



DEVELOPMENT SITES AT LANGHAM, COLCHESTER

Modelling Technical Note

October 2025

Mac Mic Group



**RESIDENTIAL DEVELOPMENT
DEVELOPMENT SITES AT LANGHAM, COLCHESTER
LANGHAM COLCHESTER**

MODELLING TECHNICAL NOTE

CONTROLLED DOCUMENT

<i>Document No:</i>	1056.0001/TN/4	
<i>Status:</i>	Revision	
	<i>Name</i>	<i>Date</i>
<i>Prepared by:</i>	Angus Clark	October 2025
<i>Checked by:</i>	Nick Bell	October 2025
<i>Approved by:</i>	Will Fayers	October 2025

Revision Record

<i>Rev.</i>	<i>Date</i>	<i>By</i>	<i>Summary of Changes</i>	<i>Aprvd</i>
2	4.11.2025	AGC	Minor Updates	NBE
3	19.12.2025	AAM	Update to traffic flows	NBE
4	12.01.2026	NBE	Bidwells comments	NBE

Disclaimer

This document has been prepared in accordance with the scope of Paul Basham Associates Ltd's appointment with its client and is subject to the terms of that appointment. It is addressed to and for the sole use and reliance of Paul Basham Associates clients. Paul Basham Associates accepts no liability for any use of this document other than by its client and only for the purposes, stated in the document, for which it was prepared and provided. No person other than the client may copy (in whole or in part), use or rely on the contents of this document, without the prior written permission of a Director of Paul Basham Associates. Any advice, opinions, or recommendations within this document should be read and relied upon only in the context of the document as a whole. The contents of this document are not to be construed as providing legal, business or tax advice or opinion.

© Paul Basham Associates Limited



Mac Mic Group
1 Atlantic Quay
1 Robertson Street,
Glasgow,
G2 8JB

Paul Basham Associates Ltd
Milton Hall
Ely Road
Milton
Cambridge
CB24 6WZ

RESIDENTIAL DEVELOPMENT DEVELOPMENT SITES AT LANGHAM, COLCHESTER LANGHAM COLCHESTER

MODELLING TECHNICAL NOTE

Contents

1.	INTRODUCTION.....	3
2.	PROPOSED SUSTAINABLE TRANSPORT MEASURES	4
3.	CONSULTEE FEEDBACK.....	5
4.	TRIP GENERATION & DISTRIBUTION.....	8
5.	JUNCTION MODELLING RESULTS	18
6.	SUMMARY AND CONCLUSIONS.....	26

Figures

Figure 1: Vehicle Distribution

Figure 2: Junction Modelling Study Area

Figure 3: School Road Committed Development Access

Tables

Table 1: Proposed Development Trip Generation – Residential

Table 2: Proposed Development Trip Generation – Primary School

Table 3: Proposed Development Trip Generation – Nursery

Table 4: Vehicle Distributions

Table 5: Vehicle Distributions – Existing Primary School

Table 6: Vehicle Distributions – Proposed Primary School and Nursery

Table 7: TEMPro 7.2 Growth Factor – 2025-2031

Table 8: TEMPro 7.2 Growth Factor – 2025-2033

Table 9: TEMPro 7.2 Growth Factor – 2025-2038

Table 10: Northern Site Access Modelling Results

Table 11: Southeast Site Access Modelling Results

Table 12: Southwest Site Access Modelling Results

Table 13: A12 Mini Roundabout Modelling Results

Table 14: Birchwood Road Junction Modelling Results

Table 15: Langham Lane/Severalls Lane Modelling Results

Table 16: Park Lane/Langham Lane Modelling Results

Table 17: Wick Road/Park Lane Modelling Results

Table 18: Wick Road/Birchwood Road Modelling Results

Table 19: Wick Road/St Margaret’s Cross Modelling Results

Table 20: A12/A120 Junction Modelling Results

Appendices

Appendix A: National Highways Response Letter

Appendix B: Pre-Application Meeting Minutes
Appendix C: TRICS Outputs
Appendix D: Committed Improvements to A12/A120 Junction
Appendix E: Merge/Diverge Assessment

1. INTRODUCTION

1.1 This Modelling Technical Note (TN) has been prepared by Paul Basham Associates on behalf of Mac Mic Group to present the traffic modelling undertaken in support of a residential development for c.900 dwellings at Land North of Park Lane, Langham.

1.2 This report will include the following sections:

Section 2: Proposed Sustainable Transport Measures: Measures proposed to mitigate the traffic generation of the proposed development.

Section 3: Consultee Feedback: Provides a summary of consultee feedback.

Section 4: Trip Generation and Distribution: Provides an overview of the forecast vehicle trip generation assessment identified to forecast the impact on the highway network and the distribution used for the junction modelling assessment.

Section 5: Junction Modelling Results: Provides an overview of the junction modelling assessment carried out and the impact the proposed development is to have on each junction.

Section 6: Summary and Conclusion: Provides an overview of the report and concluding findings.

2. PROPOSED SUSTAINABLE TRANSPORT MEASURES

Pedestrian and Cycle Accessibility

- 2.1 The absence of existing pedestrian infrastructure along Park Lane presents an opportunity to greatly improve pedestrian accessibility in Langham. Therefore, a footway/cycleway is to be proposed along the northern boundary of Park Lane, passing the two site accesses and connecting Langham and Langham Moor.
- 2.2 It is proposed that a 3m wide footway/cycleway is provided within the highway land available and/or within the site, which could follow the alignment of the existing PRow 'Langham 56,' which runs within the southern boundary of the site along Park Lane, to provide a continuous 3m wide footway/cycleway, offering an east-west connection for pedestrians and cyclists. However, it would not be proposed to run on top of the PRow route, but instead alongside, to maintain this route for pedestrians.
- 2.3 Additionally, as existing PRows running through the site may be diverted due to the proposed development, it is proposed that additional footway provision is provided through the site in the position of these existing routes. No further changes surrounding the existing PRow routes within proximity to the site would be proposed. This will allow for the proposed development to utilise the existing PRow routes improving pedestrian connectivity and reducing single occupancy vehicle travel.

Bus Strategy

- 2.4 To enhance the existing public transport accessibility, it is proposed that a bus service travels through the site, entering and exiting via the School Road and Park Lane east accesses. It is suggested that engagement with local bus operators is made to explore the feasibility of rerouting the existing services, and we are still awaiting feedback from ECC Passenger Transport team to understand their thoughts on the proposal.

3. CONSULTEE FEEDBACK

National Highways Feedback

- 3.1 Due to potential impacts of the proposed development on the A12, a part of the Strategic Road Network (SRN), National Highways (NH) have been consulted on the development proposals. As part of this process, the Pre-Application Scoping Note (PASN) prepared for the Land North of Park Lane site was submitted to NH for feedback and comments and NH attended our Pre-Application Meeting on 14th July 2025.
- 3.2 Feedback was received from NH in a response letter on 9th June 2025 following initial email correspondence before the Pre-Application Meeting. The full response letter is included in **Appendix A**. A summary of the relevant feedback and recommendations from NH is given below:

Accident Data

- 3.3 Personal Injury Collision accident data will be required to assess the highway safety conditions of the local highway network. As the period from March 2020 until August 2021 (inclusive) will not be accepted due to the COVID-19 pandemic. Therefore, 18 months of data prior to September 2019 should also be included.

WCHAR Assessment

- 3.4 Given the scale of development and proximity to the SRN, a Walking Cycling Horse-riding Assessment and Review (WCHAR) in accordance with GG142 within the DMRB should be conducted, which will also include a Safety Risk Assessment under GG104.

Development Impact

- 3.5 The proposed trip rates and trip generation are deemed acceptable.
- 3.6 Merge/diverge assessments on the A12 slip roads are required. The Birchwood Road/A12 on-slip/A12 off-slip roundabout and the Birchwood Road/Birchwood Road T-junction will need to be modelled, as per expectations set out in the PASN. A percentage impact assessment on the A12 J29 will be required to understand proposed development impacts, but formal traffic modelling of the junction may not be required if impacts are not significant.
- 3.7 An opening year modelling assessment is to be undertaken with TEMPro growth factors applied. Confirmation will be required from ECC regarding the inclusion of committed schemes.

- 3.8 Traffic surveys should be agreed with the NH network management team, and that queue surveys should be taken at the same time as counts.

Other

- 3.9 NH will not accept connections to their surface water drainage systems and will not allow noise barriers or advertisements with the highway boundary.

Pre-Application Meeting Feedback

- 3.10 A meeting with both Essex County Council (ECC) and NH in attendance was held on 14th July 2025. The meeting minutes are included in **Appendix B**. A summary of the relevant feedback and recommendations from ECC and NH is given below:

Access

- 3.11 ECC discussed that there may be local concerns in regard to the increase in traffic along Park Lane and into the village, therefore keeping a single point of access on Park Lane may be preferable, which might need to be upgraded to a right-turn lane or mini-roundabout to accommodate the increase in traffic, depending on junction modelling. However, overall agreement was reached that ECC do not object to the principle of proposed vehicular access solutions, which is to be supported by modelling and road safety audits ahead of the planning submission.

Active Transport

- 3.12 ECC confirmed that the development should seek to provide suitable pedestrian/cyclist connections from the site, but these would need to be within the control of the applicant or the highway authority. They supported the provision of footway cycleway along the southern boundary of the site, however, stated that there may be challenges to providing this along the current route of the PROW. Instead, it may be preferable to locate alongside the PROW to avoid any works to the PROW network. The design of the connection would have to be considered carefully, especially, if separate from the carriageway as ECC may not adopt this route. Overlooking and safety should also be considered.

Bus Strategy

- 3.13 ECC Highways would need to discuss the proposed bus route through the site with the ECC Passenger Transport team.

Development Impact

- 3.14 National Highways reconfirmed that they were satisfied with the trip rates and distribution as per the previous written response. ECC would review the trip rates and distribution but confirmed that the 2011 Census journey to work data was correct.
- 3.15 NH confirmed that the opening year + 5 years should be modelled (contradictory to their written feedback), whereas ECC would require 5 years post submission. ECC would confirm any committed developments to be included as well as use of TEMPro in the written response.
- 3.16 ECC confirmed that any junction under their ownership with an increase in 5% of traffic in the AM or PM peak should be modelled. NH confirmed that any National Highways junction with 30 or more vehicle trips through the junction during peak periods should be modelled.

Other

- 3.17 ECC confirmed that Travel Plan and Welcome Pack should be provided as part of any submission. Details of construction movements may be useful at planning stage, but a CTMP could be conditioned.
- 3.18 NH requested details of construction movements and routing within the TA as well as a separate WCHAR.
- 3.19 We are still awaiting written feedback from ECC following the meeting, who were proposing to liaise with ECC Passenger Transport team to get feedback on the proposed bus strategy.

4. TRIP GENERATION & DISTRIBUTION

Trip Generation

Residential

4.1 To forecast the likely vehicular trip generation of the residential element of the site, a TRICS assessment has been undertaken for 'Houses Privately Owned' as the closest approximation to the potential development type. The TRICS assessment has been undertaken using the following parameters:

- TRICS (v8.25.6)
- Use Class: 'Residential' and sub category: 'Houses Privately Owned'
- Sites in England only (excluding Greater London)
- Sites effected by Covid-19 pandemic restrictions are excluded
- Weekday surveys only
- 'Village' locations only

4.2 The results of the TRICS assessment are displayed in **Table 1**. Full details of the TRICS outputs generated are included at **Appendix C**.

Trip Generation	AM Peak (0800-0900)		PM Peak (1700-1800)	
	Arrivals	Departures	Arrivals	Departures
Trip Rate (per dwelling)	0.112	0.332	0.304	0.129
Trip Generation	101	290	274	116

Table 1: Proposed Development Trip Generation – Residential

4.3 The vehicular trips rates identified in **Table 1**, have been compared to the vehicle trip rates identified within nearby, recent planning applications. This includes the most recently approved (July 2023) 'School Road, Langham' (ref: 220595) application, which proposed an AM peak hour (08:00 – 09:00) vehicular trip rate of 0.157 arrivals and 0.293 departures per dwelling and a PM peak hour (17:00 – 18:00) vehicular trip rate of 0.252 arrivals and 0.136 departures. Furthermore, the 'Land at School Road, Langham' (ref: 191830) application was approved in December 2020 and proposed an AM peak hour (08:00 – 09:00) vehicular trip rate of 0.113 arrivals and 0.331 departures and a PM peak hour (17:00 – 18:00) vehicular trip rate of 0.269 arrivals and 0.120 departures. Therefore, it is considered that the vehicle trip rates identified in **Table 1** to be appropriate for the proposed development.

Primary School

4.4 To forecast the likely vehicular trip generation of the proposed primary school, a TRICS assessment has been undertaken for a 'Primary School' use. The TRICS assessment has been undertaken using the following parameters:

- TRICS (v8.25.11)
- Use Class: 'Education' and sub category: 'Primary'
- Sites effected by Covid-19 pandemic restrictions are excluded
- Weekday surveys only
- 'Neighbourhood Centre' locations only

The current school has been estimated as having a max capacity of 112 pupils. To provide a robust assessment of trip generation, based on a full two-form entry primary school, 420 pupils is the maximum that could be proposed on-site. It is also assumed for now that the introduction of the proposed school will lead to the closure of the existing school, with a worst-case scenario of all trips having to enter the proposed site.

4.5 The results of the TRICS assessment are displayed in **Table 2**. Full details of the TRICS outputs generated are included at **Appendix C**.

Trip Generation	AM Peak (0800-0900)		PM Peak (1700-1800)	
	Arrivals	Departures	Arrivals	Departures
Trip Rate (per pupil)	0.303	0.243	0.546	0.023
Trip Generation Existing (112 pupils)	34	27	61	3
Trip Generation Proposed (420 pupils)	127	102	229	10

Table 2: Proposed Development Trip Generation – Primary School

Nursery

4.6 To forecast the likely vehicular trip generation of the potential early years centre/nursery, a TRICS assessment has been undertaken for a 'Nursery' use. The TRICS assessment has been undertaken using the following parameters:

- TRICS (v8.25.11)
- Use Class: 'Education' and sub category: 'Nursery'
- Sites effected by Covid-19 pandemic restrictions are excluded

- Weekday surveys only
- 'Neighbourhood Centre' locations only

4.7 The results of the TRICS assessment are displayed in **Table 3**. Full details of the TRICS outputs generated are included at **Appendix C**.

Trip Generation	AM Peak (0800-0900)		PM Peak (1700-1800)	
	Arrivals	Departures	Arrivals	Departures
Trip Rate (per pupil)	0.303	0.243	0.546	0.023
Trip Generation (81 pupils)	23	20	42	17

Table 3: Proposed Development Trip Generation – Nursery

Vehicle Distribution

Residential

4.8 A trip distribution assessment for the residential element of the site has been undertaken to assess the likely vehicle distribution to/from the site, to forecast the likely impact on the local highway network. This is to inform the extent of the potential future junction modelling assessments required to assess junction capacity and impact of the proposed development.

4.9 The 2011 Census 'travel to work' data (WU03EW) has been utilised for residents within the 'Colchester 001' MSOA area in which the proposed site is located. Route planning software (Google Maps) has been reviewed to assess the likely vehicle distribution to/from the site. An overview of this distribution analysis is provided in **Table 4**.

Route	Distribution %
Northbound A12	16%
Southbound A12	61%
A120 East	8%
A120 West	36%
New Comen Way	2%
A1232 South	15%
Severalls Lane Northbound	2%
Langham Lane	22%
Axial Way	1%
The Crescent	2%
Severalls Lane Southbound	5%
Mill Road	6%

Table 4: Vehicle Distributions

4.10 **Figure 1** illustrates the vehicle distributions from the site. From the site, it has been assumed that 100% of traffic aiming to travel along the A12 northbound will depart the site via Park Lane East, due to the nearby proximity of the A12 northbound on-slip from this access. Traffic travelling on the A12 southbound has been assumed to depart the site as a 50%/50% split from Park Lane East and School Road due to the location of the A12 southbound on-slip. Similarly, it has been assumed that 100% of traffic arriving at the site from the A12 northbound will enter the site from Park Lane East. Traffic arriving to the site from the A12 southbound is assumed to split evenly between Park Lane East and School Road accesses.

4.11 At the time of undertaking the analysis, the Park Lane West access has been assumed as a cul-de-sac access and would take 22% of vehicle trips from the total site, equivalent to the approximately 200 dwellings. Although it is now understood that it is possible for this number to be higher or for there to be a through route proposed between the two plots, it has been kept at 22% of vehicle trips accessing the site from this access to provide an initial estimate.

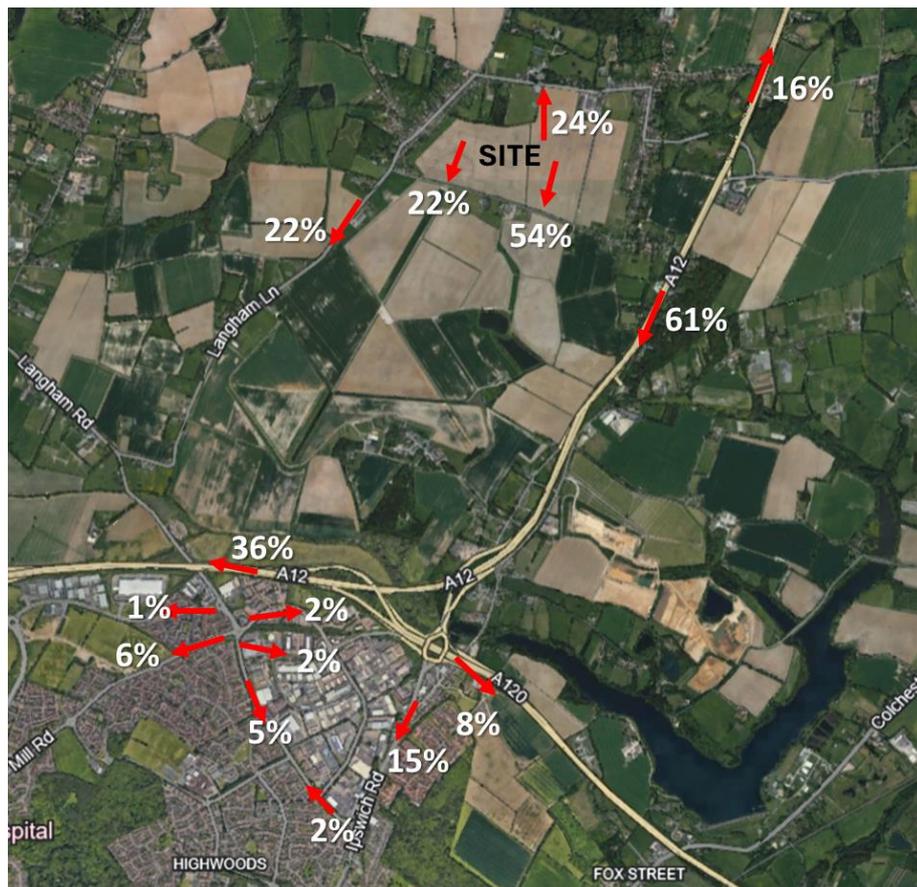


Figure 1: Vehicle Distribution

Primary School/Nursery

4.12 The existing primary school has had the trip distribution estimated on a first principles basis based on the location of houses in Langham Wick and Langham Moor. Based on this estimate, **Table 6** shows the distribution of traffic from the existing school.

Route	Distribution %
School Road – West	50%
Grove Hill – North	13%
Wick Road – South	38%

Table 5: Vehicle Distributions – Existing Primary School

4.13 The trip distribution for the proposed primary school and nursery have been calculated using first principles assumptions. The scale of the proposed development in terms of dwellings is fairly comparable to the existing number of houses in Langham Moor and Langham Wick, and it is therefore assumed that 50% of trips to and from the primary school and nursery will be internal trips and therefore will have no impact on external junctions to the site.

4.14 Of the remaining external trips, it has been assumed that they are split evenly between the northern and southeastern access, with 25% of external trips going in each possible direction from these two accesses, as shown in **Table 6**.

Route	Distribution %
Northern Access – West	25%
Northern Access – East	25%
Southeast Access – West	25%
Southeast Access – East	25%

Table 6: Vehicle Distributions – Proposed Primary School and Nursery

4.15 In order to inform the junction modelling assessment, a net trip generation assessment has been conducted to remove the trips associated with the existing school in favour of the trips from the proposed primary school and nursery.

Junction Modelling Methodology

4.16 As part of this TN junction modelling has been undertaken to assess the forecast operation of the local highway network. A total of 11 junctions were modelled, ten of which were modelled using Junctions 9 software. The ten junctions modelled using Junctions 9 software are listed below and shown in **Figure 2**.

1. Site Access (North)
2. Site Access (Southeast)
3. Site Access (Southwest)
4. A12 Mini Roundabout
5. Birchwood Road Junction
6. Langham Lane/Severalls Lane Junction
7. Park Lane/Langham Lane Junction
8. Park lane/Wick Road Junction
9. Wicks Road/Birchwood Road Junction
10. Wicks Road/St Margaret's Cross Junction

4.17 We also have also modelled the A12/A120 signalised junction using Linsig software this is shown as Junction 11 in **Figure 2**.



Figure 2: Junction Modelling Study Area

- 4.18 Merge/diverge assessments have also been completed at the following junctions with the A12:
- Birchwood Road / A12 junction
 - Park Lane / Ipswich Road A12 junction

Assessment Scenarios

4.19 Junction modelling has been undertaken to assess the forecast operation of the local highway network. Committed developments within vicinity of the site have been included within the modelling scenarios. The modelling assessment scenarios have been discussed with National Highways (NH) and Essex County Council (ECC) and are as follows:

- 2025 base year
- 2031 future year (5 years following planning application submission, as per ECC feedback for ECC junctions)
- 2033 future year (opening year of development, as per NH feedback for NH junctions)
- 2038 future year (5 years following opening year of development, as per NH feedback for NH junctions)
- 2031 future year + proposed development
- 2033 future year + proposed development
- 2038 future year + proposed development

4.20 As we have received conflicting feedback from the Highways Response Note and from the pre-application meeting from NH, we have included both 2033 and 2038 for assessment for the NH junction modelled (A12/A120 Junction), for completeness.

4.21 The 2031 future base year is proposed to be identified by applying the TEMPro 7.2 growth factors to the 2025 traffic flows. The TEMPro growth factors have been calculated for the Colchester area by all road types. The proposed TEMPro growth factors are identified below in **Table 7**.

TEMPro 2025 – 2031	Growth Factor
AM Peak Weekday	1.0275
PM Peak Weekday	1.0286

Table 7: TEMPro 7.2 Growth Factor – 2025-2031

4.22 The 2033 future base year is proposed to be identified by applying the TEMPro 7.2 growth factors to the 2025 traffic flows. The TEMPro growth factors have been calculated for the Colchester area by all road types. The proposed TEMPro growth factors are identified below in **Table 8**.

TEMPro 2025 – 2033	Growth Factor
AM Peak Weekday	1.0512
PM Peak Weekday	1.0514

Table 8: TEMPro 7.2 Growth Factor – 2025-2033

4.23 The 2038 future base year is proposed to be identified by applying the TEMPro 7.2 growth factors to the 2025 traffic flows. The TEMPro growth factors have been calculated for the Colchester area by all road types. The proposed TEMPro growth factors are identified below in **Table 9**.

TEMPro 2025 – 2038	Growth Factor
AM Peak Weekday	1.0644
PM Peak Weekday	1.0649

Table 9: TEMPro 7.2 Growth Factor – 2025-2038

Committed Development

4.24 Below outlines the committed and under consideration developments nearby which have been reviewed. However, currently only Land Adjoining Ipswich Road and Wick Lane and 30 Dwellings School Road committed developments have been accounted for in this modelling assessment due the trip generation quantum of these developments and the locations of the sites.

12 Dwellings Wick Road

4.25 Application reference: 221510 for the erection of 12 dwellings at land adjacent to Wick Road, Langham Colchester, submitted in June 2022. The application had been recommended to be refused by ECC Highways given the application provides insufficient off-road visitor parking in line with current parking standards. However, it was later accepted on ECC highway grounds given the following mitigation conditions, including the promotion of the use of sustainable means of transport in accordance with policy DM 1 and 9 of the Highway Authority Development Management.

30 Dwellings School Road

4.26 Application reference: 220595 for an outline application for the erection of 30 dwellings with a new access onto School Road, Langham was received in April 2022. The application was deemed acceptable from ECC following the requested mitigation and conditions:

- *Improvements surrounding the estate road access junction radii and nearby footways.*
- *Provision of achievable visibility splays in accordance with a 2.4m x 90m distance*
- *Relocation of garages facing carriageway to be sited a minimum of 6m from the site boundary*

4.27 The access for this site has recently been approved to incorporate the proposed development, and a turning head/stub road has been provided to allow for future access into our site. It has been confirmed that we have rights of access, services and utilities over the access road. This proposed access road will be 6.75m wide, permitting bus access through the road, as proposed in the original site access design. The proposed design of this access is shown in **Figure 3**.



Figure 3: School Road Committed Development Access

46 Dwellings Linden

4.28 Application reference: 191830 for the erection of 46 dwellings as well a public open space and associated infrastructure at Land south of School Road, Langham Colchester. The scheme was submitted in July 2019 and has been viewed as acceptable from highways following mitigation and conditions. The scheme has now been built.

Land Adjoining Ipswich Road and Wick Lane

4.29 Application reference: 20/00594FUL submitted in May 2020 for a full planning application for food storage and distribution facility and associated parking, logistics and offices. The highway authority state the rural remote location makes key sustainable travel links limited with the majority of journeys expected by car. The application was granted permission following a number of conditions and mitigations including condition 14 which refers to the required improvements to the A12 junction 29. These include signalisation and widening of the A12 eastbound off slip, with the proposed amendments to the junction included as **Appendix D**.

4.30 At present some of these committed schemes are awaiting approval for development. A further modelling assessment when these committed schemes are agreed by ECC would be required providing these schemes are to be included as a committed development.

5. JUNCTION MODELLING RESULTS

- 5.1 Junction 9 modelling software has been utilised to assess the capacity of junctions listed above. Junctions 9 modelling software is the industry standard software package for assessing roundabout and priority junctions and provides a Ratio of Flow to Capacity (RFC) value, which identifies what proportion of each approach total capacity is currently being utilised. RFC values exceeding 0.85 is considered to operate above design capacity but within theoretical capacity, whilst an RFC value of 1.0 or greater represent a junction operating above theoretical capacity. Junctions 9 software also provides values for junction delay (in seconds) and queue length in Passenger Car Units (PCUs).
- 5.2 A12/A120 junction has been modelled using the industry standard LinSig V3 software. LinSig software is the industry standard method for assessing the capacity of signalised junctions. LinSig provides a Degree of Saturation (DoS) value, which identifies the percentage of the junction's total capacity that is in use. DoS values exceeding 90% is considered to be above design capacity but within theoretical capacity, whilst DoS values of 100% or greater indicate that the junction is operating over capacity, and not all queuing vehicles will be able to clear the junction within one signal cycle. LinSig software also outputs vehicle delay and queue values to provide indicative details on the operational performance of the junction.

Junction 1: Northern Site Access

	Roundabout Arms	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		RFC	MMQ (PCU)	Delay (s)	RFC	MMQ (PCU)	Delay (s)
2031 Baseline + Committed Development + Proposed Development	Site Access to School Road West	0.04	0.0	7.00	0.00	0.1	6.44
	Site Access to School Road East	0.21	0.3	9.98	0.06	0.8	8.28
	School Road West to School Road East & Site Access	0.04	0.1	6.01	0.00	0.1	5.82

Table 10: Northern Site Access Modelling Results

- 5.3 **Table 10** identifies that the Northern Site Access is forecast to operate well within capacity with a maximum RFC of 0.21 in the AM peak hour and a maximum of 0.06 RFC in the PM peak hour along the Site Access – School Road East arm.

Junction 2: Southeast Site Access

	Roundabout Arms	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		RFC	MMQ (PCU)	Delay (s)	RFC	MMQ (PCU)	Delay (s)
2031 Baseline + Committed Development+ Proposed Development	Site Access to Park Lane East	0.22	0.3	7.75	0.09	0.1	6.77
	Site Access to Park Lane West	0.18	0.2	11.00	0.08	0.1	11.28
	Park Lane East to Park Lane West & Site Access	0.14	0.2	6.15	0.30	0.5	7.83

Table 11: Southeast Site Access Modelling Results

5.4 **Table 11** identifies that the Southeast Site Access is to operate well within capacity with a maximum RFC of 0.22 between the Site Access and Park Lane East arm in the AM peak hour and a maximum of RFC of 0.30 between Park Lane East and Park Lane West/Site Access arm during the PM peak hour.

Junction 3: Southwest Site Access

	Roundabout Arms	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		RFC	MMQ (PCU)	Delay (s)	RFC	MMQ (PCU)	Delay (s)
2031 Baseline + Committed Development + Proposed Development	Site Access to Park Lane East	0.09	0.1	6.91	0.04	0.0	6.78
	Site Access to Park Lane West	0.03	0.0	8.51	0.02	0.0	8.97
	Park Lane East to Park Lane West & Site Access	0.03	0.0	5.34	0.09	0.1	5.97

Table 12: Southwest Site Access Modelling Results

5.5 **Table 12** identifies that the Southwest Site Access is forecast to operate well within capacity with a maximum RFC of 0.09 between Site Access and Park Lane East arm during the AM peak hour and a maximum RFC of 0.09 between Park Lane East and Park Lane West/Site Access arm during the PM peak hour.

Junction 4: A12 Mini Roundabout

	Roundabout Arms	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		RFC	MMQ (PCU)	Delay (s)	RFC	MMQ (PCU)	Delay (s)
2025 Base	A12 Off-Slip	0.20	0.3	4.59	0.25	0.4	4.94
	Birchwood Road	0.34	0.5	5.66	0.2	0.2	4.68
	Services	0.11	0.1	5.03	0.1	0.1	4.57
	A12 On-Slip	0.00	0.0	0.00	0.00	0.0	0.00
2031 Base + Committed Development	A12 Off-Slip	0.21	0.3	4.64	0.26	0.4	5
	Birchwood Road	0.36	0.6	5.82	0.21	0.3	4.72
	Services	0.12	0.1	5.12	0.11	0.1	4.62

	A12 On-Slip	0	0	0	0.26	0	0
2031 Baseline + Committed Development + Proposed Development	A12 Off-Slip	0.23	0.3	4.52	0.31	0.5	5.36
	Birchwood Road	0.57	1.3	8.65	0.32	0.4	5.55
	Services	0.14	0.2	6.1	0.12	0.1	4.93
	A12 On-Slip	0	0	0	0.31	0	0

Table 13: A12 Mini Roundabout Modelling Results

5.6 **Table 13** identifies that in all scenarios the A12 Mini roundabout is forecast to operate well within capacity with a maximum RFC of 0.57 during the AM peak hour on Birchwood Road and 0.32 during the PM peak hour on Birchwood Road in the '2031 Baseline + Committed Development + Proposed Development' scenario.

Junction 5: Birchwood Road

	Roundabout Arms	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		RFC	MMQ (PCU)	Delay (s)	RFC	MMQ (PCU)	Delay (s)
2025 Base	Birchwood Road North to Birchwood Road East	0.23	0.3	7.7	0.26	0.4	7.55
	Birchwood Road North to Birchwood Road East	0.26	0.4	11.53	0.16	0.2	10.12
	Birchwood Road East to Birchwood Road West & Birchwood Road North	0.19	0.3	6.24	0.12	0.2	6.37
2031 Base + Committed Development	Birchwood Road North to Birchwood Road East	0.24	0.3	7.89	0.27	0.4	7.74
	Birchwood Road North to Birchwood Road East	0.26	0.4	11.93	0.18	0.2	10.37
	Birchwood Road East to Birchwood Road West & Birchwood Road North	0.19	0.3	6.27	0.12	0.2	6.40
2031 Baseline + Committed Development + Proposed Development	Birchwood Road North to Birchwood Road East	0.34	0.5	12.69	0.30	0.4	8.94
	Birchwood Road North to Birchwood Road East	0.70	2.2	25.39	0.34	0.5	12.63
	Birchwood Road East to Birchwood Road West & Birchwood Road North	0.19	0.3	6.01	0.12	0.2	6.52

Table 14: Birchwood Road Junction Modelling Results

5.7 **Table 14** identifies that in all scenarios Birchwood Road junction is forecast to operate within capacity with a maximum RFC of 0.70 during the AM peak hour and 0.34 during the PM peak hour at the Birchwood Road North/Birchwood Road East arm in the '2031 Baseline + Committed Development + Proposed Development' scenario.

Junction 6: Langham Lane/Severalls Lane Junction

	Roundabout Arms	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		RFC	MMQ (PCU)	Delay (s)	RFC	MMQ (PCU)	Delay (s)
2025 Base	Langham Lane to Severalls Lane	0.10	0.1	8.04	0.11	0.1	8.59
	Langham Lane to Langham Road	0.19	0.2	13.44	0.41	0.7	17.96
	Severalls Lane to Langham Road & Langham Lane	0.16	0.4	6.19	0.23	0.6	5.64
2031 Base + Committed Development	Langham Lane to Severalls Lane	0.11	0.1	8.16	0.11	0.1	8.77
	Langham Lane to Langham Road	0.20	0.3	13.86	0.43	0.8	18.88
	Severalls Lane to Langham Road & Langham Lane	0.17	0.4	6.22	0.24	0.6	5.70
2031 Baseline + Committed Development + Proposed Development	Langham Lane to Severalls Lane	0.19	0.2	8.24	0.15	0.2	9.23
	Langham Lane to Langham Road	0.24	0.3	14.72	0.46	0.9	21.37
	Severalls Lane to Langham Road & Langham Lane	0.21	0.5	6.27	0.37	1.1	6.85

Table 15: Langham Lane/Severalls Lane Modelling Results

5.8 **Table 15** identifies that all scenarios at the Langham Lane/Severalls Lane Junction are forecast to operate well within capacity with a maximum RFC of 0.24 in the AM peak hour and 0.46 RFC in the PM peak hour at the Langham Lane/Langham Road arm in the '2031 Baseline + Committed Development + Proposed Development' scenario.

Junction 7: Park Lane/Langham Lane Junction

	Roundabout Arms	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		RFC	MMQ (PCU)	Delay (s)	RFC	MMQ (PCU)	Delays (s)
2025 Base	Park Lane to Langham Lane South	0.13	0.2	6.91	0.24	0.3	7.86
	Park Lane to Langham Lane North	0.03	0.0	8.72	0.05	0.1	9.33
	Langham Lane South to Langham Lane North & Park Lane	0.18	0.2	7.38	0.31	0.5	8.87
2031 Base + Committed Development	Park Lane to Langham Lane South	0.14	0.2	6.95	0.25	0.3	7.95
	Park Lane to Langham Lane North	0.03	0.0	8.79	0.05	0.1	9.43
	Langham Lane South to Langham Lane North & Park Lane	0.19	0.3	7.42	0.32	0.5	8.99
2031 Baseline + Committed Development + Proposed Development	Park Lane to Langham Lane South	0.25	0.3	7.80	0.30	0.4	8.55
	Park Lane to Langham Lane North	0.08	0.1	9.14	0.08	0.1	10.41
	Langham Lane South to Langham Lane North & Park Lane	0.23	0.3	7.58	0.44	0.8	11.05

Table 16: Park Lane/Langham Lane Modelling Results

5.9 **Table 16** identifies that all scenarios at the Park Lane/Langham Lane junction are forecast to operate well within capacity with a maximum RFC of 0.25 in the AM peak hour at the Park Lane/Langham Lane South arm and an RFC of 0.44 in the PM peak hour at the Langham Lane South – Langham Lane North & Park Lane arm in the ‘2031 Baseline + Committed Development + Proposed Development’ scenario.

Junction 8: Wick Road/Park Lane Junction

	Roundabout Arms	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		RFC	MMQ (PCU)	Delay (s)	RFC	MMQ (PCU)	Delay (s)
2025 Base	Wick Road to Park Lane East	0.09	0.1	7.16	0.06	0.1	7.77
	Wick Road to Park Lane West	0.20	0.3	10.37	0.29	0.4	12.03
	Park Lane East to Park Lane West & Wick Road	0.32	0.5	8.92	0.24	0.3	8.33
2031 Base + Committed Development	Wick Road to Park Lane East	0.26	0.4	8.11	0.06	0.1	7.85
	Wick Road to Park Lane West	0.23	0.3	12.35	0.31	0.5	12.35
	Park Lane East to Park Lane West & Wick Road	0.34	0.6	9.18	0.26	0.4	8.55
2031 Baseline + Committed Development + Proposed Development	Wick Road to Park Lane East	0.28	0.4	8.63	0.07	0.1	8.75
	Wick Road to Park Lane West	0.30	0.4	14.00	0.41	0.7	16.06
	Park Lane East to Park Lane West & Wick Road	0.38	0.7	9.15	0.30	0.6	7.65

Table 17: Wick Road/Park Lane Modelling Results

5.10 **Table 17** identifies that all scenarios at the Wick Road/Park Lane junction are forecast to operate well within capacity with a maximum RFC of 0.38 during the AM peak hour at the Parks Lane East – Park Lane West & Wick Road arm and an RFC of 0.41 during the PM peak hour at the Wick Road – Park Lane West arm in the ‘2031 Baseline + Committed Development + Proposed Development’ scenario.

Junction 9: Wick Road/Birchwood Road Junction

	Roundabout Arms	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		RFC	MMQ (PCU)	Delay (s)	RFC	MMQ (PCU)	Delay (s)
2025 Base	Birchwood Road to Wick Road South	0.16	0.2	6.70	0.22	0.3	6.91
	Birchwood Road to Wick Road North	0.16	0.2	10.37	0.08	0.1	9.86
	Wick Road South to Birchwood Road & Wick Road North	0.26	0.4	7.67	0.32	0.5	8.65
2031 Base + Committed Development	Birchwood Road to Wick Road South	0.17	0.2	6.78	0.23	0.3	6.99
	Birchwood Road to Wick Road North	0.16	0.2	10.56	0.09	0.1	9.98
	Wick Road South to Birchwood Road & Wick Road North	0.27	0.4	7.75	0.33	0.5	8.77

2031 Baseline + Proposed Development	Birchwood Road to Wick Road South	0.19	0.2	6.78	0.27	0.4	7.33
	Birchwood Road to Wick Road North	0.20	0.3	11.84	0.14	0.2	11.06
	Wick Road South to Birchwood Road & Wick Road North	0.49	1.1	10.98	0.42	0.8	10.15

Table 18: Wick Road/Birchwood Road Modelling Results

5.11 **Table 18** identifies that all scenarios at the Wick Road/Birchwood Road junction are forecast to operate well within capacity with a maximum RFC of 0.49 during the AM peak hour and an RFC of 0.42 during the PM peak hour at the Wick Road South – Birchwood Road & Wick Road North arm in the ‘2031 Baseline + Proposed Development’ scenario.

Junction 10: Wick Road/St Margaret’s Cross Junction

	Roundabout Arms	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		RFC	MMQ (PCU)	Delay (s)	RFC	MMQ (PCU)	Delay (s)
2025 Base	St Margaret’s Cross to Grove Hill	0.00	0.0	7.02	0.00	0.0	6.54
	St Margaret’s Cross to Wick Road	0.21	0.3	8.94	0.08	0.1	7.47
	Grove Hill to St Margaret’s Cross & Wick Road	0.01	0.0	6.35	0.00	0.0	6.13
2031 Base + Committed	St Margaret’s Cross to Grove Hill	0.00	0.0	7.07	0.00	0.0	6.60
	St Margaret’s Cross to Wick Road	0.23	0.3	9.12	0.09	0.1	7.57
	Grove Hill to St Margaret’s Cross & Wick Road	0.01	0.0	6.39	0.00	0.0	6.19
2031 Baseline + Committed Development + Proposed Development	St Margaret’s Cross to Grove Hill	0.00	0.0	7.36	0.01	0.0	6.75
	St Margaret’s Cross to Wick Road	0.37	0.6	10.78	0.15	0.2	8.19
	Grove Hill to St Margaret’s Cross & Wick Road	0.01	0.0	6.19	0.01	0.0	6.29

Table 19: Wick Road/St Margaret’s Cross Modelling Results

5.12 **Table 19** identifies that in all scenarios at the Wick Road/St Margaret’s Cross junction is forecast to operate well within capacity with a maximum RFC of 0.37 during the AM peak hour and a maximum RFC of 0.15 during the PM peak hour at the St Margaret’s Cross Wick Road arm in the ‘2031 Baseline + Committed Development+ Proposed Development’ scenario.

Junction 11: A12/A120 Junction

		AM Peak Hour (08:00-09:00)			PM Peak Hour (16:00-17:00)		
		DoS (%)	Mean Max Queue (PCU)	Delay (s)	DoS (%)	Mean Max Queue (PCU)	Delay (s)
2033 Base + Committed Development	A12 Off Slip Left	93.3	17.9	30	88.6	13.2	32
	A120 Westbound Off Slip Ahead	91.6	14.8	50	32.6	3.8	15
	A1232 Ipswich Road Left	78.6	7.7	25	78.5	6.0	16.1
	A120 Eastbound Off-Slip Ahead	49.2	5.2	24	26.1	2.9	15
	East Circulatory Right	61.5	9.9	17	87.7	15.3	33
	West Circulatory Right	62.6	11.9	19	87.9	16.4	38
	PRC (%)	-3.6			1.6		
	Total Delay	48			44		
2033 Base + Committed Development + Proposed Development	A12 Off Slip Left	93.6	12.3	31	88.2	12.7	32
	A120 Westbound Off Slip Ahead	71.0	10.2	24	35.6	4.0	17
	A1232 Ipswich Road Left	86.5	9.8	36	81.7	6.6	18
	A120 Eastbound Off-Slip Ahead	37.8	4.3	17	28.1	3.1	16
	East Circulatory Right	80.5	13.3	28	83.4	14.7	27
	West Circulatory Right	77.7	14.0	27	85.6	16.5	34
	PRC (%)	-4.0			2.0		
	Total Delay	49			44		
2038 Base + Committed Development	A12 Off Slip Left	93.6	12.5	31	88.2	12.7	32
	A120 Westbound Off Slip Ahead	69.5	8.8	22	34.1	3.9	16
	A1232 Ipswich Road Left	90.1	11.0	45	81.1	6.7	18
	A120 Eastbound Off-Slip Ahead	37.3	4.3	16	27.7	3.1	15
	East Circulatory Right	80.0	12.8	29	86.3	15.2	31
	West Circulatory Right	80.6	14.3	29	86.7	16.4	36
	PRC (%)	-4.0			2.1		
	Total Delay	52			45		
2038 Base + Committed Development + Proposed Development	A12 Off Slip Left	93.8	12.8	31	87.8	12.4	32
	A120 Westbound Off Slip Ahead	70.1	10.2	23	36.3	4.1	17
	A1232 Ipswich Road Left	93.1	12.4	55	85.3	7.5	22
	A120 Eastbound Off-Slip Ahead	37.3	4.3	16	28.8	3.2	16
	East Circulatory Right	85.6	14.6	33	85.3	15.3	29
	West Circulatory Right	81.9	14.7	30	87.4	17.2	36
	PRC (%)	-4.2			2.5		
	Total Delay	57			47		

Table 20: A12/A120 Junction Modelling Results

5.13 The A12/A120 junction has been modelled based on the amendments proposed from the Land Adjoining Ipswich Road and Wick Lane committed development. These improvements include the



signalisation and widening of the A12 eastbound off slip, signalisation of the circulatory, widening of the northern and southern arms and amendments to road markings. The proposed amendments to the junction are shown in **Appendix D**.

- 5.14 **Table 20** identifies that the A12/A120 junction is forecast to operate marginally above design capacity in the AM peak hour in all scenarios but within operational capacity in the PM peak hour in all scenarios. For the overcapacity scenarios in the AM peak hour, the proposed development will result in a decrease in PRC of 0.4% and 0.2% in the 2033 and 2038 scenarios, respectively. It is therefore considered that the addition of the proposed development will have a negligible impact on the operation junction in both the 2033 and 2038 scenarios.

Merge Diverge Assessment

- 5.15 A Merge Diverge Assessment was completed at both the Birchwood Road/A12 junction and the Park Lane/Ipswich Road A12 junction. A Merge Diverge Assessment is done to determine whether the existing design, as determined by DMRB, is suitable for the merging and diverging flows to a dual-carriageway road. An overview of the results is highlighted below with the complete outputs detailed in **Appendix E**.
- 5.16 The overall conclusion is that the designs for the existing on and off slips are to remain as design layout options A (standard one lane taper merge and diverge) shown in figures 3.12a and 3.14a in the DMRB guidance despite the addition of the committed scenarios and proposed development. Therefore, it is concluded that no mitigation is required for both the on and off slips of the A12.

6. SUMMARY AND CONCLUSIONS

- 6.1 This Modelling Technical Note has been prepared by Paul Basham Associates on behalf of Mac Mic Group to present the traffic modelling undertaken in support of a residential development c.900 dwellings at Land North of Park Lane, Langham.
- 6.2 The modelling results have provided sufficient evidence to suggest the proposed development is not forecast to create significant concerns for local highway capacity. All junction detailed above are to operate within both theoretical and design capacity despite the addition of the proposed development.
- 6.3 The merge and diverge assessment concluded that no mitigation would be required for both the on and off slip arrangements onto the A12. The close proximity of the site to the strategic road network provides a strong benefit and enables the scale of development proposed to be accommodated.

Next Steps

- 6.4 Following this TN, it is recommended that the following next steps are undertaken:
- Liaison with bus companies around rerouting bus services into the site
 - Update the access design and modelling to accommodate the committed development to the east
 - Design of the proposed footway/cycleway along Park Lane
 - Further meetings with both ECC/NH to discuss modelling results and agree on scope of committed development and mitigation to the A12/A120 junction

Appendix A



NH ref: NH/25/11415

Nick Bell
Paul Basham Associates

Email: n.bell@paulbashamassociates.com

Operations (East)
National Highways
Woodlands
Manton Lane
Bedford MK41 7LW

9 June 2025

Dear Sir/Madam,

Pre-Application Scoping Report response for a proposed development at Land North of Park Lane, Langham.

Thank you for consulting National Highways (NH) regarding the Pre-Application Scoping Note dated May 2025 in support of a development at Land North of Park Lane, Langham, Essex.

NH holds a vested interest in the vicinity of the A12 which runs to the west of the proposed development. When considering the impact of the proposed development on the SRN, our interest focuses on the assessment of the nearby junctions:

- The left in-left out junction with Park Road, near to the site, restricted movements accesses north of Langham, and the left in-left out junction with Birchwood Road to the east of Langham; and
- A12 Junction 29 to the south of the site.

We have undertaken a review of the Pre-Application Scoping Note. This response provides details of NH requirements to enable the developer's consultant to prepare relevant documents in support of the Planning Application for the site.

This response includes further recommendations we would envisage seeing and the consultant to consider as part of further work.

Policy and Guidance

We note the policy and guidance included within Chapter 2, although recommend that

reference is made to DfT Circular 01/2022 which provides advice to developers on working on proposals that have potential to affect the SRN. Among a number of recommendations, this document includes guidance on assessment scenarios, the vision led approach and sustainable travel.

Existing Baseline Conditions and Site Accessibility

A description is provided of the existing conditions and access to and from the site via a range of travel modes. We recommend that for the Transport Assessment, this section includes baseline traffic flows, including the access slip roads to and from the A12 in the vicinity of the site. The DfT WebTRIS site includes traffic survey points for the A12, which should be reviewed.

Personal Injury Collision (PIC) data for the latest five-year period will assist in the analysis of the condition of highway safety on the local network surrounding the development, and we understand that data has been secured from ECC. We reiterate that the data should include locations, timings, and causation, and it is important to note that the period from March 2020 until August 2021 (inclusive) will not be accepted due to the COVID-19 pandemic, and therefore a further 18 months is added prior to the earliest data of September 2019. We consider the geographic scope of the PIC analysis, to include the adjacent slip road accesses both northbound and southbound onto the A12.

Proposed Development

We note the description of the proposed development and its access points which are taken from the local road network. It is stated that there is potential for improvements to the walking and cycling network, and public transport. Given the scale of development and proximity to the SRN, we recommend that a Walking Cycling Horse-riding Assessment and Review (WCHAR) in accordance with GG142 within the DMRB. A Safety Risk Assessment under GG104 should also be carried out as part of the assessment.

Highway Impact

With regard to trip generation, NH consider the search criteria and trip rates to be acceptable. Although this section refers to on-site non-residential uses, these have not been referred to in the description of development, although we note and accept that no trip discount is applied for these uses.

The proposed distribution methodology is accepted in principle, although the first step is to tabulate the destinations from the 2011 Census Travel to Work data for the Colchester 001 MSOA.

With regard to assessment, it is agreed that merge diverge assessments will be required for the local slip roads onto the A12. It is also recommended that approach roads that have potential to affect the operation of the SRN are also considered for assessment. This includes the link from Birchwood Road to the SRN which includes a priority junction and a roundabout on approach from the west.

Given that a significant proportion of traffic will travel to and from Junction 29 of the A12, an assessment of impact on the junction should be carried out. The notable part of this junction for assessment is the roundabout junction of the A1232 with the A12, which would facilitate movements between the Colchester urban area and the site.

In terms of assessment scenarios, DfT Circular 01/2022 requires an opening year assessment to be undertaken and accept the use of TEMPro growth factors as a methodology in this regard. Notwithstanding, we recommend that confirmation is sought from the local authority regarding the inclusion of committed schemes and any adjustment as may be made for traffic flows associated with specific sites.

On this matter, the submission should provide an update on the position regarding the site with regard to the Colchester Local Plan 2026-41.

Please note that if conducting surveys on the SRN, including slip roads, engagement should be agreed with our network management team, and that queue surveys should be taken at the same time as counts, in order to assist with validation of data.

We will not accept connections to our surface water drainage systems. Nor will allow noise barriers or advertisements with the highway boundary

I hope that the above is clear and will allow you to proceed, if you need anything further, please do not hesitate to contact me.

Yours sincerely

Mark Norman
Spatial Planner
National Highways
Operations (East)

Appendix B

MEETING MINUTES

Meeting: Essex County Council Highways Pre-Application Meeting

Date: 14/07/2025 **Time:** 14:00-15:00

Location: Microsoft Teams

Attendees: Name & (Initials)

Martin Mason (MM)	Essex County Council
Weronika Rybinska (WR)	National Highways
Nicholas Rennie (NR)	Mac Mic Group
Sam Metson (SM)	Bidwells
Will Fayers (WF)	Paul Basham Associates
Nick Bell (NB)	Paul Basham Associates

Agenda:

1. Introductions
2. Access arrangements
3. Off-site pedestrian and cycle infrastructure improvements
4. Bus strategy
5. Trip rates, trip generation and distribution
6. Modelling scenarios
7. Junctions to be modelled and survey requirements
8. Confirmation of Travel Plan requirements

Resources to issue in advance:

By: NB

Pre-Application Scoping Note
National Highways Response Letter

	Minutes	Action
1.0	Introductions	
1.1	SM gave a brief overview of the site and planning background including draft allocation for 900 dwellings and potential for mix of other uses including local centre and education uses. Pre-application has been submitted to the LPA with pre-app meeting pending.	
2.0	Access Arrangements	
2.1	NB outlined strategy for vehicle access to include three points, two on Park Lane to the south (one to serve 200 dwellings in a separate parcel with independent access) as well as an access north on School Road and south on Park Lane which could be used as a through route for buses.	
2.2	NB highlighted that the frontage on School Road would provide a 6.75m wide access with 10m radii,	

MEETING MINUTES

	however wanted to confirm the offset distance against the neighbouring access for the consented residential scheme to the east and the community centre to the west. MM confirmed that this would be acceptable in principle subject to further detail and Stage 1 RSA.	
2.3	MM queried the need for two segregated access points on Park Lane, NB and SM confirmed that this was largely due to a landscape buffer between the parcels and could encourage lower car driver mode share if the connection west-east through the site could be made by pedestrians and cyclists only.	
2.4	MM stated that there may be local concerns in regard to the increase in traffic along Park Lane and into the village, therefore keeping a single point of access to the east may be preferable. This junction to the east may need to be upgraded to a right-turn lane or mini-roundabout to accommodate the increase in traffic, depending on junction modelling.	
2.5	WF raised concerns regarding the equal flow of traffic on all arms of the junction, which may not be suitable for a mini-roundabout, as well as pedestrian and cycle connectivity. It was agreed that further design and capacity assessments would be required to determine the most appropriate solution here.	WF/NB
2.6	Overall, agreement was reached that ECC do not object to the principle of proposed vehicular access solutions, however, further design modelling and road safety audits would be required ahead of any planning submission.	
3.0	Off-site pedestrian and cycle infrastructure improvements	
3.1	NB outlined strategy for active travel access including east west footway/cycleway connection along the southern frontage of the site and pedestrian access onto School Road. The site is well served by a variety of PROW connections which provide access through the site to the north, south and east. National Cycle Route 1 also runs along the northern and western boundaries of the site connecting to Colchester.	
3.2	NB highlighted that due to the limited highway land on School Road there may not be an opportunity to widen the existing and proposed 2m wide footway. MM confirmed that the development should seek to provide suitable connections from the site but would not be expected to provide connections that are not	

MEETING MINUTES

	within the control of the applicant or the highway authority.	
3.3	MM supported the provision of footway cycleway along the southern boundary of the site, however, stated that there may be challenges to providing this along the current route of the PROW. Instead, it may be preferable to locate alongside the PROW to avoid any works to the PROW network. The design of the connection would have to be considered carefully, especially, if separate from the carriageway as ECC may not adopt this route. Overlooking and safety should also be considered.	NB/WF
4.0	Bus Strategy	
4.1	MM agreed that for a site of this size, it would make sense to consider bus access, however this would be discussed with the ECC Passenger Transport team. WF requested clarification on the need for all residences to be within 400m of a bus stop and the challenges this may raise with the design of the internal road network.	MM
5.0	Trip rates, trip generation and distribution	
5.1	WR confirmed that National Highways were satisfied with the trip rates and distribution as per the previous written response	
5.2	MM confirmed that ECC would review the trip rates and distribution but confirmed that the 2011 census, journey to work data was correct	MM
6.0	Modelling scenarios	
6.1	NH confirmed that the opening year + 5 years should be modelled, whereas ECC would require 5 years post submission. MM would confirm any committed developments to be included as well as use of Temprow in written response.	MM
7.0	Junctions to be modelled and survey requirements	
7.1	MM confirmed that any junction with an increase in 5% of traffic in the AM or PM peak should be modelled.	
7.2	WR confirmed that any National Highways junction with 30 or more vehicle trips through the junction during peak periods should be modelled	
	Confirmation of Travel Plan requirements	
	MM confirmed that Travel Plan and Welcome Pack should be provided as part of any submission. Details of construction movements may be useful at planning stage but a CTMP could be conditioned.	

MEETING MINUTES

	WR requested details of construction movements and routing within the TA as well as separate WCHAR.	
	AOB	
	WR confirmed that it would be useful to discuss the scheme as it develops ahead of a planning submission to identify any issues and address ahead of submission	
	MM confirmed that ECC will liaise with the Passenger Transport team and return the written response shortly. ECC are happy for SM to refer to pre-application discussions with ECC during pre-app with the LPA.	

Appendix C

Calculation Reference: AUDIT-247601-250414-0429

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	2 days
	KC KENT	1 days
	SC SURREY	2 days
	WS WEST SUSSEX	5 days
03	SOUTH WEST	
	SM SOMERSET	2 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	1 days
08	NORTH WEST	
	AC CHESHIRE WEST & CHESTER	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 32 to 1817 (units:)
Range Selected by User: 6 to 1817 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 18/09/24

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

Selected survey days:

Monday	1 days
Tuesday	5 days
Wednesday	3 days
Thursday	6 days
Friday	2 days

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

Selected survey types:

Manual count	17 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:

Neighbourhood Centre (PPS6 Local Centre)	17
--	----

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:

Village	17
---------	----

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	8 days - Selected
Servicing vehicles Excluded	21 days - Selected

Secondary Filtering selection:

Use Class:

C3	17 days
----	---------

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

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	9 days
5,001 to 10,000	6 days
10,001 to 15,000	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	1 days
25,001 to 50,000	8 days
50,001 to 75,000	1 days
75,001 to 100,000	4 days
100,001 to 125,000	2 days
125,001 to 250,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	12 days
1.6 to 2.0	4 days

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

Travel Plan:

Yes	9 days
No	8 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	17 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	AC-03-A-06 COMMON LANE NEAR CHESTER WAVERTON Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 99 <i>Survey date: FRIDAY 29/04/22</i>	DETACHED HOUSES	CHESHIRE WEST & CHESTER	<i>Survey Type: MANUAL</i>
2	CA-03-A-08 GIDDING ROAD SAWTRY Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 83 <i>Survey date: THURSDAY 13/10/22</i>	DETACHED & SEMI-DETACHED	CAMBRIDGESHIRE	<i>Survey Type: MANUAL</i>
3	ES-03-A-11 BISHOPS LANE RINGMER Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 105 <i>Survey date: THURSDAY 28/09/23</i>	MIXED HOUSES	EAST SUSSEX	<i>Survey Type: MANUAL</i>
4	ES-03-A-12 HOREBEECH LANE HORAM Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 123 <i>Survey date: TUESDAY 03/10/23</i>	MIXED HOUSES & FLATS	EAST SUSSEX	<i>Survey Type: MANUAL</i>
5	KC-03-A-08 MAIDSTONE ROAD CHARING Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 159 <i>Survey date: TUESDAY 22/05/18</i>	MIXED HOUSES	KENT	<i>Survey Type: MANUAL</i>
6	LE-03-A-02 MELBOURNE ROAD IBSTOCK Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 85 <i>Survey date: THURSDAY 28/06/18</i>	DETACHED & OTHERS	LEICESTERSHIRE	<i>Survey Type: MANUAL</i>
7	NF-03-A-08 SIR ALFRED MUNNINGS RD NEAR NORWICH COSTESSEY Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 1817 <i>Survey date: THURSDAY 19/09/19</i>	MIXED HOUSES & FLATS	NORFOLK	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

8	SC-03-A-09 AMLETS LANE CRANLEIGH	MIXED HOUSES & FLATS	SURREY
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 136 <i>Survey date: TUESDAY 24/05/22</i> <i>Survey Type: MANUAL</i>		
9	SC-03-A-10 GUILDFORD ROAD ASH	MIXED HOUSES	SURREY
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 32 <i>Survey date: WEDNESDAY 14/09/22</i> <i>Survey Type: MANUAL</i>		
10	SF-03-A-06 BURY ROAD KENTFORD	DETACHED & SEMI -DETACHED	SUFFOLK
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 38 <i>Survey date: FRIDAY 22/09/17</i> <i>Survey Type: MANUAL</i>		
11	SM-03-A-02 HYDE LANE NEAR TAUNTON CREECH SAINT MICHAEL	MIXED HOUSES	SOMERSET
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 42 <i>Survey date: TUESDAY 25/09/18</i> <i>Survey Type: MANUAL</i>		
12	SM-03-A-03 HYDE LANE NEAR TAUNTON CREECH ST MICHAEL	MIXED HOUSES	SOMERSET
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 41 <i>Survey date: TUESDAY 25/09/18</i> <i>Survey Type: MANUAL</i>		
13	WS-03-A-07 EMMS LANE NEAR HORSHAM BROOKS GREEN	BUNGALOWS	WEST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 57 <i>Survey date: THURSDAY 19/10/17</i> <i>Survey Type: MANUAL</i>		
14	WS-03-A-16 BRACKLESHAM LANE BRACKLESHAM BAY	DETACHED & SEMI -DETACHED	WEST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 58 <i>Survey date: WEDNESDAY 09/11/22</i> <i>Survey Type: MANUAL</i>		

LIST OF SITES relevant to selection parameters (Cont.)

15	WS-03-A-18	MIXED HOUSES & FLATS	WEST SUSSEX
	LONDON ROAD		
	HASSOCKS		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	156	
	Survey date: MONDAY	15/05/23	Survey Type: MANUAL
16	WS-03-A-21	MIXED HOUSES	WEST SUSSEX
	HILLAND ROAD		
	BILLINGSHURST		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	480	
	Survey date: THURSDAY	09/11/23	Survey Type: MANUAL
17	WS-03-A-25	PRIVATE HOUSES & FLATS	WEST SUSSEX
	LIDSEY ROAD		
	WOODGATE		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	65	
	Survey date: WEDNESDAY	18/09/24	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
IM-03-A-01	isle of man
IM-03-A-02	isle of man
IM-03-A-03	isle of man
MW-03-A-01	too small

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
AC-03-A-05	30/04/21	covid
CA-03-A-07	27/05/21	covid
NF-03-A-27	16/09/21	covid
NF-03-A-43	15/09/21	covid

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

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.79

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.057	17	210	0.294	17	210	0.351
08:00 - 09:00	17	210	0.112	17	210	0.322	17	210	0.434
09:00 - 10:00	17	210	0.129	17	210	0.155	17	210	0.284
10:00 - 11:00	17	210	0.112	17	210	0.126	17	210	0.238
11:00 - 12:00	17	210	0.104	17	210	0.108	17	210	0.212
12:00 - 13:00	17	210	0.123	17	210	0.126	17	210	0.249
13:00 - 14:00	17	210	0.133	17	210	0.122	17	210	0.255
14:00 - 15:00	17	210	0.140	17	210	0.138	17	210	0.278
15:00 - 16:00	17	210	0.194	17	210	0.143	17	210	0.337
16:00 - 17:00	17	210	0.227	17	210	0.139	17	210	0.366
17:00 - 18:00	17	210	0.304	17	210	0.129	17	210	0.433
18:00 - 19:00	17	210	0.269	17	210	0.143	17	210	0.412
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.904			1.945			3.849

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.*

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected: 32 - 1817 (units:)
Survey date date range: 01/01/16 - 18/09/24
Number of weekdays (Monday-Friday): 21
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 8
Surveys manually removed from selection: 4

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

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

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.002	17	210	0.002	17	210	0.004
08:00 - 09:00	17	210	0.003	17	210	0.003	17	210	0.006
09:00 - 10:00	17	210	0.001	17	210	0.001	17	210	0.002
10:00 - 11:00	17	210	0.000	17	210	0.001	17	210	0.001
11:00 - 12:00	17	210	0.001	17	210	0.001	17	210	0.002
12:00 - 13:00	17	210	0.001	17	210	0.001	17	210	0.002
13:00 - 14:00	17	210	0.000	17	210	0.000	17	210	0.000
14:00 - 15:00	17	210	0.001	17	210	0.001	17	210	0.002
15:00 - 16:00	17	210	0.001	17	210	0.001	17	210	0.002
16:00 - 17:00	17	210	0.001	17	210	0.002	17	210	0.003
17:00 - 18:00	17	210	0.003	17	210	0.002	17	210	0.005
18:00 - 19:00	17	210	0.002	17	210	0.001	17	210	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.016			0.016			0.032

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

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

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

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.002	17	210	0.002	17	210	0.004
08:00 - 09:00	17	210	0.003	17	210	0.001	17	210	0.004
09:00 - 10:00	17	210	0.004	17	210	0.004	17	210	0.008
10:00 - 11:00	17	210	0.003	17	210	0.003	17	210	0.006
11:00 - 12:00	17	210	0.002	17	210	0.002	17	210	0.004
12:00 - 13:00	17	210	0.004	17	210	0.003	17	210	0.007
13:00 - 14:00	17	210	0.002	17	210	0.004	17	210	0.006
14:00 - 15:00	17	210	0.003	17	210	0.002	17	210	0.005
15:00 - 16:00	17	210	0.001	17	210	0.002	17	210	0.003
16:00 - 17:00	17	210	0.001	17	210	0.001	17	210	0.002
17:00 - 18:00	17	210	0.002	17	210	0.001	17	210	0.003
18:00 - 19:00	17	210	0.001	17	210	0.001	17	210	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.028			0.026			0.054

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

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

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

MULTI-MODAL PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.001	17	210	0.001	17	210	0.002
08:00 - 09:00	17	210	0.001	17	210	0.001	17	210	0.002
09:00 - 10:00	17	210	0.001	17	210	0.001	17	210	0.002
10:00 - 11:00	17	210	0.001	17	210	0.001	17	210	0.002
11:00 - 12:00	17	210	0.002	17	210	0.002	17	210	0.004
12:00 - 13:00	17	210	0.001	17	210	0.001	17	210	0.002
13:00 - 14:00	17	210	0.001	17	210	0.001	17	210	0.002
14:00 - 15:00	17	210	0.001	17	210	0.001	17	210	0.002
15:00 - 16:00	17	210	0.002	17	210	0.002	17	210	0.004
16:00 - 17:00	17	210	0.001	17	210	0.001	17	210	0.002
17:00 - 18:00	17	210	0.001	17	210	0.001	17	210	0.002
18:00 - 19:00	17	210	0.001	17	210	0.001	17	210	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.014			0.028

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

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

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

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.001	17	210	0.004	17	210	0.005
08:00 - 09:00	17	210	0.002	17	210	0.010	17	210	0.012
09:00 - 10:00	17	210	0.001	17	210	0.004	17	210	0.005
10:00 - 11:00	17	210	0.003	17	210	0.002	17	210	0.005
11:00 - 12:00	17	210	0.002	17	210	0.003	17	210	0.005
12:00 - 13:00	17	210	0.003	17	210	0.002	17	210	0.005
13:00 - 14:00	17	210	0.003	17	210	0.002	17	210	0.005
14:00 - 15:00	17	210	0.003	17	210	0.001	17	210	0.004
15:00 - 16:00	17	210	0.005	17	210	0.002	17	210	0.007
16:00 - 17:00	17	210	0.008	17	210	0.004	17	210	0.012
17:00 - 18:00	17	210	0.005	17	210	0.006	17	210	0.011
18:00 - 19:00	17	210	0.004	17	210	0.002	17	210	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.040			0.042			0.082

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL VEHICLE OCCUPANTS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.068	17	210	0.487	17	210	0.555
08:00 - 09:00	17	210	0.145	17	210	0.580	17	210	0.725
09:00 - 10:00	17	210	0.173	17	210	0.246	17	210	0.419
10:00 - 11:00	17	210	0.160	17	210	0.191	17	210	0.351
11:00 - 12:00	17	210	0.151	17	210	0.154	17	210	0.305
12:00 - 13:00	17	210	0.178	17	210	0.176	17	210	0.354
13:00 - 14:00	17	210	0.196	17	210	0.172	17	210	0.368
14:00 - 15:00	17	210	0.235	17	210	0.184	17	210	0.419
15:00 - 16:00	17	210	0.343	17	210	0.202	17	210	0.545
16:00 - 17:00	17	210	0.397	17	210	0.203	17	210	0.600
17:00 - 18:00	17	210	0.510	17	210	0.196	17	210	0.706
18:00 - 19:00	17	210	0.408	17	210	0.220	17	210	0.628
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.964			3.011			5.975

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

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

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

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.012	17	210	0.021	17	210	0.033
08:00 - 09:00	17	210	0.019	17	210	0.059	17	210	0.078
09:00 - 10:00	17	210	0.029	17	210	0.023	17	210	0.052
10:00 - 11:00	17	210	0.018	17	210	0.020	17	210	0.038
11:00 - 12:00	17	210	0.019	17	210	0.018	17	210	0.037
12:00 - 13:00	17	210	0.020	17	210	0.020	17	210	0.040
13:00 - 14:00	17	210	0.019	17	210	0.017	17	210	0.036
14:00 - 15:00	17	210	0.023	17	210	0.026	17	210	0.049
15:00 - 16:00	17	210	0.056	17	210	0.035	17	210	0.091
16:00 - 17:00	17	210	0.026	17	210	0.022	17	210	0.048
17:00 - 18:00	17	210	0.023	17	210	0.020	17	210	0.043
18:00 - 19:00	17	210	0.020	17	210	0.012	17	210	0.032
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.284			0.293			0.577

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

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

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

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.000	17	210	0.020	17	210	0.020
08:00 - 09:00	17	210	0.001	17	210	0.018	17	210	0.019
09:00 - 10:00	17	210	0.003	17	210	0.010	17	210	0.013
10:00 - 11:00	17	210	0.005	17	210	0.008	17	210	0.013
11:00 - 12:00	17	210	0.004	17	210	0.006	17	210	0.010
12:00 - 13:00	17	210	0.005	17	210	0.006	17	210	0.011
13:00 - 14:00	17	210	0.007	17	210	0.003	17	210	0.010
14:00 - 15:00	17	210	0.007	17	210	0.003	17	210	0.010
15:00 - 16:00	17	210	0.015	17	210	0.005	17	210	0.020
16:00 - 17:00	17	210	0.014	17	210	0.003	17	210	0.017
17:00 - 18:00	17	210	0.015	17	210	0.004	17	210	0.019
18:00 - 19:00	17	210	0.010	17	210	0.001	17	210	0.011
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.086			0.087			0.173

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

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

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

MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.001	17	210	0.008	17	210	0.009
08:00 - 09:00	17	210	0.001	17	210	0.009	17	210	0.010
09:00 - 10:00	17	210	0.001	17	210	0.006	17	210	0.007
10:00 - 11:00	17	210	0.003	17	210	0.002	17	210	0.005
11:00 - 12:00	17	210	0.003	17	210	0.002	17	210	0.005
12:00 - 13:00	17	210	0.003	17	210	0.001	17	210	0.004
13:00 - 14:00	17	210	0.001	17	210	0.000	17	210	0.001
14:00 - 15:00	17	210	0.001	17	210	0.001	17	210	0.002
15:00 - 16:00	17	210	0.003	17	210	0.000	17	210	0.003
16:00 - 17:00	17	210	0.006	17	210	0.001	17	210	0.007
17:00 - 18:00	17	210	0.010	17	210	0.000	17	210	0.010
18:00 - 19:00	17	210	0.011	17	210	0.001	17	210	0.012
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.044			0.031			0.075

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

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

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

MULTI-MODAL COACH PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.000	17	210	0.000	17	210	0.000
08:00 - 09:00	17	210	0.000	17	210	0.000	17	210	0.000
09:00 - 10:00	17	210	0.000	17	210	0.000	17	210	0.000
10:00 - 11:00	17	210	0.000	17	210	0.000	17	210	0.000
11:00 - 12:00	17	210	0.000	17	210	0.000	17	210	0.000
12:00 - 13:00	17	210	0.000	17	210	0.000	17	210	0.000
13:00 - 14:00	17	210	0.000	17	210	0.000	17	210	0.000
14:00 - 15:00	17	210	0.000	17	210	0.000	17	210	0.000
15:00 - 16:00	17	210	0.001	17	210	0.001	17	210	0.002
16:00 - 17:00	17	210	0.000	17	210	0.000	17	210	0.000
17:00 - 18:00	17	210	0.001	17	210	0.001	17	210	0.002
18:00 - 19:00	17	210	0.000	17	210	0.000	17	210	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			0.002			0.004

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

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

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

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.001	17	210	0.028	17	210	0.029
08:00 - 09:00	17	210	0.002	17	210	0.026	17	210	0.028
09:00 - 10:00	17	210	0.004	17	210	0.015	17	210	0.019
10:00 - 11:00	17	210	0.008	17	210	0.010	17	210	0.018
11:00 - 12:00	17	210	0.008	17	210	0.009	17	210	0.017
12:00 - 13:00	17	210	0.008	17	210	0.007	17	210	0.015
13:00 - 14:00	17	210	0.008	17	210	0.003	17	210	0.011
14:00 - 15:00	17	210	0.009	17	210	0.004	17	210	0.013
15:00 - 16:00	17	210	0.019	17	210	0.006	17	210	0.025
16:00 - 17:00	17	210	0.020	17	210	0.003	17	210	0.023
17:00 - 18:00	17	210	0.026	17	210	0.005	17	210	0.031
18:00 - 19:00	17	210	0.021	17	210	0.002	17	210	0.023
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.134			0.118			0.252

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

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

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

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.79

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.082	17	210	0.540	17	210	0.622
08:00 - 09:00	17	210	0.169	17	210	0.675	17	210	0.844
09:00 - 10:00	17	210	0.206	17	210	0.288	17	210	0.494
10:00 - 11:00	17	210	0.188	17	210	0.223	17	210	0.411
11:00 - 12:00	17	210	0.179	17	210	0.183	17	210	0.362
12:00 - 13:00	17	210	0.209	17	210	0.206	17	210	0.415
13:00 - 14:00	17	210	0.226	17	210	0.195	17	210	0.421
14:00 - 15:00	17	210	0.270	17	210	0.215	17	210	0.485
15:00 - 16:00	17	210	0.423	17	210	0.246	17	210	0.669
16:00 - 17:00	17	210	0.451	17	210	0.232	17	210	0.683
17:00 - 18:00	17	210	0.564	17	210	0.227	17	210	0.791
18:00 - 19:00	17	210	0.453	17	210	0.236	17	210	0.689
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.420			3.466			6.886

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

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

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

MULTI-MODAL CARS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.042	17	210	0.256	17	210	0.298
08:00 - 09:00	17	210	0.091	17	210	0.290	17	210	0.381
09:00 - 10:00	17	210	0.109	17	210	0.136	17	210	0.245
10:00 - 11:00	17	210	0.094	17	210	0.107	17	210	0.201
11:00 - 12:00	17	210	0.084	17	210	0.087	17	210	0.171
12:00 - 13:00	17	210	0.103	17	210	0.107	17	210	0.210
13:00 - 14:00	17	210	0.114	17	210	0.102	17	210	0.216
14:00 - 15:00	17	210	0.116	17	210	0.120	17	210	0.236
15:00 - 16:00	17	210	0.173	17	210	0.122	17	210	0.295
16:00 - 17:00	17	210	0.200	17	210	0.118	17	210	0.318
17:00 - 18:00	17	210	0.270	17	210	0.114	17	210	0.384
18:00 - 19:00	17	210	0.248	17	210	0.129	17	210	0.377
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.644			1.688			3.332

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

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

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

MULTI-MODAL LGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.010	17	210	0.028	17	210	0.038
08:00 - 09:00	17	210	0.015	17	210	0.023	17	210	0.038
09:00 - 10:00	17	210	0.015	17	210	0.013	17	210	0.028
10:00 - 11:00	17	210	0.013	17	210	0.015	17	210	0.028
11:00 - 12:00	17	210	0.014	17	210	0.015	17	210	0.029
12:00 - 13:00	17	210	0.014	17	210	0.013	17	210	0.027
13:00 - 14:00	17	210	0.015	17	210	0.014	17	210	0.029
14:00 - 15:00	17	210	0.016	17	210	0.013	17	210	0.029
15:00 - 16:00	17	210	0.016	17	210	0.014	17	210	0.030
16:00 - 17:00	17	210	0.023	17	210	0.016	17	210	0.039
17:00 - 18:00	17	210	0.026	17	210	0.011	17	210	0.037
18:00 - 19:00	17	210	0.016	17	210	0.011	17	210	0.027
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.193			0.186			0.379

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

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

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

MULTI-MODAL MOTOR CYCLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	210	0.001	17	210	0.004	17	210	0.005
08:00 - 09:00	17	210	0.000	17	210	0.003	17	210	0.003
09:00 - 10:00	17	210	0.001	17	210	0.001	17	210	0.002
10:00 - 11:00	17	210	0.001	17	210	0.000	17	210	0.001
11:00 - 12:00	17	210	0.001	17	210	0.001	17	210	0.002
12:00 - 13:00	17	210	0.001	17	210	0.001	17	210	0.002
13:00 - 14:00	17	210	0.001	17	210	0.001	17	210	0.002
14:00 - 15:00	17	210	0.002	17	210	0.001	17	210	0.003
15:00 - 16:00	17	210	0.001	17	210	0.001	17	210	0.002
16:00 - 17:00	17	210	0.001	17	210	0.001	17	210	0.002
17:00 - 18:00	17	210	0.002	17	210	0.001	17	210	0.003
18:00 - 19:00	17	210	0.002	17	210	0.001	17	210	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.016			0.030

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.*

Audit Code: 0b01dbc3-f876-4a63-bd6c-4a697366dede

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 04 - EDUCATION

Category: A - PRIMARY

Selected Vehicle Type: Total Vehicles

Selected regions and areas:

02	SOUTH EAST		
	BU	BUCKINGHAMSHIRE	1 day
03	SOUTH WEST		
	BC	BOURNEMOUTH CHRISTCHURCH & POOLE	1 day
	DC	DORSET	1 day
	DV	DEVON	1 day
	SD	SWINDON	1 day
	SM	SOMERSET	1 day
	WL	WILTSHIRE	1 day
04	EAST ANGLIA		
	NF	NORFOLK	1 day
	SF	SUFFOLK	1 day
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 day
	NT	NOTTINGHAMSHIRE	1 day
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 day
09	NORTH		
	TV	TEES VALLEY	1 day
11	SCOTLAND		
	FI	FIFE	2 days
12	CONNAUGHT		
	GA	GALWAY	1 day
14	LEINSTER		
	KK	KILKENNY	1 day

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

Audit Code: 0b01dbc3-f876-4a63-bd6c-4a697366dede

Primary Filtering Selection:

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

Parameter:	PUPILS
Actual Range:	310 to 9000 (units:PUPILS)
Range Selected by User:	100 to 400 (units:PUPILS)
Parking Spaces Range:	0 - 161

Public Transport Provision:	
Selection by:	All Surveys Included
Date Range:	25/04/91 to 28/11/24

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

Selected survey days:	
Monday	2 days
Thursday	3 days
Tuesday	6 days
Wednesday	6 days

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

Selected survey types:	
Manual count	17
Direction ATC Count	0

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:	
Neighbourhood Centre	17 days

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

Selected Location Sub Categories:	
Residential Zone	2 days
Village	15 days

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

Inclusion of Servicing Vehicle Counts:	
Servicing vehicles Excluded	1 days
Servicing vehicles Included	3 days
Servicing vehicles Unknown	13 days

Audit Code: 0b01dbc3-f876-4a63-bd6c-4a697366dede

Secondary Filtering Selection:

Use Class:

F1(a) 17 surveys

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

Population within 500m Range:

105 - 2600

Population within 1 mile:

1,000 or Less	1 surveys
1,001 to 5,000	11 surveys
10,001 to 15,000	1 surveys
15,001 to 20,000	1 surveys
20,001 to 25,000	1 surveys
5,001 to 10,000	2 surveys

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

Population within 5 miles:

100,001 to 125,000	1 surveys
125,001 to 250,000	2 surveys
25,001 to 50,000	4 surveys
5,001 to 25,000	1 surveys
50,001 to 75,000	5 surveys
75,001 to 100,000	4 surveys

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

Car ownership within 5 miles:

0.6 to 1.0	3 surveys
1.1 to 1.5	12 surveys
1.6 to 2.0	2 surveys

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.

Audit Code: 0b01dbc3-f876-4a63-bd6c-4a697366dede

Petrol filling station:

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No 17 surveys

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 17 surveys

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

COVID-19 Restrictions:

No

Audit Code: 0b01dbc3-f876-4a63-bd6c-4a697366dede

1	BC-04-A-02	MIDDLE SCHOOL	BOURNEMOUTH CHRISTCHURCH & POOLE
SANDFORD ROAD NEAR POOLE SANDFORD Neighbourhood Centre Village Gross floor area: 1858 sqm Survey date: Thursday 18/04/1996			
Survey Type: Manual			
2	BU-04-A-01	PRIMARY SCHOOL	BUCKINGHAMSHIRE
LOWER ROAD NEAR AYLESBURY STOKE MANDEVILLE Neighbourhood Centre Village Gross floor area: 1250 sqm Survey date: Wednesday 01/10/2014			
Survey Type: Manual			
3	DC-04-A-04	PRIMARY SCH.	DORSET
RASHLEY ROAD NEAR WEYMOUTH CHICKERELL Neighbourhood Centre Village Gross floor area: 1400 sqm Survey date: Tuesday 16/11/1999			
Survey Type: Manual			
4	DV-04-A-02	PRIMARY SCHOOL	DEVON
LONDON ROAD NEAR EXETER BROADCLYST Neighbourhood Centre Village Gross floor area: 1048 sqm Survey date: Tuesday 03/12/1991			
Survey Type: Manual			
5	FI-04-A-01	PRIMARY SCHOOL	FIFE
NORTHBANK ROAD NEAR DUNFERMLINE CAIRNEYHILL Neighbourhood Centre Village Gross floor area: 1975 sqm Survey date: Wednesday 27/05/2015			
Survey Type: Manual			
6	FI-04-A-02	PRIMARY SCHOOL	FIFE
RINTOUL AVENUE NEAR DUNFERMLINE BLAIRHALL Neighbourhood Centre Village Gross floor area: 1300 sqm Survey date: Tuesday 22/03/2016			
Survey Type: Manual			
7	GA-04-A-02	PRIMARY SCHOOL	GALWAY
R339 NEAR GALWAY BRIARHILL Neighbourhood Centre Village Gross floor area: 2100 sqm Survey date: Tuesday 09/04/2024			
Survey Type: Manual			

Audit Code: 0b01dbc3-f876-4a63-bd6c-4a697366dede

8	KK-04-A-01	NATIONAL SCHOOL	KILKENNY
CORLUDDY NEAR WATERFORD CARRIGEEN Neighbourhood Centre Village Gross floor area: 1380 sqm Survey date: Survey Type: Manual			
9	LN-04-A-01	PRIMARY SCHOOL	LINCOLNSHIRE
GONERBY HILL FOOT GRANTHAM Neighbourhood Centre Residential Zone Gross floor area: 1990 sqm Survey date: Wednesday 12/06/2013 Survey Type: Manual			
10	NF-04-A-02	PRIMARY SCHOOL	NORFOLK
MILL LANE HORSFORD Neighbourhood Centre Village Gross floor area: 1546 sqm Survey date: Thursday 28/11/2024 Survey Type: Manual			
11	NT-04-A-01	PRIMARY SCHOOL	NOTTINGHAMSHIRE
SCHOOL LANE NEAR MANSFIELD CUCKNEY Neighbourhood Centre Village Gross floor area: 1000 sqm Survey date: Survey Type: Manual			
12	NY-04-A-03	PRIMARY SCHOOL	NORTH YORKSHIRE
DAVISON STREET NR. SALTBURN-BY-THE-SEA LINGDALE Neighbourhood Centre Village Gross floor area: 1400 sqm Survey date: Tuesday 11/09/2007 Survey Type: Manual			
13	SD-04-A-01	PRIMARY SCHOOL	SWINDON
CASTLE VIEW ROAD NEAR SWINDON CHISELDON Neighbourhood Centre Village Gross floor area: 1550 sqm Survey date: Tuesday 20/09/2016 Survey Type: Manual			
14	SF-04-A-03	PRIMARY SCHOOL	SUFFOLK
ENSTONE ROAD LOWESTOFT KIRKLEY Neighbourhood Centre Residential Zone Gross floor area: 2550 sqm Survey date: Wednesday 10/12/2014 Survey Type: Manual			
15	SM-04-A-02	PRIMARY SCHOOL	SOMERSET

Audit Code: 0b01dbc3-f876-4a63-bd6c-4a697366dede

ROWLANDS RISE
NEAR BRIDGWATER
PURITON
Neighbourhood Centre
Village

Gross floor area: 1300 sqm
Survey date: Wednesday 14/09/2022

Survey Type: Manual

16
THE GREEN
BILLINGHAM
WOLVISTON
Neighbourhood Centre
Village

TV-04-A-03

PRIMARY SCHOOL

TEES VALLEY

Gross floor area: 800 sqm
Survey date: Thursday 26/05/2022

Survey Type: Manual

17
HIGH STREET
ROWDE
Neighbourhood Centre
Village

WL-04-A-02

C OF E PRIMARY ACADEMY

WILTSHIRE

Gross floor area: 1750 sqm
Survey date: Wednesday 03/04/2019

Survey Type: Manual

Audit Code: 0b01dbc3-f876-4a63-bd6c-4a697366dede

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

Total Vehicles

Calculation factor: 1 PUPILS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. PUPILS	Arrivals	Departures	Totals
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	312	0.000	0.000	0.000
06:00-07:00	1	312	0.013	0.003	0.016
07:00-08:00	16	212	0.049	0.018	0.067
08:00-09:00	17	213	0.303	0.243	0.546
09:00-10:00	17	213	0.034	0.049	0.083
10:00-11:00	17	213	0.019	0.016	0.035
11:00-12:00	17	213	0.043	0.037	0.080
12:00-13:00	17	213	0.032	0.032	0.064
13:00-14:00	17	213	0.029	0.039	0.068
14:00-15:00	17	213	0.079	0.048	0.127
15:00-16:00	17	213	0.160	0.214	0.374
16:00-17:00	17	213	0.042	0.064	0.106
17:00-18:00	15	208	0.023	0.043	0.066
18:00-19:00	15	208	0.009	0.013	0.022
19:00-20:00	1	312	0.000	0.000	0.000
20:00-21:00	1	312	0.000	0.032	0.032
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			0.835	0.851	1.686

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Audit Code: 0b01dbc3-f876-4a63-bd6c-4a697366dede

Parameter Summary:

Trip rate parameter range selected:	100 - 400 (units: PUPILS)
Survey date date range:	03/12/1991 - 28/11/2024
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Audit Code: 49188b99-e868-496a-acf0-05962e0dfddf

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 04 - EDUCATION

Category: D - NURSERY

Selected Vehicle Type: Total Vehicles

Selected regions and areas:

02	SOUTH EAST		
	BH	BRIGHTON & HOVE	1 day
	SC	SURREY	1 day
03	SOUTH WEST		
	BA	BATH & NORTH EAST SOMERSET	1 day
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 day
	SF	SUFFOLK	1 day
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 day
10	WALES		
	NW	NEWPORT	1 day
11	SCOTLAND		
	ER	EAST RENFREWSHIRE	1 day

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

Audit Code: 49188b99-e868-496a-acf0-05962e0dfddf

Primary Filtering Selection:

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

Parameter:	PUPILS
Actual Range:	109 to 2350 (units:PUPILS)
Range Selected by User:	20 to 100 (units:PUPILS)
Parking Spaces Range:	3 - 57

Public Transport Provision:

Selection by:	All Surveys Included
Date Range:	17/12/97 to 06/09/23

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

Selected survey days:

Friday	2 days
Monday	1 days
Thursday	2 days
Tuesday	1 days
Wednesday	2 days

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

Selected survey types:

Manual count	8
Direction ATC Count	0

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:

Neighbourhood Centre	8 days
----------------------	--------

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:

No Sub Category	2 days
Residential Zone	4 days
Village	2 days

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

Inclusion of Servicing Vehicle Counts:

Servicing vehicles Included	2 days
Servicing vehicles Unknown	6 days

Audit Code: 49188b99-e868-496a-acf0-05962e0dfddf

Secondary Filtering Selection:

Use Class:

E(f) 8 surveys

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

Population within 500m Range:

1390 - 10232

Population within 1 mile:

1,001 to 5,000	2 surveys
10,001 to 15,000	1 surveys
15,001 to 20,000	1 surveys
20,001 to 25,000	1 surveys
25,001 to 50,000	2 surveys
50,001 to 100,000	1 surveys

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

Population within 5 miles:

100,001 to 125,000	1 surveys
125,001 to 250,000	3 surveys
250,001 to 500,000	2 surveys
50,001 to 75,000	1 surveys
500,001 or More	1 surveys

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	4 surveys
1.1 to 1.5	4 surveys

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.

Audit Code: 49188b99-e868-496a-acf0-05962e0dfddf

Petrol filling station:

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No 8 surveys

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 8 surveys

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

COVID-19 Restrictions:

No

Audit Code: 49188b99-e868-496a-acf0-05962e0dfddf

1	BA-04-D-02	NURSERY	BATH & NORTH EAST SOMERSET
MIDFORD ROAD BATH COMBE DOWN Neighbourhood Centre Residential Zone Gross floor area: 300 sqm Survey date: Thursday 15/09/2022			
Survey Type: Manual			
2	BH-04-D-01	NURSERY	BRIGHTON & HOVE
CONNAUGHT ROAD BRIGHTON HOVE Neighbourhood Centre Residential Zone Gross floor area: 185 sqm Survey date: Friday 22/09/2017			
Survey Type: Manual			
3	CA-04-D-01	NURSERY	CAMBRIDGESHIRE
MILTON ROAD CAMBRIDGE CHESTERTON Neighbourhood Centre Residential Zone Gross floor area: 500 sqm Survey date:			
Survey Type: Manual			
4	ER-04-D-06	NURSERY	EAST RENFREWSHIRE
WOODFARM ROAD GIFFNOCK Neighbourhood Centre No Sub Category Gross floor area: 398 sqm Survey date: Tuesday 18/05/1999			
Survey Type: Manual			
5	NW-04-D-01	NURSERY	NEWPORT
CHEPSTOW ROAD NEAR NEWPORT LANGSTONE Neighbourhood Centre Village Gross floor area: 284 sqm Survey date: Wednesday 12/10/2022			
Survey Type: Manual			
6	SC-04-D-01	NURSERY	SURREY
DELL ROAD STONELEIGH Neighbourhood Centre No Sub Category Gross floor area: 495 sqm Survey date: Thursday 18/12/1997			
Survey Type: Manual			
7	SF-04-D-01	NURSERY	SUFFOLK
IXWORTH ROAD NEAR BURY ST EDMUNDS THURSTON Neighbourhood Centre Village Gross floor area: 600 sqm Survey date: Tuesday 09/05/2006			
Survey Type: Manual			
8	WM-04-D-02	NURSERY	WEST MIDLANDS



Audit Code: 49188b99-e868-496a-acf0-05962e0dfddf

BERTRAM ROAD
BIRMINGHAM
SMALL HEATH
Neighbourhood Centre
Residential Zone
Gross floor area: 880 sqm
Survey date: Friday 19/11/2021

Survey Type: Manual

Audit Code: 49188b99-e868-496a-acf0-05962e0dfddf

TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY

Total Vehicles

Calculation factor: 1 PUPILS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. PUPILS	Arrivals	Departures	Totals
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	1	61	0.000	0.000	0.000
07:00-08:00	8	50	0.179	0.099	0.278
08:00-09:00	8	50	0.278	0.243	0.521
09:00-10:00	8	50	0.132	0.127	0.259
10:00-11:00	8	50	0.022	0.027	0.049
11:00-12:00	8	50	0.040	0.047	0.087
12:00-13:00	8	50	0.097	0.084	0.181
13:00-14:00	8	50	0.087	0.099	0.186
14:00-15:00	8	50	0.030	0.032	0.062
15:00-16:00	8	50	0.069	0.072	0.141
16:00-17:00	8	50	0.092	0.094	0.186
17:00-18:00	8	50	0.216	0.246	0.462
18:00-19:00	8	50	0.027	0.087	0.114
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			1.269	1.257	2.526

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

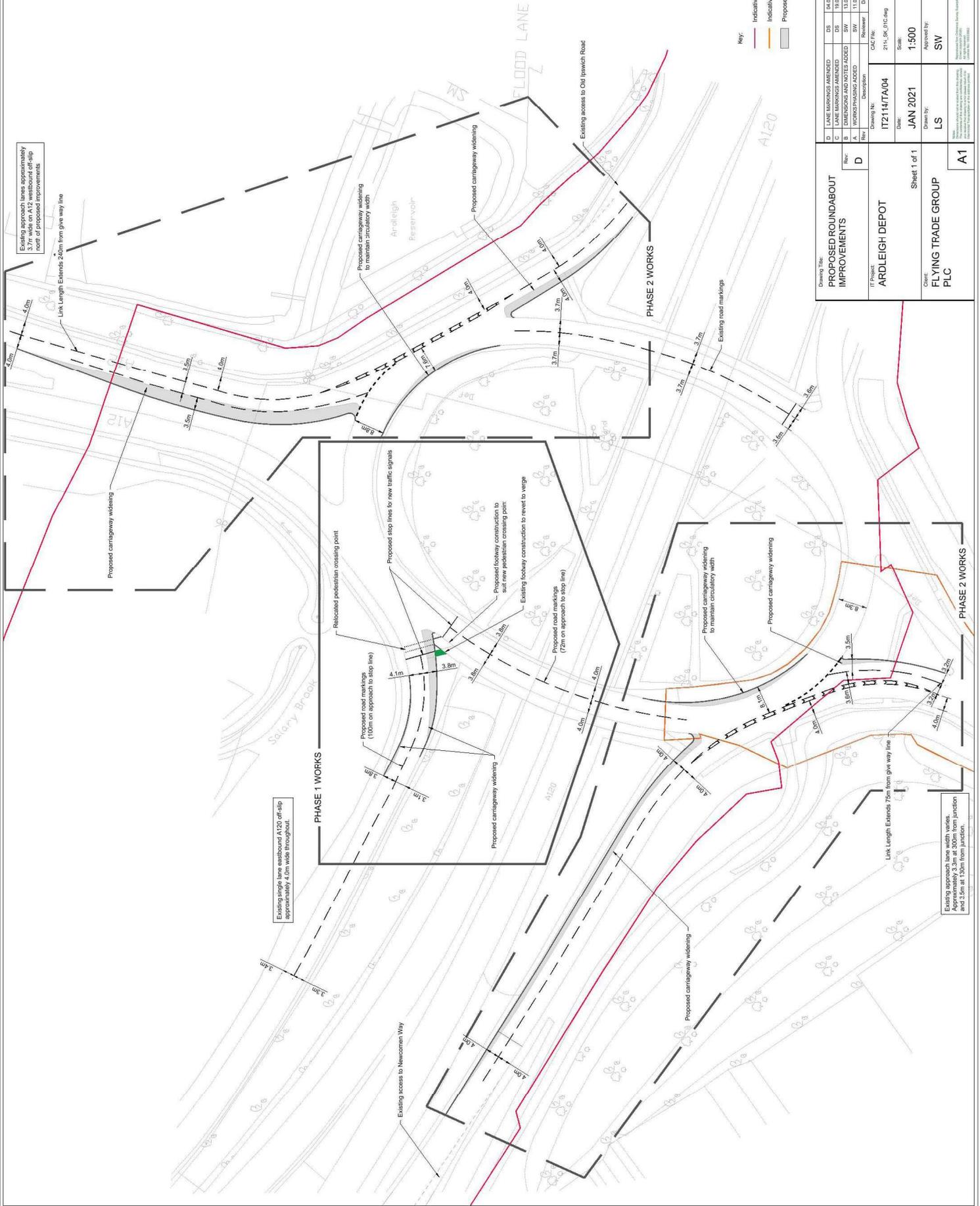
Audit Code: 49188b99-e868-496a-acf0-05962e0dfddf

Parameter Summary:

Trip rate parameter range selected:	20 - 100 (units: PUPILS)
Survey date date range:	18/12/1997 - 26/06/2023
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix D



Rev	Description	Author	Checker	Date
D	LANE MARKINGS AMENDED	DS	SW	04.02.21
C	LANE MARKINGS AMENDED	SW	SW	13.02.21
B	DIMENSIONS AND NOTES ADDED	SW	SW	11.02.21
A	WORKS PHASING ADDED	SW	SW	11.02.21

Drawing Title	PROPOSED ROUNDABOUT IMPROVEMENTS
Rev	D
IT Project	ARDLEIGH DEPOT
Drawing No.	IT2114/TA/04
Date	JAN 2021
Scale	1:500
Drawn by	LS
Approved by	SW
Client	FLYING TRADE GROUP PLC
Sheet	1 of 1
Sheet	A1

Rev	Description	Author	Checker	Date
D	LANE MARKINGS AMENDED	DS	SW	04.02.21
C	LANE MARKINGS AMENDED	SW	SW	13.02.21
B	DIMENSIONS AND NOTES ADDED	SW	SW	11.02.21
A	WORKS PHASING ADDED	SW	SW	11.02.21

Drawing Title	PROPOSED ROUNDABOUT IMPROVEMENTS
Rev	D
IT Project	ARDLEIGH DEPOT
Drawing No.	IT2114/TA/04
Date	JAN 2021
Scale	1:500
Drawn by	LS
Approved by	SW
Client	FLYING TRADE GROUP PLC
Sheet	1 of 1
Sheet	A1

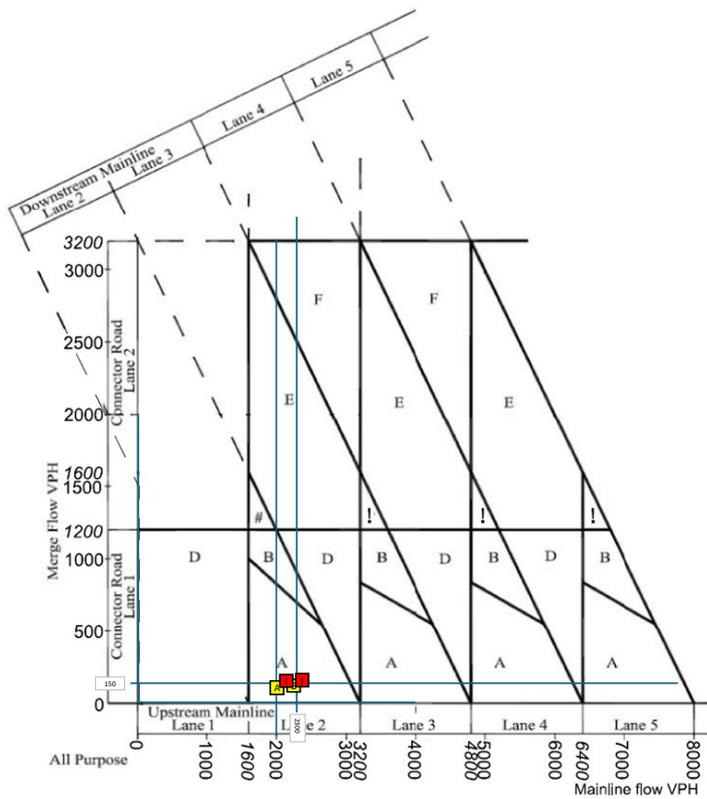
Rev	Description	Author	Checker	Date
D	LANE MARKINGS AMENDED	DS	SW	04.02.21
C	LANE MARKINGS AMENDED	SW	SW	13.02.21
B	DIMENSIONS AND NOTES ADDED	SW	SW	11.02.21
A	WORKS PHASING ADDED	SW	SW	11.02.21

Drawing Title	PROPOSED ROUNDABOUT IMPROVEMENTS
Rev	D
IT Project	ARDLEIGH DEPOT
Drawing No.	IT2114/TA/04
Date	JAN 2021
Scale	1:500
Drawn by	LS
Approved by	SW
Client	FLYING TRADE GROUP PLC
Sheet	1 of 1
Sheet	A1

Rev	Description	Author	Checker	Date
D	LANE MARKINGS AMENDED	DS	SW	04.02.21
C	LANE MARKINGS AMENDED	SW	SW	13.02.21
B	DIMENSIONS AND NOTES ADDED	SW	SW	11.02.21
A	WORKS PHASING ADDED	SW	SW	11.02.21

Drawing Title	PROPOSED ROUNDABOUT IMPROVEMENTS
Rev	D
IT Project	ARDLEIGH DEPOT
Drawing No.	IT2114/TA/04
Date	JAN 2021
Scale	1:500
Drawn by	LS
Approved by	SW
Client	FLYING TRADE GROUP PLC
Sheet	1 of 1
Sheet	A1

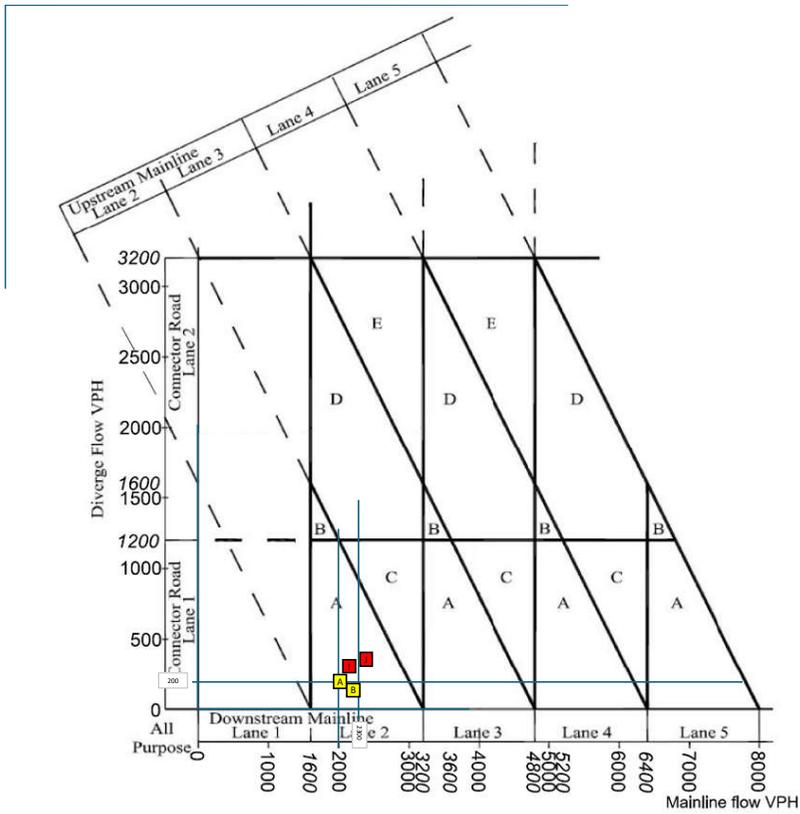
Appendix E



Ref.	Scenario	Upstream Flows	Merge Flows
A	2025 Base AM	2017	98
B	2025 Base PM	2228	137
C	2033 Base+Committed AM	2095	102
D	2033 Base+Committed PM	2316	142
E	2033 Base+Committed+Proposed AM	2095	149
F	2033 Base+Committed+Proposed PM	2316	161
G	2038 Base+Committed AM	2147	104
H	2038 Base+Committed PM	2373	146
I	2038 Base+Committed+Proposed AM	2147	151
J	2038 Base+Committed+Proposed PM	2373	165

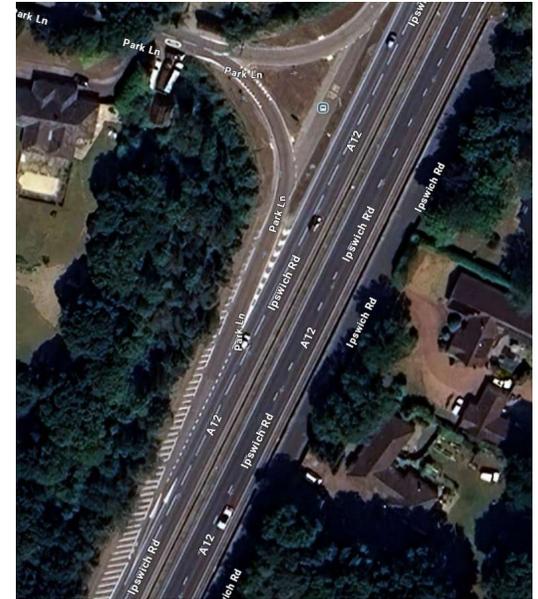
Scenario	Merge Layout
2025 Base	AM A PM A
2033 Base+Committed	A A A A
2033 Base+Committed+Proposed	A A A A
2038 Base+Committed	A A A A
2038 Base+Committed+Proposed	A A A A

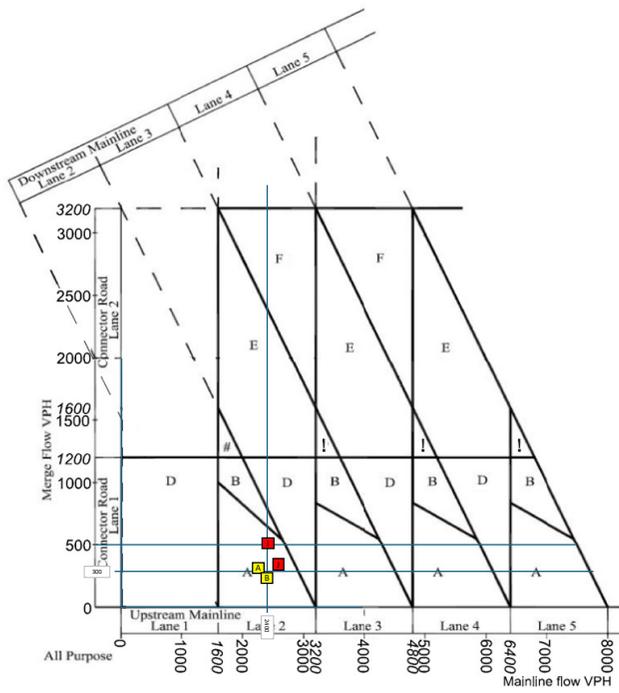




Ref.	Scenario	Upstream Flows	Diverge Flows
A	2025 Base AM	2017	209
B	2025 Base PM	2228	163
C	2033 Base+Committed AM	2095	217
D	2033 Base+Committed PM	2316	169
E	2033 Base+Committed+Proposed AM	2095	277
F	2033 Base+Committed+Proposed PM	2316	332
G	2038 Base+Committed AM	2147	222
H	2038 Base+Committed PM	2373	174
I	2038 Base+Committed+Proposed AM	2147	282
J	2038 Base+Committed+Proposed PM	2373	336

Scenario	Diverge Layout	
	AM	PM
2025 Base	A	A
2033 Base+Committed	A	A
2033 Base+Committed+Proposed	A	A
2038 Base+Committed	A	A
2038 Base+Committed+Proposed	A	A

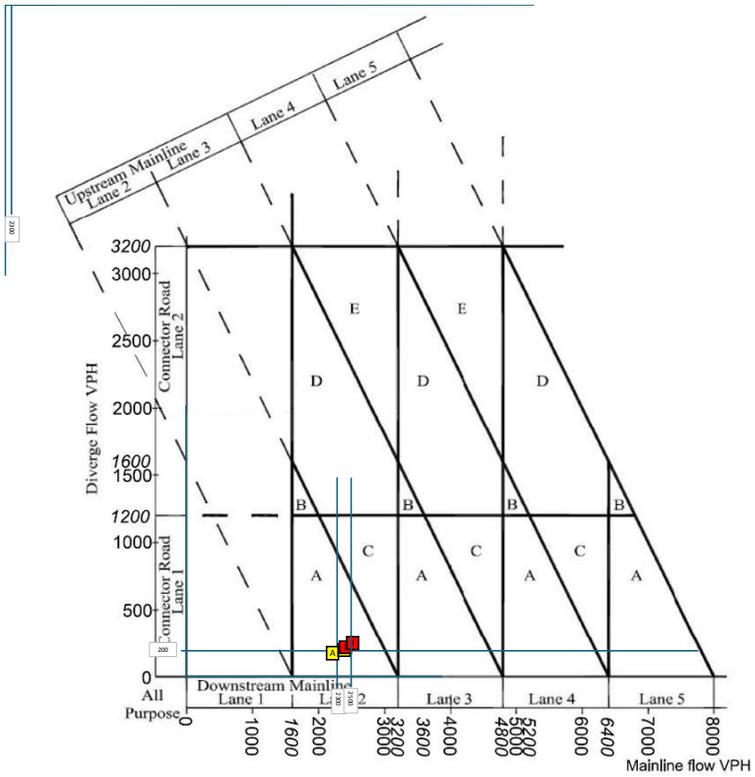




Ref.	Scenario	Upstream Flows	Merge Flows
A	2025 Base AM	2272	322
B	2025 Base PM	2402	249
C	2033 Base+Committed AM	2359	334
D	2033 Base+Committed PM	2497	259
E	2033 Base+Committed+Proposed AM	2359	512
F	2033 Base+Committed+Proposed PM	2497	330
G	2038 Base+Committed AM	2418	343
H	2038 Base+Committed PM	2558	265
I	2038 Base+Committed+Proposed AM	2418	521
J	2038 Base+Committed+Proposed PM	2558	336

Scenario	Merge Layout	
	AM	PM
2025 Base	A	A
2033 Base+Committed	A	A
2033 Base+Committed+Proposed	A	A
2038 Base+Committed	A	A
2038 Base+Committed+Proposed	A	A





Ref.	Scenario	Upstream Flows	Diverge Flows
A	2025 Base AM	2272	189
B	2025 Base PM	2402	204
C	2033 Base+Committed AM	2359	196
D	2033 Base+Committed PM	2497	212
E	2033 Base+Committed+Proposed AM	2359	213
F	2033 Base+Committed+Proposed PM	2497	257
G	2038 Base+Committed AM	2418	201
H	2038 Base+Committed PM	2558	217
I	2038 Base+Committed+Proposed AM	2418	218
J	2038 Base+Committed+Proposed PM	2558	262

Scenario	Diverge Layout
2025 Base	AM A PM A
2033 Base+Committed	A A A A
2033 Base+Committed+Proposed	A A A A
2038 Base+Committed	A A A A
2038 Base+Committed+Proposed	A A A A

Upstream Flows	Diverge Flows
2272	189
2402	204
2359	196
2497	212
2359	213
2497	257
2418	201
2558	217
2418	218
2558	262

