



Former Butterick Site, New Lane, Havant

Transport Assessment

Client: Kingsbridge Estates

i-Transport Ref: SJ/GT/AI/ITB14488-002A

Date: 21 June 2019

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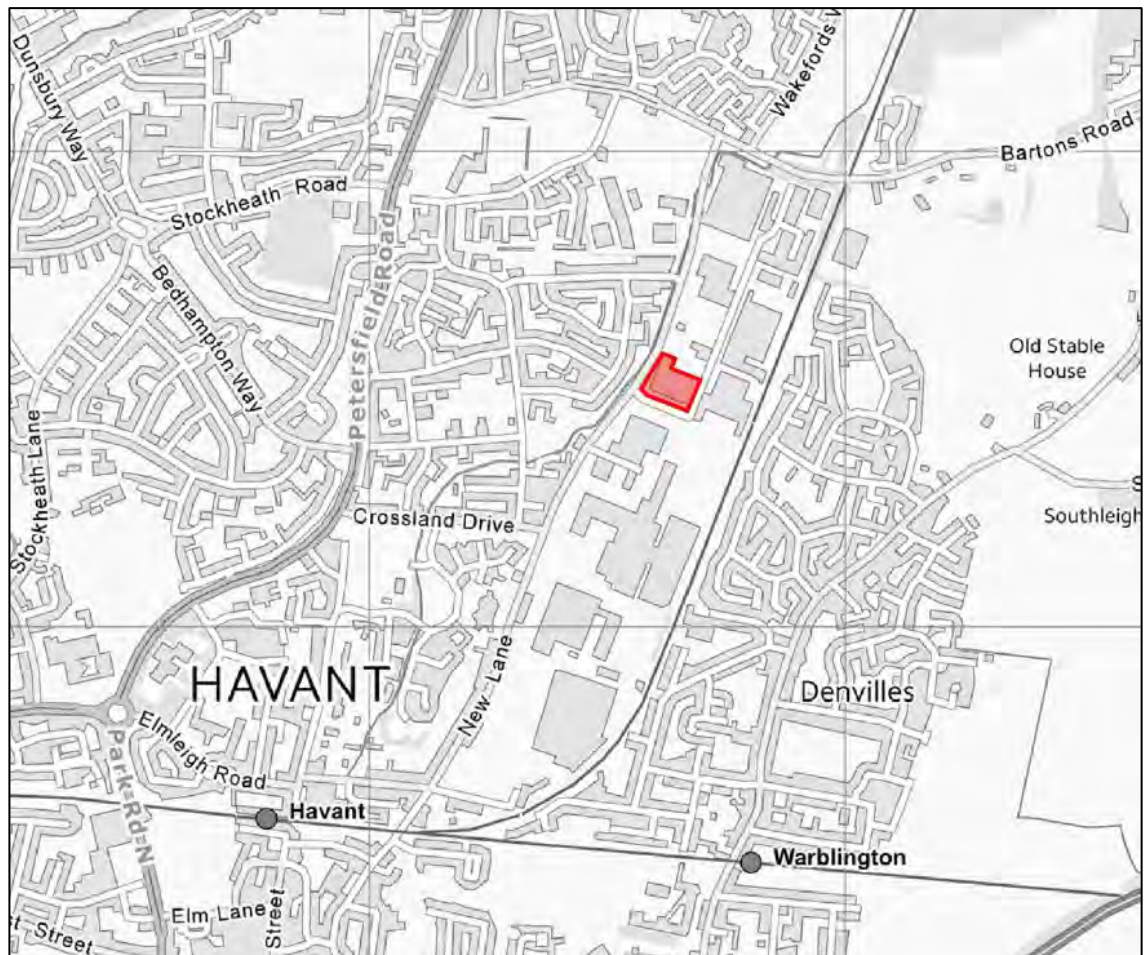
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SECTION 1 Introduction

- 1.1.1 Kingsbridge Estates is proposing a commercial redevelopment of the former Butterick site to the east of New Lane, Havant. The proposed redevelopment comprises 5,516 sqm of B use floor area with vehicular and pedestrian access onto Stanbridge Road to the south.
- 1.1.2 The site is located within the existing industrial area of Havant, with industrial land uses located to the north and south along with existing residential developments to the east and west. The centre of Havant is located circa 1.8km to the south and this is shown in **Figure 1**, an extract of which is shown in **Image 1.1**.

Image 1.1: Site Location Plan Extract



- 1.1.3 i-Transport LLP has been appointed to provide highways and transport advice in relation to a planning application for the redevelopment proposal.

1.2 Approach to Transport Assessment

1.2.1 This Transport Assessment (TA) provides an assessment of the transport aspects of the proposal, considering the following key criteria (*ref: paragraphs 108 and 109 of the NPPF*):

- Will the opportunities for travel by sustainable modes be appropriately taken up?
- Will safe and acceptable access be provided for all modes?
- Will there be an unacceptable (i.e. 'severe') residual impact, particularly in terms of queueing and delay at local junctions.

1.2.2 The remainder of the TA is structured as follows:

- **Section 2:** Provides an overview of local and national transport policy to provide the context of the TA;
- **Section 3:** Describes the site and the existing transport conditions;
- **Section 4:** Describes the development proposal including the proposed site access, parking provision, refuse collection and servicing arrangements;
- **Section 5:** Considers the accessibility to everyday services and facilities;
- **Section 6:** Considers the vehicular traffic generation of the site and provides an assessment of the impact of the proposal on the local highway network; and
- **Section 7:** Summarises the report and concludes that:
 - The site offers realistic opportunities to use sustainable travel modes and would provide development in a sustainable location;
 - The proposed access arrangements would deliver safe and suitable access for all modes; and
 - The vehicular trips generated by the development can be safely accommodated on the local highway network without creating any significant adverse residual impacts.

1.2.3 Therefore, against the three key tests set out in the NPPF, the proposal is fully acceptable in transport and highways terms.

SECTION 2 Policy Context

2.1.1 This section of the TA provides a summary of the relevant transport planning policies contained in national and local policy documents.

2.2 National Policy

National Planning Policy Framework (NPPF)

2.2.1 The National Planning Policy Framework (NPPF) was revised and published in February 2019 and sets out the Government's current planning policies for England and provides guidance on how these are expected to be applied.

2.2.2 Paragraph 108 sets out the following three key transport tests:

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

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

2.2.3 Paragraph 109 identifies situations where development should be refused on transport grounds, noting that:

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

2.2.4 With regards to selecting suitable sites for development, the revised NPPF in paragraph 103 states:

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."

2.2.5 Paragraph 110 then states within the context of the key transport tests, applications for development should give priority to pedestrians and cyclists, those with reduced mobility, safety,

security, creating attractive places, allowing for the efficient delivery of goods and access by service and emergency vehicles.

- 2.2.6 There is also a requirement for the assessment of movement impacts – including vehicular, pedestrians, cyclists and other non-motorised users (*paragraph 111*).

National Planning Practice Guidance (NPPG) (March 2014)

- 2.2.7 The web based NPPG seeks to bring together planning guidance for England across all disciplines in an accessible way as well as to provide a clear link between guidance and the aims and objectives of the NPPF. The NPPG discusses the role of travel plans and transport assessments / statements and how they relate to each other:

“Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements. (ID42-002); and

Transport Assessments and Statements can be used to establish whether the residual transport impacts of a proposed development are likely to be “severe”, which may be a reason for refusal, in accordance with the National Planning Policy Framework. (ID42-005)“.

2.3 Local Policy

Hampshire’s Local Transport Plan (LTP) (2011 – 2031) – April 2013

- 2.3.1 HCC’s transport strategy up to 2031 is set out in its LTP. The document also outlines how the LTP will contribute to the Council’s corporate priorities and includes a three-year implementation plan.

- 2.3.2 Three main priorities are set out in the LTP for the next 20 years. These are:

“Support economic growth by ensuring the safety, soundness, and efficiency of the transport network in Hampshire;

Provide a safe, well-maintained, and more resilient road network in Hampshire, as the basic transport infrastructure of the County, on which all forms of transport directly or indirectly depend, and the key to continued casualty reduction; and

Manage traffic to maximise the efficiency of the existing network capacity, improving journey time reliability and reducing emissions, and thereby supporting the efficient and sustainable movement of people and goods.”

- 2.3.3 The LTP identifies Havant as being within the South Hampshire Joint Strategy area and identifies its vision for the area to create:

“A resilient, cost effective, fully-integrated sub-regional transport network, enabling economic growth whilst protecting and enhancing health, quality of life and environment”

Havant Borough Transport Statement – September 2012

- 2.3.4 In addition to the LTP, HBC and HCC have produced a Transport Statement for the Borough. There are four objectives outlined in the document:

“Promote economic growth by providing a well maintained, safe and efficient highway network;

Improve access to jobs, facilities and services by all types of transport;

Facilitate and enable new development to come forward; and

Reduce carbon emissions and minimise the impacts of transport on the environment”.

Havant Borough Council’s Adopted Local Plan (2011)

- 2.3.5 The adopted Local Plan is made up of the Core Strategy 2011 – 2026 and 2014-2026 Allocations document, which are the principal documents outlining how planning will be managed in the borough until 2026.

- 2.3.6 Policy CS20 of the Core Strategy ‘Transport and Access Strategy’ states:

Development will be permitted that:

- ***Is consistent with and contributes to the implementation of the ‘Reduce, Manage and Invest’ strategy.***
- ***Does not increase congestion and promotes better use of existing transport networks.***
- ***Improves accessibility to goods, services and employment and promotes equality in the transport system.***
- ***Provides transport management measures to ensure the safe and efficient operation of the strategic and local road network.***
- ***Ensures that highway design responds positively to the characteristics of the area and delivers a high quality public realm for all users.***

- ***Maintains or improves the range of transport modes accessible to the users of the development site with specific emphasis on public transport, especially high quality/frequency buses and includes walking and cycling where appropriate. assesses the non-transport infrastructure requirements to support the proposed new development [.....]***

Havant Borough Local Plan (Allocations) Document 2014 – 2026

- 2.3.7 The Local Plan Allocation document follows on from the Core Strategy and identifies sites for specific uses including, housing, employment, retail, recreation and green infrastructure up to 2026.

Havant Borough Council's Draft Local Plan (2018 – 2036)

- 2.3.8 The Draft Havant Borough Local Plan was approved by the Full Council in January 2019 and consulted on in February and March 2019. The Local Plan Examination is expected in Autumn 2019. This document sets out the vision and framework for future development, growth and prosperity in the Borough up to 2036.

Transport policies

- 2.3.9 The Draft Local Plan proposes to replace Policies DM11 (Planning for More Sustainable Travel) and DM12 (Mitigating the Impacts of Travel) of the Core Strategy with Policy IN3 "Transport and Parking in New Development" which sets out the framework in which new development proposals will be permitted:

"Development proposals will be permitted, provided that the site is designed so that:

- ***The traffic generated by the development, taking into account any proposed avoidance and mitigation measures, would not result in severe cumulative impacts on the transport network or the environment;***
- ***Safe and suitable access to the site is provided for all people and modes of transport;***
- ***Provision is made for the parking of cars, motor cycles and cycles in line with Council standards;***
- ***On and/or off-site measures commensurate with the nature and scale of the scheme are provided, which promote travel by non-motorised modes and by public transport, including, where appropriate, provision for bus access with suitably located bus stops;***
- ***Adequate provision is made for varying sizes of vehicles, including refuse and emergency vehicles, to access all parts of the site, park, load, unload and turn safely and conveniently;***

- *The streets and public and private parking areas contribute positively to the design of the development and deliver a high quality public realm, including through the use of high quality materials;*
- *The site layout encourages lower vehicle speeds, and promotes the safe and convenient movement of pedestrians and cyclists within the site;*
- *Pedestrian and cycle routes are provided which conveniently reach all parts of the site, and link with the wider network beyond the site;*
- *Any existing public rights of way are safeguarded, and new routes provided where appropriate;*
- *Sufficient visibility and lighting is provided for the safe and convenient use of the roads, cycle routes, walking routes and parking places;*
- *Electric vehicle charging infrastructure is provided for:*
 - *an appropriate number of spaces in shared parking at residential and commercial development with the remainder providing infrastructure to allow easy installation of charging points in the future;*
- *A satisfactory Transport Statement or Transport Assessment is submitted in support of the planning application to evaluate transport impacts, and to demonstrate that proposed transport improvements will meet the needs of the development and mitigate adverse impacts;*
- *A Travel Plan is provided in support of a planning application where appropriate in relation to the scale and type of development."*

2.3.10 The document therefore provides an indication for the direction of emerging Borough policy as well as the likely local policy requirements for future development in the borough.

[Havant Borough Council's Parking Supplementary Planning Document \(July 2016\)](#)

2.3.11 Car and Cycle parking standards for new commercial development are provided within HBC's Parking Standards SPD (adopted July 2016). **Table 2.1** details the car and cycle parking standards for a commercial development.

Table 2.1: HBC Commercial Parking Standards

Land Use	Car Parking	Cycle Parking	
	Minimum Parking	Long Stay	Short Stay
B1(a) office	1 space per 30 sqm	1 stand per 150 sqm	1 stand per 500 sqm
B2(b)(c) high tech/light industry	1 space per 45 sqm	1 stand per 250 sqm	1 stand per 500 sqm
B2 general industrial	1 space per 45 sqm	1 stand per 350 sqm	1 stand per 500 sqm

Land Use	Car Parking	Cycle Parking	
	Minimum Parking	Long Stay	Short Stay
B8 warehouse	1 space per 90 sqm	1 stand per 500 sqm	1 stand per 1000 sqm

Source: HBC's Residential Parking Standards Supplementary Planning Document

2.4 Summary

- 2.4.1 Taken together, national and local transport planning policy requires new commercial development to be accessible by a choice of modes of transport including walking, cycling and public transport, so as to minimise the number and length of car journeys. Safe and suitable access to new developments should be achieved for all people.
- 2.4.2 Planning decisions should take account of whether improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. National and local policy is clear that development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe. This TA describes how the proposed development complies with these transport planning policy considerations.

SECTION 3 Existing Conditions

3.1 Site

3.1.1 The site is located within the existing industrial area of Havant, with industrial land uses located to the north and south along with existing residential developments to the east and west. The centre of Havant is located circa 1.8km to the south and this is shown in **Figure 1**.

3.1.2 The site currently comprises circa 5,300sqm of mixed B class uses with ancillary offices and has accesses (not connected) on to New Lane, Stanbridge Road and Downley Road.

3.2 Walking and Cycling

Walking

3.2.1 The site is bound to the south and east by Stanbridge Road and Downley Road respectively. Circa 2.3m footways are provided along both sides of these carriageways. Public Footpath 62 is accessible from Stanbridge Road, providing an eastbound link to the residential area along Southleigh Road. Furthermore, this public footpath forms part of the fastest route from the site to Warblington Station.

3.2.2 New Lane forms the main pedestrian link along the site frontage, providing a route north towards Bartons Road and south across the southern mainline railway towards the centre of Havant. A designated crossing point is provided at the junction between New Lane and Bartons Road, comprising dropped kerbs and a pedestrian refuge island.

3.2.3 In the vicinity of the current site access, New Lane provides a circa 2.8m footway on the eastern side of the carriageway both north and southbound. Approximately 420m to the north of the site, an additional circa 1.7m footway is provided on the western side of the carriageway. The footway is separated from the carriageway by a grass verge along the majority of New Lane.

3.2.4 Approximately 160m south of the site, an additional circa 1.6m footway is provided on the western side of the carriageway. This is accessible via a designated pedestrian crossing point comprising dropped kerbs, tactile paving and a pedestrian refuge island. Both footways continue southbound to number 16A New Lane, where the eastern footway terminates and the western footway continues to Eastern Road. South of the New Lane/Eastern Road junction, the eastern

footway is reintroduced on New Lane as it continues southbound across the rail line towards Havant Town Centre.

- 3.2.5 Eastern Road provides a westbound link from New Lane towards Havant Rail Station. A single 1.5m footway is provided on the southern side of the carriageway, accessible via an informal crossing point at the junction with New Lane comprising dropped kerbs and tactile paving. To the west, Eastern Road connects into Leigh Road which forms the southbound approach to Havant Rail Station. Footways are provided on both sides of the carriageway, measuring circa 1.3m on the western side and circa 2.0m on the eastern side.

Cycling

- 3.2.6 New Lane provides on-carriageway cycle lanes along its entire length between Bartons Road to the north and Eastern Road to the south. To the east of the site, Southleigh Road forms part of the National Cycle Network and provides traffic-free (off-carriageway) route eastbound towards Emsworth.
- 3.2.7 To the west of the site, Leigh Road and Stroudwood Road form part of National Cycle Route 22. This is a 64-mile route connecting Banstead (near Epsom) and Brockenhurst via Dorking, Guildford, Farnham, Petersfield, Havant, Portsmouth and the Isle of Wight between Ryde and Yarmouth.
- 3.2.8 National Cycle Route 2 is also accessible, from the southern extent of New Lane. This is a 361 mile route which, when complete, will link Dover in Kent with St. Austell in Cornwall via the south coast of England.
- 3.2.9 The majority of roads in the vicinity of the site are subject to a 30mph speed limit or less given the largely residential makeup of the surrounding area. As a result, where designated cycle facilities have not been provided, in-carriageway cycle travel is acceptable. This is reflected in the Manual for Streets (MfS) guidance, as follows:
- “Cyclists should generally be accommodated on the carriageway. In areas with low traffic volumes and speeds, there should not be any need for dedicated cycle lanes on the street” (MfS, para. 6.4.1).***
- 3.2.10 Furthermore, the provision of street lighting on the majority of the surrounding streets enhances the level of visibility between pedestrians, cyclists and motorised vehicles.

3.3 Public Transport

Bus Services

- 3.3.1 The nearest bus stops are located on St Alban's Road, approximately 650m to the south west of the site. These stops are served by the Number 20 and 21 buses. The times and frequencies of these services is summarised in **Table 3.1** below.

Table 3.1: Local Bus Service Times and Frequencies

Service No.	Route	Frequency		
		Mon-Fri	Saturday	Sunday
20	Havant - Portsmouth - The Hard	Every 30 minutes. First bus at 06:19 Last bus at 18:19	Every 30 minutes. First bus at 06:43 Last bus at 18:19	-
21	Havant - Portsmouth	Every 30 minutes. First bus at 05:28 Last bus at 21:03	Every 30 minutes. First bus at 06:18 Last bus at 23:03	-

Source: Traveline Southeast

- 3.3.2 As shown in **Table 3.1**, a regular bus service operates from St Alban's Road and provides a half hourly service between Havant and Portsmouth. The bus also provides a connection to Cosham and Portsmouth Harbour Rail Stations for onward travel to and from higher-order destinations.

Rail Services

- 3.3.3 The closest Rail Station is Warblington, located approximately 1.2km to the south east of the site. This station provides storage spaces for up to 30 bicycles. Havant Rail Station is also accessible from the site, located approximately 1.6km to the south west. Havant Station provides storage for up to 92 bicycles in addition to a car park. Both of these stations lie on the southern mainline.
- 3.3.4 **Table 3.2** provides a summary of the main rail services which operate from Warblington and Havant Rail Stations.

Table 3.2: Warblington and Havant Rail Services

Destination	Typical Peak Frequency	Typical Off-Peak Frequency	Typical Journey Duration
London Waterloo	3 per hour	3 per hour	1 hour 32 minutes
Portsmouth Harbour	5 per hour	6 per hour	22 minutes
Brighton	2 per hour	2 per hour	1 hour 12 minutes
Littlehampton	3 per hour	2 per hour	37 minutes
Southampton Central	2 per hour	2 per hour	43 minutes

Source: National Rail Enquiries

3.3.5 **Table 3.2** demonstrates that Havant and Warblington Rail Stations provide frequent rail services to a number of destinations including London Waterloo, Portsmouth, Brighton, Littlehampton and Southampton. This provides the opportunity for commuters to travel to and from destinations further afield.

3.3.6 Furthermore, a half hourly bus service to Portsmouth Harbour station provides access to additional destinations, operated by Great Western Railway, Southern and South Western Railway services.

3.4 Local Highway Network

Overview

3.4.1 New Lane comprises a circa 9.0m wide single carriageway, including circa 1.2m cycle lanes on both sides of the carriageway. To the north, New Lane connects with Bartons Road via a simple priority junction. New Lane is subject to a 30mph, reducing to 20mph south of the junction with Eastern Road across the rail line. The 20mph speed limit continues from this point along Fairfield Road into Havant Town Centre. Street lighting is provided along the extent of New Lane.

3.4.2 Southleigh Road is located to the east of the site provides a southbound connection to Warblington Station. It comprises a single circa 7.0m carriageway with designated on-street parking areas provide intermittently along the route. Circa 1.6m footways are provided on both sides of Southleigh Road along with the provision of street lighting. A posted 30mph speed limit is enforced along this route.

3.4.3 To the south of the site, Eastern Road bisects New Lane at a crossroad arrangement. This provides access to the industrial estate to the east and Leigh Road to the west. Eastern Road comprises a circa 5.0m single carriageway with a single footway on the southern side. Street lighting is provided along the length of this route.

Existing Traffic Flows

3.4.4 To identify existing traffic flows and speeds on the local highway network, a Manual Classified Count (MCC) survey was undertaken at the New Lane / Stanbridge Road junction on 9th May 2019. **Table 3.3** provides a summary of the traffic flows on the local highway network for the weekday morning and evening peak periods and are illustrated in **Figures TF1 and TF2**.

Table 3.3: Local Highway Network Traffic Flows

Location	Direction	Morning Peak Period	Evening Peak Period
New Lane (North of Stanbridge Road)	Northbound	198	324
	Southbound	351	234
New Lane (South of Stanbridge Road)	Northbound	343	279
	Southbound	310	411
Stanbridge Road	Eastbound	250	79
	Westbound	64	301

Source: Traffic Surveys, May 2019

Personal Injury Accident Data

3.4.5 Personal Injury Accident (PIA) data has been obtained from Hampshire Constabulary for the most recent five-year period between 01/01/2014 and 31/12/2018 for the highway network in the vicinity of the site. The study area includes:

- New Lane;
- Downley Road; and
- Stanbridge Road

3.4.6 The report and accident plot can be found in **Appendix A** and is summarised in **Table 3.5**.

Table 3.5: Summary of Personal Injury Accidents

Location	Vehicles			Pedestrians			Total
	Slight	Serious	Fatal	Slight	Serious	Fatal	
New Lane At Junction With Stanbridge Road	-	1	-	-	-	-	1
New Lane At Junction With Farringdon Road	1	-	-	-	-	-	1
New Lane, 52 Meters South Of Junction With Farringdon Road	1	-	-	-	-	-	1
Total	2	1	-	-	-	-	3

Source: Hampshire Constabulary

- 3.4.7 In total, 3 collisions were recorded within the study area between 01/01/2014 and 31/12/2018. Of these PIA's, two were recorded as 'slight' and one as 'serious' in nature. A description of each incident is provided in the following paragraphs.

New Lane At Junction With Stanbridge Road

- 3.4.8 A vehicle travelling north east on New Lane turned right onto Stanbridge Road across the path of a motorcycle. The two vehicles collided resulting in a serious accident.

New Lane At Junction With Farringdon Road

- 3.4.9 A vehicle travelling along Farringdon Road overshot the junction and collided with the side of a lorry travelling along New Lane. The incident was recorded as 'slight'.

New Lane, 52 Meters South Of Junction With Farringdon Road

- 3.4.10 A vehicle travelling north east on New Lane failed to see a parked trailer and collided with the rear. This incident was recorded as 'slight' in nature.

3.5 **Summary**

- 3.5.1 The site currently comprises circa 5,300sqm of employment floor space and has accesses to New Lane, Stanbridge Road and Downley Road.
- 3.5.2 A good level of pedestrian accessibility is provided around the site with continuous footways to the bus stops, the town centre and nearby railway stations. The National Cycle Network can be accessed close to the site and New Lane includes on-road cycle lanes.
- 3.5.3 Traffic flows on New Lane are moderate and low on Stanbridge Road. There are no local road safety issues recorded.

SECTION 4 Development Proposal

4.1 Introduction

- 4.1.1 This section of the TA outlines the development proposal including the proposed access, parking and servicing arrangements for the development

4.2 Development Proposal

- 4.2.1 The development proposal consists of redeveloping the site to provide 5,516 sqm of B use floor area with vehicular and pedestrian access onto Stanbridge Road to the south. A proposed masterplan is provided in **Appendix B** and the development schedule is summarised in **Table 4.1**.

Table 4.1: Development Schedule

Unit Number	GFA (SQM)
1	454
2	454
3	527
4	464
5	465
6	466
7	497
8	495
9	495
10	497
11	351
12	351
Total	5516

Source: Site Proposals

- 4.2.2 A footway within the site will connect with the existing footways located on Stanbridge Road. Beyond this, pedestrian provision will be through a shared surface environment common with employment and commercial areas. This will provide a pedestrian connection to Units 6 and 7 in the northern section of the site. The site will experience slow moving vehicles and low traffic flows and therefore the internal road will be suitable to be used as a shared surface environment.

4.3 Site Access Arrangements

4.3.1 The site currently has an access from Stanbridge Road, which forms the southern boundary of the site. It is proposed to continue accessing the site via Stanbridge Road however the access will be relocated further to the west of the existing access location. A 1.6m footway will be provided either side of the proposed access, which will connect with the existing footways along Stanbridge Road. A dropped kerb crossing with tactile paving will be provided across the site access to facilitate safe pedestrian movements. The site access arrangements are shown in Drawing **ITB144488-GA-006**.

4.3.2 It is proposed to provide a 7.2m wide access road which is sufficient to allow two large vehicles to pass at the access. **Drawing ITB14488-GA-006** demonstrates 2.4m x 43m visibility splays are achievable in each direction of the access. This level of visibility is in accordance with the 30mph speed limit along Stanbridge Road along with the visibility guidance set out in MfS and HCC guidance TG3, as traffic speeds on Stanbridge Road are physically constrained by the road alignment and nearby junction with New Lane.

4.4 Parking Provision

4.4.1 Parking provision will be provided in accordance with the Havant Borough Council Parking SPD as set out in Section 2.

Car Parking

4.4.2 The parking standards identified relate to the B2/B1(C) general industrial and light industry land use classes and are set out in **Table 4.2** below. These have been selected as they are the higher standards and whilst unlikely, it is possible that the site could come forward entirely these uses (i.e. no B8 uses).

Table 4.2: Havant Vehicle Parking Standards

Type	Minimum Car Parking Standard
B1(b)(c) high tech / light industrial	1 space per 45sqm
B2 General Industrial	1 space per 45sqm
B8 Warehouse	1 space per 90sqm

Source: Havant BC Parking SPD

One Motorcycle space to be provided for every 25 car parking spaces.

Disabled people's car parking spaces should be provided in a ratio of 5% of the total allocation.

- 4.4.3 The total proposed floor area of the site is approximately 5,516 sqm, resulting in a minimum of 123 parking spaces and an additional six accessible spaces and five motorcycle spaces. It is envisaged the proposed development will provide 134 parking spaces including five accessible parking spaces which falls within this minimum limit.

Cycle Parking

- 4.4.4 The cycle parking standards for the site are also included in the Havant Borough Council Parking SPD document and set out in **Table 4.3**.

Table 4.3: Havant Borough Council Cycle Parking Standards

Type	Cycle Standard (Minimum)	
	Long Stay	Short Stay
B1(b)(c) high tech / light industrial	1 stand per 250 sqm	1 stand per 500 sqm
B2 General Industrial	1 stand per 350 sqm	1 stand per 500 sqm
B8 Warehouse	1 stand per 500 sqm	1 stand per 1000 sqm

Source: Havant BC Parking SPD

- 4.4.5 Taking the highest of the above standards, a minimum of 22 long stay and 11 short stay cycle stands are required. It is proposed to provide 22 long stay and 11 short stay cycle stands throughout the site. Each unit will include safe, secure and indoor cycle parking for staff this providing excellent long-term cycle parking for all employees throughout the site. Short term cycle parking is to be provided in Sheffield stands along the access road through the site and within each unit, which are all overlooked.

4.5 Layout

- 4.5.1 Swept path analysis has been undertaken of the proposed site layout to assess whether the largest vehicles which will enter the site can manoeuvre safely within the site. **Drawings ITB14488-GA-003 and ITB14488-GA-005** demonstrate a large articulated lorry and refuse vehicle are able to enter and manoeuvre within the site safely.

SECTION 5 Accessibility

5.1.1 This section of the TA considers the accessibility of the site to key services and facilities along with public transport.

5.2 Reasons for Travel

5.2.1 In considering accessibility and promoting sustainable travel it is important to consider the reasons for travel.

5.2.2 The Department for Transport's (DfT) National Travel Survey identifies the proportion of all trips by purpose as set out in **Table 5.1**.

Table 5.1: Proportion of Trips per Year by Journey Purpose

Journey Purpose	Proportion of Trips
Leisure	26%
Shopping	19%
Commuting / Business	18%
Education / Escort Education	12%
Personal Business	10%
Other Escort	9%
Other (Including Just Walk)	6%

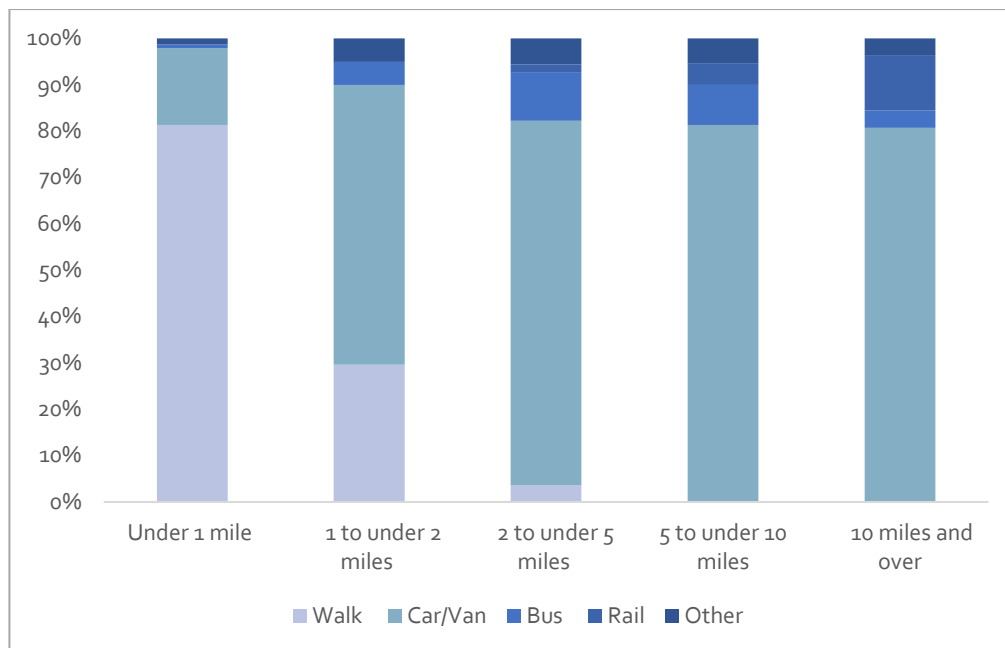
Source: Table NTS0409 Average number of trips by purpose and main mode: England NTS – 2017 Edition

5.2.3 The main reasons for travelling are leisure, shopping, commuting / business, education and personal business. Together these journey purposes account for over 80% of the reasons for making a journey.

5.3 Accessibility by Walking and Cycling

5.3.1 The National Travel Survey (NTS) 2017 identifies the mode share of journeys of different lengths:

Image 5.1: Mode share of Trips by Main Mode for Different Trip Lengths: England



Source: National Travel Survey: England 2017

5.3.2 The vast majority (81%) of trips are undertaken on foot for journeys up to one mile (1.6km). The data also shows that approximately 30% of journeys between 1 and 2 miles (3.2km) will be on foot, i.e. a significant proportion of people are prepared to walk for journeys up to 2 miles. Overall, 25% of travel is by foot.

5.3.3 The 1.6km distance is reflected in recent Chartered Institution of Highways and Transportation (CIHT) guidance 'Planning for Walking' (2015) which states:

"Across Britain, approximately 80% of journeys shorter than 1 mile are made wholly on foot – something that has changed little in 30 years. The main reason for the decline in walking is the fall in the total number of journeys shorter than 1 mile, which has halved in thirty years. It is not that people are less likely to make short journeys on foot but rather that fewer of the journeys they make can be accomplished on foot. If destinations are within walking distance, people are more likely to walk if walking is safe and comfortable and the environment is attractive."

5.3.4 Therefore, providing a development within one mile of facilities and services will provide the greatest opportunity for trips to be made by walking.

5.3.5 That is not to say that one mile is the maximum that people are prepared to walk, or that development must be located within a mile of everything. It is clear from the NTS data that around one-third of journeys between one and two miles are undertaken on foot. This is supported by paragraph 2.3 of the DMRB TD91/05 'Provision for Non-Motorised Users', which

identifies that walking is a 'normal; mode of transport for journeys undertaken within a range of two miles, as follows:

“Walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles. Walking and rambling can also be undertaken as a leisure activity, often over longer distances”.

5.3.6 Against tall of this background, the following walking distance are identified:

- 1,600m – a distance where most people (circa 80%) will walk; and
- 3,200m – i.e. the distance within which a significant proportion (circa one-third) of journeys will be on foot.

Cycling Distances

5.3.7 Paragraph 1.5.1 of the DfT Document LTN 02/08 'Cycle Infrastructure Design' discusses typical cycle trip distances and states that local highway networks are primarily for local journeys and many utility cycle journeys are under three miles (4.8km) although for commuter journeys a trip distance of 5 miles (8km) is note uncommon. The NTS identifies the average cycle trip is 5.5km in length.

5.3.8 DMRB TA 91/05 'Provision for Non-Motorised Users' paragraph 2.11 states:

“Cycling is used for accessing a variety of different destinations, including education facilities, shops and places for work, up to a range of around 5 miles. Cycling is also undertaken as a leisure activity, often over much longer distances. As well as being a mode of transport in its own right, cycling frequently forms part of a journey in combination with cars and public transport.”

A cycling distance of up to around 5km (3miles) therefore offers the greatest potential to replace car trips and is therefore a “reasonable” cycling distance although a number of cycle journeys may be longer at 8km (5miles). Cycling also frequently forms part of a longer journey combination with public transport.

5.3.9 As is demonstrated in **Figure 2** and **Table 5.2** a large range of local facilities are accessible by cycle, including, retail, leisure and healthcare opportunities.

Table 5.2: Havant Local Facilities

Essential facilities				
Type	Name	Distance to (m)	Walking time (mins)	Cycle (mins)
Health	Southern Health NHS Foundation Trust	1,000	12	4
	Havant NHS Diagnostic Centre	1,100	13	4
	Havant Health Centre	1,500	18	6
	Genix Healthcare and Dental Clinic	1,800	21	7
Supermarkets	The Co-operative Food	650	8	2
	Baybridge Convenience Store	1,400	17	5
	The Co-operative Food	1,400	17	5
	Lidl	1,500	18	6
	Tesco Metro	1,600	19	6
	Waitrose & Partners	1,700	20	6
	Londis	1,700	20	6
	ALDI	2,000	24	8
	Iceland Foods	2,100	25	8
	Tesco Extra	2,700	32	10
Train Station	Warblington	1,200	14	5
	Havant	1,600	19	6
Leisure	My Fitness Hub Havant	500	6	2
	Bartons Green	1,300	15	5
	Havant Leisure Centre	1,500	18	6

Source: Consultant's Estimates

5.3.10 **Table 5.2** demonstrates that a number of services and facilities are located within a comfortable walking distance (i.e. within 1.6km) and all of the facilities and services are within a comfortable cycle distance or a maximum regular walking distance (i.e. within 3.2km). Against this background, the site is well located to a range of local services and facilities and gives future employees a genuine opportunity to travel by sustainable modes.

5.3.11 The development proposes to provide a footway either side of the site access which will connect with the exiting footways along Stanbridge Road. This will enable future employees to undertake short journeys by foot.

5.4 Public Transport

Bus

- 5.4.1 As set out in Section 3, the site is well located to existing bus services which provide the opportunity for trips to and from the site to be made to and from more distant destinations.
- 5.4.2 The nearest bus stop to the site are located on St Albans Road within 650m of the site. The principal bus routes serving these stops is route 20 and 21 which provides a half hourly service between Havant and Portsmouth for access to a wider range of facilities and services.

Rail

- 5.4.3 The closest Rail Station is Warblington, located approximately 1.2km to the south east of the site. Havant Rail Station is also accessible from the site, located approximately 1.6km to the south west.
- 5.4.4 These rail stations provide frequent rail services to a number of destinations including London Waterloo, Portsmouth, Brighton, Littlehampton and Southampton. This provides the opportunity for commuters to travel to and from destinations further afield.

5.5 Summary

- 5.5.1 There are a number of everyday local services and facilities within Havant to accommodate the day to day needs of future site users that can be easily accessed from the site on foot, by cycle or by public transport.
- 5.5.2 A number of other destinations further afield can access the site by foot, the national cycle network or by public transport to satisfy the main reasons for making a journey.
- 5.5.3 The nearest bus stops to the site are located on St Albans Road within 650m of the site. The principal bus routes serving these stops is route 20 and 21 which provides a half-hourly service between Havant and Portsmouth for access to a wider range of facilities and services.
- 5.5.4 Warblington rail station and Havant rail station are located within a comfortable walking distance of the site which provide regular services to London Waterloo, Portsmouth, Brighton, Littlehampton and Southampton.

5.5.5 Taken together, the analysis in this section demonstrates that future employees and visitors of the site will have appropriate opportunity to access the site by a choice of travel modes. In transport terms, the site is suitably located to provide sustainable development in accordance with the guidance set out in the NPPF.

SECTION 6 Traffic Impact

6.1 Introduction

- 6.1.1 This section of the TA establishes the likely traffic generation of the proposed development and assesses the vehicular traffic impact of the proposed development on the local highway network.

6.2 Baseline Conditions

- 6.2.1 Manual Classified Count (MCC) surveys were undertaken on 9th May 2019 at the New Lane / Stanbridge Road junction. The recorded peak hour traffic flows are shown in **Figures TF1 and TF2**.

6.3 Traffic Growth

- 6.3.1 In order to establish appropriate future baseline traffic flows, factors to allow for background traffic growth from 2019 (the date traffic surveys were undertaken) to 2021 (the Opening Year) have been derived from the TEMPRO database for the Havant 009 middles layer super output area (MSOA). The Havant 009 MSOA comprises the proposed site along with the surrounding employment area and the growth factors are summarised in **Table 6.1**. The TEMPRO calculations are presented in **Appendix C**.

Table 6.1: Growth Factors

Date Range	Morning Peak	Evening Peak
2019-2021	1.0319	1.0291

Source: TEMPRO

- 6.3.2 The future year traffic flows are illustrated in **Figures TF3 and TF4**.

6.4 Proposed Development Trip Generation

- 6.4.1 The TRICS database has been used to calculate the potential traffic generation of the proposed development. The proposed development will be a mix of B1c, B2 and B8 employment use and the respective trip rates (using B1(c) and the B2 only for robustness) have been obtained using the following parameters in **Table 6.2**.

Table 6.2: Trip Rate Selection Parameters

Parameter	B1c	B2
Land Use	Industrial Unit	Industrial Estate
Region	All of England (excluding Greater London)	
Size Relevance	1000sqm-10000sqm	1500sqm-1000sqm
Time Period	Surveys for the last 7-year period (start date: 01/01/2010)	
Location Relevance	Surveys in 'Suburban' / 'edge of town' locations only	
Date Relevance	Surveys undertaken during a week-day	

6.4.2 The derived trip rates along with the associated trip generation are shown in **Table 6.3** and the TRICS outputs are presented in **Appendix D**.

Table 6.3: Proposed Development Traffic Trip Generation

	AM Peak			PM Peak		
	In	Out	Total	In	Out	Total
B1c Trip Rate	0.374	0.072	0.446	0.029	0.302	0.331
B2 Trip Rate	0.516	0.228	0.744	0.113	0.488	0.601
B1c Trip Generation	10	2	12	1	8	9
B2 Trip Generation	15	6	21	3	14	17
Total	25	8	33	4	22	26

Source: TRICS

6.4.3 Assuming 50% of the floor space comes forward for B1(c) use and 50% for B2 use, the proposed development is predicted to result in some 33 two-way vehicle movements during the morning peak period and 26 two-way vehicle movements during the evening peak period. This equates to circa one vehicle movement every two minutes during the peak periods. If the site were to come forward as an entirely B2 use the movements would be 41 two-way vehicle movements during the morning peak period and 33 two-way vehicle movements during the evening peak period.

6.5 Traffic Distribution and Assignment

Traffic Distribution

- 6.5.1 Travel to Work data contained within the 2011 Census has been reviewed to identify the likely origins for employee journeys. The data for employment trips travelling to Havant 009 has been used, as outlined in Section 6.3 of this report. The analysis is summarised in **Table 6.4** and presented in full in **Appendix E**.

Table 6.4: Summary of Work Trips Distribution (Travel by Car)

Origin	Percentage of Trips
Portsmouth	20.16%
Waterlooville	16.10%
Havant	10.98%
Bedhampton	7.92%
Fareham	5.82%
Emsworth	4.76%
Horndean	4.36%
Gosport	3.91%
Hayling Island	3.66%
Purbrook	2.96%
Chichester	2.91%
Clanfield	1.86%
Southampton	1.50%
Bognor Regis	1.40%
Walderton / Funtington	1.40%
Hedge End	1.10%
Petersfield	0.90%
Other	8.27%
Total	100.00%

Source: 2011 Census

- 6.5.2** **Table 6.4** shows Portsmouth is the main origin for employment related trips accounting for around 20%, followed by Waterlooville with circa 16%, Havant with around 11% and Bedhampton accounting for approximately 8%.

Traffic Assignment

- 6.5.3** To establish the impact, the traffic generation set out in **Table 6.3** has been distributed across the local network to the destinations identified in **Table 6.4**.
- 6.5.4** To determine the routing of trips to these destinations, reference has been made to the Google Maps 'Directions' facility. Within the Directions facility, a morning peak hour start time for journeys was utilised to ensure that peak period traffic conditions are reflected. **Table 6.5** provides a summary of the assignment of development generated trips. The traffic distribution is illustrated in **Figure TF5** and the assignment of the development related trips for morning and evening peak periods is illustrated in **Figures TF6 and TF7**.

Table 6.5: Summary of Traffic Assignment

Road	% Traffic	Morning Peak			Evening Peak		
		In	Out	Total	In	Out	Total
Stanbridge Road (West of Site Access)	100%	25	8	33	4	22	26
New Lane (North of Stanbridge Road)	25%	6	2	8	1	5	6
New Lane (South of Stanbridge Road)	75%	19	6	25	3	17	20

Source: Consultants Calculations

- 6.5.5** Based on the above, the greatest increase in traffic related to the development will be along Stanbridge Road to the west of the proposed access with 100% of the development traffic, equating to 33 two-way vehicle movements during the morning peak period and 26 two-way vehicle movements during the evening peak period.
- 6.5.6** New Lane, to the south of Stanbridge Road, experiences the second greatest increase related to development traffic with 75%. This equates to 25 two-way vehicle movements during the morning peak period and 20 two-way vehicle movements during the evening peak period.

6.6 Development Impacts

Existing Site Uses

- 6.6.1 The site currently comprises circa 5,300sqm of mixed B class uses with ancillary office use and is accessed from Stanbridge Road.
- 6.6.2 To gain an understanding of the existing traffic movements associated with the site, the TRICS database has been used to calculate the trip generation. The trip rates have been obtained for each existing use classes using the following parameters.

Table 6.6: Existing Trip Rate Selection Parameters

Parameter	B1c	B2	B8
Land Use	Industrial Unit	Industrial Estate	Warehouse
Region	All of England (excluding Greater London)		
Size Relevance	1000sqm-10000sqm	1500sqm-10000sqm	1000sqm-10000sqm
Time Period	Surveys for the last 7-year period (start date: 01/01/2010)		
Location Relevance	Surveys in 'Suburban' / 'edge of town' locations only		
Date Relevance	Surveys undertaken during a week-day		

- 6.6.3 The trip rates associated with the existing site use are shown in **Table 6.7** and the TRICS outputs are presented in **Appendix D**.

Table 6.7: Existing Site Trip Rates

Use	Morning Peak			Evening Peak		
	In	Out	Total	In	Out	Total
B1c	0.374	0.072	0.446	0.029	0.302	0.331
B2	0.516	0.228	0.744	0.113	0.488	0.601
B8	0.427	0.142	0.569	0.059	0.326	0.385

Source:

- 6.6.4 The associated existing trip generation is presented in **Table 6.8**.

Table 6.8: Existing Site Trip Generation

Use	%	Morning Peak			Evening Peak		
		In	Out	Total	In	Out	Total
B1c	40%	7	2	9	1	6	7
B2	40%	11	5	16	2	11	13
B8	20%	5	1	6	1	3	4
Total	100%	23	8	31	4	20	24

Source:

- 6.6.5** The existing site is estimated to currently generate some 31 two-way vehicle movements during the morning peak period and 24 two-way vehicle movements during the evening peak period, which equates to around one vehicle movement every two minutes.
- 6.6.6** As part of the proposed redevelopment of the site, the existing site will be demolished and replaced by a commercial development with a different mix of B class land uses. Therefore, the traffic associated with the existing site will be removed from the local highway network. **Table 6.9** provides a comparison between the existing site and the proposed development generated traffic.

Table 6.9: Site Trip Generation

Trips	Morning Peak			Evening Peak		
	In	Out	Total	In	Out	Total
Existing Site	23	8	31	4	20	24
Proposed Site	25	8	33	4	22	26
Difference	+2	+0	+2	+0	+2	+2

Source: TRICS and Consultant Calculations

- 6.6.7** **Table 6.9** demonstrates the proposed development will only generate an additional two vehicle trips during the morning peak period and an additional two vehicle trips during the evening peak period. This only equates to one vehicle movement every 30 minutes during the peak periods and therefore a minimal increase on the local highway network. Even if the site were to come forward for an entirely B2 use (see paragraph 6.4.3) the increase would only be 10 additional vehicle trips during the morning peak period and an additional nine vehicle trips during the evening peak period. This only equates to one vehicle movement every circa six minutes during the peak periods.

Future Year Traffic Impact

- 6.6.8 The net development traffic flows have been added to the future year flows to provide the future year 'with' development scenario. The morning and evening peak hour traffic flows for the design year 'with' development traffic are shown in **Figures TF8 and TF9**.
- 6.6.9 To put the potential impacts of the development into context, the development generated traffic impact along key local links has been compared with the future baseline conditions. **Table 6.10** summarises the net traffic impact on each link.

Table 6.10: Future Year with Development Traffic Impact (Two-Way)

Junction	Morning Peak				Evening Peak			
	2021	Dev	2021+ Dev	% Impact	2021	Dev	2021+ Dev	% Impact
Stanbridge Road	324	2	326	0.61%	391	2	393	0.51%
New Lane (North of Stanbridge Road)	567	0	568	0.00%	574	0	574	0.00%
New Lane (South of Stanbridge Road)	674	2	676	0.30%	710	2	712	0.28%

Source: Consultant's Calculations

Note: Development traffic is the net difference between the existing and proposed development generated traffic.

Junction Capacity Testing

- 6.6.10 To calculate the impact of the proposal on Stanbridge Road and to ensure the site accesses will operate satisfactorily, the proposed site access have been assessed using the TRL software Junctions 9. Detailed modelling has been undertaken considering the 2021 future year with development scenario.
- 6.6.11 **Appendix F** presents the junction modelling outputs and the results of the assessments are summarised in **Tables 6.11 and 6.12**.

Table 6.11: Stanbridge Road / Site Access

	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2021 Future Year with Development						
Site Access	0.02	<1	9	0.05	<1	8
Stanbridge Road	0.00	<1	<1	0.00	<1	<1

Source: Junctions 9

- 6.6.12 The results demonstrate that the site access junction will operate within capacity with minimal queueing and delay during the future year assessment scenario.
- 6.6.13 Further detailed junction modelling has been undertaken for the New Lane / Stanbridge Road junction. The junction capacity assessment was undertaken using Junctions 9 modelling software and the results are summarised in **Table 6.12**.

Table 6.12: New Lane / Stanbridge Road

	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2019						
Stanbridge Road	0.14	<1	9	0.58	1	15
New Lane	0.39	1	9	0.12	<1	6
2021 Without Development						
Stanbridge Road	0.15	<1	9	0.60	1	16
New Lane	0.40	1	9	0.12	<1	6
2021 With Development						
Stanbridge Road	0.15	<1	9	0.59	1	15
New Lane	0.41	1	9	0.12	<1	6

Source: Junctions 9

6.6.14 The results in **Table 6.12** show that the junction will operate within capacity with minimal queueing and delay during the future year assessment scenario.

6.7 Summary

6.7.1 The number of vehicle accesses will reduce from four to one which provides a significant highway benefit.

6.7.2 A comprehensive suite of traffic data has been collected on the local highway network. These 2019 traffic flows have been 'growthed' to a 2021 year of opening.

6.7.3 The traffic generation of the proposed development has been estimated using employment trip rates derived from the comparable survey data within the TRICS database. To undertake a robust assessment, a B1c and B2 trip rate has been used (as opposed to a generally lower B8 rate).

6.7.4 The site access junction has been tested for its operation and shown to operate satisfactorily.

6.7.5 The proposal is expected to generate some two additional two-way vehicle movements during the morning peak period and two during the evening peak period compared to the existing use on the site. Once distributed onto the highway network, the impact will be minimal. This remains the case even if the site were to come forward for entirely B2 uses.

SECTION 7 Summary and Conclusions

7.1 Summary

7.1.1 Kingsbridge Estates is proposing a commercial redevelopment of the former Butterick site to the east of New Lane, Havant. The proposed redevelopment comprises 5,516 sqm of B use floor area with vehicular and pedestrian access onto Stanbridge Road to the south.

7.1.2 The site is sustainably located for an employment use, being located within a large existing and well established employment area. There is good pedestrian and cycle provision within the vicinity of the site. Buses stop within walking distance of the site and provide services at suitable times for travel to work and in addition to this Warblington and Havant rail stations are also within walking distance of the site. A Framework Travel Plan is proposed to promote non-car mode use amongst businesses based at the site.

7.1.3 The proposed access from Stanbridge Road meets current highway design standards given in Manual for Streets and provides safe and suitable access for all modes. It has been demonstrated that suitable arrangements have been made for cycle parking, motorcycle parking, deliveries and refuse collection. From the accident analysis it is demonstrated there is no record of an existing highway safety issue in the past five years within the vicinity of the site.

7.1.4 The proposal is expected to generate some 33 two-way trips in the morning peak period and 26 two-way trips in the evening peak period. Compared to the existing use, the proposal is expected to generate only two additional vehicle movements in each peak and once distributed to the network, the impact is predicted to be:

- Morning peak hour:
 - 2 additional arrivals equating to one vehicle every 30 minutes;
 - No additional departures;
- Evening peak hour:
 - No additional arrivals; and
 - 2 additional departures equating to one vehicle movement every 30 minutes.

7.1.5 These are small increases when compared to existing traffic flows and will not have any noticeable impact on the operation of the local highway network.

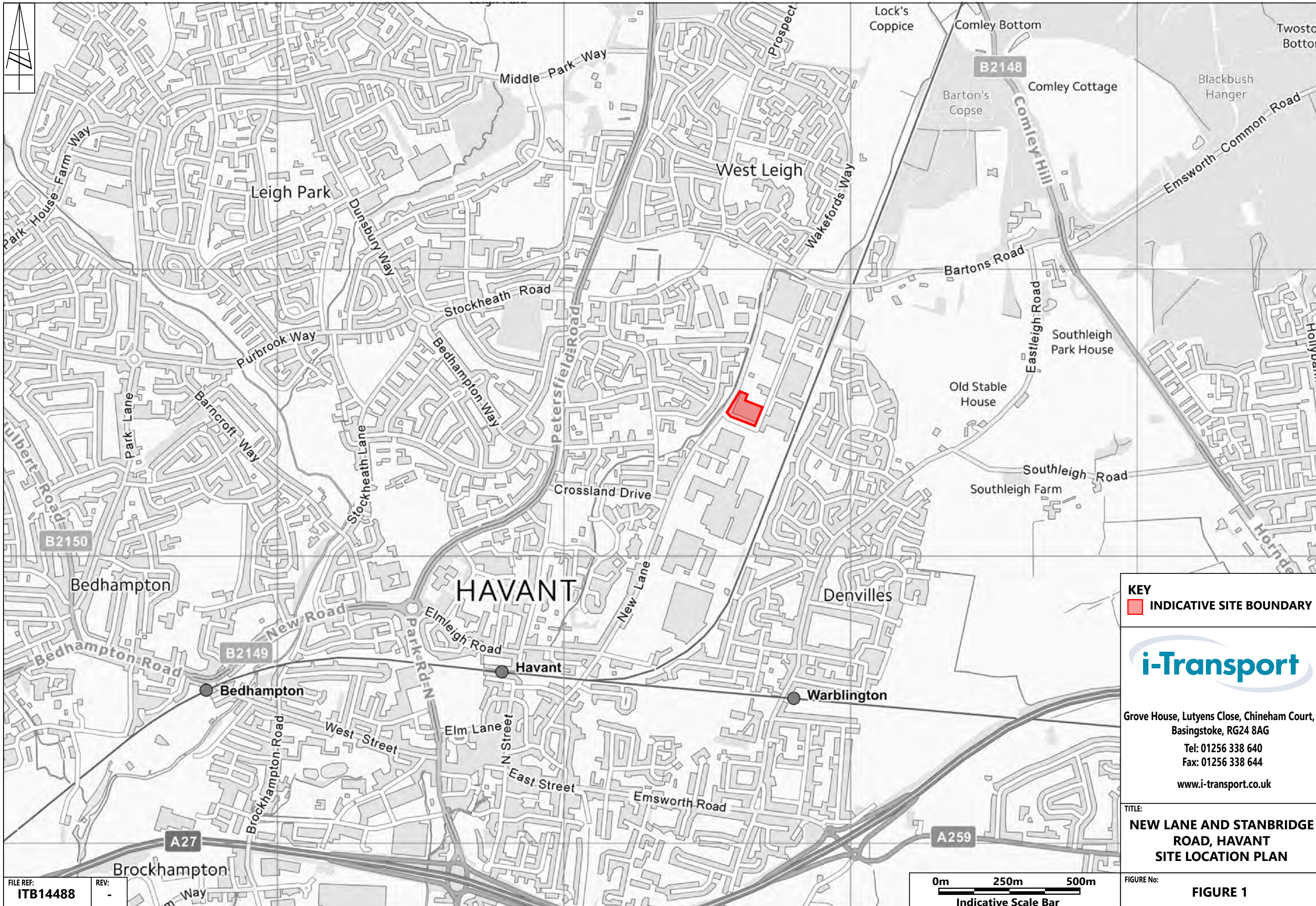
7.2 Conclusions

7.2.1 Considered against the key transport criteria of the NPPF, it is concluded that:

- Access: The proposal will provide safe and acceptable access for all modes via a new priority access from Stanbridge Road with adjacent pedestrian access to the site;
- Sustainability: The site is in a suitable, sustainable location for employment development; and
- Impact: The proposal will accommodate the expected demand for parking generated by the proposed use. Local roads have a good safety record. There will be no significant impact on the local highway network with very low increases in levels of traffic being forecast. The impact of the proposal is therefore acceptable and falls considerably short of the 'severe' test set by the NPPF.

7.2.2 The development proposal is therefore fully acceptable in transport and highways terms.

FIGURES



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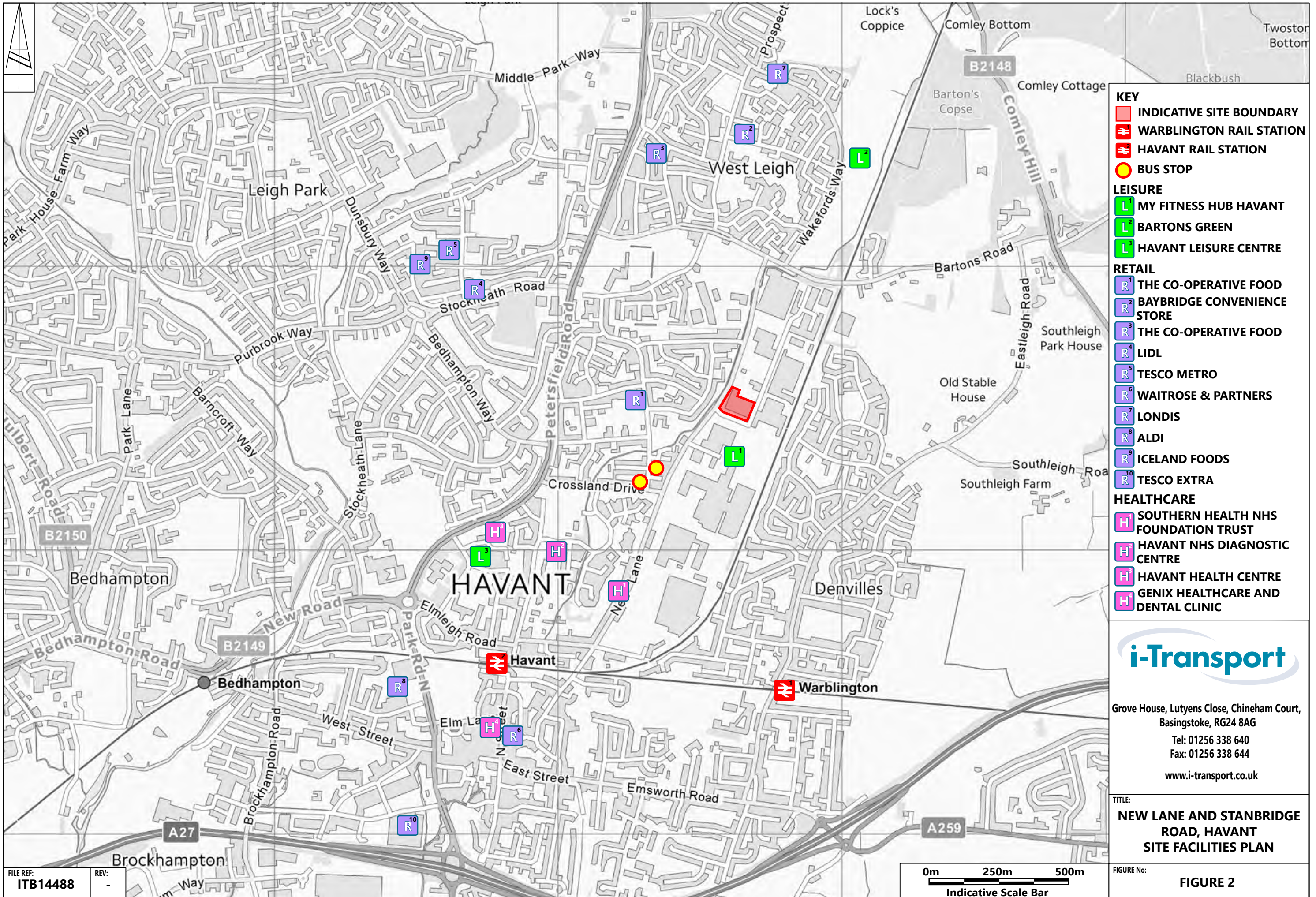
KEY
INDICATIVE SITE BOUNDARY



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Fax: 01256 338 644
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TITLE:
**NEW LANE AND STANBRIDGE
ROAD, HAVANT
SITE LOCATION PLAN**

FIGURE No:
FIGURE 1



- KEY**
- INDICATIVE SITE BOUNDARY
 - WARBLINGTON RAIL STATION
 - HAVANT RAIL STATION
 - BUS STOP
- LEISURE**
- MY FITNESS HUB HAVANT
 - BARTONS GREEN
 - HAVANT LEISURE CENTRE
- RETAIL**
- THE CO-OPERATIVE FOOD
 - BAYBRIDGE CONVENIENCE STORE
 - THE CO-OPERATIVE FOOD
 - LIDL
 - TESCO METRO
 - WAITROSE & PARTNERS
 - LONDIS
 - ALDI
 - ICELAND FOODS
 - TESCO EXTRA
- HEALTHCARE**
- SOUTHERN HEALTH NHS FOUNDATION TRUST
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TITLE:
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SITE FACILITIES PLAN**

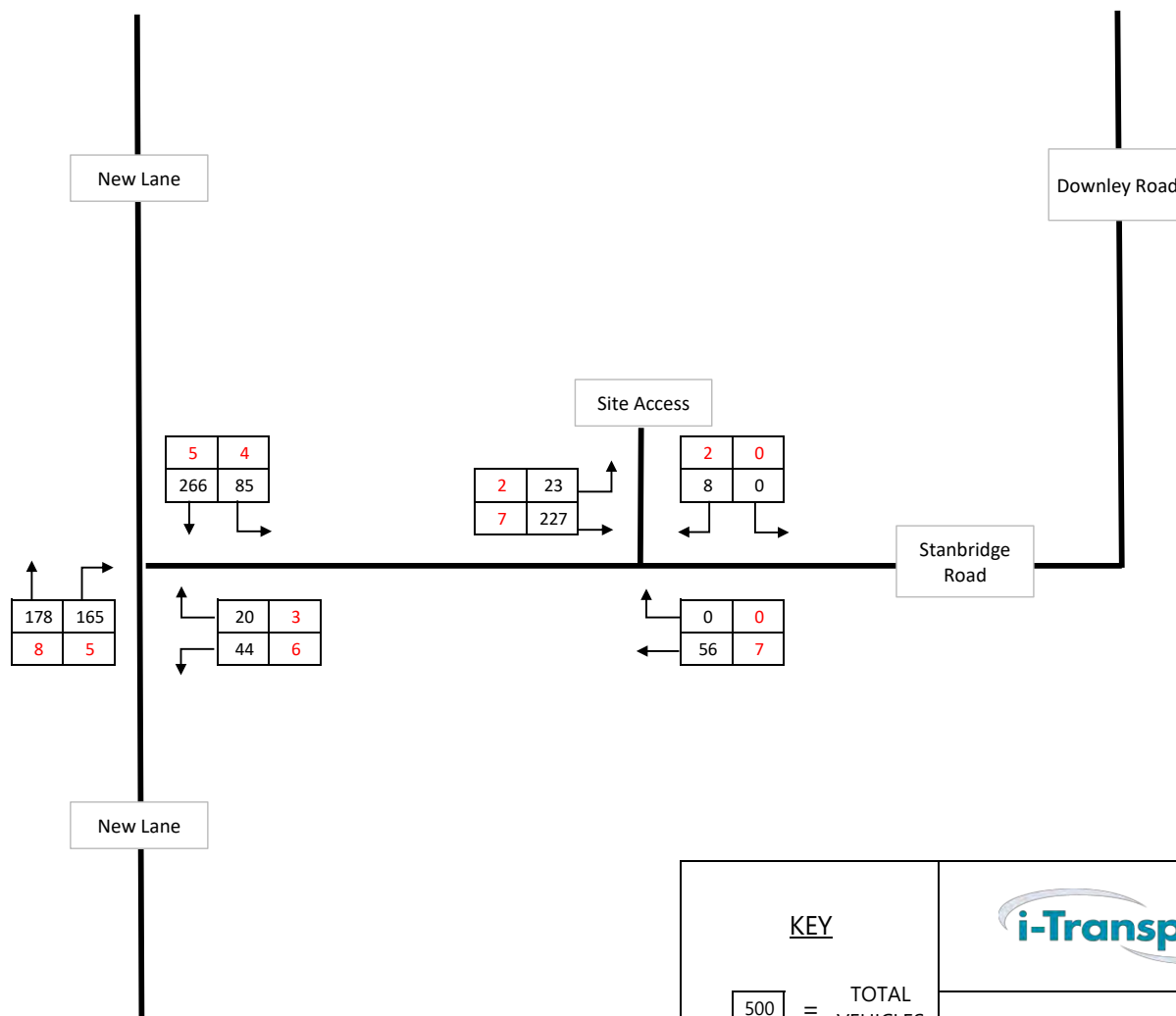
FIGURE No:
FIGURE 2

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KEY

500 = TOTAL VEHICLES

25 = HGVs

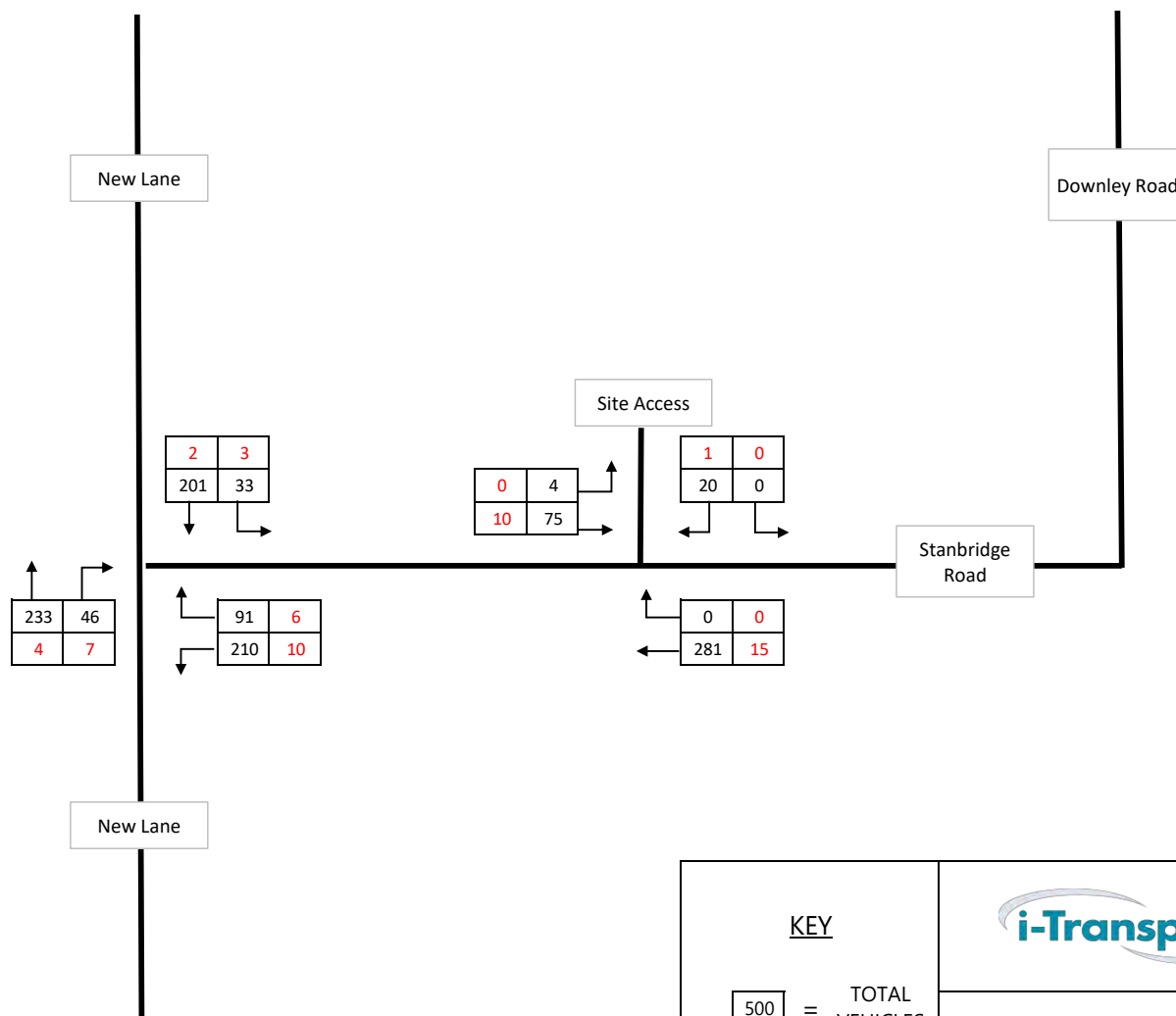


Grove House, Lutyens Close,
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RG24 8AG
Tel: 01256 338640

New Lane, Havant

TF1

2019 AM



KEY

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25 = HGVs

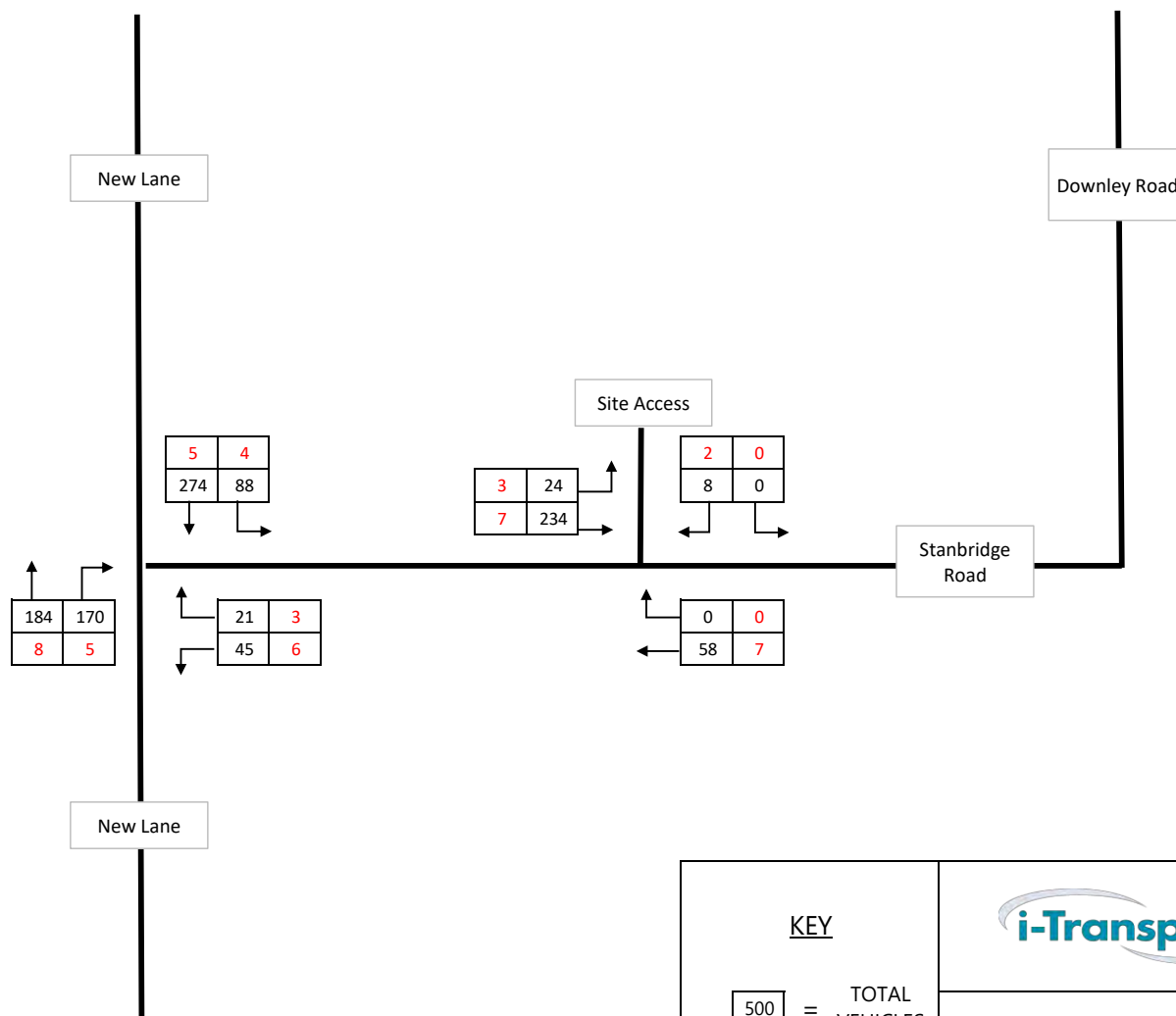


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New Lane, Havant

TF2

2019 PM



KEY

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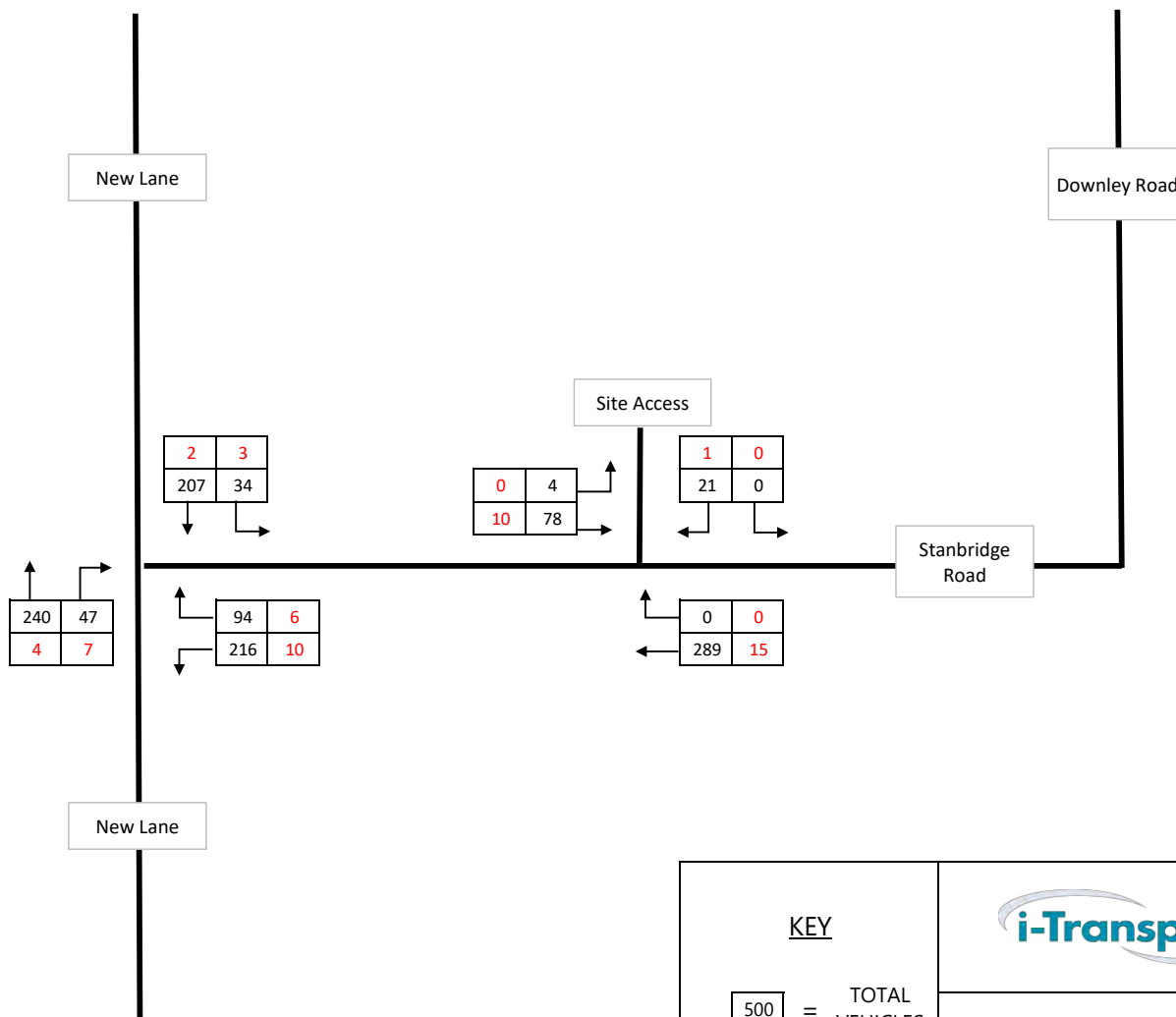


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New Lane, Havant

TF3

2021 AM



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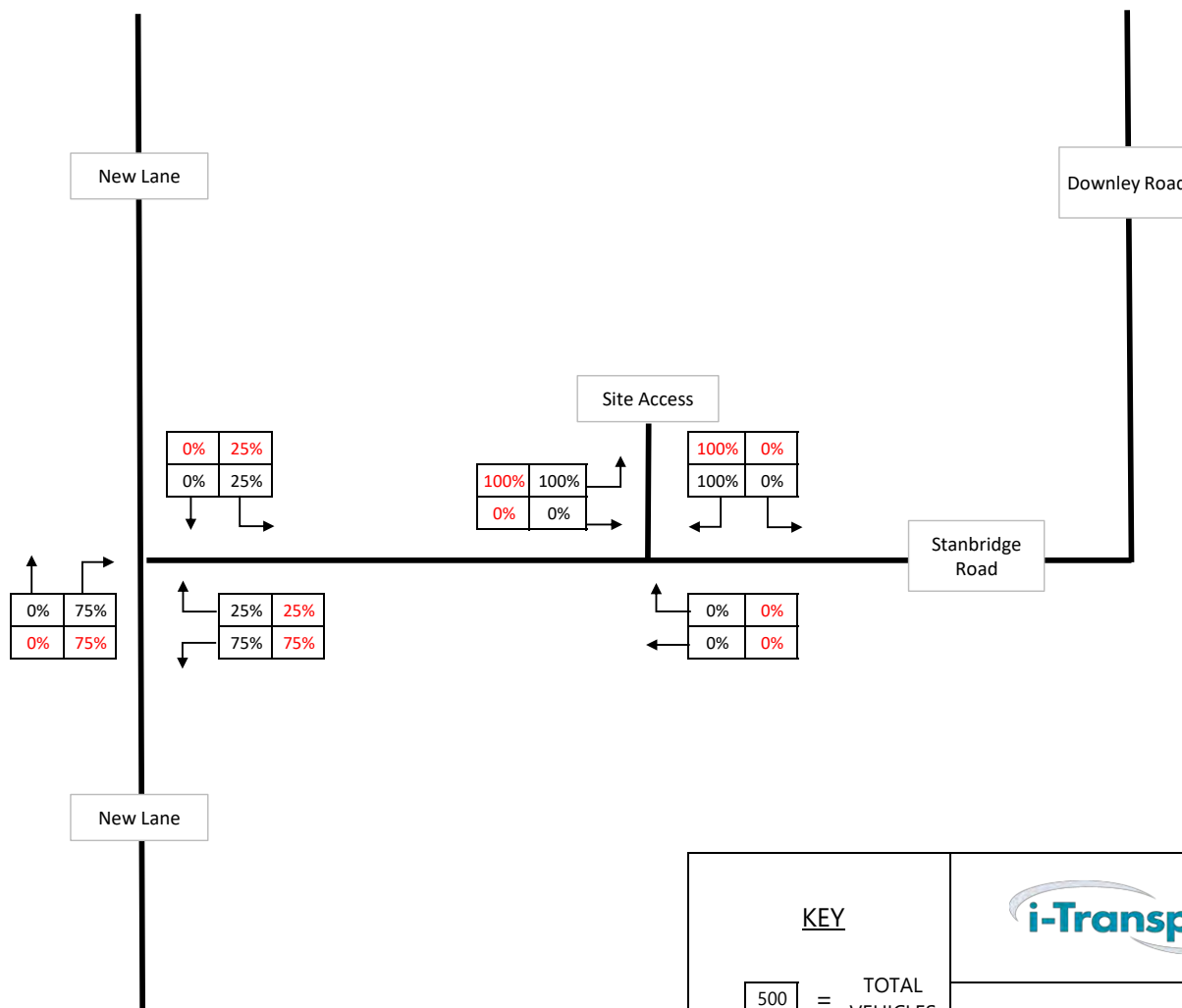


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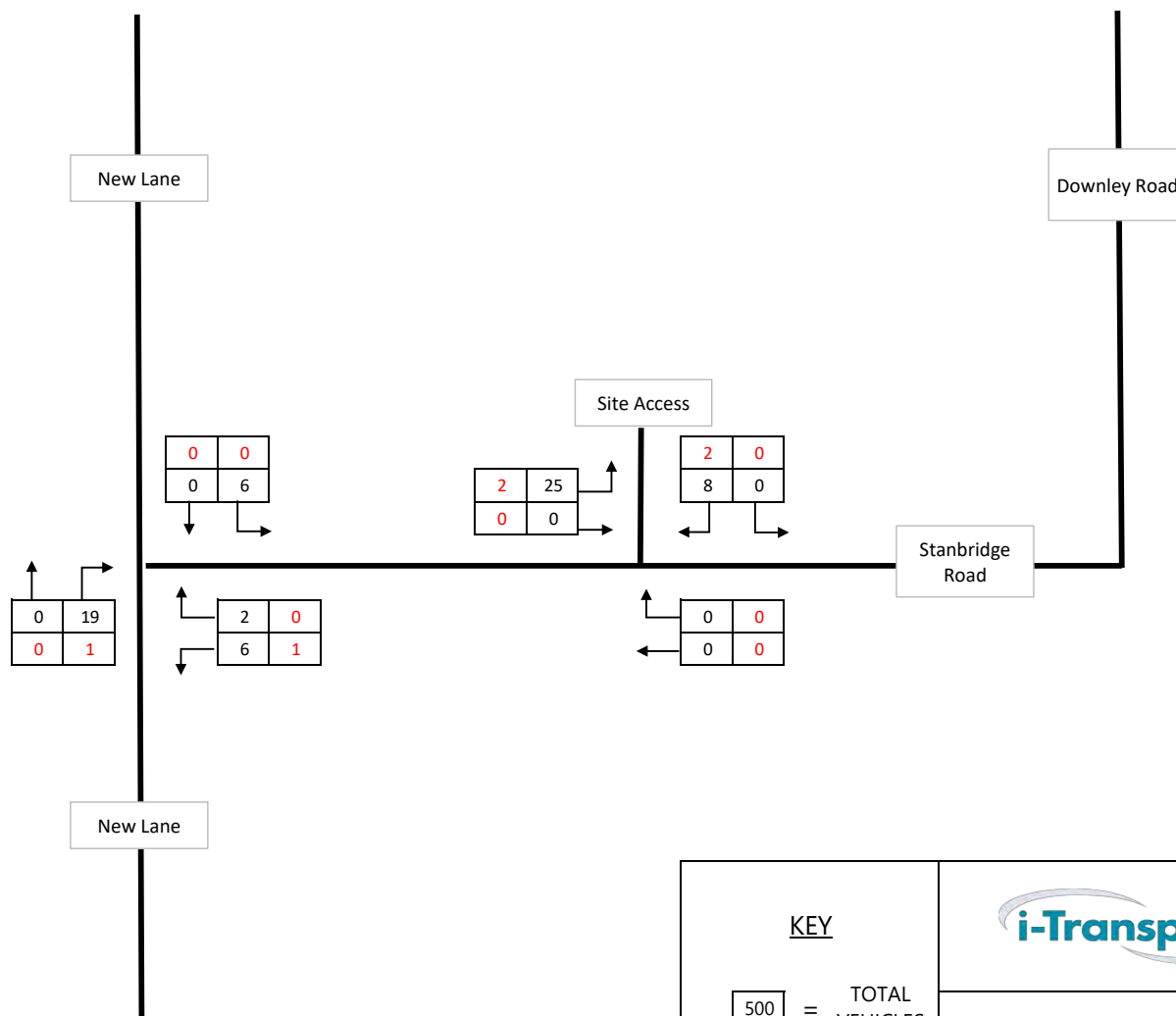
New Lane, Havant

TF4

2021 PM



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	New Lane, Havant
	TF5
	Dev Dist Two-Way



KEY

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25 = HGVs

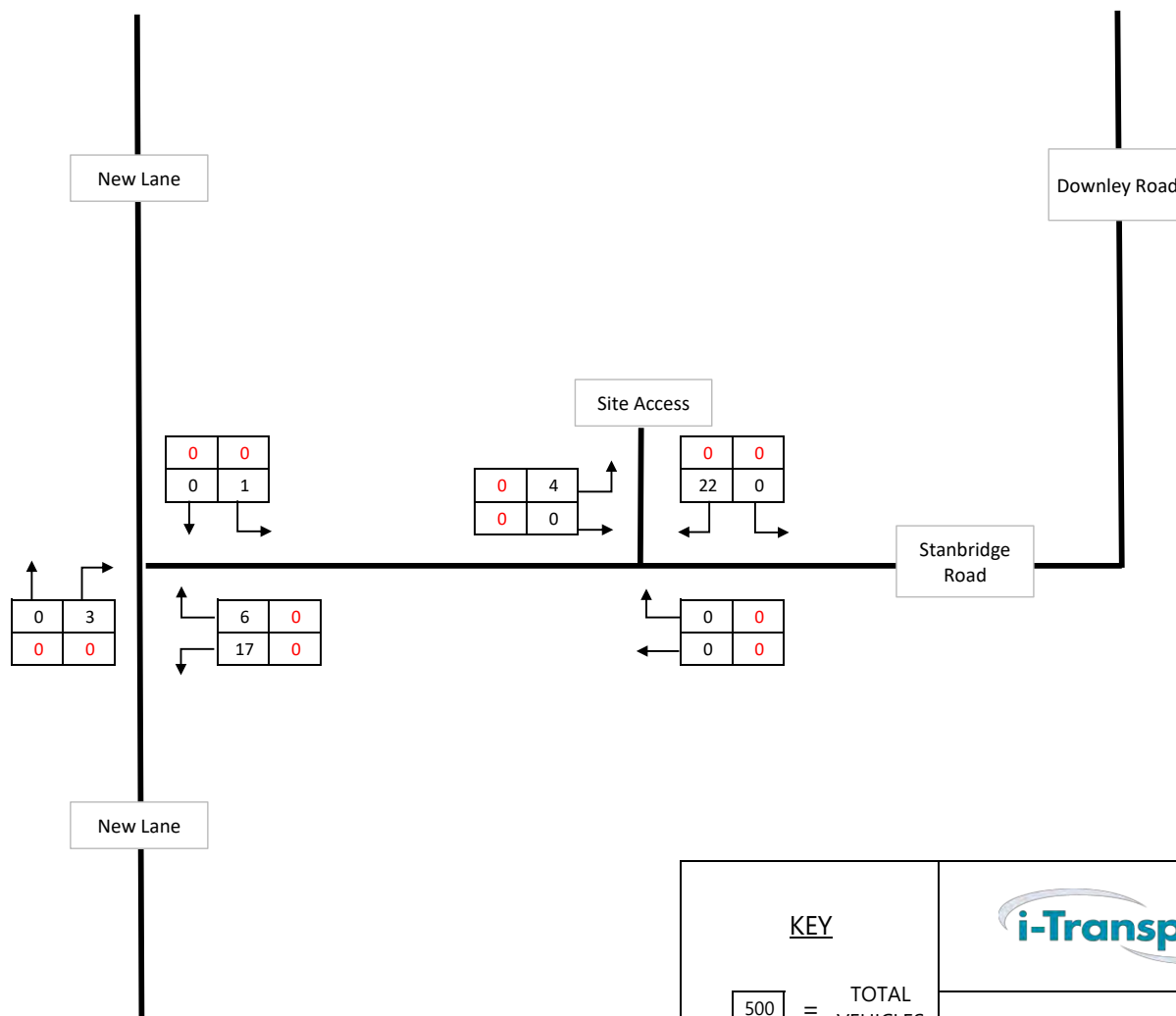


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Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640

New Lane, Havant

TF6

Dev Assign Two-Way AM



KEY

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25 = HGVs

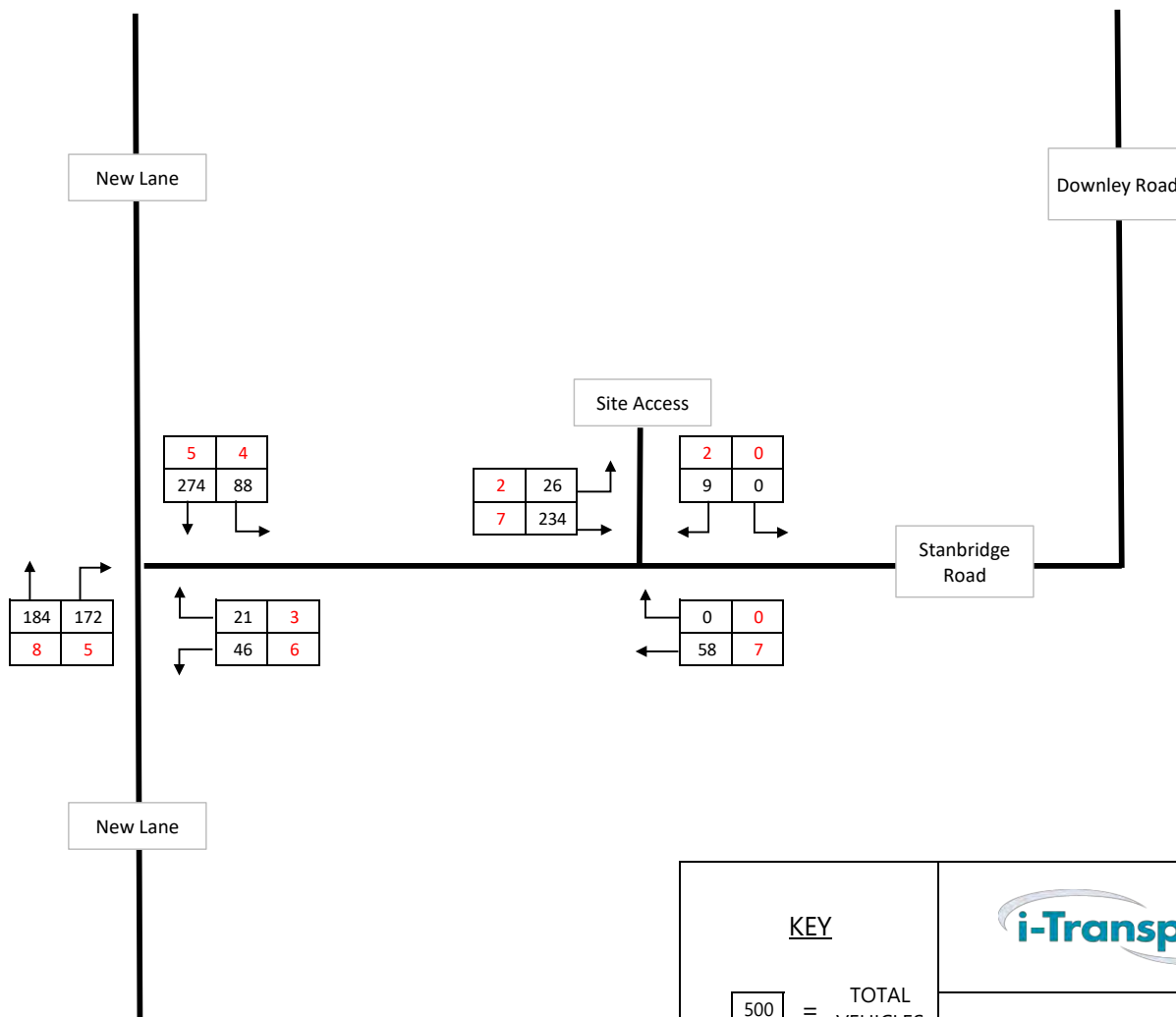


Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640

New Lane, Havant

TF7

Dev Assign Two-Way PM



KEY

500 = TOTAL VEHICLES

25 = HGVs

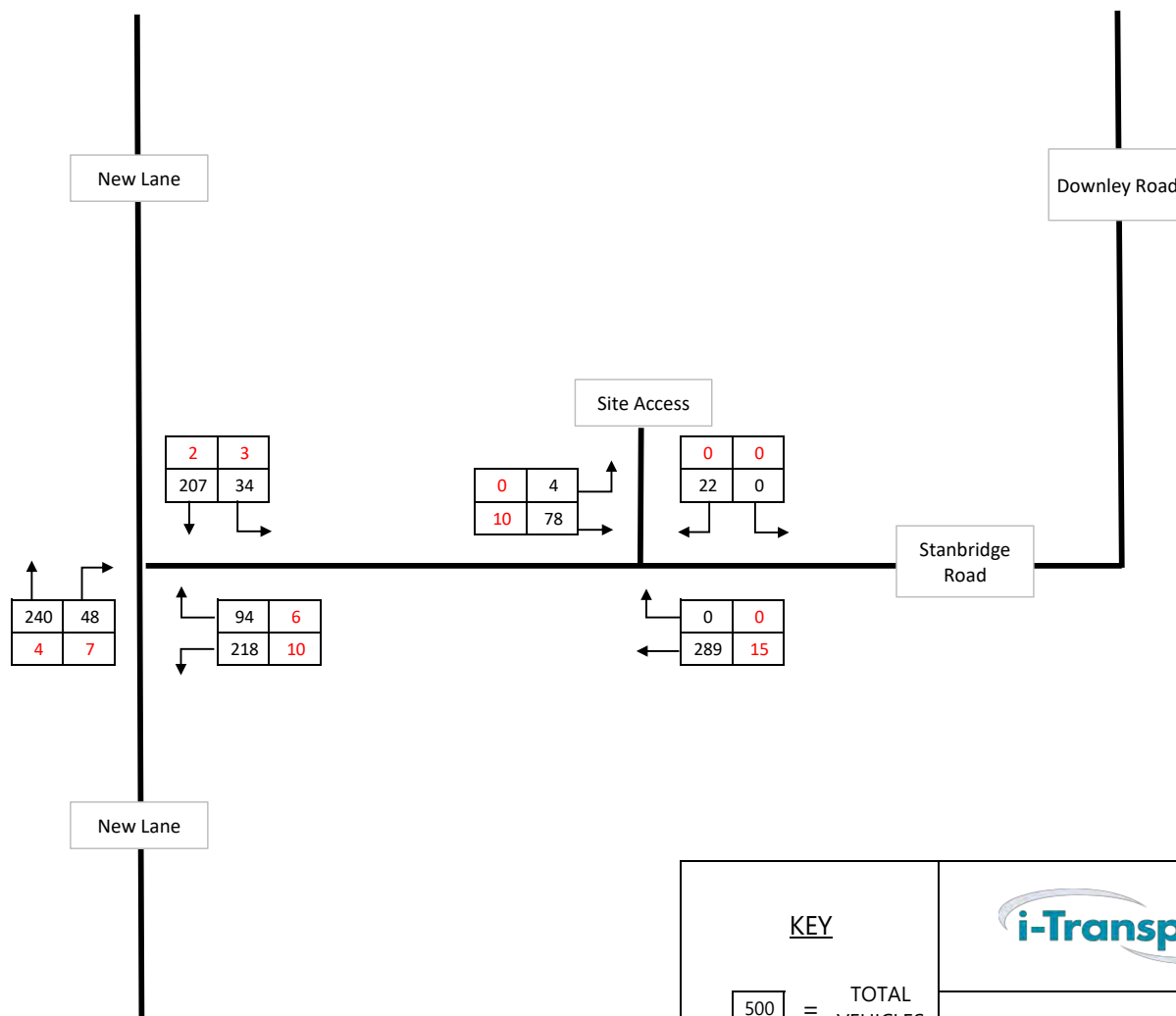


Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640

New Lane, Havant

TF8

2021 with Committed Development and Development AM



KEY

500 = TOTAL VEHICLES

25 = HGVs



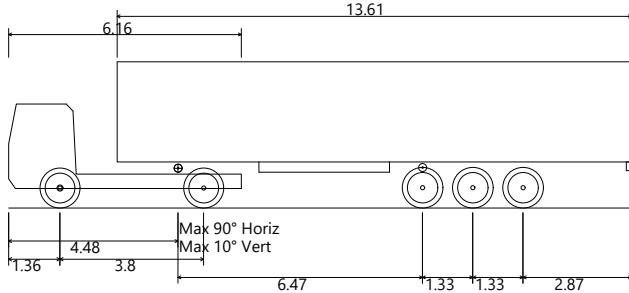
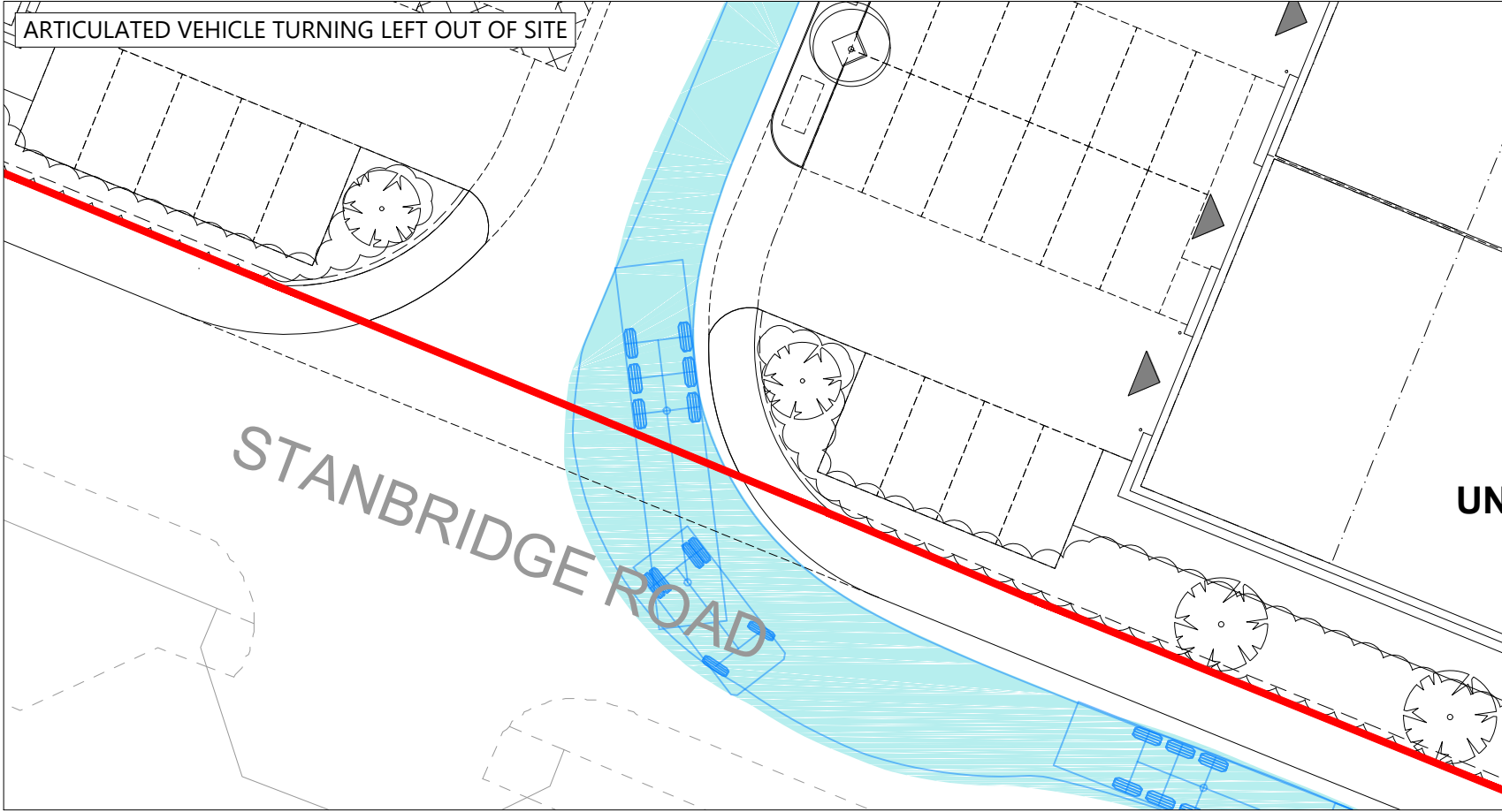
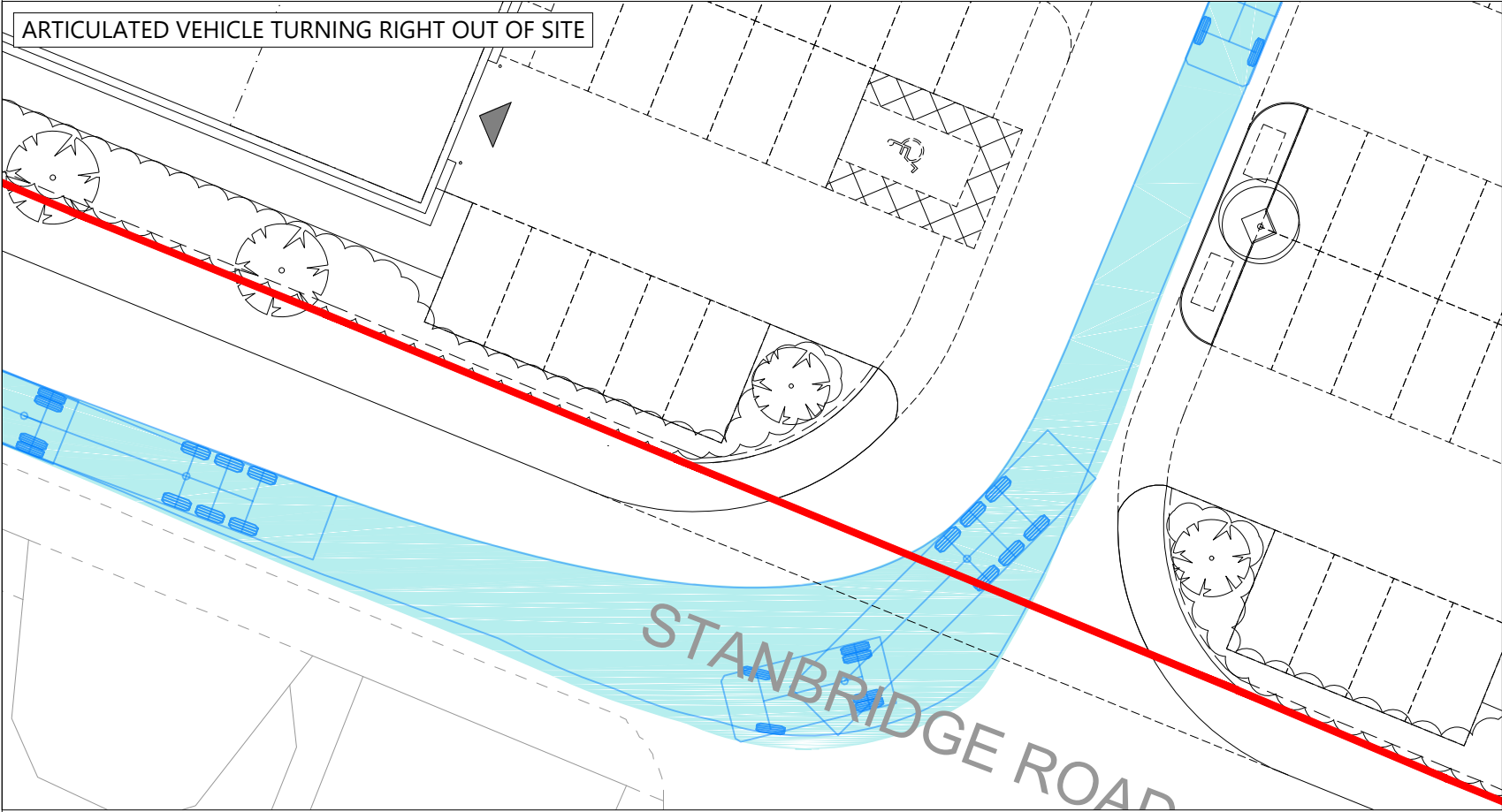
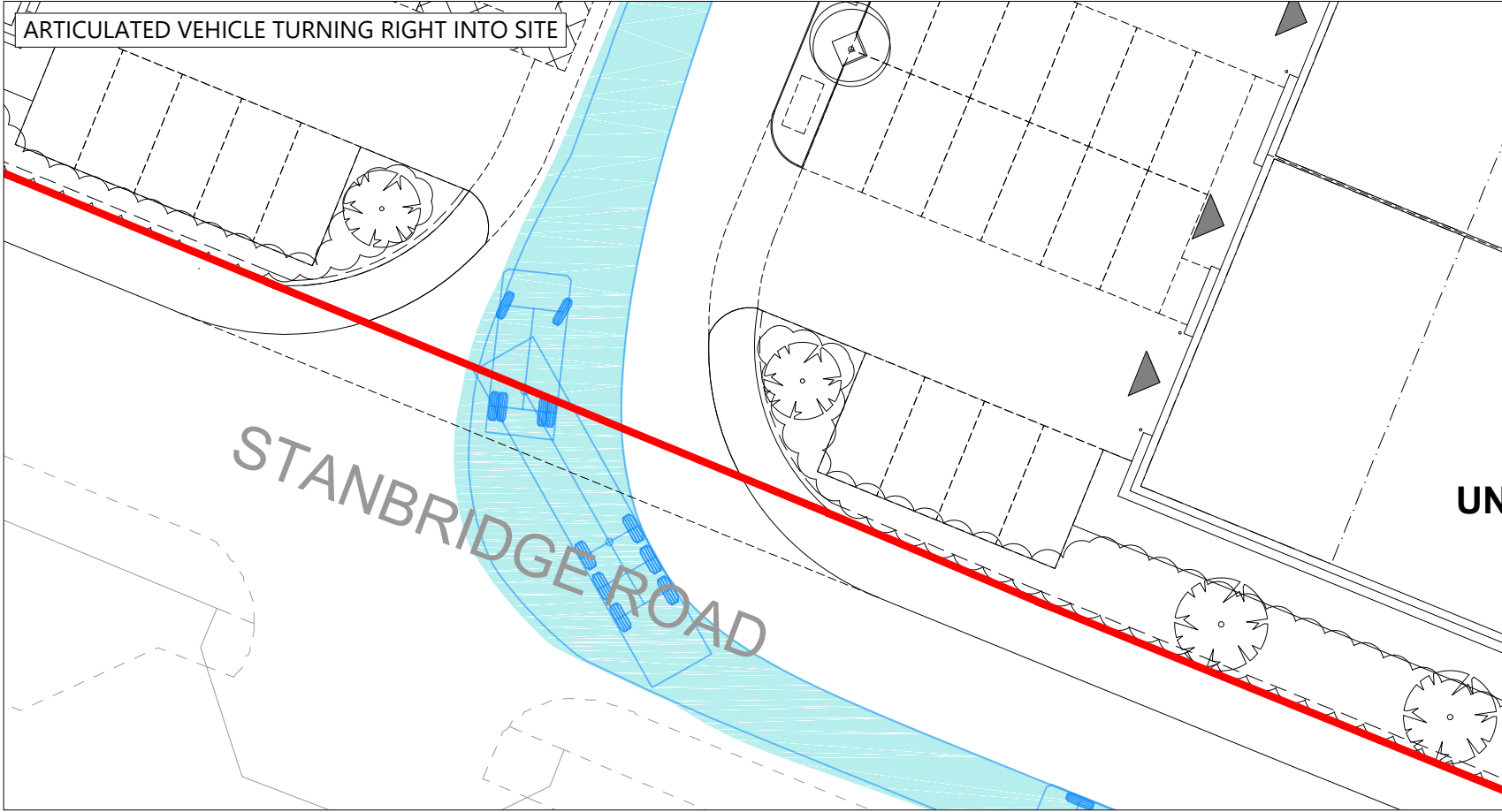
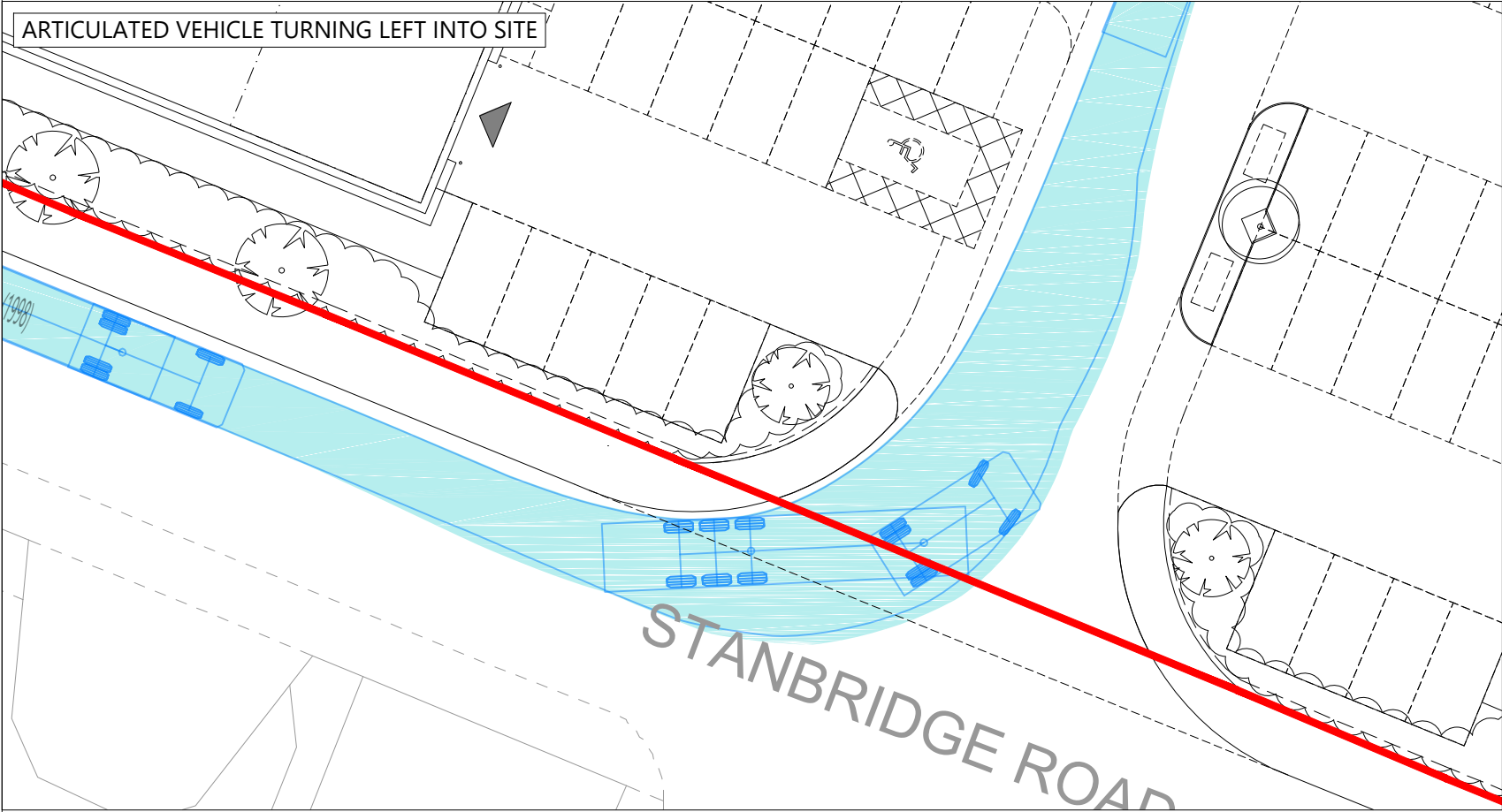
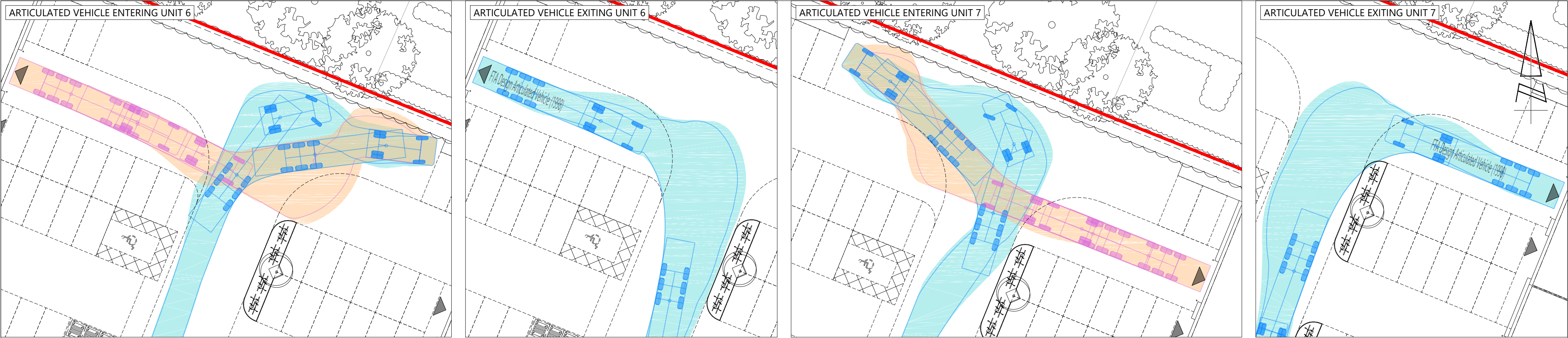
Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640

New Lane, Havant

TF9

2021 with Committed Development and Development PM

DRAWINGS



FTA Design Articulated Vehicle (1998)	
Overall Length	16.480m
Overall Width	2.550m
Overall Body Height	3.870m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	6.550m

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REV	DATE	BY	DESCRIPTION	CHK	APD
-----	------	----	-------------	-----	-----

STATUS:			FOR INFORMATION		
---------	--	--	-----------------	--	--

Grove House, Lutyens Close, Chineham
Basingstoke, Hampshire, RG24 8AG
www.i-transport.co.uk

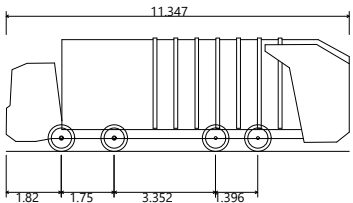
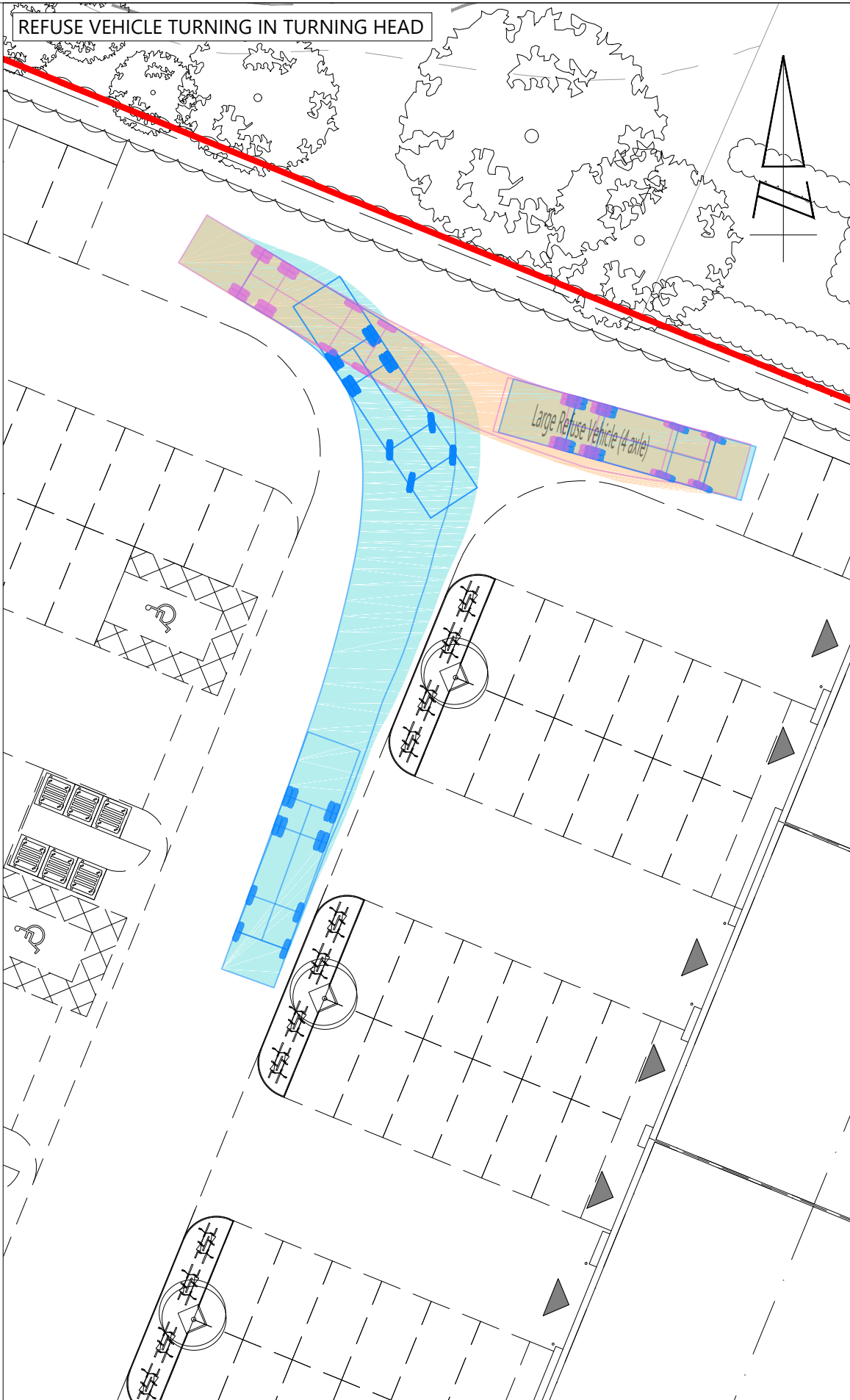
Tel: 01256 338640

TITLE: SWEPT PATH ANALYSIS - ARTICULATED VEHICLE

PROJECT: NEW LANE, HAVANT

CLIENT: KINGSBRIDGE ESTATES

DRAWN: JD	CHECKED: GT	APPROVED: SJ
PROJECT No: ITB14488	SCALE @ A2: 1:250	DATE: 16.05.19
DRAWING No: ITB14488-GA-003		
REV: A		



Large Refuse Vehicle (4 axle)
Overall Length 11.347m
Overall Width 2.500m
Overall Body Height 3.751m
Min Body Ground Clearance 0.304m
Track Width 2.500m
Lock to lock time 6.00s
Wall to Wall Turning Radius 11.330m

A	21.06.19	JD	SITE LAYOUT UPDATED	GT	SJ
REV	DATE	BY	DESCRIPTION	CHK	APD

STATUS: FOR INFORMATION

i-Transport

Grove House, Lutyens Close, Chineham
Basingstoke, Hampshire, RG24 8AG

Tel: 01256 338640

www.i-transport.co.uk

TITLE: SWEPT PATH ANALYSIS - REFUSE VEHICLE

PROJECT: NEW LANE, HAVANT

CLIENT: KINGSBRIDGE ESTATES

DRAWN: JD	CHECKED: GT	APPROVED: SJ
PROJECT No: ITB14488	SCALE @ A3: 1:250	DATE: 20.05.19

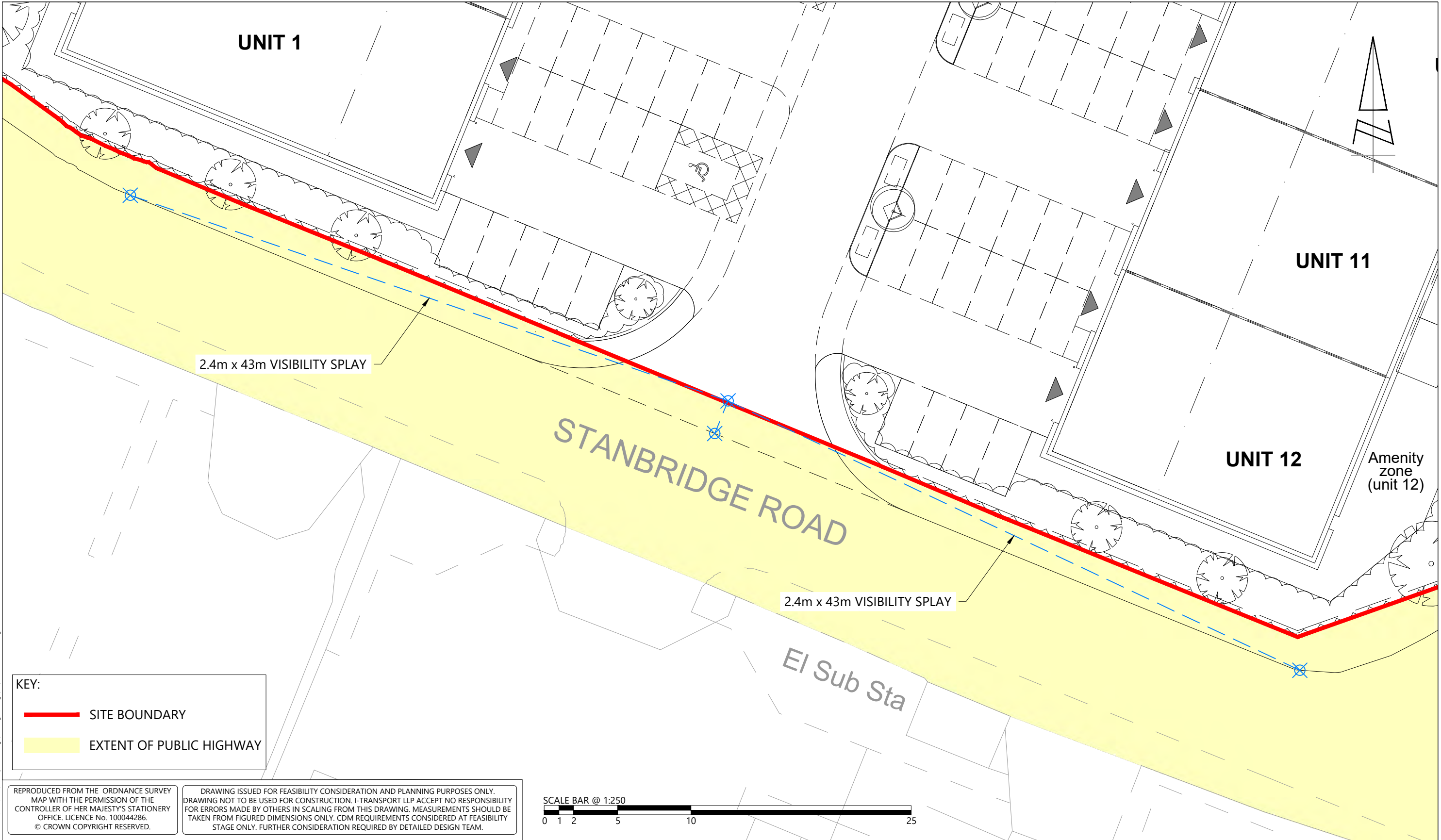
DRAWING No: ITB14488-GA-005 REV: A

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T:\Projects\14000 Series\14488\New Lane and Sunbridge Road Havant\Tech\Acad\i-Transport Drawings\Working Drawings\GA\ITB 14488-GA-005A.dwg



 Grove House, Lutyens Close, Chineham Basingstoke, Hampshire, RG24 8AG Tel: 01256 338640 www.i-transport.co.uk							TITLE:		DRAWN:		CHECKED:	APPROVED:						
							SITE ACCESS VISIBILITY		JD		GT		SJ					
	REV	DATE	BY	DESCRIPTION			CHK	APD	PROJECT:	PROJECT No:		SCALE @ A3:	DATE:					
	STATUS:							NEW LANE, HAVANT		CLIENT:		KINGSBRIDGE ESTATES		ITB14488		1:250		21.06.19
FOR INFORMATION											DRAWING No:		ITB14488-GA-006		REV:		-	

APPENDIX A. Personal Injury Accident Data



Havant

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Hampshire Police
Licence No. 01021C 2019

SCALE	1 : 3000
DATE	07/05/2019
DRAWING No.	
DRAWN BY	

Accidents between dates 01/01/2014 and 31/12/2018 (60) months

Selection:

Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -HC - RPU Statistics Request ("AW
HAVANT BACS/SR/0519/155")

Selected Polygon:AW HAVANT BACS/SR/0519/155

140270406 28/07/2014 Time 1300 Vehicles 2 Casualties 1 Serious
E:472556 N: 107496 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:	Poor turn or manoeuvre	Vehicle 1	Very Likely
2nd:	Failed to look properly	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING NE ALONG NEW LANE TURNED RIGHT FOR STANBRIDGE ROAD INTO THE PATH OF VEH 2 (M/CYCLE) TRAVELLING SW, CAUSING VEH 2 TO COLLIDE WITH THE NEAR SIDE OF VEH 1 AND THE RIDER TO FALL.

Occurred on NEW LANE AT JUNCTION WITH STANBRIDGE ROAD, HAVANT, HAMPSHIRE

Vehicle Reference 1 Car Turning right
Vehicle movement from SW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Leaving main road First impact Near side Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 22 Female
Not hit and run Breath test Not requested
Left hand drive: No

Vehicle Reference 2 Motor Cycle over 50 cc and up to 125cc 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 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: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/01/2014 and 31/12/2018 (60) months

Selection:

Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW HAVANT BACS/SR/0519/155")

150194571 09/06/2015 Time 1339 Vehicles 2 Casualties 1 Slight
E:472654 N: 107733 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:			
3rd:			
4th:			
5th:			
6th:			

VEH 2 (CAR) TRAVELLING E ALONG FARRINGTON ROAD OVERSHOT THE JUNCTION AND COLLIDED WITH THE NEARSIDE OF VEH 1 (LORRY) TRAVELLING N ALONG NEW LANE.

Occurred on NEW LANE AT JUNCTION WITH FARRINGDON ROAD, HAVANT, HAMPSHIRE

Vehicle Reference 1 Goods over 3.5 tonnes and under 7.5 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 Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 28 Male
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Car Turning right
Vehicle movement from W 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 r First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 32 Female
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 32 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/01/2014 and 31/12/2018 (60) months

Selection:

Notes:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW HAVANT BACS/SR/0519/155")

44180461220 11/12/2018 Time 1135 Vehicles 2 Casualties 1 Slight
E:472636 N: 107670 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:	Exceeding speed limit	Vehicle 1	Very Likely
2nd:	Careless/Reckless/In a hurry	Vehicle 1	Very Likely
3rd:	Visor or windscreen dirty or scratched	Vehicle 1	Very Likely
4th:	Dazzling sun	Vehicle 1	Very Likely
5th:			
6th:			

VEH1 (CAR) TRAVELLING NE ALONG NEW ROAD COLLIDES WITH THE REAR OF VEH2 (TRAILER) WHICH WAS PARKED AND UNATTENDED ON THE NEARSIDE.

Occurred on NEW LANE, 52 METERS S OF JUNCTION WITH FARRINGDON ROAD, HAVANT, HAMPSHIRE.

Vehicle Reference 1 Car 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 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 24 Male
Not hit and run Breath test Negative
Left hand drive: No
Casualty Reference: 1 Vehicle: 1 Age: 24 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Goods 7.5 tonnes mgw and over Parked
Vehicle movement from Park to Parked 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 Male
Not hit and run Breath test Driver not contacted
Left hand drive: No

Accidents between dates **01/01/2014 and 31/12/2018** (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("AW HAVANT BACS/SR/0519/155")

Notes:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	0	2	2
2-wheeled motor vehicles	0	1	0	1
Pedal cycles	0	0	0	0
Horses & other	0	0	0	0
Total	0	1	2	3

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	0	2	2
Passenger	0	0	0	0
Motorcycle rider	0	1	0	1
Cyclist	0	0	0	0
Pedestrian	0	0	0	0
Other	0	0	0	0
Total	0	1	2	3

APPENDIX B. Proposed Site Layout



Unit No.	GF GiA (m2)	(ft2)	Mezz. GiA (m2)	(ft2)	TOTAL (m2)	TOTAL (ft2)	Mezz. %
1	356	3832	98	1055	454	4886	22%
2	356	3832	98	1055	454	4886	22%
3	413	4445	114	1227	527	5672	22%
4	351	3778	113	1216	464	4994	24%
5	351	3778	114	1227	465	5005	25%
6	352	3789	114	1227	466	5016	24%
7	383	4122	114	1227	497	5349	23%
8	381	4101	114	1227	495	5328	23%
9	381	4101	114	1227	495	5328	23%
10	383	4122	114	1227	497	5349	23%
11	253	2723	98	1055	351	3778	28%
12	253	2723	98	1055	351	3778	28%
	4213	45345	1303	14024	5516	59369	

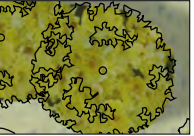
Total GiA:	5516	59369
Total GeA:	5820	62641

Parking: 134 1/43m2
Site Area(m2): 10,234
Site Density (GF GeA): 43%
Site Density (Total GeA) : 57%

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All dimensions must be verified on site prior to construction.
Do not scale this drawing except for Planning Application purposes.
Ordinance Survey Licence No. 100000200
Only PDF issues of this drawing are controlled. All other formats of this drawing (e.g. .dwg Autocad or .rvt Revit files) are un-controlled and are used at your own risk.
This drawing must not be copied, transmitted or passed to a third party, without written consent.

Rev	Amendments	by	chkd	Date
A	Planning Issue	AG	LJ	21/06/19

Legend:



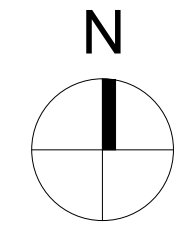
Existing trees



Proposed trees



Low shrub ground cover



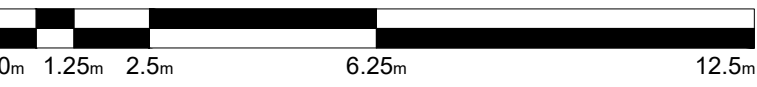
Havant BC Parking SPD

Land Use (Minimum/GEA)	Car parking std.
B1(a) office	1 space per 30 sqm
B1 (b)(c)	1 space per 45 sqm
B2	1 space per 45 sqm
B8 warehouse	1 space per 90 sqm

Land Use (Minimum/GEA)	Cycle parking std.	Long Stay	Short Stay
B1(a) office	1/150 sqm	1/500sqm	
B1 (b)(c)	1/250 sqm	1/500sqm	
B2	1/350 sqm	1/500sqm	
B8 warehouse	1/500 sqm	1/1000sqm	

One motorcycle space is to be provided for every 25 car parking spaces.
Disabled people's car parking spaces should be provided in a ratio of 5% of the total allocation.

NOTES:
All measurements are preliminary/ approximate & subject to tree survey, spot level / analysis, full utilities search, legal boundaries, drainage analysis and detailed layouts/design development through consultation.



Scale 1:250

Project
Kingsbridge Estates
New Lane
Havant

Drawn By: LJ Checked By: KW HNW Project No.: 18041 Date Created: JUN 19

Scale
A1- 1:250

Drawing Title
Site Plan as Proposed

Drawing Status
PRELIMINARY

Drawing Number
18041-HNW-ZZ-ZZ-DR-A-2115

61 North Street, Chichester, West Sussex, PO19 1NB

hnw architects

APPENDIX C. TEMPRO Calculations

AM

Dataset Version:

Result Type: Trip ends by time period

Base Year: 2019

Future Year: 2021

Trip Purpose Group: All purposes

Time Period: Weekday AM peak period (0700 - 0959)

Trip End Type: Origin/Destination

Alternative Assumptions applied: No

MSOA: Havant 009

Local Growth Figure: 1.0319

Results

Data selection:
 Trip end selection:
 Trip end by time period selection:
 Select time period:
 Weekday AM peak period (0700 - 0959)

Select data type:
 ☒ Growth factors
 ☐ Future year minus base year
 ☐ Base year data
 ☐ Future year data

*Balanced results indicate that there is a lower level of confidence in data presented at the zonal level than when aggregated to higher geographical levels.

Car Drive: Combined Modes

Area Description:
 Level:
 E02004770

Apply Alternative Assumptions:

Area	Current Assumptions				Alternative Assumptions			
	Base FH	Base 30s	Future FH	Future 30s	Base FH	Base 30s	Future FH	Future 30s
Havant 009 (E02004770)	3359	3709	3351	3728	3309	3709	3351	3728

Reset Selections

PM

Dataset Version:

Result Type: Trip ends by time period

Base Year: 2019

Future Year: 2021

Trip Purpose Group: All purposes

Time Period: Weekday PM peak period (1600-1859)

Trip End Type: Origin/Destination

Alternative Assumptions applied: No

MSOA: Havant 009

Local Growth Figure: 1.0291

Results

Data selection:
 Trip end selection:
 Trip end by time period selection:
 Select time period:
 Weekday PM peak period (1600 - 1859)

Select data type:
 ☒ Growth factors
 ☐ Future year minus base year
 ☐ Base year data
 ☐ Future year data

*Alternative Assumptions Applied

*Balanced results indicate that there is a lower level of confidence in data presented at the zonal level than when aggregated to higher geographical levels.

Car Drive: Combined Modes

Area Description:
 Level:
 E02004770

Apply Alternative Assumptions:

Area	Current Assumptions				Alternative Assumptions			
	Base FH	Base 30s	Future FH	Future 30s	Base FH	Base 30s	Future FH	Future 30s
Havant 009 (E02004770)	3359	3709	3351	3728	3309	3709	3351	3728

Reset Selections

Results

Data selection:
 Trip end selection:
 Trip end by time period selection:
 Select time period:
 Weekday AM peak period (0700 - 0959)

Select data type:
 ☒ Growth factors
 ☐ Future year minus base year
 ☐ Base year data
 ☐ Future year data

*Alternative Assumptions Applied

*Balanced results indicate that there is a lower level of confidence in data presented at the zonal level than when aggregated to higher geographical levels.

Car Drive: Combined Modes

Area Description:
 Level:
 E02004770

1. Select NTH Dataset:

NTH Dataset Description	From	To
NTH AM L1 Dataset	2019	2040
NTH AM L2 Dataset	2019	2019
NTH AM L3 Dataset	2019	2019

2. Select Areas to make up the geographic region:

☒ Havant 009 (E02004770)

3. Select area type:

☒ Urban
 ☐ Rural
 ☐ All

4. Select road type:

☐ Motorway
 ☐ Trunk
 ☐ Principal
 ☐ Minor
 ☒ All

5. Select which area it serves:

☐ Origin
 ☐ Destination

Calculate the adjusted local growth figure.

Results

Level	Area	Local Growth Figure
E02004770	Havant 009	1.0319

Reset Selections

Results

Data selection:
 Trip end selection:
 Trip end by time period selection:
 Select time period:
 Weekday PM peak period (1600 - 1859)

Select data type:
 ☒ Growth factors
 ☐ Future year minus base year
 ☐ Base year data
 ☐ Future year data

*Alternative Assumptions Applied

*Balanced results indicate that there is a lower level of confidence in data presented at the zonal level than when aggregated to higher geographical levels.

Car Drive: Combined Modes

Area Description:
 Level:
 E02004770

1. Select NTH Dataset:

NTH Dataset Description	From	To
NTH PM L1 Dataset	2019	2040
NTH PM L2 Dataset	2019	2019
NTH PM L3 Dataset	2019	2019

2. Select Areas to make up the geographic region:

☒ Havant 009 (E02004770)

3. Select area type:

☒ Urban
 ☐ Rural
 ☐ All

4. Select road type:

☐ Motorway
 ☐ Trunk
 ☐ Principal
 ☐ Minor
 ☒ All

5. Select which area it serves:

☐ Origin
 ☐ Destination

Calculate the adjusted local growth figure.

Results

Level	Area	Local Growth Figure
E02004770	Havant 009	1.0291

Reset Selections

APPENDIX D. TRICS Outputs

Calculation Reference: AUDIT-236601-190423-0425

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : C - INDUSTRIAL UNIT
 VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DV DEVON	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	HE HEREFORDSHIRE	1 days
	WM WEST MIDLANDS	2 days
08	NORTH WEST	
	CH CHESHIRE	2 days

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

Secondary 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: Gross floor area
 Actual Range: 1100 to 8100 (units: sqm)
 Range Selected by User: 1000 to 10000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/11 to 10/10/18

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

Selected survey days:

Monday	1 days
Tuesday	4 days
Wednesday	1 days
Thursday	3 days
Friday	1 days

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

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	7

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:

Industrial Zone	8
Commercial Zone	1
Development Zone	1

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

Secondary Filtering selection:

Use Class:

B1	5 days
B2	4 days

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

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
10,001 to 15,000	4 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	2 days

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

Population within 5 miles:

50,001 to 75,000	2 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	3 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	2 days
1.1 to 1.5	8 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:

No	10 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	10 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BR-02-C-02 SOUTH LIBERTY LANE BRISTOL	STAINLESS FITTINGS	BRISTOL CITY
	Edge of Town Industrial Zone Total Gross floor area:	1475 sqm	
	Survey date:	TUESDAY 22/09/15	Survey Type: MANUAL
2	CH-02-C-02 JUPITER DRIVE CHESTER CHESTER W. EMP. PARK	INDUSTRIAL MATERIALS	CHESHIRE
	Edge of Town Industrial Zone Total Gross floor area:	8100 sqm	
	Survey date:	WEDNESDAY 19/11/14	Survey Type: MANUAL
3	CH-02-C-03 BRUNEL ROAD MACCLESFIELD LYME GREEN BUS. PARK	OFFICE FURNITURE	CHESHIRE
	Edge of Town Development Zone Total Gross floor area:	6658 sqm	
	Survey date:	MONDAY 19/09/16	Survey Type: MANUAL
4	DS-02-C-02 PONTEFRAC STREET DERBY	ENGINEERED PRODUCTS	DERBYSHIRE
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area:	2600 sqm	
	Survey date:	THURSDAY 25/06/15	Survey Type: MANUAL
5	DV-02-C-02 GRACE ROAD SOUTH EXETER MARSH BARTON TRAD. EST.	ENERGY RECOVERY FACILITY	DEVON
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area:	3513 sqm	
	Survey date:	THURSDAY 06/07/17	Survey Type: MANUAL
6	HC-02-C-01 JAYS CLOSE BASINGSTOKE	ENGINEERING COMPANY	HAMPSHIRE
	Edge of Town Industrial Zone Total Gross floor area:	3000 sqm	
	Survey date:	THURSDAY 16/06/16	Survey Type: MANUAL
7	HE-02-C-02 COLLEGE ROAD HEREFORD BURCOTT	THERMAL PROCESSING	HEREFORDSHIRE
	Edge of Town Commercial Zone Total Gross floor area:	1880 sqm	
	Survey date:	TUESDAY 22/10/13	Survey Type: MANUAL
8	SF-02-C-01 ANSON ROAD IPSWICH MARTLESHAM HEATH	JOINERY	SUFFOLK
	Edge of Town Industrial Zone Total Gross floor area:	1100 sqm	
	Survey date:	FRIDAY 12/07/13	Survey Type: MANUAL
9	WM-02-C-03 DOWNING STREET SMETHWICK	INDUSTRIAL GLASS	WEST MIDLANDS
	Edge of Town Industrial Zone Total Gross floor area:	5070 sqm	
	Survey date:	TUESDAY 06/11/12	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

10	WM-02-C-04	FOUNDRY	WEST MIDLANDS
	STOURVALE ROAD		
	STOURBRIDGE		
	LYE		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	4324	sqm
	Survey date: TUESDAY	21/11/17	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.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	10	3772	0.236	10	3772	0.053	10	3772	0.289
08:00 - 09:00	10	3772	0.374	10	3772	0.072	10	3772	0.446
09:00 - 10:00	10	3772	0.247	10	3772	0.122	10	3772	0.369
10:00 - 11:00	10	3772	0.170	10	3772	0.119	10	3772	0.289
11:00 - 12:00	10	3772	0.109	10	3772	0.122	10	3772	0.231
12:00 - 13:00	10	3772	0.180	10	3772	0.183	10	3772	0.363
13:00 - 14:00	10	3772	0.164	10	3772	0.196	10	3772	0.360
14:00 - 15:00	10	3772	0.095	10	3772	0.125	10	3772	0.220
15:00 - 16:00	10	3772	0.093	10	3772	0.111	10	3772	0.204
16:00 - 17:00	10	3772	0.045	10	3772	0.255	10	3772	0.300
17:00 - 18:00	10	3772	0.029	10	3772	0.302	10	3772	0.331
18:00 - 19:00	10	3772	0.024	10	3772	0.156	10	3772	0.180
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.766			1.816			3.582

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

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

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Parameter summary

Trip rate parameter range selected:	1100 - 8100 (units: sqm)
Survey date date range:	01/01/11 - 10/10/18
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	10	3772	0.000	10	3772	0.000	10	3772	0.000
08:00 - 09:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
09:00 - 10:00	10	3772	0.003	10	3772	0.003	10	3772	0.006
10:00 - 11:00	10	3772	0.005	10	3772	0.005	10	3772	0.010
11:00 - 12:00	10	3772	0.005	10	3772	0.005	10	3772	0.010
12:00 - 13:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
13:00 - 14:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
14:00 - 15:00	10	3772	0.003	10	3772	0.003	10	3772	0.006
15:00 - 16:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
16:00 - 17:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
17:00 - 18:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
18:00 - 19:00	10	3772	0.003	10	3772	0.003	10	3772	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.019			0.019			0.038

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	10	3772	0.021	10	3772	0.021	10	3772	0.042
08:00 - 09:00	10	3772	0.042	10	3772	0.032	10	3772	0.074
09:00 - 10:00	10	3772	0.050	10	3772	0.045	10	3772	0.095
10:00 - 11:00	10	3772	0.034	10	3772	0.029	10	3772	0.063
11:00 - 12:00	10	3772	0.032	10	3772	0.042	10	3772	0.074
12:00 - 13:00	10	3772	0.053	10	3772	0.066	10	3772	0.119
13:00 - 14:00	10	3772	0.048	10	3772	0.034	10	3772	0.082
14:00 - 15:00	10	3772	0.019	10	3772	0.013	10	3772	0.032
15:00 - 16:00	10	3772	0.021	10	3772	0.021	10	3772	0.042
16:00 - 17:00	10	3772	0.011	10	3772	0.024	10	3772	0.035
17:00 - 18:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
18:00 - 19:00	10	3772	0.003	10	3772	0.000	10	3772	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.334			0.327			0.661

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	10	3772	0.000	10	3772	0.000	10	3772	0.000
08:00 - 09:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
09:00 - 10:00	10	3772	0.003	10	3772	0.003	10	3772	0.006
10:00 - 11:00	10	3772	0.003	10	3772	0.000	10	3772	0.003
11:00 - 12:00	10	3772	0.000	10	3772	0.003	10	3772	0.003
12:00 - 13:00	10	3772	0.003	10	3772	0.003	10	3772	0.006
13:00 - 14:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
14:00 - 15:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
15:00 - 16:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
16:00 - 17:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
17:00 - 18:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
18:00 - 19:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	10	3772	0.027	10	3772	0.000	10	3772	0.027
08:00 - 09:00	10	3772	0.005	10	3772	0.000	10	3772	0.005
09:00 - 10:00	10	3772	0.003	10	3772	0.000	10	3772	0.003
10:00 - 11:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
11:00 - 12:00	10	3772	0.000	10	3772	0.000	10	3772	0.000
12:00 - 13:00	10	3772	0.000	10	3772	0.003	10	3772	0.003
13:00 - 14:00	10	3772	0.005	10	3772	0.005	10	3772	0.010
14:00 - 15:00	10	3772	0.000	10	3772	0.008	10	3772	0.008
15:00 - 16:00	10	3772	0.000	10	3772	0.003	10	3772	0.003
16:00 - 17:00	10	3772	0.000	10	3772	0.024	10	3772	0.024
17:00 - 18:00	10	3772	0.003	10	3772	0.016	10	3772	0.019
18:00 - 19:00	10	3772	0.000	10	3772	0.008	10	3772	0.008
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.043			0.067			0.110

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.

Calculation Reference: AUDIT-236601-190423-0416

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : D - INDUSTRIAL ESTATE
 VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	KC KENT	1 days
	WG WOKINGHAM	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DV DEVON	2 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
06	WEST MIDLANDS	
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	LC LANCASHIRE	2 days
09	NORTH	
	TW TYNE & WEAR	2 days

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

Secondary 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: Gross floor area
 Actual Range: 1560 to 9500 (units: sqm)
 Range Selected by User: 1500 to 10000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/11 to 18/05/18

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

Selected survey days:

Monday	4 days
Tuesday	4 days
Wednesday	1 days
Thursday	1 days
Friday	3 days

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

Selected survey types:

Manual count	13 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	9

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:

Industrial Zone	7
Development Zone	1
Residential Zone	5

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

Secondary Filtering selection:

Use Class:

B2 12 days

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

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	1 days
15,001 to 20,000	5 days
20,001 to 25,000	2 days
25,001 to 50,000	3 days

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

Population within 5 miles:

25,001 to 50,000	1 days
125,001 to 250,000	9 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	5 days
1.6 to 2.0	1 days

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

Travel Plan:

No 13 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 13 days

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

LIST OF SITES relevant to selection parameters

1	BR-02-D-05 NOVERS HILL BRISTOL BEDMINSTER Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 18128 sqm Survey date: FRIDAY 29/11/13	INDUSTRIAL ESTATE	BRISTOL CITY	Survey Type: MANUAL
2	DV-02-D-06 ST MODWEN ROAD PLYMOUTH Edge of Town Industrial Zone Total Gross floor area: 1775 sqm Survey date: TUESDAY 17/07/12	INDUSTRIAL ESTATE	DEVON	Survey Type: MANUAL
3	DV-02-D-07 BITTERN ROAD EXETER SOWTON IND. ESTATE Edge of Town Industrial Zone Total Gross floor area: 3600 sqm Survey date: MONDAY 03/07/17	INDUSTRIAL ESTATE	DEVON	Survey Type: MANUAL
4	ES-02-D-06 COURTLANDS ROAD EASTBOURNE Edge of Town Residential Zone Total Gross floor area: 7525 sqm Survey date: MONDAY 21/10/13	INDUSTRIAL ESTATE	EAST SUSSEX	Survey Type: MANUAL
5	KC-02-D-02 SOUTHWELL ROAD DEAL Edge of Town Residential Zone Total Gross floor area: 10715 sqm Survey date: WEDNESDAY 28/11/12	INDUSTRIAL ESTATE	KENT	Survey Type: MANUAL
6	LC-02-D-06 SMALLSHAW LANE BURNLEY Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 7383 sqm Survey date: THURSDAY 29/09/16	INDUSTRIAL ESTATE	LANCASHIRE	Survey Type: MANUAL
7	LC-02-D-07 CHAIN CAUL WAY PRESTON ASHTON-ON-RIBBLE Edge of Town Industrial Zone Total Gross floor area: 4700 sqm Survey date: FRIDAY 17/11/17	INDUSTRIAL ESTATE	LANCASHIRE	Survey Type: MANUAL
8	NF-02-D-03 BIDEWELL CLOSE NORWICH Edge of Town Residential Zone Total Gross floor area: 6000 sqm Survey date: MONDAY 08/10/12	INDUSTRIAL ESTATE	NORFOLK	Survey Type: MANUAL
9	TW-02-D-07 SWALWELL BANK GATESHEAD WHICKHAM Edge of Town Residential Zone Total Gross floor area: 6800 sqm Survey date: FRIDAY 04/10/13	INDUSTRIAL ESTATE	TYNE & WEAR	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

10	TW-02-D-08	INDUSTRIAL ESTATE	TYNE & WEAR
	NORTH HYLTON ROAD		
	SUNDERLAND		
	SOUTHWICK		
	Suburban Area (PPS6 Out of Centre)		
	Development Zone		
	Total Gross floor area:	8310 sqm	
	Survey date: TUESDAY	04/04/17	Survey Type: MANUAL
11	WG-02-D-01	INDUSTRIAL ESTATE	WOKINGHAM
	FISHPONDS ROAD		
	WOKINGHAM		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	3800 sqm	
	Survey date: TUESDAY	20/11/12	Survey Type: MANUAL
12	WO-02-D-02	INDUSTRIAL ESTATE	WORCESTERSHIRE
	WEIR LANE		
	WORCESTER		
	Edge of Town		
	Residential Zone		
	Total Gross floor area:	9500 sqm	
	Survey date: MONDAY	14/11/16	Survey Type: MANUAL
13	WY-02-D-06	INDUSTRIAL ESTATE (PART)	WEST YORKSHIRE
	PIONEER WAY		
	CASTLEFORD		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	4328 sqm	
	Survey date: TUESDAY	23/05/17	Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CA-02-D-04	Use Class
ES-02-D-07	Use Class
EX-02-D-03	Use Class
EX-02-D-05	Use Class
GM-02-D-07	Use Class
HE-02-D-02	Use Class
WL-02-D-02	Use Class
WO-02-D-01	Use Class
WY-02-D-05	Use Class
WY-02-D-07	Use Class

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	13	6102	0.348	13	6102	0.084	13	6102	0.432
08:00 - 09:00	13	6102	0.516	13	6102	0.228	13	6102	0.744
09:00 - 10:00	13	6102	0.363	13	6102	0.262	13	6102	0.625
10:00 - 11:00	13	6102	0.248	13	6102	0.245	13	6102	0.493
11:00 - 12:00	13	6102	0.313	13	6102	0.314	13	6102	0.627
12:00 - 13:00	13	6102	0.329	13	6102	0.348	13	6102	0.677
13:00 - 14:00	13	6102	0.320	13	6102	0.310	13	6102	0.630
14:00 - 15:00	13	6102	0.276	13	6102	0.292	13	6102	0.568
15:00 - 16:00	13	6102	0.287	13	6102	0.290	13	6102	0.577
16:00 - 17:00	13	6102	0.219	13	6102	0.431	13	6102	0.650
17:00 - 18:00	13	6102	0.113	13	6102	0.488	13	6102	0.601
18:00 - 19:00	13	6102	0.053	13	6102	0.158	13	6102	0.211
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.385			3.450			6.835

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

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

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Parameter summary

Trip rate parameter range selected:	1560 - 9500 (units: sqm)
Survey date range:	01/01/11 - 18/05/18
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	10

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	13	6102	0.000	13	6102	0.000	13	6102	0.000
08:00 - 09:00	13	6102	0.003	13	6102	0.001	13	6102	0.004
09:00 - 10:00	13	6102	0.001	13	6102	0.001	13	6102	0.002
10:00 - 11:00	13	6102	0.001	13	6102	0.001	13	6102	0.002
11:00 - 12:00	13	6102	0.001	13	6102	0.001	13	6102	0.002
12:00 - 13:00	13	6102	0.000	13	6102	0.000	13	6102	0.000
13:00 - 14:00	13	6102	0.001	13	6102	0.001	13	6102	0.002
14:00 - 15:00	13	6102	0.001	13	6102	0.001	13	6102	0.002
15:00 - 16:00	13	6102	0.001	13	6102	0.001	13	6102	0.002
16:00 - 17:00	13	6102	0.001	13	6102	0.001	13	6102	0.002
17:00 - 18:00	13	6102	0.001	13	6102	0.003	13	6102	0.004
18:00 - 19:00	13	6102	0.000	13	6102	0.000	13	6102	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.011			0.011			0.022

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	13	6102	0.014	13	6102	0.015	13	6102	0.029
08:00 - 09:00	13	6102	0.025	13	6102	0.025	13	6102	0.050
09:00 - 10:00	13	6102	0.032	13	6102	0.038	13	6102	0.070
10:00 - 11:00	13	6102	0.023	13	6102	0.025	13	6102	0.048
11:00 - 12:00	13	6102	0.024	13	6102	0.030	13	6102	0.054
12:00 - 13:00	13	6102	0.029	13	6102	0.028	13	6102	0.057
13:00 - 14:00	13	6102	0.028	13	6102	0.020	13	6102	0.048
14:00 - 15:00	13	6102	0.026	13	6102	0.035	13	6102	0.061
15:00 - 16:00	13	6102	0.042	13	6102	0.034	13	6102	0.076
16:00 - 17:00	13	6102	0.019	13	6102	0.021	13	6102	0.040
17:00 - 18:00	13	6102	0.004	13	6102	0.010	13	6102	0.014
18:00 - 19:00	13	6102	0.001	13	6102	0.001	13	6102	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.267			0.282			0.549

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	13	6102	0.000	13	6102	0.000	13	6102	0.000
08:00 - 09:00	13	6102	0.001	13	6102	0.000	13	6102	0.001
09:00 - 10:00	13	6102	0.000	13	6102	0.001	13	6102	0.001
10:00 - 11:00	13	6102	0.000	13	6102	0.000	13	6102	0.000
11:00 - 12:00	13	6102	0.000	13	6102	0.000	13	6102	0.000
12:00 - 13:00	13	6102	0.001	13	6102	0.001	13	6102	0.002
13:00 - 14:00	13	6102	0.000	13	6102	0.000	13	6102	0.000
14:00 - 15:00	13	6102	0.000	13	6102	0.000	13	6102	0.000
15:00 - 16:00	13	6102	0.000	13	6102	0.000	13	6102	0.000
16:00 - 17:00	13	6102	0.000	13	6102	0.000	13	6102	0.000
17:00 - 18:00	13	6102	0.000	13	6102	0.001	13	6102	0.001
18:00 - 19:00	13	6102	0.000	13	6102	0.000	13	6102	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.003			0.005

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	13	6102	0.016	13	6102	0.001	13	6102	0.017
08:00 - 09:00	13	6102	0.015	13	6102	0.003	13	6102	0.018
09:00 - 10:00	13	6102	0.008	13	6102	0.001	13	6102	0.009
10:00 - 11:00	13	6102	0.006	13	6102	0.004	13	6102	0.010
11:00 - 12:00	13	6102	0.000	13	6102	0.001	13	6102	0.001
12:00 - 13:00	13	6102	0.001	13	6102	0.003	13	6102	0.004
13:00 - 14:00	13	6102	0.004	13	6102	0.001	13	6102	0.005
14:00 - 15:00	13	6102	0.003	13	6102	0.004	13	6102	0.007
15:00 - 16:00	13	6102	0.003	13	6102	0.004	13	6102	0.007
16:00 - 17:00	13	6102	0.006	13	6102	0.015	13	6102	0.021
17:00 - 18:00	13	6102	0.004	13	6102	0.024	13	6102	0.028
18:00 - 19:00	13	6102	0.000	13	6102	0.008	13	6102	0.008
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.066			0.069			0.135

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.

Calculation Reference: AUDIT-236601-190423-0420

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : F - WAREHOUSING (COMMERCIAL)
 VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
09	NORTH	
	CB CUMBRIA	1 days

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

Secondary 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: Gross floor area
 Actual Range: 1976 to 6560 (units: sqm)
 Range Selected by User: 1000 to 10000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/11 to 18/05/18

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Friday	2 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	4
--------------	---

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

Selected Location Sub Categories:

Industrial Zone	3
Commercial Zone	1

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

Secondary Filtering selection:

Use Class:

B8	4 days
----	--------

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	2 days
10,001 to 15,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

5,001 to 25,000	2 days
125,001 to 250,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	3 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:

No	4 days
----	--------

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

PTAL Rating:

No PTAL Present	4 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	CB-02-F-01	DOMINO'S PIZZA	CUMBRIA
	COWPER ROAD		
	PENRITH		
	GILWILLY IND. ESTATE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	2950 sqm	
	Survey date: TUESDAY	10/06/14	Survey Type: MANUAL
2	EX-02-F-01	SPORTS SUPPLEMENTS	ESSEX
	BRUNEL WAY		
	COLCHESTER		
	SEVERALLS INDUSTRIAL PK		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	6560 sqm	
	Survey date: FRIDAY	18/05/18	Survey Type: MANUAL
3	SF-02-F-03	ROAD HAULAGE	SUFFOLK
	CENTRAL AVENUE		
	IPSWICH		
	WARREN HEATH		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	4700 sqm	
	Survey date: FRIDAY	18/09/15	Survey Type: MANUAL
4	WM-02-F-02	LOGISTICS FIRM	WEST MIDLANDS
	SOVEREIGN ROAD		
	BIRMINGHAM		
	KINGS NORTON		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	3625 sqm	
	Survey date: MONDAY	09/11/15	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.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	1976	0.152	1	1976	0.000	1	1976	0.152
06:00 - 07:00	1	1976	0.202	1	1976	0.051	1	1976	0.253
07:00 - 08:00	4	4215	0.208	4	4215	0.065	4	4215	0.273
08:00 - 09:00	4	4215	0.427	4	4215	0.142	4	4215	0.569
09:00 - 10:00	4	4215	0.291	4	4215	0.107	4	4215	0.398
10:00 - 11:00	4	4215	0.190	4	4215	0.166	4	4215	0.356
11:00 - 12:00	4	4215	0.214	4	4215	0.202	4	4215	0.416
12:00 - 13:00	4	4215	0.214	4	4215	0.172	4	4215	0.386
13:00 - 14:00	4	4215	0.243	4	4215	0.196	4	4215	0.439
14:00 - 15:00	4	4215	0.172	4	4215	0.190	4	4215	0.362
15:00 - 16:00	4	4215	0.119	4	4215	0.231	4	4215	0.350
16:00 - 17:00	4	4215	0.089	4	4215	0.237	4	4215	0.326
17:00 - 18:00	4	4215	0.059	4	4215	0.326	4	4215	0.385
18:00 - 19:00	4	4215	0.071	4	4215	0.302	4	4215	0.373
19:00 - 20:00	1	1976	0.304	1	1976	0.304	1	1976	0.608
20:00 - 21:00	1	1976	0.152	1	1976	0.202	1	1976	0.354
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.107			2.893			6.000

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

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

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Parameter summary

Trip rate parameter range selected:	1976 - 6560 (units: sqm)
Survey date date range:	01/01/11 - 18/05/18
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	1976	0.000	1	1976	0.000	1	1976	0.000
06:00 - 07:00	1	1976	0.101	1	1976	0.000	1	1976	0.101
07:00 - 08:00	4	4215	0.036	4	4215	0.047	4	4215	0.083
08:00 - 09:00	4	4215	0.095	4	4215	0.059	4	4215	0.154
09:00 - 10:00	4	4215	0.059	4	4215	0.030	4	4215	0.089
10:00 - 11:00	4	4215	0.095	4	4215	0.077	4	4215	0.172
11:00 - 12:00	4	4215	0.101	4	4215	0.107	4	4215	0.208
12:00 - 13:00	4	4215	0.101	4	4215	0.047	4	4215	0.148
13:00 - 14:00	4	4215	0.089	4	4215	0.053	4	4215	0.142
14:00 - 15:00	4	4215	0.071	4	4215	0.030	4	4215	0.101
15:00 - 16:00	4	4215	0.077	4	4215	0.053	4	4215	0.130
16:00 - 17:00	4	4215	0.036	4	4215	0.053	4	4215	0.089
17:00 - 18:00	4	4215	0.012	4	4215	0.077	4	4215	0.089
18:00 - 19:00	4	4215	0.012	4	4215	0.036	4	4215	0.048
19:00 - 20:00	1	1976	0.000	1	1976	0.304	1	1976	0.304
20:00 - 21:00	1	1976	0.000	1	1976	0.152	1	1976	0.152
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.885			1.125			2.010

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	1976	0.000	1	1976	0.000	1	1976	0.000
06:00 - 07:00	1	1976	0.051	1	1976	0.000	1	1976	0.051
07:00 - 08:00	4	4215	0.006	4	4215	0.000	4	4215	0.006
08:00 - 09:00	4	4215	0.018	4	4215	0.000	4	4215	0.018
09:00 - 10:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
10:00 - 11:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
11:00 - 12:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
12:00 - 13:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
13:00 - 14:00	4	4215	0.006	4	4215	0.006	4	4215	0.012
14:00 - 15:00	4	4215	0.000	4	4215	0.006	4	4215	0.006
15:00 - 16:00	4	4215	0.000	4	4215	0.012	4	4215	0.012
16:00 - 17:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
17:00 - 18:00	4	4215	0.000	4	4215	0.012	4	4215	0.012
18:00 - 19:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
19:00 - 20:00	1	1976	0.000	1	1976	0.000	1	1976	0.000
20:00 - 21:00	1	1976	0.000	1	1976	0.000	1	1976	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.081			0.036			0.117

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	1976	0.000	1	1976	0.000	1	1976	0.000
06:00 - 07:00	1	1976	0.000	1	1976	0.000	1	1976	0.000
07:00 - 08:00	4	4215	0.119	4	4215	0.012	4	4215	0.131
08:00 - 09:00	4	4215	0.285	4	4215	0.030	4	4215	0.315
09:00 - 10:00	4	4215	0.142	4	4215	0.018	4	4215	0.160
10:00 - 11:00	4	4215	0.036	4	4215	0.018	4	4215	0.054
11:00 - 12:00	4	4215	0.053	4	4215	0.053	4	4215	0.106
12:00 - 13:00	4	4215	0.059	4	4215	0.077	4	4215	0.136
13:00 - 14:00	4	4215	0.095	4	4215	0.095	4	4215	0.190
14:00 - 15:00	4	4215	0.071	4	4215	0.125	4	4215	0.196
15:00 - 16:00	4	4215	0.030	4	4215	0.154	4	4215	0.184
16:00 - 17:00	4	4215	0.024	4	4215	0.107	4	4215	0.131
17:00 - 18:00	4	4215	0.042	4	4215	0.214	4	4215	0.256
18:00 - 19:00	4	4215	0.030	4	4215	0.208	4	4215	0.238
19:00 - 20:00	1	1976	0.000	1	1976	0.000	1	1976	0.000
20:00 - 21:00	1	1976	0.000	1	1976	0.000	1	1976	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.986			1.111			2.097

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

LGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	1976	0.000	1	1976	0.000	1	1976	0.000
06:00 - 07:00	1	1976	0.051	1	1976	0.000	1	1976	0.051
07:00 - 08:00	4	4215	0.030	4	4215	0.000	4	4215	0.030
08:00 - 09:00	4	4215	0.036	4	4215	0.047	4	4215	0.083
09:00 - 10:00	4	4215	0.065	4	4215	0.036	4	4215	0.101
10:00 - 11:00	4	4215	0.047	4	4215	0.042	4	4215	0.089
11:00 - 12:00	4	4215	0.059	4	4215	0.030	4	4215	0.089
12:00 - 13:00	4	4215	0.047	4	4215	0.042	4	4215	0.089
13:00 - 14:00	4	4215	0.036	4	4215	0.036	4	4215	0.072
14:00 - 15:00	4	4215	0.024	4	4215	0.024	4	4215	0.048
15:00 - 16:00	4	4215	0.012	4	4215	0.018	4	4215	0.030
16:00 - 17:00	4	4215	0.030	4	4215	0.042	4	4215	0.072
17:00 - 18:00	4	4215	0.006	4	4215	0.012	4	4215	0.018
18:00 - 19:00	4	4215	0.000	4	4215	0.024	4	4215	0.024
19:00 - 20:00	1	1976	0.000	1	1976	0.000	1	1976	0.000
20:00 - 21:00	1	1976	0.000	1	1976	0.051	1	1976	0.051
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.443			0.404			0.847

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MOTOR CYCLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	1976	0.000	1	1976	0.000	1	1976	0.000
06:00 - 07:00	1	1976	0.000	1	1976	0.000	1	1976	0.000
07:00 - 08:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
08:00 - 09:00	4	4215	0.006	4	4215	0.000	4	4215	0.006
09:00 - 10:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
10:00 - 11:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
11:00 - 12:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
12:00 - 13:00	4	4215	0.006	4	4215	0.000	4	4215	0.006
13:00 - 14:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
14:00 - 15:00	4	4215	0.000	4	4215	0.012	4	4215	0.012
15:00 - 16:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
16:00 - 17:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
17:00 - 18:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
18:00 - 19:00	4	4215	0.000	4	4215	0.000	4	4215	0.000
19:00 - 20:00	1	1976	0.000	1	1976	0.000	1	1976	0.000
20:00 - 21:00	1	1976	0.000	1	1976	0.000	1	1976	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.012			0.012			0.024

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.

APPENDIX E. Distribution Model

	%	Time	Distance	1	2	3	4	%	Proportion
Alton	0.65%	35	40	New Ln S	Bartons Rd W	B2149 N	B2149 N	60%	0.39%
		36	41	New Ln S	Crossland Dr	B2149 N	B2149 N	40%	0.26%
Basingstoke	0.20%	50	58	New Ln N	Bartons Rd W	B2149 N	B2149 N	50%	0.10%
		50	59	New Ln S	Crossland Dr	B2149 N	B2149 N	40%	0.08%
Bedhampton	7.92%	60	85	New Ln S	Crossland Dr	B2149 S	Park Rd N	10%	0.02%
		7	3	New Ln S	Crossland Dr	B2149 S	New Rd	50%	0.96%
		8	4	New Ln S	Crossland Dr	Bedhampton Way	Bedhampton Way	10%	0.79%
		8	3	New Ln S	Eastern Rd	New Rd	New Rd	30%	2.38%
		81	4	New Ln N	Bartons Rd W	B2149 S	New Rd	10%	0.27%
Bishop's Waltham	0.80%	30	30	New Ln N	Bartons Rd W	B2149 N	B2149 N	10%	0.08%
		39	27	New Ln S	Crossland Dr	B2149 S	Park Rd N	30%	0.24%
		30	28	New Ln S	Eastern Rd	New Rd	New Rd	20%	0.16%
		28	29	New Ln S	Eastern Rd	Park Rd N	Park Rd N	40%	0.32%
Bognor Regis	1.40%	46	29	New Ln N	Bartons Rd E	Emsworth Common Rd	Emsworth Common Rd	30%	0.42%
		35	29	New Ln S	Beechworth Rd	Emsworth Rd	Emsworth Rd	70%	0.98%
Bordon	0.40%	28	35	New Ln N	Bartons Rd W	B2149 N	B2149 N	50%	0.20%
		30	35	New Ln S	Crossland Dr	B2149 N	B2149 N	30%	0.12%
		40	39	New Ln N	Bartons Rd E	Emsworth Common Rd	Emsworth Common Rd	20%	0.08%
Chechester	2.91%	20	17	New Ln N	Bartons Rd E	Emsworth Common Rd	Emsworth Common Rd	80%	1.75%
		20	18	New Ln S	Beechworth Rd	Emsworth Rd	Emsworth Rd	40%	1.16%
Clarefield	1.86%	14	10	New Ln N	Bartons Rd W	B2149 N	B2149 N	60%	1.11%
		12	10	New Ln S	Crossland Dr	B2149 N	B2149 N	40%	0.74%
Eastleigh	0.60%	50	45	New Ln N	Bartons Rd W	B2149 N	B2149 N	20%	0.12%
		35	39	New Ln S	Crossland Dr	B2149 S	Park Rd N	40%	0.24%
		35	39	New Ln S	Eastern Rd	Park Rd N	Park Rd N	40%	0.24%
Emsworth	4.78%	17	5	New Ln N	Bartons Rd E	Horndean Rd	Horndean Rd	60%	2.86%
		10	5	New Ln S	Beechworth Rd	Emsworth Rd	Emsworth Rd	40%	1.91%
Fareham	5.82%	22	20	New Ln S	Crossland Dr	B2149 S	Park Rd N	20%	1.16%
		22	20	New Ln S	Eastern Rd	Park Rd N	Park Rd N	20%	1.16%
		24	20	New Ln S	Eastern Rd	New Rd	New Rd	10%	0.58%
		24	17	New Ln S	Crossland Dr	B2149 S	New Rd	20%	1.16%
		22	21	New Ln N	Bartons Rd W	B2149 S	Park Rd N	10%	0.58%
		22	20	New Ln N	Bartons Rd W	B2149 S	New Rd	20%	1.16%
Farnham	0.05%	40	48	New Ln N	Bartons Rd W	B2149 N	B2149 N	60%	0.07%
		45	49	New Ln S	Crossland Dr	B2149 N	B2149 N	40%	0.02%
Gosport	3.91%	50	31	New Ln S	Crossland Dr	Bedhampton Way	Bedhampton Way	10%	0.39%
		40	25	New Ln S	Crossland Dr	B2149 S	New Rd	20%	0.74%
		40	27	New Ln S	Crossland Dr	B2149 S	Park Rd N	10%	0.39%
		40	27	New Ln S	Eastern Rd	New Rd	New Rd	10%	0.39%
		40	27	New Ln S	Eastern Rd	Park Rd N	Park Rd N	10%	0.39%
		35	28	New Ln N	Bartons Rd W	B2149 S	Park Rd N	20%	0.78%
		35	28	New Ln N	Bartons Rd W	B2149 S	New Rd	20%	0.78%
Guildford	0.20%	65	67	New Ln N	Bartons Rd E	Emsworth Common Rd	Emsworth Common Rd	10%	0.02%
		65	65	New Ln N	Bartons Rd W	B2149 N	B2149 N	30%	0.38%
Haslemere	0.10%	45	44	New Ln N	Bartons Rd E	Emsworth Common Rd	Emsworth Common Rd	20%	0.02%
		35	42	New Ln N	Bartons Rd W	B2149 N	B2149 N	80%	0.08%
Havant	10.98%			New Ln N	Bartons Rd W	B2149 N	Remains in Havant	10%	1.10%
				New Ln S	Crossland Dr	B2149 N	Remains in Havant	20%	2.20%
				New Ln S	Crossland Dr	B2149 S	Remains in Havant	20%	2.20%
				New Ln S	Crossland Dr	Bedhampton Way	Remains in Havant	20%	2.20%
				New Ln S	Eastern Rd	New Rd	Remains in Havant	20%	2.20%
				New Ln S	Remains in Havant	Remains in Havant	Remains in Havant	10%	1.10%
Hayling Island	3.68%	14	9	New Ln S	Crossland Dr	B2149 S	Park Rd N	50%	1.83%
		14	9	New Ln S	Eastern Rd	Park Rd N	Park Rd N	50%	1.83%
Hedge End	1.10%	28	30	New Ln S	Crossland Dr	B2149 S	Park Rd N	20%	0.22%
		28	30	New Ln S	Eastern Rd	Park Rd N	Park Rd N	20%	0.22%
		28	30	New Ln S	Eastern Rd	New Rd	New Rd	20%	0.22%
		35	29	New Ln S	Crossland Dr	B2149 S	New Rd	10%	0.11%
		28	31	New Ln N	Bartons Rd W	B2149 S	Park Rd N	20%	0.22%
		32	31	New Ln N	Bartons Rd W	B2149 S	New Rd	10%	0.11%
Horndean	4.36%	10	8	New Ln N	Bartons Rd W	B2149 N	B2149 N	50%	2.18%
		10	8	New Ln S	Crossland Dr	B2149 N	B2149 N	50%	2.18%
Liss	0.20%	20	25	New Ln N	Bartons Rd W	B2149 N	B2149 N	90%	0.18%
		40	30	New Ln N	Bartons Rd E	Emsworth Common Rd	Emsworth Common Rd	10%	0.02%
Littlehampton	0.50%	45	37	New Ln N	Bartons Rd E	Emsworth Common Rd	Emsworth Common Rd	40%	0.20%
		40	41	New Ln S	Beechworth Rd	Emsworth Rd	Emsworth Rd	60%	0.30%
London	0.40%			New Ln N	Bartons Rd W	B2149 N	B2149 N	60%	0.24%
				New Ln S	Crossland Dr	B2149 N	B2149 N	40%	0.16%
Midhurst	0.11%	30	37	New Ln N	Bartons Rd W	B2149 N	B2149 N	60%	0.09%
		35	30	New Ln N	Bartons Rd E	Emsworth Common Rd	Emsworth Common Rd	40%	0.06%
Other East	0.35%			New Ln S	Beechworth Rd	Emsworth Rd	Emsworth Rd	100%	0.35%
Other North	1.60%			New Ln S	Crossland Dr	B2149 S	Park Rd N	50%	0.80%
				New Ln S	Eastern Rd	Park Rd N	Park Rd N	50%	0.80%
Other South	0.10%			New Ln S	Crossland Dr	B2149 S	Park Rd N	50%	0.05%
				New Ln S	Eastern Rd	Park Rd N	Park Rd N	50%	0.05%
Other West	1.11%			New Ln S	Crossland Dr	B2149 S	Park Rd N	30%	0.35%
				New Ln S	Eastern Rd	Park Rd N	Park Rd N	30%	0.35%
				New Ln N	Bartons Rd W	B2149 S	Park Rd N	20%	0.23%
				New Ln N	Bartons Rd W	B2149 S	New Rd	20%	0.23%
Petersfield	0.90%	16	20	New Ln N	Bartons Rd W	B2149 N	B2149 N	60%	0.54%
		18	20	New Ln S	Crossland Dr	B2149 N	B2149 N	40%	0.36%
Portsmouth	20.16%	14	12	New Ln S	Crossland Dr	B2149 S	Park Rd N	30%	6.05%
		16	12	New Ln S	Eastern Rd	Park Rd N	Park Rd N	20%	4.03%
		16	12	New Ln S	Eastern Rd	New Rd	New Rd	20%	4.03%
		18	12	New Ln S	Crossland Dr	B2149 S	New Rd	10%	2.02%
		16	13	New Ln N	Bartons Rd W	B2149 S	Park Rd N	10%	2.02%
		16	13	New Ln N	Bartons Rd W	B2149 S	New Rd	10%	2.02%
Purbebrook	2.96%	8	6	New Ln S	Crossland Dr	Bedhampton Way	Bedhampton Way	40%	1.18%
		10	6	New Ln S	Eastern Rd	New Rd	New Rd	20%	0.59%
		10	6	New Ln S	Crossland Dr	B2149 S	New Rd	20%	0.59%
		10	6	New Ln N	Bartons Rd W	B2149 S	Stockheath Rd	20%	0.59%
Southampton	1.50%	48	38	New Ln S	Crossland Dr	B2149 S	Park Rd N	20%	0.30%
		40	38	New Ln S	Eastern Rd	Park Rd N	Park Rd N	20%	0.30%
		40	37	New Ln S	Eastern Rd	New Rd	New Rd	30%	0.45%
		45	36	New Ln S	Crossland Dr	B2149 S	New Rd	10%	0.15%
		40	39	New Ln N	Bartons Rd W	B2149 S	Park Rd N	10%	0.15%
		40	39	New Ln N	Bartons Rd W	B2149 S	New Rd	10%	0.15%
Walderton / Funtington	1.40%	12	9	New Ln N	Bartons Rd E	Emsworth Common Rd	Emsworth Common Rd	60%	0.84%
		14	9	New Ln N	Bartons Rd E	Horndean Rd	Horndean Rd	40%	0.56%
Waterlooville	16.10%	14	10	New Ln N	Bartons Rd W	B2149 N	B2149 N	10%	1.61%
		14	10	New Ln S	Crossland Dr	B2149 N	B2149 N	10%	1.61%
		17	8	New Ln S	Crossland Dr	Bedhampton Way	Bedhampton Way	30%	4.83%
		12	8	New Ln S	Eastern Rd	New Rd	New Rd	30%	4.83%
		12	9	New Ln S	Crossland Dr	B2149 S	New Rd	20%	2.27%
West Meon / Hambledon	0.40%	28	22	New Ln N	Bartons Rd W	B2149 N	B2149 N	50%	0.20%
		28	22	New Ln S	Crossland Dr	B2149 N	B2149 N	50%	0.20%
Winchester	0.20%	40	41	New Ln N	Bartons Rd W	B2149 N	B2149 N	50%	0.10%
		40	41	New Ln S	Crossland Dr	B2149 N	B2149 N	50%	0.10%
Worthing	0.20%	50	52	New Ln S	Beechworth Rd	Emsworth Rd	Emsworth Rd	100%	0.20%

New Ln N	25.19%	Bartons Rd W	18.36%	B2149 N	16.57%	B2149 N	13.28%
		Bartons Rd E	6.83%	Emsworth Common Rd	3.41%	Emsworth Common Rd	3.41%
			43.27%	Horndean Rd	3.42%	Horndean Rd	3.42%
New Ln S	74.81%	Crossland Dr		B2149 S	35.67%		
				Bedhampton Way	9.39%		
						Park Rd N	25.34%
						New Rd	30.88%
						Stockheath Rd	0.59%
						Bedhampton Way	7.30%
				Eastern Rd	25.53%	New Rd	15.83%
						Park Rd N	9.70%
		Remains in Havant	1.10%	Remains in Havant	1.10%		
		Beechworth Rd	4.90%	Emsworth Rd	4.90%	Emsworth Rd	4.90%
	100.00%		100.00%		100.00%		100.00%

APPENDIX F. Junction Modelling Outputs

Junctions 9					
PICADY 9 - Priority Intersection Module					
Version: 9.5.0.6896					
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Filename: Stanbridge Road Site Access.j9

Path: T:\Projects\14000 Series\14488\ITB New Lane and Stanbridge Road Havant\Tech\Junction Assessments\Picady

Report generation date: 21/06/2019 16:23:39

»2021 with Dev, AM

»2021 with Dev, PM

Summary of junction performance

	AM					PM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
2021 with Dev										
Stream B-AC	0.0	9.17	0.02	A	389 %	0.1	8.03	0.05	A	359 %
Stream C-AB	0.0	0.00	0.00	A	[Stream B-AC]	0.0	0.00	0.00	A	[Stream B-AC]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	26/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\Hotdesk
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	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	2021 with Dev	AM	ONE HOUR	07:45	09:15	15
D2	2021 with Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2021 with Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.28	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	389	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	Stanbridge Road W		Major
B	Site Access		Minor
C	Stanbridge Road E		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Stanbridge Road E	7.40			71.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	4.20	24	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	556	0.095	0.241	0.151	0.344
1	B-C	715	0.103	0.260	-	-
1	C-B	615	0.224	0.224	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 with Dev	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Stanbridge Road W		✓	260	100.000
B - Site Access		✓	9	100.000
C - Stanbridge Road E		✓	58	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Stanbridge Road W	B - Site Access	C - Stanbridge Road E
From	A - Stanbridge Road W	0	26	234
	B - Site Access	9	0	0
	C - Stanbridge Road E	58	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Stanbridge Road W	B - Site Access	C - Stanbridge Road E
From	A - Stanbridge Road W	0	8	3
	B - Site Access	19	0	0
	C - Stanbridge Road E	13	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.02	9.17	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	7	423	0.016	7	0.0	8.647	A
C-AB	0	535	0.000	0	0.0	0.000	A
C-A	44			44			
A-B	20			20			
A-C	176			176			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	414	0.020	8	0.0	8.861	A
C-AB	0	527	0.000	0	0.0	0.000	A
C-A	52			52			
A-B	23			23			
A-C	210			210			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	10	402	0.025	10	0.0	9.173	A
C-AB	0	515	0.000	0	0.0	0.000	A
C-A	64			64			
A-B	29			29			
A-C	258			258			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	10	402	0.025	10	0.0	9.173	A
C-AB	0	515	0.000	0	0.0	0.000	A
C-A	64			64			
A-B	29			29			
A-C	258			258			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	414	0.020	8	0.0	8.862	A
C-AB	0	527	0.000	0	0.0	0.000	A
C-A	52			52			
A-B	23			23			
A-C	210			210			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	7	423	0.016	7	0.0	8.651	A
C-AB	0	535	0.000	0	0.0	0.000	A
C-A	44			44			
A-B	20			20			
A-C	176			176			

2021 with Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.43	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	359	Stream B-AC

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	2021 with Dev	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Stanbridge Road W		✓	82	100.000
B - Site Access		✓	22	100.000
C - Stanbridge Road E		✓	289	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Stanbridge Road W	B - Site Access	C - Stanbridge Road E
From	A - Stanbridge Road W	0	4	78
	B - Site Access	22	0	0
	C - Stanbridge Road E	289	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Stanbridge Road W	B - Site Access	C - Stanbridge Road E
From	A - Stanbridge Road W	0	3	13
	B - Site Access	2	0	0
	C - Stanbridge Road E	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.05	8.03	0.1	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	17	496	0.033	16	0.0	7.508	A
C-AB	0	585	0.000	0	0.0	0.000	A
C-A	218			218			
A-B	3			3			
A-C	59			59			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	20	486	0.041	20	0.0	7.720	A
C-AB	0	582	0.000	0	0.0	0.000	A
C-A	260			260			
A-B	4			4			
A-C	70			70			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	24	473	0.051	24	0.1	8.025	A
C-AB	0	578	0.000	0	0.0	0.000	A
C-A	318			318			
A-B	4			4			
A-C	86			86			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	24	473	0.051	24	0.1	8.027	A
C-AB	0	578	0.000	0	0.0	0.000	A
C-A	318			318			
A-B	4			4			
A-C	86			86			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	20	486	0.041	20	0.0	7.723	A
C-AB	0	582	0.000	0	0.0	0.000	A
C-A	260			260			
A-B	4			4			
A-C	70			70			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	17	496	0.033	17	0.0	7.515	A
C-AB	0	585	0.000	0	0.0	0.000	A
C-A	218			218			
A-B	3			3			
A-C	59			59			

Junctions 9										
PICADY 9 - Priority Intersection Module										
Version: 9.5.0.6896										
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Filename: New Lane-Stanbridge Road.j9

Path: T:\Projects\14000 Series\14488\TB New Lane and Stanbridge Road Havant\Tech\Junction Assessments\Picady

Report generation date: 06/06/2019 16:12:37

- »2019, AM
- »2019, PM
- »2021, AM
- »2021, PM
- »2021 with Dev, AM
- »2021 with Dev, PM

Summary of junction performance

	AM					PM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
2019										
Stream B-AC	0.2	8.54	0.14	A	76 %	1.3	14.72	0.58	B	35 %
Stream C-AB	0.8	8.79	0.39	A	[Stream C-AB]	0.2	6.07	0.12	A	[Stream B-AC]
2021										
Stream B-AC	0.2	8.69	0.15	A	71 %	1.4	15.52	0.60	C	31 %
Stream C-AB	0.8	8.99	0.40	A	[Stream C-AB]	0.2	6.05	0.12	A	[Stream B-AC]
2021 with Dev										
Stream B-AC	0.2	8.65	0.15	A	69 %	1.4	15.29	0.59	C	32 %
Stream C-AB	0.9	9.06	0.41	A	[Stream C-AB]	0.2	6.06	0.12	A	[Stream B-AC]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	26/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\Hotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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)	Run automatically
D1	2019	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019	PM	ONE HOUR	16:45	18:15	15	✓
D3	2021	AM	ONE HOUR	07:45	09:15	15	✓
D4	2021	PM	ONE HOUR	16:45	18:15	15	✓
D5	2021 with Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2021 with Dev	PM	ONE HOUR	16:45	18:15	15	✓

Growth Factors

ID	Description	Use TEMPRO	Growth Factor
G1	2019-2021 AM		1.0319
G2	2019-2021 PM		1.0291

Growth factors are only active if the Demand Set references them in a Relationship.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2019, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	76	Stream C-AB

Arms

Arms

Arm	Name	Description	Arm type
A	New Lane N		Major
B	Stanbridge Road		Minor
C	New Lane S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - New Lane S	9.25			100.0	✓	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 - Stanbridge Road	One lane	4.30	56	61

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	594	0.093	0.235	0.148	0.336
1	B-C	749	0.099	0.249	-	-
1	C-B	632	0.210	0.210	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - New Lane N		ONE HOUR	✓	351	100.000
B - Stanbridge Road		ONE HOUR	✓	64	100.000
C - New Lane S		ONE HOUR	✓	343	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - New Lane N	B - Stanbridge Road	C - New Lane S
From	A - New Lane N	0	85	266
	B - Stanbridge Road	20	0	44
	C - New Lane S	178	165	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - New Lane N	B - Stanbridge Road	C - New Lane S
From	A - New Lane N	0	5	2
	B - Stanbridge Road	15	0	14
	C - New Lane S	4	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.14	8.54	0.2	A	59	88
C-AB	0.39	8.79	0.8	A	204	306
C-A					111	166
A-B					78	117
A-C					244	366

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	12	530	0.091	48	0.0	0.1	7.464	A
C-AB	157	39	649	0.241	155	0.0	0.4	7.277	A
C-A	102	25			102				
A-B	64	16			64				
A-C	200	50			200				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	14	514	0.112	57	0.1	0.1	7.883	A
C-AB	197	49	657	0.299	196	0.4	0.5	7.810	A
C-A	112	28			112				
A-B	76	19			76				
A-C	239	60			239				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	18	492	0.143	70	0.1	0.2	8.528	A
C-AB	258	64	668	0.386	257	0.5	0.8	8.744	A
C-A	120	30			120				
A-B	94	23			94				
A-C	293	73			293				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	18	492	0.143	70	0.2	0.2	8.540	A
C-AB	258	65	669	0.386	258	0.8	0.8	8.789	A
C-A	120	30			120				
A-B	94	23			94				
A-C	293	73			293				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	14	514	0.112	58	0.2	0.1	7.896	A
C-AB	197	49	657	0.299	198	0.8	0.5	7.868	A
C-A	111	28			111				
A-B	76	19			76				
A-C	239	60			239				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	12	529	0.091	48	0.1	0.1	7.487	A
C-AB	157	39	649	0.242	158	0.5	0.4	7.340	A
C-A	101	25			101				
A-B	64	16			64				
A-C	200	50			200				

2019, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		6.07	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	35	Stream B-AC

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)	Run automatically
D2	2019	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - New Lane N		ONE HOUR	✓	234	100.000
B - Stanbridge Road		ONE HOUR	✓	301	100.000
C - New Lane S		ONE HOUR	✓	279	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A - New Lane N	B - Stanbridge Road	C - New Lane S
	A - New Lane N	0	33	201
	B - Stanbridge Road	91	0	210
	C - New Lane S	233	46	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - New Lane N	B - Stanbridge Road	C - New Lane S
	A - New Lane N	0	9	1
	B - Stanbridge Road	7	0	5
	C - New Lane S	2	15	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.58	14.72	1.3	B	276	414
C-AB	0.12	6.07	0.2	A	63	95
C-A					193	289
A-B					30	45
A-C					184	277

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	57	602	0.377	224	0.0	0.6	9.477	A
C-AB	48	12	641	0.074	47	0.0	0.1	6.065	A
C-A	162	41			162				
A-B	25	6			25				
A-C	151	38			151				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	271	68	591	0.458	270	0.6	0.8	11.174	B
C-AB	61	15	659	0.092	61	0.1	0.1	6.032	A
C-A	190	48			190				
A-B	30	7			30				
A-C	181	45			181				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	331	83	576	0.576	329	0.8	1.3	14.510	B
C-AB	81	20	685	0.119	81	0.1	0.2	5.979	A
C-A	226	56			226				
A-B	36	9			36				
A-C	221	55			221				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	331	83	576	0.576	331	1.3	1.3	14.725	B
C-AB	81	20	685	0.119	81	0.2	0.2	5.966	A
C-A	226	56			226				
A-B	36	9			36				
A-C	221	55			221				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	271	68	591	0.458	272	1.3	0.9	11.376	B
C-AB	61	15	660	0.092	61	0.2	0.2	5.998	A
C-A	190	47			190				
A-B	30	7			30				
A-C	181	45			181				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	57	602	0.377	228	0.9	0.6	9.649	A
C-AB	48	12	641	0.075	48	0.2	0.1	6.058	A
C-A	162	41			162				
A-B	25	6			25				
A-C	151	38			151				

2021, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.44	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	71	Stream C-AB

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)	Run automatically
D3	2021	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - New Lane N		ONE HOUR	✓	362	100.000
B - Stanbridge Road		ONE HOUR	✓	66	100.000
C - New Lane S		ONE HOUR	✓	354	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A - New Lane N	B - Stanbridge Road	C - New Lane S
	A - New Lane N	0	88	274
	B - Stanbridge Road	21	0	45
	C - New Lane S	184	170	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - New Lane N	B - Stanbridge Road	C - New Lane S
	A - New Lane N	0	5	2
	B - Stanbridge Road	15	0	14
	C - New Lane S	4	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.15	8.69	0.2	A	61	91
C-AB	0.40	8.99	0.8	A	212	318
C-A					113	169
A-B					81	121
A-C					251	377

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	12	526	0.094	49	0.0	0.1	7.545	A
C-AB	163	41	650	0.250	161	0.0	0.4	7.343	A
C-A	104	26			104				
A-B	66	17			66				
A-C	206	52			206				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	59	15	510	0.116	59	0.1	0.1	7.989	A
C-AB	205	51	659	0.310	204	0.4	0.6	7.916	A
C-A	114	28			114				
A-B	79	20			79				
A-C	246	62			246				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	73	18	487	0.149	72	0.1	0.2	8.682	A
C-AB	269	67	671	0.401	268	0.5	0.8	8.934	A
C-A	121	30			121				
A-B	97	24			97				
A-C	302	75			302				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	73	18	487	0.149	73	0.2	0.2	8.692	A
C-AB	269	67	671	0.401	269	0.8	0.8	8.986	A
C-A	120	30			120				
A-B	97	24			97				
A-C	302	75			302				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	59	15	510	0.116	59	0.2	0.1	8.004	A
C-AB	205	51	659	0.311	206	0.8	0.6	7.982	A
C-A	113	28			113				
A-B	79	20			79				
A-C	246	62			246				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	12	526	0.095	50	0.1	0.1	7.568	A
C-AB	163	41	651	0.251	164	0.6	0.4	7.411	A
C-A	103	26			103				
A-B	66	17			66				
A-C	206	52			206				

2021, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		6.37	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	31	Stream B-AC

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)	Run automatically
D4	2021	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - New Lane N		ONE HOUR	✓	241	100.000
B - Stanbridge Road		ONE HOUR	✓	310	100.000
C - New Lane S		ONE HOUR	✓	287	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A - New Lane N	B - Stanbridge Road	C - New Lane S
	A - New Lane N	0	34	207
	B - Stanbridge Road	94	0	216
	C - New Lane S	240	47	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - New Lane N	B - Stanbridge Road	C - New Lane S
	A - New Lane N	0	9	1
	B - Stanbridge Road	7	0	5
	C - New Lane S	2	15	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.60	15.52	1.4	C	284	427
C-AB	0.12	6.05	0.2	A	65	98
C-A					198	297
A-B					31	47
A-C					190	285

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	233	58	600	0.389	231	0.0	0.6	9.690	A
C-AB	49	12	643	0.076	49	0.0	0.1	6.052	A
C-A	167	42			167				
A-B	26	6			26				
A-C	156	39			156				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	279	70	589	0.473	278	0.6	0.9	11.535	B
C-AB	63	16	663	0.095	63	0.1	0.2	6.016	A
C-A	195	49			195				
A-B	31	8			31				
A-C	186	47			186				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	341	85	573	0.596	339	0.9	1.4	15.255	C
C-AB	84	21	690	0.122	84	0.2	0.2	5.966	A
C-A	232	58			232				
A-B	37	9			37				
A-C	228	57			228				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	341	85	573	0.596	341	1.4	1.4	15.518	C
C-AB	84	21	690	0.122	84	0.2	0.2	5.951	A
C-A	232	58			232				
A-B	37	9			37				
A-C	228	57			228				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	279	70	589	0.473	281	1.4	0.9	11.774	B
C-AB	63	16	663	0.095	63	0.2	0.2	5.982	A
C-A	195	49			195				
A-B	31	8			31				
A-C	186	47			186				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	233	58	600	0.389	234	0.9	0.6	9.882	A
C-AB	49	12	644	0.077	50	0.2	0.1	6.044	A
C-A	167	42			167				
A-B	26	6			26				
A-C	156	39			156				

2021 with Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.49	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	69	Stream C-AB

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)	Run automatically
D5	2021 with Dev	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - New Lane N		ONE HOUR	✓	362	100.000
B - Stanbridge Road		ONE HOUR	✓	67	100.000
C - New Lane S		ONE HOUR	✓	356	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - New Lane N	B - Stanbridge Road	C - New Lane S
From	A - New Lane N	0	88	274
	B - Stanbridge Road	21	0	46
	C - New Lane S	184	172	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - New Lane N	B - Stanbridge Road	C - New Lane S
From	A - New Lane N	0	5	2
	B - Stanbridge Road	15	0	13
	C - New Lane S	4	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.15	8.65	0.2	A	61	92
C-AB	0.41	9.06	0.9	A	215	322
C-A					112	168
A-B					81	121
A-C					251	377

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	13	530	0.095	50	0.0	0.1	7.501	A
C-AB	165	41	650	0.253	163	0.0	0.4	7.371	A
C-A	103	26			103				
A-B	66	17			66				
A-C	206	52			206				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	60	15	513	0.117	60	0.1	0.1	7.944	A
C-AB	207	52	659	0.314	206	0.4	0.6	7.958	A
C-A	113	28			113				
A-B	79	20			79				
A-C	246	62			246				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	74	18	490	0.150	74	0.1	0.2	8.636	A
C-AB	272	68	671	0.406	271	0.6	0.9	9.003	A
C-A	120	30			120				
A-B	97	24			97				
A-C	302	75			302				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	74	18	490	0.151	74	0.2	0.2	8.647	A
C-AB	272	68	671	0.406	272	0.9	0.9	9.058	A
C-A	120	30			120				
A-B	97	24			97				
A-C	302	75			302				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	60	15	513	0.117	60	0.2	0.1	7.959	A
C-AB	207	52	659	0.314	208	0.9	0.6	8.026	A
C-A	113	28			113				
A-B	79	20			79				
A-C	246	62			246				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	13	529	0.095	51	0.1	0.1	7.521	A
C-AB	165	41	651	0.254	166	0.6	0.4	7.444	A
C-A	103	26			103				
A-B	66	17			66				
A-C	206	52			206				

2021 with Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		6.28	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	Stream B-AC

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)	Run automatically
D6	2021 with Dev	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - New Lane N		ONE HOUR	✓	241	100.000
B - Stanbridge Road		ONE HOUR	✓	312	100.000
C - New Lane S		ONE HOUR	✓	288	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - New Lane N	B - Stanbridge Road	C - New Lane S
From	A - New Lane N	0	34	207
	B - Stanbridge Road	94	0	218
	C - New Lane S	240	48	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - New Lane N	B - Stanbridge Road	C - New Lane S
From	A - New Lane N	0	9	1
	B - Stanbridge Road	6	0	4
	C - New Lane S	2	15	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.59	15.29	1.4	C	286	429
C-AB	0.12	6.06	0.2	A	67	100
C-A					197	296
A-B					31	47
A-C					190	285

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	59	606	0.388	232	0.0	0.6	9.574	A
C-AB	50	13	643	0.078	50	0.0	0.1	6.063	A
C-A	167	42			167				
A-B	26	6			26				
A-C	156	39			156				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	280	70	595	0.472	279	0.6	0.9	11.386	B
C-AB	64	16	663	0.097	64	0.1	0.2	6.032	A
C-A	195	49			195				
A-B	31	8			31				
A-C	186	47			186				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	344	86	579	0.594	341	0.9	1.4	15.034	C
C-AB	86	21	690	0.125	86	0.2	0.2	5.986	A
C-A	231	58			231				
A-B	37	9			37				
A-C	228	57			228				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	344	86	579	0.594	343	1.4	1.4	15.287	C
C-AB	86	22	690	0.125	86	0.2	0.2	5.968	A
C-A	231	58			231				
A-B	37	9			37				
A-C	228	57			228				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	280	70	595	0.472	283	1.4	0.9	11.616	B
C-AB	64	16	663	0.097	64	0.2	0.2	5.997	A
C-A	195	49			195				
A-B	31	8			31				
A-C	186	47			186				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	59	606	0.388	236	0.9	0.6	9.760	A
C-AB	50	13	644	0.078	51	0.2	0.1	6.052	A
C-A	166	42			166				
A-B	26	6			26				
A-C	156	39			156				

