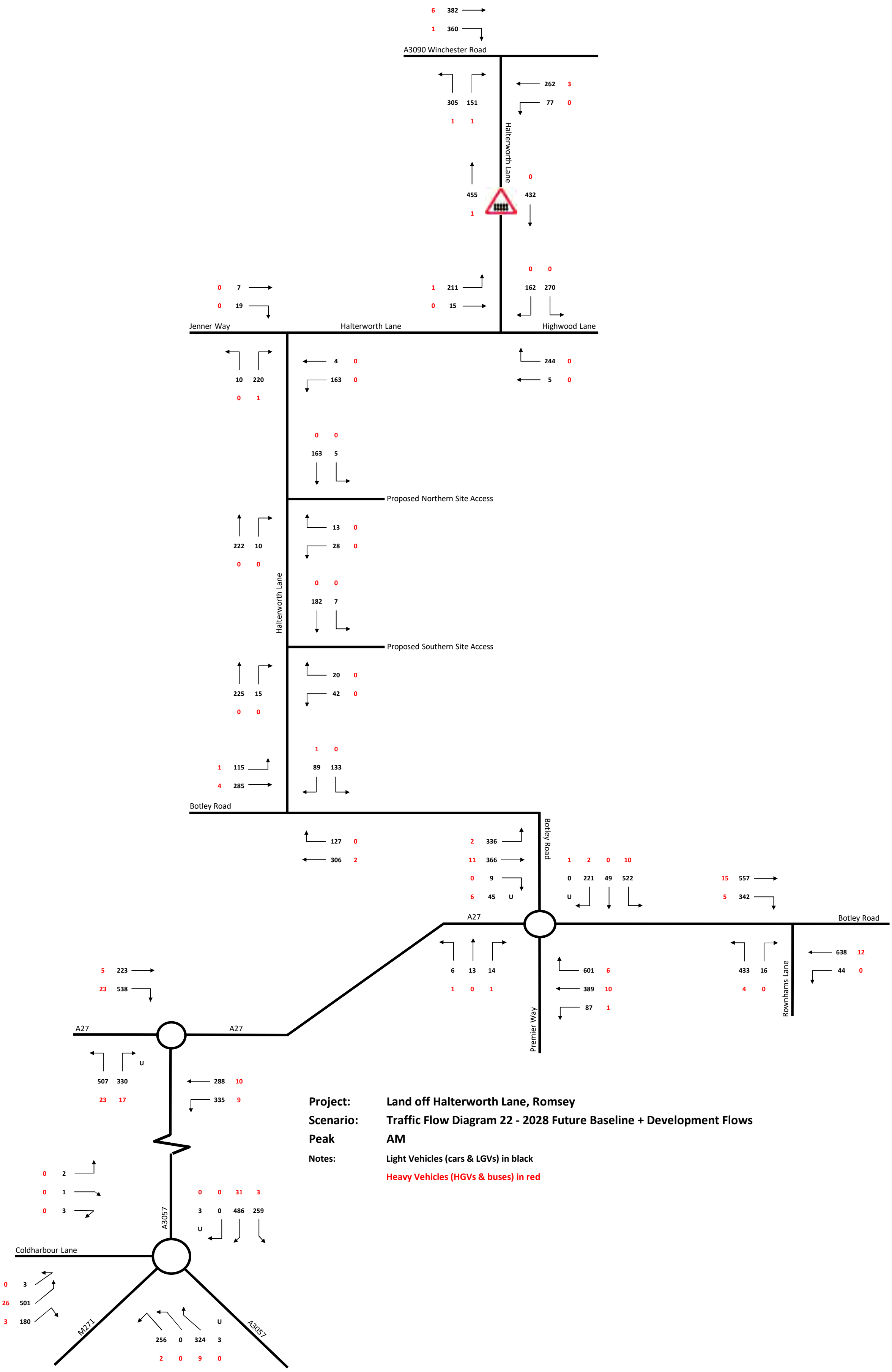
Scenario: Traffic Flow Diagram 21 - Development Traffic Flows

Peak PM

Notes: Based on 2011 Census MTW for local MSOA

Arrivals	95
Departures	41

Prime Transport Planning



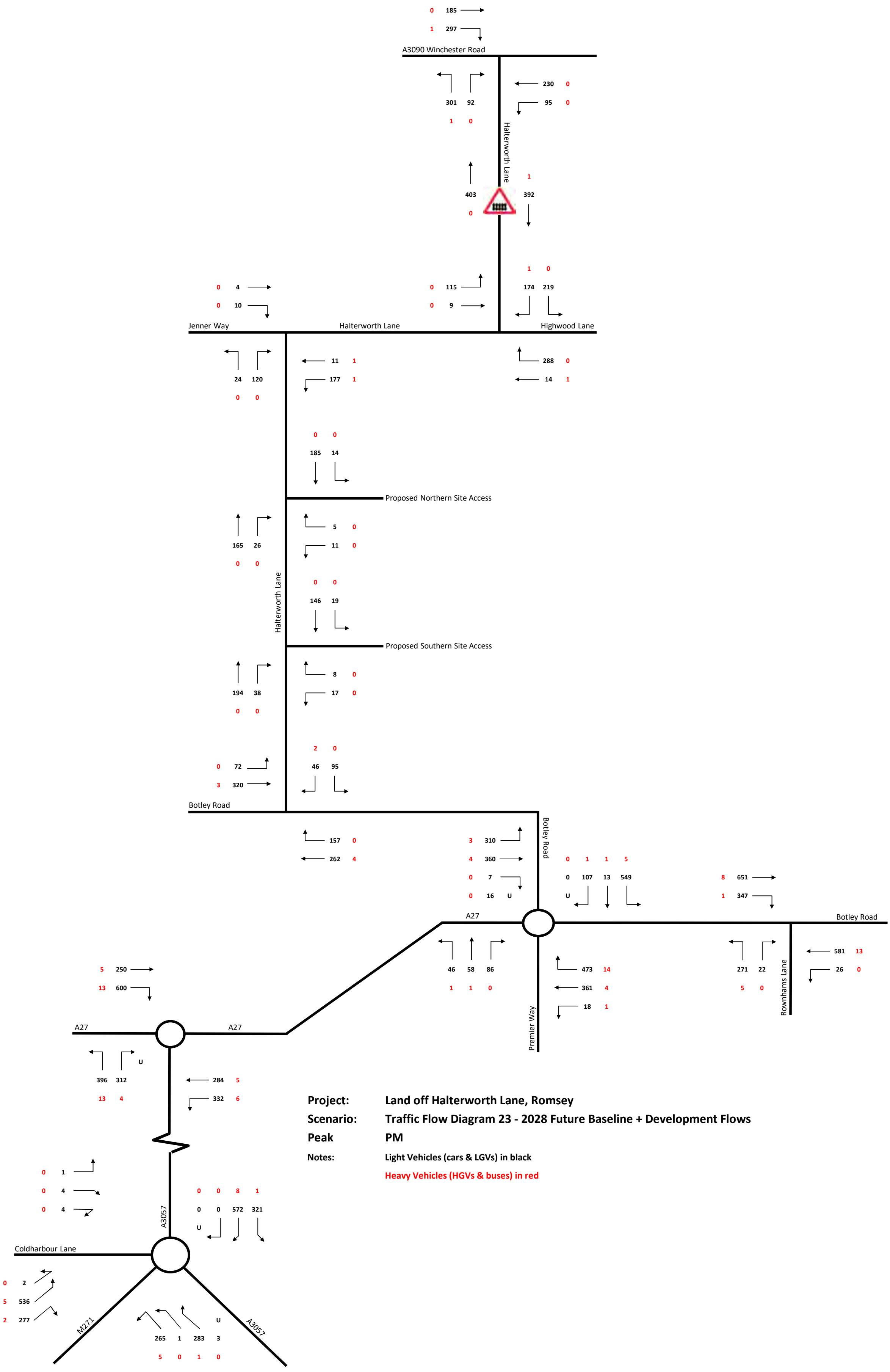
Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 22 - 2028 Future Baseline + Development Flows

Peak AM

Notes: Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red



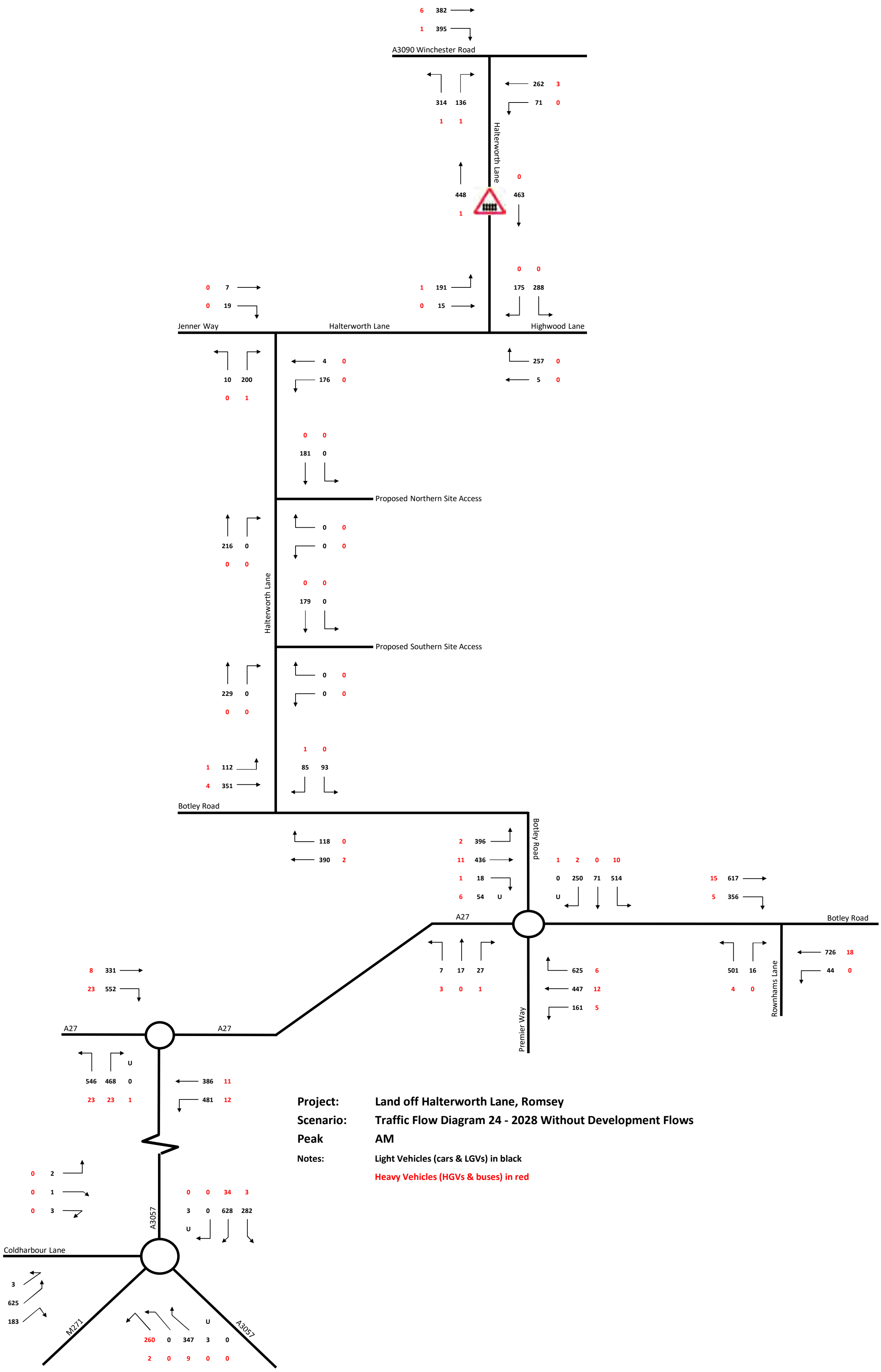
Project: **Land off Halterworth Lane, Romsey**

Scenario: **Traffic Flow Diagram 23 - 2028 Future Baseline + Development Flows**

Peak **PM**

Notes: **Light Vehicles (cars & LGVs) in black**

Heavy Vehicles (HGVs & buses) in red



Project: Land off Halterworth Lane, Romsey

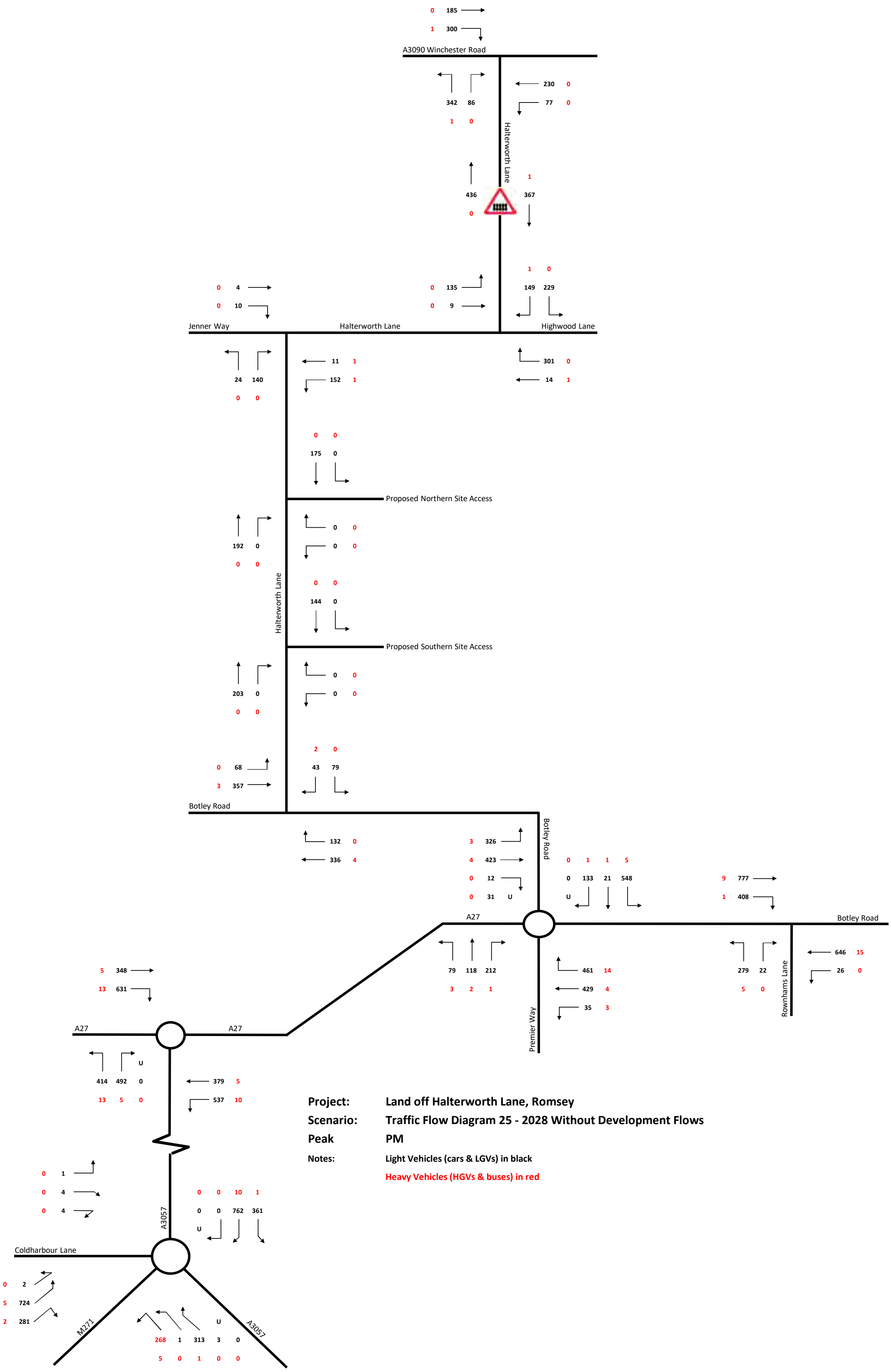
Scenario: Traffic Flow Diagram 24 - 2028 Without Development Flows

Peak AM

Notes: Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red

Prime
Transport Planning



Project: Land off Halterworth Lane, Romsey

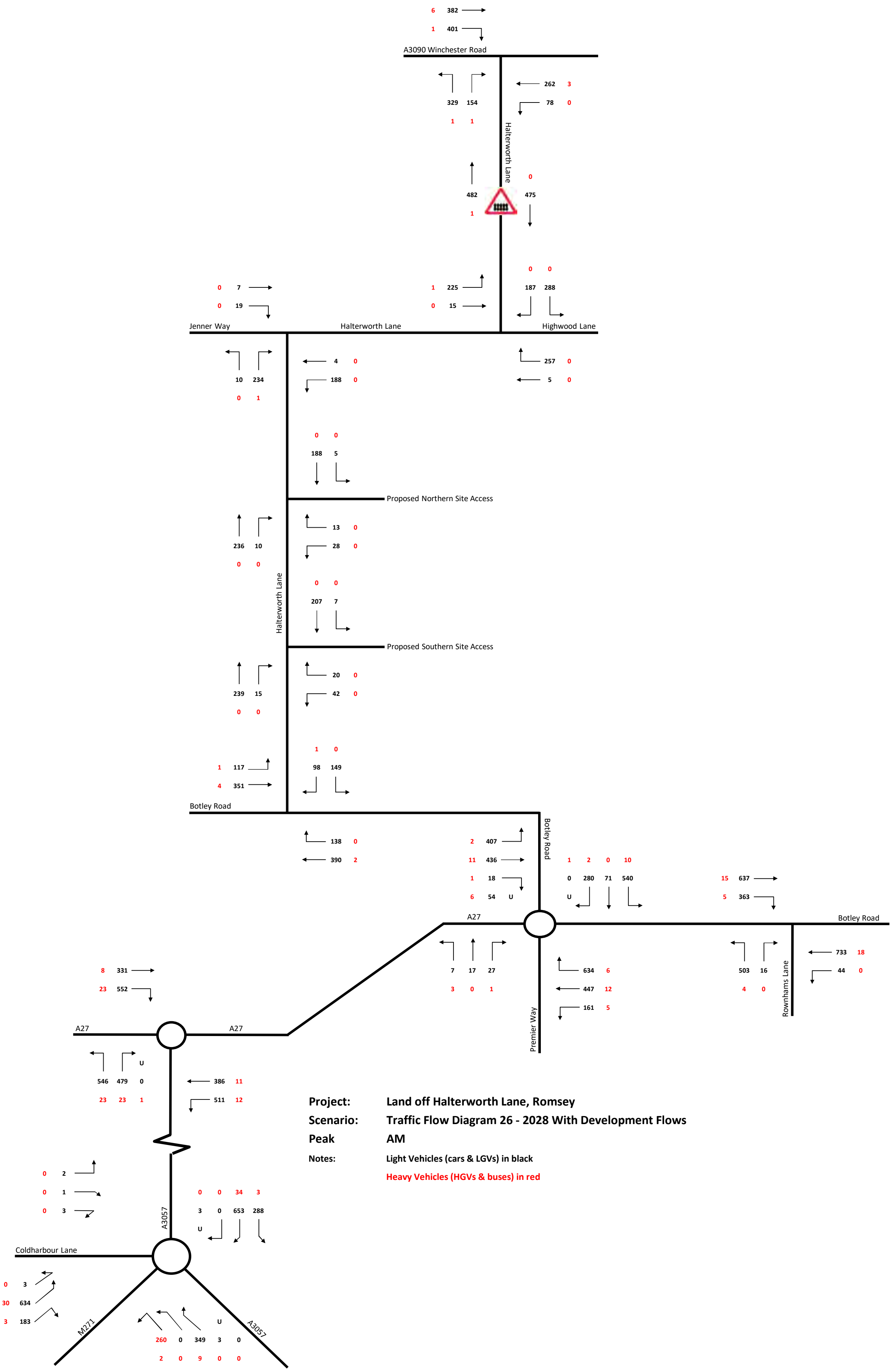
Scenario: Traffic Flow Diagram 25 - 2028 Without Development Flows

Peak PM

Notes: Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red

Prime Transport Planning



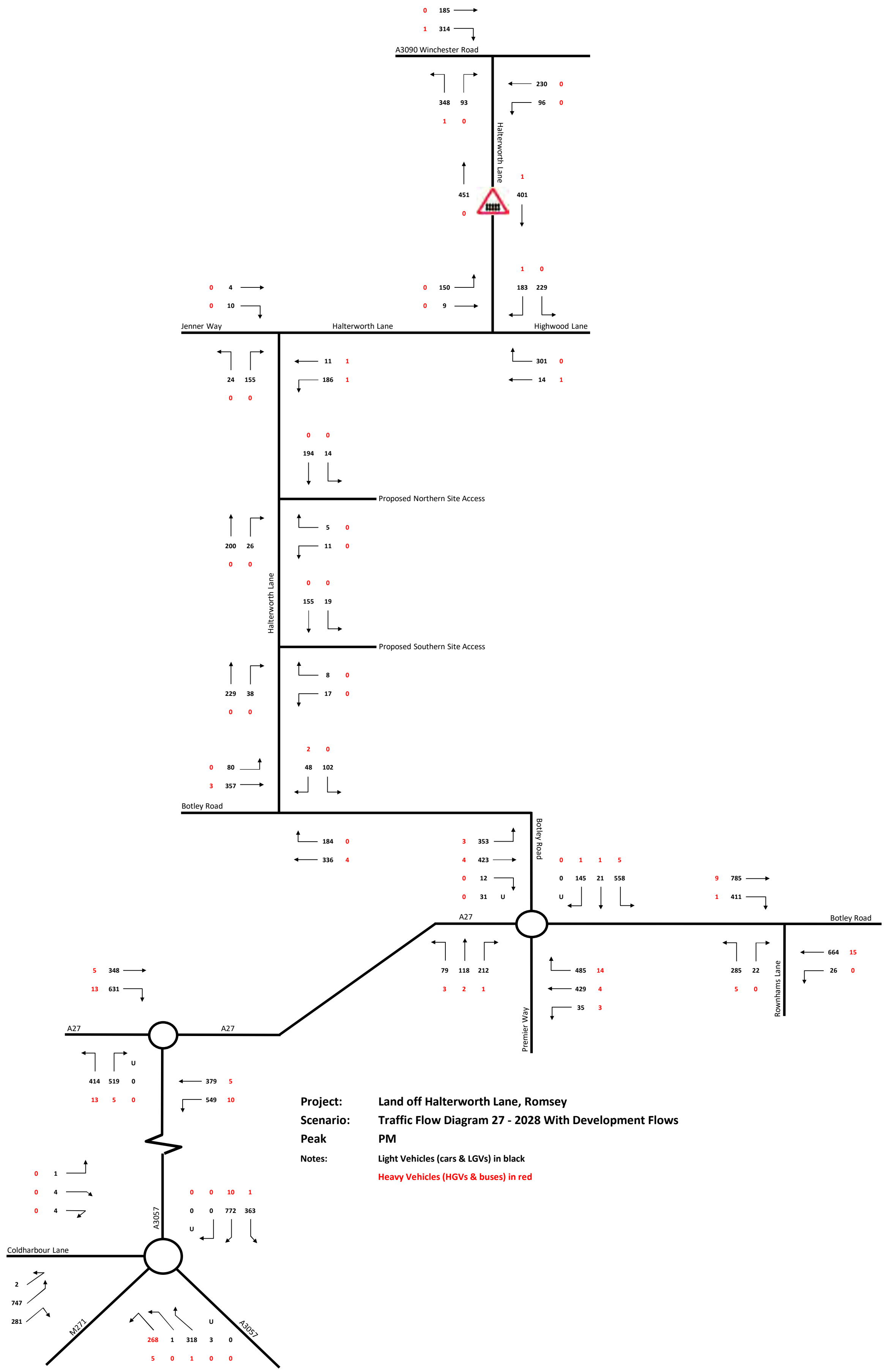
Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 26 - 2028 With Development Flows

Peak AM

Notes: Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red



Project: Land off Halterworth Lane, Romsey

Scenario: Traffic Flow Diagram 27 - 2028 With Development Flows

Peak PM

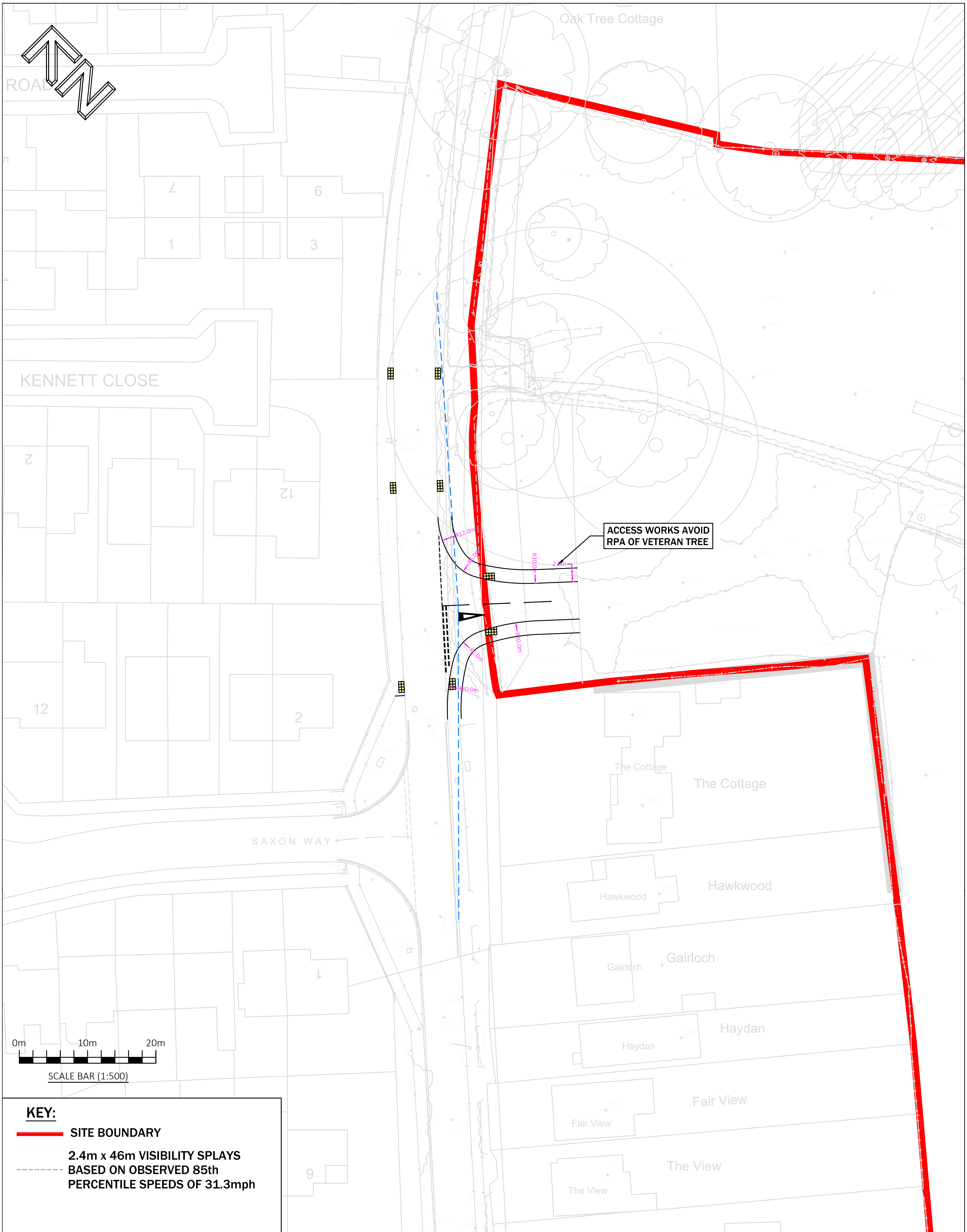
Notes: Light Vehicles (cars & LGVs) in black

Heavy Vehicles (HGVs & buses) in red

APPENDIX E

TECHNICAL DRAWINGS

This page has been left intentionally blank



Rev	Date	By	Revision notes
C	02/01/24	RO	AMENDED TO STAGE 1 RSA
B	06/12/23	RO	AMENDED TO LHA COMMENT
A	19/09/23	RO	TREE SURVEY ADDED

Prime Transport Planning
9 Hurricane Court
Liverpool International Business Park | Estuary Boulevard | Liverpool | L24 8RL
www.primetp.co.uk | 0151 728 1860

Project
HALTERWORTH LANE, ROMSEY, HAMPSHIRE

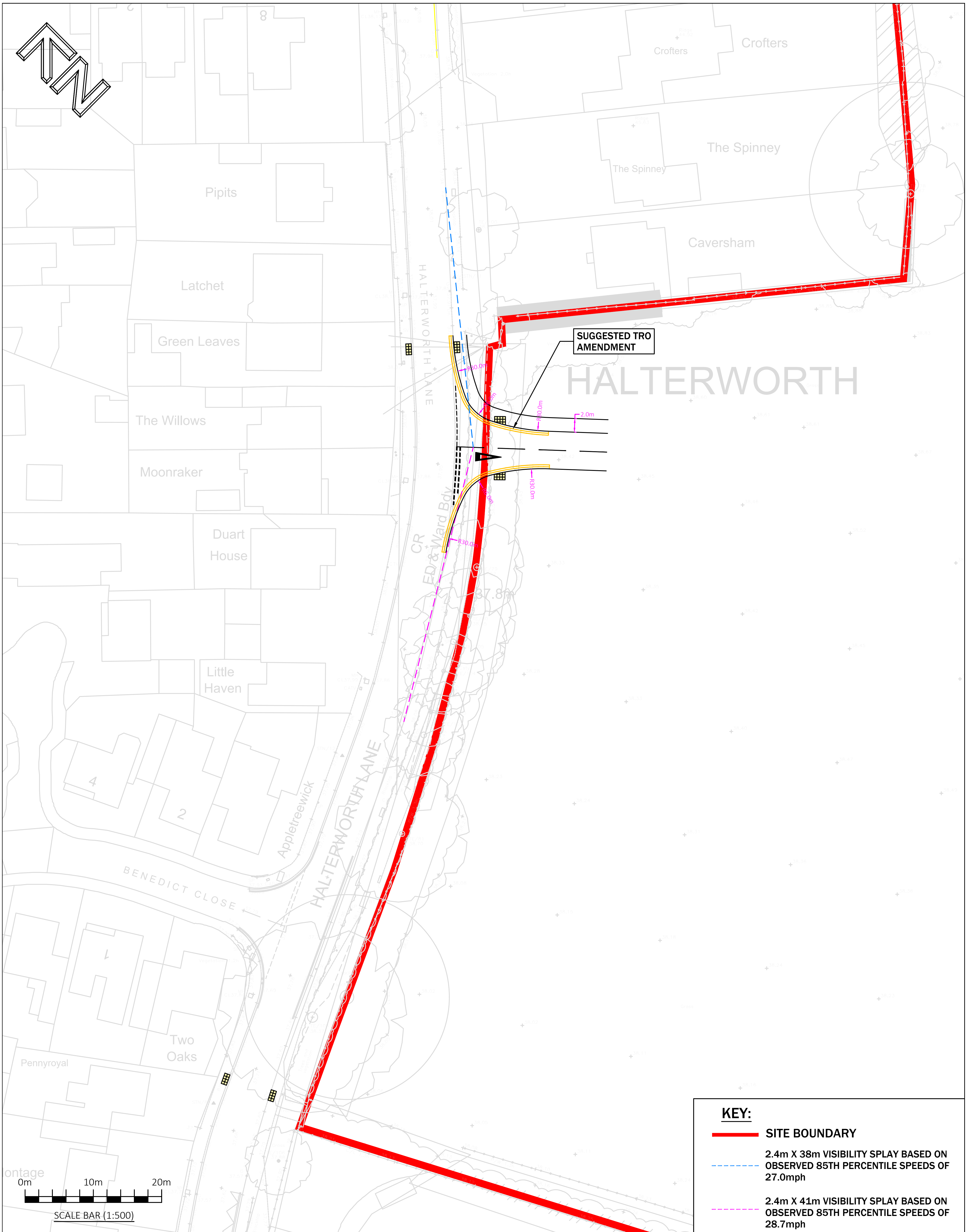
Drawn by: VB
Issue date: 06 AUG 2021
Scale(s): 1:500 @ A3

Status
INFORMATION

Title
PROPOSED ACCESS STRATEGY - NORTHERN FRONTAGE

Drawing No
P21004-001C

This page has been left intentionally blank



KEY:

SITE BOUNDARY

2.4m X 38m VISIBILITY SPLAY BASED ON OBSERVED 85TH PERCENTILE SPEEDS OF 27.0mph

2.4m X 41m VISIBILITY SPLAY BASED ON OBSERVED 85TH PERCENTILE SPEEDS OF 28.7mph

Prime
Transport Planning
9 Hurricane Court
Liverpool International Business Park | Estuary Boulevard | Liverpool | L24 8RL
www.primetp.co.uk | 0151 728 1860

Rev	Date	By	Revision notes
B	02/01/24	RO	AMENDED TO STAGE 1 RSA
A	06/12/23	RO	AMENDED TO LHA COMMENT

Status: INFORMATION

Project: HALTERWORTH LANE, ROMSEY, HAMPSHIRE

Title: PROPOSED ACCESS STRATEGY - SOUTHERN FRONTAGE

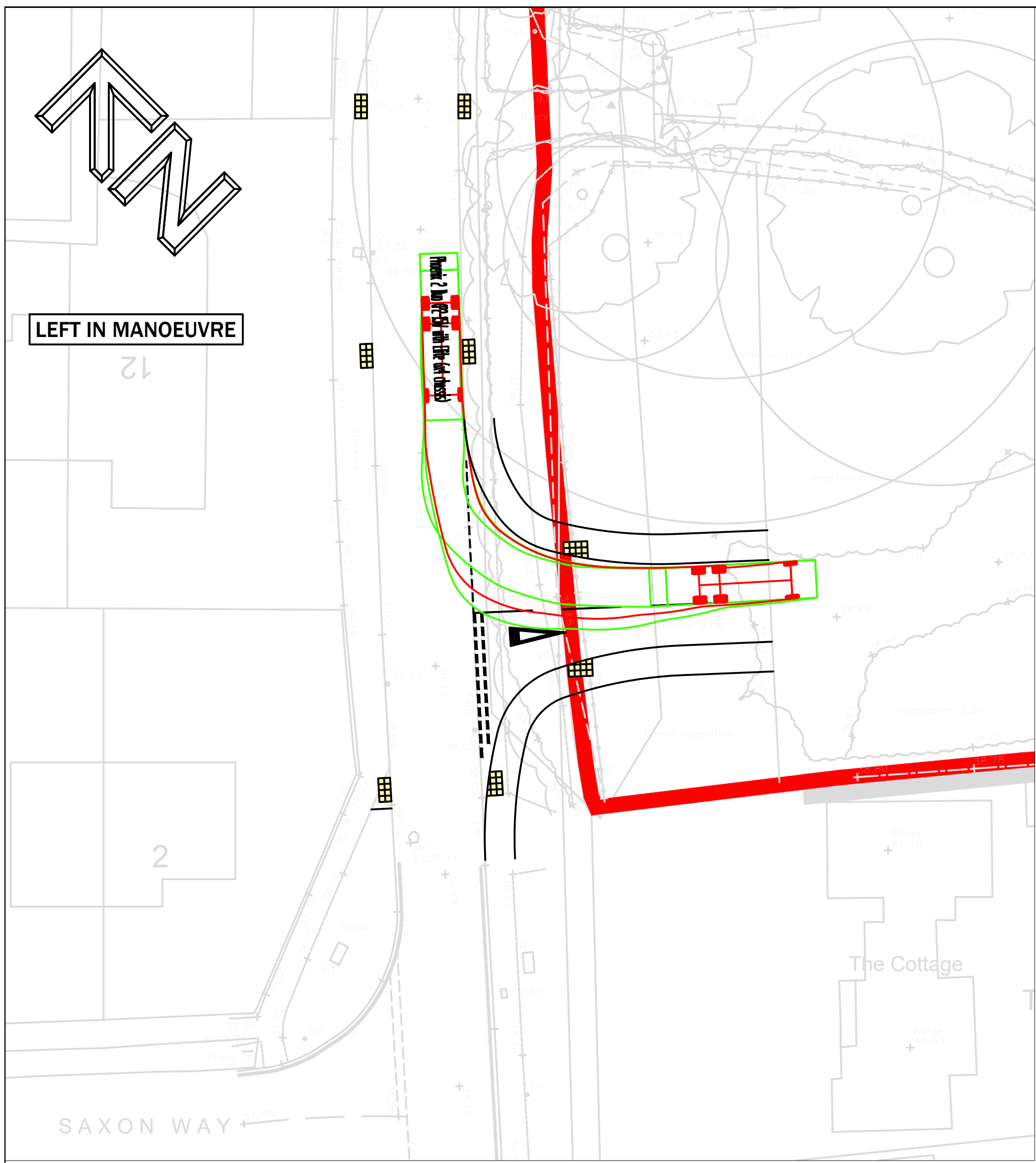
Drawn by: VB

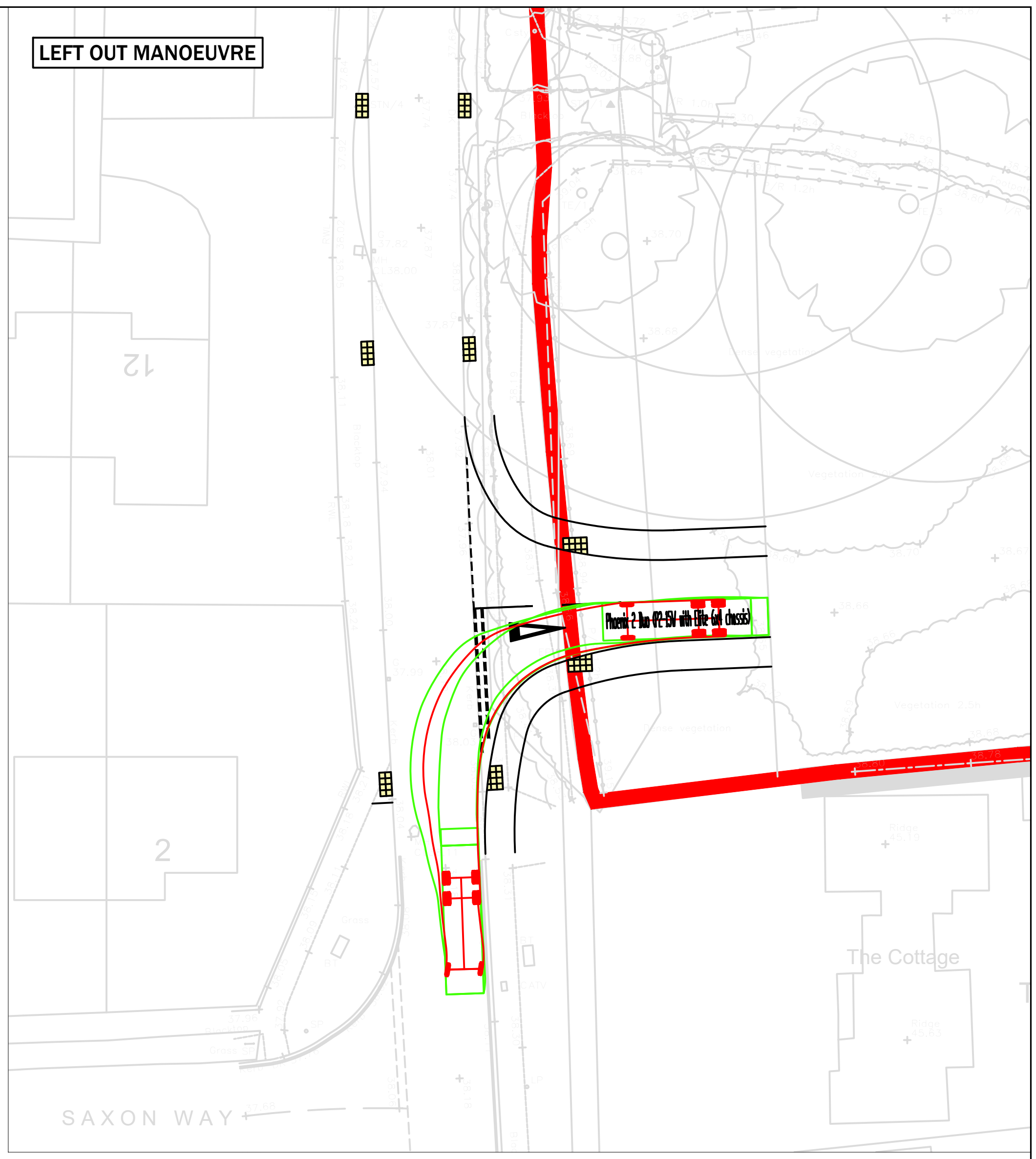
Issue date: 06 AUG 2021

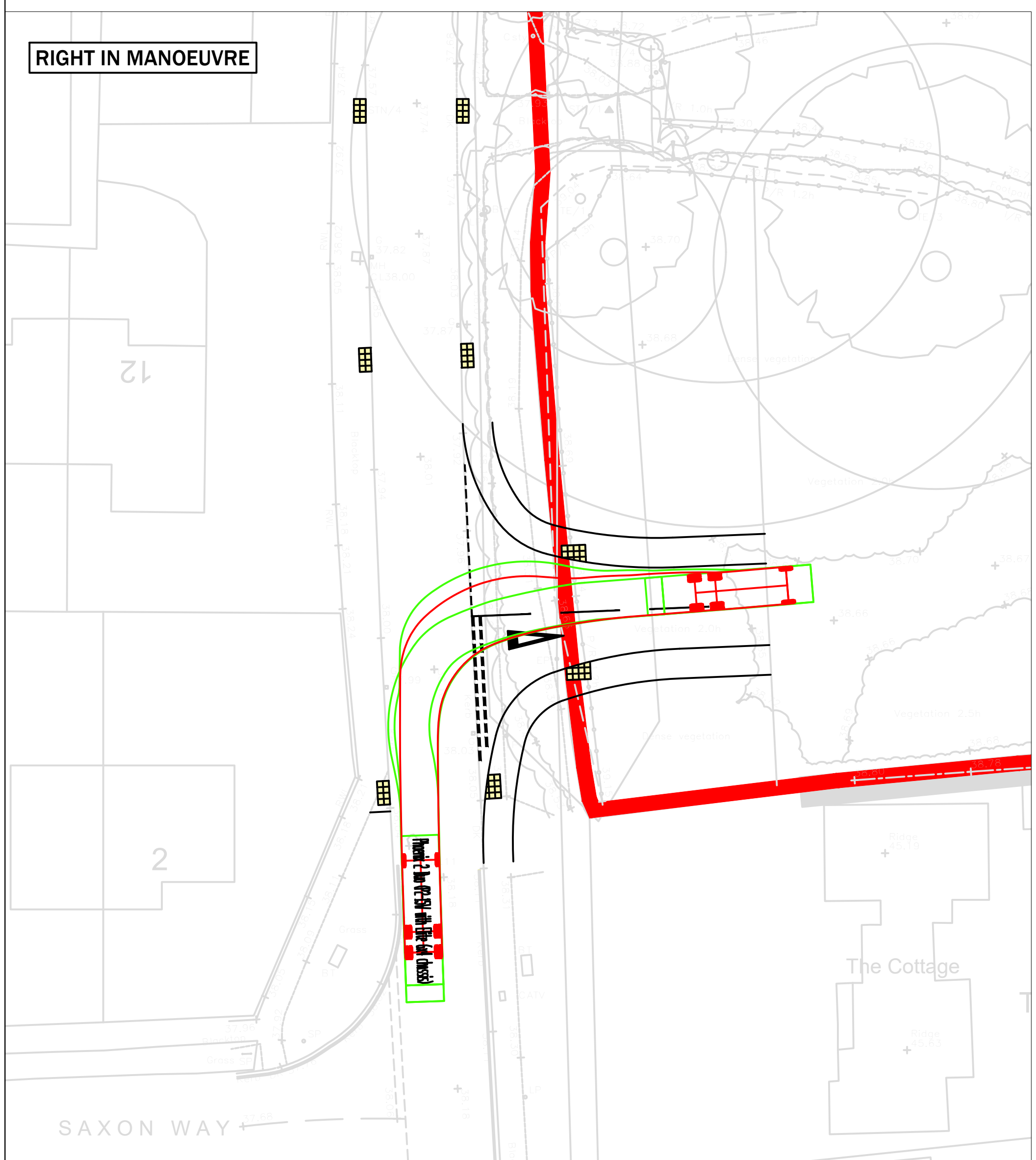
Scale(s): 1:500 @ A3

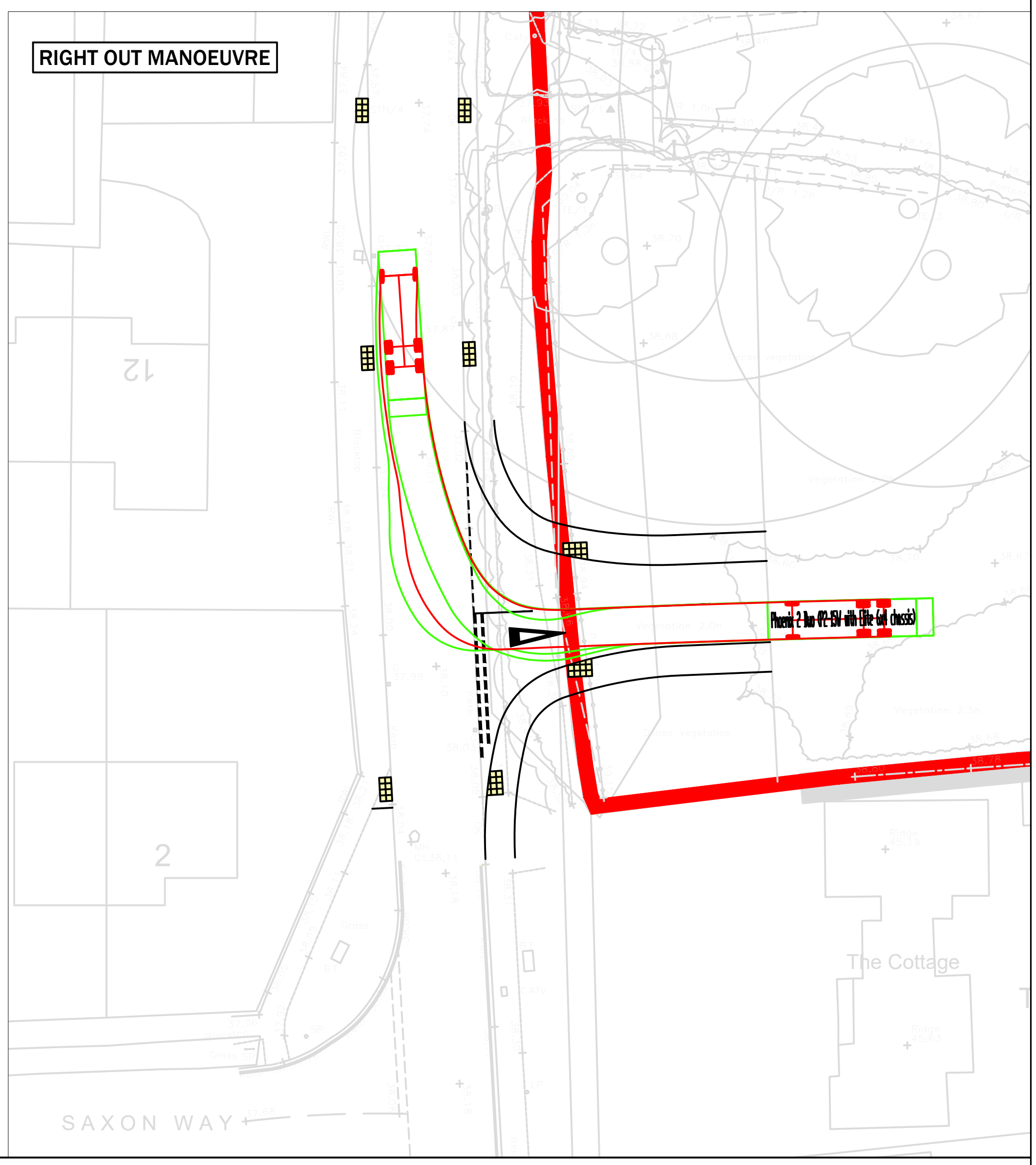
Drawing No: P21004-002B

This page has been left intentionally blank



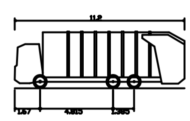






0m 10m 20m

SCALE BAR (1:500)



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)

Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

Prime Transport Planning
9 Hurricane Court
Liverpool International Business Park | Estuary Boulevard | Liverpool | L24 8RL
www.primetp.co.uk | 0151 728 1860

Rev	Date	By	Revision notes
A	02/01/24	RO	AMENDED TO STAGE 1 RSA

Project: HALTERWORTH LANE, ROMSEY, HAMPSHIRE

Drawn by: RO

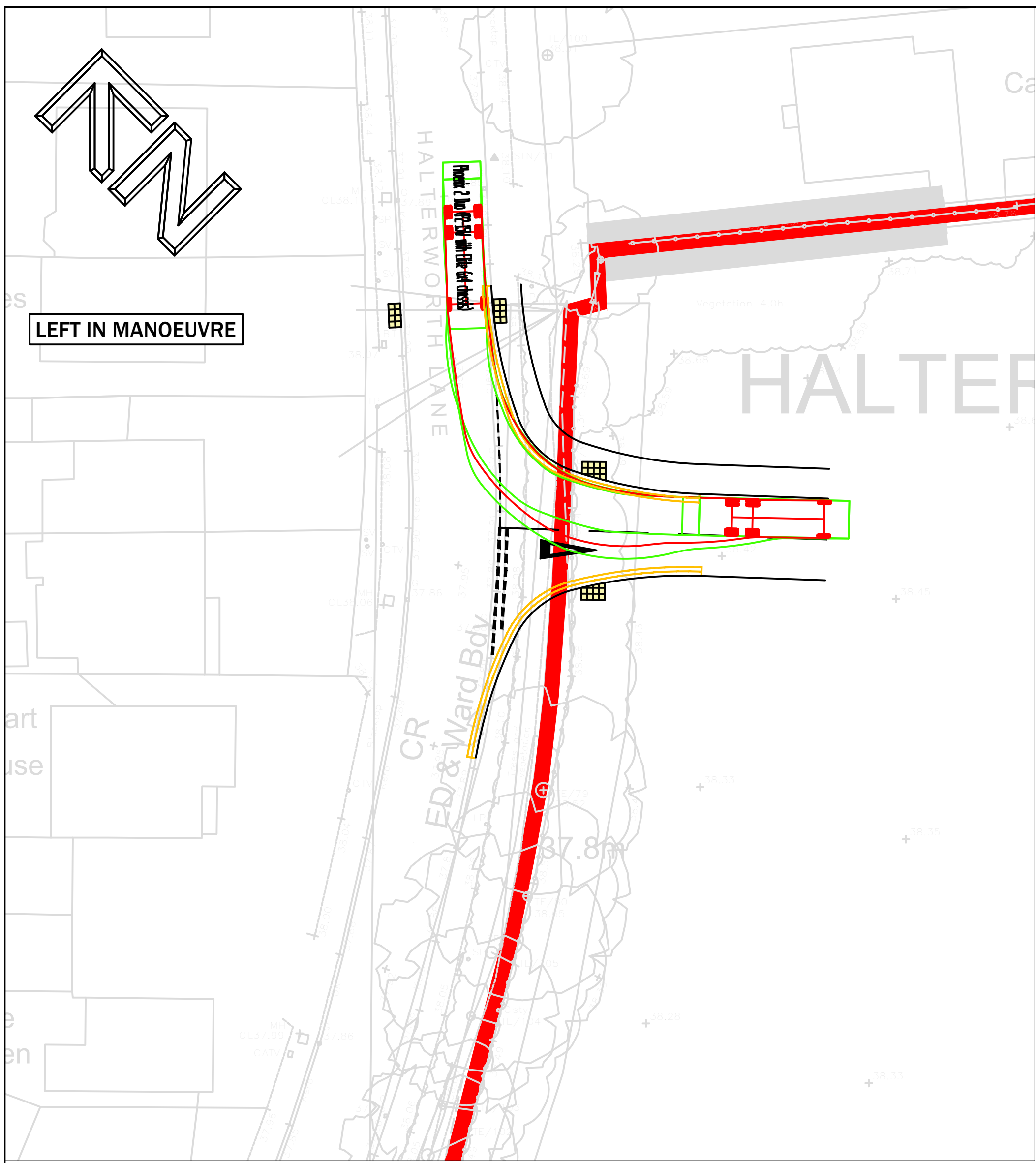
Issue date: 14 DEC 2023

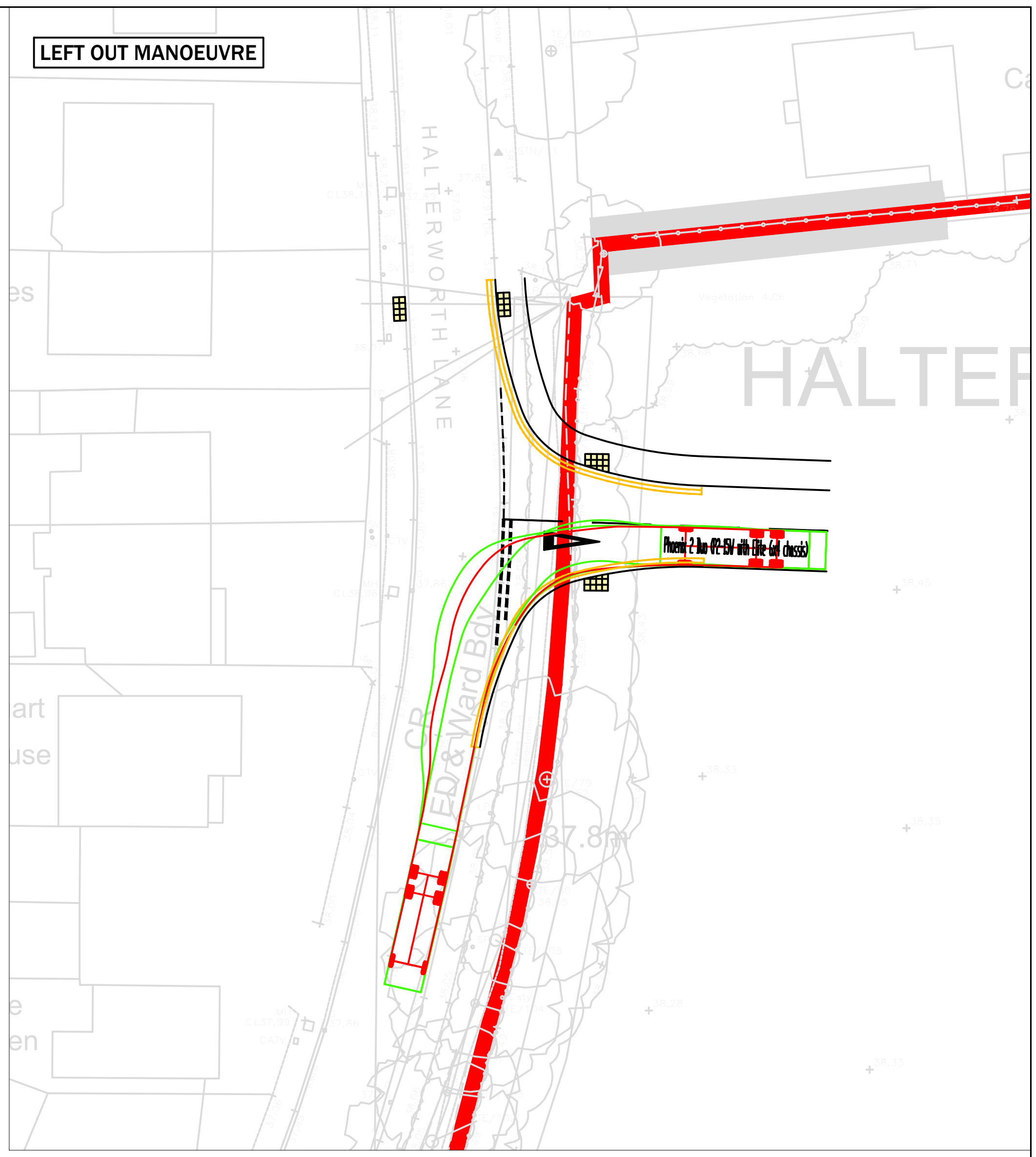
Scale(s): 1:500 @ A3

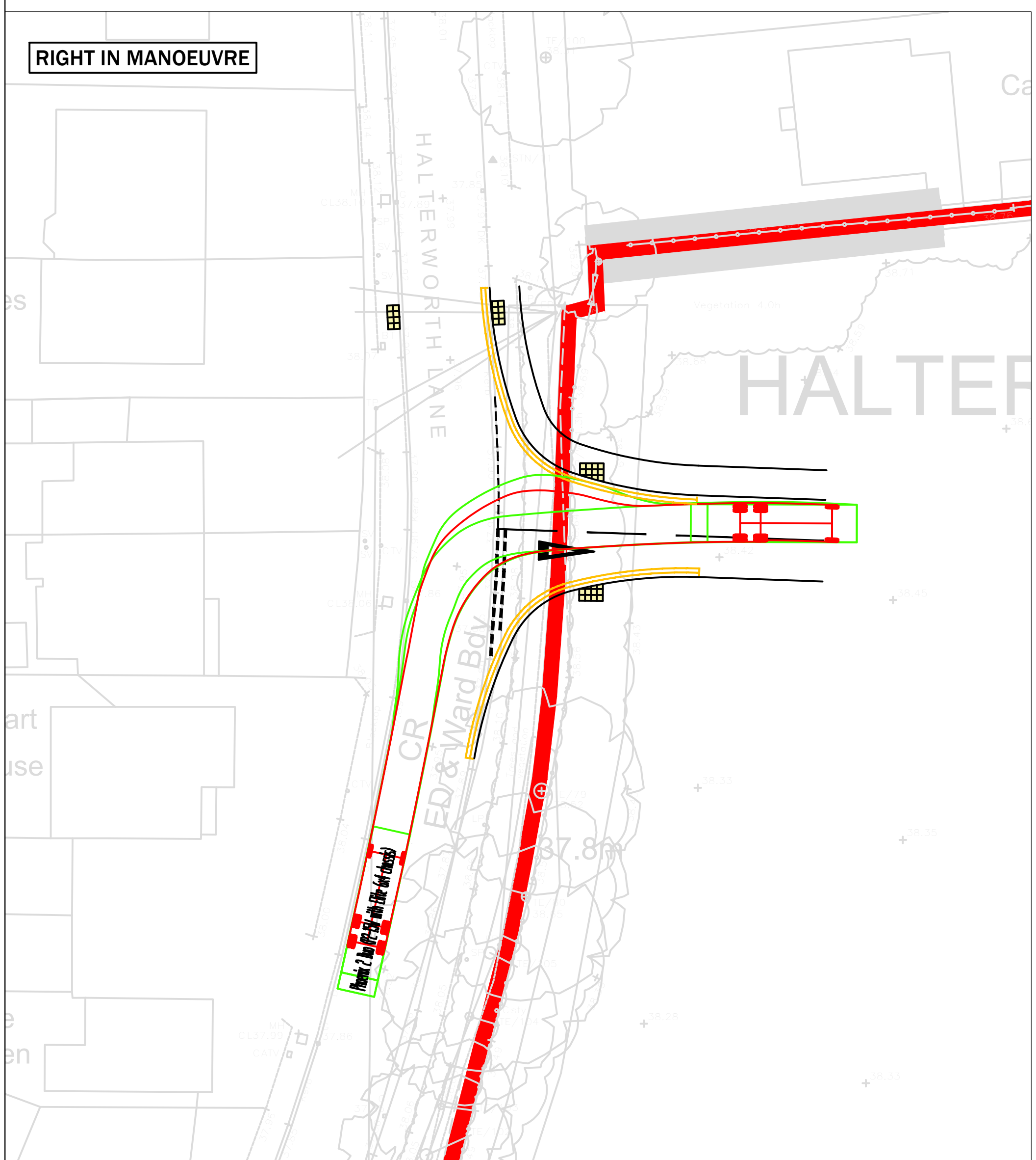
Status: INFORMATION

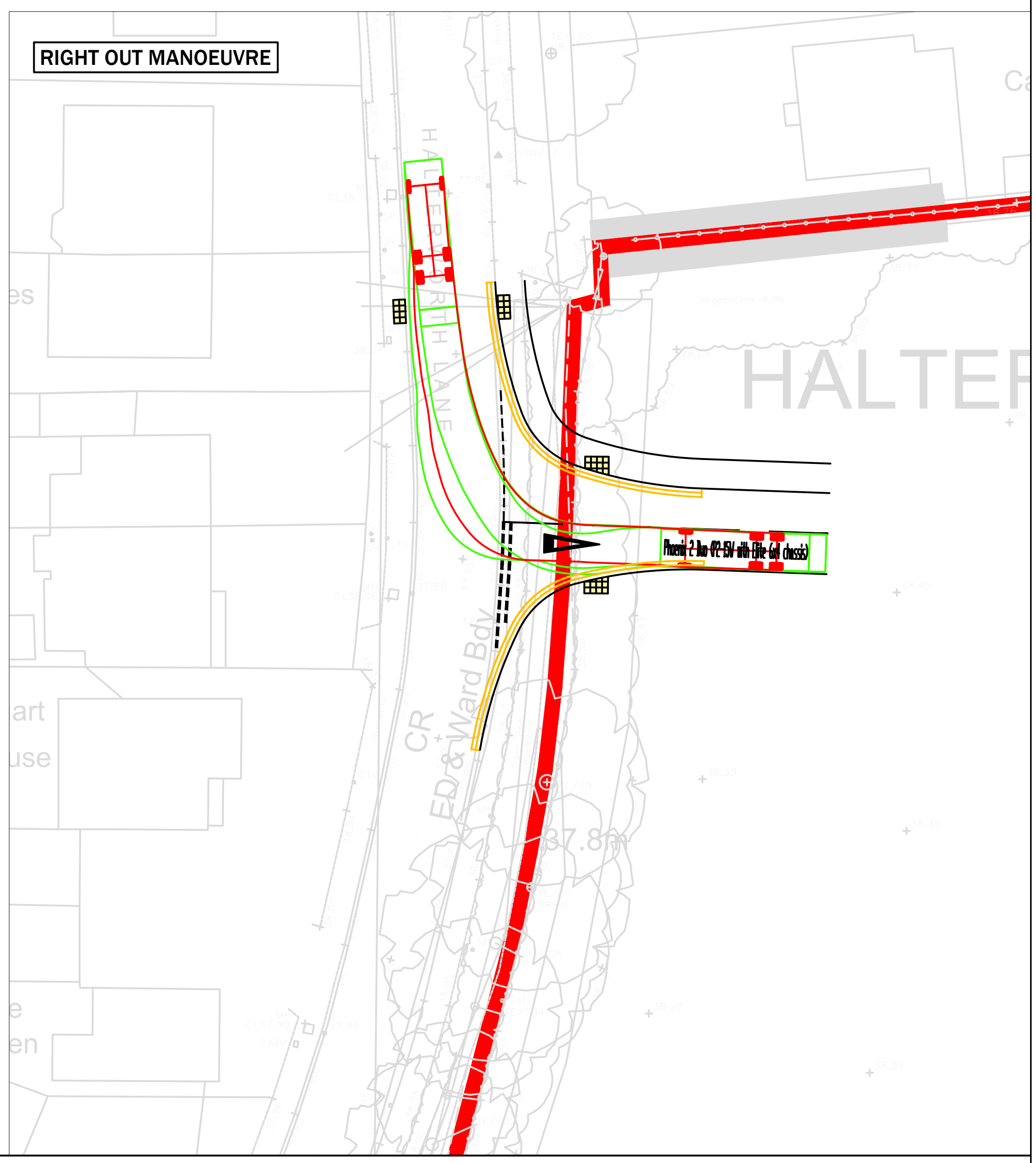
Title: SWEPT PATH ANALYSIS OF NORTHERN ACCESS POINT

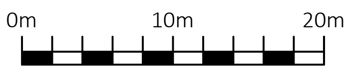
Drawing No: P21004-003A



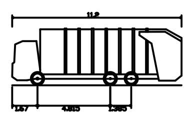








SCALE BAR (1:500)



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)

Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

Prime Transport Planning
9 Hurricane Court
Liverpool International Business Park | Estuary Boulevard | Liverpool | L24 8RL
www.primetp.co.uk | 0151 728 1860

Rev	Date	By	Revision notes
A	02/01/24	RO	AMENDED TO STAGE 1 RSA

Status: INFORMATION

Project: HALTERWORTH LANE, ROMSEY, HAMPSHIRE

Title: SWEPT PATH ANALYSIS OF SOUTHERN ACCESS POINT

Drawn by: RO

Issue date: 14 DEC 2023

Scale(s): 1:500 @ A3

Drawing No: P21004-004A

This page has been left intentionally blank

APPENDIX F

WCHAR

This page has been left intentionally blank

Land off Halterworth Lane, Romsey

Walking, Cycling and Horse-Riding Assessment Report

Pre-app Ref: 6/3/4/342

CONTENTS

1. Scheme Details

1.1. Scheme Client / Developer

Name: Beth Ambrose

Organisation: Gladman Developments Ltd

Email: [redacted]

1.2. Lead Assessor

Name: David Stoddart

Organisation: Prime Transport Planning

Email: [redacted]

Tel: [redacted]

1.3. Other Assessment Team Members

Name: Edward Atherton

Organisation: Prime Transport Planning

Email: [redacted]

Tel: [redacted]

1.4. Design Team Leader

Name: Conor Mackin

Organisation: Prime Transport Planning

Email: [redacted]

Tel: [redacted]

1.5. Scheme Location and Description of Highway Works

Outline planning application for the erection of up to 270 dwellings, including affordable housing, with land for the potential future expansion of Halterworth Primary School, public open space, structural planting and landscaping, sustainable drainage system (SuDS) and vehicular access points. All matters reserved except for means of vehicular access.

Access to the Site will be delivered via two priority controlled junctions to be located at the Site's western boundary on Halterworth Lane. The access carriageways will be 5.5m wide with 2m wide footways provided on both sides.

Dropped kerbs and tactile paving will be provided across the accesses and across Halterworth Lane north and south of each access.

Path 198/15/1 runs through the Site and will be incorporated into the design at the reserved matters stage. An uncontrolled crossing will be provided across Halterworth Lane linking it to 197/503/1. A separate pedestrian access will be provided to the south of the southern proposed access.

The main scheme objective from a highways perspective is to ensure safe and convenient access to the development for all users.

Full details are provided in Section 5 the Transport Assessment (TA).

1.6. WCHAR Study Area

The focus of the scheme is in achieving access to the Site from Halterworth Lane and ensuring safe passage to the existing infrastructure on key routes, along with the identification of any shortfalls in the existing infrastructure provision within the vicinity of the Site.

The study area therefore consists of Halterworth Lane between Botley Road and Winchester Road, Benedict Close, Saxon Way, Seward Rise and a number of dedicated footpaths that run west from Halterworth Lane in the direction of Romsey town centre. The section of Botley Road between Halterworth Lane and Northlands Road has also been included as it forms part of the route between the Site and The Mountbatten School. A section of Botley Road east of Halterworth Lane junction has also been considered.

Please see Figure A1 in Appendix A detailing the extent of the WCHAR study area.

Whilst this WCHAR identifies shortfalls in the highway and PRoW networks, it is important to acknowledge that it is the applicant's responsibility to address such shortfalls only if the need for the improvement would be directly related to the development proposals in line with the three Community Infrastructure Levy (CIL) Regulations tests at NPPF paragraph 57.

2. WCHAR Assessment

2.1. Assessment of walking, cycling and horse-riding policies and strategies

Test Valley Revised Local Plan:

- Policy T1: Managing Movement

Hampshire Local Transport Plan 4:

- Guiding Principle 1:
    - C3: Transport strategies and schemes to be developed in accordance with consideration of all users.
    - C4: Place climate change at the heart of decision making.
- Guiding Principle 2:
    - C5: Support local living and reduce demands on transport.
    - C6: Encourage sustainable travel behaviour.
    - C7: A Safe System approach for Hampshire.
    - C8: Managing the harmful health effects of poor air quality and noise disturbance due to transport.
    - C9: Protecting the environment.

Test Valley (South) Local Cycling and Walking Infrastructure Plan:

- Section1:
    - Proposed southern Test Valley network overview.
    - Prioritisation.
- Section 2:
    - Proposed cycle network.

A Vision for Romsey 2022 – 2042:

- Ambition 1: Well connected.
- Ambition 2: Environmental responsibility.

There is considerable overlap between the above listed policy documentation. At their core, the policies emphasise the importance of encouraging sustainable travel by ensuring that new developments are fully integrated into existing sustainable travel networks and, where necessary, make contributions to the network. Enhanced highway safety is also a core theme.

2.2. Collision data

A highway safety review is provided in Section 9.1 of the TA using recent (01/09/18-31/08/23) collision data purchased from Hampshire Constabulary. This review however was for a far more extensive study area that aligned with off-site junction capacity assessments.

When reviewing the collision data for the WCHAR study area, only five accidents occurred within it. One of these occurred at the A3090 Winchester Road/Halterworth Lane junction when a motorcyclist took the corner too fast and collided with a wall.

The second accident occurred in August 2021 on Seward Rise when a car driver failed to see a 4-year-old cyclist who had entered the road from the pavement resulting in serious injury to the child.

The third occurred at the Halterworth Lane/Jenner Way junction in October 2021 when an 11-year-old cyclist travelling north-eastbound on Halterworth Lane was hit by a car trying to overtake. The cyclist was knocked off their bike resulting in slight injury.

The fourth accident occurred in March 2022 when an elderly cyclist on Botley Road was hit by a car that was turning from Northlands Road, reportedly without looking, resulting in slight injury to the cyclist.

The fifth accident also occurred in March 2022 close to the uncontrolled crossing on Botley Road west of Elmtree Gardens when a car driver overtook a cyclist but then braked hard which also caused the cyclist to brake hard and dismount, resulting in serious injury to the cyclist. The causation factors listed all relate to human error.

There are no accident clusters in the study area and the only common causation factors between the three involving cyclists would be driver error and/or young/inexperienced cyclists.

2.3. Multi-modal transport services and interchange information

Bus stops - Hail and ride stops along Halterworth lane <400m from the centre of the Site provide access to the 35 service between Romsey and Braishfield (1 service a day). A bus flag and timetable are present at the southbound stop. The northbound stop is unmarked.

Bus stop - Botley Road adj Halterworth Lane circa 510m from the centre of the Site provides access to eastbound services to Southampton city centre (2 services an hour) using the no. 4 service and Boyatt Wood via Eastleigh (1 service an hour, no service on Sundays) using no. 4 service. A flag and timetable are present; no raised boarding area or bus shelter are available.

Bus stop - Botley Road opp Halterworth Lane circa 570m from the centre of the Site provides access to westbound services to Romsey town centre (2 service an hour) using no. 4 and 5 services. A flag and timetable are present; no raised boarding area or bus shelter are available.

Romsey train station: Accessible via 4 and 5 bus service. Accessible on foot (circa 30 minutes) and by bicycle (circa 10 minutes). Facilitated with 20 car parking spaces and 14 bicycle parking spaces. Regular services to Chandlers Ford (7 minutes), Southampton Central (11 minutes), Eastleigh (13 minutes), Southampton Airport Parkway (17 minutes), Salisbury (18 minutes), Portsmouth Harbour (59 minutes) and Bath Spa (73 minutes), with each service stopping at various other stations along each route. Interchange can be made to other services at Southampton and Eastleigh. International air travel is available from Southampton Airport which benefits from a parkway (multimodal) station.

2.4. Trip generators

The main trip generators within or close to the study area that may influence levels of walking, cycling and horse-riding and the associated desire lines are as follows:

- Halterworth Primary School
- Chatterbox Community Pre-School, Halterworth Lane
- Montford Hall, Benedict Close
- King Edward VI Preparatory School, Halterworth Lane
- Welcome Halterworth Convenience Store, Saxon Way
- Tadburn Meadows Nature Reserve, off Saxon Way and other roads
- St Swithun’s Church, Winchester Road
- Spar Whitenap Stores & Post Office, Botley Road
- Botley Road Park, Botley Road
- The Mountbatten School, Whitenap Lane
- Abbey Park Industrial Estate, Premier Way
- Romsey town centre

The most local of the key trip generators are illustrated in the WCHAR Location Plan in Appendix A.

2.5. Site Visits

Wednesday 30th June 2021 during the AM peak.

Thursday 1st July 2021 during the school peak and PM peak.

Both site visits undertaken by David Stoddart. The study area was walked and the wider area driven.

Footways in the area of good, modern standard and well-maintained. Good levels of natural surveillance on footways and pedestrian cut-through paths. On-street parking associated with Halterworth Primary School noted. No major issues experienced when crossing roads.

Some cycling activity observed on Botley Road. Cycling and scootering was found to be popular during school periods when many escorted children cycled or scootered on the footways on Halterworth Lane.

No evidence of horse-riding witnessed.

2.6. Liaison with key stakeholders

This WCHAR has been prepared at the request of HCC Highways' Development Planning team as part of the preapplication discussions. The principle of the proposed Site access arrangement was acceptable at that stage. Copies of this correspondence is provided in Appendix A of the TA.

Gladman is undertaking separate discussions with TVBC.

2.7. Existing pedestrian, cyclist and equestrian facilities

Both sides of Halterworth Lane are facilitated with circa 2m wide footways along most of its length, though the footway on the eastern side terminates in the vicinity of the cut-through to Kennett Road. The footway on the western side connects to further pedestrian infrastructure on Jenner Way to the north of the Site where a rebound bollard protected refuge island featuring tactile paving is provided to facilitate pedestrian crossing to the recommencement of footway on the eastern/southern side where Halterworth Lane bends to the east. The circa 2m wide footway on the western side continues in the northern verge where the road bends to the east past Jenner Way. A circa 1.5m wide footway commences on the eastern side at the crossing continuing on the southern side of Halterworth Lane heading east and continuing along Highwood Lane beyond the preparatory school. Easy crossing can be made between the two footways on Halterworth Lane west of Highwood Lane via an uncontrolled crossing with dropped kerbs and tactile paving.

The footway on the northern side of Halterworth Lane wraps around the bend and heads north beyond the level crossing but does not continue east along Highwood Lane. Footway on the eastern side of Halterworth Lane south of the level crossing commences around 55m north of Hestia Close. At the level crossing, dropped kerbs are provided and solid white lines demarcate the separation between the carriageway and the footway over the railway line. Footway provision on this northern section of Halterworth Lane ultimately connects to further pedestrian infrastructure on Winchester Road (A3090) via dedicated footpaths from St Swithun's Close and Bramble Drive/Campion Drive.

Along the Site's Halterworth Lane frontage, footways in the western verge connect to further pedestrian infrastructure on Seward Rise, Saxon Way and Benedict Close. Pedestrian cut-throughs are also provided onto Kennet Close and Meon Close. A pedestrian footpath located opposite Halterworth Primary School is marked by a sign for Montfort Hall and extends westwards from Halterworth Lane before splitting and running south towards Senlac Road and north towards Saxon Way. Another pedestrian footpath situated circa 30m south of the Halterworth Lane/Seward Rise junction extends westwards from Halterworth Lane and forms part of PRoW 197/503/1. This facilitates a pedestrian connection to the edge of

Romsey town centre via Tadburn Meadows Local Nature Reserve. Connecting paths from the estate roads are surfaced with macadam while the main route through the Nature Reserve is of a hoggin surfacing.

Circa 100m south of PRoW 197/503/1, another PRoW (198/15/1) connects to the footway in Halterworth Lane's eastern verge and extends eastward on a horizontal alignment internal to the Site before connecting to Highwood Lane at the Site's eastern boundary. Kissing gates are in place at both ends of this unmade PRoW. Both PRoW are sign posted.

Street lighting is provided along the entire length of Halterworth Lane and dropped kerbs are provided at crossing points, though tactile paving provision is limited. At the frontage of Halterworth Primary School, guard railings and keep clear road markings are also provided.

Turning right out of the Halterworth Lane/Botley Road junction, which benefits from dropped kerbs, both sides of Botley Road are facilitated with 1.5m to 2m wide footways. A bollard protected pedestrian crossing with dropped kerbs and tactile paving is provided circa 60m west of the Botley Road/Halterworth Lane junction. The carriageway narrows at the crossing to minimise the crossing distance. The footways continue west to Romsey town centre with other pedestrian crossing provided on-route.

Turning left out of the Halterworth Lane/Botley Road junction, both sides of Botley Road are facilitated with circa 1.5m to 2m wide footways, with the southern footway separated from the carriageway with a circa 1m to 2m wide grass verge. Street lighting is provided along the length of the Botley Road and dropped kerbs are provided at crossing points. Pedestrian crossings of the road are facilitated by a refuge island and a toucan crossing which both feature tactile paving. These are located circa 190m and circa 410m from the Halterworth Lane/Botley Road junction respectively.

Running east from the toucan crossing, the footway in the northern verge becomes a shared footway/cycleway which continues eastwards along Botley Road beyond the roundabout junction with the A27. This shared footway/cycleway forms a section of the National Cycle Route (NCR) 24 which connects Bath and Eastleigh and also provides a connection to NCR 23 which connects Reading and Southampton via Basingstoke. West of the toucan crossing, Botley Road continues to form part of NCR 24 however it is an on-road route with limited markings and signage to highlight its classification as an NCR.

The public transport infrastructure is described in Section 2.3.

No dedicated horse-riding infrastructure is present locally, presumably as there are no riding schools/stables in the immediate area. It is however noted that a bridleway connects Green Lane with Crampmoor Lane north-east of the Site. Cyclists can also legally use this bridleway.

2.8. Walking, cycling and horse-riding survey data (Large schemes only)

Pedestrian, cyclist and horse-riding data was not recorded during the traffic surveys.

2.9. Liaison with local user groups and wider public (Large schemes only)

Statutory undertakers, user groups and the wider public will be welcome to comment on the planning application but not such consultation has been undertaken at the time of writing this report.

3. User Opportunities

The opportunities highlighted below are deemed to be relevant to the highway scheme/works and should be considered by the design team leader throughout the progression of the highway scheme design in addition to any further opportunities that may arise through the ongoing development of the design.

3.1. General

It is again noted that any improvements should be proportionate in scale and kind to the development proposed and necessary to make it acceptable in planning terms, with reference to paragraph 57 of the NPPF. The applicant is also only able to directly deliver improvements to the extent that these would be fully deliverable within the adopted highway or land within its control.

The applicant would be willing to discuss the provision of proportionate developer contributions that would enable HCC to facilitate or deliver other off-site accessibility and highway improvements where these would be necessary to make the development acceptable in planning terms.

A plan showing potential improvements, not all of which are directly related to the Proposed Development, is provided as Figure B1 in Appendix B.

3.2. Strategic Opportunities

There appears to be limited opportunity to deliver strategic improvements within the study area and in the immediate surrounding area, although one potential opportunity could be the creation of a cycle route between Botley Road and the Abbotswood area via Halterworth Lane or Highwood Lane to bypass the section of NCR 24 that passes through Romsey town centre. Such a route, even if on-road, would likely be a more lightly trafficked route and would somewhat cut the corner of the town centre route.

Also, an upgrade of 198/15/1 that runs through the Site to Highwood Lane could be made. The applicant will incorporate the section that runs through the Site into the Proposed Development, though the detail of this will be subject to a subsequent reserved matters application. The applicant is also willing to offer a financial contribution to allow HCC to upgrade the surface of this path that runs through the adjacent land to the east. There may be scope to extend this route further east but such an extension would be the responsibility of HCC as PRoW authority.

Improvements to the Halterworth Lane bus stops and the pair of stops in the vicinity of the Halterworth Lane/Botley Road junction have been offered by the applicant as detailed in the TA. Such improvements should help to encourage travel by bus, which will also involve trips on foot.

3.3. Walking Specific Opportunities

A number of crossing improvements have been identified in Section 5 of the TA which will improve east-west connectivity across Halterworth Lane and across the proposed Site accesses.

There may also be opportunity to provide tactile paving at the other dropped kerb crossing points on Halterworth Lane that currently do not have them in order to improve safety for visually impaired pedestrians.

Improvements can also be made to path 198/15/1 as detailed above.

The applicant is willing to provide parking opportunities internal to the Site for Halterworth Primary School drop-off and pick-up trips as well for use by visitors to the development.

Such provision should help to reduce levels of parking on Halterworth Lane which should offer benefit to pedestrians in terms of reducing levels of parking on the footway any aiding crossing of the road.

3.4. Cycling Specific Opportunities

Limited highway verge is available in the study area so there is limited opportunity to provide dedicated cycleways or shared cycleways. Whilst this could be provided internally to the development, there is limited infrastructure to connect to off-site therefore it will be expected that cyclists will cycle in the carriageway which should be considered safe given the forecast levels of traffic using the proposed Site accesses and 20mph design speed.

There may be opportunity to provide improved signage and carriageway markings, such as painted cycle symbols, along the on-road cycle route (NCR 24) on Bolney Road to make drivers more aware of the potential presence of cyclists.

There may also be opportunity to provide additional CCTV protected cycle parking spaces at or in the vicinity of Romsey train station and Romsey town centre, the former subject to discussions with Southwestern Rail and/or National Rail.

3.5. Horse-Riding Specific Opportunities

There is little benefit and opportunity to provide infrastructure for horse-riders in the study area.

4. Walking, Cycling and Horse-Riding Assessment Team Statement

Lead Assessor

As Lead Assessor, I confirm that this walking, cycling and horse-riding assessment report has been compiled in accordance with HCC Technical Guidance Note TG19.

Name & Title:	Mr David Stoddart
Title/Position:	Associate Director
Organisation:	Prime Transport Planning
Signature:	[redacted]
Date:	22/01/2024

Scheme Client Team Leader

As the Scheme Client Team Leader, I confirm that the assessment has been undertaken at the appropriate stage of the highway scheme development.

I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in GG 142.

Name & Title:	Miss Beth Ambrose
Title/Position:	Assistant Project Manager
Organisation:	Gladman Developments Ltd
Signature:	[redacted]
Date:	22/01/2024

Appendix A – Figure A1 WCHAR Study Area Plan

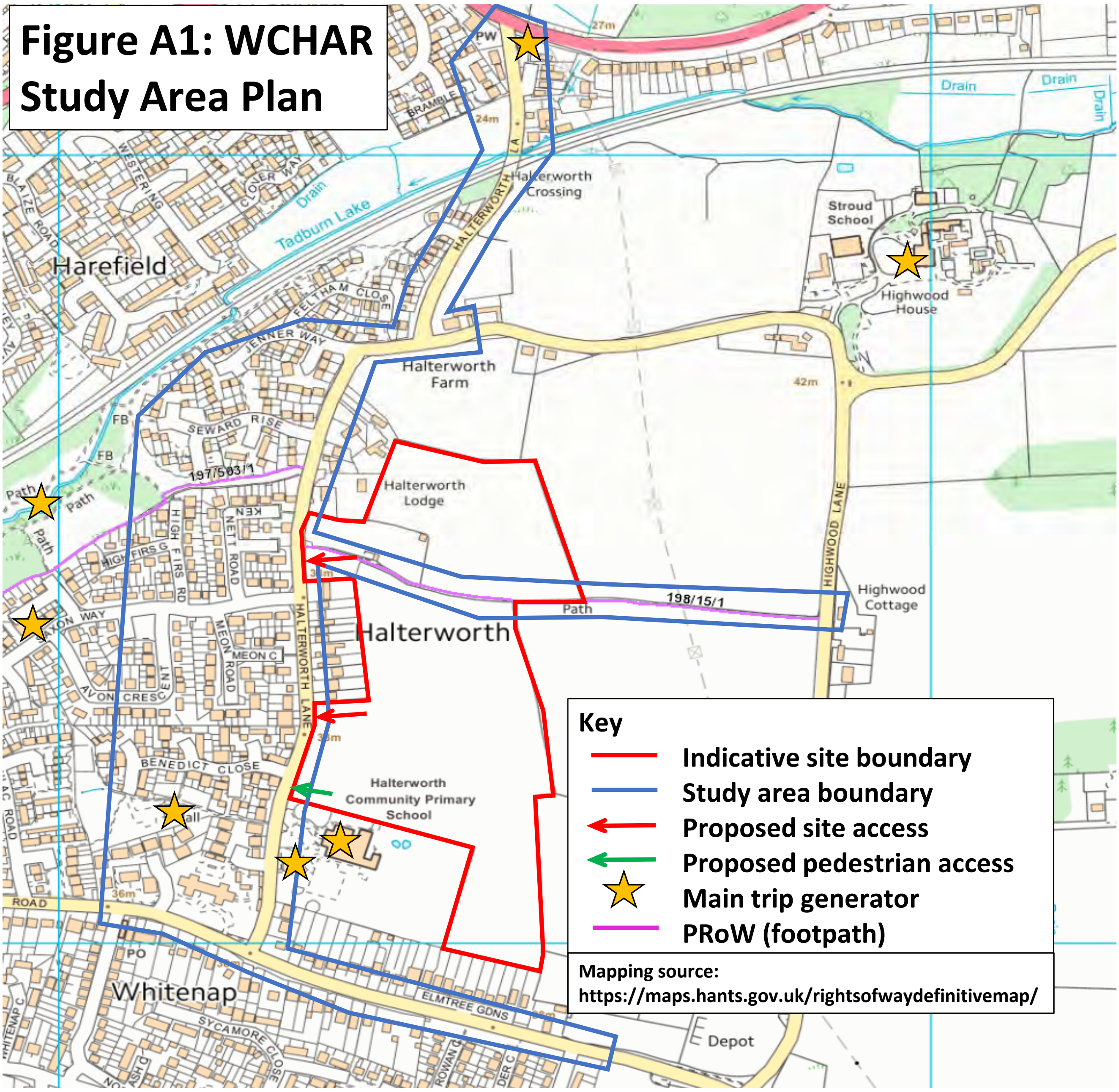


Figure A1: WCHAR Study Area Plan
Harefield
Tadburn Lake
Drain
Halterworth Crossing
Stroud School
Highwood House
Halterworth Farm
Halterworth Lodge
Halterworth
Highwood Cottage
HIGHWOOD LANE
HALTERWORTH LANE
197/503/1
198/15/1
Path
Halterworth Community Primary School
Whitenap
ELMTREE GDNS
SYCAMORE CLOSE
BENEDICT CLOSE
AVON CRESCENT
MEON ROAD
HIGH FIRS RD
SEWARD RISE
JENNER WAY
FELTHAM CLOSE
Depot
Key
Indicative site boundary
Study area boundary
Proposed site access
Proposed pedestrian access
Main trip generator
PRoW (footpath)
Mapping source:
https://maps.hants.gov.uk/rightsofwaydefinitivemap/

This page has been left intentionally blank

APPENDIX G

NATIONAL ROAD TRAFFIC PROJECTIONS CALCULATION

Table 2a: Road traffic projections (billion vehicle miles, bvm) from 2015 to 2060

Vehicle Type	Road Type	Country	Region	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
				Traffic - Billion Vehicle miles (bvm)									
south east	a road	hgv	South East	0.4998		0.5133	0.5175	0.5226	0.5281	0.5353	0.5406	0.5428	0.5477

HGV

Year	5 Year Value	5 Year Diff	Linear Diff	Increment	1 Year Value	Check	Factor
2015	**0.4998**	0.0135	0.0013		0.4998		
2016				1	0.5012		
2017				2	0.5025		
2018				3	0.5039		
2019				4	0.5052		
2020	**0.0000**			5	0.5065		
2021				6	0.5079		
2022				7	0.5092		
2023				8	0.5106		
2024				9	0.5119		
2025	**0.5133**	0.0042	0.0008	10	0.5133	0.0000	
2026				1	0.5141		
2027				2	0.5150		23-28
2028				3	0.5158		**1.0102**
2029				4	0.5166		
2030	**0.5175**	0.0051	0.0010	5	0.5175	0.0000	
2031				1	0.5185		
2032				2	0.5195		
2033				3	0.5206		
2034				4	0.5216		
2035	**0.5226**	0.0055	0.0011	5	0.5226	0.0000	
2036				1	0.5237		
2037				2	0.5248		
2038				3	0.5259		
2039				4	0.5270		
2040	**0.5281**	0.0072	0.0014	5	0.5281	0.0000	
2041				1	0.5295		
2042				2	0.5310		
2043				3	0.5324		
2044				4	0.5339		
2045	**0.5353**	0.0053	0.0011	5	0.5353	0.0000	
2046				1	0.5364		
2047				2	0.5374		
2048				3	0.5385		
2049				4	0.5396		
2050	**0.5406**	0.0022	0.0004	5	0.5406	0.0000	
2051				1	0.5411		
2052				2	0.5415		
2053				3	0.5419		
2054				4	0.5424		
2055	**0.5428**	0.0049	0.0010	5	0.5428	0.0000	
2056				1	0.5438		
2057				2	0.5448		
2058				3	0.5457		
2059				4	0.5467		
2060	**0.5477**			5	0.5477	0.0000	

This page has been left intentionally blank

APPENDIX H

TRICS OUTPUT

Calculation Reference: AUDIT-753001-230901-0922

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	2 days
	HC	HAMPSHIRE	1 days
	HF	HERTFORDSHIRE	1 days
	KC	KENT	2 days
	SC	SURREY	2 days
	WB	WEST BERKSHIRE	1 days
	WS	WEST SUSSEX	4 days
03	SOUTH WEST		
	DV	DEVON	1 days
04	EAST ANGLIA		
	NF	NORFOLK	4 days
05	EAST MIDLANDS		
	DY	DERBY	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
	TE	TELFORD & WREKIN	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	DR	DONCASTER	1 days
	NY	NORTH YORKSHIRE	1 days
09	NORTH		
	DH	DURHAM	2 days
11	SCOTLAND		
	AS	ABERDEENSHIRE	1 days
	FA	FALKIRK	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 918 (units:)
Range Selected by User: 50 to 4334 (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: 02/03/13 to 01/03/23

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	5 days
Tuesday	6 days
Wednesday	7 days
Thursday	6 days
Friday	3 days

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

Selected survey types:

Manual count	26 days
Directional ATC Count	1 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

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	27

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	20 days - Selected
Servicing vehicles Excluded	62 days - Selected

Secondary Filtering selection:

Use Class:

C3	27 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	4 days
5,001 to 10,000	8 days
10,001 to 15,000	10 days
15,001 to 20,000	3 days
20,001 to 25,000	2 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	6 days
25,001 to 50,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	7 days
100,001 to 125,000	2 days
125,001 to 250,000	6 days
250,001 to 500,000	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	7 days
1.1 to 1.5	18 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	15 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	26 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

1 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

2 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

3 DH-03-A-03 SEMI-DETACHED & TERRACED DURHAM
PILGRIMS WAY
DURHAM

Edge of Town
Residential Zone
Total No of Dwellings: 57
Survey date: FRIDAY 19/10/18 Survey Type: MANUAL

4 DR-03-A-01 SEMI DETACHED HOUSES DONCASTER
A19 BENTLEY ROAD
DONCASTER
BENTLEY RISE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 54
Survey date: WEDNESDAY 18/09/13 Survey Type: MANUAL

5 DV-03-A-03 TERRACED & SEMI DETACHED DEVON
LOWER BRAND LANE
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 70
Survey date: MONDAY 28/09/15 Survey Type: MANUAL

6 DY-03-A-01 MIXED HOUSES DERBY
RADBOURNE LANE
DERBY

Edge of Town
Residential Zone
Total No of Dwellings: 371
Survey date: TUESDAY 10/07/18 Survey Type: MANUAL

7 EX-03-A-02 DETACHED & SEMI-DETACHED ESSEX
MANOR ROAD
CHIGWELL
GRANGE HILL
Edge of Town
Residential Zone
Total No of Dwellings: 97
Survey date: MONDAY 27/11/17 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 EX-03-A-03 MIXED HOUSES ESSEX
KESTREL GROVE
RAYLEIGH

Edge of Town
Residential Zone
Total No of Dwellings: 123
Survey date: MONDAY 27/09/21 Survey Type: MANUAL

9 FA-03-A-02 MIXED HOUSES FALKIRK
ROSEBANK AVENUE & SPRINGFIELD DRIVE
FALKIRK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 161
Survey date: WEDNESDAY 29/05/13 Survey Type: MANUAL

10 HC-03-A-27 MIXED HOUSES HAMPSHIRE
DAIRY ROAD
ANDOVER

Edge of Town
Residential Zone
Total No of Dwellings: 73
Survey date: TUESDAY 16/11/21 Survey Type: MANUAL

11 HF-03-A-03 MIXED HOUSES HERTFORDSHIRE
HARE STREET ROAD
BUNTINGFORD

Edge of Town
Residential Zone
Total No of Dwellings: 160
Survey date: MONDAY 08/07/19 Survey Type: MANUAL

12 KC-03-A-04 SEMI-DETACHED & TERRACED KENT
KILN BARN ROAD
AYLESFORD
DITTON
Edge of Town
Residential Zone
Total No of Dwellings: 110
Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

13 KC-03-A-07 MIXED HOUSES KENT
RECULVER ROAD
HERNE BAY

Edge of Town
Residential Zone
Total No of Dwellings: 288
Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL

14 NF-03-A-31 MIXED HOUSES NORFOLK
BRANDON ROAD
SWAFFHAM

Edge of Town
Residential Zone
Total No of Dwellings: 321
Survey date: THURSDAY 22/09/22 Survey Type: DIRECTIONAL ATC COUNT

LIST OF SITES relevant to selection parameters (Cont.)

15 NF-03-A-33 MIXED HOUSES NORFOLK
LONDON ROAD
ATTLEBOROUGH

Edge of Town
Residential Zone
Total No of Dwellings: 143
Survey date: THURSDAY 29/09/22 Survey Type: MANUAL

16 NF-03-A-38 MIXED HOUSES NORFOLK
BEAUFORT WAY
GREAT YARMOUTH
BRADWELL
Edge of Town
Residential Zone
Total No of Dwellings: 537
Survey date: TUESDAY 20/09/22 Survey Type: MANUAL

17 NF-03-A-39 MIXED HOUSES NORFOLK
HEATH DRIVE
HOLT

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: TUESDAY 27/09/22 Survey Type: MANUAL

18 NY-03-A-09 MIXED HOUSING NORTH YORKSHIRE
GRAMMAR SCHOOL LANE
NORTHALLERTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 52
Survey date: MONDAY 16/09/13 Survey Type: MANUAL

19 SC-03-A-04 DETACHED & TERRACED SURREY
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total No of Dwellings: 71
Survey date: THURSDAY 23/01/14 Survey Type: MANUAL

20 SC-03-A-08 MIXED HOUSES SURREY
REIGATE ROAD
HORLEY

Edge of Town
Residential Zone
Total No of Dwellings: 790
Survey date: WEDNESDAY 04/05/22 Survey Type: MANUAL

21 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 Survey Type: MANUAL

22 TE-03-A-03 SEMI-DETACHED/TERRACED TELFORD & WREKIN
SANDCROFT
TELFORD
SUTTON HILL
Edge of Town
Residential Zone
Total No of Dwellings: 54
Survey date: THURSDAY 24/10/13 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

23 WB-03-A-03 MIXED HOUSES WEST BERKSHIRE
DORKING WAY
READING
CALCOT
Edge of Town
Residential Zone
Total No of Dwellings: 108
Survey date: FRIDAY 09/09/22 Survey Type: MANUAL

24 WS-03-A-04 MIXED HOUSES WEST SUSSEX
HILLS FARM LANE
HORSHAM
BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total No of Dwellings: 151
Survey date: THURSDAY 11/12/14 Survey Type: MANUAL

25 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

26 WS-03-A-11 MIXED HOUSES WEST SUSSEX
ELLIS ROAD
WEST HORSHAM
S BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total No of Dwellings: 918
Survey date: TUESDAY 02/04/19 Survey Type: MANUAL

27 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
DV-03-A-02	contains flats/bungalows
ES-03-A-03	contains flats/bungalows
ES-03-A-05	contains flats/bungalows
ES-03-A-08	contains flats/bungalows
HC-03-A-23	contains flats/bungalows
HC-03-A-24	contains flats/bungalows
HC-03-A-28	contains flats/bungalows
HC-03-A-29	contains flats/bungalows
KC-03-A-03	contains flats/bungalows
KC-03-A-06	contains flats/bungalows
NF-03-A-22	covid
NF-03-A-25	contains flats/bungalows
NF-03-A-28	contains flats/bungalows
NF-03-A-32	contains flats/bungalows
NF-03-A-35	contains flats/bungalows
NF-03-A-47	contains flats/bungalows
SF-03-A-09	covid
SF-03-A-10	covid
WS-03-A-13	covid
WS-03-A-17	contains flats/bungalows

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	27	209	0.074	27	209	0.305	27	209	0.379
08:00 - 09:00	27	209	0.137	**27**	**209**	**0.381**	**27**	**209**	**0.518**
09:00 - 10:00	27	209	0.131	27	209	0.161	27	209	0.292
10:00 - 11:00	27	209	0.116	27	209	0.143	27	209	0.259
11:00 - 12:00	27	209	0.124	27	209	0.132	27	209	0.256
12:00 - 13:00	27	209	0.153	27	209	0.132	27	209	0.285
13:00 - 14:00	27	209	0.148	27	209	0.148	27	209	0.296
14:00 - 15:00	27	209	0.150	27	209	0.171	27	209	0.321
15:00 - 16:00	27	209	0.247	27	209	0.153	27	209	0.400
16:00 - 17:00	27	209	0.249	27	209	0.145	27	209	0.394
17:00 - 18:00	**27**	**209**	**0.350**	27	209	0.151	27	209	0.501
18:00 - 19:00	27	209	0.288	27	209	0.146	27	209	0.434
19:00 - 20:00	1	97	0.062	1	97	0.052	1	97	0.114
20:00 - 21:00	1	97	0.031	1	97	0.021	1	97	0.052
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.260			2.241			4.501

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.*

Parameter summary

Trip rate parameter range selected:	50 - 918 (units:)
Survey date date range:	02/03/13 - 01/03/23
Number of weekdays (Monday-Friday):	27
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	35
Surveys manually removed from selection:	20

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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

This page has been left intentionally blank

APPENDIX I

2011 MTW DISTRIBUTION CALCULATION

This page has been left intentionally blank

MSOA	Trips	MSOA Name	Local Area	Pri Route	Pri %	Sec Route	Sec %	Pri/Sec Split	SRN	SRN %
E02004685	17	Basingstoke and Deane 011	Basingstoke Central E	M271	0.3%				M27 J3 E	0.3%
E02003182	17	Bournemouth 011	Littledown Centre, JP Morgan Chase, Royal Bournemouth Hospital	M271	0.3%				M27 J3 W	0.3%
E02004712	74	Eastleigh 001	Hiltingbury, Millers Dale North	A3090 N	1.0%	Castle Ln	0.4%	70/30		
E02004713	47	Eastleigh 002	Woodside Av Ind Estate SW, Allbrook, Oakmount	Castle Ln	0.6%	A3090 N	0.3%	70/30		
E02004714	239	Eastleigh 003	Chandler's Ford, Chandler's Ford Industrial Estate, Hampshire Corporate Park	Castle Ln	4.5%					
E02004715	58	Eastleigh 004	Hampshire Fire & Police HQ, Channon Retail Park, Crestwood College	Castle Ln	1.1%					
E02004717	204	Eastleigh 006	Chestnut Ave. Retail & Business, Southampton Airport Parkway	Castle Ln	3.8%					
E02004718	133	Eastleigh 007	Eastleigh TC & Rail Depot	Castle Ln	2.5%					
E02004719	19	Eastleigh 008	Fair Oak, Deer Park Farm Industrial Estate, Horton Heath	Castle Ln	0.4%					
E02004720	22	Eastleigh 009	West End, Moorgreen Hospital	A27 SE	0.4%					
E02004722	40	Eastleigh 011	Hamilton Business Park, Solent Industrial Estate, Hedge End E	M271	0.4%	A27 SE	0.4%	50/50	M27 J3 E	0.4%
E02004723	17	Eastleigh 012	Hedge End W&S	M271	0.2%	A27 SE	0.2%	50/50	M27 J3 E	0.2%
E02004726	43	Eastleigh 015	Hamble-le-Rice, Hamble Oil Terminal	M271	0.4%	A27 SE	0.4%	50/50	M27 J3 E	0.4%
E02004727	35	Fareham 001	Burridge, Lower Swanwick, Sarisbury Green	M271	0.7%				M27 J3 E	0.7%
E02004728	28	Fareham 002	Swanwick Train Station, Office for National Statistics	M271	0.5%				M27 J3 E	0.5%
E02004734	18	Fareham 008	Fareham	M271	0.3%				M27 J3 E	0.3%
E02004775	18	Havant 014	Havant	M271	0.3%				M27 J3 E	0.3%
E02004781	70	New Forest 003	Totton W, Testwood Water Supply Works	M271	1.3%				M27 J3 S (M271)	1.3%
E02004782	87	New Forest 004	Totton	M271	1.6%				M27 J3 S (M271)	1.6%
E02004783	18	New Forest 005	Totton SW	M271	0.3%				M27 J3 S (M271)	0.3%
E02004784	55	New Forest 006	Netley Marsh, Bartley, Cadnam, Ashurst	A3090 S	1.0%				M27 J2 S (A326)	1.0%
E02004785	83	New Forest 007	Lyndhurst	A3090 S	0.8%	A3057 S	0.8%	50/50	M27 J3 S (M271)	0.8%
E02004786	25	New Forest 008	Marchwood, Dibden	M271	0.5%				M27 J3 S (M271)	0.5%
E02004787	17	New Forest 009	Hythe	M271	0.3%				M27 J3 S (M271)	0.3%
E02004790	16	New Forest 012	Ringwood	M271	0.3%				M27 J3 W	0.3%
E02004792	41	New Forest 014	Fawley Oil Refinery	M271	0.8%				M27 J3 S (M271)	0.8%
E02003539	17	Portsmouth 016	HMNB Portsmouth, HMS Nelson, Cascades Shopping Centre	M271	0.3%				M27 J3 E	0.3%
E02003550	37	Southampton 002	Lordswood, Aldermoor	Rowhams Ln S	0.3%	A3057 S	0.3%	50/50		
E02003552	17	Southampton 004	Lords Hill, Coxford	Rowhams Ln S	0.2%	A3057 S	0.2%	50/50		
E02003554	20	Southampton 006	Hollybrook, Bassett	Rowhams Ln S	0.2%	A3057 S	0.2%	50/50		
E02003555	45	Southampton 007	Maybush, Oasis Academy Lord's Hill (Annex)	Rowhams Ln S	0.4%	A3057 S	0.4%	50/50		
E02003557	84	Southampton 009	Belgrave Industrial Estate	A27 SE	1.6%					
E02003558	251	Southampton 010	Southampton General Hospital, Shirley Warren	Rowhams Ln S	2.3%	A3057 S	2.3%	50/50		
E02003559	27	Southampton 011	Upper Shirley	Rowhams Ln S	0.3%	A3057 S	0.3%	50/50		
E02003560	44	Southampton 012	Redbridge, Millbrook Technology Campus	M271	0.8%				M27 J3 S (M271)	0.8%
E02003563	52	Southampton 015	Western Community Hospital, Tesco	A3057 S	1.0%					
E02003565	28	Southampton 017	Bevois Town	A27 SE	0.5%					
E02003567	74	Southampton 019	Port of Southampton, Millbrook	M271	1.4%				M27 J3 S (M271)	1.4%
E02003569	58	Southampton 021	Freemantle, Docks	M271	1.1%				M27 J3 S (M271)	1.1%
E02003570	109	Southampton 022	Newton-Nicholstown, Royal South Hants Hospital	A27 SE	2.0%					
E02003571	177	Southampton 023	Southhampton Central W	M271	3.3%				M27 J3 S (M271)	3.3%
E02003577	135	Southampton 029	Southhampton Central E	M271	2.5%				M27 J3 S (M271)	2.5%
E02004816	58	Test Valley 003	Andover NE/E	A3057 N via TC	0.5%	A3057 N via Braishfield Rd	0.5%	50/50		
E02004817	43	Test Valley 004	Andover Central	A3057 N via TC	0.4%	A3057 N via Braishfield Rd	0.4%	50/50		
E02004818	55	Test Valley 005	Andover W	A3057 N via TC	0.5%	A3057 N via Braishfield Rd	0.5%	50/50		
E02004819	27	Test Valley 006	Andover S	A3057 N via TC	0.3%	A3057 N via Braishfield Rd	0.3%	50/50		
E02004820	16	Test Valley 007	Army Aviation Centre Over Wallop, Grateley, Thruxton	A3057 N via TC	0.1%	A3057 N via Braishfield Rd	0.1%	50/50		
E02004821	26	Test Valley 008	Stockbridge N, Chilbolton, Barton Stacey, Goodworth Clatford	A3057 N via TC	0.2%	A3057 N via Braishfield Rd	0.2%	50/50		
E02004822	138	Test Valley 009	Nether Wallop, Broughton, Kings Somborne, Houghton, Lockerley	A3057 N via TC	1.3%	A3057 N via Braishfield Rd	1.3%	50/50		
E02004823	168	Test Valley 010	Romsey NE/E Hospital, Ind Est	Cupernham Ln via Botley Rd W	1.6%	Cupernham Ln via Halterworth Ln	1.6%	50/50		
E02004824	456	Test Valley 011	Romsey Central, Budds Ln	TC via Botley Rd W	4.2%	Cupernham Ln via Halterworth Ln	4.2%	50/50		
E02004825	241	Test Valley 012	North Baddesley, Braishfield, Ampfield	Rowhams Ln S	2.7%	A3090 N	1.8%	60/40		
E02004826	314	Test Valley 013	Abbey Park Industrial Estate, Abbotswood, Belbins Business Park,West Wellow	A27 W	3.5%	Cupernham Ln via Halterworth Ln	2.3%	60/40		
E02004827	17	Test Valley 014	Chandler's Ford W, Pilgrim's Close, Care Home	Castle Ln	0.2%	Flexford Rd	0.2%	50/50		
E02004828	179	Test Valley 015	Nursling Industrial Estate, Chilworth Science Park, Rownhams, Chilworth,	M271	3.3%				M27 J3 S (M271)	3.3%
E02003385	16	West Berkshire 019	Newbury, New Greenham Business Park	M271	0.3%				M27 J3 E	0.3%
E02006664	27	Wiltshire 049	Netton	A27 W	0.5%					
E02006671	21	Wiltshire 056	Salisbury	A27 W	0.4%					
E02006672	26	Wiltshire 057	Homington, Odstock, Britford	A27 W	0.5%					
E02006677	27	Wiltshire 062	Landford, Redlynch, Downton	A36 W	0.5%					
E02004829	16	Winchester 001	South Wonston, Sutton Scotney, Micheldever, East Stratton	A3090 N	0.3%					
E02004830	20	Winchester 002	Kings Worthy, Springvale, Easton, Northington	A3090 N	0.4%					
E02004831	60	Winchester 003	Winchester N, Crawley, Sparsholt	A3090 N	1.1%					
E02004832	18	Winchester 004	New Alresford	M271	0.3%				M27 J3 E	0.3%
E02004833	80	Winchester 005	Winchester NW	A3090 N	1.5%					
E02004834	75	Winchester 006	Winchester E	A3090 N	1.4%					
E02004835	284	Winchester 007	Winchester Central/S	A3090 N	5.3%					
E02004836	20	Winchester 008	Winchester SW	A3090 N	0.4%					
E02004837	161	Winchester 009	Hursley	A3090 N	3.0%					
E02004838	78	Winchester 010	Colden Common, Twyford,Owslebury	A3090 N	1.5%					
E02004841	84	Winchester 013	Solent Business Park, Wickham, Durley, Shedfield, Curdbridge, Whiteley	M271	1.6%				M27 J3 E	1.6%
	5367				**80.4%**		**19.6%**			

Route	Example Destination	Pri %	Sec %	Total %
A27 SE	Central north Southampton	4.5%	0.9%	5.5%
A27 W	Test Valley western environs & Wiltshire	4.9%	0.0%	4.9%
A3057 N via Braishfield Rd	Andover	0.0%	3.4%	3.4%
A3057 N via TC	Andover	3.4%	0.0%	3.4%
A3057 S	North west Southampton	1.0%	4.5%	5.4%
A3090 N	Winchester	15.8%	2.1%	17.8%
A3090 S	Lyndhurst	1.8%	0.0%	1.8%
A36 W	Landford, Downton	0.5%	0.0%	0.5%
Castle Ln	Chandlers Ford, Eastleigh	12.9%	0.4%	13.4%
Cupernham Ln via Botley Rd W	North East Romsey, Romsey Hospital, Romsey Ind Est	1.6%	0.0%	1.6%
Cupernham Ln via Halterworth Ln	Central Romsey, Budds Lane Industrial Estate	0.0%	8.2%	8.2%
Flexford Rd	Knightwood	0.0%	0.2%	0.2%
M271	Western & central Southampton	23.5%	0.0%	23.5%
Rowhams Ln S	North west Southampton	6.4%	0.0%	6.4%
TC via Botley Rd W	Central Romsey	4.2%	0.0%	4.2%
	Total	**80.4%**	**19.6%**	**100.0%**

APPENDIX J

CAPACITY ASSESSMENT REPORT OUTPUTS

This page has been left intentionally blank

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.0.1820

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

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: J1-Halt-Jenner.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:31:30

File summary

File Description

Title	Halterworth Lane/Jenner Way
Location	Romsey
Site number	1
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15
D2	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 Baseline 2023, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Jenner Way	T-Junction	Two-way	Two-way	Two-way		7.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.42	A

Arms

Arms

Arm	Name	Description	Arm type
A	Halterworth Lane (Eastern Arm)		Major
B	Halterworth Lane (Southern Arm)		Minor
C	Jenner Way		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Jenner Way	6.00			95.0	✓	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 - Halterworth Lane (Southern Arm)	One lane	3.00	21	26

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	497	0.091	0.229	0.144	0.327
B-C	640	0.098	0.248	-	-
C-B	629	0.244	0.244	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Eastern Arm)		✓	152	100.000
B - Halterworth Lane (Southern Arm)		✓	194	100.000
C - Jenner Way		✓	26	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	148	4
	B - Halterworth Lane (Southern Arm)	184	0	10
	C - Jenner Way	7	19	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	0	0
	B - Halterworth Lane (Southern Arm)	1	0	0
	C - Jenner Way	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.45	13.61	0.8	B
C-AB	0.04	6.29	0.0	A
C-A				
A-B				
A-C				

1 Baseline 2023, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Jenner Way	T-Junction	Two-way	Two-way	Two-way		4.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.53	A

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	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Eastern Arm)		✓	155	100.000
B - Halterworth Lane (Southern Arm)		✓	127	100.000
C - Jenner Way		✓	14	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	142	13
	B - Halterworth Lane (Southern Arm)	103	0	24
	C - Jenner Way	4	10	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	1	8
	B - Halterworth Lane (Southern Arm)	0	0	0
	C - Jenner Way	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.28	10.06	0.4	B
C-AB	0.02	6.21	0.0	A
C-A				
A-B				
A-C				

2 Future Baseline 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Jenner Way	T-Junction	Two-way	Two-way	Two-way		7.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.56	A

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)
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Eastern Arm)		✓	155	100.000
B - Halterworth Lane (Southern Arm)		✓	198	100.000
C - Jenner Way		✓	26	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	151	4
	B - Halterworth Lane (Southern Arm)	188	0	10
	C - Jenner Way	7	19	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	0	0
	B - Halterworth Lane (Southern Arm)	1	0	0
	C - Jenner Way	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.46	13.86	0.8	B
C-AB	0.04	6.30	0.0	A
C-A				
A-B				
A-C				

2 Future Baseline 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Jenner Way	T-Junction	Two-way	Two-way	Two-way		4.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.56	A

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)
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Eastern Arm)		✓	158	100.000
B - Halterworth Lane (Southern Arm)		✓	129	100.000
C - Jenner Way		✓	14	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	145	13
	B - Halterworth Lane (Southern Arm)	105	0	24
	C - Jenner Way	4	10	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	1	8
	B - Halterworth Lane (Southern Arm)	0	0	0
	C - Jenner Way	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.29	10.14	0.4	B
C-AB	0.02	6.22	0.0	A
C-A				
A-B				
A-C				

3 Future Baseline 2028 + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Jenner Way	T-Junction	Two-way	Two-way	Two-way		9.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.19	A

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)
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Eastern Arm)		✓	167	100.000
B - Halterworth Lane (Southern Arm)		✓	232	100.000
C - Jenner Way		✓	26	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	163	4
	B - Halterworth Lane (Southern Arm)	222	0	10
	C - Jenner Way	7	19	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	0	0
	B - Halterworth Lane (Southern Arm)	0	0	0
	C - Jenner Way	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.54	16.31	1.1	C
C-AB	0.04	6.33	0.0	A
C-A				
A-B				
A-C				

3 Future Baseline 2028 + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Jenner Way	T-Junction	Two-way	Two-way	Two-way		4.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.64	A

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)
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Eastern Arm)		✓	192	100.000
B - Halterworth Lane (Southern Arm)		✓	144	100.000
C - Jenner Way		✓	14	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	179	13
	B - Halterworth Lane (Southern Arm)	120	0	24
	C - Jenner Way	4	10	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	1	8
	B - Halterworth Lane (Southern Arm)	0	0	0
	C - Jenner Way	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.32	10.82	0.5	B
C-AB	0.02	6.32	0.0	A
C-A				
A-B				
A-C				

4 Without Development 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Jenner Way	T-Junction	Two-way	Two-way	Two-way		7.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.85	A

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)
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Eastern Arm)		✓	180	100.000
B - Halterworth Lane (Southern Arm)		✓	212	100.000
C - Jenner Way		✓	26	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	176	4
	B - Halterworth Lane (Southern Arm)	202	0	10
	C - Jenner Way	7	19	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	0	0
	B - Halterworth Lane (Southern Arm)	1	0	0
	C - Jenner Way	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.49	14.90	1.0	B
C-AB	0.04	6.37	0.0	A
C-A				
A-B				
A-C				

4 Without Development 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Jenner Way	T-Junction	Two-way	Two-way	Two-way		5.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.69	A

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)
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Eastern Arm)		✓	167	100.000
B - Halterworth Lane (Southern Arm)		✓	164	100.000
C - Jenner Way		✓	14	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	154	13
	B - Halterworth Lane (Southern Arm)	140	0	24
	C - Jenner Way	4	10	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	1	8
	B - Halterworth Lane (Southern Arm)	0	0	0
	C - Jenner Way	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.37	11.59	0.6	B
C-AB	0.02	6.25	0.0	A
C-A				
A-B				
A-C				

5 With Development 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Jenner Way	T-Junction	Two-way	Two-way	Two-way		9.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.68	A

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)
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Eastern Arm)		✓	192	100.000
B - Halterworth Lane (Southern Arm)		✓	246	100.000
C - Jenner Way		✓	26	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	188	4
	B - Halterworth Lane (Southern Arm)	236	0	10
	C - Jenner Way	7	19	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	0	0
	B - Halterworth Lane (Southern Arm)	0	0	0
	C - Jenner Way	0	0	0

Generated On 17/01/2024 09:31:40 Using Junctions 10 (10.1.0.1820)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.57	17.75	1.3	C
C-AB	0.04	6.41	0.0	A
C-A				
A-B				
A-C				

5 With Development 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Jenner Way	T-Junction	Two-way	Two-way	Two-way		5.82	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.82	A

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)
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Eastern Arm)		✓	201	100.000
B - Halterworth Lane (Southern Arm)		✓	179	100.000
C - Jenner Way		✓	14	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	188	13
	B - Halterworth Lane (Southern Arm)	155	0	24
	C - Jenner Way	4	10	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Eastern Arm)	B - Halterworth Lane (Southern Arm)	C - Jenner Way
From	A - Halterworth Lane (Eastern Arm)	0	1	8
	B - Halterworth Lane (Southern Arm)	0	0	0
	C - Jenner Way	0	0	0

Generated On 17/01/2024 09:31:40 Using Junctions 10 (10.1.0.1820)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.41	12.45	0.7	B
C-AB	0.02	6.35	0.0	A
C-A				
A-B				
A-C				

Junctions 10

PICADY 10 - Priority Intersection Module

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

Filename: J2-Halt-High-Flat.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:32:53

File summary

File Description

Title	Halterworth Lane/Highwood Lane
Location	Romsey
Site number	2
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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 period length (min)	Time segment length (min)
D1	1 Baseline 2023	AM	FLAT	08:00	09:00	60	15
D2	1 Baseline 2023	PM	FLAT	16:15	17:15	60	15
D3	2 Future Baseline 2028	AM	FLAT	08:00	09:00	60	15
D4	2 Future Baseline 2028	PM	FLAT	16:15	17:15	60	15
D5	3 Future Baseline 2028 + Development	AM	FLAT	08:00	09:00	60	15
D6	3 Future Baseline 2028 + Development	PM	FLAT	16:15	17:15	60	15
D7	4 Without Development 2028	AM	FLAT	08:00	09:00	60	15
D8	4 Without Development 2028	PM	FLAT	16:15	17:15	60	15
D9	5 With Development 2028	AM	FLAT	08:00	09:00	60	15
D10	5 With Development 2028	PM	FLAT	16:15	17:15	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 Baseline 2023, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Highwood Lane	T-Junction	Two-way	Two-way	Two-way		14.82	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.82	B

Arms

Arms

Arm	Name	Description	Arm type
A	Halterworth Lane (Western Arm)		Major
B	Halterworth Lane (Northern Arm)		Minor
C	Highwood Lane		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Highwood Lane	6.00			90.0	✓	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 - Halterworth Lane (Northern Arm)	One lane	3.80	22	28

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	538	0.098	0.248	0.156	0.354
B-C	693	0.106	0.268	-	-
C-B	626	0.243	0.243	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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.

Generated On 17/01/2024 09:32:57 Using Junctions 10 (10.1.0.1820)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	1 Baseline 2023	AM	FLAT	08:00	09:00	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Western Arm)		✓	191	100.000
B - Halterworth Lane (Northern Arm)		✓	412	100.000
C - Highwood Lane		✓	244	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	176	15
	B - Halterworth Lane (Northern Arm)	147	0	265
	C - Highwood Lane	5	239	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	1	0
	B - Halterworth Lane (Northern Arm)	0	0	0
	C - Highwood Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.74	24.31	2.7	C
C-AB	0.41	10.52	0.7	B
C-A				
A-B				
A-C				

1 Baseline 2023, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Highwood Lane	T-Junction	Two-way	Two-way	Two-way		12.93	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.93	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	1 Baseline 2023	PM	FLAT	16:15	17:15	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Western Arm)		✓	107	100.000
B - Halterworth Lane (Northern Arm)		✓	354	100.000
C - Highwood Lane		✓	299	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	98	9
	B - Halterworth Lane (Northern Arm)	139	0	215
	C - Highwood Lane	16	283	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	0	0
	B - Halterworth Lane (Northern Arm)	1	0	0
	C - Highwood Lane	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.65	18.51	1.8	C
C-AB	0.48	11.27	0.9	B
C-A				
A-B				
A-C				

2 Future Baseline 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Highwood Lane	T-Junction	Two-way	Two-way	Two-way		15.69	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.69	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	2 Future Baseline 2028	AM	FLAT	08:00	09:00	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Western Arm)		✓	194	100.000
B - Halterworth Lane (Northern Arm)		✓	420	100.000
C - Highwood Lane		✓	249	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	179	15
	B - Halterworth Lane (Northern Arm)	150	0	270
	C - Highwood Lane	5	244	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	1	0
	B - Halterworth Lane (Northern Arm)	0	0	0
	C - Highwood Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.75	25.96	3.0	D
C-AB	0.42	10.70	0.7	B
C-A				
A-B				
A-C				

2 Future Baseline 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Highwood Lane	T-Junction	Two-way	Two-way	Two-way		13.41	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.41	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	2 Future Baseline 2028	PM	FLAT	16:15	17:15	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Western Arm)		✓	109	100.000
B - Halterworth Lane (Northern Arm)		✓	361	100.000
C - Highwood Lane		✓	304	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	100	9
	B - Halterworth Lane (Northern Arm)	142	0	219
	C - Highwood Lane	16	288	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	0	0
	B - Halterworth Lane (Northern Arm)	1	0	0
	C - Highwood Lane	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.66	19.36	1.9	C
C-AB	0.48	11.47	1.0	B
C-A				
A-B				
A-C				

3 Future Baseline 2028 + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Highwood Lane	T-Junction	Two-way	Two-way	Two-way		17.37	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.37	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	3 Future Baseline 2028 + Development	AM	FLAT	08:00	09:00	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Western Arm)		✓	228	100.000
B - Halterworth Lane (Northern Arm)		✓	432	100.000
C - Highwood Lane		✓	249	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	213	15
	B - Halterworth Lane (Northern Arm)	162	0	270
	C - Highwood Lane	5	244	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	0	0
	B - Halterworth Lane (Northern Arm)	0	0	0
	C - Highwood Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.79	30.31	3.5	D
C-AB	0.43	10.97	0.8	B
C-A				
A-B				
A-C				

3 Future Baseline 2028 + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Highwood Lane	T-Junction	Two-way	Two-way	Two-way		16.77	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.77	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	3 Future Baseline 2028 + Development	PM	FLAT	16:15	17:15	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Western Arm)		✓	124	100.000
B - Halterworth Lane (Northern Arm)		✓	395	100.000
C - Highwood Lane		✓	304	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	115	9
	B - Halterworth Lane (Northern Arm)	176	0	219
	C - Highwood Lane	16	288	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	0	0
	B - Halterworth Lane (Northern Arm)	1	0	0
	C - Highwood Lane	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.74	26.26	2.8	D
C-AB	0.49	11.60	1.0	B
C-A				
A-B				
A-C				

4 Without Development 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Highwood Lane	T-Junction	Two-way	Two-way	Two-way		23.55	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.55	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	4 Without Development 2028	AM	FLAT	08:00	09:00	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Western Arm)		✓	208	100.000
B - Halterworth Lane (Northern Arm)		✓	463	100.000
C - Highwood Lane		✓	262	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	193	15
	B - Halterworth Lane (Northern Arm)	175	0	288
	C - Highwood Lane	5	257	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	1	0
	B - Halterworth Lane (Northern Arm)	0	0	0
	C - Highwood Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.84	41.16	5.1	E
C-AB	0.45	11.26	0.8	B
C-A				
A-B				
A-C				

4 Without Development 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Highwood Lane	T-Junction	Two-way	Two-way	Two-way		14.75	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.75	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	4 Without Development 2028	PM	FLAT	16:15	17:15	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Western Arm)		✓	144	100.000
B - Halterworth Lane (Northern Arm)		✓	380	100.000
C - Highwood Lane		✓	317	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	135	9
	B - Halterworth Lane (Northern Arm)	151	0	229
	C - Highwood Lane	16	301	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	0	0
	B - Halterworth Lane (Northern Arm)	1	0	0
	C - Highwood Lane	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.70	22.62	2.3	C
C-AB	0.51	12.32	1.1	B
C-A				
A-B				
A-C				

5 With Development 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Highwood Lane	T-Junction	Two-way	Two-way	Two-way		28.27	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	28.27	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D9	5 With Development 2028	AM	FLAT	08:00	09:00	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Western Arm)		✓	242	100.000
B - Halterworth Lane (Northern Arm)		✓	475	100.000
C - Highwood Lane		✓	262	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	227	15
	B - Halterworth Lane (Northern Arm)	187	0	288
	C - Highwood Lane	5	257	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	0	0
	B - Halterworth Lane (Northern Arm)	0	0	0
	C - Highwood Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.88	51.96	6.5	F
C-AB	0.45	11.55	0.8	B
C-A				
A-B				
A-C				

5 With Development 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Highwood Lane	T-Junction	Two-way	Two-way	Two-way		19.40	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.40	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D10	5 With Development 2028	PM	FLAT	16:15	17:15	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Western Arm)		✓	159	100.000
B - Halterworth Lane (Northern Arm)		✓	414	100.000
C - Highwood Lane		✓	317	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	150	9
	B - Halterworth Lane (Northern Arm)	185	0	229
	C - Highwood Lane	16	301	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Western Arm)	B - Halterworth Lane (Northern Arm)	C - Highwood Lane
From	A - Halterworth Lane (Western Arm)	0	0	0
	B - Halterworth Lane (Northern Arm)	1	0	0
	C - Highwood Lane	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.79	32.38	3.6	D
C-AB	0.52	12.48	1.1	B
C-A				
A-B				
A-C				

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: J3-A3090-Halt -Flat.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:34:18

File summary

File Description

Title	A3090 Winchester Road/Halterworth Lane
Location	Romsey
Site number	3
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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 period length (min)	Time segment length (min)
D1	1 Baseline 2023	AM	FLAT	08:00	09:00	60	15
D2	1 Baseline 2023	PM	FLAT	16:15	17:15	60	15
D3	2 Future Baseline 2028	AM	FLAT	08:00	09:00	60	15
D4	2 Future Baseline 2028	PM	FLAT	16:15	17:15	60	15
D5	3 Future Baseline 2028 + Development	AM	FLAT	08:00	09:00	60	15
D6	3 Future Baseline 2028 + Development	PM	FLAT	16:15	17:15	60	15
D7	4 Without Development 2028	AM	FLAT	08:00	09:00	60	15
D8	4 Without Development 2028	PM	FLAT	16:15	17:15	60	15
D9	5 With Development 2028	AM	FLAT	08:00	09:00	60	15
D10	5 With Development 2028	PM	FLAT	16:15	17:15	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 Baseline 2023, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A3090 Winchester Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		14.30	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.30	B

Arms

Arms

Arm	Name	Description	Arm type
A	A3090 Winchester Road (South-Eastern Arm)		Major
B	Halterworth Lane		Minor
C	A3090 Winchester Road (North-Western Arm)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A3090 Winchester Road (North-Western Arm)	6.50		✓	2.50	108.0	✓	2.00

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 - Halterworth Lane	One lane	3.50	140	160

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	637	0.113	0.287	0.180	0.410
B-C	761	0.114	0.288	-	-
C-B	657	0.249	0.249	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 period length (min)	Time segment length (min)
D1	1 Baseline 2023	AM	FLAT	08:00	09:00	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A3090 Winchester Road (South-Eastern Arm)		✓	332	100.000
B - Halterworth Lane		✓	419	100.000
C - A3090 Winchester Road (North-Western Arm)		✓	736	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	69	263
	B - Halterworth Lane	132	0	287
	C - A3090 Winchester Road (North-Western Arm)	387	349	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	0	1
	B - Halterworth Lane	1	0	0
	C - A3090 Winchester Road (North-Western Arm)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.81	37.25	4.2	E
C-AB	0.61	12.96	1.9	B
C-A				
A-B				
A-C				

1 Baseline 2023, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A3090 Winchester Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		8.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.23	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	1 Baseline 2023	PM	FLAT	16:15	17:15	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A3090 Winchester Road (South-Eastern Arm)		✓	301	100.000
B - Halterworth Lane		✓	375	100.000
C - A3090 Winchester Road (North-Western Arm)		✓	462	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	75	226
	B - Halterworth Lane	83	0	292
	C - A3090 Winchester Road (North-Western Arm)	182	280	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	0	0
	B - Halterworth Lane	0	0	0
	C - A3090 Winchester Road (North-Western Arm)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.63	16.05	1.7	C
C-AB	0.48	11.16	1.0	B
C-A				
A-B				
A-C				

2 Future Baseline 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A3090 Winchester Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		16.04	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.04	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	2 Future Baseline 2028	AM	FLAT	08:00	09:00	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A3090 Winchester Road (South-Eastern Arm)		✓	338	100.000
B - Halterworth Lane		✓	427	100.000
C - A3090 Winchester Road (North-Western Arm)		✓	750	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	70	268
	B - Halterworth Lane	135	0	292
	C - A3090 Winchester Road (North-Western Arm)	394	356	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	0	1
	B - Halterworth Lane	1	0	0
	C - A3090 Winchester Road (North-Western Arm)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.84	42.86	4.9	E
C-AB	0.62	13.31	2.0	B
C-A				
A-B				
A-C				

2 Future Baseline 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A3090 Winchester Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		8.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.55	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	2 Future Baseline 2028	PM	FLAT	16:15	17:15	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A3090 Winchester Road (South-Eastern Arm)		✓	306	100.000
B - Halterworth Lane		✓	382	100.000
C - A3090 Winchester Road (North-Western Arm)		✓	470	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	76	230
	B - Halterworth Lane	85	0	297
	C - A3090 Winchester Road (North-Western Arm)	185	285	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	0	0
	B - Halterworth Lane	0	0	0
	C - A3090 Winchester Road (North-Western Arm)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.64	16.79	1.8	C
C-AB	0.49	11.34	1.0	B
C-A				
A-B				
A-C				

3 Future Baseline 2028 + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A3090 Winchester Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		26.66	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.66	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	3 Future Baseline 2028 + Development	AM	FLAT	08:00	09:00	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A3090 Winchester Road (South-Eastern Arm)		✓	345	100.000
B - Halterworth Lane		✓	460	100.000
C - A3090 Winchester Road (North-Western Arm)		✓	756	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	77	268
	B - Halterworth Lane	153	0	307
	C - A3090 Winchester Road (North-Western Arm)	394	362	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	0	1
	B - Halterworth Lane	1	0	0
	C - A3090 Winchester Road (North-Western Arm)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.92	76.70	9.2	F
C-AB	0.63	13.69	2.2	B
C-A				
A-B				
A-C				

3 Future Baseline 2028 + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A3090 Winchester Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		9.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.37	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	3 Future Baseline 2028 + Development	PM	FLAT	16:15	17:15	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A3090 Winchester Road (South-Eastern Arm)		✓	325	100.000
B - Halterworth Lane		✓	395	100.000
C - A3090 Winchester Road (North-Western Arm)		✓	484	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	95	230
	B - Halterworth Lane	92	0	303
	C - A3090 Winchester Road (North-Western Arm)	185	299	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	0	0
	B - Halterworth Lane	0	0	0
	C - A3090 Winchester Road (North-Western Arm)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.67	18.68	2.0	C
C-AB	0.52	12.01	1.2	B
C-A				
A-B				
A-C				

4 Without Development 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A3090 Winchester Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		24.99	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	24.99	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	4 Without Development 2028	AM	FLAT	08:00	09:00	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A3090 Winchester Road (South-Eastern Arm)		✓	339	100.000
B - Halterworth Lane		✓	454	100.000
C - A3090 Winchester Road (North-Western Arm)		✓	791	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	71	268
	B - Halterworth Lane	138	0	316
	C - A3090 Winchester Road (North-Western Arm)	394	397	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	0	1
	B - Halterworth Lane	1	0	0
	C - A3090 Winchester Road (North-Western Arm)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.91	68.82	8.2	F
C-AB	0.69	15.78	2.9	C
C-A				
A-B				
A-C				

4 Without Development 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A3090 Winchester Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		10.58	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.58	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	4 Without Development 2028	PM	FLAT	16:15	17:15	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A3090 Winchester Road (South-Eastern Arm)		✓	307	100.000
B - Halterworth Lane		✓	430	100.000
C - A3090 Winchester Road (North-Western Arm)		✓	487	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	77	230
	B - Halterworth Lane	86	0	344
	C - A3090 Winchester Road (North-Western Arm)	185	302	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	0	0
	B - Halterworth Lane	0	0	0
	C - A3090 Winchester Road (North-Western Arm)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.71	20.99	2.5	C
C-AB	0.52	11.94	1.2	B
C-A				
A-B				
A-C				

5 With Development 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A3090 Winchester Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		51.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	51.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D9	5 With Development 2028	AM	FLAT	08:00	09:00	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A3090 Winchester Road (South-Eastern Arm)		✓	346	100.000
B - Halterworth Lane		✓	487	100.000
C - A3090 Winchester Road (North-Western Arm)		✓	797	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	78	268
	B - Halterworth Lane	156	0	331
	C - A3090 Winchester Road (North-Western Arm)	394	403	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	0	1
	B - Halterworth Lane	1	0	0
	C - A3090 Winchester Road (North-Western Arm)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.99	152.46	19.8	F
C-AB	0.71	16.39	3.1	C
C-A				
A-B				
A-C				

5 With Development 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A3090 Winchester Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		11.83	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.83	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D10	5 With Development 2028	PM	FLAT	16:15	17:15	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A3090 Winchester Road (South-Eastern Arm)		✓	326	100.000
B - Halterworth Lane		✓	443	100.000
C - A3090 Winchester Road (North-Western Arm)		✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	96	230
	B - Halterworth Lane	93	0	350
	C - A3090 Winchester Road (North-Western Arm)	185	316	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - A3090 Winchester Road (South-Eastern Arm)	B - Halterworth Lane	C - A3090 Winchester Road (North-Western Arm)
From	A - A3090 Winchester Road (South-Eastern Arm)	0	0	0
	B - Halterworth Lane	0	0	0
	C - A3090 Winchester Road (North-Western Arm)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.75	24.00	2.9	C
C-AB	0.55	12.69	1.3	B
C-A				
A-B				
A-C				

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.0.1820

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

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: J4-Botley-Halt.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:35:36

File summary

File Description

Title	Botley Road/Halterworth Lane
Location	Romsey
Site number	4
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15
D2	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 Baseline 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Botley Road (South-Eastern Arm) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Botley Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		3.58	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.58	A

Arms

Arms

Arm	Name	Description	Arm type
A	Botley Road (North-Western Arm)		Major
B	Halterworth Lane		Minor
C	Botley Road (South-Eastern Arm)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Botley Road (South-Eastern Arm)	5.80			125.0	✓	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 - Halterworth Lane	One lane	3.00	18	18

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	492	0.090	0.229	0.144	0.327
B-C	635	0.098	0.248	-	-
C-B	646	0.253	0.253	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Botley Road (North-Western Arm)		✓	398	100.000
B - Halterworth Lane		✓	153	100.000
C - Botley Road (South-Eastern Arm)		✓	409	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	110	288
	B - Halterworth Lane	77	0	76
	C - Botley Road (South-Eastern Arm)	304	105	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	1	1
	B - Halterworth Lane	1	0	0
	C - Botley Road (South-Eastern Arm)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.42	15.35	0.7	C
C-AB	0.27	6.39	0.6	A
C-A				
A-B				
A-C				

1 Baseline 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Botley Road (South-Eastern Arm) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Botley Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		2.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.79	A

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	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Botley Road (North-Western Arm)		✓	379	100.000
B - Halterworth Lane		✓	115	100.000
C - Botley Road (South-Eastern Arm)		✓	368	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	59	320
	B - Halterworth Lane	44	0	71
	C - Botley Road (South-Eastern Arm)	265	103	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	0	1
	B - Halterworth Lane	5	0	0
	C - Botley Road (South-Eastern Arm)	2	0	0

Generated On 17/01/2024 09:35:42 Using Junctions 10 (10.1.0.1820)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.29	11.98	0.4	B
C-AB	0.25	6.50	0.5	A
C-A				
A-B				
A-C				

2 Future Baseline 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Botley Road (South-Eastern Arm) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Botley Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		3.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.65	A

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)
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Botley Road (North-Western Arm)		✓	405	100.000
B - Halterworth Lane		✓	155	100.000
C - Botley Road (South-Eastern Arm)		✓	417	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	112	293
	B - Halterworth Lane	78	0	77
	C - Botley Road (South-Eastern Arm)	310	107	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	1	1
	B - Halterworth Lane	1	0	0
	C - Botley Road (South-Eastern Arm)	1	0	0

Generated On 17/01/2024 09:35:42 Using Junctions 10 (10.1.0.1820)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.43	15.69	0.7	C
C-AB	0.27	6.44	0.6	A
C-A				
A-B				
A-C				

2 Future Baseline 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Botley Road (South-Eastern Arm) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Botley Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		2.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.83	A

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)
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Botley Road (North-Western Arm)		✓	386	100.000
B - Halterworth Lane		✓	117	100.000
C - Botley Road (South-Eastern Arm)		✓	375	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	60	326
	B - Halterworth Lane	45	0	72
	C - Botley Road (South-Eastern Arm)	270	105	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	0	1
	B - Halterworth Lane	5	0	0
	C - Botley Road (South-Eastern Arm)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.30	12.19	0.4	B
C-AB	0.26	6.54	0.5	A
C-A				
A-B				
A-C				

3 Future Baseline 2028 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Botley Road (South-Eastern Arm) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Botley Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		5.78	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.78	A

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)
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Botley Road (North-Western Arm)		✓	410	100.000
B - Halterworth Lane		✓	224	100.000
C - Botley Road (South-Eastern Arm)		✓	437	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	117	293
	B - Halterworth Lane	91	0	133
	C - Botley Road (South-Eastern Arm)	310	127	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	1	1
	B - Halterworth Lane	1	0	0
	C - Botley Road (South-Eastern Arm)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.59	21.17	1.4	C
C-AB	0.33	6.95	0.7	A
C-A				
A-B				
A-C				

3 Future Baseline 2028 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Botley Road (South-Eastern Arm) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Botley Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		4.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.05	A

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)
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Botley Road (North-Western Arm)		✓	398	100.000
B - Halterworth Lane		✓	145	100.000
C - Botley Road (South-Eastern Arm)		✓	427	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	72	326
	B - Halterworth Lane	50	0	95
	C - Botley Road (South-Eastern Arm)	270	157	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	0	1
	B - Halterworth Lane	4	0	0
	C - Botley Road (South-Eastern Arm)	2	0	0

Generated On 17/01/2024 09:35:42 Using Junctions 10 (10.1.0.1820)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.38	13.77	0.6	B
C-AB	0.39	7.97	0.9	A
C-A				
A-B				
A-C				

4 Without Development 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Botley Road (South-Eastern Arm) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Botley Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		4.46	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.46	A

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)
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Botley Road (North-Western Arm)		✓	473	100.000
B - Halterworth Lane		✓	180	100.000
C - Botley Road (South-Eastern Arm)		✓	512	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	114	359
	B - Halterworth Lane	87	0	93
	C - Botley Road (South-Eastern Arm)	394	118	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	1	1
	B - Halterworth Lane	1	0	0
	C - Botley Road (South-Eastern Arm)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.53	20.66	1.1	C
C-AB	0.33	6.60	0.8	A
C-A				
A-B				
A-C				

4 Without Development 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Botley Road (South-Eastern Arm) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Botley Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		3.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.24	A

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)
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Botley Road (North-Western Arm)		✓	431	100.000
B - Halterworth Lane		✓	126	100.000
C - Botley Road (South-Eastern Arm)		✓	476	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	68	363
	B - Halterworth Lane	47	0	79
	C - Botley Road (South-Eastern Arm)	344	132	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	0	1
	B - Halterworth Lane	4	0	0
	C - Botley Road (South-Eastern Arm)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.34	13.71	0.5	B
C-AB	0.35	7.04	0.8	A
C-A				
A-B				
A-C				

5 With Development 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Botley Road (South-Eastern Arm) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Botley Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		7.81	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.81	A

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)
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Botley Road (North-Western Arm)		✓	478	100.000
B - Halterworth Lane		✓	249	100.000
C - Botley Road (South-Eastern Arm)		✓	532	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	119	359
	B - Halterworth Lane	100	0	149
	C - Botley Road (South-Eastern Arm)	394	138	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	1	1
	B - Halterworth Lane	1	0	0
	C - Botley Road (South-Eastern Arm)	1	0	0

Generated On 17/01/2024 09:35:42 Using Junctions 10 (10.1.0.1820)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.71	31.86	2.3	D
C-AB	0.39	7.24	1.1	A
C-A				
A-B				
A-C				

5 With Development 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Botley Road (South-Eastern Arm) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Botley Road/Halterworth Lane	T-Junction	Two-way	Two-way	Two-way		4.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.76	A

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)
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Botley Road (North-Western Arm)		✓	443	100.000
B - Halterworth Lane		✓	154	100.000
C - Botley Road (South-Eastern Arm)		✓	528	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	80	363
	B - Halterworth Lane	52	0	102
	C - Botley Road (South-Eastern Arm)	344	184	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Botley Road (North-Western Arm)	B - Halterworth Lane	C - Botley Road (South-Eastern Arm)
From	A - Botley Road (North-Western Arm)	0	0	1
	B - Halterworth Lane	4	0	0
	C - Botley Road (South-Eastern Arm)	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.42	15.84	0.7	C
C-AB	0.49	9.07	1.4	A
C-A				
A-B				
A-C				

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.0.1820

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

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: J5-A27-Botley-Prem.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:36:50

File summary

File Description

Title	A27/Botley Road/Premier Way
Location	Romsey
Site number	5
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15
D2	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 Baseline 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	8.75	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.75	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A27 (North-Eastern Arm)		
2	Premier Way		
3	A27 (South-Western Arm)		
4	Botley Road		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A27 (North-Eastern Arm)	3.14	6.45	32.5	22.5	42.0	28.0		
2 - Premier Way	3.78	7.30	10.8	16.9	42.0	15.0		
3 - A27 (South-Western Arm)	4.34	7.40	14.2	21.5	42.0	21.0		
4 - Botley Road	3.35	7.18	7.2	55.2	42.0	13.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 (North-Eastern Arm)	0.646	1729
2 - Premier Way	0.658	1739
3 - A27 (South-Western Arm)	0.692	1928
4 - Botley Road	0.639	1575

The slope and intercept shown above include any corrections and adjustments.

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15

Generated On 17/01/2024 09:36:56 Using Junctions 10 (10.1.0.1820)

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	1082	100.000
2 - Premier Way		✓	37	100.000
3 - A27 (South-Western Arm)		✓	757	100.000
4 - Botley Road		✓	748	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	87	402	593
	2 - Premier Way	16	0	8	13
	3 - A27 (South-Western Arm)	381	9	44	323
	4 - Botley Road	507	48	191	2

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	1	3	1
	2 - Premier Way	7	0	14	0
	3 - A27 (South-Western Arm)	3	0	0	1
	4 - Botley Road	2	0	1	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.78	11.09	3.6	B
2 - Premier Way	0.05	4.72	0.1	A
3 - A27 (South-Western Arm)	0.57	5.91	1.4	A
4 - Botley Road	0.65	8.42	1.9	A

1 Baseline 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	5.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.56	A

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	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	852	100.000
2 - Premier Way		✓	190	100.000
3 - A27 (South-Western Arm)		✓	669	100.000
4 - Botley Road		✓	649	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	20	363	469
	2 - Premier Way	84	0	47	59
	3 - A27 (South-Western Arm)	362	7	16	284
	4 - Botley Road	539	15	95	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	5	1	3
	2 - Premier Way	0	0	2	2
	3 - A27 (South-Western Arm)	1	0	0	1
	4 - Botley Road	1	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.57	5.29	1.4	A
2 - Premier Way	0.20	4.29	0.2	A
3 - A27 (South-Western Arm)	0.50	5.02	1.0	A
4 - Botley Road	0.57	6.86	1.4	A

2 Future Baseline 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	9.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.32	A

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)
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	1102	100.000
2 - Premier Way		✓	37	100.000
3 - A27 (South-Western Arm)		✓	771	100.000
4 - Botley Road		✓	762	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	89	409	604
	2 - Premier Way	16	0	8	13
	3 - A27 (South-Western Arm)	388	9	45	329
	4 - Botley Road	516	49	195	2

Vehicle Mix

Generated On 17/01/2024 09:36:56 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	1	3	1
	2 - Premier Way	7	0	14	0
	3 - A27 (South-Western Arm)	3	0	0	1
	4 - Botley Road	2	0	1	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.80	12.03	3.9	B
2 - Premier Way	0.05	4.82	0.1	A
3 - A27 (South-Western Arm)	0.59	6.15	1.4	A
4 - Botley Road	0.67	8.85	2.0	A

2 Future Baseline 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	5.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.73	A

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)
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	866	100.000
2 - Premier Way		✓	194	100.000
3 - A27 (South-Western Arm)		✓	680	100.000
4 - Botley Road		✓	661	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	20	369	477
	2 - Premier Way	86	0	48	60
	3 - A27 (South-Western Arm)	368	7	16	289
	4 - Botley Road	549	15	97	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	5	1	3
	2 - Premier Way	0	0	2	2
	3 - A27 (South-Western Arm)	1	0	0	1
	4 - Botley Road	1	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.58	5.42	1.4	A
2 - Premier Way	0.20	4.37	0.3	A
3 - A27 (South-Western Arm)	0.52	5.16	1.1	A
4 - Botley Road	0.59	7.11	1.4	A

3 Future Baseline 2028 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	10.37	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.37	B

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)
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	1111	100.000
2 - Premier Way		✓	37	100.000
3 - A27 (South-Western Arm)		✓	782	100.000
4 - Botley Road		✓	818	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	89	409	613
	2 - Premier Way	16	0	8	13
	3 - A27 (South-Western Arm)	388	9	45	340
	4 - Botley Road	542	49	225	2

Vehicle Mix

Generated On 17/01/2024 09:36:56 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	1	3	1
	2 - Premier Way	7	0	14	0
	3 - A27 (South-Western Arm)	3	0	0	1
	4 - Botley Road	2	0	1	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.82	13.38	4.4	B
2 - Premier Way	0.05	4.99	0.1	A
3 - A27 (South-Western Arm)	0.60	6.35	1.5	A
4 - Botley Road	0.72	10.37	2.5	B

3 Future Baseline 2028 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	6.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.05	A

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)
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	890	100.000
2 - Premier Way		✓	194	100.000
3 - A27 (South-Western Arm)		✓	707	100.000
4 - Botley Road		✓	683	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	20	369	501
	2 - Premier Way	86	0	48	60
	3 - A27 (South-Western Arm)	368	7	16	316
	4 - Botley Road	559	15	109	0

Vehicle Mix

Generated On 17/01/2024 09:36:56 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	5	1	3
	2 - Premier Way	0	0	2	2
	3 - A27 (South-Western Arm)	1	0	0	1
	4 - Botley Road	1	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.60	5.71	1.5	A
2 - Premier Way	0.21	4.52	0.3	A
3 - A27 (South-Western Arm)	0.54	5.54	1.2	A
4 - Botley Road	0.61	7.46	1.5	A

4 Without Development 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	27.84	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	27.84	D

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)
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	1279	100.000
2 - Premier Way		✓	59	100.000
3 - A27 (South-Western Arm)		✓	932	100.000
4 - Botley Road		✓	861	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	171	471	637
	2 - Premier Way	29	0	13	17
	3 - A27 (South-Western Arm)	458	20	54	400
	4 - Botley Road	534	71	254	2

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	3	3	1
	2 - Premier Way	4	0	30	0
	3 - A27 (South-Western Arm)	2	5	0	1
	4 - Botley Road	2	0	1	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.98	50.50	19.0	F
2 - Premier Way	0.09	5.87	0.1	A
3 - A27 (South-Western Arm)	0.73	9.44	2.6	A
4 - Botley Road	0.80	15.59	4.0	C

4 Without Development 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	8.82	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.82	A

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)
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	967	100.000
2 - Premier Way		✓	421	100.000
3 - A27 (South-Western Arm)		✓	806	100.000
4 - Botley Road		✓	716	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	41	437	489
	2 - Premier Way	214	0	85	122
	3 - A27 (South-Western Arm)	431	12	31	332
	4 - Botley Road	558	23	135	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	8	1	3
	2 - Premier Way	0	0	4	2
	3 - A27 (South-Western Arm)	1	0	0	1
	4 - Botley Road	1	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.67	7.06	2.1	A
2 - Premier Way	0.49	7.53	1.0	A
3 - A27 (South-Western Arm)	0.68	8.80	2.1	A
4 - Botley Road	0.72	11.98	2.6	B

5 With Development 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	34.83	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	34.83	D

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)
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	1288	100.000
2 - Premier Way		✓	59	100.000
3 - A27 (South-Western Arm)		✓	943	100.000
4 - Botley Road		✓	917	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	171	471	646
	2 - Premier Way	29	0	13	17
	3 - A27 (South-Western Arm)	458	20	54	411
	4 - Botley Road	560	71	284	2

Vehicle Mix

TRL THE FUTURE OF TRANSPORT
Generated On 17/01/2024 09:36:56 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	3	3	1
	2 - Premier Way	4	0	30	0
	3 - A27 (South-Western Arm)	2	5	0	0
	4 - Botley Road	2	0	1	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	1.00	64.44	25.3	F
2 - Premier Way	0.09	6.07	0.1	A
3 - A27 (South-Western Arm)	0.74	9.81	2.8	A
4 - Botley Road	0.86	20.83	5.6	C

5 With Development 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	9.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.63	A

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)
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	991	100.000
2 - Premier Way		✓	421	100.000
3 - A27 (South-Western Arm)		✓	833	100.000
4 - Botley Road		✓	738	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	41	437	513
	2 - Premier Way	214	0	85	122
	3 - A27 (South-Western Arm)	431	12	31	359
	4 - Botley Road	568	23	147	0

Vehicle Mix

Generated On 17/01/2024 09:36:56 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	8	1	3
	2 - Premier Way	0	0	4	2
	3 - A27 (South-Western Arm)	1	0	0	1
	4 - Botley Road	1	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.69	7.56	2.3	A
2 - Premier Way	0.50	7.95	1.0	A
3 - A27 (South-Western Arm)	0.72	9.95	2.5	A
4 - Botley Road	0.74	13.01	2.9	B

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.0.1820

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

Filename: J5-A27-Botley-Prem Mit.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:38:44

File summary

File Description

Title	A27/Botley Road/Premier Way
Location	Romsey
Site number	5
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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

Generated On 17/01/2024 09:38:49 Using Junctions 10 (10.1.0.1820)

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15
D2	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 Baseline 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (South-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	5.58	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.58	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A27 (North-Eastern Arm)		
2	Premier Way		
3	A27 (South-Western Arm)		
4	Botley Road		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A27 (North-Eastern Arm)	3.14	7.60	32.5	22.5	42.0	24.0		
2 - Premier Way	3.78	7.30	10.8	16.9	42.0	15.0		
3 - A27 (South-Western Arm)	4.34	7.30	32.1	25.0	42.0	26.5		
4 - Botley Road	3.35	8.10	26.1	30.0	42.0	14.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 (North-Eastern Arm)	0.692	1940
2 - Premier Way	0.658	1739
3 - A27 (South-Western Arm)	0.713	2052
4 - Botley Road	0.730	2063

The slope and intercept shown above include any corrections and adjustments.

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	1082	100.000
2 - Premier Way		✓	37	100.000
3 - A27 (South-Western Arm)		✓	757	100.000
4 - Botley Road		✓	748	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	87	402	593
	2 - Premier Way	16	0	8	13
	3 - A27 (South-Western Arm)	381	9	44	323
	4 - Botley Road	507	48	191	2

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	1	3	1
	2 - Premier Way	7	0	14	0
	3 - A27 (South-Western Arm)	3	0	0	1
	4 - Botley Road	2	0	1	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.69	6.96	2.3	A
2 - Premier Way	0.05	4.72	0.1	A
3 - A27 (South-Western Arm)	0.53	5.03	1.2	A
4 - Botley Road	0.48	4.17	1.0	A

1 Baseline 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (South-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	4.09	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.09	A

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	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	852	100.000
2 - Premier Way		✓	190	100.000
3 - A27 (South-Western Arm)		✓	669	100.000
4 - Botley Road		✓	649	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	20	363	469
	2 - Premier Way	84	0	47	59
	3 - A27 (South-Western Arm)	362	7	16	284
	4 - Botley Road	539	15	95	0

Vehicle Mix

Generated On 17/01/2024 09:38:49 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	5	1	3
	2 - Premier Way	0	0	2	2
	3 - A27 (South-Western Arm)	1	0	0	1
	4 - Botley Road	1	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.51	4.09	1.1	A
2 - Premier Way	0.20	4.29	0.2	A
3 - A27 (South-Western Arm)	0.47	4.36	0.9	A
4 - Botley Road	0.42	3.75	0.7	A

2 Future Baseline 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (South-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	5.81	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.81	A

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)
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	1102	100.000
2 - Premier Way		✓	37	100.000
3 - A27 (South-Western Arm)		✓	771	100.000
4 - Botley Road		✓	762	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	89	409	604
	2 - Premier Way	16	0	8	13
	3 - A27 (South-Western Arm)	388	9	45	329
	4 - Botley Road	516	49	195	2

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	1	3	1
	2 - Premier Way	7	0	14	0
	3 - A27 (South-Western Arm)	3	0	0	1
	4 - Botley Road	2	0	1	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.71	7.33	2.4	A
2 - Premier Way	0.05	4.82	0.1	A
3 - A27 (South-Western Arm)	0.55	5.20	1.2	A
4 - Botley Road	0.50	4.28	1.0	A

2 Future Baseline 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (South-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	4.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.17	A

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)
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	866	100.000
2 - Premier Way		✓	194	100.000
3 - A27 (South-Western Arm)		✓	680	100.000
4 - Botley Road		✓	661	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	20	369	477
	2 - Premier Way	86	0	48	60
	3 - A27 (South-Western Arm)	368	7	16	289
	4 - Botley Road	549	15	97	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	5	1	3
	2 - Premier Way	0	0	2	2
	3 - A27 (South-Western Arm)	1	0	0	1
	4 - Botley Road	1	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.52	4.16	1.1	A
2 - Premier Way	0.20	4.37	0.3	A
3 - A27 (South-Western Arm)	0.48	4.47	0.9	A
4 - Botley Road	0.43	3.82	0.8	A

3 Future Baseline 2028 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (South-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	6.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.13	A

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)
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	1111	100.000
2 - Premier Way		✓	37	100.000
3 - A27 (South-Western Arm)		✓	782	100.000
4 - Botley Road		✓	818	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	89	409	613
	2 - Premier Way	16	0	8	13
	3 - A27 (South-Western Arm)	388	9	45	340
	4 - Botley Road	542	49	225	2

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	1	3	1
	2 - Premier Way	7	0	14	0
	3 - A27 (South-Western Arm)	3	0	0	1
	4 - Botley Road	2	0	1	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.72	7.85	2.6	A
2 - Premier Way	0.05	5.00	0.1	A
3 - A27 (South-Western Arm)	0.56	5.34	1.3	A
4 - Botley Road	0.53	4.61	1.1	A

3 Future Baseline 2028 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (South-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	4.35	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.35	A

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)
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	890	100.000
2 - Premier Way		✓	194	100.000
3 - A27 (South-Western Arm)		✓	707	100.000
4 - Botley Road		✓	683	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	20	369	501
	2 - Premier Way	86	0	48	60
	3 - A27 (South-Western Arm)	368	7	16	316
	4 - Botley Road	559	15	109	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	5	1	3
	2 - Premier Way	0	0	2	2
	3 - A27 (South-Western Arm)	1	0	0	1
	4 - Botley Road	1	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.54	4.34	1.2	A
2 - Premier Way	0.21	4.52	0.3	A
3 - A27 (South-Western Arm)	0.50	4.75	1.0	A
4 - Botley Road	0.45	3.92	0.8	A

4 Without Development 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (South-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	10.35	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.35	B

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)
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	1279	100.000
2 - Premier Way		✓	59	100.000
3 - A27 (South-Western Arm)		✓	932	100.000
4 - Botley Road		✓	861	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	171	471	637
	2 - Premier Way	29	0	13	17
	3 - A27 (South-Western Arm)	458	20	54	400
	4 - Botley Road	534	71	254	2

Vehicle Mix

Generated On 17/01/2024 09:38:49 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	3	3	1
	2 - Premier Way	4	0	30	0
	3 - A27 (South-Western Arm)	2	5	0	1
	4 - Botley Road	2	0	1	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.86	15.90	6.0	C
2 - Premier Way	0.09	5.96	0.1	A
3 - A27 (South-Western Arm)	0.68	7.48	2.1	A
4 - Botley Road	0.59	5.51	1.4	A

4 Without Development 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (South-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	5.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.97	A

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)
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	967	100.000
2 - Premier Way		✓	421	100.000
3 - A27 (South-Western Arm)		✓	806	100.000
4 - Botley Road		✓	716	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	41	437	489
	2 - Premier Way	214	0	85	122
	3 - A27 (South-Western Arm)	431	12	31	332
	4 - Botley Road	558	23	135	0

Vehicle Mix

TRL THE FUTURE OF TRANSPORT

Generated On 17/01/2024 09:38:49 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	8	1	3
	2 - Premier Way	0	0	4	2
	3 - A27 (South-Western Arm)	1	0	0	1
	4 - Botley Road	1	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.60	5.09	1.5	A
2 - Premier Way	0.49	7.53	1.0	A
3 - A27 (South-Western Arm)	0.63	7.03	1.7	A
4 - Botley Road	0.52	5.04	1.1	A

5 With Development 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (South-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	11.52	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.52	B

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)
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	1288	100.000
2 - Premier Way		✓	59	100.000
3 - A27 (South-Western Arm)		✓	943	100.000
4 - Botley Road		✓	917	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	171	471	646
	2 - Premier Way	29	0	13	17
	3 - A27 (South-Western Arm)	458	20	54	411
	4 - Botley Road	560	71	284	2

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	3	3	1
	2 - Premier Way	4	0	30	0
	3 - A27 (South-Western Arm)	2	5	0	0
	4 - Botley Road	2	0	1	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.88	18.38	6.9	C
2 - Premier Way	0.09	6.22	0.1	A
3 - A27 (South-Western Arm)	0.69	7.78	2.2	A
4 - Botley Road	0.63	6.06	1.7	A

5 With Development 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (South-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/Botley Road/Premier Way	Standard Roundabout		1, 2, 3, 4	6.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.36	A

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)
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	991	100.000
2 - Premier Way		✓	421	100.000
3 - A27 (South-Western Arm)		✓	833	100.000
4 - Botley Road		✓	738	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	41	437	513
	2 - Premier Way	214	0	85	122
	3 - A27 (South-Western Arm)	431	12	31	359
	4 - Botley Road	568	23	147	0

Vehicle Mix

Generated On 17/01/2024 09:38:49 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A27 (North-Eastern Arm)	2 - Premier Way	3 - A27 (South-Western Arm)	4 - Botley Road
From	1 - A27 (North-Eastern Arm)	0	8	1	3
	2 - Premier Way	0	0	4	2
	3 - A27 (South-Western Arm)	1	0	0	1
	4 - Botley Road	1	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.61	5.36	1.6	A
2 - Premier Way	0.50	7.95	1.0	A
3 - A27 (South-Western Arm)	0.66	7.75	2.0	A
4 - Botley Road	0.54	5.21	1.2	A

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.0.1820

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

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: J6-A27-Rownhams.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:40:16

File summary

File Description

Title	A27/Rownhams Lane
Location	Romsey
Site number	6
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15
D2	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 Baseline 2023, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A27 (W)/Rownhams Lane	T-Junction	Two-way	Two-way	Two-way		9.09	A
2	A27 (E)/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.12	A
3	Rownhams Lane/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.56	A

Arms

Arms

Junction	Arm	Name	Description	Arm type
1 - A27 (W)/Rownhams Lane	A	A27 (South-Eastern Arm)		Major
	B	Rownhams Lane		Minor
	C	A27 (North-Western Arm)		Major
2 - A27 (E)/Rownhams Lane Link	A	A27 (South-Eastern Arm)		Major
	B	Rownhams Lane Link		Minor
	C	A27 (North-Western Arm)		Major
3 - Rownhams Lane/Rownhams Lane Link	A	Rownhams Lane (North-Western Arm)		Major
	B	Rownhams Lane Link		Minor
	C	Rownhams Lane (South-Eastern Arm)		Major

Major Arm Geometry

Junction	Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
1 - A27 (W)/Rownhams Lane	C - A27 (North-Western Arm)	7.27		✓	3.16	200.0	✓	7.00
2 - A27 (E)/Rownhams Lane Link	C - A27 (North-Western Arm)	7.27				175.0		-
3 - Rownhams Lane/Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)	7.10				37.0	✓	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

Junction	Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
1 - A27 (W)/Rownhams Lane	B - Rownhams Lane	One lane	4.00	250	191
2 - A27 (E)/Rownhams Lane Link	B - Rownhams Lane Link	One lane	4.67	250	181
3 - Rownhams Lane/Rownhams Lane Link	B - Rownhams Lane Link	One lane	4.46	50	26

Generated On 17/01/2024 09:40:21 Using Junctions 10 (10.1.0.1820)

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1 - A27 (W)/Rownhams Lane	B-A	730	0.126	0.318	0.200	0.454
	B-C	819	0.119	0.300	-	-
	C-B	762	0.279	0.279	-	-

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
2 - A27 (E)/Rownhams Lane Link	B-A	768	0.132	0.334	0.210	0.477
	B-C	861	0.125	0.315	-	-
	C-B	675	0.247	0.247	-	-

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
3 - Rownhams Lane/Rownhams Lane Link	B-A	581	0.101	0.255	0.160	0.364
	B-C	734	0.107	0.271	-	-
	C-B	595	0.220	0.220	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (W)/Rownhams Lane	A - A27 (South-Eastern Arm)		✓	643	100.000
	B - Rownhams Lane		✓	431	100.000
	C - A27 (North-Western Arm)		✓	896	100.000
2 - A27 (E)/Rownhams Lane Link	A - A27 (South-Eastern Arm)		✓	686	100.000
	B - Rownhams Lane Link		✓	16	100.000
	C - A27 (North-Western Arm)		✓	557	100.000
3 - Rownhams Lane/Rownhams Lane Link	A - Rownhams Lane (North-Western Arm)		✓	339	100.000
	B - Rownhams Lane Link		✓	43	100.000
	C - Rownhams Lane (South-Eastern Arm)		✓	447	100.000

Origin-Destination Data

Demand (PCU/hr)

1 - A27 (W)/Rownhams Lane

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	643
	B - Rownhams Lane	0	0	431
	C - A27 (North-Western Arm)	557	339	0

2 - A27 (E)/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	43	643
	B - Rownhams Lane Link	16	0	0
	C - A27 (North-Western Arm)	557	0	0

3 - Rownhams Lane/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	339
	B - Rownhams Lane Link	0	0	43
	C - Rownhams Lane (South-Eastern Arm)	431	16	0

Vehicle Mix

1 - A27 (W)/Rownhams Lane

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane	0	0	1
	C - A27 (North-Western Arm)	3	2	0

2 - A27 (E)/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - A27 (North-Western Arm)	3	0	0

3 - Rownhams Lane/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - Rownhams Lane (South-Eastern Arm)	1	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (W)/Rownhams Lane	B-AC	0.78	27.03	3.4	D
	C-AB	0.66	17.99	2.0	C
	C-A				
	A-B				
	A-C				
2 - A27 (E)/Rownhams Lane Link	B-AC	0.04	9.50	0.0	A
	C-A				
	C-B	0.00	0.00	0.0	A
	A-B				
	A-C				
3 - Rownhams Lane/Rownhams Lane Link	B-AC	0.07	6.15	0.1	A
	C-AB	0.05	4.85	0.1	A
	C-A				
	A-B				
	A-C				

1 Baseline 2023, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A27 (W)/Rownhams Lane	T-Junction	Two-way	Two-way	Two-way		4.73	A
2	A27 (E)/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.16	A
3	Rownhams Lane/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.45	A

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	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (W)/Rownhams Lane	A - A27 (South-Eastern Arm)		✓	579	100.000
	B - Rownhams Lane		✓	270	100.000
	C - A27 (North-Western Arm)		✓	987	100.000
2 - A27 (E)/Rownhams Lane Link	A - A27 (South-Eastern Arm)		✓	605	100.000
	B - Rownhams Lane Link		✓	22	100.000
	C - A27 (North-Western Arm)		✓	647	100.000
3 - Rownhams Lane/Rownhams Lane Link	A - Rownhams Lane (North-Western Arm)		✓	340	100.000
	B - Rownhams Lane Link		✓	26	100.000
	C - Rownhams Lane (South-Eastern Arm)		✓	292	100.000

Origin-Destination Data

1 - A27 (W)/Rownhams Lane

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	579
	B - Rownhams Lane	0	0	270
	C - A27 (North-Western Arm)	647	340	0

2 - A27 (E)/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	26	579
	B - Rownhams Lane Link	22	0	0
	C - A27 (North-Western Arm)	647	0	0

3 - Rownhams Lane/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	340
	B - Rownhams Lane Link	0	0	26
	C - Rownhams Lane (South-Eastern Arm)	270	22	0

Vehicle Mix

1 - A27 (W)/Rownhams Lane

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane	0	0	2
	C - A27 (North-Western Arm)	1	0	0

2 - A27 (E)/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - A27 (North-Western Arm)	1	0	0

3 - Rownhams Lane/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	0
	B - Rownhams Lane Link	0	0	0
	C - Rownhams Lane (South-Eastern Arm)	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (W)/Rownhams Lane	B-AC	0.47	11.10	0.9	B
	C-AB	0.64	16.33	1.8	C
	C-A				
	A-B				
	A-C				
2 - A27 (E)/Rownhams Lane Link	B-AC	0.06	9.53	0.1	A
	C-A				
	C-B	0.00	0.00	0.0	A
	A-B				
	A-C				
3 - Rownhams Lane/Rownhams Lane Link	B-AC	0.05	5.96	0.0	A
	C-AB	0.06	5.51	0.1	A
	C-A				
	A-B				
	A-C				

Generated On 17/01/2024 09:40:21 Using Junctions 10 (10.1.0.1820)

2 Future Baseline 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A27 (W)/Rownhams Lane	T-Junction	Two-way	Two-way	Two-way		9.84	A
2	A27 (E)/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.12	A
3	Rownhams Lane/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.92	A

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)
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (W)/Rownhams Lane	A - A27 (South-Eastern Arm)		✓	655	100.000
	B - Rownhams Lane		✓	439	100.000
	C - A27 (North-Western Arm)		✓	912	100.000
2 - A27 (E)/Rownhams Lane Link	A - A27 (South-Eastern Arm)		✓	699	100.000
	B - Rownhams Lane Link		✓	16	100.000
	C - A27 (North-Western Arm)		✓	567	100.000
3 - Rownhams Lane/Rownhams Lane Link	A - Rownhams Lane (North-Western Arm)		✓	345	100.000
	B - Rownhams Lane Link		✓	44	100.000
	C - Rownhams Lane (South-Eastern Arm)		✓	455	100.000

Origin-Destination Data

1 - A27 (W)/Rownhams Lane

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	655
	B - Rownhams Lane	0	0	439
	C - A27 (North-Western Arm)	567	345	0

2 - A27 (E)/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	44	655
	B - Rownhams Lane Link	16	0	0
	C - A27 (North-Western Arm)	567	0	0

3 - Rownhams Lane/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	345
	B - Rownhams Lane Link	0	0	44
	C - Rownhams Lane (South-Eastern Arm)	439	16	0

Vehicle Mix

1 - A27 (W)/Rownhams Lane

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane	0	0	1
	C - A27 (North-Western Arm)	3	1	0

2 - A27 (E)/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - A27 (North-Western Arm)	3	0	0

3 - Rownhams Lane/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	1
	B - Rownhams Lane Link	0	0	0
	C - Rownhams Lane (South-Eastern Arm)	1	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (W)/Rownhams Lane	B-AC	0.80	29.70	3.8	D
	C-AB	0.68	18.78	2.2	C
	C-A				
	A-B				
	A-C				
2 - A27 (E)/Rownhams Lane Link	B-AC	0.05	9.67	0.0	A
	C-A				
	C-B	0.00	0.00	0.0	A
	A-B				
	A-C				
3 - Rownhams Lane/Rownhams Lane Link	B-AC	0.08	6.18	0.1	A
	C-AB	0.05	4.83	0.1	A
	C-A				
	A-B				
	A-C				

2 Future Baseline 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A27 (W)/Rownhams Lane	T-Junction	Two-way	Two-way	Two-way		4.91	A
2	A27 (E)/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.16	A
3	Rownhams Lane/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.54	A

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)
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (W)/Rownhams Lane	A - A27 (South-Eastern Arm)		✓	589	100.000
	B - Rownhams Lane		✓	275	100.000
	C - A27 (North-Western Arm)		✓	1005	100.000
2 - A27 (E)/Rownhams Lane Link	A - A27 (South-Eastern Arm)		✓	615	100.000
	B - Rownhams Lane Link		✓	22	100.000
	C - A27 (North-Western Arm)		✓	659	100.000
3 - Rownhams Lane/Rownhams Lane Link	A - Rownhams Lane (North-Western Arm)		✓	346	100.000
	B - Rownhams Lane Link		✓	26	100.000
	C - Rownhams Lane (South-Eastern Arm)		✓	297	100.000

Origin-Destination Data

1 - A27 (W)/Rownhams Lane

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	589
	B - Rownhams Lane	0	0	275
	C - A27 (North-Western Arm)	659	346	0

Generated On 17/01/2024 09:40:21 Using Junctions 10 (10.1.0.1820)

2 - A27 (E)/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	26	589
	B - Rownhams Lane Link	22	0	0
	C - A27 (North-Western Arm)	659	0	0

3 - Rownhams Lane/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	346
	B - Rownhams Lane Link	0	0	26
	C - Rownhams Lane (South-Eastern Arm)	275	22	0

Vehicle Mix

1 - A27 (W)/Rownhams Lane

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane	0	0	2
	C - A27 (North-Western Arm)	1	0	0

2 - A27 (E)/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - A27 (North-Western Arm)	1	0	0

3 - Rownhams Lane/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	0
	B - Rownhams Lane Link	0	0	0
	C - Rownhams Lane (South-Eastern Arm)	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (W)/Rownhams Lane	B-AC	0.48	11.40	0.9	B
	C-AB	0.66	16.94	2.0	C
	C-A				
	A-B				
	A-C				
2 - A27 (E)/Rownhams Lane Link	B-AC	0.06	9.70	0.1	A
	C-A				
	C-B	0.00	0.00	0.0	A
	A-B				
	A-C				
3 - Rownhams Lane/Rownhams Lane Link	B-AC	0.05	5.98	0.0	A
	C-AB	0.06	5.49	0.1	A
	C-A				
	A-B				
	A-C				

3 Future Baseline 2028 + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A27 (W)/Rownhams Lane	T-Junction	Two-way	Two-way	Two-way		10.15	B
2	A27 (E)/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.12	A
3	Rownhams Lane/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.07	A

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)
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (W)/Rownhams Lane	A - A27 (South-Eastern Arm)		✓	662	100.000
	B - Rownhams Lane		✓	441	100.000
	C - A27 (North-Western Arm)		✓	939	100.000
2 - A27 (E)/Rownhams Lane Link	A - A27 (South-Eastern Arm)		✓	706	100.000
	B - Rownhams Lane Link		✓	16	100.000
	C - A27 (North-Western Arm)		✓	587	100.000
3 - Rownhams Lane/Rownhams Lane Link	A - Rownhams Lane (North-Western Arm)		✓	352	100.000
	B - Rownhams Lane Link		✓	44	100.000
	C - Rownhams Lane (South-Eastern Arm)		✓	457	100.000

Origin-Destination Data

1 - A27 (W)/Rownhams Lane

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	662
	B - Rownhams Lane	0	0	441
	C - A27 (North-Western Arm)	587	352	0

Demand (PCU/hr)

2 - A27 (E)/Rownhams Lane Link

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	44	662
	B - Rownhams Lane Link	16	0	0
	C - A27 (North-Western Arm)	587	0	0

Demand (PCU/hr)

3 - Rownhams Lane/Rownhams Lane Link

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	352
	B - Rownhams Lane Link	0	0	44
	C - Rownhams Lane (South-Eastern Arm)	441	16	0

Vehicle Mix

Heavy Vehicle %

1 - A27 (W)/Rownhams Lane

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane	0	0	1
	C - A27 (North-Western Arm)	3	1	0

Heavy Vehicle %

2 - A27 (E)/Rownhams Lane Link

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - A27 (North-Western Arm)	3	0	0

Heavy Vehicle %

3 - Rownhams Lane/Rownhams Lane Link

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	1
	B - Rownhams Lane Link	0	0	0
	C - Rownhams Lane (South-Eastern Arm)	1	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (W)/Rownhams Lane	B-AC	0.81	30.76	3.9	D
	C-AB	0.69	19.56	2.4	C
	C-A				
	A-B				
	A-C				
2 - A27 (E)/Rownhams Lane Link	B-AC	0.05	9.87	0.0	A
	C-A				
	C-B	0.00	0.00	0.0	A
	A-B				
	A-C				
3 - Rownhams Lane/Rownhams Lane Link	B-AC	0.08	6.20	0.1	A
	C-AB	0.05	4.83	0.1	A
	C-A				
	A-B				
	A-C				

3 Future Baseline 2028 + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A27 (W)/Rownhams Lane	T-Junction	Two-way	Two-way	Two-way		5.08	A
2	A27 (E)/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.17	A
3	Rownhams Lane/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.62	A

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)
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (W)/Rownhams Lane	A - A27 (South-Eastern Arm)		✓	607	100.000
	B - Rownhams Lane		✓	281	100.000
	C - A27 (North-Western Arm)		✓	1016	100.000
2 - A27 (E)/Rownhams Lane Link	A - A27 (South-Eastern Arm)		✓	633	100.000
	B - Rownhams Lane Link		✓	22	100.000
	C - A27 (North-Western Arm)		✓	667	100.000
3 - Rownhams Lane/Rownhams Lane Link	A - Rownhams Lane (North-Western Arm)		✓	349	100.000
	B - Rownhams Lane Link		✓	26	100.000
	C - Rownhams Lane (South-Eastern Arm)		✓	303	100.000

Origin-Destination Data

1 - A27 (W)/Rownhams Lane

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	607
	B - Rownhams Lane	0	0	281
	C - A27 (North-Western Arm)	667	349	0

Generated On 17/01/2024 09:40:21 Using Junctions 10 (10.1.0.1820)

2 - A27 (E)/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	26	607
	B - Rownhams Lane Link	22	0	0
	C - A27 (North-Western Arm)	667	0	0

3 - Rownhams Lane/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	349
	B - Rownhams Lane Link	0	0	26
	C - Rownhams Lane (South-Eastern Arm)	281	22	0

Vehicle Mix

1 - A27 (W)/Rownhams Lane

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane	0	0	2
	C - A27 (North-Western Arm)	1	0	0

2 - A27 (E)/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - A27 (North-Western Arm)	1	0	0

3 - Rownhams Lane/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	0
	B - Rownhams Lane Link	0	0	0
	C - Rownhams Lane (South-Eastern Arm)	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (W)/Rownhams Lane	B-AC	0.50	11.85	1.0	B
	C-AB	0.67	17.56	2.1	C
	C-A				
	A-B				
	A-C				
2 - A27 (E)/Rownhams Lane Link	B-AC	0.06	9.93	0.1	A
	C-A				
	C-B	0.00	0.00	0.0	A
	A-B				
	A-C				
3 - Rownhams Lane/Rownhams Lane Link	B-AC	0.05	5.99	0.0	A
	C-AB	0.06	5.47	0.1	A
	C-A				
	A-B				
	A-C				

Generated On 17/01/2024 09:40:21 Using Junctions 10 (10.1.0.1820)

4 Without Development 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A27 (W)/Rownhams Lane	T-Junction	Two-way	Two-way	Two-way		26.33	D
2	A27 (E)/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.12	A
3	Rownhams Lane/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.47	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.96	B

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)
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (W)/Rownhams Lane	A - A27 (South-Eastern Arm)		✓	762	100.000
	B - Rownhams Lane		✓	509	100.000
	C - A27 (North-Western Arm)		✓	1013	100.000
2 - A27 (E)/Rownhams Lane Link	A - A27 (South-Eastern Arm)		✓	806	100.000
	B - Rownhams Lane Link		✓	16	100.000
	C - A27 (North-Western Arm)		✓	647	100.000
3 - Rownhams Lane/Rownhams Lane Link	A - Rownhams Lane (North-Western Arm)		✓	366	100.000
	B - Rownhams Lane Link		✓	44	100.000
	C - Rownhams Lane (South-Eastern Arm)		✓	525	100.000

Origin-Destination Data

Demand (PCU/hr)

1 - A27 (W)/Rownhams Lane

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	762
	B - Rownhams Lane	0	0	509
	C - A27 (North-Western Arm)	647	366	0

2 - A27 (E)/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	44	762
	B - Rownhams Lane Link	16	0	0
	C - A27 (North-Western Arm)	647	0	0

3 - Rownhams Lane/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	366
	B - Rownhams Lane Link	0	0	44
	C - Rownhams Lane (South-Eastern Arm)	509	16	0

Vehicle Mix

1 - A27 (W)/Rownhams Lane

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane	0	0	1
	C - A27 (North-Western Arm)	2	1	0

2 - A27 (E)/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - A27 (North-Western Arm)	2	0	0

3 - Rownhams Lane/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	1
	B - Rownhams Lane Link	0	0	0
	C - Rownhams Lane (South-Eastern Arm)	1	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (W)/Rownhams Lane	B-AC	0.99	99.06	15.0	F
	C-AB	0.76	24.28	3.6	C
	C-A				
	A-B				
	A-C				
2 - A27 (E)/Rownhams Lane Link	B-AC	0.05	11.46	0.1	B
	C-A				
	C-B	0.00	0.00	0.0	A
	A-B				
	A-C				
3 - Rownhams Lane/Rownhams Lane Link	B-AC	0.08	6.24	0.1	A
	C-AB	0.05	4.63	0.1	A
	C-A				
	A-B				
	A-C				

4 Without Development 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A27 (W)/Rownhams Lane	T-Junction	Two-way	Two-way	Two-way		7.44	A
2	A27 (E)/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.17	A
3	Rownhams Lane/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.48	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.78	A

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)
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (W)/Rownhams Lane	A - A27 (South-Eastern Arm)		✓	676	100.000
	B - Rownhams Lane		✓	289	100.000
	C - A27 (North-Western Arm)		✓	1205	100.000
2 - A27 (E)/Rownhams Lane Link	A - A27 (South-Eastern Arm)		✓	702	100.000
	B - Rownhams Lane Link		✓	22	100.000
	C - A27 (North-Western Arm)		✓	795	100.000
3 - Rownhams Lane/Rownhams Lane Link	A - Rownhams Lane (North-Western Arm)		✓	410	100.000
	B - Rownhams Lane Link		✓	26	100.000
	C - Rownhams Lane (South-Eastern Arm)		✓	311	100.000

Origin-Destination Data

1 - A27 (W)/Rownhams Lane

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	676
	B - Rownhams Lane	0	0	289
	C - A27 (North-Western Arm)	795	410	0

Generated On 17/01/2024 09:40:21 Using Junctions 10 (10.1.0.1820)

2 - A27 (E)/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	26	676
	B - Rownhams Lane Link	22	0	0
	C - A27 (North-Western Arm)	795	0	0

3 - Rownhams Lane/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	410
	B - Rownhams Lane Link	0	0	26
	C - Rownhams Lane (South-Eastern Arm)	289	22	0

Vehicle Mix

1 - A27 (W)/Rownhams Lane

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane	0	0	2
	C - A27 (North-Western Arm)	1	0	0

2 - A27 (E)/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - A27 (North-Western Arm)	1	0	0

3 - Rownhams Lane/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	0
	B - Rownhams Lane Link	0	0	0
	C - Rownhams Lane (South-Eastern Arm)	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (W)/Rownhams Lane	B-AC	0.53	13.19	1.1	B
	C-AB	0.82	25.77	5.2	D
	C-A				
	A-B				
	A-C				
2 - A27 (E)/Rownhams Lane Link	B-AC	0.07	11.70	0.1	B
	C-A				
	C-B	0.00	0.00	0.0	A
	A-B				
	A-C				
3 - Rownhams Lane/Rownhams Lane Link	B-AC	0.05	6.17	0.0	A
	C-AB	0.06	5.51	0.1	A
	C-A				
	A-B				
	A-C				

5 With Development 2028, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A27 (W)/Rownhams Lane	T-Junction	Two-way	Two-way	Two-way		27.68	D
2	A27 (E)/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.13	A
3	Rownhams Lane/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.47	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.62	B

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)
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (W)/Rownhams Lane	A - A27 (South-Eastern Arm)		✓	769	100.000
	B - Rownhams Lane		✓	511	100.000
	C - A27 (North-Western Arm)		✓	1040	100.000
2 - A27 (E)/Rownhams Lane Link	A - A27 (South-Eastern Arm)		✓	813	100.000
	B - Rownhams Lane Link		✓	16	100.000
	C - A27 (North-Western Arm)		✓	667	100.000
3 - Rownhams Lane/Rownhams Lane Link	A - Rownhams Lane (North-Western Arm)		✓	373	100.000
	B - Rownhams Lane Link		✓	44	100.000
	C - Rownhams Lane (South-Eastern Arm)		✓	527	100.000

Origin-Destination Data

Demand (PCU/hr)

1 - A27 (W)/Rownhams Lane

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	769
	B - Rownhams Lane	0	0	511
	C - A27 (North-Western Arm)	667	373	0

2 - A27 (E)/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	44	769
	B - Rownhams Lane Link	16	0	0
	C - A27 (North-Western Arm)	667	0	0

3 - Rownhams Lane/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	373
	B - Rownhams Lane Link	0	0	44
	C - Rownhams Lane (South-Eastern Arm)	511	16	0

Vehicle Mix

1 - A27 (W)/Rownhams Lane

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane	0	0	1
	C - A27 (North-Western Arm)	2	1	0

2 - A27 (E)/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - A27 (North-Western Arm)	2	0	0

3 - Rownhams Lane/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	1
	B - Rownhams Lane Link	0	0	0
	C - Rownhams Lane (South-Eastern Arm)	1	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (W)/Rownhams Lane	B-AC	1.00	105.03	16.1	F
	C-AB	0.78	25.44	4.0	D
	C-A				
	A-B				
	A-C				
2 - A27 (E)/Rownhams Lane Link	B-AC	0.05	11.73	0.1	B
	C-A				
	C-B	0.00	0.00	0.0	A
	A-B				
	A-C				
3 - Rownhams Lane/Rownhams Lane Link	B-AC	0.08	6.27	0.1	A
	C-AB	0.05	4.63	0.1	A
	C-A				
	A-B				
	A-C				

5 With Development 2028, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A27 (W)/Rownhams Lane	T-Junction	Two-way	Two-way	Two-way		7.89	A
2	A27 (E)/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.17	A
3	Rownhams Lane/Rownhams Lane Link	T-Junction	Two-way	Two-way	Two-way		0.48	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.00	A

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)
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (W)/Rownhams Lane	A - A27 (South-Eastern Arm)		✓	694	100.000
	B - Rownhams Lane		✓	295	100.000
	C - A27 (North-Western Arm)		✓	1216	100.000
2 - A27 (E)/Rownhams Lane Link	A - A27 (South-Eastern Arm)		✓	720	100.000
	B - Rownhams Lane Link		✓	22	100.000
	C - A27 (North-Western Arm)		✓	803	100.000
3 - Rownhams Lane/Rownhams Lane Link	A - Rownhams Lane (North-Western Arm)		✓	413	100.000
	B - Rownhams Lane Link		✓	26	100.000
	C - Rownhams Lane (South-Eastern Arm)		✓	317	100.000

Origin-Destination Data

1 - A27 (W)/Rownhams Lane

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	694
	B - Rownhams Lane	0	0	295
	C - A27 (North-Western Arm)	803	413	0

Generated On 17/01/2024 09:40:21 Using Junctions 10 (10.1.0.1820)

2 - A27 (E)/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	26	694
	B - Rownhams Lane Link	22	0	0
	C - A27 (North-Western Arm)	803	0	0

3 - Rownhams Lane/Rownhams Lane Link

Demand (PCU/hr)

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	413
	B - Rownhams Lane Link	0	0	26
	C - Rownhams Lane (South-Eastern Arm)	295	22	0

Vehicle Mix

1 - A27 (W)/Rownhams Lane

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane	0	0	2
	C - A27 (North-Western Arm)	1	0	0

2 - A27 (E)/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - A27 (South-Eastern Arm)	B - Rownhams Lane Link	C - A27 (North-Western Arm)
From	A - A27 (South-Eastern Arm)	0	0	2
	B - Rownhams Lane Link	0	0	0
	C - A27 (North-Western Arm)	1	0	0

3 - Rownhams Lane/Rownhams Lane Link

Heavy Vehicle %

		To		
		A - Rownhams Lane (North-Western Arm)	B - Rownhams Lane Link	C - Rownhams Lane (South-Eastern Arm)
From	A - Rownhams Lane (North-Western Arm)	0	0	0
	B - Rownhams Lane Link	0	0	0
	C - Rownhams Lane (South-Eastern Arm)	2	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (W)/Rownhams Lane	B-AC	0.55	13.81	1.2	B
	C-AB	0.83	27.07	5.7	D
	C-A				
	A-B				
	A-C				
2 - A27 (E)/Rownhams Lane Link	B-AC	0.07	12.03	0.1	B
	C-A				
	C-B	0.00	0.00	0.0	A
	A-B				
	A-C				
3 - Rownhams Lane/Rownhams Lane Link	B-AC	0.05	6.18	0.0	A
	C-AB	0.06	5.49	0.1	A
	C-A				
	A-B				
	A-C				

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.0.1820

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

Filename: J7-A27-A3057.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:41:37

File summary

File Description

Title	A27/A3057 (Ashfield Roundabout)
Location	Romsey
Site number	7
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15
D2	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 Baseline 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (North-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/A3057 (Ashfield Roundabout)	Standard Roundabout		1, 2, 3	4.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.15	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A27 (North-Eastern Arm)		
2	A3057		
3	A27 (North-Western Arm)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A27 (North-Eastern Arm)	3.64	7.28	72.3	32.7	43.9	28.0		
2 - A3057	3.81	6.83	70.9	50.7	43.9	19.0		
3 - A27 (North-Western Arm)	3.26	6.84	75.8	26.9	43.9	16.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A27 (North-Eastern Arm)	0.719	2106
2 - A3057	0.729	2093
3 - A27 (North-Western Arm)	0.718	2048

The slope and intercept shown above include any corrections and adjustments.

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15

Generated On 17/01/2024 09:41:44 Using Junctions 10 (10.1.0.1820)

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	620	100.000
2 - A3057		✓	890	100.000
3 - A27 (North-Western Arm)		✓	803	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	317	303
	2 - A3057	347	0	543
	3 - A27 (North-Western Arm)	229	574	0

Vehicle Mix

Heavy Vehicle %

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	3	3
	2 - A3057	5	0	4
	3 - A27 (North-Western Arm)	2	4	8

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.41	3.83	0.7	A
2 - A3057	0.53	4.33	1.2	A
3 - A27 (North-Western Arm)	0.50	4.19	1.0	A

1 Baseline 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (North-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/A3057 (Ashfield Roundabout)	Standard Roundabout		1, 2, 3	3.88	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.88	A

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	1 Baseline 2023	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	615	100.000
2 - A3057		✓	703	100.000
3 - A27 (North-Western Arm)		✓	871	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	326	289
	2 - A3057	288	0	415
	3 - A27 (North-Western Arm)	256	615	0

Vehicle Mix

Heavy Vehicle %

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	2	2
	2 - A3057	1	0	3
	3 - A27 (North-Western Arm)	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.42	3.89	0.7	A
2 - A3057	0.42	3.39	0.7	A
3 - A27 (North-Western Arm)	0.53	4.27	1.1	A

2 Future Baseline 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (North-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/A3057 (Ashfield Roundabout)	Standard Roundabout		1, 2, 3	4.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.24	A

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)
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	631	100.000
2 - A3057		✓	906	100.000
3 - A27 (North-Western Arm)		✓	817	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	323	308
	2 - A3057	353	0	553
	3 - A27 (North-Western Arm)	233	584	0

Vehicle Mix

Heavy Vehicle %

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	3	3
	2 - A3057	5	0	4
	3 - A27 (North-Western Arm)	2	4	8

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.42	3.91	0.8	A
2 - A3057	0.54	4.44	1.2	A
3 - A27 (North-Western Arm)	0.51	4.29	1.1	A

2 Future Baseline 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (North-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/A3057 (Ashfield Roundabout)	Standard Roundabout		1, 2, 3	3.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.96	A

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)
D4	2 Future Baseline 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	626	100.000
2 - A3057		✓	715	100.000
3 - A27 (North-Western Arm)		✓	886	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	332	294
	2 - A3057	293	0	422
	3 - A27 (North-Western Arm)	260	626	0

Vehicle Mix

Heavy Vehicle %

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	2	2
	2 - A3057	1	0	3
	3 - A27 (North-Western Arm)	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.43	3.98	0.8	A
2 - A3057	0.42	3.45	0.8	A
3 - A27 (North-Western Arm)	0.54	4.37	1.2	A

3 Future Baseline 2028 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (North-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/A3057 (Ashfield Roundabout)	Standard Roundabout		1, 2, 3	4.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.32	A

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)
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	661	100.000
2 - A3057		✓	917	100.000
3 - A27 (North-Western Arm)		✓	817	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	353	308
	2 - A3057	364	0	553
	3 - A27 (North-Western Arm)	233	584	0

Vehicle Mix

Generated On 17/01/2024 09:41:44 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	3	3
	2 - A3057	5	0	4
	3 - A27 (North-Western Arm)	2	4	8

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.44	4.05	0.8	A
2 - A3057	0.55	4.50	1.3	A
3 - A27 (North-Western Arm)	0.51	4.33	1.1	A

3 Future Baseline 2028 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (North-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/A3057 (Ashfield Roundabout)	Standard Roundabout		1, 2, 3	4.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.05	A

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)
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	638	100.000
2 - A3057		✓	742	100.000
3 - A27 (North-Western Arm)		✓	886	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	344	294
	2 - A3057	320	0	422
	3 - A27 (North-Western Arm)	260	626	0

Vehicle Mix

Generated On 17/01/2024 09:41:44 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	2	2
	2 - A3057	1	0	3
	3 - A27 (North-Western Arm)	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.44	4.03	0.8	A
2 - A3057	0.44	3.54	0.8	A
3 - A27 (North-Western Arm)	0.54	4.48	1.2	A

4 Without Development 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (North-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/A3057 (Ashfield Roundabout)	Standard Roundabout		1, 2, 3	6.34	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.34	A

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)
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	913	100.000
2 - A3057		✓	1106	100.000
3 - A27 (North-Western Arm)		✓	945	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	505	408
	2 - A3057	514	0	592
	3 - A27 (North-Western Arm)	347	598	0

Vehicle Mix

Generated On 17/01/2024 09:41:44 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	2	3
	2 - A3057	5	0	4
	3 - A27 (North-Western Arm)	2	4	8

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.62	5.88	1.6	A
2 - A3057	0.69	6.85	2.3	A
3 - A27 (North-Western Arm)	0.63	6.19	1.8	A

4 Without Development 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (North-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/A3057 (Ashfield Roundabout)	Standard Roundabout		1, 2, 3	6.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.19	A

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)
D8	4 Without Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	946	100.000
2 - A3057		✓	942	100.000
3 - A27 (North-Western Arm)		✓	1015	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	557	389
	2 - A3057	502	0	440
	3 - A27 (North-Western Arm)	358	657	0

Vehicle Mix

Generated On 17/01/2024 09:41:44 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	2	1
	2 - A3057	1	0	3
	3 - A27 (North-Western Arm)	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.66	6.71	1.9	A
2 - A3057	0.58	4.94	1.4	A
3 - A27 (North-Western Arm)	0.68	6.86	2.1	A

5 With Development 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (North-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/A3057 (Ashfield Roundabout)	Standard Roundabout		1, 2, 3	6.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.52	A

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)
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	943	100.000
2 - A3057		✓	1117	100.000
3 - A27 (North-Western Arm)		✓	945	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	535	408
	2 - A3057	525	0	592
	3 - A27 (North-Western Arm)	347	598	0

Vehicle Mix

Generated On 17/01/2024 09:41:44 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	2	3
	2 - A3057	5	0	4
	3 - A27 (North-Western Arm)	2	4	7

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.64	6.20	1.8	A
2 - A3057	0.70	7.01	2.4	A
3 - A27 (North-Western Arm)	0.64	6.28	1.8	A

5 With Development 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A27 (North-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A27 (North-Western Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A27/A3057 (Ashfield Roundabout)	Standard Roundabout		1, 2, 3	6.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.40	A

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)
D10	5 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A27 (North-Eastern Arm)		✓	958	100.000
2 - A3057		✓	969	100.000
3 - A27 (North-Western Arm)		✓	1015	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	569	389
	2 - A3057	529	0	440
	3 - A27 (North-Western Arm)	358	657	0

Vehicle Mix

Heavy Vehicle %

		To		
		1 - A27 (North-Eastern Arm)	2 - A3057	3 - A27 (North-Western Arm)
From	1 - A27 (North-Eastern Arm)	0	2	1
	2 - A3057	1	0	3
	3 - A27 (North-Western Arm)	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A27 (North-Eastern Arm)	0.67	6.88	2.0	A
2 - A3057	0.60	5.14	1.5	A
3 - A27 (North-Western Arm)	0.69	7.15	2.2	A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.0.1820

Filename: J8-M271-A3035-Cold.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:43:14

File summary

File Description

Title	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)
Location	Romsey
Site number	8
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15
D2	1 Baseline 2023	PM	ONE HOUR	17:45	19:15	15
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15
D4	2 Future Baseline 2028	PM	ONE HOUR	17:45	19:15	15
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	17:45	19:15	15
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15
D8	4 Without Development 2028	PM	ONE HOUR	17:45	19:15	15
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15
D10	5 With Development 2028	PM	ONE HOUR	17:45	19:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 Baseline 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A3057 (Northern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 (South-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)	Standard Roundabout		1, 2, 3, 4	2.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.53	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A3057 (Northern Arm)		
2	A3057 (South-Eastern Arm)		
3	M271		
4	Coldharbour Lane		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A3057 (Northern Arm)	3.28	8.08	57.1	60.9	107.3	15.0		
2 - A3057 (South-Eastern Arm)	6.59	7.79	78.4	87.7	108.0	9.0		
3 - M271	7.74	7.74	0.0	46.7	109.4	14.0		
4 - Coldharbour Lane	2.97	5.04	17.0	56.7	112.4	26.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A3057 (Northern Arm)	0.552	2322
2 - A3057 (South-Eastern Arm)	0.596	2603
3 - M271	0.582	2541
4 - Coldharbour Lane	0.416	1413

The slope and intercept shown above include any corrections and adjustments.

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	1 Baseline 2023	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A3057 (Northern Arm)		✓	771	100.000
2 - A3057 (South-Eastern Arm)		✓	592	100.000
3 - M271		✓	721	100.000
4 - Coldharbour Lane		✓	6	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	3	254	514	0
	2 - A3057 (South-Eastern Arm)	334	3	255	0
	3 - M271	535	183	0	3
	4 - Coldharbour Lane	2	1	3	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	1	6	2
	2 - A3057 (South-Eastern Arm)	3	0	1	20
	3 - M271	5	2	8	0
	4 - Coldharbour Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A3057 (Northern Arm)	0.38	2.77	0.7	A
2 - A3057 (South-Eastern Arm)	0.29	2.28	0.4	A
3 - M271	0.34	2.45	0.5	A
4 - Coldharbour Lane	0.01	3.91	0.0	A

1 Baseline 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A3057 (Northern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 (South-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)	Standard Roundabout		1, 2, 3, 4	2.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.65	A

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	1 Baseline 2023	PM	ONE HOUR	17:45	19:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A3057 (Northern Arm)		✓	883	100.000
2 - A3057 (South-Eastern Arm)		✓	549	100.000
3 - M271		✓	792	100.000
4 - Coldharbour Lane		✓	9	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	315	568	0
	2 - A3057 (South-Eastern Arm)	275	3	270	1
	3 - M271	514	276	0	2
	4 - Coldharbour Lane	1	4	4	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	0	1	0
	2 - A3057 (South-Eastern Arm)	0	0	2	0
	3 - M271	1	1	0	0
	4 - Coldharbour Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A3057 (Northern Arm)	0.45	3.09	0.8	A
2 - A3057 (South-Eastern Arm)	0.27	2.24	0.4	A
3 - M271	0.37	2.44	0.6	A
4 - Coldharbour Lane	0.01	3.94	0.0	A

2 Future Baseline 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A3057 (Northern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 (South-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)	Standard Roundabout		1, 2, 3, 4	2.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.55	A

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)
D3	2 Future Baseline 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A3057 (Northern Arm)		✓	785	100.000
2 - A3057 (South-Eastern Arm)		✓	603	100.000
3 - M271		✓	733	100.000
4 - Coldharbour Lane		✓	6	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	3	259	523	0
	2 - A3057 (South-Eastern Arm)	340	3	260	0
	3 - M271	544	186	0	3
	4 - Coldharbour Lane	2	1	3	0

Vehicle Mix

Generated On 17/01/2024 09:43:19 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	1	6	2
	2 - A3057 (South-Eastern Arm)	3	0	1	20
	3 - M271	5	2	8	0
	4 - Coldharbour Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A3057 (Northern Arm)	0.39	2.81	0.7	A
2 - A3057 (South-Eastern Arm)	0.29	2.30	0.4	A
3 - M271	0.35	2.48	0.6	A
4 - Coldharbour Lane	0.01	3.94	0.0	A

2 Future Baseline 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A3057 (Northern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 (South-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)	Standard Roundabout		1, 2, 3, 4	2.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.69	A

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)
D4	2 Future Baseline 2028	PM	ONE HOUR	17:45	19:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A3057 (Northern Arm)		✓	899	100.000
2 - A3057 (South-Eastern Arm)		✓	559	100.000
3 - M271		✓	806	100.000
4 - Coldharbour Lane		✓	9	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	321	578	0
	2 - A3057 (South-Eastern Arm)	280	3	275	1
	3 - M271	523	281	0	2
	4 - Coldharbour Lane	1	4	4	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	0	1	0
	2 - A3057 (South-Eastern Arm)	0	0	2	0
	3 - M271	1	1	0	0
	4 - Coldharbour Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A3057 (Northern Arm)	0.46	3.15	0.9	A
2 - A3057 (South-Eastern Arm)	0.28	2.27	0.4	A
3 - M271	0.38	2.47	0.6	A
4 - Coldharbour Lane	0.01	3.98	0.0	A

3 Future Baseline 2028 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A3057 (Northern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 (South-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)	Standard Roundabout		1, 2, 3, 4	2.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.60	A

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)
D5	3 Future Baseline 2028 + Development	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A3057 (Northern Arm)		✓	816	100.000
2 - A3057 (South-Eastern Arm)		✓	605	100.000
3 - M271		✓	742	100.000
4 - Coldharbour Lane		✓	6	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	3	265	548	0
	2 - A3057 (South-Eastern Arm)	342	3	260	0
	3 - M271	553	186	0	3
	4 - Coldharbour Lane	2	1	3	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	1	6	2
	2 - A3057 (South-Eastern Arm)	3	0	1	20
	3 - M271	5	2	8	0
	4 - Coldharbour Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A3057 (Northern Arm)	0.41	2.88	0.7	A
2 - A3057 (South-Eastern Arm)	0.30	2.33	0.4	A
3 - M271	0.35	2.49	0.6	A
4 - Coldharbour Lane	0.01	3.97	0.0	A

3 Future Baseline 2028 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A3057 (Northern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 (South-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)	Standard Roundabout		1, 2, 3, 4	2.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.73	A

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)
D6	3 Future Baseline 2028 + Development	PM	ONE HOUR	17:45	19:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A3057 (Northern Arm)		✓	911	100.000
2 - A3057 (South-Eastern Arm)		✓	564	100.000
3 - M271		✓	829	100.000
4 - Coldharbour Lane		✓	9	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	323	588	0
	2 - A3057 (South-Eastern Arm)	285	3	275	1
	3 - M271	546	281	0	2
	4 - Coldharbour Lane	1	4	4	0

Vehicle Mix

Generated On 17/01/2024 09:43:19 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	0	1	0
	2 - A3057 (South-Eastern Arm)	0	0	2	0
	3 - M271	1	1	0	0
	4 - Coldharbour Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A3057 (Northern Arm)	0.47	3.19	0.9	A
2 - A3057 (South-Eastern Arm)	0.28	2.28	0.4	A
3 - M271	0.39	2.51	0.6	A
4 - Coldharbour Lane	0.01	4.04	0.0	A

4 Without Development 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A3057 (Northern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 (South-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)	Standard Roundabout		1, 2, 3, 4	2.95	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.95	A

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)
D7	4 Without Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A3057 (Northern Arm)		✓	987	100.000
2 - A3057 (South-Eastern Arm)		✓	632	100.000
3 - M271		✓	877	100.000
4 - Coldharbour Lane		✓	6	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	3	288	696	0
	2 - A3057 (South-Eastern Arm)	365	3	264	0
	3 - M271	685	189	0	3
	4 - Coldharbour Lane	2	1	3	0

Vehicle Mix

Generated On 17/01/2024 09:43:19 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	1	5	2
	2 - A3057 (South-Eastern Arm)	3	0	1	21
	3 - M271	5	2	8	0
	4 - Coldharbour Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A3057 (Northern Arm)	0.49	3.35	1.0	A
2 - A3057 (South-Eastern Arm)	0.32	2.53	0.5	A
3 - M271	0.42	2.80	0.7	A
4 - Coldharbour Lane	0.01	4.31	0.0	A

4 Without Development 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A3057 (Northern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 (South-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)	Standard Roundabout		1, 2, 3, 4	3.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.37	A

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)
D8	4 Without Development 2028	PM	ONE HOUR	17:45	19:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A3057 (Northern Arm)		✓	1145	100.000
2 - A3057 (South-Eastern Arm)		✓	597	100.000
3 - M271		✓	1021	100.000
4 - Coldharbour Lane		✓	9	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	363	782	0
	2 - A3057 (South-Eastern Arm)	315	3	278	1
	3 - M271	734	285	0	2
	4 - Coldharbour Lane	1	4	4	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	0	1	0
	2 - A3057 (South-Eastern Arm)	0	0	2	0
	3 - M271	1	1	0	0
	4 - Coldharbour Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A3057 (Northern Arm)	0.59	4.13	1.4	A
2 - A3057 (South-Eastern Arm)	0.32	2.54	0.5	A
3 - M271	0.48	2.99	0.9	A
4 - Coldharbour Lane	0.01	4.56	0.0	A

5 With Development 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A3057 (Northern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 (South-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)	Standard Roundabout		1, 2, 3, 4	3.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.01	A

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)
D9	5 With Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A3057 (Northern Arm)		✓	1018	100.000
2 - A3057 (South-Eastern Arm)		✓	634	100.000
3 - M271		✓	886	100.000
4 - Coldharbour Lane		✓	6	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	3	294	721	0
	2 - A3057 (South-Eastern Arm)	367	3	264	0
	3 - M271	694	189	0	3
	4 - Coldharbour Lane	2	1	3	0

Vehicle Mix

TRL THE FUTURE OF TRANSPORT Generated On 17/01/2024 09:43:19 Using Junctions 10 (10.1.0.1820)

Heavy Vehicle %

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	1	5	2
	2 - A3057 (South-Eastern Arm)	3	0	1	20
	3 - M271	5	2	7	0
	4 - Coldharbour Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A3057 (Northern Arm)	0.51	3.45	1.1	A
2 - A3057 (South-Eastern Arm)	0.33	2.57	0.5	A
3 - M271	0.42	2.82	0.8	A
4 - Coldharbour Lane	0.01	4.34	0.0	A

5 With Development 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A3057 (Northern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A3057 (South-Eastern Arm) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M271/A3057/Coldharbour Lane (Romsey Road Roundabout)	Standard Roundabout		1, 2, 3, 4	3.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.42	A

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)
D10	5 With Development 2028	PM	ONE HOUR	17:45	19:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A3057 (Northern Arm)		✓	1157	100.000
2 - A3057 (South-Eastern Arm)		✓	602	100.000
3 - M271		✓	1044	100.000
4 - Coldharbour Lane		✓	9	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	365	792	0
	2 - A3057 (South-Eastern Arm)	320	3	278	1
	3 - M271	757	285	0	2
	4 - Coldharbour Lane	1	4	4	0

Vehicle Mix

Heavy Vehicle %

		To			
		1 - A3057 (Northern Arm)	2 - A3057 (South-Eastern Arm)	3 - M271	4 - Coldharbour Lane
From	1 - A3057 (Northern Arm)	0	0	1	0
	2 - A3057 (South-Eastern Arm)	0	0	2	0
	3 - M271	1	1	0	0
	4 - Coldharbour Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A3057 (Northern Arm)	0.59	4.19	1.5	A
2 - A3057 (South-Eastern Arm)	0.32	2.56	0.5	A
3 - M271	0.49	3.06	1.0	A
4 - Coldharbour Lane	0.01	4.63	0.0	A

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: J9-Northern Access.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:28:55

File summary

File Description

Title	Halterworth Lane/Proposed Northern Site Access
Location	Romsey
Site number	9
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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	1 With Development 2028	AM	ONE HOUR	07:45	09:15	15
D2	1 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 With Development 2028, AM

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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Proposed Northern Site Access	T-Junction	Two-way	Two-way	Two-way		0.84	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.84	A

Arms

Arms

Arm	Name	Description	Arm type
A	Halterworth Lane (Northern Arm)		Major
B	Proposed Northern Site Access		Minor
C	Halterworth Lane (Southern Arm)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Halterworth Lane (Southern Arm)	6.00			76.0	✓	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 - Proposed Northern Site Access	One lane	2.75	15	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	478	0.087	0.220	0.138	0.314
B-C	618	0.095	0.239	-	-
C-B	618	0.239	0.239	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
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	1 With Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Northern Arm)		✓	193	100.000
B - Proposed Northern Site Access		✓	41	100.000
C - Halterworth Lane (Southern Arm)		✓	246	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Northern Arm)	B - Proposed Northern Site Access	C - Halterworth Lane (Southern Arm)
From	A - Halterworth Lane (Northern Arm)	0	5	188
	B - Proposed Northern Site Access	13	0	28
	C - Halterworth Lane (Southern Arm)	236	10	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Northern Arm)	B - Proposed Northern Site Access	C - Halterworth Lane (Southern Arm)
From	A - Halterworth Lane (Northern Arm)	0	0	0
	B - Proposed Northern Site Access	0	0	0
	C - Halterworth Lane (Southern Arm)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.09	7.97	0.1	A
C-AB	0.02	5.19	0.0	A
C-A				
A-B				
A-C				

1 With Development 2028, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Proposed Northern Site Access	T-Junction	Two-way	Two-way	Two-way		0.70	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.70	A

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	1 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Northern Arm)		✓	208	100.000
B - Proposed Northern Site Access		✓	16	100.000
C - Halterworth Lane (Southern Arm)		✓	226	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Northern Arm)	B - Proposed Northern Site Access	C - Halterworth Lane (Southern Arm)
From	A - Halterworth Lane (Northern Arm)	0	14	194
	B - Proposed Northern Site Access	5	0	11
	C - Halterworth Lane (Southern Arm)	200	26	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Northern Arm)	B - Proposed Northern Site Access	C - Halterworth Lane (Southern Arm)
From	A - Halterworth Lane (Northern Arm)	0	0	0
	B - Proposed Northern Site Access	0	0	0
	C - Halterworth Lane (Southern Arm)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	7.53	0.0	A
C-AB	0.06	5.48	0.1	A
C-A				
A-B				
A-C				

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: J10-Southern Access.j10
Path: N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\6.Technical\Models
Report generation date: 17/01/2024 09:30:13

File summary

File Description

Title	Halterworth Lane/Proposed Southern Site Access
Location	Romsey
Site number	10
Date	13/12/2023
Version	
Status	Final
Identifier	
Client	
Jobnumber	P21004
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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	1 With Development 2028	AM	ONE HOUR	07:45	09:15	15
D2	1 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

1 With Development 2028, AM

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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Proposed Southern Site Access	T-Junction	Two-way	Two-way	Two-way		1.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.19	A

Arms

Arms

Arm	Name	Description	Arm type
A	Halterworth Lane (Northern Arm)		Major
B	Proposed Southern Site Access		Minor
C	Halterworth Lane (Southern Arm)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Halterworth Lane (Southern Arm)	6.00			180.0	✓	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 - Proposed Southern Site Access	One lane	2.75	15	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	478	0.087	0.220	0.138	0.314
B-C	618	0.095	0.239	-	-
C-B	678	0.263	0.263	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
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	1 With Development 2028	AM	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Northern Arm)		✓	214	100.000
B - Proposed Southern Site Access		✓	62	100.000
C - Halterworth Lane (Southern Arm)		✓	254	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Northern Arm)	B - Proposed Southern Site Access	C - Halterworth Lane (Southern Arm)
From	A - Halterworth Lane (Northern Arm)	0	7	207
	B - Proposed Southern Site Access	20	0	42
	C - Halterworth Lane (Southern Arm)	239	15	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Northern Arm)	B - Proposed Southern Site Access	C - Halterworth Lane (Southern Arm)
From	A - Halterworth Lane (Northern Arm)	0	0	0
	B - Proposed Southern Site Access	0	0	0
	C - Halterworth Lane (Southern Arm)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.14	8.54	0.2	A
C-AB	0.03	4.88	0.0	A
C-A				
A-B				
A-C				

1 With Development 2028, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Halterworth Lane/Proposed Southern Site Access	T-Junction	Two-way	Two-way	Two-way		0.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.98	A

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	1 With Development 2028	PM	ONE HOUR	16:00	17:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Halterworth Lane (Northern Arm)		✓	174	100.000
B - Proposed Southern Site Access		✓	25	100.000
C - Halterworth Lane (Southern Arm)		✓	267	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Halterworth Lane (Northern Arm)	B - Proposed Southern Site Access	C - Halterworth Lane (Southern Arm)
From	A - Halterworth Lane (Northern Arm)	0	19	155
	B - Proposed Southern Site Access	8	0	17
	C - Halterworth Lane (Southern Arm)	229	38	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Halterworth Lane (Northern Arm)	B - Proposed Southern Site Access	C - Halterworth Lane (Southern Arm)
From	A - Halterworth Lane (Northern Arm)	0	0	0
	B - Proposed Southern Site Access	0	0	0
	C - Halterworth Lane (Southern Arm)	0	0	0

Results

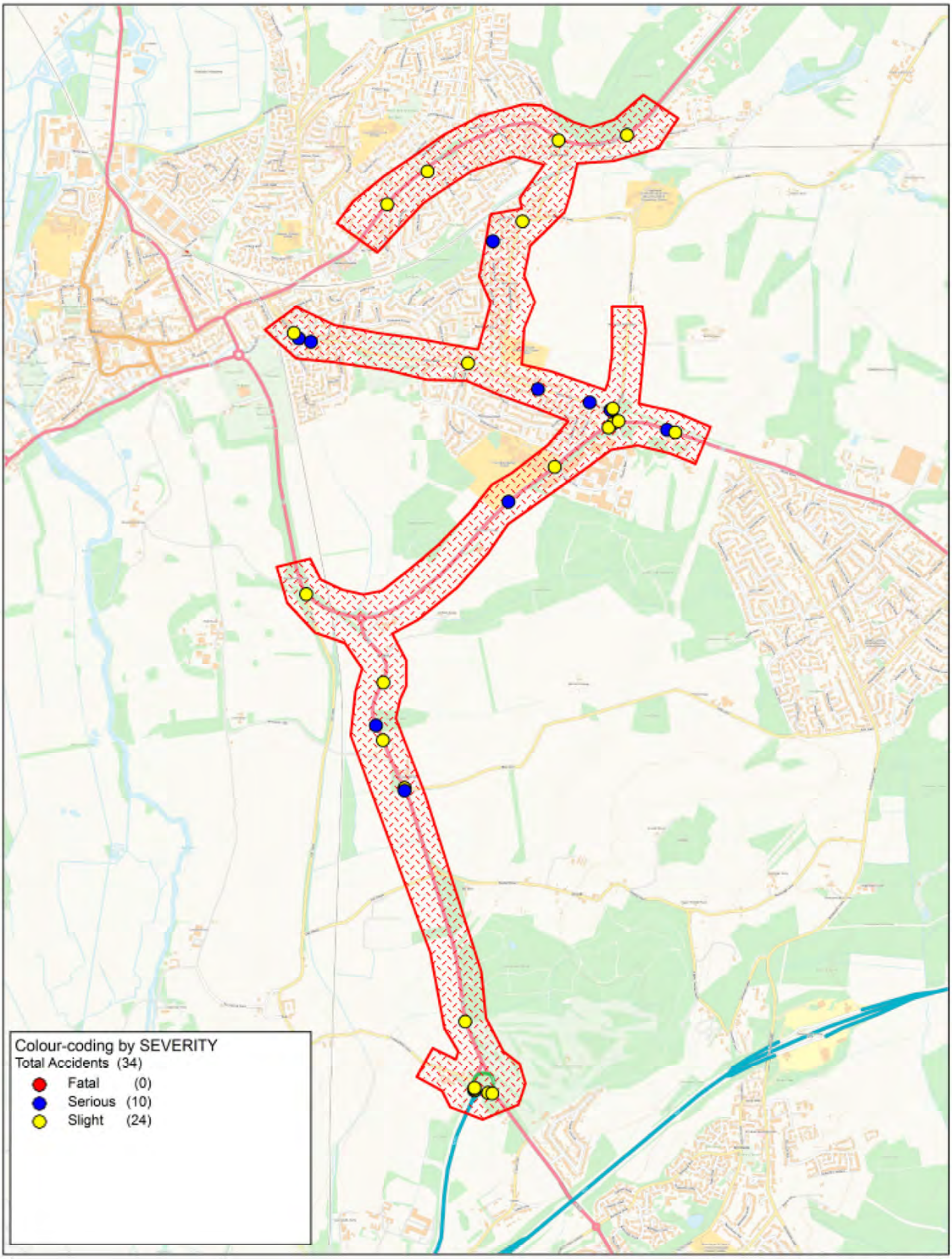
Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.06	7.63	0.1	A
C-AB	0.08	5.02	0.1	A
C-A				
A-B				
A-C				

This page has been left intentionally blank

APPENDIX K

ACCIDENT PLOT & REPORTS



HAMPSHIRE & ISLE OF WIGHT CONSTABULARY	Selected map area	SCALE	1 : 25000
		DATE	07/12/2023
		DRAWING No.	
		DRAWN BY	

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

Selected Polygon:CG Romsey

44180354388 19/09/2018 Time 1454 Vehicles 2 Casualties 1 Slight
E:436259 N: 119888 First Road: A 27 Road Type Single carriageway
Speed limit: 40 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Poor turn or manoevre	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 1 (VAN) TRAVELLING N ALONG LEE LANE, TURNS RIGHT ONTO A27 LUZBOROUGH LANE ACROSS THE PATH OF VEH 2 (CAR) TRAVELLING NW ALONG A27 LUZBOROUGH LANE AND COLLIDES. VEH 1 LEAVES THE SCENE

Occurred on A27 LUZBOROUGH LANE AT JUNCTION WITH LEE LANE, ROMSEY, HAMPSHIRE

Vehicle Reference 1 Van or Goods 3.5 tonnes mgw and under Turning right
Vehicle movement from S to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 77 Male
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Car Going ahead other
Vehicle movement from NE to NW No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Mid Junction - on roundabout or r First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 21 Female
Not hit and run Breath test Driver not contacted
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 21 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44180354225 19/09/2018 Time 1440 Vehicles 1 Casualties 1 Slight
E:437501 N: 120525 First Road: A 27 Road Type Single carriageway
Speed limit: 60 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Poor or defective road surface	Vehicle 1	Possible
2nd:	Inexperience with type of vehicle	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH1 (M/CYCLE) TRAVELLING NE ALONG A27 LUZBOROUGH LANE. RIDER ATTEMPTS TO PULL INTO A LAYBY OPPOSITE PREMIER WAY TO ADJUST HIS FUEL MIXTURE BUT VEH1 HITS A POT HOLE CAUSING RIDER TO FALL FROM VEH.
Occurred on A27 LUZBOROUGH LANE AT JUNCTION WITH PREMIER WAY, ROMSEY, HAMPSHIRE.

Vehicle Reference 1 Motorcycle - unknown cc Stopping
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 43 Female
Not hit and run Breath test Driver not contacted
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 43 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44180374062 04/10/2018 Time 1335 Vehicles 2 Casualties 1 Serious
E:436222 N: 121168 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 2	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 2	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH2 (CAR) TRAVELLING N ALONG TADBURN ROAD TURNS LEFT ONTO BOTLEY ROAD WITHOUT GIVING WAY TO VEH1 (P/CYCLE) TRAVELLING NW ALONG BOTLEY ROAD.
Occurred on BOTLEY ROAD AT JUNCTION TADBURN ROAD, ROMSEY, HAMPSHIRE.

Vehicle Reference 1 Pedal Cycle Going ahead right bend
Vehicle movement from E to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 79 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 79 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not known

Vehicle Reference 2 Car Turning left
Vehicle movement from S to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 35 Male
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44180415483 05/11/2018 Time 0930 Vehicles 2 Casualties 1 Slight
E:437788 N: 120808 First Road: A 27 Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Possible
2nd:	Defective brakes	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH1 (P/CYCLE) TRAVELLING SE ALONG A27 BOTLEY ROAD ON THE NORTHERN PAVEMENT, INTENDING TO CROSS HIGHWOOD LANE AND CONTINUE ALONG A27 BOTLEY ROAD. VEH1 FAILS TO REACT TO VEH2 (CAR) TRAVELLING SW ALONG HIGHWOOD LANE AND COLLIDES.
Occurred on A27 BOTLEY ROAD AT JUNCTION WITH HIGHWOOD LANE, ROMSEY, HAMPSHIRE.

Vehicle Reference 1 Pedal Cycle Going ahead other
Vehicle movement from W to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 17 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 17 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: No

Vehicle Reference 2 Car Stopping
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 32 Male
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

Notes:

44190054280 14/02/2019 Time 0840 Vehicles 2 Casualties 1 Serious
E:438063 N: 120710 First Road: A 27 Road Type Single carriageway
Speed limit: 60 Junction Detail: Not within 20m of junction

Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
2nd:	Failed to look properly	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 1 (M/CYCLE) TRAVELLING NW ALONG A27 BOTLEY ROAD, FAILS TO STATIONARY TRAFFIC AND COLLIDES WITH THE REAR OF VEH 2 (CAR) STATIONARY HELD UP IN STATIONARY TRAFFIC QUEUE, CAUSING THE RIDER TO BE PROPELLED OVER VEH 2 LANDING IN THE ROAD FRONT.
Occurred on A27 BOTLEY ROAD 238 METRES SOUTH EAST OF A27 LUZBOROUGH LANE JUNCTION, NORTH BADDESLEY, HAMPSHIRE

Vehicle Reference 1 Motorcycle over 500cc Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 23 Male
Not hit and run Breath test Not requested
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 23 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 38 Male
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44190069365 26/02/2019 Time 1245 Vehicles 1 Casualties 1 Slight
E:436198 N: 121195 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: Central reservation Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Distraction outside vehicle	Vehicle 1	Very Likely
2nd:	Illness or disability, mental or physical	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH1 (CAR) TRAVELLING SE ALONG BOTLEY ROAD. FOR UNKNOWN REASON, VEH1 FAILS TO FOLLOW THE CURVE OF THE ROAD AND COLLIDED WITH A CENTRAL ISLAND IN THE MIDDLE OF THE ROAD.
Occurred on BOTLEY ROAD, 38 METERS NW OF JUNCTION WITH TADBURN ROAD, ROMSEY, HAMPSHIRE.

Vehicle Reference 1 Car Going ahead left bend
Vehicle movement from NW to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road Bollard / Refuge Off road: None
Did not leave carr Age of Driver 84 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 84 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44190185357 30/05/2019 Time 1300 Vehicles 2 Casualties 1 Serious
E:437780 N: 120809 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Passing too close to cyclist, horse rider or pedestrian	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (VAN) TRAVELLING SE ALONG BOTLEY ROAD OVERTOOK VEH 2 (P/CYCLE) ON IT'S NEARSIDE TRAVELLING IN THE SAME DIRECTION SE ALONG BOTLEY ROAD AND COLLIDES, CAUSING THE RIDER TO BE KNOCKED TO THE GROUND.
Occurred on BOTLEY ROAD AT JUNCTION WITH HIGHWOOD LANE, ROMSEY, HAMPSHIRE

Vehicle Reference 1 Van or Goods 3.5 tonnes mgw and under Overtaking nearside
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 33 Male
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Pedal Cycle Going ahead other
Vehicle movement from SE to Parked No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 60 Female
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 60 Female Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Yes

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44190212890 20/06/2019 Time 1738 Vehicles 2 Casualties 3 Serious
E:437270 N: 120350 First Road: A 27 Road Type Single carriageway
Speed limit: 60 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Daylight Raining without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Rain, sleet, snow, or fog	Vehicle 1	Possible
2nd:	Poor turn or manoevre	Vehicle 1	Possible
3rd:			
4th:			
5th:			
6th:			

VEH1 (CAR) TRAVELLING SOUTH WEST ALONG THE A27 HAS CROSSED INTO OPPOSING CARRIGEWAY FROM REASONS UNKNOWN AND COLLIDED WITH VEH 2 (CAR) TRAVELLING NORTH EAST ALONG THE A27.

Occurred on A27, 275 METERS S OF JUNCTION WITH PREMIER WAY, ROMSEY, HAMPSHIRE

Vehicle Reference 1 Car Going ahead left bend
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 61 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 61 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

Vehicle Reference 2 Car Going ahead right bend
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Nearside Age of Driver 19 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 2 Vehicle: 2 Age: 19 Female Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Casualty Reference: 3 Vehicle: 2 Age: 38 Female Passenger Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Front seat

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44190232671 05/07/2019 Time 1000 Vehicles 1 Casualties 1 Slight
E:437054 N: 117750 First Road: A 3057 Road Type Single carriageway
Speed limit: 60 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Swerved	Vehicle 1	Possible
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH1 (CAR) TRAVELLING N ALONG THE A3057 SWERVED TO AVOID A LUMP OF WOOD IN THE ROAD, CAUSING THE DRIVER TO LOSE CONTROL AND COLLIDE WITH A TREE.
Occurred on A3057, 280 METERS N OF COLDHARBOUR LANE, NURSLING, HAMPSHIRE.

Vehicle Reference 1 Car Going ahead other
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Nearside Hit vehicle:
Hit object in road None Off road: Tree
Nearside Age of Driver 20 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 20 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44190426399 27/11/2019 Time 0900 Vehicles 2 Casualties 2 Slight
E:437792 N: 120816 First Road: A 27 Road Type Single carriageway
Speed limit: 40 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Following too close	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TOWING A TRAILER TRAVELLING N ALONG HIGHWOOD LANE AFTER TURNING RIGHT FROM FROM BOTLEY ROAD COLLIDES WITH THE REAR NEARSIDE OF VEH 2 (CAR) STOPPED TO ALLOW A PEDESTRIAN TO CROSS.
Occurred on A27 BOTLEY ROAD AT JUNCTION WITH HIGHWOOD LANE, ROMSEY, HAMPSHIRE.

Vehicle Reference 1 Car Turning right
Vehicle movement from S to N Single trailer Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Cleared junction or waiting/park First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 87 Male
Not hit and run Breath test Not requested
Left hand drive: No

Vehicle Reference 2 Car Stopping
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Cleared junction or waiting/park First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 25 Male
Not hit and run Breath test Not requested
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 25 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Casualty Reference: 2 Vehicle: 2 Age: 46 Female Passenger Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Front seat

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44200335999 01/09/2020 Time 1048 Vehicles 2 Casualties 2 Slight
E:437100 N: 117406 First Road: M 271 Road Type Single carriageway
Speed limit: 60 Junction Detail: Roundabout Give way or controlled A 3057
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Tyres illegal, defective or under inflated	Vehicle 2	Very Likely
2nd:	Overloaded or poorly loaded vehicle or trailer	Vehicle 2	Very Likely
3rd:	Failed to look properly	Vehicle 2	
4th:			
5th:			
6th:			

VEH2 (VAN) TRAVELLING NE ALONG M271 COLLIDED WITH THE REAR OF VEH1 (CAR) TRAVELLING NE ALONG M271 IN FRONT, STATIONARY WAITING TO ENTER RBT.
Occurred on M271 AT JUNCTION WITH A3057 ROMSEY ROAD, NURSLING, HAMPSHIRE.

Vehicle Reference 1 Car Going ahead but held up
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 51 Male
Not hit and run Breath test Not requested
Left hand drive: No

Casualty Reference: 2 Vehicle: 1 Age: 51 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Van or Goods 3.5 tonnes mgw and under Going ahead other
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 24 Male
Not hit and run Breath test Not requested
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 24 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44200416913 27/10/2020 Time 0848 Vehicles 1 Casualties 1 Slight
E:437791 N: 120740 First Road: A 27 Road Type Single carriageway
Speed limit: 60 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Daylight Raining without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Inexperienced or learner driver/rider	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH1 (M/CYCLE) TRAVELLING NE ALONG A27 LUZBOROUGH LANE ENTERED ROUNDABOUT AND LOST CONTROL ON A WET ROAD SURFACE, CAUSING THE VEH TO SIDE AWAY FROM THE RIDER.
Occurred on A27 LUZBOROUGH LANE AT JUNCTION WITH BOTLEY ROAD, ROMSEY, HAMPSHIRE.

Vehicle Reference 1 Motor Cycle over 50 cc and up to 125cc Going ahead other
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 25 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 25 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44200450867 21/11/2020 Time 1350 Vehicles 1 Casualties 1 Slight
E:437521 N: 122158 First Road: A 3090 Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Poor turn or manoevre	Vehicle 1	Very Likely
2nd:	Careless/Reckless/In a hurry	Vehicle 1	Possible
3rd:			
4th:			
5th:			
6th:			

VEH1 (M/CYCLE) TRAVELLING SE ALONG A3090 WINCHESTER ROAD TURNED RIGHT ONTO HALTERWORTH LANE BUT TOOK THE CORNER TOO FAST AND COLLIDED WITH A SMALL WALL,
Occurred on A3090 WINCHESTER ROAD AT JUNCTION WITH HALTERWORTH LANE, CRAMPMOOR, HAMPSHIRE.

Vehicle Reference 1 Motor Cycle over 50 cc and up to 125cc Turning right
Vehicle movement from NW to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Front Hit vehicle:
Hit object in road None Off road: Wall or fence
Nearside Age of Driver 18 Male
Not hit and run Breath test Driver not contacted
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 18 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018 and 31/08/2023** (60) months
Selection: **Notes:**
Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44200501292 31/12/2020 Time 1525 Vehicles 3 Casualties 4 Serious
E:437676 N: 120847 First Road: U Road Type Single carriageway
Speed limit: 60 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Slippery road (due to weather)	Vehicle 3	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 3	Possible
3rd:	Following too close	Vehicle 3	
4th:			
5th:			
6th:			

VEH3 (CAR) TRAVELLING E ALONG BOTLEY ROAD COLLIDED WITH THE REAR OF VEH2 (CAR) TRAVELLING E IN FRONT, SHUNTING IT INTO THE REAR OF VEH1 (CAR) TRAVELLING E IN FRONT.
Occurred on BOTLEY ROAD AT JUNCTION WITH NORTH ROAD, NORTH BADDESLEY, HAMPSHIRE.

Vehicle Reference 1 Car Stopping
Vehicle movement from W to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 23 Female
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

Vehicle Reference 2 Car Stopping
Vehicle movement from W to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 42 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 42 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Casualty Reference: 2 Vehicle: 2 Age: 22 Female Passenger Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Front seat

Casualty Reference: 3 Vehicle: 2 Age: 22 Male Passenger Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Back seat

Vehicle Reference 3 Car Going ahead other
Vehicle movement from W to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 74 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 4 Vehicle: 3 Age: 74 Female Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44210045492 06/02/2021 Time 0641 Vehicles 1 Casualties 1 Slight
E:436645 N: 119446 First Road: A 3057 Road Type Single carriageway
Speed limit: 50 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: no street lighting Fog or mist
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Travelling too fast for conditions	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING S ALONG A3057 SOUTHAMPTON ROAD HAS LOST CONTROL AFTER NEGOTIATING A RH BEND, LEFT THE CARRIAGEWAY TO OFFSIDE AND COLLIDED WITH A TREE.
Occurred on A3057 SOUTHAMPTON ROAD, 53 METRES SOUTH OF THE THATCHED COTTAGE, ROMSEY HAMPSHIRE.

Vehicle Reference 1 Car Going ahead right bend
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: Tree
O/S Age of Driver 23 Female
Not hit and run Breath test Not requested
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 23 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44210060960 18/02/2021 Time 0635 Vehicles 1 Casualties 1 Slight
E:437098 N: 117414 First Road: M 271 Road Type Single carriageway
Speed limit: 60 Junction Detail: Roundabout Give way or controlled A 3057
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: street lighting unknown Raining without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Slippery road (due to weather)	Vehicle 1	Very Likely
2nd:	Travelling too fast for conditions	Vehicle 1	Very Likely
3rd:	Loss of control	Vehicle 1	Very Likely
4th:	Poor turn or manoevre	Vehicle 1	Very Likely
5th:			
6th:			

VEH1 (CAR) TRAVELLING NE ALONG THE M271 MISJUDGED APPROACH TO THE ROUNDBOUT, CLIPPED THE KERB, LOST CONTROL AND LEFT CARRAIGEWAY TO THE NEARSIDE WHERE IT COLLIDED WITH TREES.
Occurred on M271 AT JUNCTION WITH A3057 SOUTHAMPTON ROAD, ROMEY, HAMPSHIRE.

Vehicle Reference 1 Car Going ahead other
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway Skidded and overturned
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road Kerb Off road: Tree
Nearside Age of Driver 48 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 48 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44210122592 29/03/2021 Time 0800 Vehicles 2 Casualties 1 Slight
E:437169 N: 117394 First Road: A 3057 Road Type Single carriageway
Speed limit: 60 Junction Detail: Roundabout Give way or controlled Motorway 271
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH2 (CAR) TRAVELLING NW ALONG A3057 ROMSEY ROAD STOPPED AT ROUNDABOUT JUNCTION BEHIND VEH1 (CAR). VEH2 MISTAKENLY BELIEVED THAT VEH1 HAD PULLED AWAY, SO WENT TO MOVE OFF AND COLLIDED WITH THE REAR OF VEH1.
Occurred on A3057 ROMSEY ROAD AT JUNCTION WITH M271, NURSLING, HAMPSHIRE.

Vehicle Reference 1 Car Going ahead but held up
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 24 Female
Not hit and run Breath test Driver not contacted
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 24 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Starting
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver Not traced
Not hit and run Breath test Driver not contacted
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44210190920 17/05/2021 Time 1949 Vehicles 2 Casualties 1 Slight
E:436643 N: 119157 First Road: A 3057 Road Type Single carriageway
Speed limit: 60 Junction Detail: Pri Drive Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
2nd:	Distraction in vehicle	Vehicle 1	Possible
3rd:	Careless/Reckless/In a hurry	Vehicle 1	
4th:			
5th:			
6th:			

VEH1 (CAR) TRAVELLING SE ALONG A3057 SOUTHAMPTON ROAD COLLIDED WITH THE REAR OF VEH2 (VAN) TRAVELLING SE AHEAD, AND SLOWING TO TURN LEFT INTO MALTHOUSE COTTAGE.
Occurred on A3057 SOUTHAMPTON ROAD AT JUNCTION WITH MATHOUSE COTTAGE, ASHFIELD, HAMPSHIRE.

Vehicle Reference 1 Car Going ahead other
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 23 Female
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Van or Goods 3.5 tonnes mgw and under Stopping
Vehicle movement from NW to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 27 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 27 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44210284557 18/07/2021 Time 1130 Vehicles 2 Casualties 1 Slight
E:436664 N: 121839 First Road: A 3090 Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (P/CYCLE) TRAVELLING SW ALONG A3090 WINCHESTER HILL WAS FILTERING SLOWLY TO OFFSIDE OF STATIONARY TRAFFIC WHEN VEH 2 (CAR) TRAVELLING SW ALONG A3090 PULLED OUT OF THE LINE OF TRAFFIC TO MAKE A U TURN AND COLLIDED WITH VEH 1.
Occurred on A3090 WINCHESTER HILL, OUTSIDE CLARENCE HOUSE, ROMSEY HAMPSHIRE.

Vehicle Reference 1 Pedal Cycle Going ahead other
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 46 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 46 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not known

Vehicle Reference 2 Car U-turn
Vehicle movement from NE to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 40 Male
Not hit and run Breath test Driver not contacted
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44210321221 12/08/2021 Time 1843 Vehicles 2 Casualties 1 Serious
E:437193 N: 121654 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Cyclist entering road from pavement	Vehicle 001	Possible
2nd:	Passing too close to cyclist, horse rider or pedestrian	Vehicle 002	Possible
3rd:			
4th:			
5th:			
6th:			

VEH I (CAR) TRAVELLING ON SEWARD CLOSE FAILS TO SEE VEH 2 (P/CYCLE) AND RUNS OVER RIDER
Occurred on OUTSIDE 14 SEWARD RISE ROMSEY

Vehicle Reference 1 Car Going ahead other
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 74 Male
Hit and run Breath test Driver not contacted
Left hand drive: No

Vehicle Reference 2 Pedal Cycle Going ahead other
Vehicle movement from NE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 4 Male
Hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 4 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not known

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

Notes:

44210404862 08/10/2021 Time 1545 Vehicles 2 Casualties 1 Slight
E:437340 N: 121753 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (P/CYCLE) TRAVELLING NE ON HALTERWORTH LANE AND TURNING RIGHT ONTO JENNER WAY IS STRUCK BY UNKNOWN VEH 2 (CAR) OVERTAKING HIM AND KNOCKING HIM OFF HIS CYCLE
Occurred on HALTERWORTH LANE/JENNER WAY, ROMSEY

Vehicle Reference 1 Pedal Cycle Turning right
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Offside Hit vehicle:
Hit object in road None Off road: Tree
Nearside Age of Driver 11 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 11 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not known

Vehicle Reference 2 Car Turning right
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver Male
Hit and run Breath test Driver not contacted
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44210461433 17/11/2021 Time 0812 Vehicles 2 Casualties 1 Slight
E:437771 N: 120722 First Road: A 27 Road Type 1
Speed limit: 30 Junction Detail: Roundabout Give way or controlled A 27
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING SW AND EXITING RBT IS SHUNTED FROM BEHIND BY VEH 2 (CAR) ALSO TRAVELLING SW AND EXITING RBT
Occurred on A27 LUZBOROUGH LANE JUST SLIGHTLY SW OF ROUNDABOUT

Vehicle Reference 1 Car Going ahead other
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Leaving roundabout First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 47 Male
Not hit and run Breath test Driver not contacted
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 47 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Going ahead other
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Leaving roundabout First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 39 Male
Not hit and run Breath test Driver not contacted
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44220115423 23/03/2022 Time 1542 Vehicles 2 Casualties 1 Serious
E:437418 N: 120914 First Road: A 27 Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: Central reservation Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 001	Possible
2nd:	Sudden braking	Vehicle 001	Possible
3rd:	Poor turn or manoevre	Vehicle 001	Possible
4th:	Failed to judge other persons path or speed	Vehicle 002	Possible
5th:	Sudden braking	Vehicle 002	Possible
6th:			

VEH 1 (CAR) TRAVELLING NW ALONG BOTLEY RD OVERTAKES VEH 2 (P/CYCLE) AND THEN BRAKES HARD CAUSING VEH 2 TO ALSO BRAKE AND BECOME UNSEATED
Occurred on A27 BOTLEY ROAD, NEAR ELMTREE GARDENS, NORTH BADDESLEY

Vehicle Reference 1 Car Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 25 Female
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Pedal Cycle Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 21 Female
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 21 Female Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Yes

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months
Selection: **Notes:**
Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44220116242 24/03/2022 Time 0817 Vehicles 2 Casualties 1 Slight
E:437068 N: 121043 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (P/CYCLE) TRAVELLING E TO W ALONG BOTLEY ROAD COLLIDES WITH VEH 2 (CAR) WHICH HAS ENTERED BOTLEY RD FROM NORTHLANDS RD WITHOUT LOOKING
Occurred on JUNCTION OF BOTLEY ROAD/NORTHLANDS RD, ROMSEY

Vehicle Reference 1 Pedal Cycle Going ahead other
Vehicle movement from E to W No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 80 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 80 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Yes

Vehicle Reference 2 Car Turning right
Vehicle movement from S to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering main road First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 34 Female
Not hit and run Breath test Driver not contacted
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44220127182 31/03/2022 Time 1752 Vehicles 2 Casualties 2 Slight
E:436751 N: 118919 First Road: (M) 3052 Road Type Single carriageway
Speed limit: 60 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Daylight Fine without high winds
Special Conditions at Site Road works Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Sudden braking	Vehicle 1	Very Likely
2nd:	Sudden braking	Vehicle 2	Very Likely
3rd:			
4th:			
5th:			
6th:			

AN UNKNOWN DRIVER TRAVELLING SE ON A3057 IN FRONT OF VEH 1 (CAR) TRAVELLING SE ON A3057, TURNED LEFT SUDDENLY INTO HOE LANE, THIS CAUSED VEH 1 TO BRAKE AND VEH 2 (CAR) ALSO TRAVELLING SE ON A3057 TO COLLIDE WITH VEH 1.
Occurred on A3057, OUTSIDE UPPER ASHFIELD HOUSE, ASHFIELD, HAMPSHIRE.

Vehicle Reference 1 Car Stopping
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 35 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 35 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Worn but not i Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Stopping
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 31 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 2 Vehicle: 2 Age: 31 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Worn and ind Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44220135184 06/04/2022 Time 1311 Vehicles 2 Casualties 1 Slight
E:437821 N: 120754 First Road: U Road Type 1
Speed limit: 60 Junction Detail: Roundabout Give way or controlled A 27
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 001	Very Likely
2nd:	Inexperienced or learner driver/rider	Vehicle 002	Possible
3rd:			
4th:			
5th:			
6th:			

VEH1 (CAR) TRAVELLING SW ALONG BOTLEY ROAD, ENTERED THE ROUNDABOUT WITHOUT GIVING WAY TO VEH2 (M/CYCLE) ALREADY ON THE ROUNDABOUT TRAVELLING E.
Occurred on BOTLEY ROAD AT JUNCTION WITH A27 BOTLEY ROAD, ROMSEY, HAMPSHIRE

Vehicle Reference 1 Car Starting
Vehicle movement from NW to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 50 Female
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Motorcycle over 500cc Going ahead other
Vehicle movement from SW to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 49 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 49 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

Notes:

44220297760 24/07/2022 Time 1620 Vehicles 1 Casualties 1 Slight
E:438105 N: 120697 First Road: A 27 Road Type Single carriageway
Speed limit: 40 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Illness or disability, mental or physical	Vehicle 001	Possible
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING E TO W ALONG A27 LOSES CONTROL AND ROLLS, COLLIDING WITH SOME ROADSIDE FURNITURE
Occurred on A27 BOTLEY ROAD, BY THE OLD FORGE NURSERY, NORTH BADDESLEY, HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from E to W No tow / articulation Leaving the main road
On main carriageway Overturned
Location at impact Not at, or within 20M of Jct First impact Offside Hit vehicle:
Hit object in road None Off road: Road sign / ATS
Did not leave carr Age of Driver 60 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 60 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44220312256 03/08/2022 Time 0858 Vehicles 1 Casualties 1 Slight
E:437190 N: 117391 First Road: A 3057 Road Type 1
Speed limit: 60 Junction Detail: Roundabout Give way or controlled Motorway 271
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Fatigue	Vehicle 1	Very Likely
2nd:	Illness or disability, mental or physical	Vehicle 1	Possible
3rd:	Travelling too fast for conditions	Vehicle 1	
4th:			
5th:			
6th:			

VEH1 (CAR) TRAV NW ALONG A3057 TOWARDS RBT JCT, MOUNTED KERB AND GRASS CENTRAL REFUGE ON DRIVER'S OFFSIDE, COLLIDED WITH THE LAMP POST AND CAME TO A STOP, CAUSING MINOR INJURY TO DRIVER OF VEH1.
Occurred on A3057 ROMSEY RD RBT, AT JCT WITH M271, NURSLING, SOUTHAMPTON, HAMPSHIRE.

Vehicle Reference 1 Car Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering roundabout First impact Front Hit vehicle:
Hit object in road Kerb Off road: Lamp post
O/S & rebounded Age of Driver 73 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 73 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Worn but not i Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44220361209 04/09/2022 Time 2033 Vehicles 2 Casualties 1 Slight
E:437863 N: 122185 First Road: A 3090 Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: no street lighting Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Possible
2nd:	Failed to judge other persons path or speed	Vehicle 1	Possible
3rd:	Failed to signal/Misleading signal	Vehicle 2	
4th:			
5th:			
6th:			

VEH1 (CAR) TRAVELLING SW ALONG WINCHESTER ROAD FAILED TO STOP IN TIME AND COLLIDED WITH VEH2 (CAR) TRAVELLING SW ALONG WINCHESTER ROAD, PULLING OVER TO THE SIDE OF THE ROAD TO MAKE A TURN

Occurred on A3090 WINCHESTER ROAD AT JUNCTION WITH CRAMPMOOR LANE, ROMSEY, HAMPSHIRE

Vehicle Reference 1 Car Going ahead right bend
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Cleared junction or waiting/park First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 36 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 36 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Stopping
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Cleared junction or waiting/park First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 46 Male
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months
Selection: **Notes:**
Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44220436871 24/10/2022 Time 1625 Vehicles 2 Casualties 1 Slight
E:437101 N: 117419 First Road: M 271 Road Type Dual carriageway
Speed limit: 70 Junction Detail: Roundabout Give way or controlled A 3057
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:			
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH2 (VAN) TRAVELLING N ALONG M271, COLLIDED WITH THE REAR OF VEH1 (CAR) WHICH WAS MOVING OFF IN FRONT, ENTERING THE ROUNDABOUT.
Occurred on M271 AT JUNCTION WITH A3057 ROMSEY ROAD ROUNDABOUT, UPTON, HAMPSHIRE.

Vehicle Reference 1 Car Starting
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering roundabout First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 41 Female
Not hit and run Breath test Driver not contacted
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 41 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Going ahead other
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 51 Male
Not hit and run Breath test Driver not contacted
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44220438948 28/10/2022 Time 1615 Vehicles 1 Casualties 1 Serious
E:436282 N: 121151 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to judge vehicles path or speed	Casualty 1	Possible
2nd:	Failed to look properly	Casualty 1	Possible
3rd:	Disability or illness, mental or physical	Casualty 1	
4th:			
5th:			
6th:			

CAS1 (PEDESTRIAN) GOES TO CROSS BOTLEY ROAD TRAVELLING N AND STEPS OUT INTO THE PATH OF VEH1 (CAR) TRAVELLING W ALONG BOTLEY ROAD
Occurred on BOTLEY ROAD AT JUNCTION WITH ROSEDALE AVENUE, ROMSEY, HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from E to W No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or ı First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 34 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 89 Female Pedestrian Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

In carr elsewhere N bound

Driver's nearside

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44230272963 07/07/2023 Time 1800 Vehicles 2 Casualties 1 Slight
E:436865 N: 122003 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled A 3090
Crossing: Control None Facilities: Pelican, puffin, toucan etc. Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Poor turn or manoevre	Vehicle 1	Possible
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH1 (MOBILITY SCOOTER) TRAVELLING NE ALONG WINCHESTER HILL TURNED RIGHT INTO VINEY AVENUE ACROSS THE PATH OF VEH2 (CAR) TRAVELLING NW ALONG VINEY AVENUE, TURNING RIGHT ONTO WINCHESTER HILL CAUSING A COLLISION
Occurred on VINEY AVENUE AT JUNCTION WITH A3090 WINCHESTER HILL, ROMSEY, HAMPSHIRE

Vehicle Reference 1 Mobility Scooter Going ahead other
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 58 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 58 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Turning right
Vehicle movement from SE to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 53 Male
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44230310134 02/08/2023 Time 0430 Vehicles 1 Casualties 3 Serious
E:436608 N: 119230 First Road: A 3057 Road Type Single carriageway
Speed limit: 60 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: no street lighting Raining without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Exceeding speed limit	Vehicle 1	Possible
2nd:	Impaired by alcohol	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING NW ALONG A3057 LOST CONTROL, LEFT THE CARRIAGEWAY TO THE NEARSIDE, COLLIDED WITH A TREE AND OVERTURNED.
Occurred on A3057 348 METRES NORTH WEST OF HOE LANE, ROMSEY, HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway Skidded and overturned
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle:
Hit object in road None Off road: Tree
Nearside Age of Driver 19 Male
Not hit and run Breath test Positive
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 19 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Worn but not i Cycle helmet: Not a cyclist

Casualty Reference: 2 Vehicle: 1 Age: 19 Male Passenger Severity: Slight
Not a pupil
Seatbelt Worn but not i Cycle helmet: Not a cyclist

Back seat

Casualty Reference: 3 Vehicle: 1 Age: 18 Male Passenger Severity: Serious
Not a pupil
Seatbelt Unknown Cycle helmet: Not a cyclist

Front seat

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection: **Notes:**

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

44230346983 27/08/2023 Time 1330 Vehicles 2 Casualties 1 Serious
E:436751 N: 118905 First Road: A 3057 Road Type Single carriageway
Speed limit: 60 Junction Detail: T & Stag Jct Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Travelling too fast for conditions	Vehicle 2	Very Likely
2nd:	Failed to look properly	Vehicle 2	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH2 (M/CYCLE) TRAVELLING NW ALONG A3057 FAILED TO STOP IN TIME AND COLLIDED WITH VEH1 (CAR) TRAVELLING NW ALONG A3057, WAITING TO TURN RIGHT INTO HOE LANE
Occurred on A3057 AT JUNCTION WITH HOE LANE, ROMSEY, HAMPSHIRE

Vehicle Reference 1 Car Waiting to turn right
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 42 Female
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Motorcycle over 500cc Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 59 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 59 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates **01/09/2018** **and** **31/08/2023** (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("CG Romsey")

Notes:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	4	15	19
2-wheeled motor vehicles	0	2	4	6
Pedal cycles	0	4	4	8
Horses & other	0	0	1	1
Total	0	10	24	34

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	2	22	24
Passenger	0	1	5	6
Motorcycle rider	0	2	3	5
Cyclist	0	4	4	8
Pedestrian	0	1	0	1
Other	0	0	0	0
Total	0	10	34	44

APPENDIX L

STAGE 1 ROAD SAFETY AUDIT

This page has been left intentionally blank

HALTERWORTH LANE, ROMSEY
POTENTIAL ACCESS STRATEGY

STAGE 1 ROAD SAFETY AUDIT

610/2023/165/01 Rev 1

20 December 2023

six:TEN Highways & Traffic Ltd
Unit 17 Lea Green Business Park
Eurolink, St Helens
Merseyside
WA9 4TR

t 0151 424 7680
m 07985 283074
e contact@610traffic.co.uk
www.610traffic.co.uk

six:TEN
highways:traffic

Rev:	Issue Status:	Prepared by/Date:	Checked by/Date:	Approved by/Date:
0	DRAFT	Jon Preston 19 December 2023	Tristan Brooks 19 December 2023	
1	FINAL	Jon Preston 20 December 2023	Tristan Brooks 20 December 2023	Jon Preston 20 December 2023

Report Title:	Halterworth Lane, Romsey – Potential Access Strategy Stage 1 Road Safety Audit
Date:	20 December 2023
Document Reference & Revision:	610/2023/165/01 Rev 1
Prepared by:	Six Ten Highways & Traffic Ltd
On behalf of:	Prime

CONTENTS

APPENDICES

1.0 INTRODUCTION

1.1 This report results from a preliminary design Stage 1 Road Safety Audit (RSA) carried out on the proposed access strategy at Halterworth Lane, Romsey at the request of Prime the designer of the scheme who provided the audit information, and although there was no formal ‘audit brief’ the RSA team has accepted that sufficient information has been provided to undertake the Stage 1 RSA. The audit team has been approved by the Overseeing Organisation Hampshire County Council to carryout RSAs on their highway network.

1.2 The Road Safety Audit Team was as follows:

Jon Preston MCIHT MSoRSA
Audit Team Leader

Tristan Brooks* Bsc (Hons), MBA, CMILT, MCIHT, MSoRSA, HE RSA Cert of Comp
Audit Team Member

1.3 Audit Team members marked with an asterisk above hold a Highways England approved Certificate of Competency (CoC) in Road Safety Audit, in accordance with Article (1–3) of EC Directive 2008/96/EC.

1.4 The audit took place at the St Helens office of six:TEN Highways and Traffic between 13 November 2023 and 20 December 2023. The Road Safety Audit was undertaken in accordance with the Road Safety Audit information provided. The audit comprised an examination of the documents provided as detailed in Appendix One.

1.5 The Audit Team visited the site together on Wednesday 15 November 2023 between 11:30hrs and 12:15hrs. During the site visit the weather was partially cloudy and the carriageway surface was damp. During the site visit traffic movements in the vicinity of the proposed highway works were low with some pedestrian and cyclist movements observed.

1.6 Halterworth Lane is subject to a 30mph speed limit and is street lit.

1.7 The terms of reference of the audit are as described in GG 119 Rev.2. The team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria. This Road Safety Audit has been undertaken based on the Road Safety Audit Team’s previous experience and knowledge in undertaking Collision Investigation, Road Safety Engineering and Road Safety Audits.

1.8 The proposed highway works are associated with the construction of potential residential development and in summary includes:

- 2 No. major/minor priority controlled T-junctions on the eastern side of Halterworth Lane to provide access to the proposed development; and
- 2m wide footways on the proposed access roads to tie into the existing footway provision of Halterworth Lane.

1.9 The Audit Team have not been informed of any Departures from Standard for the proposed scheme nor have they been made aware of any previous RSA's undertaken on the scheme.

1.10 Personal injury collision data has been provided by Hampshire and Isle of White Constabulary which shows there has been no personal injury collisions on Halterworth Lane in the vicinity of the proposed highway works during the five-year period 01/09/18 and 31/08/23.

1.11 Traffic speed data provided to the audit team shows the 85%ile speeds on Halterworth Lane at the northern access as 29.2mph northbound and 28.5mph southbound. At the southern access the 85%ile speeds were 28.7mph northbound and 27.0mph southbound.

1.12 The scheme has been examined and this report compiled only regarding the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other Standards or criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. Any audit comments should not be construed as implying that a technical audit has been undertaken in any respect.

1.13 Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with GG 119 Rev 2, and in no way, imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

2.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

2.1 General

2.1.1 No road safety issues identified at this stage.

2.2 Local Alignment

2.2.1 No road safety issues identified at this stage.

2.3 Junctions

2.3.1 Location: At the proposed junctions on Halterworth Lane

Problem

Summary: Junction intervisibility splays may be obscured by parked vehicles

It was observed on site that vehicles were parked on the eastern side of Halterworth Lane close to the proposed junctions. There is a risk that the parked vehicles may obscure the junction intervisibility splays. Obstructions within the junction intervisibility splays may increase the risk of failure to give-way or side impact type collisions between those exiting the junctions and those travelling along Halterworth Lane.

Recommendation

It is recommended that the parking situation along Halterworth Lane is investigated, and amendments made to the design to ensure adequate junction intervisibility splays can be achieved at both the proposed junctions.

2.3.2 Location: At the proposed junctions on Halterworth Lane

Problem

Summary: Excessive vehicular encroachment into opposing lanes when turning into/out of the proposed access roads

The refuse vehicle swept path analysis provided for audit shows the vehicle encroaching wholly into the opposing lanes when turning into/out of the proposed access roads. Whilst it is recognised that some encroachment may occur, this excessive encroachment by a refuse vehicle into the opposing traffic lanes may increase the risk of low-speed head-on or side-impact collisions.

Recommendation

It is recommended that amendments should be made to the proposed designs to ensure any vehicle encroachment into opposing lanes is kept to a minimum.

2.4 Walking, Cycling and Horse Riding

2.4.1 No road safety issues identified at this stage.

2.5 Traffic Signs, Carriageway Markings and Lighting

2.5.1 No road safety issues identified at this stage.

3.0 ROAD SAFETY AUDIT TEAM STATEMENT

We certify that the audit has been carried out in accordance with DMRB GG119 Rev 2.

AUDIT TEAM LEADER

Jon Preston MCIHT MSoRSA

Director | Signed: [redacted]

six:TEN Highways & Traffic Ltd | Date: 20 December 2023

AUDIT TEAM MEMBER

Tristan Brooks Bsc (Hons), MBA, CMILT, MCIHT, MSoRSA, HE RSA Cert of Comp

Traffic & Road Safety Engineer | Signed: [redacted]

six:TEN Highways & Traffic Ltd | Date: 20 December 2023

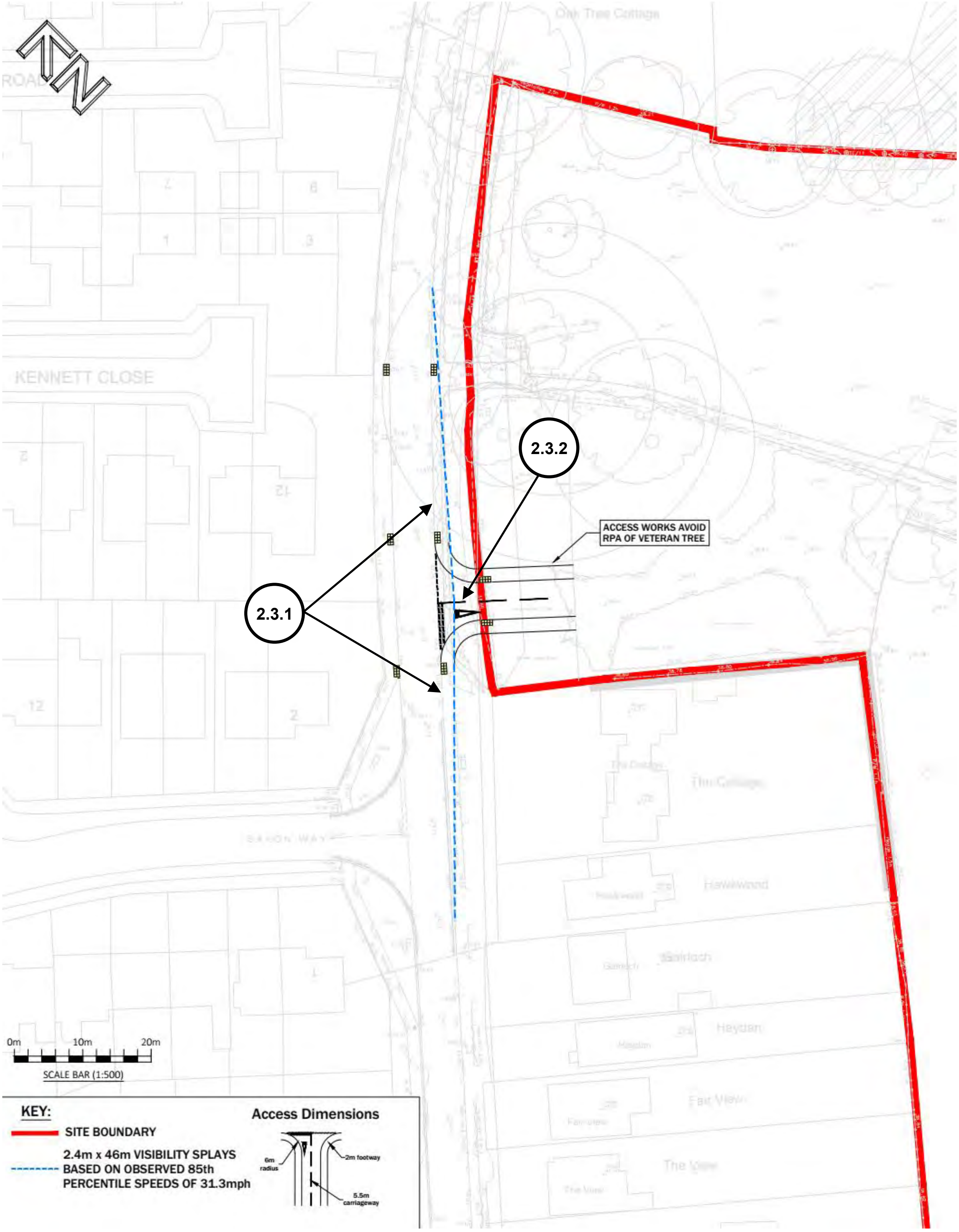
APPENDIX ONE

4.0 LIST OF DRAWINGS AND DOCUMENTS SUPPLIED BY THE DESIGN ORGANISATION

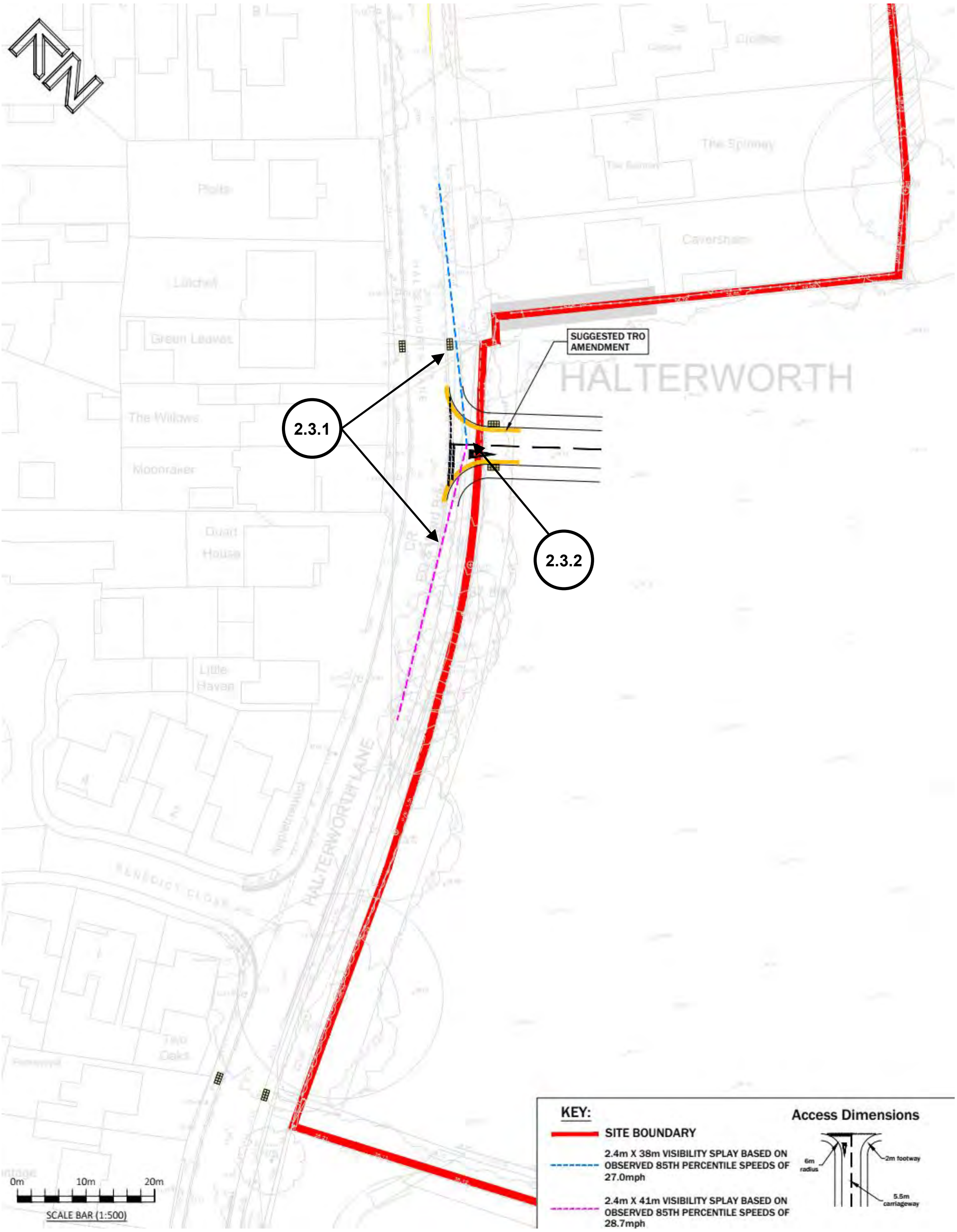
- P21004-001B Potential Access Strategy Northern Frontage
- P21004-002A Potential Access Strategy Southern Frontage
- P21004-003 Swept Path Analysis Northern Access
- P21004-004 Swept Path Analysis Southern Access
- 5 year (up to 31 August 2023) Personal Collision Data Hampshire Constabulary
- Existing Traffic Flow and Speed Data for Halterworth Lane

APPENDIX TWO

5.0 PROBLEM LOCATION PLAN



5.1 Propsoed Northern Access



5.2 Proposed Southern Access

APPENDIX THREE

6.0 PHOTOGRAPHS

6.1 General view looking north on Halterworth Lane towards the proposed northern junction

6.2 General view looking south on Halterworth Lane towards the proposed northern junction

6.3 General view looking north on Halterworth Lane towards the proposed southern junction

6.4 General view looking south on Halterworth Lane towards the proposed southern junction

This page has been left intentionally blank

Appendix 6.2

Travel Plan

"This page has been left blank intentionally".

Appendix 6.2:

Travel Plan

Halterworth Lane, Romsey,
Hampshire

Document Control		
Report Reference	P21004/TP	
Document Version	Final Revision A	
File Reference	N:\Projects 2021\P21004 - Halterworth Lane, Romsey, Hampshire\7.Reports\TP	
Date	January 2024	
Client	Gladman Developments Ltd	
	Name	Position
Written By	Ben Gaze	Senior Transport Planner
Checked & Approved By	David Stoddart	Associate Director

CONTENTS

APPENDICES AVAILABLE IN TRANSPORT ASSESSMENT

1 INTRODUCTION

1.1 Purpose of Report

1.1.1 This Interim Residential Travel Plan (TP) has been prepared to accompany a planning application by Gladman Developments Ltd (Gladman) for a proposed residential development on land at Halterworth Lane, Romsey, Hampshire.

1.1.2 This document has been produced to form part of an outline planning application for demolition of existing buildings and the erection of up to 270 dwellings, including affordable housing, with land for the potential future expansion of Halterworth Primary School, public open space, structural planting and landscaping, sustainable drainage system (SuDS) and vehicular access points. All matters reserved except for means of vehicular access.

1.1.3 Test Valley Brough Council (TVBC) is the Local Planning Authority (LPA) for the area, whilst Hampshire County Council (HCC) is the Local Highway Authority (LHA).

1.1.4 Prime Transport Planning (Prime) has produced this TP on behalf of the Applicant.

1.1.5 This report should not be seen as a definitive document but as the first stage of the TP process, which will continue and evolve over time with input from the developer, HCC and TVBC. This TP represents a commitment by Gladman to ensure that the proposed development is accessible by sustainable modes of transport and every effort will be made to ensure that opportunities to encourage the use of these sustainable modes, particularly walking, cycling and public transport, will be promoted to residents.

1.1.6 This document has been prepared alongside a Transport Assessment (TA) for the development proposal. As many highway and transportation details are pertinent to both documents, there is some repetition between the two and several of the TA Appendices are referenced in this document. Both documents form appendices to an Environmental Statement (ES) which has been prepared as part of an Environmental Impact Assessment (EIA). Chapter 6 Traffic and Transport links to this TP as well as the TA.

1.1.7 This document has been prepared in accordance with the Government’s Planning Practice Guidance: Transport evidence bases in plan making and decision taking (2014) and Travel Plans, Transport Assessments and Statements (2015).

1.1.8 Reasonable checks have been carried out on any third-party information used in the preparation of this report but, nonetheless, Prime accepts no liability for the accuracy or otherwise of this data.

1.1.9 Third-party rights are excluded for the use of information contained within this report.

1.2 Scope of Report

1.2.1 Following this introduction, the remainder of this report is structured as follows:

- Section 2 describes the relevant local and national TP policy and guidance and presents the objectives of this TP;
- Section 3 describes the existing situation in terms of the Site and local highway network;
- Section 4 details the development proposal including the access strategy;
- Section 5 details access to the Site by sustainable modes of transport which includes walking, cycling and public transport;
- Section 6 set outs the trip generation for the Site and discusses the targets of this TP;
- Section 7 describes the measures to be employed to achieve the targets set; and
- Section 8 discusses the management of the TP and describes how it will be monitored and reviewed.

2 TRANSPORT POLICY, GUIDANCE AND OBJECTIVES

2.1 Introduction

2.1.1 It is important that any new developments conform to and compliment national and local planning policy. This section details the policies that are relevant to the development.

2.2 National Planning Policy Framework

2.2.1 The current *National Planning Policy Framework* (NPPF) was published in December 2023 and sets out the Government's current planning policies. At the heart of NPPF is *'a presumption in favour of sustainable development'* as detailed in paragraphs 10 and 11.

2.2.2 Section 9 of the NPPF, *Promoting sustainable transport*, outlines the important role that the planning system has in facilitating sustainable development. It states in paragraph 105 that:

> *'Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health.'*

2.2.3 The document offers guidance for planning policies including:

- supporting appropriate mixes of land uses;
- minimising the number and length of journeys;
- actively involving local highway authorities, transport infrastructure providers and operators and neighbouring councils in order to align strategies and investments for supporting sustainable travel; and
- providing high quality walking and cycling networks and associated supporting facilities such as cycle parking.

2.2.4 Paragraph 114 of the NPPF provides direction for the assessment of sites for development, stating:

> *'…it should be ensured that:*
>
> *a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
>
> *b) safe and suitable access to the site can be achieved for all users; and*
>
> *c) 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;*

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.'

2.2.5 In determining planning applications, paragraph 115 states that:

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

2.2.6 Paragraph 116 continues:

'Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

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

2.2.7 Paragraph 117 highlights the need for planning applications for developments that will *'generate significant amounts of movement'* to be accompanied by a Transport Assessment or Transport Statement and a Travel Plan so that the *'likely impacts of the proposal can be assessed'*.

2.2.8 Section 8 of NPPF, *Promoting healthy and safe communities* closely aligns with several of the principles of Travel Plans.

2.2.9 Paragraph 96 calls for developments to:

'…achieve healthy, inclusive and safe places which:

a) promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use *developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;*

b) are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of attractive, well-designed, clear and legible pedestrian and cycle routes, and high quality public space, which encourage the active and continual use of public areas; and

c) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.'

2.2.10 Paragraph 102 highlights the importance of access to open spaces as well as opportunities for sport and physical activity in the context of the health and well-being of communities. Paragraph 104 continues to include the importance of access to and the enhancement of public rights of way (PRoW).

2.3 Planning Practice Guidance

2.3.1 The theme of sustainable development runs throughout Planning Practice Guidance, with the detailed elements regarding transport being focussed in the following sections:

- Transport evidence bases in plan making and decision taking; and
- Travel Plans, Transport Assessments and Statements.

2.3.2 Both sections of the Guidance provide significant amounts of detail on the information types and sources that are appropriate for helping LPAs to take forward their Local Plan with an appropriate evidence base. The Guidance is also a useful reference for assessing schemes such as the development which this report accompanies.

2.4 Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen (2011)

2.4.1 This Transport White Paper, prepared by the Department for Transport (DfT), states its vision for a 'transport system that is an engine for economic growth, but one that is also greener and safer and improves quality of life in our communities'.

2.4.2 It believes that 'we can build the balanced, dynamic low carbon economy that is essential for our future prosperity' by improving sustainable transport links and investing in new projects that 'promote green growth' but importantly states that 'investment on its own is not enough – we also need to help people to make transport choices that are good for society as a whole'.

2.4.3 The paper makes the pertinent point that *'two thirds of journeys are under five miles – many of these could be easily cycled, walked or undertaken by public transport'* but practical alternatives to private car use must be made more attractive. Their research suggests that a *'substantial proportion of car drivers would be willing to drive less, particularly for shorter trips'*.

2.4.4 It recognises that sustainable modes of travel are not viable alternatives to private car travel for all journeys, particularly those in rural areas or long distance trips. Greener car technologies will develop over the long term but *'sustainable travel initiatives are available now, and will continue to have benefits for congestion and wealth'*. It states that short, local journeys are where the greatest opportunities for encouraging sustainable travel lie.

2.4.5 In terms of how sustainable transport choices can be encouraged, the White Paper believes that *'it is at the local level that most can be done to enable people to make more sustainable transport choices'*. At this level it can be a mix of smaller-scale transport schemes and citizens acting together which can facilitate the effective delivery of local transport solutions that are *'developed for the places they serve, tailored for the specific needs and behaviour patterns of individual communities'*.

2.5 National Climate Change Agenda

2.5.1 In 2019 the UK Government made an Order to The Climate Change Act of 2008. Through this Order, the Government committed to make the UK a 'net zero' emitter of greenhouses gases by 2050 relative to 1990 emission levels. One way to help achieve this is the reduce greenhouse emissions caused by road traffic, with the Government announcing the ban of new petrol and diesel engine cars by 2035, outlining a clear shift toward electric vehicles, whilst at the same time continuing to encourage active travel (walking and cycling) as well as public transport use.

2.5.2 The Climate Change Committee advises the UK Government on emissions targets. In its 2022 Report to Parliament, it highlighted that action was needed to support a modal shift away from car travel in order for the UK to achieve net zero carbon status by 2050.

2.6 DfT Circular 01/2022 Strategic Road Network and the Delivery of Sustainable Development (2022)

2.6.1 Written by the DfT for its executive arm NH, this document provides an update of Circular 02/2013, and therefore sets out the way in which NH will engage in the planning system to deliver sustainable development, whilst safeguarding the primary purpose of the strategic road network.

2.6.2 The Circular aligns with the NPPF in implying the need for mitigation when development would have an *'unacceptable safety impact or the residual cumulative impacts would be severe'*.

2.6.3 The Circular does however move away from the 'predict and provide' approach and prioritises vision-led approaches including 'vision and validate', 'decide and provide' and 'monitor and manage'. It also places a clear ethos on the importance of maximising the potential for sustainable travel initiatives and places this ahead of capacity enhancements on the SRN. Travel Plans are cited as being an effective means to help incentivise the use of sustainable modes.

2.6.4 Early engagement with NH is encouraged and overarching details of acceptable assessment methodologies are presented.

2.7 Planning for the Future (2023)

2.7.1 This document is a *'guide to working with National Highways on planning matters'*. It details the motorway and trunk road authority's role in the planning process and links with Circular 01/2022. The following six planning values are outlined:

- Maintain safety;
- Engage early;
- Work openly;
- Share evidence;
- Share knowledge and experience; and
- Work collaboratively.

2.7.2 The importance of early engagement with NH is highlighted and this has been undertaken for this project.

2.8 Active Travel England Standing Advice Note: Active Travel and Sustainable Development

2.8.1 Active Travel England (ATE) is a statutory consultee on all new residential developments in England which exceed 150 residential units. This particular document is intended specifically for LPAs outside of Greater London and sets out how ATE will assess new development proposals. The document states that TAs must:

- *'Forecast the multi-modal movements generated by a development, quantifying the additional trip generation and the distribution and assignment;*
- *Provide a qualitative analysis of the current infrastructure in the surrounding area (which may include using the Cycling Level of Service Tool in LTN 1/20), taking into account how additional movements across all modes of transport will impact upon the capacity of public transport, walking, wheeling and cycling networks; and*
- *Provide detail (and justification) of any proposed improvements to infrastructure and the proposed delivery mechanism, as well as any other supporting strategies that seek to enable an increase in walking, wheeling and cycling rates.'*

2.8.2 The document also provides guidance on street design, stating:

- *'Within the red line boundary of the site, any new or improved residential/local streets should be designed (no centre line, horizontal deflection, narrow width) and signed for vehicles to travel at a maximum speed of 20mph, while other streets should be designed and signed for speeds of no more than 30mph.'*

2.8.3 It should be noted that ATE acknowledge that their latest guidance is largely emphasising existing guidance set out in national planning policy documentation, notably NPPF and Manual for Streets.

2.9 Manual for Streets and Technical Guidance Notes

2.9.1 *Manual for Streets* (MfS) was published on behalf of the DfT and Communities and Local Government in March 2007 and provides advice for the design of residential streets in England and Wales.

2.9.2 The focus of MfS is to demonstrate the:

> *'benefits that flow from good design and assigns a higher priority to pedestrians and cyclists, setting out an approach to residential streets that recognises their role in creating places that work for all members of the community. MfS refocuses on the place function of residential streets, giving clear guidance on how to achieve well-designed streets and spaces that serve the community in a range of ways' (MfS page 7).*

2.9.3 The guidance addresses many common design principles and discusses detailed design issues, often presenting recommended design criteria. Some of the key principles of MfS include:

- The need to shift from focusing on designing for motor vehicles to designing streets around the needs of pedestrians, cyclists and public transport users which in turn enhances safety;
- Good design can help to create and strengthen a sense of place and community;
- Creating streets that are permeable and offer good quality connections to main destinations for all road users;
- Inclusive design that recognises the needs of people of all ages and abilities; and
- Cost-effective construction often by avoiding over-designing.

2.9.4 In September 2010 a companion document *Manual for Streets 2 - wider application of the principles* (MfS2) was published. This document expands on some of the design principles of MfS and provides examples of places where designs based on these principles have been implemented.

2.9.5 HCC has produced a series of *Technical Guidance Notes* to replace its *Companion Document to Manual for Streets* which, for a time, sat alongside MfS.

2.10 Hampshire Local Transport Plan 4 (LTP4)

2.10.1 HCC is currently developing the fourth iteration of its LTP which will guide transport policy in Hampshire up to 2050. At the time of writing this TA a draft version of LTP4 is the latest available version of the document on HCC's website. Whilst the document is in draft, HCC clearly states that its predecessor, LTP3, *'is no longer relevant to today's challenges and opportunities'*, therefore we consider LTP4 to represent current policy.

2.10.2 At the core of LTP4 are two guiding principles which are as follows:

- **Guiding Principle 1**: Significantly reduce dependency on the private car; and
- **Guiding Principle 2**: Provide a transport system that promotes high quality, prosperous places and puts people first.

2.10.3 To deliver these principles, the following policies are outlined in Part D of LTP4:

- **Policy C1**: Putting people and places at the heart of our decisions;
- **Policy C2**: Efficient and sustainable movement of goods;
- **Policy C3**: Transport strategies and schemes to be developed in accordance with consideration of all users (Road User Utility Framework);
- **Policy C4**: Place climate change at the heart of decision-making;
- **Policy C5**: Support local living and reduce demands on transport;
- **Policy C6**: Encourage sustainable travel behaviour;
- **Policy C7**: A Safe Systems approach for Hampshire;
- **Policy C8**: Managing the harmful health effects of poor air quality and noise disturbance due to transport; and
- **Policy C9**: Protecting the environment.

2.11 Test Valley Borough Revised Local Plan DPD

2.11.1 The Test Valley Borough Revised Local Plan (2011-2029) was adopted in January 2016 and forms the main part of the Development Plan for the Borough.

2.11.2 The document sets out a vision for the future development of the Borough between 2011-2029, which is to 'create a Test Valley community where everyone has the opportunity to fulfil their potential and to enjoy a good quality of life'.

2.11.3 The Local Plan has eight key themes, which are as follows:

- Local Communities;
- Local Economy;
- Environment;
- Leisure;
- Health and Wellbeing;
- Transport;
- Community Safety; and
- Education and Learning.

2.11.4 Within the document, 15 objectives are set out, with Objective 13 related to *Transport,* which states the following:

> *'Encourage use of public transport, cycling and walking networks to help reduce reliance on cars and provide choice'.*

2.11.5 Further to this, Chapter 9 of the document is dedicated to *Transport* and outlines transport related policies, which are as follows:

Policy T1: Managing Movement

2.11.6 This policy is particularly relevant to the Site and states that development will be permitted provided that:

- *'Its location is connected with existing and proposed pedestrian, cycle and public transport links to key destinations and networks; and*
- *Measures are in place to minimise its impact on the highway network and rights of way network and pedestrian, cycle or public transport users; and*
- *The internal layout, access and highway network is safe, attractive in character, functional and accessible for all users and does not discourage existing and proposed users; and*
- *It does not have an adverse impact on the function, safety and character of and accessibility to the local or strategic highway network or rights of way network; and*
- *Provision is made to support and promote the use of sustainable transport, including the submission of a site travel plan where appropriate.'*

2.11.7 The document explains the above policy by stating that 'to encourage sustainable modes of transport, the location, design and layout of development will need to show primacy being given to walking, cycling and public transport'. Notably, the DPD goes on to acknowledge that the above must be viewed in the context of the development location, stating that 'the Council recognises that in some rural locations and for some proposals this will not be practical'.

Policy T2: Parking Standards

2.11.8 This policy states that development will be required to provide parking in accordance with the standards set out in Annex G, which presents minimum standards for residential development depending on dwelling size. These standards are presented in the Table 2.1 extracted from page 178 of the DPD:

Table 2.1: Minimum Standards for Residential Development

Dwelling Size	Minimum Car Parking Requirement	Cycle Storage Provision
1 bedroom unit	1 space per unit *	1
2 bedroom unit	2 spaces per unit *	2
3 bedroom unit	2 spaces per unit *	2
4+ bedroom unit	3 spaces per unit *	2
* Visitor parking of at least 1 space per 5 dwellings, for schemes of 5+ dwellings, will be required in addition to these figures.		

2.11.9 The DPD requires the submission of a Transport Statement or TA and a TP for developments 'which generate significant amounts of traffic', and goes on to explain that, 'the assessment should reflect the scale of the development being proposed, the impact on the strategic and local highway network and identify measures which will be put in place to reduce its impact to acceptable levels'. The DPD also notes the importance of ensuring appropriate visibility for all highway users can be achieved and, in new residential areas, that particular attention is required to mitigate the impact of the private car, with emphasis given to pedestrians, cyclists and public transport.

2.12 Test Valley (South) Local Cycling and Walking Infrastructure Plan (2022)

2.12.1 As set out in national government policy, Local Cycling and Walking Infrastructure Plans (LCWIPs) are a way for local authorities to identify need for improvements to walking and cycling infrastructure. This forms part of wider national and local policy to encourage modal shift away from private cars and towards active travel.

2.12.2 This LCWIP has been produced to cover the southern part of Test Valley, which includes Romsey and the surrounding area. The LCWIP is of interest to this TA because it identifies multiple roads within the vicinity of the Site as being top priority for improvements to active travel infrastructure.

2.12.3 The LCWIP identifies Botley Road as Primary Route 280 and Halterworth Lane as Secondary Route 332. Members of the public have made several comments on these roads, with comments relating to school time congestion and safety on Halterworth Lane in the vicinity of Halterworth Primary School.

2.13 Romsey Town Access Plan SPD (2015)

2.13.1 Adopted in 2015, the Romsey Town Access Plan (RTAP) sets out a strategy for improving access to amenities and services in Romsey. The RTAP identifies increasing volumes of vehicular traffic in the Romsey area (it should be noted that this document was published before the Covid-19 pandemic) and explains the importance of encouraging modal shift, stating:

'Good accessibility within the town will encourage individuals to walk and cycle more frequently to use facilities nearby, helping to reduce car use and the associated road congestion.'

2.13.2 The RTAP goes on to state that:

'In practice this means ensuring that paths and cycleways, particularly to local key destinations, are direct, attractive, safe, and that road crossings are in the right position to achieve maximum use and to reduce problems of severance.'

2.14 A Vision for Romsey 2022 - 2042

2.14.1 This is the latest documentation produced as part of the 'Romsey Future' project, an ongoing project which seeks to set out a strategic vision for Romsey, which will enable the town to adapt to the socio-economic changes it will face over the next 20 years.

2.14.2 The document is split into a series of 'Ambitions', the first of these being to make Romsey a '*well connected*' town. The document states that, as the town continues to grow, there will be increased pressure on Romsey's highway network. It also points out that the town's population is ageing and that this will likely result in a greater demand for better public transport.

2.14.3 To address these problems, the following strategies are proposed:

- *'Ensure that the transport and accessibility needs of the community are communicated and actively advocated for, making sure Romsey is well connected and an easy place for all to move around;*
- *Contribute to the enhancement of Romsey's walking and cycling infrastructure;*
- *Work with partners to understand Romsey's car parking needs and share relevant information; and*
- *Support improved access to and information about public and community transport and provide a platform to engage with partners around transport and accessibility needs for everyone.'*

2.15 Travel Planning Guidance

2.15.1 HCC has a webpage relating to the preparation of Travel Plans for all development types (https://www.hants.gov.uk/transport/developers/travelplans). This offers advice as to when a travel plan is needed, the contents required for travel plans and further advise as to how they are assessed and monitored. This online guidance also links back the Travel Planning Service available from the Council which helps support developers through the entire travel planning process.

2.15.2 The website content notes the need for Travel Plans to assist to *'reduce the number of people travelling by car alone'*. Useful weblinks are provided to aid sustainable journey planning and will be referenced in Section 7 of this report.

2.16 Travel Plan Objectives

2.16.1 From consideration of national and local transport policy it is clear that TPs have an important role in reducing congestion, minimising the environmental impact of travel and in supporting healthy living. Clearly providing funding alone is insufficient to encourage the use of sustainable modes of transport; any funding should be accompanied by encouragement to use these modes and promotion of their benefits.

2.16.2 From consideration of national and local transport policy it is clear that TPs have an important role in reducing congestion, minimising the environmental impact of travel and in supporting healthy living. Clearly providing funding alone is insufficient to encourage the use of sustainable modes of transport; any funding should be accompanied by encouragement to use these modes and promotion of their benefits.

2.16.3 In line with the abovementioned policy and guidance, Gladman feel that the TP should have the following objectives:

- Reduce the number of people travelling by car alone in line with HCC's aim;
- Enable residents of the Site and visitors to it to make sustainable travel choices that benefit themselves, their community and the environment;
- Design the development in such a way that it is accessible to all people regardless of any disability or impairment in order to enhance social inclusion;
- Raise awareness of the benefits of sustainable transport modes in terms of the benefits to individuals, local communities and the environment;
- Ensure that sustainable travel modes offer convenient options for door-to-door travel; and
- Ensure that sustainable travel choices are encouraged in the short term and continue to be used in the long term.

2.17 Summary

2.17.1 This section has outlined national and local transport policies and guidance which are applicable to the development Site. The objectives of the TP have also been stated. How the Site conforms to and complements these policies and guidance will be discussed in the following sections of this report, where relevant.

This page has been left intentionally blank

3 EXISTING SITUATION

3.1 Site Description

3.1.1 The application Site is currently undeveloped and agricultural in use. It is located on the eastern edge of the town of Romsey, circa 2km from the town centre.

3.1.2 Halterworth Lane, together with the rear gardens of residential properties which front Halterworth Lane, form the western boundary of the Site, while agricultural land forms the northern and eastern boundaries of the Site. To the south, the Site is bounded by grounds associated with Halterworth Primary School and the rear gardens of residential properties which front Elmtree Gardens.

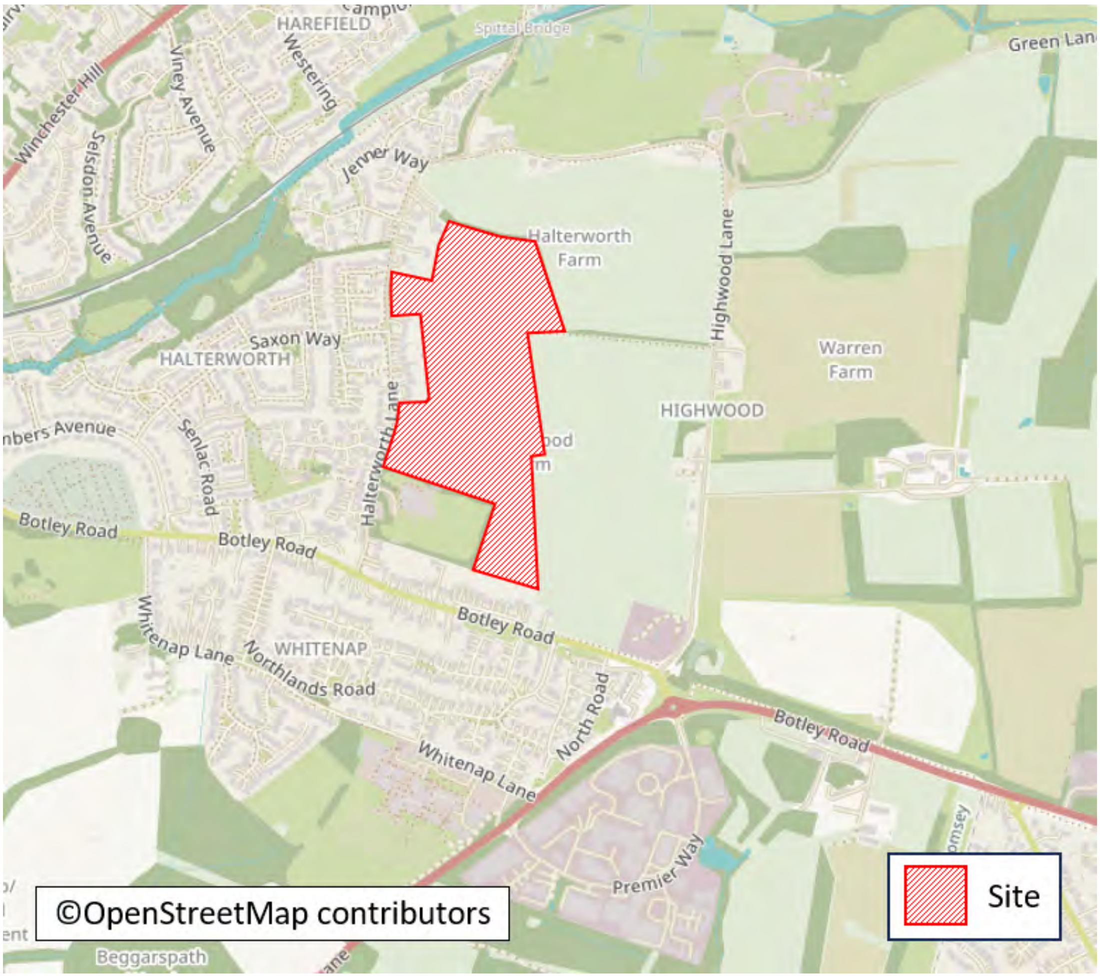
3.1.3 The direct frontage to Halterworth Lane is split over two sections, with existing residential properties located between each section of frontage. The northern frontage measures circa 85m in length, while the southern frontage measures circa 115m in length.

3.1.4 Two agricultural access points into the Site are provided on Halterworth Lane, one on each section of frontage. The access point provided along the northern frontage provides access to Public Right of Way footpath 198/15/1, which provides a connection between Halterworth Lane and Highwood Lane.

3.1.5 The centre of Romsey is located circa 4km to the north-west of North Baddesley, 10km to the west of Chandler's Ford, 14km to the north-west of Southampton city centre, 19km to the south-west of central Winchester and 27km to the south-east of Salisbury.

3.1.6 The location of the Site, in the context of Romsey and the local highway network, is illustrated in Image 3.1.

Image 3.1: Site Location and Local Highway Network



3.2 Public Rights of Way

3.2.1 Image 3.2 shows the Public Rights of Way (PRoW) network in proximity to the Site, this being an annotated extract from HCC's online mapping system[1] with footpaths being highlighted in purple and a bridleway highlighted green.

[1] https://maps.hants.gov.uk/rightsofwaydefinitivemap/largemap accessed 07/12/23

Image 3.2: Extract from HCC's Online Mapping System Depicting the Public Rights of Way

Source: https://maps.hants.gov.uk/rightsofwaydefinitivemap/

3.2.2 As stated earlier in this section, PRoW footpath 198/15/1 runs horizontally through the Site, providing a connection between Halterworth Lane and Highwood Lane.

3.2.3 A second PRoW, PRoW 197/503/1, extends westwards from Halterworth Lane and provides a connection to the edge of Romsey town centre via Tadburn Meadows Local Nature Reserve. Not only will these footpaths provide future residents of the Site with a direct connection into Romsey town centre, but they will also facilitate a pedestrian connection which is mainly isolated from any vehicular traffic, providing a safe and pleasant walking experience.

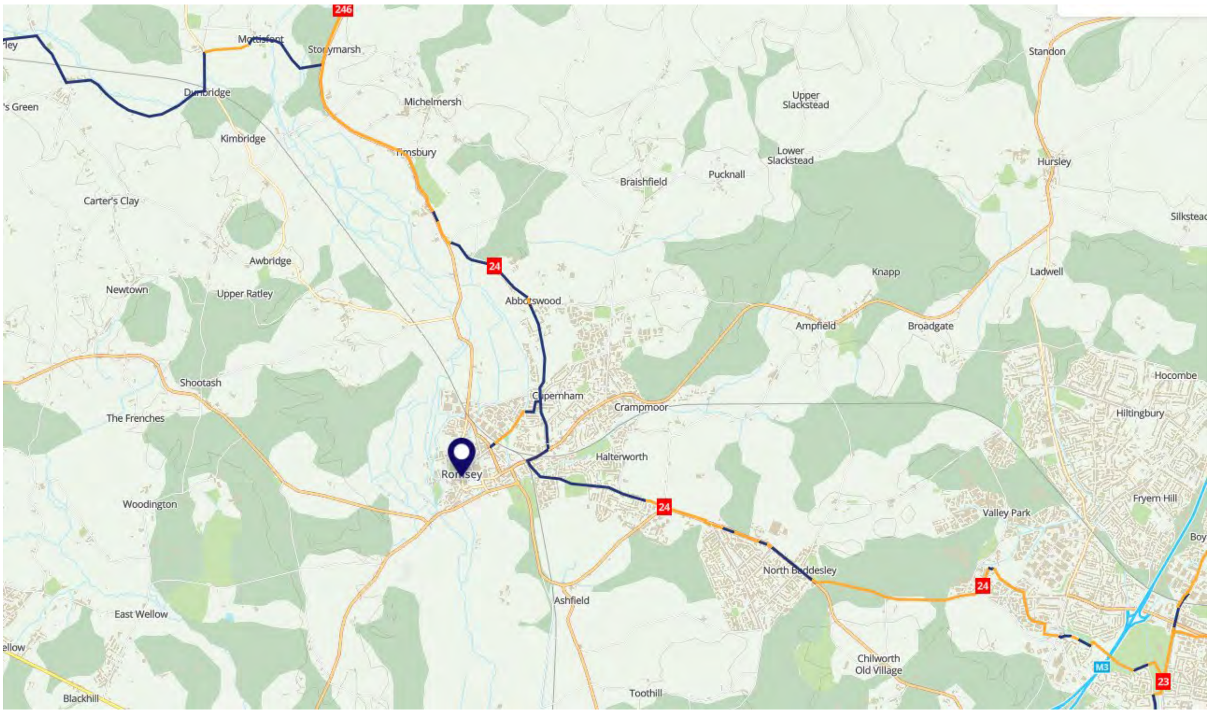
3.2.4 A bridleway connects Green Lane with Crampmoor Lane north-east of the Site.

3.3 Cycle Facilities

3.3.1 Image 3.3, an extract from the Ordnance Survey website[2], shows the cycle network in proximity to the Site. The orange lines are off-road or traffic-free while the navy blue lines are on-road routes.

[2] https://explore.osmaps.com/location?lat=50.992046&lon=-1.473648&zoom=13.5297&style=Standard&type=2d&locationName=U2FsdGVkX19xDiVaSMmMCLLzOvltvbONHpQL3%2Bj6vE0%3D&loc

Image 3.3: National Cycle Network



3.3.2 Image 3.3 shows that Botley Road forms part of National Cycle Route (NCR) 24, with it comprising both off-road/traffic-free and on-road sections. Opposite the Botley Road/Montfort Road priority-controlled junction, a shared foot/cycle way commences, which forms part of NCR 24 and extends in a south-eastward direction. Locally, NCR 24 provides a connection to Romsey town centre and North Baddesley, while further afield it provides a connection between Bath and Eastleigh.

3.3.3 The route also connects to NCR 23, which connects Reading to Southampton via Basingstoke and Winchester. North of Romsey, NCR 24 connects with NCR 246 which has long traffic-free sections, including the Test Way, and runs north to Kintbury via Andover.

3.4 Local Highway Network

Halterworth Lane

3.4.1 As mentioned above, Halterworth Lane traverses the western boundary of the Site, with the frontage split over two sections. It is a two-way single carriageway, which runs on a north to south alignment and provides a connection to Highwood Lane/Jenner Way and Botley Road, to the north and south respectively, with all junctions being priority-controlled. The road primarily acts as a local access collector road but also links Botley Road with the A3090 Winchester Road.

ationCoordinates=-1.4997630177834194%2C50.989111745370685&locationBbox=-1.5088%2C50.9805%2C-1.4599%2C51.0098&overlays=os-ncn-layer accessed 07/12/23

3.4.2 Beyond its junctions with Highwood Lane and Jenner Way, it extends north for circa 240m before forming a level crossing with the Eastleigh-Romsey railway line with signage on the approach to the level crossing, in both directions, requiring drivers to stop when lights show. It then extends north for another 160m and forms a priority-controlled junction with the A3090 Winchester Road. Signage provided at both the A3090 Winchester Road and Botley Road junctions indicate to drivers that the road is subject to width restrictions of 6’-6’’.

3.4.3 Halterworth Lane has a carriageway width of circa 7.0m, with circa 2.0m wide footways provided on both sides for most of its length. It predominantly provides frontage to residential properties, with Halterworth Primary School located towards the southern end of the road. It is subject to a 30mph speed limit and street lighting is provided.

3.4.4 A combination of single yellow lines and ‘School Keep Clear’ markings are provided along some sections of the carriageway to restrict parking on Halterworth Lane during school drop-off and pick-up times. A traffic regulation order (TRO) is in place to restrict parking between 0800-0900 and 1400-1600 as indicated by signage. The restrictions also create a chicane effect with vehicles having to slow down and wait for on-coming vehicles to pass.

3.4.5 A parking beat survey has been undertaken to gain an understanding of the nature of on-street parking along Halterworth Lane, particularly during school drop-off and pick-up times, with further details provided later in this section.

3.4.6 Several hail and ride bus stops are located along the carriageway, with further details regarding these stops and their associated services are provided in Section 5.

Botley Road

3.4.7 Botley Road is a two-way single carriageway, which runs on a slight north-west to south-east alignment and provides a connection between the A3090 Winchester Road and the A27/Premier Way. To the south-east of its roundabout junction with the A27/Premier Way, Botley Road begins to form part of the A27 route and runs directly into Southampton via North Baddesley. As described earlier in this section, it forms a priority-controlled junction with Halterworth Lane.

3.4.8 Botley Road has a carriageway width of circa 7.0m, with circa 2.0m wide footways provided on both sides, with the northern footway becoming a shared foot/cycleway opposite its priority-controlled junction with Montfort Road (as previously established, Botley Road forms part of NCR 24). It predominantly provides frontage to residential properties and side roads, while also providing frontage to local businesses and Botley Road park and play area. It is subject to a 30mph speed limit and street lighting is provided.

3.4.9 An uncontrolled crossing, comprising carriageway narrowing, dropped kerbs, tactile paving and reflective bollards, is provided across the carriageway, circa 60m to the north-west of its junction with Halterworth Lane, with pedestrian refuge islands sporadically provided along the carriageway in its entirety. A toucan crossing is provided a short distance to the south-east of its junction with Montfort Road, at the location where the footway becomes a shared foot/cycleway.

3.4.10 A north-westbound bus stop is provided a short distance to the north-west of its junction with Halterworth Lane, with its corresponding south-eastbound stop located circa 100m to the south-east of the junction. Further details regarding these stops and their associated services are provided in Section 5.

A27

3.4.11 The A27 is a strategic route which locally provides a connection to junction 3 of the M27 via the A3057 and M271, and a direct to Southampton via North Baddesley.

3.4.12 Locally, it is a two-way single carriageway, which is subject to national speed limit (60mph for cars and motorcycles). To the south-east of its junction with Botley Road/Premier Way, a combination of a footway and shared foot/cycleway is provided in its northern verge on approach and when travelling through North Baddesley. To the south-west of its junction with Botley Road/Premier Way, a footway is provided in both verges between its junction with Whitenap Lane and its junction with Premier Way, where street lighting is also provided to enable pedestrians walking from Romsey to Abbey Park Industrial Estate to do so in a safe and convenient manner.

3.4.13 From its junction with Botley Road/Premier Way to its junction with Castle Lane in North Baddesley, its forms part of NCR 24.

4 DEVELOPMENT PROPOSAL

4.1 Development Description

4.1.1 Gladman is seeking outline planning permission for the demolition of existing buildings and the erection of up to 270 dwellings, including affordable housing, with land for the potential future expansion of Halterworth Primary School, public open space, structural planting and landscaping, sustainable drainage system (SuDS) and vehicular access points. All matters reserved except for means of vehicular access.

4.1.2 This planning application reserves land for the potential future expansion of the primary school; the expansion itself will be subject to a future separate application by the local education authority, should such proposals come forward.

4.1.3 A Development Framework Plan (DFP) has been produced by FPCR and forms part of the supporting documentation for the planning application. It is not included within this document as it has the potential to be revised up to the point of submission and therefore to avoid conflicting and superseded layouts being submitted within the various planning documents, it is omitted from this report. The planning documents should be available via HCC’s online planning portal.

4.1.4 The DFP is indicative only but shows that the Site is to be accessed via two new single priority-controlled junctions located on Halterworth Lane. The proposed dwellings will be spread across most of the Site, two play areas will be provided in the northern and southern parts of the Site, while open space will be provided throughout the Site. The area for the potential expansion to the primary school is to the immediate east of the school, in the south-east corner of the Site.

4.1.5 As part of the development proposals, the Applicant is willing to provide parking bays within the development Site to provide additional car parking options at school pick-up and drop-off times and for use by visitors to the residents of the development.

4.1.6 The section of PRoW 198/15/1 within the Site will be incorporated into the Development Proposals and upgraded with improved surfacing and signage. The Applicant is willing to provide funding to allow HCC to upgrade the section of this PRoW where it passes beyond the Site boundary running east to Highwood Lane, providing a greater degree of permeability and amenity for pedestrians. Additional scenic footpaths are also proposed though the precise detailed will be subject to reserved matters.

4.2 Access Strategy

4.2.1 As stated above, the Site will be served by two new simple priority-controlled junctions on Halterworth Lane, both of which will comprise a 5.5m wide carriageway, 6.0m corner radii with corner tapers and 2 x 2.0m wide footways, which will connect to the existing footway provision on the eastern side of Halterworth Lane. Uncontrolled crossings, comprising dropped kerbs and tactile paving, will also be provided across each of the vehicular access points. The northern vehicular access is illustrated on Drawing P21004-001C and the southern vehicular access illustrated on Drawing P21004-002B, both of which are provided in Appendix E of the TA.

4.2.2 Whilst the internal layout is subject to a separate reserved matters application(s), it is envisaged that the two proposed Site accesses will be connected, as suggested on the DFP, forming a spine road.

4.2.3 As part of the development proposals, several off-site uncontrolled crossings, comprising dropped kerbs and tactile paving, will be provided along Halterworth Lane adjacent to the Site, two of which will be provided directly to the north and south of the proposed northern vehicular access, with another provided a short distance to the north to align with PRoW 198/15/1. In addition, an uncontrolled crossing will also be provided a short distance to the north of the proposed southern vehicular access, with another provided adjacent to the south-western corner of the Site aligning with a potential dedicated pedestrian access.

4.2.4 The proposed access arrangement has been subject to an independent Stage 1 Road Safety Audit (RSA) which is detailed in Section 9 of the TA.

4.3 Internal Layout

4.3.1 In accordance with MfS the design speed of the access road will be 20mph. While the internal layout will be subject to a separate reserved matters application(s) by the eventual housebuilder(s), it is expected that it will be based on MfS design guidance meaning that the layout will focus on the needs of pedestrians, cyclists, and public transport users, create a sense of place and community, create permeable streets offering good quality connections and recognise the needs of people of all ages and abilities. All of these should be achieved without over-designing.

4.4 Development Parking

4.4.1 As the final housing mix is not known and subject to future submissions, calculations relating to detailed parking provision have not been undertaken. An eventual reserved matters application(s) will specify sufficient parking, both in terms of numbers and dimensions, to comply with the relevant standards at the time of submission. At the time of writing, the current minimum standards are provided in Table 2.1 in Section 2.

4.4.2 It is expected that each house will be provided with electric vehicle (EV) charging point in line with NPPF and UK Building Regulations.

4.4.3 As described in this section, the development proposals, particularly the Site access, will conform to national and local policy guidance including TVBC Objective 13 and policies T1 and T2, along with the two Guiding Principles and Policies C1, C3, C5, C6 and C7 of HCC’s LTP4. The design of the access road will conform to the guidance of MfS.

4.4.4 The design principles help the Site to conform to NPPF guidance including paragraph 114 in terms of creating *'safe and suitable access',* and paragraph 116 in giving priority to pedestrian and cycle movements, and creating safe and attractive places which minimise conflicts between traffic and cyclists or pedestrians and considers the *'needs of people with disabilities and reduced mobility'.*

This page has been left intentionally blank

5 ACCESS BY SUSTAINABLE MODES

5.1 Introduction to Sustainable Modes of Transport

5.1.1 National and local transport planning policy centres on the importance of sustainable development, meaning that new developments should be located in areas where there is access to sustainable modes of travel, or where sustainable modes of travel can be introduced. The *National Design Guide* (2021) defines sustainable transport modes as:

> *'Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, low and ultra low emission vehicles, car sharing and public transport.'*

5.1.2 Walking, cycling and public transport are commonly regarded to be the most sustainable modes of transportation. This section of the report will describe how the Site can be accessed by these modes.

5.1.3 This section should be read in conjunction with the *Walking, Cycling and Horse-Riding Assessment Report*, which has also been produced and is provided in Appendix F of the TA.

5.2 Access on Foot

5.2.1 The Site is located circa 2km from Romsey town centre and, as previously discussed, is well-connected to good quality pedestrian and cycling infrastructure on Halterworth Lane and Botley Road. Wide street-lit footways are adjacent to the Site which create an environment conducive to walking. This infrastructure also includes pedestrian refuge islands, guard rails, formal push-button signal-controlled crossing points, tactile paving, dropped kerbs and parking restrictions (double yellow and single yellow lines and zig-zag markings) which serve to prevent visibility obstructions for pedestrians when crossing the carriageway. The Site also benefits from the PRoW that runs through it and connects to 197/503/1, via Halterworth Lane, which provide largely traffic-free connections towards Romsey town centre.

5.2.2 As detailed in Section 4, as part of the development proposals, several uncontrolled crossings, comprising dropped kerbs and tactile paving, will be provided along Halterworth Lane in proximity to the Site, which will further improve the surrounding pedestrian infrastructure.

5.2.3 It is noted that many of the uncontrolled crossings along Halterworth Lane include dropped kerbs but lack tactile paving. In order to improve accessibility and safety for visually impaired pedestrians and better define the crossing points, the Applicant is willing to provide tactile paving at Halterworth Lane's junctions with Bolney Road, Montford Heights, Benedict Close, Saxon Way, Seward Rise, Jenner Way and Hestia Close, as well as at the existing dropped kerb crossing on Halterworth Lane between Highwood Lane and Jenner Way, should HCC consider these improvements to be beneficial.

5.2.4 Research has indicated that acceptable walking distances depend on a number of factors, including the quality of the development, the type of amenity offered, the surrounding area, and other local facilities. The Chartered Institution of Highways and Transportation (CIHT) document entitled *Providing for Journeys on Foot* (2000) suggests walking distances which are relevant to this application. These distances are shown in Table 5.1.

Table 5.1: Suggested Acceptable Walking Distances

Criteria	Town Centres (m)	Commuting/School/ Sightseeing (m)	Elsewhere/Local Services (m)
Desirable	200	500	400
Acceptable	400	1000	800
Preferred Maximum	800	2000	1200

Source: CIHT Document Providing for Journeys on Foot (2000)

5.2.5 In order to highlight the Site's accessibility on foot, an indicative walking isochrone has been produced using the Geographic Information System (GIS) software Visography TRACC. Figure 2 in Appendix B of the TA represents the Site's walking catchment with the CIHT's *Preferred Maximum* distances of 1200m and 2000m for local service and commuting/school trips illustrated.

5.2.6 To provide an accurate representation of the future highway and PRoW network, the Site's proposed vehicular access points have been manually added to the network used for the isochrone. The accessibility distance is based on an origin/destination point in the approximate centre of the developed portion of the Site.

5.2.7 Table 5.2 below summarises the distance and the typical time it would take to walk from the centre of the Site to some of the local amenities and centres of employment and education identified in Figure 2 in Appendix B of the TA via the road/footway network. It provides a comparison against those distances recommended in the CIHT's *Providing for Journeys on Foot*. The time it takes is based on a walking speed of 4.8kph which corresponds with the TRACC default, which itself is based on advice in the DfT document *Transport Connectivity Travel Time Indicators: Guidance Notes*.

Table 5.2: Walking Distance and Time Taken from Site to Local Amenities

Amenity	Distance from Site (m)	Preferred Max Walk Distance (m)	Walk Time (mm:ss)
Halterworth Primary School	373	2000	04:46
Convenience Store	631	1200	07:55
Post Office/Convenience Store	662	1200	08:18
Tadburn Meadows Local Nature Reserve	702	1200	08:47
Botley Road Park	1019	1200	12:54
St Swithun's Church	1076	1200	13:29
Luzborough Public House	1097	1200	13:49
Stroud King Edward VI School	1249	2000	15:38
The Mountbatten School	1316	2000	16:34
Co-op	1420	1200	17:48
Abbey Park Industrial Estate	1815	2000	22:51
Abbeywell Surgery	2014	1200/2000	25:13
Romsey Rapids Sports Complex	2196	1200	27:29
Romsey Hospital	2232	2000	27:57
Winchester Hill Business Park	2236	2000	28:06

5.2.8 The results in Table 5.2 show that a convenience store, a post office/convenience store and Tadburn Meadows Local Nature Reserve can be reached within the acceptable walking distance of 800m for local service trips, while Botley Road park, St Swithun's church and Luzborough public house can be reached within the preferred maximum walking distance of 1200m. Although situated outside of the 1200 catchment, a Co-op food store, Abbeywell surgery and Romsey Rapids Sports Complex can be reached via foot within 28 minutes. Halterworth Primary School can be reached within the desirable distance of 500m for educational trips, while Stroud King Edward VI Preparatory School and The Mountbatten Secondary School can be reached within the preferred maximum walking distance of 2000m. Abbey Park Industrial Estate, Romsey Hospital and Winchester Hill Business Park, which may provide employment opportunities for future residents of the Site, can be reached via foot within 29 minutes.

5.2.9 Also, as can be seen in Figure 2 in Appendix B of the TA, the edge of Romsey town centre falls within the 2000m catchment, meaning that a significantly larger range of amenities and services not included in Table 5.2, which also provide an extensive range of employment opportunities, are within walking distance from the Site.

5.2.10 Given the evidence presented in Figure 2 in Appendix B of the TA and Table 5.2, walking can be considered to be a realistic and viable method of travel indicating that the Site's location is accessible via this sustainable mode.

5.3 Access by Cycle

5.3.1 It is widely recognised that cycling can offer an attractive alternative to short car trips, particularly those under 8km, but also as part of longer journeys by public transport.

5.3.2 The CIHT document *Cycle Friendly Infrastructure* (2004) states in paragraph 2.3 that:

> *'Three quarters of journeys by all modes of travel are less than five miles (8km) and half under two miles (3.2km) (DoT 1993, table 2a). These are distances that can be cycled comfortably by a reasonably fit person.'*

5.3.3 LTN 1/20 *Cycle Infrastructure Design* states similar, that:

> *'Two out of every three personal trips are less than five miles [8km] in length - an achievable distance to cycle for most people'.*

5.3.4 As mentioned in Section 3, Botley Road forms part of NCR 24, a partly segregated cycle route providing a convenient cycle connection into Romsey town centre. The route also connects to NCR 23, facilitating a cycle connection to Southampton and NCR 246 to Andover and Kintbury.

5.3.5 A cycling isochrone showing the Site's catchment has also been produced using TRACC and is shown as Figure 3 in Appendix B of the TA. The figure illustrates 2000m, 5000m and 8000m catchment ranges, which equate 10, 25 and 40-minute journey times respectively and are based on the somewhat conservative or leisurely cycle speed of 12kph. Anecdotally, commuting cyclists are generally thought to travel at speeds between 15-20kph so a greater catchment may be more realistic.

5.3.6 The cycling distances and times to a selection of key local centres of education, employment and amenities, as well as neighbouring settlements, are shown in Table 5.3, although the cycle times detailed in the table are based on a cycling speed of 16kph which corresponds with the TRACC default, which the software developer has based on DfT advice. It should be noted that some of the cycle distances may differ from the walking distances as cycling along PRoW is legally not allowed unless designated as cycleways, bridleways or byways.

Table 5.3: Cycling Distance and Time Taken from Site to Local Centres of Employment, Education, Amenities and Neighbouring Settlements

Employment/ Education/ Amenity/ Settlement	Distance from Site (m)	Cycle Time (mm:ss)
Halterworth Primary School	373	01:52
Convenience Store	631	02:28
Post Office/Convenience Store	662	02:36
Tadburn Meadows Local Nature Reserve	702	03:27
Botley Road Park	1064	04:44
St Swithun's Church	1076	04:10
Luzborough Public House	1097	04:35
Stroud King Edward VI School	1249	04:47
The Mountbatten School	1351	05:35
Co-op	1465	05:43
Abbey Park Industrial Estate	1820	07:32
Abbeywell Surgery	2060	08:50
Romsey Hospital	2278	08:45
Winchester Hill Business Park	2281	09:14
Romsey Rapids Sports Complex	2632	10:02
Romsey Railway Station	2640	10:07
Romsey Town Centre	2731	10:26
Test Valley Business Park	2922	11:45
North Baddesley	3207	12:05
Granger Farm Sports Complex	3212	12:33
Romsey Academy	3343	12:37
Frobisher Industrial Estate	3406	12:51
Belbins Business Park	3703	13:58
Romsey Industrial Estate	3788	14:18
Abbotswood Nature Reserve	3970	17:07
Ampfield	4095	15:32
Yokesford Hill Industrial Estate	4440	16:44
Braishfield	4572	17:21
M27 Services	5197	19:31
University of Southampton Science Park	5674	21:31
Chandlers Ford Industrial Estate	6928	26:05
Chandler's Ford	7699	28:56
Awbridge	7935	29:51
Nusling Industrial Estate	8239	31:51
Adanac Business Park	9446	35:26

5.3.7 Table 5.3 illustrates that there is a considerable range of local amenities, places of employment, places of education and settlements within the cycle catchment. The local amenities mentioned in the 'Access on Foot' section above are less than an 11-minute cycle ride from the Site.

5.3.8 An examination of Table 5.3 shows that Romsey town centre, Test Valley Business Park, Frosbisher Industrial Estate, Belbins Business Park, Romsey Industrial Estate and Yokesford Hill Industrial Estate, all of which provide an extensive level of employment opportunities for future residents of the Site, as well as Granger Farm Sports Complex, Romsey Academy, Abbotswood Nature Reserve and the settlements of North Baddesley, Ampfield and Braishfield, are all located within a 5000m distance from the Site and an 18-minute cycle ride. Romsey train station, which provides cycle parking, is also located within the 5000m catchment and can be reached within an 11-minute cycle ride. The University of Southampton Science Park, Nusling Industrial Estate and Adanac Business Park, as well as the settlements of Chandler's Ford (including large scale industrial estate) and Awbridge, are all located within the 8000m catchment.

5.3.9 Given the evidence presented in Figure 3 in Appendix B of the TA and Table 5.3, cycling can be considered a realistic and viable method of travel indicating that the Site's location is accessible via this sustainable mode.

5.3.10 Clearly the Site location and the surrounding infrastructure will mean that travel on foot and by cycle will be realistic and convenient modes of travel for future residents of the Site. The potential numbers of walking and cycling trips that the Site will generate will be discussed in Section 6 of this report, but clearly the scale of the Site is not such that it will disadvantage existing pedestrians and cyclists.

5.4 Access by Local Bus Services

5.4.1 As mentioned in Section 3, there are bus stops located on Halterworth Lane and Botley Road, with the walking distance to these stops and the corresponding walking time (based on a walking speed of 4.8kph) summarised in Table 5.4 below.

Table 5.4: Walking Distance and Time to Bus Stops

Bus Stop	Distance (m)	Walking Time (mm:ss)
Halterworth Lane opp Footway to Kennett Road	305	03:49
Halterworth Lane adj Footway to Kennett Road	378	04:44
Botley Road adj Halterworth Lane	507	06:21
Botley Road opp Halterworth Lane	568	07:07

5.4.2 As Table 5.4 shows, the Halterworth Lane bus stops, which provide access to the 35 service, can be reached within 5 minutes on foot, while the Botley Road bus stops, which provide access to the 4 and 5 services, can be reached within 8 minutes on foot.

5.4.3 The bus stops located on Halterworth Lane are hail and ride stops with limited infrastructure (flag pole and timetable for southbound stop but no infrastructure at northbound stop), while the bus stops located on Botley Road comprise flag and timetable information, a bus cage and raised kerbs.

5.4.4 Table 5.5 summarises the services that can be accessed at these bus stops. The information below has been obtained from Traveline (https://www.traveline.info).

Table 5.5: Summary of Bus Services

Service	Route	Weekday Frequency	Weekend Frequency	
		Monday - Friday	Saturday	Sunday
4	Romsey - Southampton City Centre	2 services per hour	2 services per hour	1 service per hour
5	Romsey - Boyatt Wood	1 service per hour	1 service every 2 hours	No service
35	Braishfield - Romsey	1 service per day	No service	No service

5.4.5 The no. 4 service is the most frequent service, operating from Monday to Sunday and providing two services an hour on a weekday and Saturday, while providing one service per hour on a Sunday. The service, which operates from the Botley Road bus stops, enables passengers to travel to and from Southampton and Romsey town centre as well as other destinations. On a weekday, the first morning service departs from the Botley Road adjacent Halterworth Lane stop at 0609 hours, arriving at the Westquay stop in Southampton city centre at 0645 hours, with the journey taking 36 minutes. The last evening service departs from the Vincent's Walk bus stop in Southampton city centre at 2155 hours, arriving at the Botley Road opposite Halterworth Lane at 2233 hours, with the journey taking 38 minutes.

5.4.6 The no. 5 offers hourly services between Romsey town centre and Boyatt Wood via Eastleigh town centre Monday to Friday, and a service every two hours on Saturdays. The no. 35 services between Romsey and Braishfield which calls at the Halterworth Lane and Saxon Way stops is more limited, with just a single service Monday to Friday.

5.4.7 Given Southampton's role as the region's primary economic centre, the 4-bus service will provide future residents of the Site with access to an extensive range of amenities, services, education and employment opportunities. The no. 5 service supplements this with hourly journeys to Eastleigh town centre which offers multiple employment, retail and leisure opportunities as well as a train station and is close to Southampton Airport.

5.4.8 The Applicant is willing to upgrade the Halterworth Lane stops opposite and adjacent to Kennett Road to include raised boarding areas, shelter, seating and timetable information. Whilst it is recognised that the 35 service which calls at this stop is limited to one service per day, there may be opportunities in the future to enhance this service or introduce new services which call on Halterworth Lane, and said upgrade will help to enhance the attractiveness of such services.

5.4.9 The Applicant is also willing to fund the provision of shelters at the two Botley Road bus stops opposite and adjacent to Halterworth Lane to enhance passenger convenience, particularly during inclement weather.

5.5 Access by Rail

5.5.1 The nearest train station to the Site is Romsey, which is managed by South Western Railway and provides multiple direct services throughout the day to Chandlers Ford (7 minutes), Southampton Central (11 minutes), Eastleigh (13 minutes), Southampton Airport Parkway (17 minutes), Salisbury (18 minutes), Portsmouth Harbour (59 minutes) and Bath Spa (73 minutes), with each service stopping at various other stations along each route. These times are the fastest journey options at the time of writing taken from the National Rail website[3].

5.5.2 The service to Southampton runs 3 times per hour, thus, the frequency and speed of the Romsey to Southampton service will likely be popular amongst future resident of the Site, some of whom will likely work in Southampton City Centre.

5.5.3 The station provides a car park comprising 20 spaces, as well as an extensive range of facilities including refreshment facilities, toilets, pay phones, waiting rooms, customer help points, ticket machines and a ticket office.

5.5.4 A total of 14 sheltered cycle parking spaces are also available at the station, which may encourage some future residents of the Site to travel to and from the station by cycle. As established earlier in this section, the station is located within a 11-minute cycle ride from the Site.

5.5.5 The short car journey to the station should be considered a sustainable trip when the train is chosen for mid to long distance trips.

5.5.6 Connection to a greater range of rail services can be made from Eastleigh and Southampton train stations which are accessible by bus.

5.6 Summary

5.6.1 This section of the report has demonstrated that the Site is in a sustainable location where local amenities and neighbouring local settlements are within nationally recognised acceptable walking and cycling distances.

5.6.2 It has been demonstrated that a variety of day-to-day amenities are within reasonable walking and cycling distances, as are employment opportunities and schools.

5.6.3 In respect of public transport, the bus services which operate in proximity to the Site run frequently and provide connections to and from various destinations including Southampton, Eastleigh and Romsey town centre.

5.6.4 Romsey train station, accessible via bus and bicycle, also enables passengers to travel to and from several destinations including Chandlers Ford, Southampton Central, Salisbury, Southampton Airport

[3] https://www.nationalrail.co.uk/ accessed 14/12/23

Parkway, Bath Spa and Portsmouth Harbour. Southampton Central and Eastleigh stations can also be accessed by bus.

5.6.5 A key theme of national and local transport planning policy is that development should be located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. As detailed in Section 2 of this report, the NPPF states that *'significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes'*, as well as providing *'safe and suitable'* access for all.

5.6.6 The good level of accessibility of the Site and improvements in the form of new footway connections at the proposed Site accesses, PRoW connection and enhancement and bus stop upgrades helps the Site to align with the Guiding Principles and policies C1, C3, C5, C6 and C7 of HCC's LTP4 and TVBC Objective 13 and Policy T1.

This page has been left intentionally blank

6 TARGETS

6.1 Introduction

6.1.1 In order for TP measures to be successfully adopted, it is important to set achievable but challenging targets that can be monitored and reviewed at regular intervals. It is difficult to set targets at this stage, as they need to be based on the actual travel characteristics of the Site, which will not be known until a baseline travel survey has been arranged following an agreeable level of occupation. It is expected that the housebuilder behind the future reserved matters application will arrange this baseline survey. However, as the Applicant has a commitment to sustainable travel and the TP process, some initial targets can be set based on census data for the local area.

6.2 Vehicular Trip Generation

6.2.1 In order to determine the traffic generation associated with the proposed development, the TRICS 7.10.2 database has been used. This industry-standard database contains traffic generation surveys of numerous sites of various land use types across the UK and Eire.

6.2.2 A summary of the key selections applied in order to derive the sample is as follows:

- Land use category - houses privately owned;
- Regions excluded - London, Northern Ireland and Eire;
- No. dwelling range selection - 50 to 4,334 units (50 to 918 actual);
- Date range - 02/03/13 to 01/03/23;
- Weekend surveys excluded;
- Selected locations - edge of town and
- Location sub categories - residential zone.

6.2.3 The above selections returned a sample of 47 sites, however, 16 sites were removed due to them containing flats or bungalows and 4 sites were removed because they were surveyed during the Covid-19 pandemic period. The results of these surveys would have skewed the trip rates of the sample.

6.2.4 The full reports of the TRICS data and selection process are included in Appendix H of the TA.

6.2.5 The derived trip rates were then applied to the 270 dwellings resulting in the trip generation. The likely 12-hour (residential sites in TRICS are typically only surveyed between 7am and 7pm) trip generation of the Site is shown in Table 6.1, with the AM and PM peak hours highlighted in bold font.

6.2.6 The below trip rates were accepted by HCC Highways and NH during scoping discussions (Appendix A of the TA).

Table 6.1: 12 Hour TRICS Derived Trip Rates and Trip Generation for 270 Dwellings

Time	Trip Rates			Trip Generation		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
07:00-08:00	0.074	0.305	0.379	20	82	102
08:00-09:00	**0.137**	**0.381**	**0.518**	**37**	**103**	**140**
09:00-10:00	0.131	0.161	0.292	35	43	78
10:00-11:00	0.116	0.143	0.259	31	39	70
11:00-12:00	0.124	0.132	0.256	33	36	69
12:00-13:00	0.153	0.132	0.285	41	36	77
13:00-14:00	0.148	0.148	0.296	40	40	80
14:00-15:00	0.150	0.171	0.321	41	46	87
15:00-16:00	0.247	0.153	0.400	67	41	108
16:00-17:00	0.249	0.145	0.394	67	39	106
17:00-18:00	**0.350**	**0.151**	**0.501**	**95**	**41**	**136**
18:00-19:00	0.288	0.146	0.434	78	39	117
Daily (12hr)	**2.167**	**2.168**	**4.335**	**585**	**585**	**1170**

6.2.7 As the above table shows, the Site is likely to generate in the region of 140 two-way trips in the AM peak hour and 136 two-way trips in the PM peak hour, which equates to just over 2 new trips per minute at the Site accesses before dissipating across the local highway network.

6.2.8 It is important to note that the above trip rates should be considered as robust as they have been applied to both the open market and the affordable elements of the Site. Trip rates associated with affordable housing tend to be lower, although it would be fully justified to use them based on TRICS best practice advice. Also, it should be noted that no allowance has been made for any future reduction in car travel based or any potential increased use of sustainable modes of travel.

6.2.9 Furthermore, the above assessment should be considered to be robust as it has not discounted any traffic associated with the existing on-site buildings, which are set to be demolished.

6.3 Multimodal Trip Generation

6.3.1 The number of non-car trips likely to be generated by the Site has been forecast using 2011 Census Method of Travel to Work (MTW) data. The Test Valley (E02004823) MSOA has been selected as it comprises a large built-up area immediately adjacent to the Site, which the proposed development will extend even further. The travel characteristics of this neighbouring MSOA are likely to be more representative of the proposed development than the more rural MSOA in which the Site sits. The trip ends for each method of travel have been downloaded from Nomis (http://www.nomisweb.co.uk).

6.3.2 Several of the transport mode categories have been manually removed from the data for reasons including it being unrealistic that they will be used by residents of the Site (i.e. underground); or that they will not generate a trip (i.e. not in employment).

6.3.3 As the vehicular trips were calculated using TRICS, factors have been derived between them and the census car driver trips (3,110). The factors equate to 4.5% and 4.4% in the respective AM and PM peaks. They have then been applied to the other census modes to forecast the likely number of multimodal trips generated by the Site. Table 6.2 provides the forecast multimodal trips.

Table 6.2: Forecast Multimodal Person Trips Based on Census MTW

Method of Travel to Work	Census Trips	Mode %	AM Trips	PM Trips
Work mainly at or from home	448	9.9%	20	20
Train	153	3.4%	7	7
Bus, minibus or coach	82	1.8%	4	4
Driving a car or van	3,110	68.4%	140	136
Passenger in a car or van	241	5.3%	11	11
Bicycle	153	3.4%	7	7
On foot	357	7.9%	16	16
Trips Excluding WFH	**4,096**	**-**	**185**	**181**
All Modes	**4,544**	**100%**	**205**	**201**
		Factors	4.5%	4.4%

6.3.4 Based on the figures in Table 6.2, the Site is forecast to generate 185 and 181 total people physical trips in the AM and PM peaks respectively, with around 20 people working from home, although this figure is likely to be higher given the increase in working from home following the Covid-19 pandemic.

6.3.5 Following driving a car being the most common method of travel likely to be used by residents of the Site, walking trips are expected to account for 16 trips in each peak, equating to 7.9%, car passenger trips are expected to account for 11 trips in each peak equating to 5.3%, trips via train travel and bicycle trips are each expected to account for 7 trips in each peak, equating to a combined 6.8%, while trips via bus travel are expected to account for 4 trips in each peak, equating to 1.8%.

6.4 Modal Shift Targets

6.4.1 In line with national travel plan guidance, targets should be SMART (Specific, Measurable, Achievable, Realistic and Time-bound). At this stage in the TP process, the most suitable way to set targets will be to suggest a reduction in car or van driver trips with an increase in trips on foot, bike, bus, train, as a passenger in a car or van trips, as well as car sharing and an increase in working from home.

6.4.2 It is understood that a reduction in car or van driver trips of 10% is both realistic and challenging, with this 10% split across the non-car driver modes of transport, considered to be sustainable, mentioned above based on their existing proportions. Table 6.3 displays Gladman's initial targets using the average of the AM and PM peak forecast modal splits shown in Table 6.2 as the base. The green font represents a percentage increase with the red font representing a percentage decrease. It is considered that these initial targets should be achieved within five years of full occupation of the Site.

Table 6.3: Modal Split Targets for Five Years Post Full Occupation

User Class	AM Peak				PM Peak			
	Mode %	Year 1	Year 3	Year 5	Mode %	Year 1	Year 3	Year 5
		1%	6%	10%		1%	6%	10%
Work mainly at or from home	9.8%	10.1%	11.6%	12.8%	10.0%	10.3%	11.8%	13.0%
Train	3.4%	3.5%	4.1%	4.5%	3.5%	3.6%	4.1%	4.6%
Bus, minibus or coach	2.0%	2.0%	2.3%	2.6%	2.0%	2.1%	2.4%	2.6%
Driving a car or van	68.3%	67.3%	62.3%	58.3%	67.7%	66.7%	61.7%	57.7%
Passenger in a car or van	5.4%	5.5%	6.4%	7.1%	5.5%	5.6%	6.5%	7.2%
Bicycle	3.4%	3.5%	4.1%	4.5%	3.5%	3.6%	4.1%	4.6%
On foot	7.8%	8.1%	9.3%	10.3%	8.0%	8.2%	9.4%	10.4%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

6.4.3 Table 6.3 presents targets of up to 12.8-13.0% of people to be working from home, 10.3-10.4% to be travelling on foot, 7.1-7.2% as a car or van passenger, 4.5-4.6% via bicycle or as a train passenger and 2.6% as a bus passenger, with a reduction in driving a car or van to 57.7-58.3%. It is hoped that the TP co-ordinator, to be discussed in the next section, will arrange a repeat travel survey after this five-year timescale to assess whether the targets have been achieved, then new targets can be established. Timescales can also be set for further surveys and targets.

6.4.4 It is recommended that the initial targets are adjusted based on the baseline travel survey as this will provide more accurate, up-to-date and site-specific travel patterns rather than using census derived modal split data.

7 MEASURES

7.1 Introduction

7.1.1 It is important that TP measures are appropriate for the development and have realistic potential to influence the increased uptake of sustainable modes of transportation. It is also important that they can influence people in the short, medium and long term.

7.1.2 Not only should the measures be realistic, but it is important that resources are made available to help achieve them. Therefore, the roles and responsibilities of all parties involved, particularly the eventual TP Co-ordinator for the Site, should be presented, discussed and agreed at the earliest opportunity.

7.1.3 As the TP progresses, liaison will be made with local schools and businesses as it may be possible to somewhat integrate proposed measures with existing ones already in place, or soon to be implemented, by third-parties, given the common goal.

7.1.4 This section will present potential measures to help achieve the targets set in Section 6. Some of these measures will be collective and apply to all modes of sustainable transport while others will be specific to each mode.

7.2 Reducing the Need to Travel

7.2.1 Section 5 of this TP has described how the Site is well-located in terms of being within walking and cycling distance to local amenities. It also demonstrated how bus services may provide viable and convenient modes of travel for some residents. Furthermore, the Site's access strategy, particularly with regards to its permeability for pedestrians, maximises the potential for the attractiveness of travel via sustainable modes by providing convenient connections along natural desire lines. The Site will also offer a section of public open space and play areas which themselves will become new local amenities.

7.2.2 Sections 4 and 5 have stated that the existing and proposed local highway network is/will be conducive to walking, with well-lit footways and PRoW for pedestrians, as well as there being local cycle routes.

7.2.3 Development of the Site could also see an increase in working from home given improvements in home telecommunications, such as broadband and video calling, and information technology, including cloud computing and the increase in '.com' industries. The travel restrictions imposed during the Covid-19 pandemic saw a considerable increase in working from home, with many employers likely to be further supportive of working from home on a full or part-time basis. The housebuilder behind any future reserved matters application is likely to incorporate home working facilities into the properties.

7.2.4 In addition, the emergence of home deliveries from large supermarkets and online retailers has the potential to further reduce the need for travel. There is an opportunity for the housebuilder to promote these alternatives and raise awareness of the potential time, cost and environmental savings of home deliveries, both in relation to the large supermarket chains including Sainsbury's, Asda, Tesco, Morrisons and Waitrose, as well as online retailers such as Ocado and Amazon. Many of these retailers allow purchases to be delivered on a specific day and some between a specific time window to ensure that someone is home to accept the delivery. Alternative delivery addresses and locations can also often be specified.

7.3 Welcome Packs

7.3.1 Welcome packs will be provided for each new residence upon first occupation and will be produced by the housebuilder with input from HCC. These packs will be essential to educating and informing future residents of both the sustainable transport modes available to them and the benefits they can have for them and their families including time and cost savings, supporting a healthy lifestyle and minimising their carbon footprint. They are therefore essential to the promotion of what this TP aims to achieve. Typically, the content of such welcome packs include:

- Introduction to the TP concept dealing with objectives and benefits;
- Educational literature on the health benefits of walking and cycling and the environmental benefits of sustainable modes of transport;
- Maps highlighting local walking and cycling routes and catchment plans indicating typical walking and cycling times to key destinations;
- Public transport route maps and timetables; and
- Details of the TP Co-ordinator.

7.3.2 It is acknowledged that HCC provides advice on travel information packs and has a personal journey planning website www.myjourneyhampshire.com which could be used by a TP co-ordinator as a useful resource that can aid the preparation of such packs.

7.4 Other Methods of Awareness Raising and Marketing

7.4.1 Aside from welcome packs, there are other effective ways to raise the awareness of and market the benefits of sustainable travel including:

- Personalised travel planning for families and individuals, often arranged by the TP Co-ordinator;
- Establishment of local sustainable transport forums or groups where issues can be shared and solutions discussed. This could be at physical meeting or by using social media with website such as *Twitter*, *Facebook* and *Nextdoor* having mass appeal and membership, yet having localised content and discussion groups;

- Set-up of travel notice boards in communal areas displaying information such as lists of sustainable travel websites, local taxi services and car clubs; and
- Promotion of events such as *National Bike Week* and *Living Street's* series of walking events including *Walk to Work Week* and *Walk to School Week*.

7.5 Measures to Encourage Walking

7.5.1 Walking is considered to be the most sustainable and accessible mode of travel. It also has the benefit of zero carbon emissions and significant health benefits, with doctors recommending 150 minutes of activity per week to keep your body healthy and prevent illness including heart disease, cancer and diabetes (https://www.nhs.uk/live-well/exercise/). The 150 minutes could be achieved by walking leisurely for 30 minutes per day, five days a week, or briskly for 10 minutes per day (https://www.nhs.uk/live-well/exercise/running-and-aerobic-exercises/walking-for-health/). Furthermore, recent research from the University of Cambridge has discovered that just a brisk 20-minute walk each day, burning between 90 and 110 calories, could reduce the risk of premature death by between 16-30% for inactive individuals (http://www.cam.ac.uk/research/news/lack-of-exercise-responsible-for-twice-as-many-deaths-as-obesity).

7.5.2 Potential measures to encourage walking include the following:

- Raise awareness of the health benefits of walking for all ages of people of fair health, emphasising how it is a cost-effective alternative to other exercise methods such as gym membership and does not involve a considerable change to people's day-to-day lifestyles;
- Promote the local walking routes available (through welcome packs and notice boards) including off-road PRoW;
- Ensure the clear signage of pedestrian routes within and adjacent to the Site; and
- Promotion of a 'walking buddy' scheme (through welcome packs, notice boards and social media).

7.6 Measures to Promote Cycling

7.6.1 Like walking, cycling is sustainable and accessible. It has the benefits of zero carbon emissions and has significant health benefits.

7.6.2 The NHS website (Cycling UK | The UK's cycling charity) outlines the health benefits of cycling stating that:

> *'For health benefits, adults and older adults should do at least 2 hours and 30 minutes (150 minutes) of moderate-intensity activity each week…A 30-minute ride will count towards your recommended weekly activity target'.*

7.6.3 The website also makes the pertinent point that cycling has broad appeal with young and old, the able-bodied and people with disabilities who can all enjoy cycling with the right equipment. It is expected that the housebuilder will include provision for cycle storage for each dwelling. Potential measures to encourage cycling include the following:

- Raise awareness of the health benefits of cycling for all ages of people with fair health, again emphasising how it is a cost-effective alternative to other exercise methods and promoting the 'fun' element of cycling;
- Promote the local cycling routes available and cycle storage facilities at key destinations such as in district centres (through welcome packs and notice boards);
- Promotion of events such as *National Bike Week* (https://www.cyclinguk.org/bikeweek);
- Promotion of a Bicycle User Group (BUG) (through welcome packs, notice boards and social media) which could include cycle proficiency courses;
- Discounts on cycles and cycle accessories from local retailers;
- Encouragement of residents to check with their employers to see if they offer a cycle to work scheme; and
- Promotion of other useful cycling websites (through welcome packs, notice boards and social media) such as https://www.sustrans.org.uk/, https://www.cyclinguk.org/ and https://www.lovetoride.net/uk?locale=en-GB.

7.7 Measures to Encourage Public Transport

7.7.1 Public transport use and accessibility is an important element of TPs. Bus and rail transport can often be effective options for many trip types, particularly mid to long distance journeys. Section 5 of this report has demonstrated that bus travel should be a suitable and convenient mode of transport for some residents of the Site.

7.7.2 The key measure to promote public transport use will be through the provision of route and timetable information in welcome packs, on notice boards and at the stops themselves. Discount tickets or other fare incentives, as mentioned above, could be provided in welcome packs for a period of time.

7.7.3 There are a number of useful public transport websites which can be promoted through welcome packs, notice boards and social media. Some of these websites include, but are not limited to:

- http://solentgo.co.uk/;
- https://www.plusbus.info/;
- https://www.stagecoachbus.com/; and
- https://www.southwesternrailway.com/.

7.7.4 It is expected that as the TP progresses, liaison will be made with local public transport operators in order to maximise the awareness of, and accessibility to, public transport.

7.8 Measures to Reduce Single Occupancy Car Trips

7.8.1 Car/lift sharing can be an effective way to reduce single occupancy car trips. These trips can often be arranged between friends and neighbours or by using lift sharing websites including the following:

- Liftshare (https://liftshare.com/uk); and
- BlaBlaCar (www.blablacar.com).

7.8.2 The Liftshare websites enable users to register and search for lifts in their area. Users typically have to be over 18 years of age but do not always have to have driving licences (as passengers). Websites such as these can be promoted through welcome packs, notice boards and social media.

7.8.3 Residents could also manage their own lift sharing as many residents will travel to destinations within close proximity of each other such as Southampton, Portsmouth, Bournemouth, Eastleigh, Winchester, Andover and Salisbury. This could be managed through a residents' committee or by the TP Co-ordinator.

7.9 Measures to Encourage Low Emission Vehicle Use

7.9.1 It has been well publicised in the national media in recent years that car manufacturers are actively investing in low emission technologies such as electric hybrid engines and fully electric engines, with central government due to impose a ban on the sale of new petrol and diesel engine vehicles in 2035. The purchase prices of such low emission technologies are becoming more in line with standard petrol and diesel engine vehicles, with some manufacturers setting targets to fully switch to electric vehicle or hybrid production only.

7.9.2 To encourage the use of electric vehicles the Applicant is willing to accept a condition requiring the housebuilder to provide sufficient electrical infrastructure to facilitate electric vehicle charging ports to be installed on the Site.

7.10 Cost Acknowledgement

7.10.1 It is acknowledged that HCC typically requests estimated costs for each measure, but given that the housebuilder will have their own preferred measures, which are likely to include, but not be limited to, some of the measures outlined above, it will be more appropriate to present such costs in the full TP, which will be submitted at the reserved matters stage. As stated in the Introduction, Gladman will be willing to accept a suitably worded condition as part of this outline application, that requests such information, as well as definitive targets and measures, as part of a full TP to be submitted at the reserved matters stage. Some indicative costs are however presented in the following section.

This page has been left intentionally blank

8 MANAGEMENT, MONITORING AND REVIEW

8.1 Management

8.1.1 The overall responsibility for the TP will initially lie with the housebuilder behind the potential reserved matters application from the first construction of the development to a 'trigger point' to be agreed with HCC. Following this, the TP will become the responsibility of a TP Co-ordinator, site management company or residents' association.

8.2 Appointment of a Travel Plan Co-ordinator

8.2.1 It is envisaged that the housebuilder behind the reserved matters application will appoint a Travel Plan Co-ordinator (TPC) prior to construction. The TPC will inherit the day-to-day responsibility for ensuring that the TP is regularly monitored, reviewed, updated and evolved. They will be tasked with implementing and marketing the TP measures, monitoring the uptake of the measures by arranging travel surveys at regular intervals to be agreed with HCC, assessing whether targets have been met, reviewing and updating the targets based on survey results and liaising with HCC and public transport operators.

8.2.2 It is expected that the TPC will initially be an employee of the end housebuilder and that they will arrange a steering group to assist with future development of the TP. Such a steering group can then take ownership of the TP at the end of the five-year period.

8.3 Monitoring and Review

8.3.1 It is important that the TP is monitored at regular intervals to assess its success and help to evolve it. It is also important that a suitable response rate is achieved during each round of surveys with HCC normally suggesting 35% as a minimum response rate. It will be expected that the end housebuilder will need to achieve such response rates.

8.3.2 It is envisaged that the developer behind the reserved matters application will commit to monitor the TP at regular intervals over a period of time and will most likely be post 100% occupation.

8.3.3 The TP will need to be reviewed at regular intervals after monitoring is complete. The review should remove any unsuccessful incentives and replace them with measures that will help to achieve the TP targets. If the TP is shown to be underachieving, a remedial strategy will need to be outlined which should consider measures to address any failing aspects of the TP. Any changes to the TP will need to be made in agreement with HCC.

8.4 Interim Action Plan

8.4.1 As part of the present outline planning application, an interim action plan is proposed, to detail the actions likely to be undertaken following the sale of the Site to a housebuilder. It should, however, be noted that this is only indicative at this outline stage as the end housebuilder is likely to offer its own action plan at the reserved matters stage as part of a Full Travel Plan, which may provide more detailed information on the TP actions and measures.

8.4.2 The interim action plan presented in Table 8.1 below also includes indicative costs for various measures.

Table 8.1: Interim Action Plan & Indicative Costs

Table 8.1: Interim Action Plan & Indicative Costs

Item	Measure	Timescale	Responsibility	Funding/ Indicative Budget Cost(*)	TP Specific
Public Transport	Provision of bus and rail timetable information to residents in Welcome Pack	Prior to first occupation	TPC	TPC staff time	Yes
	Liaison with public transport operators to negotiate discounted tickets	Within 1 year of first occupation	TPC	TPC staff time	Yes
	Upgrades to Halterworth Lane (x2) and Botley Road (x2) bus stops	Prior to first occupation	Developer	Developer funding (S278) TBC	No
Walk/ Cycle	TPC to establish cycle action plan	Prior to first occupation	TPC	TPC staff time/ developer funding circa £2,000	Yes
	Liaison with local cycle retailers to negotiate discounted cycles and cycling equipment	Within 1 year of first occupation	TPC	TPC staff time	Yes
	Include literature on local walking and cycling routes and the health benefits of walking and cycling in Welcome Pack	Prior to first occupation	TPC	TPC staff time	Yes
	Participate in National Bike Week and other cycle promotion initiatives	Within 1 year of first occupation	TPC	TPC staff time/ developer funding circa £1,000	Yes
	Provision of new uncontrolled crossing facilities along Halterworth Lane	Prior to first occupation	Developer	Developer funding (S278) TBC	No
Car Share	Promotion of Liftshare website through Welcome Pack and other promotional initiatives	Prior to first occupation	TPC	TPC staff time/ developer funding circa £1,000	Yes
Marketing	Production of Travel Welcome Pack and issued to each household upon occupation	Prior to first occupation and ongoing	TPC	TPC staff time/ developer funding circa £1,000 plus printing costs of circa £400	Yes
	Inclusion of TP information in marketing suite	Prior to first occupation and ongoing	TPC/ Sales staff	TPC staff time/ developer funding circa £500	Yes
	TP online resources such as website and Facebook/Twitter account to be established and promoted	Prior to first occupation and ongoing	TPC/ Sales staff	TPC staff time/ developer funding circa £350	Yes
Management	Residential TPC to be appointed	3 months prior to first occupation	Developer	Developer funding. Suggested sufficient budget for first 5 years from occupation £30,000	Yes
	TPC to establish contact with HCC TP officer	Prior to first occupation	TPC	TPC staff time	Yes
	Full TP document to be issues and agreed with HCC	Prior to first occupation	Developer/ HCC	TPC staff time	Yes
Monitoring and Review	Provisional date for AM peak hour vehicle traffic count survey based on sales projections	Prior to first occupation	TPC/ Sales staff	TPC/ Sales staff time	Yes
	AM peak hour vehicle traffic count survey to be undertaken and subsequently analysed	Within 3 months of occupation of 50 houses then annually until 5 years after first occupation	TPC	TPC staff time/ developer funding circa £3,000	Yes
	Residential travel questionnaire	Within 3 months of occupation of 50 houses then annually until 5 years after first occupation	TPC	TPC staff time/ developer funding circa £500, printing costs circa £70 per year plus £500 per year towards a completion incentive such as shopping vouchers	Yes
	Preparation of Annual Monitoring and Review report to Council	Within 1 month of first year's anniversary of first occupation, then annually for 5 years from first occupation	TPC	TPC staff time	Yes
	Monitoring meeting with TVBC, HCC, public transport operators and representatives of residents	One, three and five years after first occupation	TPC	TPC staff time/ developer funding circa £1,000	Yes

* All costs are indicative estimates only. Costs are to be agreed at reserved matters stage in conjunction with the production of the full TP.

This page has been left intentionally blank

Appendix 6.3

Study Area Link Sensitivity Plan

"This page has been left blank intentionally".

KEY

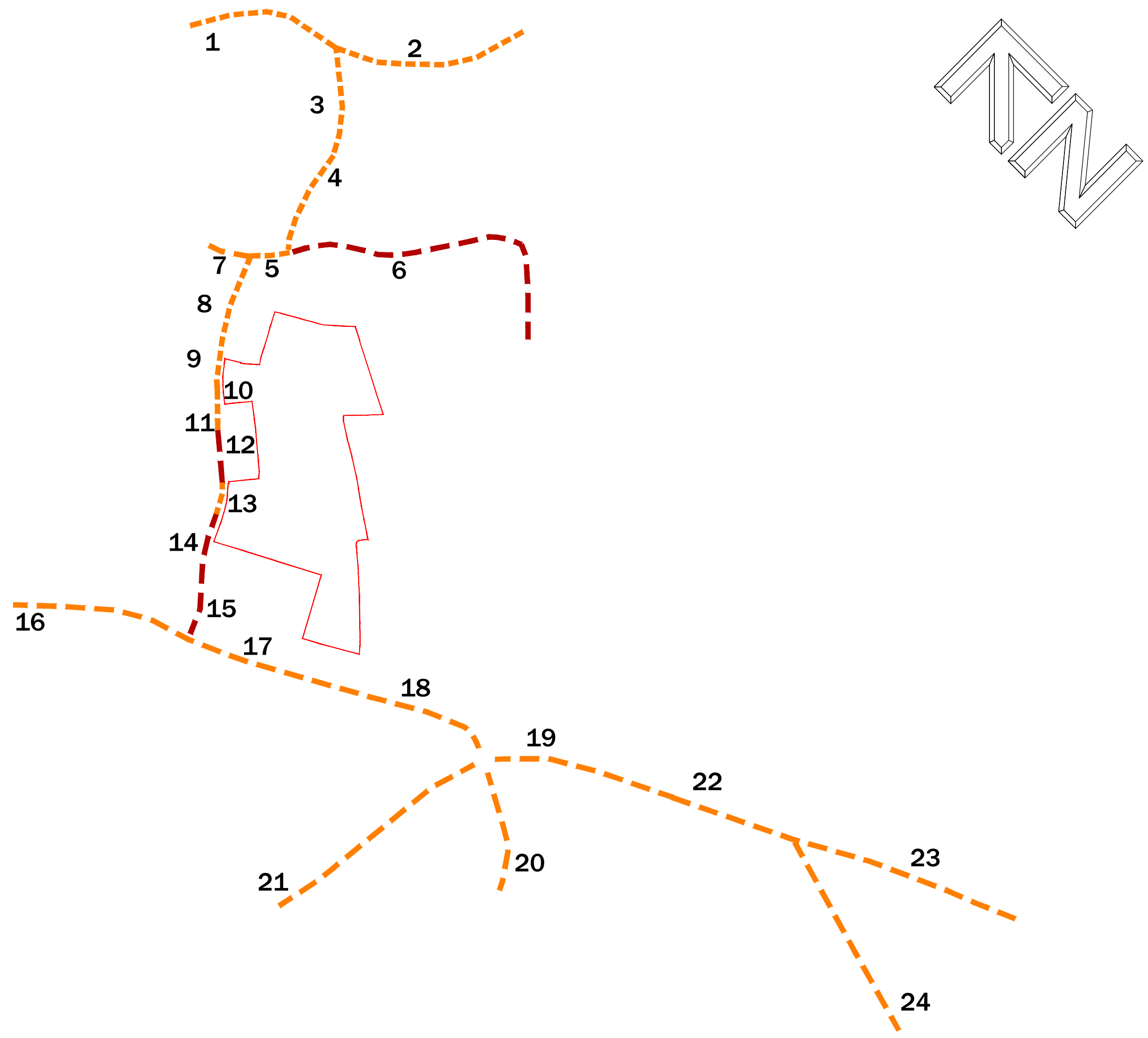
INDICATIVE SITE BOUNDARY

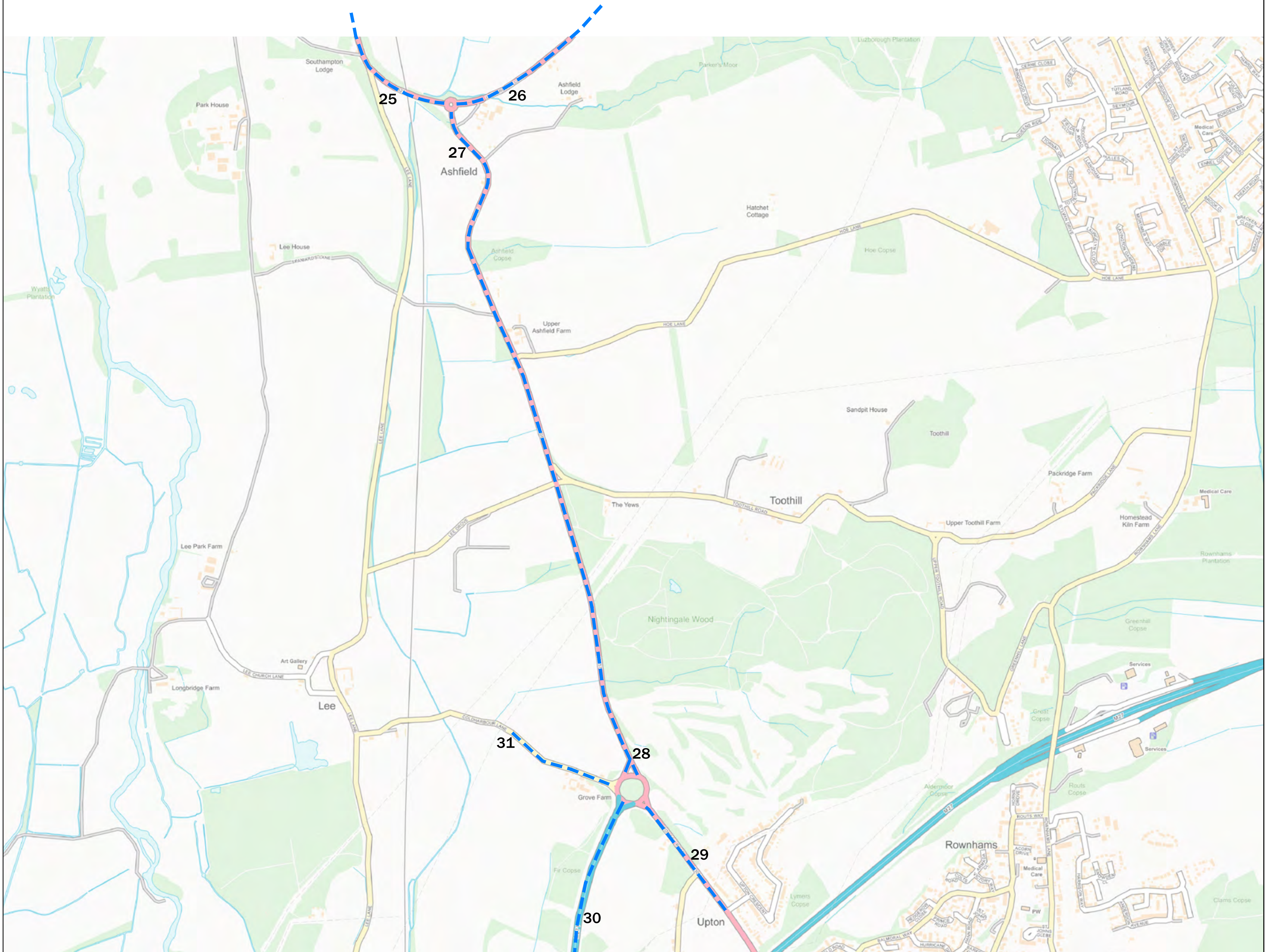
RECEPTOR SENSITIVITY

SUBSTANTIAL

MODERATE

NEGLIGIBLE





Rev	Date	By	Revision notes
*	*	*	*

9 Hurricane Court
Liverpool International Business Park | Estuary Boulevard | Liverpool | L24 8RL
www.primetp.co.uk | 0151 728 1860

DISCLAIMER
- PROPOSALS ARE PRELIMINARY ONLY, NOT FOR CONSTRUCTION PURPOSES
- PROPOSALS WILL BE SUBJECT TO UTILITY AND DRAINAGE INVESTIGATIONS
- PROPOSALS WILL BE SUBJECT TO EXTENT OF ADOPTED HIGHWAY
- DO NOT SCALE THIS DRAWING. DIMENSIONS ARE FOR REPRESENTATIONAL AND INFORMATIONAL PURPOSES ONLY AND SUBJECT TO DETAILED DESIGN
- THIS DRAWING MUST ONLY BE USED FOR THE PURPOSE FOR WHICH IT HAS BEEN SUPPLIED

Project
HALTERWORTH LANE, ROMSEY, HAMPSHIRE

Title
STUDY AREA LINK SENSITIVITY PLAN

Drawn by: CM
Issue date: 09 JAN 2024
Scale(s): NTS
Drawing No: APPENDIX 6.3
Status: INFORMATION

"This page has been left blank intentionally".

Appendix 7.1

Relevant Policy and Legislation

"This page has been left blank intentionally".

APPENDIX 7.1: RELEVANT LEGISLATION, POLICY AND GUIDANCE

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

1.1 The Regulations ensure that the habitat and species protection and standards derived from EU law as per "The Habitat Regulations" Amendment will continue to apply after Brexit.

European Protected Sites

1.2 The Habitats Regulations ratifies into UK law the "Habitats Directive" (92/43/EEC) and the "Birds Directive" (79/409/EEC). It places a duty on the Secretary of State to propose a list of sites which are important for species listed in Annex I and II of the Habitats Directive respectively to the European Commission.

1.3 The Regulations require the compilation and maintenance of a register of European sites to include SACs as well as Special Protection Areas (SPAs) designated for birds, which are collectively called National Site Networks. Internationally important wetlands under the Ramsar Convention known as "Ramsar Sites" are also considered. All European sites are also designated under UK law as Sites of Special Scientific Interest (SSSIs; please see below).

Habitats Regulation Assessment

1.4 There is a requirement under EU law that Member States' take measures to reach and maintain European Protected Sites' at Favourable Conservation Status (FCS). An Appropriate Assessment is required for plans or projects that may potentially damage a European Protected Site. This is based on an assessment against a given European Protected Site's Conservation Objectives. The process is commonly known as a Habitats Regulations Assessment (HRA).

1.5 The HRA must be conducted by, or on behalf of, the Competent Authority. The HRA process assesses plans or projects alone or in combination. It involves a four-stage approach as follows:

- Stage One: Screening - also known as the Test of Likely Significant Effect (TOLSE). If the Competent Authority cannot screen out a *likely significant effect,* an Appropriate Assessment is required.
- Stage Two: Appropriate Assessment - the Competent Authority will only agree to plans or projects that will not affect the *integrity* of a European site also known as the "Integrity Test".
- Stage Three: Alternative Solutions - assesses any alternative solutions of a potentially damaging plan or project that failed the Integrity Test, and if it is determined there are no alternative solutions, the project cannot be agreed to and it will either need to be changed or refused.
- Stage Four: The final stage may allow a plan or project to proceed if after failing stage three if it is for Imperative Reasons of Overriding Public Interest, and only if suitable compensatory measures are secured.

1.6 Any plan or project that may have a potentially damaging effect on a transient species or the habitat on which it relies (for example bats or birds), that is both a Qualifying Features of a European Protected Site and considered *functionally linked* with a European Protected Site, are required under law to be considered as part of any HRA process.

European Protected Species

1.7 The Habitats Regulations includes a list of animals and plant species taken from the Annex IV of the Habitats Directive that have a natural range in Great Britain. These are collectively known as European Protected Species (EPS) and are listed in Table 1. The regulations make it an offence to deliberately capture, kill, disturb, take or destroy eggs of, or damage or destroy a breeding or resting place of animals listed in Schedule 2 of the Regulations, and to pick, collect, cut, uproot or destroy wild plants listed in Schedule 5 of the Regulations. They also protect these species alive or dead and parts thereof from various forms of possession and trade.

Table 1: The Habitats Regulations Schedule 2 and Schedule 5 species

	Common Name	Scientific Name
Schedule 2 – European Protected Animal Species	Horseshoe bats – all species	*Rhinolophidae*
	Bats – all species	*Vespertilionidae*
	Large blue butterfly	*Maculinea arion*
	Wild cat	*Felis silvestris*
	Dolphins, porpoises & whales - all species	*Cetacea*
	Hazel dormouse	*Muscardinus avellanarius*
	Pool frog	*Rana lessonae*
	Sand lizard	*Lacerta agilis*
	Fisher's estuarine moth	*Gortyna borelii lunata*
	Great crested newt	*Triturus cristatus*
	Otter	*Lutra lutra*
	Lesser Whirlpool Ram's-horn snail	*Anisus vorticulus*
	Smooth snake	*Coronella austriaca*
	Sturgeon	*Acipenser sturio*
	Natterjack toad	*Bufo calamita*
	Marine turtles	*Caretta caretta* *Chelonia mydas* *Lepidochelys kempii* *Eretmochelys imbricata* *Dermochelys coriacea*
Schedule 5 – European Protected Plant Species	Shore dock	*Rumex rupestris*
	Killarney fern	*Trichomanes speciosum*
	Early gentian	*Gentianella anglica*
	Lady's-slipper	*Cypripedium calceolus*
	Creeping marshwort	*Apium repens*
	Slender naiad	*Najas flexilis*
	Fen orchid	*Liparis loeselii*
	Floating-leaved water plantain	*Luronium natans*
	Yellow marsh saxifrage	*Saxifraga hirculus*

1.8 These actions may be made lawful in certain circumstances through the granting of licences by the appropriate authority (Natural England). Licences must only be granted after the appropriate authority is satisfied that no satisfactory alternatives are available. In most circumstances, licences are only applied for and granted following full planning permission.

1.9 In determining whether or not to grant a licence Natural England must apply the requirements of The Conservation of Habitats and Species Regulations 2012 (amendment) and, in particular, the three derogation tests:

- Test 1: A licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".
- Test 2: The appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".
- Test 3: The appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Wildlife and Countryside Act 1981 (as amended)

1.10 The Wildlife and Countryside Act 1981 (WCA) (as amended) is the principal legislation providing protection for wildlife in the UK. It prescribes legislation for wild birds, other animals, wild plants and non-native species. In addition, it provides for the designation of Sites of Special Scientific Interest (SSSI) in England.

Wild birds

1.11 The WCA as amended by Schedule 12 of the Countryside and Rights of Way Act 2000 makes it an offence (with exception to species listed in Schedule 2) to intentionally or recklessly:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built (also [take, damage or destroy the nest of a wild bird included in Schedule ZA1] under the Natural Environment and Rural Communities Act 2006); or
- take or destroy an egg of any wild bird.

1.12 For birds listed on Schedule 1 of the WCA, protection extends to offences relating to the intentional or reckless disturbance of these birds while at their nests or their dependent young.

Other animals

1.13 The WCA (as amended) makes it an offence to (subject to exceptions) intentionally or recklessly kill, injure or take wild animals listed on Schedule 5 of the Act. For some species, the protection extends to interference with places used for shelter or protection, or disturbing animals occupying or obstructing access to such places. These species are regarded as "fully protected" and as well as the EPS species listed above include the mammal species water vole *Arvicola terrestris*, pine marten *Martes martes* and red squirrel *Sciurus vulgaris* as well as selected others from a range of species groups including, fish, butterflies, hemipteran bugs, beetles, crickets, dragonflies, moths, spiders, crustaceans, sea-mats, molluscs, Annelid worms and sea anemones (and allies).

1.14 There are seven species on Schedule 5 of the Act that not fully protected but are still protected against killing and injuring these include the common reptile species slow worm *Anguis fragilis*, viviparous lizard *Lacerta vivipara*, grass snake *Natrix natrix* and adder *Vipera berus*.

1.15 The Act prohibits certain methods of killing, injuring, or taking wild animals, and numerous species are protected against sale only as well as other variations for example Atlantic stream (white-clawed) crayfish *Austropotamobius pallipes* are protected against taking and sale.

Vascular plants, bryophytes, lichens and fungi

1.16 With regards to native flora the Act makes it an offence to (subject to exceptions) intentionally or recklessly pick, uproot or destroy any wild plant listed in Schedule 8. Similarly, the Act prevents the sale, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Non-native species

1.17 The Act contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 in England and Wales.

Sites of Special Scientific Interest

1.18 The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs). These sites can be identified for their flora, fauna, geological or physiological interest. In England, the power to confirm an SSSI lies with Natural England.

1.19 Laws protecting areas designated as SSSIs are described in Sections 28 to 33 of Part 2 of the Wildlife and Countryside Act 1981 (as amended). SSSIs are the principle statutory designation of sites in the UK and offences are enforced through Natural England. Offences include the following:

SSSI owners and occupiers

- carrying out, causing or allowing operations likely to damage an SSSI without Natural England consent.
- failing to keep to a management notice.
- failing to let us know about a change in ownership or occupation of land in an SSSI.

Public bodies

- carrying out or authorising operations likely to damage an SSSI without meeting the requirements to notify Natural England.
- failing to minimise any damage to an SSSI and if there is any damage, failing to restore it to its former state so far as is reasonably practical and possible.

Any person

- intentionally or recklessly damaging, destroying or disturbing any of the habitats or features of an SSSI.
- intentionally or recklessly damaging, destroying, obscuring or taking down a site notice put up on land within an SSSI.
- preventing a Natural England officer lawfully accessing an SSSI.

Environment Act 2021

1.20 The act became law on 10th November 2021 and covers a range of environmental protections and enhancements. It is enforced by an independent Office for Environmental Protection (OEP). In relation to nature and biodiversity, the act will deliver:

- Strengthened biodiversity duty
- A requirement for developments to deliver at least 10% biodiversity net gain

- Local Nature Recovery Strategies
- Protected Site Strategies and Species Conservation Strategies
- Conservation Covenants
- Strengthened woodland protection enforcement measures

Protection of Badgers Act 1992

1.21 Badgers and their setts are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from persecution by baiting and deliberate harm or injury.

The act makes it an offence to:

- intentionally capture, kill or injure a badger;
- damage, destroy or block access to their setts;
- disturb badgers in setts;
- treat a badger cruelly;
- deliberately send or intentionally allow a dog into a sett; and
- bait or dig for badgers.

A sett is defined as:

"Any structure or place that displays signs indicating current use by a badger".

Natural Environmental and Rural Communities (NERC) Act 2006

1.22 Section 40 of the NERC Act 2006 imposes a duty on every public authority to conserve biodiversity in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.

1.23 Section 41 (S41) of the NERC Act 2006 requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The list (including 56 habitats and 943 species) has been drawn up in consultation with Natural England and draws upon the UK BAP List of Priority Species and Habitats. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006.

National Planning Policy Framework (NPPF) 2023

1.24 The National Planning Policy Framework (NPPF) sets out the Government's planning policy for England. As such, the NPPF must be a material consideration for local authorities when considering planning decisions. The following relate to ecology/biodiversity:

Policy 15 – Conserving and enhancing the natural environment

170. The planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

171. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

172. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks. Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and
c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

174. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

176. The following should be given the same protection as habitats sites:

a) potential Special Protection Areas and possible Special Areas of Conservation;
b) listed or proposed Ramsar sites; and
c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Area of Conservation, and listed or proposed Ramsar sites.

177. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Local Nature Reserves

1.25 Local Nature Reserve (LNR) is a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949 and amended by Schedule 11 of the Natural Environment and Rural Communities Act 2006 by principal local authorities.

1.26 Local authorities have the powers to acquire, declare and manage LNRs. Parish and town councils can declare LNRs providing power is given by the district or county council. LNRs may or may not have other statutory designations such as SSSI status. LNRs must be controlled by the local authority through ownership, lease or agreement with the owner. The main aim must be to care for the natural features which make the site special. LNRs are of local, but not necessarily national, importance.

1.27 LNRs are usually owned by local authorities, with management often passed onto other organisations such as County Wildlife Trusts etc. They often have good public access and facilities. There is no legal necessity to manage an LNR to any set standard but management agreements and plans often exist. Protection of LNRs is usually provided through local planning policy and through local bylaws.

Non-Statutory Protected Local Sites

1.28 Non-statutory Designated Sites are sites designated by local authorities which fall outside the statutory criteria for designation. They are policy protected and included in the National Planning Policy Framework (NPPF) as “Local Sites”. Local Planning Authorities should set criteria-based policies against which proposals for developments on or affecting protected wildlife sites should be judged. Non-statutory sites are given various names including County Wildlife Sites (CWS), Sites of Importance for Nature Conservation (SINC) and Local Wildlife Sites (LWS). to this end Ancient Woodland Inventory (AWI) sites are also considered non-statutory sites.

Hedgerows

1.29 Hedgerows are designated as Habitats of Principal Importance under the NERC Act 2006. The National Planning Policy Framework (NPPF) emphasises the preservation, restoration and recreation of priority habitats and ecological networks. Hedgerows are important components of ecological networks linking other important habitats and designated sites.

1.30 Hedgerows also receive statutory protection under the Hedgerow Regulations 1997 made under Section 97 of the Environment Act 1995, which came into force in 1997. The regulations introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

Local Biodiversity Action Plan (LBAP)

1.31 Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Birds of Conservation Concern (BoCC)

1.32 The Birds of Conservation Concern (BoCC) is jointly prepared by the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).

1.33 The report classifies birds according to the extent that they are known to be declining. The classifications are split into groups, Red, Amber and Green, with species classified as Red being those with the greatest declines. The criteria for classifications are presented in *Table 2*.

Table 2: BoCC species classification criteria

Red List Criteria	**Global Conservation Status** - Species listed by BirdLife International as being Globally Threatened using IUCN criteria
	Historical Decline - A severe decline in the UK between 1800 and 1995, without substantial recent recovery.
	Breeding Population Decline - Severe decline in the UK breeding population size, of more than 50%, over 25 years or the entire period used for assessments since the first BoCC review, starting in 1969 (“longer-term”).
	Non-breeding Population Decline - Severe decline in the UK non-breeding population size, of more than 50%, over 25 years or the longer-term.
	Breeding Range Decline - Severe decline in the UK range, of more than 50%, as measured by number of 10 km squares occupied by breeding birds, over 25 years or the longer-term.
Amber List Criteria	**European Conservation status** - Categorised as a Species of European Conservation Concern
	Historical Decline – Recovery - Red listed for Historical Decline in a previous review but with substantial recent recovery (more than doubled in the last 25 years).
	Breeding Population Decline - As for red list criteria and, but with moderate decline (by more than 25% but less than 50%).
	Non-breeding Population Decline - As for red list criteria and, but with moderate decline (by more than 25% but less than 50%).
	Breeding Range Decline - As for red list criteria and, but with moderate decline (by more than 25% but less than 50%).
	Rarity - UK breeding population of less than 300 pairs, or non-breeding population of less than 900 individuals.

	Localisation - At least 50% of the UK breeding or non-breeding population found in 10 or fewer sites.
	International Importance - At least 20% of the European breeding or non-breeding population found in the UK.
Green List Criteria	All regularly occurring species that do not qualify under any of the red or amber criteria are green listed.
	Includes those species listed as recovering from Historical Decline in the last review that have continued to recover and do not qualify under any of the other criteria.

Relevant Local Planning Policy

1.34 The Test Valley Adopted Local Plan 2011 – 20 includes the following policies of relevance:

Policy E2: Protect, Conserve and Enhance the Landscape Character of the Borough

To ensure the protection, conservation and enhancement of the landscape of the Borough development will be permitted provided that:

a) it does not have a detrimental impact on the appearance of the immediate area and the landscape character of the area within which it is located;

b) it is designed and located to ensure that the health and future retention of important landscape features is not likely to be prejudiced;

c) the existing and proposed landscaping and landscape features enable it to positively integrate into the landscape character of the area;

d) arrangements for the long term management and maintenance of any existing and proposed landscaping have been made; and

e) it conserves the landscape and scenic beauty of the New Forest National Park or the North Wessex Downs Area of Outstanding Natural Beauty where applicable; and

f) does not result in the loss of important local features such as trees, walls, hedges or water courses.

Policy E5: Biodiversity

1.35 *Development in the Borough that will conserve, and where possible restore and / or enhance, biodiversity will be permitted. Development that is likely to result in a significant effect, either alone or in combination, on an international or European nature conservation designation, or a site proposed for such designation, will need to satisfy the requirements of the Habitat Regulations98. Development likely to result in the loss, deterioration or harm to habitats or species of importance to biodiversity or geological conservation interests, either directly or indirectly, will not be permitted unless:*

a) the need for, and benefits of, the development in the proposed location outweighs the adverse effect on the relevant biodiversity interest;

b) it can be demonstrated that it could not reasonably be located on an alternative site that would result in less or no harm to the biodiversity interests; and

c) measures can be provided (and secured through planning conditions or legal agreements), that would avoid, mitigate against or, as a last resort, compensate for the adverse effects likely to result from development.

The habitats and species of importance to biodiversity and sites of geological interest considered in relation to points a) to c) comprise:

• Sites of Special Scientific Interest (SSSIs);

• legally protected species;

• Sites of Importance for Nature Conservation (SINCs) and Local Nature Reserves (LNRs);

• priority habitats and species listed in the national and local Biodiversity Action Plans99;

• habitats and species of principal importance for the conservation of biodiversity in England100;

• trees, woodlands, ancient woodland (including semi-natural and replanted woodland), aged and veteran trees, and hedgerows; and

• features of the landscape that function as 'stepping stones' or form part of a wider network of sites by virtue of their coherent ecological structure or function or are of importance for the migration, dispersal and genetic exchange of wild species.

The level of protection and mitigation should be proportionate to the status of the habitat or species and its importance individually and as part of a wider network.

Policy E6: Green Infrastructure

Development will be permitted provided that:

a) it protects, conserves and where possible, enhances the Borough's Green Infrastructure network;

b) it avoids the loss, fragmentation, severance or a negative impact on the function of the Green Infrastructure network;

c) mitigation is provided where there would be an adverse impact on the Green Infrastructure network; and

d) where it is necessary for development to take place on identified areas of Green Infrastructure an appropriate replacement is provided.

Appendix 7.2

Habitats Assessment

"This page has been left blank intentionally".

Gladman Developments Ltd

Halterworth Lane, Romsey

APPENDIX 7.2: HABITAT ASSESSMENT

January 2024

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

Rev	Issue Status	Prepared / Date	Approved / Date
-	Final	AU 04.12.23	DAH / 06.12.23
A		AU 10.01.24	
B		AU / 22.01.24	

CONTENTS

TABLES

FIGURES

APPENDICES

1.0 NON TECHNICAL SUMMARY

1.1 This Habitat Assessment has been prepared by FPCR Environment and Design Ltd on behalf of the applicant, Gladman Developments Ltd, in support of an Environmental Assessment for the residential development of land at Halterworth Lane, Romsey, herein referred to as 'the Site'.

1.2 To inform this assessment an extended phase 1 habitat survey and desk study, was completed in 2021 and 2023. An EcIA and ES chapter has been completed (FPCR, December 2023) in support of this application for which this Habitats Assessment forms an Appendix.

1.3 There are six internationally designated sites within 15km of the Site, the closest of which are the Emer Bog SAC (c. 1.4km East), Solent and Southampton Water Ramsar/SPA (c. 5.7km south), Solent Maritime SAC (c. 6km south), New Forest SAC (c. 7.4km south-west), Mottisfont Bats SAC (c. 7.5km north west) and the River Itchen (c.8.2km East). There are two SSSI sites within 2km, Baddesley Common SSSI and the River Test, and a LNR Tadburn Meadows. There are 15 non-statutory designated sites of nature conservation value (Local Wildlife sites) within 2km.

1.4 A shadow Habitats Regulation Assessment has been completed (Appendix 7.9) in support of this application, which assesses potential impacts the development may have on these internationally protected sites listed above.

1.5 The Site is dominated by modified grassland field compartments used for sheep grazing, separated by hedgerows, treelines and fence lines. These represent common and widespread habitats supporting limited botanical diversity.

1.6 The majority of the boundary hedgerows comprised of at least 80% native woody species, which are considered as habitats of principal importance under NERC S.41. Two of the hedgerows were considered to be 'important' under the Hedgerow Regulations.

2.0 INTRODUCTION

2.1 The following report has been prepared by FPCR Environment and Design Ltd on behalf of Gladman Developments Ltd., for land off Halterworth Lane, Romsey (central OS Grid Reference SU 37454 21271), here after referred to as the 'Site'.

Site Context

2.2 The Site is approximately 12.8ha in size, located on the eastern extent of Romsey, Hampshire. The habitats comprised large, modified grassland compartments used for pastoral farming, bound by hedgerows, mature treelines and garden boundaries. A public footpath bisects the Site in the northern extent, connecting Halterworth Lane and Highwood Lane to the east.

2.3 Large expanses of residential housing are located to the west and south of the Site, including a primary school on the southern boundary. To the north and east, the landscape is comprised of further grassland with compartments of broadleaved woodland present in the wider landscape.

Development Proposals

2.4 Outline planning application for demolition of existing buildings and the erection of up to 270 dwellings, including affordable housing, with land for the potential future expansion of Halterworth Primary School, public open space, structural planting, landscaping, sustainable urban drainage system (SuDS) and vehicular access points. All matters reserved except for means of vehicular access.

3.0 LEGISLATION AND POLICY

3.1 Relevant national policy and legislation in relation to ecology and development are as follows:

- The Conservation of Habitats and Species Regulations (CHSR) 2019 (as amended) in relation to:
    - European protected sites - Special Areas of Conservation (SAC) and Special Protection Areas (SPAs).
- Natural Environmental and Rural Communities (NERC) Act 2006 in relation to various priority species and habitats.
- Hedgerow Regulations 1997 made under Section 97 of the Environment Act 1995.
- National Planning Policy Framework (NPPF) 2023
- Test Valley Adopted Local Plan 2011 - 2029

4.0 METHODOLOGY

Desk Study

4.1 To compile existing baseline information, relevant ecological information was gathered from:

- Hampshire Biodiversity Information Centre (HBIC); and
- Multi Agency Geographic Information for the Countryside (MAGIC)[1]

4.2 The search area for biodiversity information was related to the significance of sites and species and potential zones of influence, as follows:

- 15km around the application area for sites of International Importance including SPAs, SACs and Ramsar sites.
- 2km around the application area for sites of National or Regional Importance including SSSIs.
- 1km around the application are for sites of County Importance including Biological Heritage Sites (BHS) and protected and notable species records.

Site Walkover

4.3 The initial survey was undertaken on 2nd March 2021 using methodology based on Handbook for Phase 1 Habitat Survey (JNCC, 2010)[2].This involved a systematic walkover of the site to classify the habitat types present (using the standardised Phase 1 Habitat classification system) and mapping these onto an OS base map. Where feasible, target notes and species lists were compiled for individual areas and assessments of abundance were made using the DAFOR scale. Vascular plant nomenclature follows Stace (2010)[3].

4.4 An update survey in August 2023 was completed based on the UKHab methodology[4] in order to fully map and condition assess the habitats, which support a biodiversity net gain (BNG) assessment. All surveys included a search for any Habitats of Principal Importance (HPI) listed within Section 41 (S41) of the NERC Act 2006.

Invasive Plants, Notifiable Weed Species and Other Notable Flora

4.5 Consideration has been given as to the presence of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) (WCA 1981)[5] and the presence of any notable weeds including those covered under the Weed Act 1959[6] (where population is significant enough to be considered injurious).

Limitations

4.6 This assessment aims to provide baseline ecological data for the Site and as such presents an overview of the habitats and features present during the specific surveys undertaken to date. Due to the transient and complex nature of ecosystems, no investigation can provide a complete

[1] MAGIC Available at: https://magic.defra.gov.uk/
2 JNCC. (1990). Handbook for Phase 1 habitat survey – a technique for environmental audit. Peterborough: JNCC
3 Stace, C.A. (2010). New Flora of the British Isles. (3rd Ed.). Cambridge: Cambridge University Press
[4] Butcher, B., Carey, P., Edmonds, R., Norton, L. & Treweek, J. (2020) The UK Habitat Classification User Manual version 1.1. www.ukhab.org
[5] Act of Parliament, (1981). The Wildlife and Countryside Act 1981 (as amended), London: HMSO.
[6] Act of Parliament. (1959). The Weed Act 1959. London: HMSO.

representation or prediction of the natural environment present, however every effort has been made to ensure an accurate description of the Site is presented, by following best practice guidance, experience and professional judgement.

4.7 The phase 1 habitat map (*Figure 1*) has been reproduced from detailed field notes and informed by aerial imagery, OS mapping and site maps provided by the client. The accuracy of this figure is therefore ultimately guided by the accuracy of these sources and can only be relied upon to a certain degree of resolution.

4.8 Given the transient nature of natural processes, ecological data should never be relied upon for more than two years from completion of surveys.

4.9 No other limitations specific to this survey influenced this assessment.

5.0 RESULTS

Desk Study

Statutory Sites

5.1 Six internationally designated sites were located within a 15km radius of the Site, as summarised in *Table 1*.

Table 1. International Designations within 15km

Designated Area	Distance from Site Boundary	Designation Reason
Emer Bog SAC	1.4km E	This designated bog habitat is situated within a wet hollow, supporting scattered willow Salix sp. scrub as well as open bogland supporting species including bottle sedge *Carex rostrata*, marsh cinquefoil *Potentilla palustris*, common cotton grass *Eriophorum angustifolium* and bogbean *Menyanthes trifoliata*. Rush pastures on the edges of the bog support White *sedge Carex curta*, soft rush *Juncus effuses* and sharp flowered rush *J. acutiflorus*, as well as the two bog moss species Sphagnum fimbriatum and *S. squarrosum*.
Solent and Southampton Water Ramsar/SPA	5.7km S	This designated area stretches along the southern coastline, comprising estuaries, harbours, extensive mudflats and saltmarsh habitats. These habitats support a diverse assemblage of invertebrates, which in turn provides important summer and wintering grounds for a number of wading bird species including Dark-bellied Brent Goose *Branta b.bernicla*, Mediterranean gull *Larus melanocephalus*, and Roseate Tern *Sterna dougallii*. It additionally qualifies under Article 4.2 of the Directive (79/409/EEC), as the area regularly supports at least 20,000 waterfowl species.
Solent Maritime SAC	6km S	This area is designated as a SAC for its coastal Annex I habitats, primarily coastal plain estuaries, four bar built estuaries, Spartina swards *Spartinion maritimae* and Atlantic salt meadows Glauco-*Puccinellietalia maritimae*. Notably the spartina maritime swards is the only site in the UK to support smooth cord grass *Spartina alterniflora*, and one of only two sites where significant populations of small cord grass are found Spartina maritima. In addition to this the Solent contains the second largest expanse of Atlantic salt meadows in the UK, including a diverse range of maritime flora including sea-purslane *Atriplex portulacoides*, common sea-lavender *Limonium vulgare* and cordgrass *Spartina spp*.
New Forest Ramsar/SPA/SAC	7.4km SW	The New Forest qualifies as a Ramsar wetland, due to it supporting the highest concentration of intact valley mire habitat in Britain, providing important habitat for a diverse assemblage of wetland plants and animals, including a number of rare or scarce wetland invertebrates. The area also qualifies as a SAC primarily for supporting eleven Annex I listed habitat types, including Northern Atlantic wet heath, European dry heath, old acidophilous oak woodland, and bog woodland, as well as two Annex II listed species: southern damselfly *Coenagrion mercuriale* and stag beetle *Lucanus cervus*. Finally, the area is designated as an SPA under Article 4.1 of the Directive (79/409/EEC) as it supports populations of European Importance of breeding birds, including Dartford warbler *Sylvia undata*, nightjar *Caprimulgus europaeus* and woodlark *Lullula arborea*, in addition to wintering populations of European importance for Hen Harrier *Circus cyaneus*.

Designated Area	Distance from Site Boundary	Designation Reason
Mottisfont Bats SAC	7.5km NW to the nearest woodland compartment under the designation	This designated site is comprised of a mixture of woodland types including hazel coppice, broadleaved plantation and coniferous plantation. It is important for supporting one of only six known barbastelle *Barbastella barbastellus* maternity sites in the UK, and the only known site in Hampshire. In addition to this it provides an important breeding, roosting, commuting and feeing habitats for a variety of UK bat species.
River Itchen SAC	8.2km E	This site is primarily designated due to it being a good example of a sub-type 1 chalk river, dominated by aquatic vegetation including pond water crowfoot *Ranunculus peltatus,* stream water crowfoot *R. penicillatus spp. pseudofluitans* and river water crowfoot *R. fluitans.* These vegetation communities provide important habitats for white clawed crayfish *Austropotamobius pallipes,* Otter *Lutra lutra,* Southern damselfly *Coenagrion mercuriale* and bullhead *Cottus gobio.*

Statutory Sites of National Conservation Value

5.2 Two Sites of Special Scientific Interest (SSSIs) are identified within a 2km radius of the Site boundary; Baddersley Common and Emer Bog SSSI, and The River Test SSSI. In addition to this there was one Local Nature Reserve (LNR); Tadburn Meadows identified.

5.3 As part of the Emer Bog SAC designation detailed above, Baddesley Common SSSI is located 1.4km east from the Site boundary. This supports a mosaic of damp acidic grassland, heathland and developing woodland habitat across a valley. These habitat mosaics are rich in flora including petty whin *Genista anglica,* purple moor-grass *Molinia caerulea,* dwarf gorse *Ulex minor,* meadow thistle *Cirsium dissectum* and cross-leaved heather *Erica tetralix.*

5.4 The River Test is located approximately 1.5km north-west from the Site boundary and designated as a good example of a stream over chalk substrate. It is one of the most species rich lowland river systems in England, supporting brook water crowfoot *Ranunculus penicillatus* var. *pseudofluitans,* blunt flowered water-starwort *Callitriche obtusangula,* opposite leaved pondweed *Groenlandia densa,* and shining pondweed *Potamogeton lucens*. Further flood pastures and fen meadows are associated with this river habitat, which support species diversity including marsh marigold *Caltha palustris,* water avens *Geum rivale*, carnation sedge *Carex panicea*, adders tongue *Ophioglossum vulgatum* and southern marsh orchid *Dactylorhiza praetermissa*.

5.5 Tadburn Meadows local nature reserve is located approximately 165m west of the site boundary. This site is designated for its mosaic of wetland habitats including fen meadows, inundated grassland and freshwater habitats. In addition to this there are areas of wet willow and alder *Alnus glutinosa* woodland habitats. These habitats provide important areas for common spotted orchids *Dactylorhiza fuchsii*, European water voles *Arvicola amphibius*, kingfishers *Alcedo atthis* and green woodpeckers *Picus viridis*.

Non-Statutory Designations

5.6 The desk study undertaken with HBIC, identified fifteen non-statutory designated Local wildlife Sites (LWS), within a 1km radius of the Site boundary. These are detailed in *Table 2*, with their locations mapped on *Figure 1: Statutory and Non-statutory sites Plan*.

Table 2: Non-Statutory Designated Sites within 1km

Local Wildlife Site	Distance	Bearing	LWS Selection Criteria and Rationale
Tadburn Stream Woodland and Meadow	165m	West	A mixture of open freshwater, fen grassland and important woodland habitats.
Woodley Grange Western Meadow	290m	North	Area of inundated grassland, fen and good quality semi-improved grassland habitats.
Woodley Grange Eastern Meadow	380m	North	Designated for inundated grassland and fen habitats, with some of the grassland area showing improvement through poor management.
Cramp moor Glebe	520m	North-east	Site designated for agriculturally unimproved grassland.
Ganger Wood	550m	North	Mixture of ancient semi-natural woodland, as well as other areas of semi-natural woodland with ancient woodland indicators present.
Ganger Swamp	585m	North	Semi-natural woodland habitat on wet and inundated soils.
Beggarspath Wood	615m	South-West	Designated for a mixture of woodland types including ancient woodland, wet woodland areas and agriculturally unimproved grasslands.
Ganger Wood Meadow	625m	North	Area designated for its wet grassland and fen meadow habitats, as well as important woodland habitats.
Small Copse, extra Romsey	665m	North	Designated for ancient semi-natural woodland with area of wet woodland present.
Ganger Farm Meadow	680m	North	Farm area of good quality semi-improved and unimproved grassland habitats. This are also retains areas of damp inundated and few meadow grasslands.
Parkers Moor/Luzborough Plantation	685m	South	Designated as an area of ancient woodland with additional areas of notable wet woodland present.
Ganger Wood Strip	720m	North	Designated for ancient semi-natural woodland with area of wet woodland present.
Gypsy's Copse	750m	East	Area of semi-natural woodland with ancient woodland indicators, as well as the notable species wood horsetail *Equisetum sylvaticum.*
Cramp Moor	880m	North-east	Site designated for agriculturally unimproved grassland.
Warren Farm Copse	900m	East	Area of semi-natural woodland with ancient woodland indicators, with areas of wet woodland present including the notable species wood horsetail *Equisetum sylvaticum.*

Habitats

5.7 On the eastern residential fringe of the town of Romsey, the Site is bound by residential housing and gardens along the western boundary and a school to the south. The Site comprises of sheep grazed pasture fields, divided by hedgerows with trees and treelines. A PRoW bisects the site horizontally at the northern end of the Site, providing direct footpath access off the residential environs of Halterworth Lane. The locations of the habitats below are provided in *Figure 1* and Site photographs are provided in *Appendix B*.

Modified Grassland

5.8 The majority of the Site comprises modified grassland, which is intensively sheep grazed resulting in a short tight sward. Grass species content included perennial rye grass *Lolium perenne*, creeping bent *Agrostis stolonifera* and rough meadow grass, with tussocks of cock's-foot *Dactylis glomerata* and Yorkshire fog *Holcus lanatus* indicating grassland improvement. A limited herbaceous composition was concentrated around the field margins including creeping buttercup *Ranunculus repens*, white clover *Trifolium repens,* cats ear *Hypochaeris radicata* and ragwort *Senecio sp.* Areas of disturbed ground were identified throughout the grassland, supporting typical disturbed ground species including annual meadow grass *Poa annua,* germander speedwell *Veronica chamaedrys,* ground ivy *Glechoma hederacea* and dandelion *Taraxacum officinale agg*.

5.9 A small compartment of unmanaged grassland and scrub mosaic was present adjacent the PRoW entrance off Halterworth Lane, in the north-western extent of the Site (*Figure 1 – TN1*). This compartment supported a tall sward dominated by grass species including cock's foot, red fescue *Festuca rubra*, rough meadow grass *Poa trivialis* and Yorkshire fog. Limited herbaceous diversity supported common species including yarrow *Achilles millefolium*, broadleaved dock *Rumex obtusifolius*, cow parsley *Anthriscus sylvestris*, cleavers *Gallium aparine*, common hogweed *Heracleum sphondylium* and germander speedwell. In addition to this elm *Ulmus minor* and pedunculate oak *Quercus robur* saplings, as well as a number of ornamental species including stinking iris *Iris foetidissima*, daffodil *Narcissus sp.* and Spanish bluebell *Hyancinthoides hispanica* were present.

Tall Ruderal / Forbs

5.10 Tall ruderal species were sporadically recorded throughout the grassland compartments, including broadleaved dock, cow parsley, spear thistle *Cirsium vulgare* and creeping thistle *Cirsium arvense*. Further areas of established tall ruderal were associated with the borders, comprised of common nettle *Urtica dioica*, white dead nettle *Lamium album*, and common hogweed.

Mixed Scrub

5.11 A small compartment of unmanaged scrub was recorded in the north-east extent of the Site, dominated by bramble *Rubus fruticosus agg.,* blackthorn *Prunus spinosa* and garden privet *Ligustrum ovifolium*. Further sparse scrub vegetation was recorded around the peripheries of the field compartments comprised of bramble, blackthorn, elder *Sambucus nigra* and hawthorn *Crateagus monogyna.*

Built Development

5.12 Two built structures (B1 and B2) were identified in the northern western field compartment, associated with areas of hardstanding and bare ground.

5.13 Building B1 was a single storey barn, of a metal structure supporting single skinned horizontal wooden slat walls and a pitched, single skinned, corrugated metal sheet roof. During the time of survey, this building was in a dilapidated condition, used for storage with log piles surrounding parts. In addition to this, substantial ivy growth was present on the western aspect.

5.14 Building B2 was adjacent to building B1. At the time of survey, this structure was being used as a stable. The building was single storey, comprised of single sheet MDF wooden panels, with a pitched, single skinned corrugated metal sheet roof on a wooden beams. A small area of hardstanding was located on the eastern periphery of the building.

Bare Ground

5.15 An informal public footpath bisects the two field compartments, in the northern extent of the Site. This footpath supported a sparse number of ephemeral species including annual meadow grass, green alkanet *Pentaglottis sempervirens*, creeping buttercup and shepherd's purse *Capsella bursa-pastoris*. In addition to this, hedgerow ground flora species were recorded in associated with hedgerow H1, including wood avens *Geum urbanum,* lesser celandine *Ficaria verna*, bluebell *Hyacinthoides sp.* and cuckoopint *Arum maculatum.*

Hedgerows

5.16 A total of ten hedgerows bound the field compartments, connecting to further hedgerow networks in the wider area. The majority of the hedgerows were gappy and lacking a dense structure.

5.17 Using the Hedgerow Evaluation and Grading System (HEGS) the majority of hedgerows were assessed as moderately high - very high conservation value (*Table 3*) on account of species diversity and the number of standard trees present. The exception to this is hedgerows H2, H3, H5, and H10 which are residential boundary hedgerows and were assessed as moderate value, based on their limited species diversity and limited connections to the wider landscape.

5.18 Hedgerows H1 and H4 were considered 'important' under the ecological criteria of The Hedgerow Regulations 1997. In addition to this, notable ground flora species were identified along hedgerow H1, evident that the hedgerow is well established possibly forming the boundary of a historic woodland habitat. In contrast, the majority of the other hedgerows onsite were not considered important under the Hedgerow Regulations due to them forming residential boundaries or being semi-defunct field boundaries.

5.19 The majority of the hedgerows onsite qualified as NERC S41 habitats of principal importance, as they supported a canopy composition of 80% native species. The exception to this were ornamental hedgerows along the residential boundaries, H2, H3, H5 and H10.

Table 3: Summary of Hedgerow Survey

Ref	Canopy Sp.	Length (m)	Notes	HEGS Value and Score	Important Under REGS
H1	*Ps, Sn, Qr, Rosa sp., Ia Cm, Ap, Ra, Rf*	185	Field boundary hedge with public footpath adjacent. Mixed species dominance. 8 mature standards, 3 young standards. 30-10% gaps, 3 connections.	-1 High to Very High Value	**Regs Hedgerow** 4 sp / 30m (Runs alongside public byway, 1 standard/per 50m, 3 ground flora sp.)

Ref	Canopy Sp.	Length (m)	Notes	HEGS Value and Score	Important Under REGS
H2	*Ia, Cm, Rf, Ca, Eucalyptus sp.*	29	Residential boundary hedge. 1-2 native dominance. No standards. No gaps. No connections.	3 Moderate value	**Not Assessed** (Residential Boundary)
H3	*Lo, Ia, Ap, Cup x ley*	50	Residential boundary hedge. Non-native dominance. 1 mature standard. 2 young standards. 30-10% gaps. 1 connection.	-2 Moderately High to High Value	**Not Assessed** (Residential Boundary)
H4	*Qr, Rosa sp., Um, Ia, Fe, Ac, Cm, Ap, Ps, Rf*	115	Field boundary hedge. Mixed native species dominance. 7 mature standards, 8 young tree. 10-0% gaps. 2 connections.	1 High to Very High Value	**Regs Hedgerow** 6 sp / 30m (Runs alongside public byway, 1 standard/per 50m, <10% gaps)
H5	*Rf, Cup x ley, Qr*	96	Residential boundary hedge. Non- native dominance. 10-0% gaps. No connections.	-3 Moderate value	**Not Assessed** (Residential Boundary)
H6	*Cm, Ps, Qr, Rf*	230	Semi-defunct field boundary hedge. 1-2 native species dominance. 6 mature standards, 1 young tree. 30+% gaps. 3 connections.	2 Moderately High to High Value	**Not Regs Hedgerow** 2 sp / 30m
H7	*Fe, Cm, Ps, Sn, Qr, Ca, Um, Ap, Rf, Rosa sp.*	245	Field boundary hedge. Mixed native dominance. 5 mature standards, 9 young trees. 30-10% gaps. Small Bank present. 3 connections.	1 High to Very High Value	**Not Regs Hedgerow** 4 sp / 30m
H8	*Ca, Um, Fe, Ps, Cm*	181	Field boundary hedge defunct in southern extent. 1-2 native species dominance. 1 mature standards, 8 young tree. 30+% gaps. 3 connections.	2 Moderately High to High Value	**Not Regs Hedgerow** 3 sp / 30m
H9	*Qr, Ca, Um, Fe, Cm*	148	Roadside hedgerow, mixed species dominance, 0% gaps, PRoW, 2 connections	-2 Moderately High to High Value	**Not Regs Hedgerow** 4 sp / 30m
H10	*Ae, Pl, Rf*	45	Residential boundary hedge. Non-native species dominance. 1 mature standard. No gaps. 1 connection.	3 Moderate value	**Not Assessed** (Residential Boundary)

Key to hedgerow species: Ac *Acer campestre* Field Maple, Ah *Aesculus hippocastrum* Horse Chestnut, Ap *Acer pseudoplatanus* Sycamore, Bb *Bambusiodeae sp* Bamboo, Ca *Corylus avellana* Hazel, Cm *Crataegus monogyna* Hawthorn*, Cup x ley Cupressus x leylandii Leyland Cypress, Cot sp Contoneaster sp., Eucalyptus sp. Eucalyptus sp.,* Fe *Fraxinus excelsior* Ash, *Ia Ilex aquifolium Holly, Lo Ligustrum Ovalifolium Privet, Malus sp. Apple species, Pl Prunus laurocerasus Cherry Laurel, Pru Prunus species,* Ps *Prunus spinosa* Blackthorn Qr *Quercus robur* Pedunculate Oak, Rf *Rubus fruticosus* ag. Bramble aggregate, Ra *Ruscus aculeatus* Butcher's Broom, *Rosa sp.* Rose species, Sa *Sorbus aucuparia* Rowan, Sn *Sambucus nigra* Elder, Sx sp. *Salix species* Willow, Tb *Taraxacum bacata* Yew, Um *Ulmus minor* English elm

Treelines

5.20 Treelines border the northern and southern peripheries of the Site. Treeline TL1, bordering Halterworth Community Primary School comprised of semi mature broadleaved species including cherry *Prunus avium*, pedunculate oak *Quercus robur*, ash *Fraxinus excelsior*, beech *Fagus sylvaticum* and poplar *Populus* sp. TL2, a short treeline along the northern boundary of a residential property approx.148m) comprised of mature and semi-mature trees including pedunculate oak, ash and elm *Ulmus minor*. TL3 along the northern boundary comprised species including pendunculate oak, elm, ash and blackthorn.

5.21 The offsite treeline along the southern border comprised of a mixture of native and non-native woody species including leylandii *Cupressus x leylandii,* cherry, hazel *Corylus avellana,* Oregon grape *Mahonia aquifolium* and holly *Ilex aquifolium.*

Summary of Important Ecological Features

5.22 The suite of surveys has demonstrated that the proposals have the potential to affect a range of important ecological features. These are summarised in *Table 4* and assigned a geographic context based on survey results, relevant legislation and policy.

Table 4: Important Habitat Features on Site and within Local Area

Important Ecological Feature	Relevant Legislation/ Policy	Geographic Scale	Rationale
New Forest SAC	Habitats Directive, NPPF, Local Plan	International (SAC/SPA/RAMSAR)	These sites are located within the 15km search area for Statutory Designated Sites of International Importance designated for their biodiversity value.
Mottisfont Bat SAC			
Emer Bog SAC			
Solent and Southampton Water Ramsar/SPA			
Solent Maritime SAC			
River Itchen SAC			
SSSI and LWS	Habitats Directive, NPPF, Local Plan	National (SSSI, LNR) County (LWS)	Two SSSIs: Baddesley Common and the River Test. One LNR: Tadburn Meadows and fifteen Local wildlife sites are designated for their biodiversity value.
Hedgerows	NERC S41	Local	All hedgerows with exception of residential boundary hedgerows H2, H3 and H5 were identified as habitats of principal importance as they comprised >80% native woody species.
Hedgerows (H1 and H4)	HREGS 1997, NPPF	Local	Two hedgerows (H1 and H4) were considered 'important' under the Hedgerow Regulations 1997.
Mature trees (within hedgerows)	NPPF	Local	This habitat represents an area of structural diversity that would take several decades to replace were it lost

Where NPPF = National Planning Policy Framework 2023; NERC S.41 = Natural Environment and Rural Communities Act 2006 Section 41; CHSR = Conservation of Habitats and Species Regulations 2017 (as amended); WCA = Wildlife and Countryside Act 1981 (as amended).

6.0 DISCUSSION

6.1 Outline planning application for demolition of existing buildings and the erection of up to 270 dwellings, including affordable housing, with land for the potential future expansion of Halterworth Primary School, public open space, structural planting and landscaping, sustainable drainage system (SuDS) and vehicular access points. All matters reserved except for means of access.

6.2 The proposals sought ecological input during an early phase of the design process to ensure that the impacts on ecological receptors, which include valuable habitat types will be kept to a minimum. BNG calculations have been completed (see Appendix 7.8 of the ES chapter) to ensure that a net gain can be achieved and the results of faunal surveys (See Appendices 7.3 – 7.7 of the ES chapter) have been used to ensure negative impacts are kept to a minimum.

6.3 An assessment of effects from the proposals on the surrounding internationally protected sites has been outlined in the shadow Habitat Regulations Assessment that accompanies this report and should be referred to for full details.

6.4 The status of the important ecological features (IEFs) identified on Site have been reviewed against the proposals and intrinsic mitigation to determine whether there are any impact pathways and whether any of these will lead to a likely significant effect. The requirement for additional mitigation measures above the intrinsic mitigation has been considered and are detailed in the ES Chapter.

6.5 The proposed scheme includes the following intrinsic ecological avoidance, mitigation and enhancement measures:

- The mature trees will be retained and have their root protection areas (RPA) adequately buffered in line with RPAs identified in the Arboricultural Impact Assessment.
- The retained hedgerows will be protected from damage, a minimum of a 5m buffer is provided along the length of retained hedgerows, and will exist outside of individual ownership, to protect them from damage and to allow sufficient room for management.
- Roads have been narrowed where they will create breaches in hedgerows, to reduce as far as possible the extent to which hedgerows will be lost across the scheme.
- Provision of two SuDS basins offer opportunities for unmanaged grassland to increase habitat diversity;
- A wildlife pond will be created in the open space in the northern boundary, which will have a deep centre and shallow scalloped edges providing valuable habitat for amphibians and other wildlife;
- Proposals include additional tree planting within the development area, with them included along streets and around the Site peripheries.

Key

Site Boundary

Phase 1 Points
- Tree with bat potential
- Target note

Phase 1 Lines
- Fence
- Path
- Hedges: Introduced shrub
- Intact hedge - species-poor
- Native species hedgerow
- Hedge with trees - native species-rich
- Defunct hedge - native species-rich
- Broadleaved trees
- Coniferous trees
- Scrub - scattered line

Phase 1 Habitats
- Built Environment: hardstanding
- Buildings
- Bare ground
- Scrub - dense/continuous
- Other tall herb and fern - ruderal
- SI Poor semi-improved grassland

Gladman Developments Ltd.

Land off Halterworth Lane, Romsey

PHASE 1 HABITAT PLAN

fpcr

scale	drawn	issue date
1:2,700	HG	5/12/2023

drawing / figure number	rev
Figure 3	**9840-E-01**

FPCR Environment and Design Ltd, Lockington Hall, Lockington, Derby, DE74 2RH t:01509 672 772 f:01509 674 565 e: mail@fpcr.co.uk w: www.fpcr.co.uk

masterplanning ▪ environmental assessment ▪ landscape design ▪ urban design ▪ ecology ▪ architecture ▪ arboriculture

B:\GIS Projects\9840 Romsey\PLANS\Phase 1 Plan\9840-E-02 Phase 1 Habitat Plan.qgs

"This page has been left blank intentionally".

APPENDIX A: BOTANICAL SPECIES LIST DAFOR SCALE: DOMINANT, ABUNDANT, FREQUENT, OCCASIONAL, RARE

Scientific name	Common name	Modified Grassland	Tall Ruderal	ONG	Hedgerows / treelines	Scrub
Acer campestre	Field maple				✓	✓
Acer pseudoplatanus	Sycamore				✓	✓
Achillea millefolium	Yarrow	O				
Aesculus hippocastanum	Horse chestnut				✓	
Agrostis capillaris	Common bent	F		A		
Anagallis arvensis	Scarlet pimpernel					
Arrhenatherum elatius	False oat grass		O			
Arum maculatum	Lords-and-ladies					
Bellis perennis	Daisy		R			
Betula pendula	Silver birch				✓	
Bromus hordaeceus	Soft brome	O				
Cerastium fontanum	Common mouse-ear	O				
Chenopodium sp.	Goosefoot	R				
Cirsium arvense	Creeping thistle		F			
Cirsium vulgare	Spear thistle	R	R			
Corylus avellana	Hazel				✓	✓
Crataegus monogyna	Hawthorn				✓	✓
Dactylis glomerata	Cocksfoot		O			
Festuca rubra	Red fescue	R	R			
Fraxinus excelsior	Ash				✓	
Heracleum sphondylium	Common hogweed		R			
Holcus lanatus	Yorkshire fog	O	R			
Hordeum brachyantherum	Meadow barley	R				
Hypochaeris radicata	Cats ear			R		
Ilex aquifolium	Holly				✓	
Jacobaea vulgaris	Common ragwort		O			
Lamium album	White dead nettle		O			
Leontodon taraxacoides	Hawkbit	O				
Lolium perenne	Perennial ryegrass	D/A		F		
Matricaria chamomilla	Mayweed	R				
Plantago lanceolata	Ribwort plantain		F			
Poa trivialis	Rough meadow grass	F/A				
Polygonum aviculare	Knotgrass	F				
Prunella vulgaris	Self-heal	R				
Prunus avium	Cherry				✓	
Prunus laurocerasus	Cherry laurel				✓	
Prunus spinosa	Blackthorn				✓	
Prunus x sp.	Prunus hybrid				✓	
Quercus robur	English oak				✓	
Ranunculus acris	Meadow buttercup					
Ranunculus repens	Creeping buttercup	R	R			
Rubus fruticosus agg.	Bramble				✓	✓
Rumex acetosella	Sheep sorrel	R				
Rumex crispus L	Curled dock					

Scientific name	Common name	Modified Grassland	Tall Ruderal	ONG	Hedgerows / treelines	Scrub
Sambucus nigra	Elder				✓	✓
Solanum nigrum	Black nightshade	R				
Stellaria media	Common chickweed	R				
Taraxacum agg.	Dandelion	R				
Trifolium pratense	Red clover			F		
Trifolium repens	White clover	O				
Ulnus minor	Elm				✓	
Urtica dioica	Common nettle		F/A		✓	
Veronica chamaedrys	Germander speedwell				R	
Veronica serpyllifolia	Thyme-leaved speedwell	R				

APPENDIX B: SITE PHOTOGRAPHS

Photo 1: Southern field compartment looking to hedgerow H7

Photo 2: Tree-line TL3

Photo 3: Scrub and grassland compartment

Photo 4: Tall ruderal on western boundary

Photo 5: Northern field compartment looking towards hedgerow H1

Photo 6: Hedgerow H8 and northern field compartment

"This page has been left blank intentionally".

Appendix 7.3

Badger Survey Report (Confidential)

"This page has been left blank intentionally".

Appendix 7.4

Bat Survey Report

"This page has been left blank intentionally".

Gladman Developments Ltd.

Land off Halterworth Lane, Romsey

APPENDIX 7.4 - BAT SURVEY REPORT

January 2024

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

Rev	Issue Status	Prepared / Date	Approved / Date
-	Final	REM / 04.12.23	DAH / 06.12.23
A		AU 10.01.24	
B		AU 22.01.24	

CONTENTS

TABLES

FIGURES

APPENDIX

1.0 NON-TECHNICAL SUMMARY

1.1 A residential development of 270 units is proposed on land located east of Halterworth Lane, Romsey, Hampshire. The Site comprises of 12.8ha grassland compartments, with boundary hedgerows and treelines, with a small area of scrub in the north-west of the site.

1.2 Ten moderate and four low bat roosting potential trees were identified, in hedgerows H1, H6 and H7. These are currently retained within the scheme, but if development proposals change, and the trees be affected by loss, pruning or lighting, then further surveys will be required.

1.3 In accordance with the Bat Conservation Trust (BCT, 2016) guidance bat transects and static detector surveys were completed in the months April to October 2021 and update surveys in August, September and October 2023. Eleven species/species groups were identified across the Site, with the bulk of bat activity confined to the boundary habitats.

1.4 The framework makes provision for 4.45ha of green infrastructure (GI) which includes the retention and enhancement of the boundary treelines and hedgerows. These linear habitats will be buffered through planting, strengthening the wildlife corridors around the peripheries of the Site to maintain connectivity through the development and into the wider landscape. Structural landscape planting will also be provided to create increased foraging opportunities, and a sensitive lighting scheme will ensure such habitats remain as dark as possible.

1.5 The planting scheme will use as many native species as possible, with an emphasis on species bearing nectar to enhance the foraging opportunities available for local invertebrate fauna, which in turn will benefit bats as prey items increase.

1.6 SuDS basins will be included within the GI along with a small wildlife pond providing habitats not currently represented on Site and increasing the capacity to support the aquatic life stages of invertebrate prey. Further opportunities to enhance the development for the benefit of the local bat population include the provision of bat boxes, on retained trees and integrated within the new buildings where possible.

2.0 INTRODUCTION

2.1 The following report has been prepared by FPCR Environment and Design Ltd on behalf of Gladman Developments Ltd for land off Halterworth Lane, Romsey (central OS Grid Reference SU 37454 21271), here after referred to as the 'Site'.

2.2 This report forms an appendix to the Environmental Statement (FPCR, December 2023) for the Site. Surveys to inform this assessment comprised a desktop study, an inspection of trees for potential bat roosting features, bat activity transects, and automated static bat detector surveys.

Site Location and Context

2.3 The Site is approximately 12.8ha and located on the eastern extent of Romsey, Hampshire. The Site is comprised of large modified grassland compartments used for sheep grazing, bound by hedgerows and mature treelines. A public footpath bisects the Site in the northern extent connecting Halterworth Lane and Highwood Lane in the east.

2.4 Large expanses of residential housing are located to the south and west of the Site, including a primary school and associated greenspace on the south-western boundary; while to the east and north are further pastures. In the wider landscape there are ancient woodlands to the north and east.

Development Proposals

2.5 Outline application for demolition of existing buildings and the erection of up to 270 dwellings, including affordable housing, with land for the potential future expansion of Halterworth Primary School, public open space, structural planting and landscaping, sustainable drainage systems (SuDS) and vehicular access points. All matters reserved except for means of vehicular access.

3.0 LEGISLATION

3.0 Before any proposals take place, measures must be taken to ensure that the legislation concerning bats is not breached as a result of works. Bats are afforded full protection under the Wildlife & Countryside Act 1981 (as amended)[1] and the Conservation of Habitats and Species Regulations 2017 (as amended)[2].

3.1 Under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended) it is illegal to:

- Deliberately capture, injure, or kill any wild animal of a European Protected Species (EPS),
- Deliberately disturb wild animals of an EPS (affecting ability to survive, breed or rear young) – disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young,
- Deliberately disturb wild animals of an EPS (impairing ability to migrate or hibernate) – disturbance of animals includes in particular any disturbance which is likely to impair their ability in the case of hibernating or migratory species to hibernate or migrate,
- Deliberately disturb wild animals of an EPS (affecting local distribution and abundance) – disturbance of animals includes in particular any disturbance which is likely to affect significantly the local distribution or abundance of the species to which they belong,
- Deliberately disturb wild animals of an EPS (whilst occupying a structure of place used for shelter or protection) – intentionally or recklessly disturb any wild animal while it is occupying a structure or place which it uses for shelter or protection,
- Damage or destroy a breeding site or resting place of a wild animal an EPS.

3.2 Under the Wildlife and Countryside Act 1981 (as amended) it is illegal to:

- Recklessly or intentionally kill, injure, or take any wild animals included in Schedule 5.
- Recklessly or intentionally damage or destroy, or obstruct access to any structure or place which any wild animal included in Schedule 5 uses for shelter or protection,
- Recklessly or intentionally disturb any such animal while it is occupying a structure or place which it uses for shelter or protection.
- If impacts to bats or their roosts cannot be avoided a European Protected Species Licence from Natural England is required in order to allow proposals to derogate from the Legislation (Licences cannot be obtained to provide protection against offences under the Wildlife & Countryside Act 1981 (as amended)). As part of the application process a number of 'Tests' have to be met by the application.

3.3 Natural England Guidance Note: European Protected Species and the Planning Process – Natural England's Application of the 'Three Tests' to Licence Applications (March 2011) states:

"*In determining whether or not to grant a licence Natural England must apply the requirements of Regulation 535 of the Regulations and, in particular, the three tests set out in sub-paragraphs (2)(e), (9)(a) and (9)(b).*

[1] *Wildlife and Countryside Act 1981 (as amended)* [online] Available at: https://www.legislation.gov.uk/ukpga/1981/69 .

[2] *The Conservation of Habitat and Species Regulations 2017 (as amended)* [online] Available at: https://www.legislation.gov.uk/uksi/2017/1012/contents/made.

- *(1) Regulation 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".*
- *(2) Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".*
- *(3) Regulation 53(9)(b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*."

3.4 Conservation status is defined as "*the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its population within its territory*". It is assessed as favourable when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats,
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- There is, or will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.
- These tests must not only reach agreement with Natural England when assessing a Licence application, they must also be assessed by the planning authority when determining a planning application.

4.0 METHODOLOGY

Desk Study

4.0 In order to compile existing baseline information, relevant ecological information was requested from the following consultees and sources:

- Hampshire Biodiversity Information Centre (HBIC);
- Multi-Agency Geographic Information for the Countryside (MAGIC) website[3];
- Colour 1:25,000 OS base maps[4];
- Aerial photographs from Google Earth[5].

4.1 The search area for biodiversity information was related to the significance of sites and species and potential zones of influence, as follows:

- 15km around the application area for sites of International Importance (e.g. Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites).
- 2km around the application area for sites of National or Regional Importance (e.g. Sites of Special Scientific Interest (SSSIs)).
- 1km around the application area for sites of County Importance (e.g. Biological Heritage Sites (BHS)) and species records (e.g. protected, Local Biodiversity Action Plan (LBAP) or notable species).

Field Surveys

Building Assessment

4.2 An external building assessment was carried out on the buildings by an experienced ecologist from FPCR on 2nd March 2021. The assessment was completed following the guidance provided in Chapter 4 of the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists, Good Practice Guidelines, 2016[6].

4.3 The exteriors of the buildings were visually assessed for potential roosting features, access points and evidence of bat activity. Features such as small gaps under barge/soffit/fascia boards, raised or missing ridge tiles and gaps at gable ends, which have potential to be used as access points, were sought. Evidence that bats actively used potential access points includes staining within gaps and bat droppings or urine staining under gaps, a note being made wherever these were present. Indicators that potential access points had not recently been used, include the presence of cobwebs and general detritus.

4.4 Buildings were categorised according to their likely suitability for supporting bat roosts, this ranged from negligible to high based on the BCT guidelines (2016), which is summarised in *Table 1* below. Where buildings were categorised above negligible, appropriate nocturnal survey effort was undertaken to determine the confidence of a negative result (See nocturnal building survey section below).

---

[3] [Online]. http://magic.defra.gov.uk/
[4] [Online]. www.ordnancesurvey.co.uk
[5] [Online]. www.maps.google.co.uk
6 Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed). The Bat Conservation Trust, London.

Table 1. Building Bat Roost Habitat Classifications

Roost Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding

Ground-Based Tree Surveys

4.5 Trees were assessed for the presence of Potential Roosting Features (PRF) for bats such as the following (Based on P16, British Standard 8596:2015 Surveying for bats in trees and woodland, October 2015):

- Natural holes (e.g. knot holes) arising from naturally shed branches or branches previously pruned back to a branch collar.
- Man-made holes (e.g. cavities that have developed from flush cuts or cavities created by branches tearing out from parent stems).
- Woodpecker holes.
- Cracks/splits in stems or branches (horizontal and vertical).
- Partially detached, loose or bark plates.
- Cankers (caused by localised bark death) in which cavities have developed.
- Other hollows or cavities, including butt rots.
- Compression of forks with occluded bark, forming potential cavities.
- Crossing stems or branches with suitable roosting space between.
- Ivy stems with diameters in excess of 50mm with suitable roosting space behind (or where roosting space can be seen where a mat of thinner stems has left a gap between the mat and the trunk).
- Bat or bird boxes.

4.6 Certain factors such as orientation of the feature, its height from the ground, the direct surroundings and its location in respect to other features may enhance or reduce the potential value.

4.7 Trees were classified into general bat roost potential groups based upon the presence of these features. *Table 2* (below) broadly classifies the potential categories as accurately as possible as well as discussing the relevance of the features. This table is based upon Table 4.1 and Chapter 6 in Bat Surveys for Professional Ecologists: Good Practice Guidelines (J., Collins (Bat

Conservation Trust), 2016). The locations of the trees are provided in Figure 1 Bat Tree Location Plan.

4.8 Although the British Standard 8596:2015 document groups trees with moderate and high potential, these have been separated below (as per Table 4.1 in The Bat Conservation Trust Guidelines) to allow more specific survey criteria to be applied.

Table 2. Classification and Survey Requirements for Bats in Trees

Classification of Tree	Description of Category and Associated Features (based on Potential Roosting Features listed above)	Likely Further Survey work / Actions
Confirmed Roost	Evidence of roosting bats in the form of live / dead bats, droppings, urine staining, mammalian fur oil staining, etc.	A Natural England derogation licence application will be required if the tree or roost site is affected by the development or proposed arboricultural works. This will require a combination of aerial assessment by roped access bat workers (where possible, health and safety constraints allowing) **and** nocturnal survey during appropriate periods (e.g. nocturnal survey - May to August) to inform on the licence. Works to tree undertaken under supervision in accordance with the approved good practice method statement provided within the licence. **However,** where confirmed roost site(s) are not affected by works, work under a precautionary good practice method statement may be possible.
High Potential	A tree with one or more Potential Roosting Features that are obviously suitable for larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter protection, conditions (height above ground level, light levels, etc) and surrounding habitat. Examples include (but are not limited to); woodpecker holes, larger cavities, hollow trunks, hazard beams, etc.	Aerial assessment by roped access bat workers (if appropriate) **and** / **or** nocturnal survey during appropriate period (May to August). Following additional assessments, tree may be upgraded or downgraded based on findings. If roost sites are confirmed and the tree or roost is to be affected by proposals a licence from Natural England will be required. After completion of survey work (and the presence of a bat roost is discounted), a precautionary working method statement may still be appropriate.
Moderate Potential	A tree with Potential Roosting Features which could support one or more potential roost sites due to their size, shelter protection, conditions (height above ground level, light levels, etc) and surrounding habitat but unlikely to support a roost of high conservation status (i.e. larger roost, irrespective of wider conservation status). Examples include (but are not limited to); woodpecker holes, rot cavities, branch socket cavities, etc.	A combination of aerial assessment by roped access bat workers **and / or** nocturnal survey during appropriate period (May to August). Following additional assessments, tree may be upgraded or downgraded based on findings. After completion of survey work (and the presence of a bat roost is discounted), a precautionary working method statement may still be appropriate. If a roost site/s is confirmed a licence from Natural England will be required.
Low Potential	A tree of sufficient size and age to contain Potential Roosting Features	No further survey required but a precautionary working method statement may be appropriate.

Classification of Tree	Description of Category and Associated Features (based on Potential Roosting Features listed above)	Likely Further Survey work / Actions
	but with none seen from ground or features seen only very limited potential. Examples include (but are not limited to); loose/lifted bark, shallow splits exposed to elements or upward facing holes.	
Negligible/No Potential	Negligible/no habitat features likely to be used by roosting bats	None.

* The Conservation of Habitats & Species Regulations 2017 (as amended) affords protection to "breeding sites" and "resting places" of bats. The EU Commission's Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC, February 2007 states that these are places "where there is a reasonably high probability that the species concerned will return".

Manual Activity Surveys – Transects

4.9 The primary objective of walked transects are to identify foraging areas, commuting routes, species composition, and general species utilisation of the Site by local bat populations.

4.10 The BCT guidance states that surveys undertaken should be proportional to the predicted impacts of the proposed activities on bats. Factors that influence the type of survey and effort required include the likelihood of bats being present, type of proposed activity, scale of activity, size, nature and complexity of the site, species concerned and number of individuals.

4.11 Under this guidance, the Site was considered to be of moderate habitat suitability (Table 4.1, BCT Guidance 2016) and fell under the monthly survey requirements (Table 8.3 BCT Guidance, 2016), whereby activity transects and static surveys are required once a month from April to October inclusive.

4.12 In line with the BCT guidance the transect route was determined prior to survey in order to cover all habitat with the focus on those considered areas which provide greater suitability for bats and included five-minute point count stops, during which time all bat activity was recorded. The point counts were strategically located throughout the Site to account for any habitat loss or potential impacts from the proposed development, and to ensure a comprehensive coverage of habitats. The dusk transects commenced at sunset and continued for approximately 2-3 hours. Surveys were undertaken in conditions that were close to optimal as described within the BCT guidance (2016), where sunset temperatures were 10ºC or above, with no rain or strong winds.

4.13 The surveys were undertaken by appropriately experienced/licenced ecologists from FPCR. The transect was walked at a steady pace using an Apple iPad mini, Kindles or similar with an Echo Meter Touch (Wildlife Acoustics Version 2.0.4). This software identifies and tags sound files that it suggests are bat passes; these surveys are also supplemented by written notes documenting bat activity present on site and identifying any key foraging and commuting routes.

4.14 Post-survey, bat calls were analysed using Kaleidoscope Lite© (Wildlife Acoustics, Inc version 5.5.0) software package, by taking measurements of the peak frequency, inter-pulse interval, call duration and end frequency. From this, the level of bat activity across the site, in relation to the abundance of individual species foraging and commuting along habitats, was assessed.

4.15 Initial surveys were undertaken from April to October 2021 (inclusive) with three update surveys from August to October 2023 (inclusive).

4.16 The timings of the surveys can be seen in *Table 3* below.

Table 3. Nocturnal Survey Timings and Weather Conditions

Survey Ref/ Date	Survey Type	Start Time	Sunset Time	Finish Time	Weather Conditions (temp °C; cloud cover %; wind; and rain)
April – 21.04.21	Dusk Transect	20:11	20:11	22:11	11°C; 5%; 2, 0 rain
May – 11.05.21	Dusk Transect	20:44	20:44	22:46	12°C; 30%; 2, 0 rain
June – 09.06.21	Dusk Transect	21:24	21:24	23:27	16°C; 100%; 2, 0 rain
July – 27.07.21	Dusk Transect	21:00	21:00	23:01	18°C; 100%; 1, 0 rain
August – 16.08.21	Dusk Transect	20:25	20:25	22:25	17°C; 100%; 2, 0 rain
September – 01.09.21	Dusk Transect	19:52	19:52	22:01	18°C; 90-100%; 1-2, 0 rain
September – 02.09.21	Dawn Transect	04:14	06:20	06:20	15°C; 90-100%; 1-2, 0 rain
October – 11.10.21	Dusk Transect	18:23	18:23	20:24	13°C; 10%; 1-2, 0 rain
2023 Surveys					
August – 24.08.23	Dusk Transect	20:10	20:10	22:10	19°C; 10-30%, 0-1, 0 rain
October – 03.10.23	Dusk Transect	18:40	18:40	20:42	15°C; 0-10%; 0-1, 0 rain
October – 17.10.23	Dusk Transect	18:10	18:10	20:12	13°C; 90-100%; 2-3, 0 rain

4.17 The weather conditions and timings of the surveys are considered suitable to provide data that demonstrates a representative sample of bat activity around the Site.

Automated Activity Surveys – Static Detectors

4.18 Static bat detectors were used to record the passing behaviours of bats from a fixed position. These detectors were deployed on-site to supplement the manual transects surveys, with passive recording surveys recommended in guidance produced by the BCT (2016).

4.19 Passive monitoring was undertaken using an automated logging system Wildlife Acoustics Inc. SM4Bat FS bat detectors with outputs saved to an internal storage device. Detectors used SMM-U2 microphones and were placed along linear features considered to be of value to bats, such as hedgerows and tree lines.

4.20 Devices were placed in a location for an extended period of time of suitable weather conditions (little no rain/wind and temperatures above 10°C). The weather conditions over the course of each recording period were representative of the timing of each survey. Detectors were programmed to activate 30 minutes before dusk and recorded continuously until 30 minutes following sunrise.

4.21 For the purposes of analysis if the static detector was out over five nights the additional nights were only assessed for bat species listed on Annex II[7] of the Habitats Directive. The recorded data were analysed using Kaleidoscope Viewer© (Wildlife Acoustics, Inc version 5.1.3) software package to assess the amount of bat activity on site by recording the number of bat passes.

4.22 The SM4BAT FS detector records sound files of up to 12 seconds in length before a new file is created. Analysis of these files can highlight the presence of more than one bat if they are recorded simultaneously on the same sound file. Each sound file is counted as a single bat registration and the number of registrations provides an indication of the relative importance of the site/the detector location for bats.

4.23 The timings for static detector surveys undertaken to date are shown in *Table 4* and the static locations are shown on the associated figures.

Table 4. Static Detector Survey Dates

Position	Periods Recorded	Weather Conditions	Area Covered
2021 Surveys			
Figure 2	21st – 26th April 2021	Cool temperatures (12°C), light cloud and wind, no rain.	Scrub in the northern area of the site. Hedgerow H1 bordering footpath.
Figure 3	11th – 16th May 2021	Cool temperatures (11°C), cloud, light wind, no rain.	TL3 along northern boundary of site. Hedgerow H4 along western site boundary.
Figure 4	24th – 29th June 2021	Cool temperatures (11°C), cloud, light wind, some rain.	Hedgerow H6 along eastern site boundary. Hedgerow H7 along eastern site boundary.
Figure 5	21st – 27th July 2021	Cool temperatures (16°C), light cloud and wind, no rain.	Treeline to far south of site. Fence along the western site boundary in the north of the site.
Figure 6	16th – 21st August 2021	Cool temperatures (15°C), cloud, light wind, no rain	Hedgerow H8 along eastern site boundary. Hedgerow H5 along southern site boundary.
Figure 7	1st – 6th September 2021	Cool temperatures (15°C), cloud, light wind, no rain	Hedgerow H1 bordering footpath. Treeline to far south of site.
Figure 9	11th – 16th October 2021	Cool temperatures (9°C), light cloud and wind, no rain	Hedgerow H7 along eastern site boundary. TL3 along northern boundary of site.
2023 Surveys			
Figure 10	24th - 29th August 2023	Cool temperatures (14°C), cloud, light wind, no rain	Hedgerow H7 along eastern site boundary. Hedgerow H4 along western site boundary.

[7] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

Position	Periods Recorded	Weather Conditions	Area Covered
Figure 11	28^{th} - 3^{rd} September 2023	Cool temperatures (16ºC), cloud, light wind, some light rain	Hedgerow H1 bordering footpath. Hedgerow H6 along eastern site boundary.
Figure 12	17^{th} - 22^{nd} October 2023	Cool temperatures (14ºC), cloud, light wind, some light rain	Hedgerow H4 along western site boundary. Scrub compartment to the northwest of site boundary.

Limitations

4.24 The species data collated for the desk study is derived from records submitted by members of the public and from surveys conducted by specialist volunteer groups. It does not represent a definitive list of species that occur in the local area, and the absence of records does not necessarily imply the absence of such species.

4.25 Due to the high level of variation in echolocation calls and the properties of zero-crossed frequency division recordings, it is not always possible to identify calls down to species level. These calls are therefore identified to genus level, which is sufficient for a suitable assessment of potential impacts.

4.26 The static detector units do not discern between individual bats, or a single bat passing the microphone several times, and therefore the data recorded can only provide an indication of bat activity as bat registrations per unit time.

5.0 RESULTS

Desk Study

Internationally Designated Sites of Nature Conservation Importance

5.0 The Site lies within 15km of six sites of international importance for nature conservation, namely: Emer Bog SAC; Solent and Southampton Water Ramsar/SPA; Solent Maritime SAC; New Forest Ramsar/SPA/SAC; Mottisfont Bats SAC; and River Itchen SAC. Mottisfont Bats SAC (7.5km NW of the Site) is the only Site designated for its bat assemblage. It is important for supporting one of only six known barbastelle *Barbastella barbastellus* maternity sites in the UK, and the only known site in Hampshire.

Protected/Notable Species

5.1 A number of species records were returned from the HBIC as summarised in *Table 5* below.

Table 5. Desktop Study Results

Common Name	Conservation Status	Dates	Approximate Location Relative to Site Boundary
Common Pipistrelle *Pipistrellus pipistrellus*	Hab Dir, Hab Reg, WCA, NERC	2002 - 2019	19 records, closest 245m NW
Soprano Pipistrelle *Pipistrellus pygmaeus*	Hab Dir, Hab Reg, WCA, NERC	2009 - 2019	13 records, closest 245m NW
Pipistrellus sp. *Pipistrellus sp.*	Hab Dir, Hab Reg, WCA, NERC	2001 - 2018	Nine records, closest 326m S
Serotine *Eptesicus serotinus*	Hab Dir, Hab Reg, WCA, NERC	2004 - 2018	Seven records, closest 245m NW
Noctule *Nyctalus noctula*	Hab Dir, Hab Reg, WCA, NERC	2001 - 2019	Five records, closest 245m NW
Western Barbastelle *Barbastella barbastellus*	Hab Dir, Hab Reg, WCA, NERC	2016	Single record, 746m SE
Daubenton's Bat *Myotis daubentonii*	Hab Dir, Hab Reg, WCA, NERC	2017 - 2019	Two records, closest 245m NW
Myotis sp. *Myotis sp.*	Hab Dir, Hab Reg, WCA, NERC	2013 - 2017	Four records, closest 264m SE
Brown Long-eared Bat *Plecotus auritus*	Hab Dir, Hab Reg, WCA, NERC	2001 - 2018	Seven records, closest 102m S
Long-eared Bat species *Plecotus sp.*	Hab Dir, Hab Reg, WCA, NERC	2009 - 2018	Five records, closest 394m W
Unidentified Bat sp. *Chiropter asp.*	Hab Dir, Hab Reg, WCA, NERC	2002	Single record, 318m NW
Key: NERC S41 – Natural Environment & Rural Communities Act 2006 Section 41, Hab reg Sch2 – Conservation of Habitats & Species Regulations 2017 (as amended) Schedule 2, WCA – Wildlife & Countryside Act 1981			

Field Surveys

Habitat Suitability

5.2 The range and quality of habitats within the Site as a whole are considered to be of ''low' value to bats, which can be attributed to the modified grassland habitat.

Building and Tree Roosting Assessment

5.3 A total of two buildings (B1 and B2) were identified onsite. These wooden structures, in use for storage and stabling both lacked a roof void, as well as suitable features for potential bat roosting such as soffits, gable ends, cracks and cavities. The stables where open and exposed to light and weather conditions. The surveys of these buildings found there to be no evidence of roosting bats and owing to their structural characteristics, lacking any crevices, they were assessed to be of negligible bat roosting potential.

5.4 Thirteen mature standards located within the Site identified as having the potential to support roosting bats. The results of the ground-level assessment are provided in *Table 6*, and the locations of these standards are identified on *Figure 1: Bat Tree Location Plan*.

Table 6. Results of Ground Assessment of Trees for Bat Roost Potential

Tree Ref	Species	Potential Roosting Features	Bat Potential
T1	English Oak, *Quercus robur*	Number of dead limbs, one with a split providing space. Loose bark and a shattered limb.	Moderate
T2		Dense ivy covering, no other features.	Low
T3		Dense ivy covering, no other features.	Low
T4		Woodpecker hole and a split in main trunk providing potential cavity.	Moderate
T5		Main trunk split providing potential cavity.	Moderate
T6		Woodpecker holes and rot holes.	Moderate
T7		Dead limbs and potential cracks.	Moderate
T8		Some dead wood and loose bark splits providing cavities	Moderate
T9		Single woodpecker hole.	Low
T10		Dead wood.	Low
T11		Dead monolith tree with some open cavities and splits in wood.	Moderate
T12		Single woodpecker hole and dead split limb.	Moderate
T13		Dead limb in cavity with potential cavity	Moderate

Manual Activity Transect Surveys

5.5 The number of bat contacts recorded each survey varied from 15 contacts (during the May 2021 survey) and 41 (during the October 2023 survey), with between four and seven different species/species groups recorded respectively on these two surveys. A total of nine species/species groups were recorded during the completed transect surveys; common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, noctule *Nyctalus noctule*, serotine *Eptesicus serotinus*, barbastelle *Barbastella barbastellus*, unidentified Nyctalus sp., unidentified *Myotis sp.*, unidentified *Pipistrellus sp*., and unidentified long-eared sp. *Plecotus sp* which are assumed to be brown long eared species *Plecotus auritus*. One unknown bat species was also recorded. Results for each survey are summarised in *Table 7* below, with the distribution of encounters mapped on *Figures 2 to 12.*

Table 7. Bat Transect Summary of Results 2021 and 2023

Date	Total Contacts	Species Recorded (No. Contacts)	Activity Summary
16th April 2021 *Figure 2*	10	Transect 5 common pipistrelle, 2 soprano pipistrelle, 1 noctule, 1 unidentified *Nyctalus* sp. Point Count 1 common pipistrelle	Transect Six out of ten encounters, occurred along the hedgerow H6 along the eastern boundary and around scrub patches, which were recorded as commuting and foraging. Point Count A single contact from a common pipistrelle was recorded during point count C along hedgerow H1.
11th May 2021 *Figure 3*	15	Transect 6 common pipistrelle, 2 noctule, 1 soprano pipistrelle Point Count 3 common pipistrelle, 2 soprano pipistrelle and 1 *Nyctalus* sp.	Transect Three out of nine, occurred towards the western boundary of the Site. Specifically, hedgerow H5 had the greatest activity levels, the majority of which was recorded as foraging. Point Counts Activity occurred at point counts D, E, G and H.
9th June 2021 *Figure 4*	32	Transect 10 common pipistrelle, 6 noctules and 4 soprano pipistrelle Point Count 6 common pipistrelle, 5 noctules and 1 *Myotis* sp.	Transect Contacts were quite evenly spread across the Site. Noctule activity was more concentrated to the west and common pipistrelles to the east, the majority of which was recorded as foraging. Point Counts Activity occurred at all point counts. The most activity recorded at point count C, along the western Site boundary.
27th July 2021 *Figure 5*	30	Transect 10 common pipistrelle, 7 soprano pipistrelle, 2 noctules and 1 *Nyctalus* sp. Point Count 4 noctules, 3 soprano pipistrelle, 2 common pipistrelle and 1 long-eared sp.	Transect Contacts were quite evenly spread across the site, although noctule activity was more concentrated to the western side of the site. Common pipistrelles were recorded most frequently, and foraging activity recorded in the north of the Site. Point Counts Activity occurred at all point counts except for J. The greatest amount of activity occurred at point counts A and H, along the western boundary of the site and along hedgerow H7 respectively.
21st August 2021 *Figure 6*	45	Transect 9 soprano pipistrelle, 8 common pipistrelle, 2 noctules, 2 *Nyctalus* sp., 1 *myoti*s sp. and 1 long-eared sp.	Transect Contacts were concentrated in the scrub compartment as well as along hedgerow H7 to the east of the Site, the majority of the activity being recorded as commuting. Point Counts

Date	Total Contacts	Species Recorded (No. Contacts)	Activity Summary
		Point Count 9 common pipistrelle, 6 soprano pipistrelle, 3 noctules, 1 serotine, 1 *myotis* sp., 1 unidentified pipistrelle sp. and 1 long-eared sp.	Activity occurred at all point counts except for A and D. Point counts F, in the scrub compartment, and I, at hedgerow H1, had the highest contacts.
1st September 2021 *Figure 7*	37	Transect 12 common pipistrelle, 9 soprano pipistrelle, 2 noctule and 1 *Nyctalus* sp. Point Count 10 common pipistrelle, 2 soprano pipistrelle and 1 noctule	Transect Contacts were concentrated along the eastern boundary around hedgerows H1 and H10, the majority of which was recorded as foraging activity. Point Counts Activity occurred at all point counts except for A and J, with southern point counts higher.
2nd September 2021 *Figure 8*	29	Transect 11 common pipistrelle, 4 soprano pipistrelle and 1 long-eared sp. Point Count 5 soprano pipistrelle, 4 common pipistrelle, 1 barbastelle, 1 long-eared sp,1 *Nyctalus* and 1 pipistrelle sp.	Transect Contacts were quite evenly spread across the Site, with concentrations along hedgerow H6 in the east. Point Counts Activity occurred at point counts A, D, E, F and I. Point counts A and E, along hedgerows H2 and H7 respectively, had the most activity.
11th October 2021 *Figure 9*	17	Transect 3 common pipistrelle, 2 soprano pipistrelle, 2 *Nyctalus* sp. and 1 long-eared sp. Point Count 6 common pipistrelle, 1 serotine, 1 *Nyctalus* sp. and 1 long-eared sp.	Transect Contacts were evenly spread across the site, with four contacts along the eastern boundary and four along the western boundary. Point Counts Activity occurred at all point counts except for A, I and J. More contacts recorded at point count D along hedgerow H1.
2023 Surveys			
24th August 2023 *Figure 10*	37	Transect 9 common pipistrelle, 6 soprano pipistrelle, 2 noctule and 1 long-eared sp. Point Count 10 common pipistrelle, 7 soprano pipistrelle and 2 noctule	Transect Activity was reasonably well spread across the Site, with hedgerow H6 on the eastern boundary having the greatest level of activity. Point Counts Activity occurred at all point counts except for F. Again, activity was reasonably well spread across the site. Located long hedgerow H6, point count E had a higher number of contacts.

Date	Total Contacts	Species Recorded (No. Contacts)	Activity Summary
3rd October 2023 *Figure 11*	41	<u>Transect</u> 8 common pipistrelle, 5 serotine, 4 soprano pipistrelle, 3 long eared species and 1 *Nyctalus*/*Eptesicus* sp. <u>Point Count</u> 7 common pipistrelle, 5 soprano pipistrelle, 2 long eared species, 2 *Nyctalus* sp., 2 serotine, 1 *Nyctalus*/*Eptesicus* sp. and 1 noctule	<u>Transect</u> Majority of contacts concentrated around the scrub compartment to the northwest of the Site. Only four contacts were recorded outside of the area. <u>Point Counts</u> Activity was focused on C and F, with the greatest levels occurring at C. Two contacts were recorded at I and only one contact was recorded at D, H and J.
17th October 2023 *Figure 12*	34	<u>Transect</u> 13 common pipistrelle and 7 soprano pipistrelle <u>Point Count</u> 6 common pipistrelle, 5 soprano pipistrelle,1 *Nyctalus* sp., 1 pipistrelle sp. and 1 unknown bat sp.	<u>Transect</u> Most contacts occurred to the south and the west of the Site. Specifically, along hedgerow H3, H4 & H6, the treeline to the far south and the scrub compartment to the northwest of the Site. Number of contacts were similar across these areas. <u>Point Counts</u> Activity occurred at point counts B, C, D, E, G and I, with point counts D and G having the greatest activity (3 contacts each).1 unknown bat species was recorded at I.

Automated Activity Surveys

5.6 The following paragraphs detail the findings of the automated activity surveys. In this context, the term ‘registration’ refers to a unique sound file created over the course of a number of seconds. Based on this, numerous ‘registrations’ does not necessarily refer to multiple bats (unlike the manual activity survey section above, where the number of bats can often be visually identified), as one bat may create several registrations, for example an individual foraging in close proximity to the microphone for a sustained period of time.

<u>Overall Summary</u>

5.7 A total of 20 static detectors were deployed on site during the survey period. During the automated surveys completed in between April 2021 to October 2021 and August 2023 to October 2023, eleven species/species groups were recorded, consisting:

- Common pipistrelle (63%)
- Soprano pipistrelle (27.2%)
- *Myotis sp*. (4.3%)
- Noctule (1.4%)
- Long-eared sp. (1.3%)
- Serotine (0.83%)
- Barbastelle (0.69%)
- *Pipistrelle sp*. (0.57%)
- Nyctalus sp. (0.31%)

- Nyctalus/Eptesicus sp. (0.10%)
- Nathusius' pipistrelle (0.02%).

5.8 *Table 8* below summarises the activity levels recorded and the locations on Site for each of the units deployed. The April 2021 units, deployed in the scrub in the northern area of the Site and hedgerow H1 bordering the footpath, recorded 10,095 and 74 registrations, respectively. The May 2021 units, deployed in hedgerow H4 along the western boundary and hedgerow H9 along the northern boundary of the Site, recorded 149 and 122 registrations, respectively. The June 2021 units, deployed in hedgerow H6 and hedgerow H7 along the eastern Site boundary, recorded 1639 and 1560 registrations, respectively.

5.9 The July 2021 units, deployed in the fence along the western boundary in the north of the Site and the treeline to far south of the Site, recorded 930 and 1029 registrations, respectively. The August 2021 units, deployed in hedgerow H5 along the southern boundary and hedgerow H8 along the eastern boundary, recorded 666 and 737 registrations, respectively. The September 2021 units, deployed in hedgerow H1 bordering the footpath and the treeline to the far south of the Site, recorded 13874 and 534 registrations, respectively. The October 2021 units, deployed in Treeline 3 along the northern boundary and hedgerow H7 along eastern boundary, recorded 394 and 1114 registrations, respectively.

5.10 The August 2023 units, deployed in hedgerow H7 along the eastern boundary of Site and hedgerow H4 along the western boundary of the Site, recorded 9,316 and 2,181 respectively. The September 2023 units, deployed in hedgerow H1 bordering the footpath and hedgerow H6 along the eastern boundary of the Site, recorded 11,794 and 4,617 respectively. The October 2023 units, deployed in hedgerow H4 along the western boundary and the scrub compartment to the northwest of the Site, recorded 3,820 and 1,002 respectively.

5.11 Please see Figures 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 Bat Transect Plans for static detector unit locations and Table 8 and Appendix A for the full results.

Table 8. Static Activity Summary 2021 and 2023

Survey Period	Unit Reference/ Location	Total Registrations Over five nights	Species Recorded (in order of abundance and total number of registrations)
21st – 26th April 2021	Unit 1: Scrub in the northern area of the site.	1095	6 species/groups: • Common pipistrelle (910) • Soprano pipistrelle (149) • *Nyctalus* sp. (25) • Pipistrelle sp. (8) • Noctule (2) • Serotine (1)
	Unit 2: Hedgerow H1 bordering footpath.	74	8 species/groups: • Common pipistrelle (43) • Soprano pipistrelle (17) • Long-eared sp. (4) • *Myotis* sp. (3) • *Nyctalus* sp. (2) • Pipistrelle sp. (2) • Noctule (2) • Nathusius' pipistrelle (1)
11th – 16th May 2021	Unit 1: Hedgerow H4 along western site boundary.	149	4 species/groups: • Soprano pipistrelle (73) • Common pipistrelle (68) • Noctule (5) • *Nyctalus* sp. (3)
	Unit 2: Treeline 3 along northern boundary of the Site.	122	4 species/groups: • Common pipistrelle (78) • Soprano pipistrelle (29) • Barbastelle (9) • Noctule (5) • Pipistrelle sp. (1)
24th – 29th June 2021	Unit 1: Hedgerow H6 along eastern Site boundary.	1639	6 species/groups: • Common pipistrelle (1464) • Soprano pipistrelle (91) • Noctule (75) • Barbastelle (6) • Serotine (2) • Nathusius' pipistrelle (1)
	Unit 2: Hedgerow H7 along eastern Site boundary.	1560	7 species/groups: • Common pipistrelle (1326) • Soprano pipistrelle (179) • Barbastelle (42) • Noctule (6) • Pipistrelle sp. (4) • *Nyctalus/Eptesicus* sp. (2) • Serotine (1)

Survey Period	Unit Reference/ Location	Total Registrations Over five nights	Species Recorded (in order of abundance and total number of registrations)
21st – 27th July 2021	Unit 1: Fence along the western boundary in the north of the Site.	930	9 species/groups: • Common pipistrelle (673) • Soprano pipistrelle (156) • Noctule (35) • Long-eared sp. (21) • *Nyctalus* sp. (18) • *Myotis* sp. (16) • Barbastelle (2) • Pipistrelle sp. (8) • Nathusius' pipistrelle (1)
	Unit 2: Treeline to far south of Site.	1029	9 species/groups: • Common pipistrelle (730) • Soprano pipistrelle (225) • Noctule (27) • Long-eared sp. (22) • *Nyctalus* sp. (12) • *Myotis* sp. (8) • Pipistrelle sp. (3) • Serotine (1) • Nathusius' pipistrelle (1)
16th – 21st August 2021	Unit 1: Hedgerow H5 along southern boundary.	666	10 species/groups: • Common pipistrelle (233) • Soprano pipistrelle (203) • Long-eared sp. (77) • Barbastelle (57) • Noctule (36) • *Nyctalus* sp. (25) • *Myotis* sp. (25) • Pipistrelle sp. (5) • *Nyctalus/Eptesicus* sp. (3) • Serotine (2)
	Unit 2: Hedgerow H8 along eastern boundary.	737	9 species/groups: • Soprano pipistrelle (395) • Common pipistrelle (238) • Barbastelle (30) • *Nyctalus* sp. (25) • Noctule (21) • *Myotis* sp. (17) • Long-eared sp. (6) • Serotine (4) • Pipistrelle sp. (1)

Survey Period	Unit Reference/ Location	Total Registrations Over five nights	Species Recorded (in order of abundance and total number of registrations)
1st – 6th September 2021	Unit 1: Hedgerow H1 bordering footpath.	13874	8 species/groups: • Common pipistrelle (8497) • Soprano pipistrelle (4880) • Long eared sp. (227) • *Myotis* sp. (165) • Barbastelle (59) • Noctule (30) • *Nyctalus* Sp. (12) • Serotine (4)
	Unit 2: Treeline to far south of the Site.	534	10 species/groups: • Common pipistrelle (269) • Soprano pipistrelle (137) • Noctule (48) • Long-eared sp. (26) • *Myotis* sp. (18) • Serotine (16) • Barbastelle (7) • *Nyctalus* sp. (6) • Pipistrelle sp. (6) • *Nyctalus/Eptesicus* sp. (1)
11th – 16th October 2021	Unit 1: Treeline 3 along northern boundary of the Site.	394	10 species/groups: • Common pipistrelle (193) • Soprano pipistrelle (78) • Long-eared sp. (40) • *Myotis* sp. (27) • Barbastelle (25) • *Nyctalus* sp. (13) • Serotine (11) • Noctule (4) • Nathusius' pipistrelle (2) • Pipistrelle sp. (1)
	Unit 2: Hedgerow H7 along eastern boundary.	1114	9 species/groups: • Common pipistrelle (683) • Soprano pipistrelle (321) • Long-eared sp. (30) • Barbastelle (29) • *Myotis* sp. (27) • Noctule (9) • Pipistrelle sp. (7) • Serotine (6) • Nathusius' pipistrelle (2)

Survey Period	Unit Reference/ Location	Total Registrations Over five nights	Species Recorded (in order of abundance and total number of registrations)
24th - 29th August 2023	Unit 1: Hedgerow H7 along eastern boundary.	9316	9 species/groups: • Common pipistrelle (7491) • Soprano pipistrelle (1212) • *Myotis* sp. (348) • Long-eared sp. (104) • Serotine (79) • Barbastelle (46) • Noctule (33)
	Unit 2: Hedgerow H4 along western boundary.	2181	9 species/groups: • Common pipistrelle (1718) • Soprano pipistrelle (338) • Long-eared species (48) • Noctule (23) • Serotine (21) • *Myotis* sp. (18) • Barbastelle (13) • *Nyctalus* species (1) • *Nyctalus*/*Eptesicus* sp. (1)
28th - 3rd September 2023	Unit 1: Hedgerow H1 bordering footpath.	11794	11 species/groups: • Common pipistrelle (4716) • Soprano pipistrelle (4693) • *Myotis* sp. (1730) • Serotine (244) • Noctule (235) • Long-eared sp. (82) • Barbastelle (29) • Pipistrelle sp. (27) • *Nyctalus* sp. (19) • *Nyctalus*/*Eptesicus* sp. (17) • Nathusius' pipistrelle (2)
	Unit 2: Hedgerow H6 along eastern boundary.	4617	11 species/groups: • Common Pipistrelle (2453) • Soprano Pipistrelle (1844) • Noctule (179) • *Myotis* Sp. (53) • Long-eared sp. (50) • Barbastelle (22) • Nyctalus sp. (6) • Serotine (6) • Pipistrelle sp. (2) • Nathusius' pipistrelle (1) • *Nyctalus*/*Eptesicus* sp. (1)
17th - 22nd October 2023	Unit 1: Hedgerow H4 along western boundary.	3820	9 species/groups: • Common pipistrelle (3521) • Soprano pipistrelle (268) • Barbastelle (7) • Noctule (6) • *Nyctalus* sp. (6) • Serotine (5) • Long-eared sp. (4) • *Myotis* sp. (2) • Nathusius' pipistrelle (1)

Survey Period	Unit Reference/ Location	Total Registrations Over five nights	Species Recorded (in order of abundance and total number of registrations)
	Unit 2: Scrub compartment to the northwest of boundary.	1002	10 species/groups: • Common pipistrelle (510) • Pipistrelle Sp. (247) • Soprano Pipistrelle (124) • Serotine (67) • *Nyctalus*/*Eptesicus* sp. (32) • Long-eared sp. (8) • Barbastelle (7) • *Nyctalus* sp. (4) • Noctule (2) • *Myotis* Sp. (1)

6.0 DISCUSSION AND RECOMMENDATIONS

6.0 The following section provides an evaluation of the Site and identifies the likely ecological constraints associated with bat assemblages and the proposed development. Where appropriate, measures for the avoidance, mitigation, and compensation of any likely potential impacts together with any enhancements are discussed.

Bat Roosts

Trees

6.1 Hedgerows T1, T4, T5 to T8 and T11 to T13 were assessed as moderate bat roosting potential, with trees T2, T3, T9, and T10 having low potential. The current framework will see all these trees retained and buffered, whereby there will be no direct impacts and providing the trees are kept on existing linear features are precautions are taken not to illuminate the canopies, then no further work will be needed.

6.2 If the framework does change, whereby there will be direct losses of these trees, or indirect effect such as loss of linear features around then and increases in the built structures in close proximity then further surveys might be needed.

6.3 Updated surveys will be needed before reserve matters to ensure that there are no new roosting features, that might have developed over the intervening periods from storm damage or age degradation.

Activity Surveys

Transect Activity Surveys

6.4 The activity surveys recorded a total of eleven bat species/species groups (listed in order of abundance); common pipistrelle, soprano pipistrelle, noctule, long-eared sp., barbastelle, Myotis sp., Nyctalus sp., Pipistrelle sp., serotine, Nathusius' pipistrelle and Nyctalus/Eptesicus sp.

6.5 Low numbers of contacts, and thus low levels of activity, were recorded from the majority of species/species groups, with most activity recorded on Site originating from common and widespread species (common pipistrelle and soprano pipistrelle).

6.6 In 2021, activity was rather evenly spread across the site, hotspots of activity include hedgerows H1, H7 and H10 as well as the scrub compartment. In 2023, activity was greatest within and along the boundaries of the scrub compartment on the Site. Additional areas of higher activity include hedgerows H6. Comparatively, very low activity was observed on the northern boundaries of the Site.

6.7 Based upon the findings of the transect surveys it is considered that the linear boundary features along the eastern (H6 and H7), western (H1) and southern boundaries (H5), and associated edge habitats, provide commuting routes around the peripheries of the site for bats providing some ecological value.

Automated Activity Surveys

6.8 During the automated activity survey, the highest number of registrations were recorded along hedgerow H1, with 13,874 (Unit 1 September 2021), 11,794 (Unit 1 September 2023) and 9316

(Unit 1 August 2023) registrations. Comparatively, Unit 2 from April 2021 that was also located along hedgerow H1 had only recorded 74 registrations. This is likely due to bats only beginning to become active after the hibernation period.

6.9 The registrations recorded by the remaining statics were all relatively low by comparison, ranging from 122-4617 registrations. Activity was rather evenly spread across the site. The greater levels of activity along hedgerow H1 are likely due to the hedgerow acting as a corridor, linking the eastern and western boundaries on the Site, as well as providing access to the scrub compartment for foraging. Furthermore, the hedgerow has a number of mature trees which provide more canopy cover providing additional habitat for invertebrates.

6.10 The 20 automated static detectors recorded a total of 390 barbastelle registrations, with a peak of 59 registrations in September 2021 (Unit 1), which was in the central area of the Site along hedgerow H1. Other hotspots of barbastelle activity include hedgerow H5, with 57 registrations, and hedgerow H7, with 42 registrations in 2021 and 46 registrations in 2023. Barbastelles are known to commute/forage over large distances and their range is dependent on the time of the year, with females foraging over increasing distances during the summer months. Flight lines can range up to 20km. During the spring and early summer months barbastelle numbers were a lot lower, with registrations increasing in July and peaking in September, this would potentially indicate that the Site is used during these months, but numbers are not high or regular enough to indicate that they are fully reliant on the Site for foraging or as a main commuting route, as registrations would be higher.

6.11 The Mottisfont Bats SAC (7.5km from Site) has been designated due to its internationally important breeding grounds for UK bat species, notably Annex II barbastelle. A report from Natural England concluded[8] that a development within 7.5km zone of influence (ZoI) from the designated site could impact upon the habitats used by the Mottisfont barbastelles.

6.12 The main threat of habitat deterioration through fragmentation within the SAC, loss of supporting habitats in the surroundings and a decline in water quality and resources. The Site is on the 7.5km ZoI and is largely isolated away from a direct linear flight line from the SAC by the residential area of Romsey town. A route to the south of Romsey is possible, but this would entail bats flying over a number of A roads and residential parcels to gain access to the Site, which is around 10km.

6.13 The development's position on the eastern edge of urban setting of Romsey will not cause any loss of linkage habitats between Mottisfont SAC and the wider area, as most of the woodland habitats, which barbastelle are normally associated with, are in the north and east, where the Site does not fall within potential linkage corridors.

6.14 The surveys both from static and transect would indicate the hedgerow H1 is used more than other areas of the Site, the framework plan has retained and strengthened this linear feature, with other linear features linked to this also strengthened. It is suggested that the Site is used by the local bat assemblages as a linkage habitat to the wider area, and that there are some forgaing opportunities also taking place, but it is unlikely that this is a main resource for the common and rare bats recorded. The framework will retain these features, and new habitats included will promote further use of the Site after development.

8 Greenaway F (2004) Advice for the management of flightlines and foraging habitats of the Barbastelle Bat *Barbastella barbastellus*, English Nature Research Report 657

Impacts, Mitigation & Enhancement

6.15 The proposals will retain and buffer the majority of the hedgerows bordering the Site, maintaining important corridors for bat species to the woodland habitats in the wider landscape. Additional green space, sustainable urban drainage features (SuDs) and hedgerow provision, around the proposed development will enhance connectivity, as well as increasing floral and invertebrate diversity within the Site area, providing improved foraging resources for local bat species.

6.16 On the western boundary, two new road entrances from Halterworth Lane, through hedgerow H4 and H11, will facilitate access into the development, with a road entrance through hedgerow H1 will connect the north and south parcels of the Site. New native shrub/hedgerow planting is recommended to strengthen hedgerow H1 which will enhance and maintain the commuting corridors. In order to maintain linkages across the gaps created by the road access, ‘hop overs’ will be created. This will be achieved through management of existing hedgerows/planting to encourage vertical growth, creating taller hedgerows either side of the access road, if such features are lacking then new panting will be incorporated. As these dissections are small and the road is for access then the speed of traffic will be significantly reduced, whereby vehicle strikes are highly unlikely to take place.

6.17 Root protection area (RPA) will be set up around trees and hedgerows to ensure that they are not affected during the construction phase, but these will also be planted up creating good margins that could provide opportunities for invertebrate prey items.

6.18 To minimise impacts of lighting on bats, proposals will adopt a sensitive external lighting scheme, which will be designed to minimise light spill on retained, and proposed habitats of value to commuting and foraging bats. The lighting scheme will be designed with regards to current guidance provided by the Bat Conservation Trust and the Institution of Lighting Professionals[9] and adopt the following principles:

- The avoidance of direct lighting of existing trees, hedgerows, scrub, or proposed areas of habitat creation/landscape planting;
- The use of low-pressure sodium lights which emit one light wavelength and attract less insects;
- Restricting the height of the light columns to reduce horizontal spill;
- Installing low wattage LED security lighting on properties close to green infrastructure during construction to avoid future homeowners installing unsuitable lighting for bats; and
- During the construction period, no lighting should be used in proximity to boundary features, if needed lights will be directionally focused/shrouded.

6.19 Dark corridors will be designed, based on the above principles, to ensure retention, and incorporation of habitats of value to bats for foraging, potential roosting and commuting into the wider landscape.

6.20 Roads and buildings in close proximity to any GI and existing boundary habitats will also have lighting sensitively positioned, so as to avoid illumination of canopies, which can further disrupt the flight patterns of bats.

[9] Bats and artificial lighting in the UK: Bats and the Built Environment series. Bat Conservation Trust and Institution of lighting professionals Guidance note 08/18 (2018). And Bats and Artificial Lighting at Night: guidance Note 08/23 BCT

Enhancements

6.21 Additional open spaces included within the landscape design will provide ecological enhancements. GI will include structural planting along the boundaries for buffering the southern boundary, and substantial new tree and scrub planting will be incorporated at the eastern boundary as well as throughout the development. These areas of planting will utilise native tree and shrub species, which will provide new opportunities for various invertebrate species, that will in turn increase the foraging potential for native bat species. Early flowering native shrubs should be used, such as hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, hazel *Corylus avellana*, honeysuckle *Lonicera periclymenum*, and ivy hedera helix to encourage more invertebrate prey items for bats.

6.22 Two SuDS and a permanently wet wildlife pond will be incorporated into the proposals. The pond will be designed specifically to maximise biodiversity value with wide shallow draw down zones, scalloped edges and a deep central areas with locally native marginal and aquatic vegetation where possible. Such resources will provide additional habitats for invertebrates, increasing prey items for the local bat population. The attenuation features proposed will not be permanently wet, however they should be seeded with wildflower grassland to again encourage more invertebrate prey for bats.

6.23 Management of retained and newly planted hedgerows will be undertaken in an ecologically sensitive manner to enhance their nature conservation value. Such management may include;

- Incorporating traditional hedgerow management methods, such as hedgerow laying to increase the structure and density of the hedgerows; where this cannot be undertaken the hedgerow can be ‘topped out’ to create structure.
- A proportion of trees within the hedgerow will be allowed to mature into standard trees that provide nesting and foraging opportunities for local wildlife and create a varied habitat structure; and
- Grassland along the hedgerow base should be allowed to grow to provide a graduated sward height, increasing the habitat diversity, which is, in turn, favourable for diverse invertebrate assemblages.

6.24 The development will also provide additional refuge opportunities for the local bat population by installing bat boxes or incorporating tubes and/or bricks into the built fabric of residential dwellings. Bat boxes and bricks will be arranged around the development in different locations to ensure coverage of several different aspects, to encourage choice of a variety of alternative roost sites. In combination with bird and invertebrate boxes.

fpcr

Gladman Developments Ltd.

Land off Halterworth Lane, Romsey

Static Detector Results Summary

APPENDIX 7.4 - Bat Survey Report - APPENDIX A

December 2023

Static Detector Results Summary – April to October 2021

								Common Pipistrelle			Soprano Pipistrelle			Long Eared Species			Myotis Species		
Sheet ref.	Recording Period	Unit No.	Start Date	End Date	Survey Hours	Total Av. per hour	Total Registrations	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour
Apr1	April	14	21/04/2021	26/04/2021	52:49:54	20.726	1095	910	244	17.225	149	48	2.820	0	0	0.000	0	0	0.000
Apr2	April	13	21/04/2021	26/04/2021	52:49:53	1.401	74	43	23	0.814	17	5	0.322	4	2	0.076	3	2	0.057
May1	May	28	11/05/2021	16/05/2021	47:19:55	3.148	149	68	47	1.437	73	44	1.542	0	0	0.000	0	0	0.000
May2	May	17	11/05/2021	16/05/2021	47:20:09	2.577	122	78	63	1.648	29	22	0.613	0	0	0.000	0	0	0.000
Jun1	June	15	24/06/2021	29/06/2021	42:29:10	38.577	1639	1464	673	34.458	91	48	2.142	0	0	0.000	0	0	0.000
Jun2	June	17	24/06/2021	29/06/2021	42:29:10	36.718	1560	1326	616	31.210	179	74	4.213	0	0	0.000	0	0	0.000
Jul1	July	18	21/07/2021	26/07/2021	46:31:21	19.990	930	673	348	14.466	156	47	3.353	21	9	0.451	16	7	0.344
Jul2	July	17	21/07/2021	26/07/2021	46:31:21	22.118	1029	730	313	15.691	225	88	4.836	22	7	0.473	8	5	0.172
Aug1	August	17	16/08/2021	21/08/2021	53:31:09	12.444	666	233	75	4.354	203	68	3.793	77	23	1.439	25	10	0.467
Aug2	August	11	16/08/2021	21/08/2021	53:31:09	13.771	737	238	73	4.447	395	146	7.381	6	3	0.112	17	8	0.318
Sep1	September	10	01/09/2021	06/09/2021	58:26:25	237.405	13874	8497	2772	145.396	4880	1302	83.504	227	71	3.884	165	60	2.823
Sep2	September	10	01/09/2021	06/09/2021	58:26:25	9.138	534	269	81	4.603	137	50	2.344	26	8	0.445	18	9	0.308
Oct1	October	10	11/10/2021	16/10/2021	71:10:57	5.535	394	193	88	2.711	78	39	1.096	40	19	0.562	27	10	0.379
Oct2	October	26	11/10/2021	16/10/2021	71:10:57	15.650	1114	683	313	9.595	321	156	4.510	30	13	0.421	27	14	0.379
				Totals:	744:37:54	32.119	23917	15405	2772	20.688	6933	1302	9.311	453	71	0.608	306	60	0.411

	Noctule			Barbastelle			Nyctalus Species			Serotine			Pipistrelle Species			Nathusius' pipistrelle			Nyctalus / Eptesicus		
Sheet ref.	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour
Apr1	2	1	0.038	0	0	0.000	25	12	0.473	1	1	0.019	8	2	0.151	0	0	0.000	0	0	0.000
Apr2	2	1	0.038	0	0	0.000	2	1	0.038	0	0	0.000	2	1	0.038	1	1	0.019	0	0	0.000
May1	5	3	0.106	0	0	0.000	3	1	0.063	0	0	0.000	0	0	0.000	0	0	0.000	0	0	0.000
May2	5	3	0.106	9	8	0.190	0	0	0.000	0	0	0.000	1	1	0.021	0	0	0.000	0	0	0.000
Jun1	75	27	1.765	6	6	0.141	0	0	0.000	2	2	0.047	0	0	0.000	1	1	0.024	0	0	0.000
Jun2	6	3	0.141	42	24	0.989	0	0	0.000	1	1	0.024	4	4	0.094	0	0	0.000	2	2	0.047
Jul1	35	13	0.752	2	2	0.043	18	8	0.387	0	0	0.000	8	3	0.172	1	1	0.021	0	0	0.000
Jul2	27	14	0.580	0	0	0.000	12	5	0.258	1	1	0.021	3	3	0.064	1	1	0.021	0	0	0.000
Aug1	36	9	0.673	57	39	1.065	25	15	0.467	2	2	0.037	5	2	0.093	0	0	0.000	3	3	0.056
Aug2	21	6	0.392	30	28	0.561	25	8	0.467	4	2	0.075	1	1	0.019	0	0	0.000	0	0	0.000
Sep1	30	12	0.513	59	19	1.010	12	4	0.205	4	4	0.068	0	0	0.000	0	0	0.000	0	0	0.000
Sep2	48	20	0.821	7	5	0.120	6	2	0.103	16	5	0.274	6	2	0.103	0	0	0.000	1	1	0.017
Oct1	4	3	0.056	25	18	0.351	13	9	0.183	11	3	0.155	1	1	0.014	2	2	0.028	0	0	0.000
Oct2	9	6	0.126	29	11	0.407	0	0	0.000	6	3	0.084	7	4	0.098	2	1	0.028	0	0	0.000
	305	27	0.410	266	39	0.357	141	15	0.189	48	5	0.064	46	4	0.062	8	2	0.011	6	3	0.008

Static Detector Results Summary – August, September and October 2023

								Common Pipistrelle			Soprano Pipistrelle			Myotis Species			Noctule			
Sheet ref.	Recording Period	Unit No.	Start Date	End Date	Survey Hours	Total Av. per hour	Total Registrations	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total
Aug1	August	14	24/08/2023	29/08/2023	55:47:59	166.865	9311	7481	2111	134.069	1226	540	21.971	340	117	6.093	33	13	0.591	79
Aug2	August	28	24/08/2023	29/08/2023	55:48:00	39.086	2181	1718	723	30.789	338	144	6.057	18	5	0.323	23	13	0.412	21
Sep1	September	11	28/09/2023	03/10/2023	66:53:42	176.306	11794	4716	1523	70.499	4693	2208	70.155	1730	1224	25.861	235	88	3.513	244
Sep2	September	19	28/09/2023	03/10/2023	66:53:42	69.019	4617	2453	685	36.669	1844	853	27.566	53	26	0.792	179	65	2.676	6
Oct1	October	24	17/10/2023	22/10/2023	72:54:26	52.395	3820	3521	2604	48.294	268	144	3.676	2	2	0.027	6	5	0.082	5
Oct2	October	25	17/10/2023	22/10/2023	72:54:29	13.743	1002	510	355	6.995	124	55	1.701	1	1	0.014	2	2	0.027	67
				Totals:	391:12:19	83.652	32725	20399	2604	52.144	8493	2208	21.710	2144	1224	5.480	478	88	1.222	422

	Serotine		Long Eared Species			Pipistrelle Species			Barbastelle			Nyctalus / Eptesicus			Nyctalus Species			Nathusius' pipistrelle		
Sheet ref.	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour	Period Total	Peak Count	Av. Per Hour
Aug1	26	1.416	106	28	1.900	0	0	0.000	46	16	0.824	0	0	0.000	0	0	0.000	0	0	0.000
Aug2	8	0.376	48	18	0.860	0	0	0.000	13	7	0.233	1	1	0.018	1	1	0.018	0	0	0.000
Sep1	75	3.648	82	32	1.226	27	18	0.404	29	15	0.434	17	12	0.254	19	17	0.284	2	2	0.030
Sep2	3	0.090	50	13	0.747	2	1	0.030	22	10	0.329	1	1	0.015	6	4	0.090	1	1	0.015
Oct1	2	0.069	4	2	0.055	0	0	0.000	7	5	0.096	0	0	0.000	6	3	0.082	1	1	0.014
Oct2	32	0.919	8	4	0.110	247	110	3.388	7	5	0.096	32	20	0.439	4	3	0.055	0	0	0.000
	75	1.079	298	32	0.762	276	110	0.706	124	16	0.317	51	20	0.130	36	17	0.092	4	2	0.010

Key

Tree with bat potential

Gladman Devlopments Ltd.

Land off Halterworth Lane, romsey

BAT TREE LOCATION PLAN

fpcr

scale 1:2701 | drawn REM | issue 12/1/2022

N

drawing / figure number **Figure 1** | rev **9840-E-01**