TRANSPORT PLANNING LTD

Client:

Richborough

Project:

Land off Caxton Road
Cambourne

Project No:

T25646

Report Title:

Access Appraisal

Prepared by:	ES
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Rev:	
Date:	15.01.2026

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1.0 Introduction

Background

1.1 Hub Transport Planning Ltd has been commissioned by Richborough to provide transport advice for a proposed residential development on land off Caxton Road, Cambourne.

1.2 It is intended that the site will provide up to 1,000 residential dwellings with a 2FE Primary School and a local centre.

1.3 The site location is presented in **Figure 1.1**, with **Figure 1.2** reflecting the proposed access points for the proposed development, which show the proposal for an access via an improvement to the A1198/ School Lane roundabout, and a new point of access on the A1198 to the south.

Structure of the Report

1.4 This Access Appraisal is intended to assess the proposed access arrangements of the site.

1.5 Following this introduction, the report is set out as follows:

- Section 2.0 – Baseline Conditions;
- Section 3.0 – Sustainable Travel;
- Section 4.0 – Development Proposals;
- Section 5.0 – Highway Network Impact.

Limitations of the Report

1.6 This report has been undertaken at the request of Richborough thus should not be entrusted to any third party without written permission from Hub Transport Planning Ltd. However, should any information contained within this report be used by any unauthorised third party, it is done so entirely at their own risk and shall not be the responsibility of Hub Transport Planning Ltd.

1.7 This report has been compiled using data from a number of external sources (such as TRICS and public transport information); these sources are considered to be trustworthy and therefore the data provided is considered to be accurate and relevant at the time of preparing this report.

2.0 Baseline Conditions

Site Location

2.1 The site is located c. 1.4km south (as the crow flies) of Cambourne, Cambridge.

2.2 The site is bordered by residential dwellings and Cambourne Nature Reserve to the north, a footpath to the east with a Solar Farm, Caxton Road to the south and the A1198 to the west.

Highway Network

Caxton Road

2.3 Caxton Road is a c. 4.5m wide carriageway, with no footway provided on either side and speeds varying between 40mph and the national speed limit. If followed to the east, Caxton Road forms a t-junction which provides a connection for the footpath bordering the site. Alternatively, if users follow either of the arms it connects onto Caxton End, Bourn and Crow End.

2.4 To the western end of Caxton Road, it can be followed onto Bourn Road which provides a connection into Caxton.

A1198

2.5 The A1198 is a c. 7.3-7.8m wide carriageway, within the vicinity of the proposed site, which has speeds of 50mph and no footways on either side.

2.6 The A1198 provides connections to a number of residential areas such as Longstowe and Arrington before arriving at Royston, where it joins the Royston Bypass, connecting residents to significant parts of the highway network such as the A10.

2.7 If the A1198 is followed to the north, residents can join onto the A428 or continue onto Papworth Everard and the A14.

Highway Safety

2.8 In order to provide an initial review of road safety across the immediate highway network, five years of Personal Injury Accident (PIA) data has been obtained from the publicly available Department for Transport (DfT) data (covering the period between 2020 and 2024).

2.9 A summary of the PIAs across junctions and the sections of road between them across the local highway network is included in **Table 1** below and presented in **Figure 2.1**.

Table 1 - PIA Data Summary

Location	Severity			Total
	Slight	Serious	Fatal	
A428	2			**2**
Back Lane	1			**1**
Black Cat to Caxton Gibbet Improvement Scheme	2	2		**4**
Cambourne Junction Roundabout	1			**1**
Cambourne Road/ Back Lane/ Broad Street/ Business Park Roundabout	2	1		**3**
Cambridge Road	2	3		**5**
Ermine Street	3			**3**
Ermine Street/ Caxton Gibbet Park Service Area	2	1		**3**
Ermine Street/ Unnamed Private Road	1			**1**
Royston Road	2			**2**
Saint Neots Road	3	2		**5**
School Lane		1		**1**
Sheepfold Lane	1			**1**
Sheepfold Lane/ Cambourne Road Junction		1		**1**
Swansley Lane	1	1		**2**
Caxton Gibbet Roundabout				
Cambridge Road Arm	3			**3**
Ermine Street (S) Arm	5			**5**
A1198 Ermine Street Arm	2			**2**
Saint Neots Road Arm	2	1		**3**
Total	**35**	**13**		**48**

2.10 Within the search area, a total of 48 PIAs have been recorded within the most recent five-years of available data. It is noted that of the 48 PIAs recorded, 35 of which are recorded as ‘slight’ and 13 as ‘serious’

2.11 There are some possible clusters of accidents (5 accidents within 5 years) along Saint Neots Road and the Ermine Street (S) Arm on Caxton Gibbet Roundabout. The safety record in these locations will be examined in detail, although it is noted that an improvement scheme is underway at Caxton Gibbet and so the record of highway safety is unlikely to reflect the situation post-scheme implementation.

2.12 Detailed PIA data will be obtained from South Cambridgeshire to establish the causation of each PIA and will be discussed further with them at the pre-application stage to agree on potential safety mechanisms to be delivered by the proposals, if required.

3.0 Sustainable Travel

Sustainable Travel

3.1 Walking and cycling provide important alternatives to cars and should also be encouraged to form part of longer trips via public transport.

Walking Distance Guidance

3.2 The Institution of Highways and Transportation (IHT) (now Chartered Institution of Highways and Transportation (CIHT)) guidance document 'Providing for Journeys on Foot' provides advice for sustainable travel infrastructure provision within new developments. The suggested walking distances to key facilities (e.g. healthcare, shops) are presented in **Table 2**.

Table 2 – Suggested Walking Distances (CIHT Guidelines)

	Town Centre (m)	Commuting/Schools/ Sightseeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

3.3 In addition to this guidance, Manual for Streets (MfS) and the National Design Guide (2021) states that 'walkable neighbourhoods' are typically characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance of residential areas which may be accessed comfortably on foot.

3.4 MfS also states that the 800m walking distance is not an upper limit and references the former Planning Policy Guidance Note 13: Transport (PPG13) guidance in respect of walking replacing short car trips, particularly those under 2km.

3.5 Table NTS0303 from the 2024 National Travel Survey (released August 2025) indicates that the national average walk trip distance in 2024 was 0.7 miles or 1.12km.

3.6 The 2024 National Travel Survey (Table NTS0308) also shows that walking was the most frequent mode used for short trips, with 78% of trips under one mile (1.6km) being completed by foot in 2024, which is very similar to 2023 (82%) and 2022 (83%).

Cycling Distances

3.7 There is also potential for short car trips to be substituted for cycle trips, and for longer trips to be substituted by a combination of cycle and public transport trips.

3.8 The CIHT Planning for Cycling document (2014) states that *"The majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips (Department for Transport (DfT), 2014a)."*

3.9 The DfT Cycling and Walking Investment Strategy (2017) also refers to the threshold of five miles (or 8km), stating that *"two out of every three personal trips are within five miles - an achievable distance to cycle for most people, with many shorter journeys also suitable for walking."*

3.10 The second cycling and walking investment strategy published by DfT in 2022 does not specifically reference the statement in the paragraph above, however one of the main objectives is to increase the percentage of short journeys (i.e. those under five miles) in towns and cities that are walked or cycled from 41% in 2018/2019 to 46% in 2025.

3.11 The 2024 National Travel Survey also shows that the average cycle trip distance (for all purposes) was 3.3 miles or 5.3km. Therefore, it is reasonable to consider cycling as a viable mode of travel for distances up to 8km.

3.12 The following section considers the opportunities for destinations to be accessed by sustainable travel that are available in the vicinity of the site.

Local Facilities

3.13 **Figure 3.1** presents the location of the site in relation to key local facilities.

3.14 A list of these facilities and their distances via the existing footway network are provided in **Table 3**.

3.15 The walking distances have been taken from access to Cambourne Nature Reserve, 450m from the centre of the site, and account for all proposed access points that can be used by pedestrians.

3.16 It is worth noting that the proposed development includes a 2FE Primary School and a local centre, helping to internalise trips within the site.

Table 2 - Local Facilities

Facility	Distance from Centre of Site (Approx)
Community	
Cambourne Child and Family Centre **(C1)**	1.85km
The Hub (Community Centre) **(C2)**	1.95km
Cambourne Church **(C3)**	2.0km
Education	
Monkfield Park Primary School **(E1)**	1.50km
Hardwick and Cambourne Primary School **(E2)**	1.95km
Cambourne Village College **(E3)**	2.10km
Cambourne Pre-School **(E4)**	2.25km
Employment	
Cambourne Business Park **(EMP1)**	2.0km-2.15km
Healthcare	
Cambourne Dental Practice **(H1)**	1.45km
Leisure	

Facility	Distance from Centre of Site (Approx)
Cambourne Nature Reserve **(L1)**	895m
Crow Hill Allotments **(L2)**	1.25km
Great Cambourne Playground **(L3)**	1.30km
Great Cambourne Tennis Court **(L4)**	1.45km
Lower Cambourne Green and Cricket Pitch **(L5)**	1.45km
Great Cambourne Green **(L6)**	1.50km
Eco Playground **(L7)**	1.55km
Oaks Wood **(L8)**	1.65km
Monkfield Wood **(L9)**	1.65km
Cambourne Community Orchard **(L10)**	1.65km
Monkfield Arms **(L11)**	1.75km
Retail	
Cambourne Grill **(R1)**	1.20km
The Co-operative Food **(R2)**	1.45km
Cromwell Veterinary Group **(R3)**	1.65km
Other	
Local Centre (inc. retail, healthcare and community facilities) **(O1)**	1.65km-1.95km

3.17 **Table 3** demonstrates that there are several local facilities within walking distance from the site that are likely to be used on a day-to-day basis by future residents of the site.

3.18 All local facilities are primarily located within Cambourne, and the majority are within the 2.0km upper limit outlined in MfS.

Accessibility by Walking

3.19 The local footway network within the vicinity of the site provides access to a variety of the local facilities outlined within **Table 3.**

3.20 Cambourne Nature Reserve provides a dedicated route to a number of facilities and residential areas within Cambourne; a route which is separate from the carriageway.

3.21 Once connected to residential areas, footways are generally wide and lit.

3.22 There is also an extensive network of Public Rights of Way (PRoW) within the vicinity of the site, including Bridleway 44/5 which provides a direct connection between Caxton and Cambourne and Footpath 26/2 which borders the site.

3.23 The 800m, 1.2km and 2km walking distances (taken from Cambourne Nature Reserve are presented in **Figure 3.2**.

Accessibility by Cycling

3.24 There are 30mph speed limits within Cambourne and where speed limits increase to 60-70mph speeds, cycleways and bridleways are provided, making it suitable for cyclists of all abilities to cycle around Cambourne.

3.25 The site will connect onto a number of traffic-free cycle routes and shared-use routes and a link between the proposed and existing connections for cyclists will be established to provide a comprehensive cycling network within Cambourne.

3.26 There are designated cycleways on School Lane, and the proposed access point at the School Lane/A1198 roundabout is envisaged to provide a high-quality cycle route into the centre of Cambourne.

3.27 The 5.0km and 8.0km cycle distances (taken from Cambourne Nature Reserve) are presented in **Figure 3.3.**

Accessibility by Bus

3.28 The nearest bus stops are situated along School Lane to the north of the site, c. 1.25km from the centre of the site, both bus stops take the form of bus shelters with timetable information.

3.29 A summary of the bus services is provided in **Table 4** below.

Table 3 - Local Bus Services

Service No.	Operator	Route	Frequency (approx.)		
			Mon-Fri	Sat	Sun
4	Stagecoach East	Cambourne – Cambridge	Typically, 3 buses an hour between 05:55 and 12:15. Followed by 1-2 buses an hour between 18:35 and 22:55. *Buses only run between Mon – Weds, any time after 20:55 is Mon – Tues only.	Typically, 3 buses an hour between 05:55 and 12:35. Followed by 1-2 buses an hour between 18:55 and 22:55.	Typically, a bus every hour (08:57-18:57)
		Cambridge – Lower Cambourne	19:34, 20:54 and 23:54 *Buses only run between Mon – Weds.	19:34 and 23:54	n/a
18/18A	Whippet Coaches	St Neots – Cambridge	Typically, 1-2 buses an hour between 06:35 and 17:56. *Buses only run between Mon - Weds *Then, one bus at 21:01 is Mon – Tues only.	Typically, 1-2 buses an hour between 07:02-17:55, then one bus at 20:58.	n/a
		Cambridge - St Neots	One bus at 06:06, then typically 1-2 buses an hour between 08:01 and 19:54. *Buses only run between Mon – Weds except the 19:54 that runs Mon – Tues only..	Typically, 1-2 buses an hour between 06:06-19:55	n/a

X2	Whippet Coaches	Huntingdon - Cambridge	07:49 and 09:55	n/a	n/a
		Cambridge - Huntingdon	12:49, 17:12 and 19:37	n/a	n/a
X3	Whippet Coaches	Huntingdon - Addenbrooke	Typically, 1-2 buses an hour between 05:35 and 21:30.	Typically, 2 buses an hour between 05:37-19:36, then one bus at 21:29.	05:37, then a bus every hour between 08:55 and 19:34.
		Addenbrooke - Huntingdon	Typically, 1-2 buses an hour between 06:45 and 23:22.	Typically, 2 buses an hour between 07:40 - 21:08, then one bus at 23:22.	07:40, then a bus every hour between 10:32 to 21:08

3.30 **Table 4** demonstrates that there are regular buses in the vicinity of the site, allowing residents to have a real choice of options when travelling, via interchange with future services running directly to the development, or a walk of approximately 15 mins. It is envisaged that there will also be direct bus provision to Cambourne and Cambridge with contribution by the development to support the service in the early stages of development.The local bus services provide access to a range of destinations, allowing for commuting, education, and leisure trips.

Accessibility by Rail

3.31 St Neots Railway Station and Cambridge North Railway Stations are beyond a suitable walking distance and those travelling to Cambridge North may not travel via bus since it would require changes.

3.32 Those commuting to St Neots Railway Station have the choice of a c. 53-minute cycle, c. 24-minute bus or a 25-minute drive.

3.33 Whilst those commuting to Cambridge North Railway Station have the choice of a c. 56-minute cycle or a c. 22-minute drive.

3.34 A summary of the destinations and timings can be seen in **Table 5** below.

Table 5 – Summary of Destinations and Timings at St Neots and Cambridge Norh Railway Stations

Destination	Frequency (Approx.)	Weekdays	Saturdays	Sundays
St Neots				
Peterborough	2-4 trains every hour **Sundays: 1-2 trains every hour*	06:04-02:40	06:04-01:58	08:29-23:06
Horsham	1-2 trains every hour	04:42-22:18	No direct trains	
London Kings Cross	1-2 trains every hour **Sundays:1 train every hour*	Direct trains between 06:05-08:00, then 22:48-23:41 Followed by a train at 03:45	04:42-23:10, followed by a train at 03:45	10:02-23:17
Cambridge North				
London Kings Cross	1-2 trains every hour **Sundays:1 train every hour*	05:35-23:03	05:35-22:31	08:31-23:31
London Liverpool Street	1-2 trains every hour	06:08-22:40	06:52-22:40	09:10-22:10

Ely	2-4 trains every hour **Sundays: 1-3 trains every hour*	05:46-00:22	06:09-00:27	08:23-23:49
Norwich	1-2 trains every hour	06:09-21:30, followed by a train at 23:00	06:09-00:17	A train at 09:30, then 11:30-22:30
Stansted Airport	1 train every hour	09:40-16:40, then 19:41-20:41	06:40-20:40	10:40-21:40
Kings Lynn	1-2 trains every hour **Sundays: 1 train every hour*	05:46-00:22	06:25-00:27	08:23-23:23

3.35 It is therefore considered that future residents will have the option to travel by rail for work, leisure and/or educational purposes.

Summary of Sustainable Transport

3.36 The above review demonstrates that the proposed site is readily accessible by a variety of modes of transport that have the potential to reduce reliance on the private car, particularly for leisure purposes and a number of facilities.

3.37 The above analysis has demonstrated that safe and convenient access to the site is available through public transport connections, bus route destinations, cycle routes and pedestrian routes.

3.38 It is therefore considered that residents have a real choice about how they travel to and from the proposed site.

4.0 Development Proposals

4.1 The proposed development will comprise up to 1000 residential dwellings, 2FE Primary School and a local centre.

Access Arrangements

Vehicular Access

4.2 Vehicular access to the development will be taken from the A1198 to the west of the site via a three-arm roundabout, and through an enlargement and slight realignment of the A1198/School Lane Roundabout to accommodate an additional arm. The proposed site accesses are considered suitable given the scale of development and proposed level of trip generation to ensure safe and suitable access, whilst minimising any potential delays to through traffic along the main road.

4.3 A potential emergency vehicular access is proposed to the south of this development, along Caxton Road, which will take the form of a t-junction, providing access for emergency vehicles only.

4.4 The vehicular access has been designed in accordance with 'Cambridgeshire Highways Development Management: General Principles for Development' and 'Design Manual for Roads and Bridges (DMRB) as appropriate and through consultation with Cambridgeshire County Council.

4.5 The indicative site access arrangement on the A1198 is presented in **Drawing T25646.001**

4.6 Initial swept path analysis of the largest likely vehicles to access the site via the new roundabout, is presented within **Drawings T25646.002.**

4.7 As part of the forthcoming planning process, we will liaise with South Cambridgeshire County Council (SCCC), as the local highway authority, to agree the detail of the junction arrangements.

Pedestrian / Cycle Access

4.8 A pedestrian and cycle corridor will run through through the proposed development, with a connection into the existing facilities on School Lane. It is envisaged that these will be enhanced to provide a continuous corridor from the site running to the centre of Cambourne. Additional pedestrian and cycle access will be provided through connections onto the existing bridleway forming part of Cambourne Nature Reserve, which can be found north of the site.

4.9 The illustrative masterplan is included at **Appendix A**.

Trip Generation

4.10 This report considers a proposed development of up to 1,000 residential dwellings.

4.11 The TRICS 8.25.12 has been used to determine the potential vehicular trip generation for the proposed development; the output is provided as **Appendix B** to this report and is summarised in **Table 6** below.

4.12 The following parameters have been used within the TRICS assessment:

- Land Use – Residential, Houses Privately Owned

- Regions – England, Scotland and Wales (excl. Greater London and Ireland);
- Units – 400 to 3,750;
- Date Range – 01/01/2016 to 30/06/2025;
- Locations – Edge of Town

Table 6 - Vehicle Trip Rates - Residential (1000 Dwellings)

Peak Period	Trip Rate (per dwelling)		Trips		Total
	In	Out	In	Out	
AM	0.140	0.400	140	400	**540**
PM	0.358	0.164	358	164	**522**

AM peak is 08:00-09:00, PM peak is 17:00-18:00; trips are rounded.

4.13 The vehicular trip generation detailed in **Table 6** above indicates that the proposed development is forecast to generate 540 two-way trips in the AM peak hour and, 522 two-way vehicle trips in the PM peak hour.

4.14 This equates to 9 additional vehicles every minute in either direction during each peak hour period.

Potential on-site school and local centre

4.15 Given the scale of residential development proposed, it is not anticipated that the on-site facilities will generate external traffic movements from surrounding areas.

4.16 This is envisaged to be the case, both due to the nature of on-site facilities inherently serving the proposed development.

4.17 There may be some linked trips associated with the 2FE Primary School related to parents dropping-off/picking-up children on their way to/back from work, however, these are vehicular trips that will have occurred regardless and will have been accounted for within the trip generation calculations.

5.0 Highway Network Impact

Traffic Distribution and Assignment

5.1 To determine the likely distribution of development traffic to and from the site, an indicative traditional distribution exercise using 2011 census travel to work data has been undertaken, using MSOA South Cambridgeshire 021 used as place of residence.

5.2 Traffic has been assigned to the local highway network using the Google maps routing tool, accounting for typical traffic levels during the AM and PM peak periods.

5.3 The below assessment considers the

5.4 The resulting assignment across the local highway network is as follows:

- A1198 (N)/ A428 = 52%
- A1198 (N)/ Ermine Street = 27%
- A1198 (S)/ Royston Road = 11%
- A1198 (N)/ School Lane = 5%
- A1198 (N)/ Cambridge Road = 4%

5.5 The distribution and assignment exercise has been presented within a network flow diagram included at **Appendix C**.

Traffic Flows

5.6 As part of any subsequent planning application, we will determine any off-site junctions that will require further assessment, subject to the agreed traffic distribution and assignment methodology. At that stage, we will establish the traffic data that will be required to underpin those junction assessments.

5.7 At this stage, the base flows have been utilised from planning application ref: S/2903/14/OL to undertake an initial assessment of site access capacity. These have been uplifted to a future assessment year of 2034 given the likely build-out for the entire development will be 2031, with three additional years for a worst-case scenario.

5.8 S/2903/14/OL is for development of up to 2350 residential units and 5.45 Ha Office/Light Industry together with supporting infrastructure including Community Facilities, two Primary Schools, land for a secondary school, local retail as part of a local centre and green infrastructure.

5.9 The traffic flows have been factored up from 2031 to 2034 using TemPro (v.8.1) as seen below:

- AM Peak = 1.0168
- PM Peak = 1.0175

Committed Development

5.10 The trip generation presented as part of planning application ref: S/2903/14/OL has been included as committed development traffic within our initial assessment work.

5.11 As part of any subsequent application, committed development traffic will also be included for any off-site junction assessments undertaken.

Assessment Scenarios

5.12 Considering the above, the following assessment scenario has been undertaken:

- 2034 Base + Committed Development + Proposed Development (AM and PM peak).

Junction Assessment

Southern Site Access: A1198/ School Lane/ Site Access Roundabout

5.13 **Table 7** summarises the junction assessment results for the new site access with the full model outputs provided at **Appendix D**.

Table 7 – Southern Site Access: A1198/ Site Access Roundabout Junction 11 Results

Arm	AM Peak 08:00-09:00			PM Peak 17:00-18:00		
	RFC	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)
2034 Base + Committed Development + Proposed Development						
Site Access	0.12	0	4	0.05	0	4
A1198 South	0.76	3	10	0.52	1	5
A1198 North	0.39	1	4	0.51	1	5

Table 7 indicates that the roundabout is forecasted to operate with negligible queues and delays, and with spare capacity in the AM and PM peak hours.

Northern Site Access: A1198/ School Lane/ Site Access Roundabout

5.14 **Table 8** summarises the junction assessment results for the new site access with the full model outputs provided at **Appendix E**.

Table 8 – Proposed Site Access: School Lane/ A1198/ Site Access Roundabout Junction 11 Results

Arm	AM Peak 08:00-09:00			PM Peak 17:00-18:00		
	RFC	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)
2034 Base + Committed Development + Proposed Development						
School Lane	0.35	1	4	0.50	1	5
Site Access	0.23	0	5	0.11	0	5
A1198 South	0.74	3	7	0.46	1	4
A1198 West	0.34	1	4	0.45	1	4

Table 9 indicates that the roundabout is forecasted to operate with negligible queues and delays, and with spare capacity in the AM and PM peak hours.

Summary

5.15 In summary, the proposed site access junctions are considered capable of accommodating the anticipated level of trip generation across both peak periods.

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Figures

Legend

- ● Site Location
- Bus Stop

T25646

Temple Row,
Birmingham

Figure 1.1 - Site Location

Richborough

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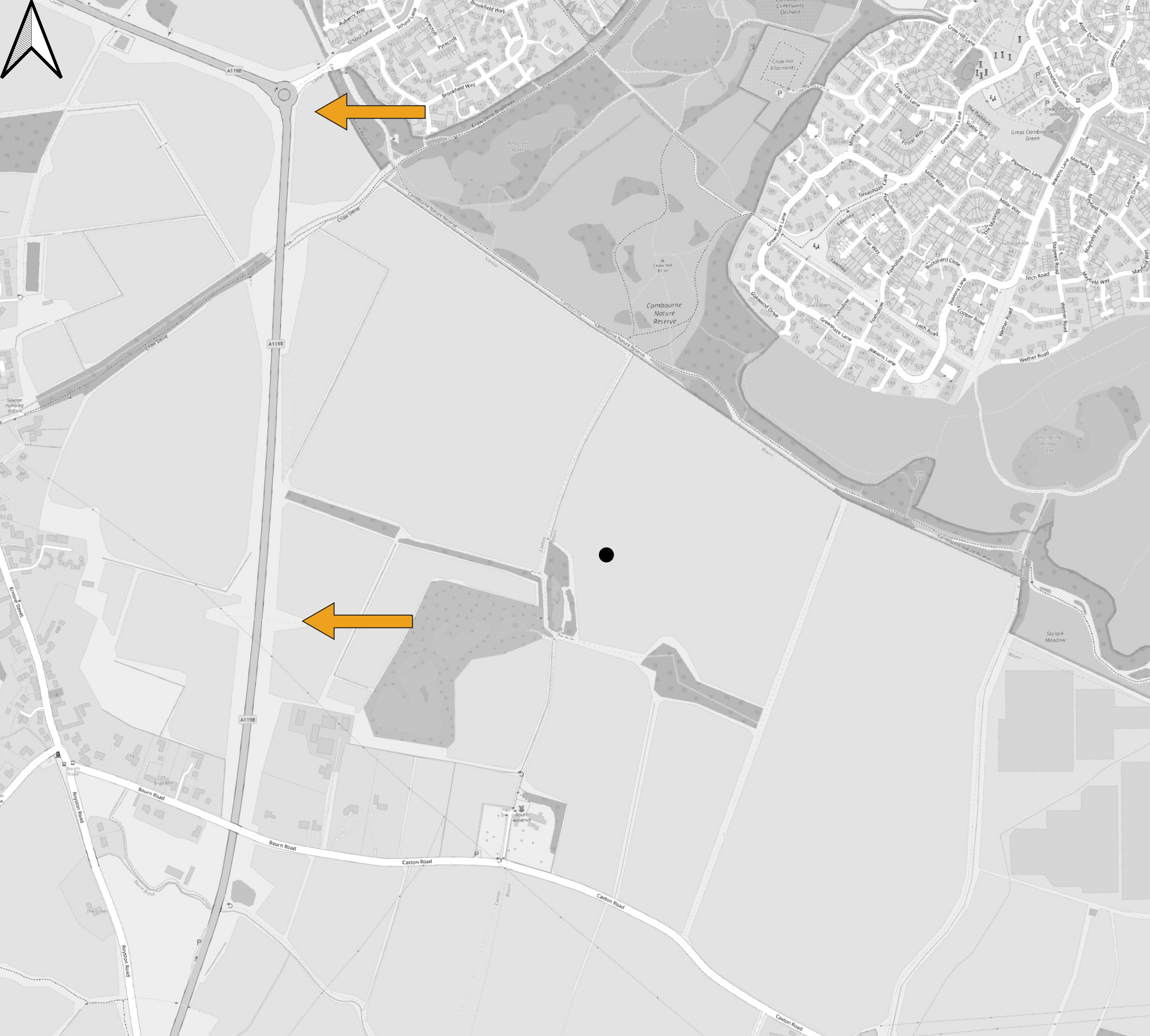
0 200 400 m



Legend

● Site Location

Proposed Access Points

T25646

Temple Row,
Birmingham

Figure 1.2 - Proposed Access Points

Richborough

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0 200 400 m

Legend

- Site Location
- Fatal
- Serious
- Slight

T25646

Temple Row,
Birmingham

Figure 2.1 - Personal Injury Accident (PIA) Data (2020-2024)

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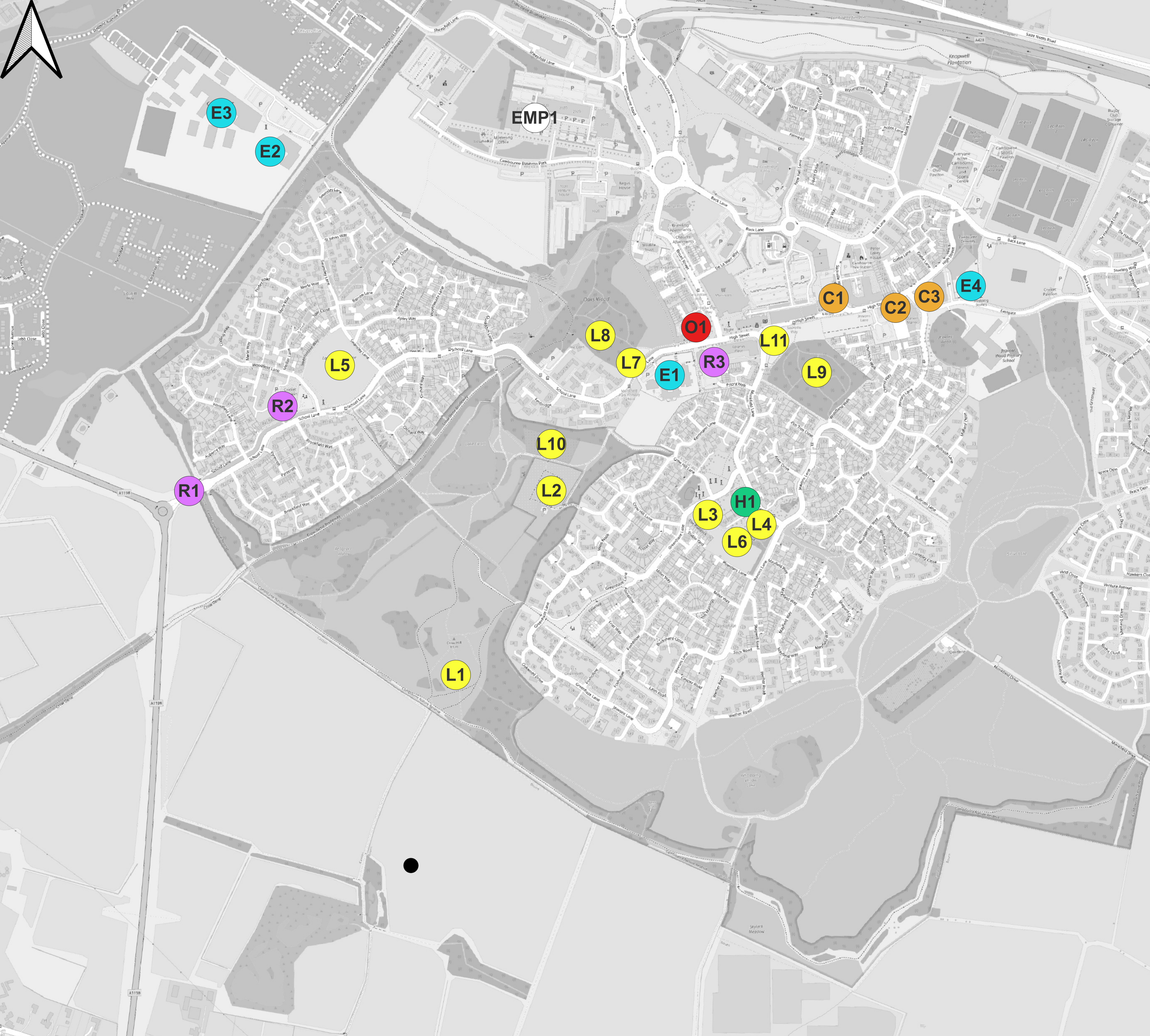
0 400 800 m



Legend

- Site Location
- Community
- Education
- Employment
- Healthcare
- Leisure
- Retail
- Other

T25646

Temple Row,
Birmingham

Figure 3.1 - Local Services

Richborough

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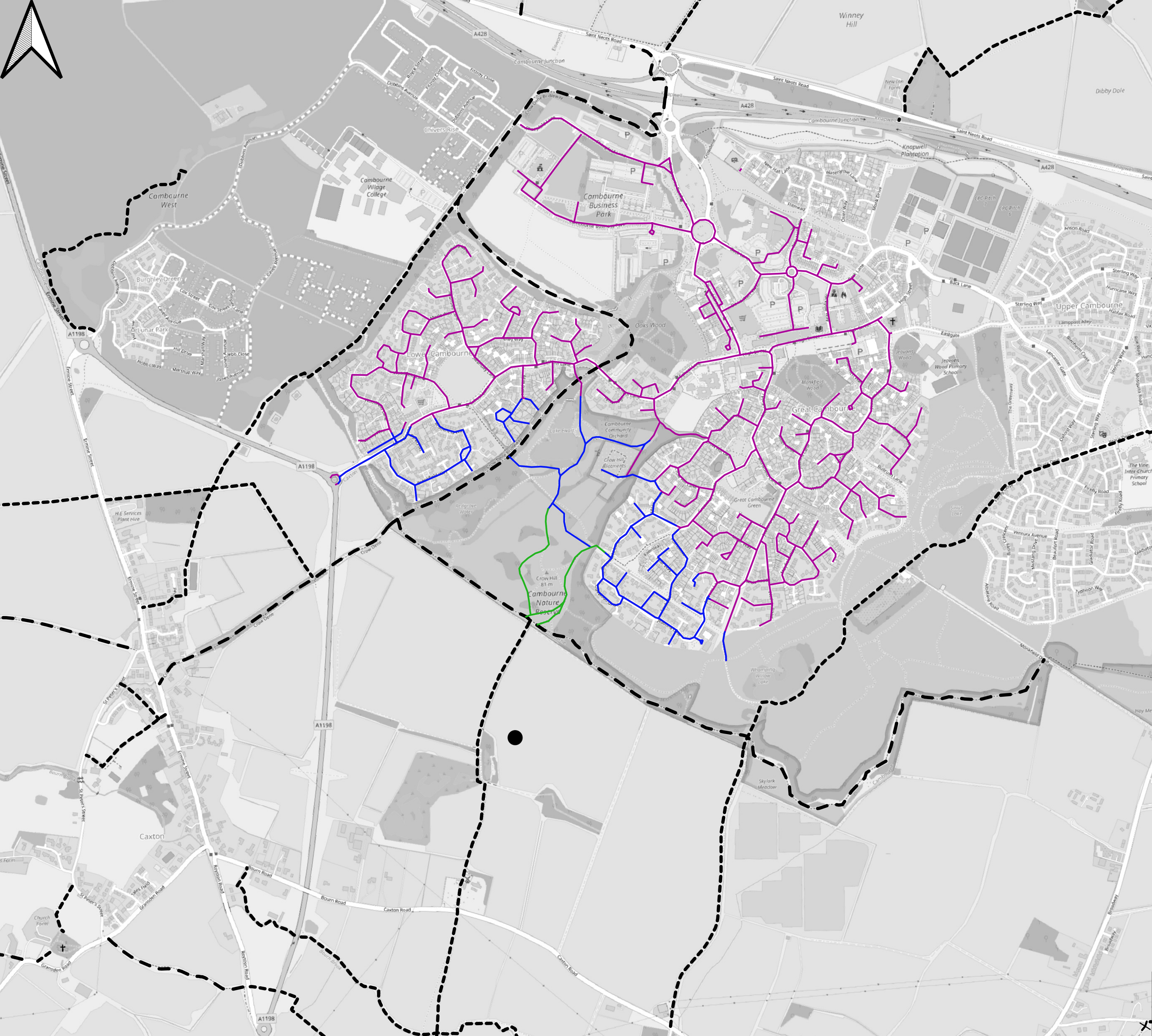
0 250 500 m



Legend

- Site Location
- 800m
- 1.2km
- 2km
- Byway open to all traffic
- Public Bridleway
- Public Footpath
- Restricted Byway

T25646

Temple Row,
Birmingham

Figure 3.2 - Walking Distances

Richborough

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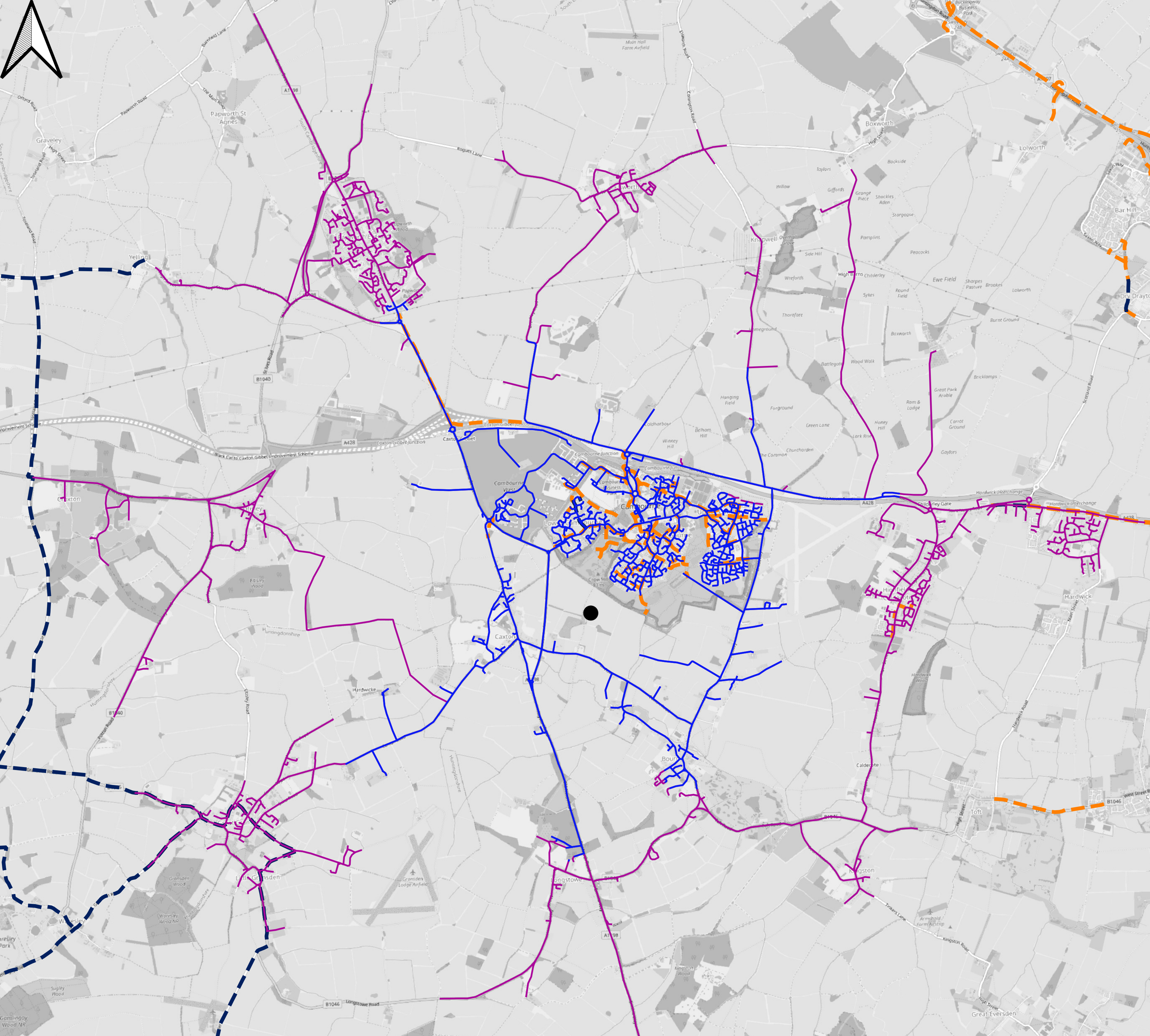
0 350 700 m



Legend

- Site Location
- 5km
- 8km
- On-Road Cycling Route
- Bus Lane with Advisory Cycle Lane
- Contraflow Cycling
- Traffic-Free Route
- Cycle Lane
- Segregated Cycle Lane
- Shared Use

T25646

Temple Row,
Birmingham

Figure 3.3 - Cycling Distances

Richborough

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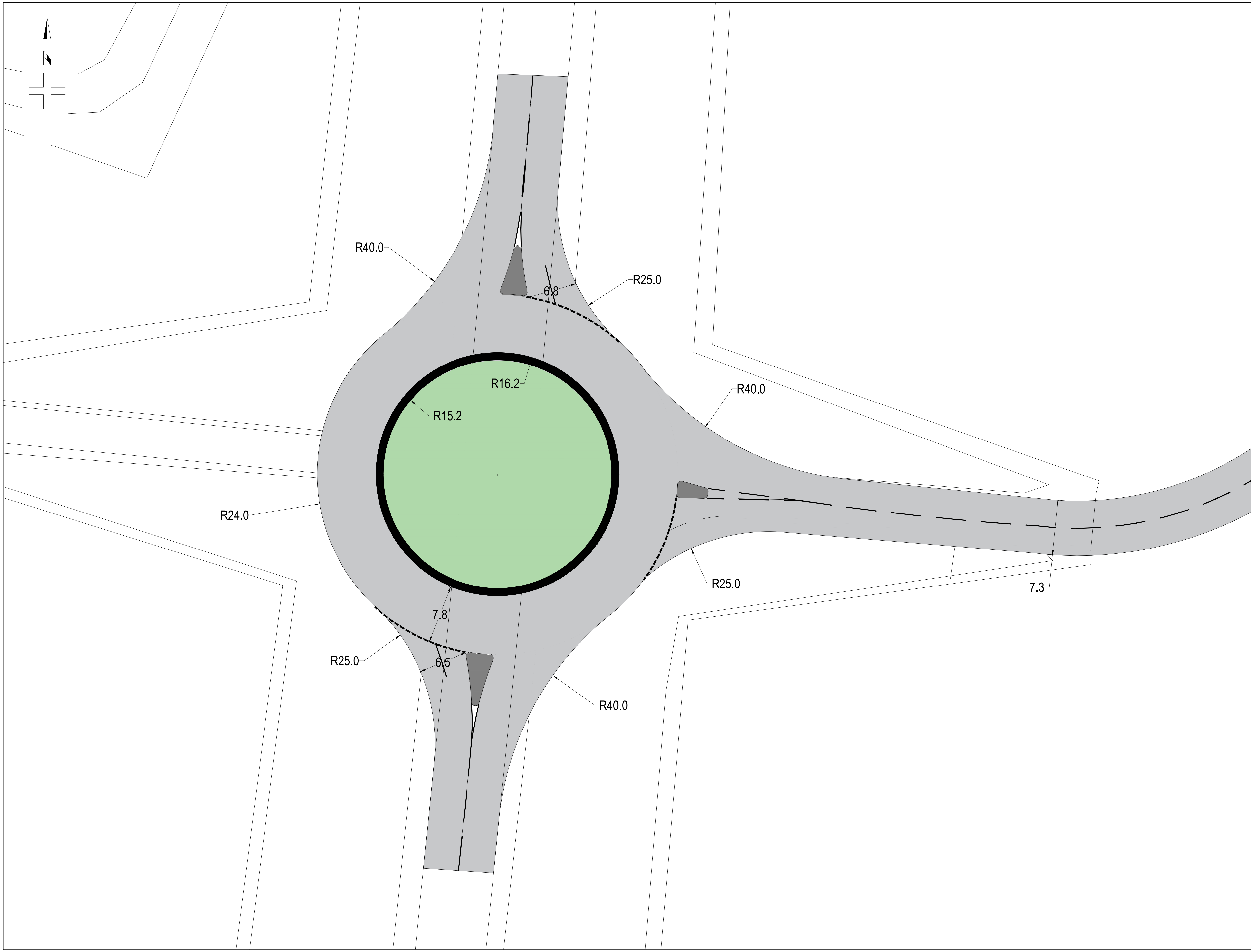
0 0.5 1 km

Drawings



1. THIS DRAWING IS NOT TO BE SCALED FOR CONSTRUCTION PURPOSES.
2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.

REV	DESCRIPTION	DATE	BY	AUTH

hub TRANSPORT PLANNING LTD

Hub Transport Planning Ltd
Floor 1B
4 Temple Row
Birmingham
B2 5HG

T : 0121 454 5530

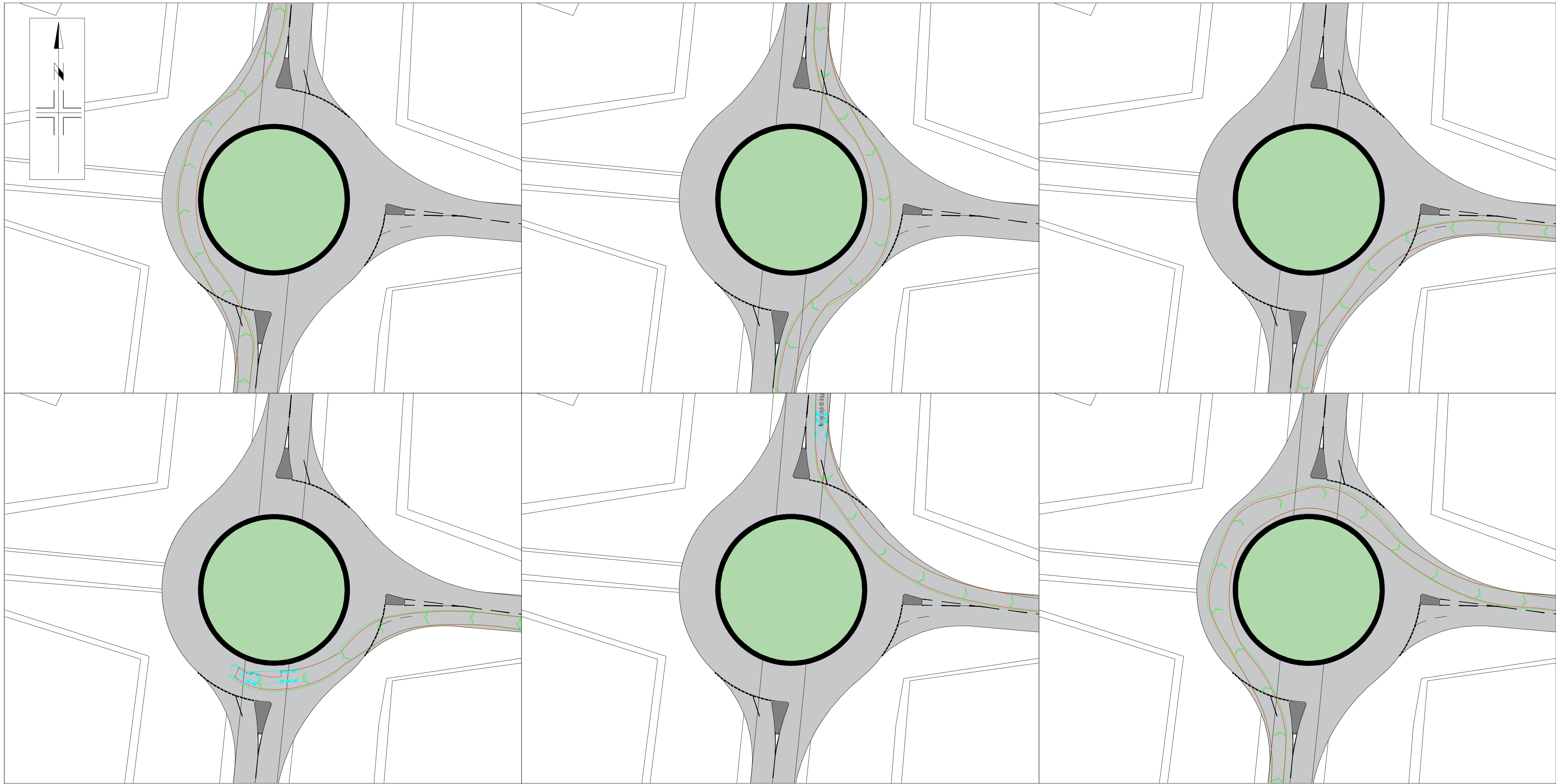
CLIENT
RICHBOROUGH

PROJECT
CAMBOURNE

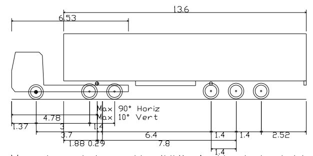
TITLE
PROPOSED SITE ACCESS

DRAWN	AUTHORISED	SCALE	SHEET SIZE	DATE
NB	NB	1:500	A3	05.01.26

PROJECT NO.	DRAWING NO.	REV
T25646	001	-



1. THIS DRAWING IS NOT TO BE SCALED FOR CONSTRUCTION PURPOSES.
2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

REV	DESCRIPTION	DATE	BY	AUTH

hub TRANSPORT PLANNING LTD

Hub Transport Planning Ltd
Floor 1B
4 Temple Row
Birmingham
B2 5HG

T : 0121 454 5530

CLIENT
RICHBOROUGH

PROJECT
CAMBOURNE

TITLE
PROPOSED SITE ACCESS SWEPT PATH ANALYSIS

DRAWN	AUTHORISED	SCALE	SHEET SIZE	DATE
NB	NB	1:500	A3	15.01.26

PROJECT NO.	DRAWING NO.	REV
T25646	002	-

Appendix A

Illustrative Masterplan

Appendix B

TRICS Output

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 03 - RESIDENTIAL

Category: A - HOUSES PRIVATELY OWNED

Selected Vehicle Type: Total Vehicles

Selected regions and areas:

02	**SOUTH EAST**		
	SC	SURREY	1 day
	WS	WEST SUSSEX	1 day
04	**EAST ANGLIA**		
	NF	NORFOLK	3 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:	DWELLS
Actual Range:	456 to 1177 (units:DWELLS)
Range Selected by User:	400 to 3750 (units:DWELLS)
Parking Spaces Range:	6 - 2824

Public Transport Provision:

Selection by:	All Surveys Included
Date Range:	01/01/16 to 30/06/25

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:

Thursday	2 days
Tuesday	2 days
Wednesday	1 days

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

Selected survey types:

Manual count	5
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 undertaking using machines

Selected Locations:

Edge of Town	5 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:

Out of Town	1 days
Residential Zone	4 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	1 days
Servicing vehicles Unknown	4 days

Secondary Filtering Selection:

Use Class:

C3	5 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:

805 - 3100

Population within 1 mile:

10,001 to 15,000	1 surveys
15,001 to 20,000	2 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:

125,001 to 250,000	2 surveys
25,001 to 50,000	1 surveys
75,001 to 100,000	2 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	1 surveys
1.1 to 1.5	3 surveys
1.6 to 2.0	1 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.

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:

Yes	5 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	5 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

9181a1303ef5_25357_9cd3b011/8

1 **NF-03-A-23** **MIXED HOUSES & FLATS** **NORFOLK**
SILFIELD ROAD
WYMONDHAM
Edge of Town
Out of Town
Site area: 26.43000030517578 hect
Survey date: Wednesday 22/09/2021 Survey Type: Manual

2 **NF-03-A-28** **MIXED HOUSES & FLATS** **NORFOLK**
ATLANTIC AVENUE
NORWICH
SPROWSTON
Edge of Town
Residential Zone
Site area: 38 hect
Survey date: Thursday 22/09/2022 Survey Type: Manual

3 **NF-03-A-38** **MIXED HOUSES** **NORFOLK**
BEAUFORT WAY
GREAT YARMOUTH
BRADWELL
Edge of Town
Residential Zone
Site area: 18.059999465942383 hect
Survey date: Tuesday 20/09/2022 Survey Type: Manual

4 **SC-03-A-15** **MIXED HOUSES** **SURREY**
REIGATE ROAD
HORLEY
Edge of Town
Residential Zone
Site area: 59 hect
Survey date: Thursday 24/04/2025 Survey Type: Manual

5 **WS-03-A-11** **MIXED HOUSES** **WEST SUSSEX**
ELLIS ROAD
WEST HORSHAM
S BROADBRIDGE HEATH
Edge of Town
Residential Zone
Site area: 50 hect
Survey date: Tuesday 02/04/2019 Survey Type: Manual

DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
NF-03-A-22	13-10-2020	COVID

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

Total Vehicles

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	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					
07:00-08:00	5	858	0.066	0.296	0.362
08:00-09:00	5	858	0.140	0.400	0.540
09:00-10:00	5	858	0.120	0.139	0.259
10:00-11:00	5	858	0.103	0.119	0.222
11:00-12:00	5	858	0.104	0.110	0.214
12:00-13:00	5	858	0.133	0.128	0.261
13:00-14:00	5	858	0.129	0.125	0.254
14:00-15:00	5	858	0.130	0.164	0.294
15:00-16:00	5	858	0.249	0.149	0.398
16:00-17:00	5	858	0.271	0.149	0.420
17:00-18:00	5	858	0.358	0.164	0.522
18:00-19:00	5	858	0.297	0.149	0.446
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			2.100	2.092	4.192

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

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

Parameter Summary:

Trip rate parameter range selected:	400 - 3750 (units: DWELLS)
Survey date date range:	02/04/2019 - 24/04/2025
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	8
Surveys manually removed from selection:	0

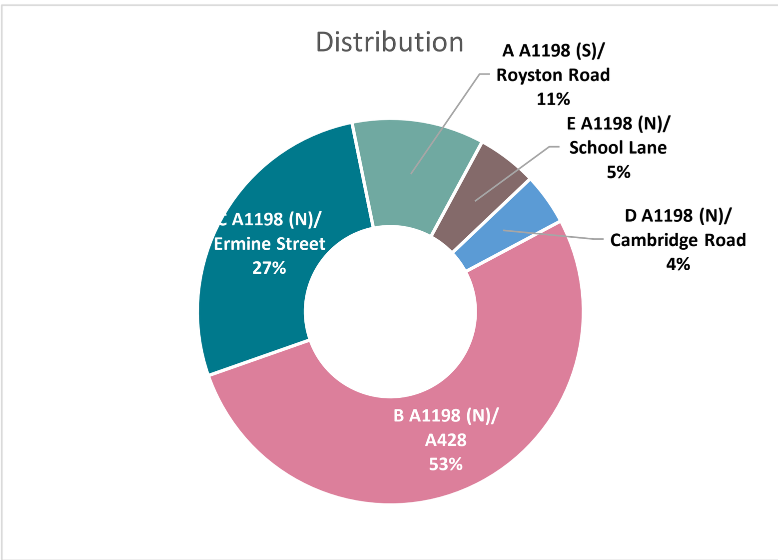
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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 C

Journey to Work Analysis

T25646
T25646 Cambourne
Journey to Work - Nomis Data Analysis
MSOA: South Cambridgeshire 021

Distribution



Route	Description	South Cambridgeshire	%
B	A1198 (N)/ A428	1,304	52%
C	A1198 (N)/ Ermine Street	676	27%
A	A1198 (S)/ Royston Road	276	11%
E	A1198 (N)/ School Lane	125	5%
D	A1198 (N)/ Cambridge Road	107	4%
Total		**2,488**	**100.0%**

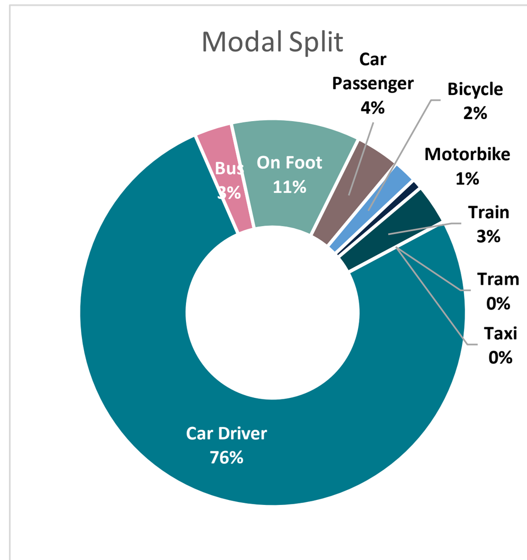
Driving a car or van

MSOA	South Cambridgeshire 021	%	Route
South Cambridgeshire	893	35.9%	-
Cambridge	687	27.6%	B
Huntingdonshire	448	18.0%	C
North Hertfordshire	93	3.7%	A
Bedford	48	1.9%	D
Central Bedfordshire	46	1.8%	D
East Cambridgeshire	37	1.5%	B
Peterborough	38	1.5%	C
Uttlesford	32	1.3%	B
Stevenage	19	0.8%	A
Forest Heath	16	0.6%	B
Welwyn Hatfield	16	0.6%	A
East Hertfordshire	15	0.6%	A
St Edmundsbury	14	0.6%	B
Milton Keynes	13	0.5%	D
Luton	13	0.5%	A
Fenland	11	0.4%	C
Westminster,City of London	10	0.4%	A
Harlow	6	0.2%	B
Broxbourne	6	0.2%	A
Hillingdon	6	0.2%	A
Northampton	5	0.2%	C
Cheshire East	4	0.2%	C
East Northamptonshire	4	0.2%	C
Chelmsford	4	0.2%	B
St Albans	4	0.2%	A
Total	**2,488**	**100.0%**	

MSOA	South Cambridgeshire 021	%	Route
E02006874 : South Cambridgesh	166	6.7%	C
E02003781 : South Cambridgesh	111	4.5%	B
E02006873 : South Cambridgesh	125	5.0%	E
E02003791 : South Cambridgesh	63	2.5%	B
E02003784 : South Cambridgesh	56	2.3%	A
E02003779 : South Cambridgesh	47	1.9%	B
E02003780 : South Cambridgesh	44	1.8%	B
E02003777 : South Cambridgesh	48	1.9%	B
E02003785 : South Cambridgesh	33	1.3%	B
E02003783 : South Cambridgesh	26	1.0%	B
E02003793 : South Cambridgesh	23	0.9%	A
E02003778 : South Cambridgesh	23	0.9%	B
E02003792 : South Cambridgesh	28	1.1%	B
E02003788 : South Cambridgesh	22	0.9%	B
E02003789 : South Cambridgesh	21	0.8%	B
E02003786 : South Cambridgesh	15	0.6%	B
E02003787 : South Cambridgesh	15	0.6%	A
E02003775 : South Cambridgesh	13	0.5%	B
E02003776 : South Cambridgesh	9	0.4%	B
E02003790 : South Cambridgesh	5	0.2%	B

Modal Split

Mode		%
Car Driver	2,488	76.2%
Bus	102	3.1%
On Foot	351	10.8%
Car Passeng	121	3.7%
Bicycle	64	2.0%
Motorbike	28	0.9%
Train	110	3.4%
Tram	0	0.0%
Taxi	0	0.0%
Total	**3,264**	**100.0%**



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02006874 : South Cambridgeshire 021 (2011 super output area - middle layer)

place of work : 2011 census merged local authority district	All categories: Method of travel to work (2001 specification)	Underground, metro, light rail or tram	Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van	Bicycle	On foot
South Cambridgeshire	1,359	0	6	12	1	6	893	64	42	334
Cambridge	863	0	1	90	1	14	687	39	15	12
Huntingdonshire	483	0	0	1	0	8	448	14	7	5
North Hertfordshire	96	0	0	0	0	1	93	1	0	1
Westminster,City of Lor	82	2	68	0	0	0	10	0	0	2
Bedford	52	0	1	0	1	0	48	1	0	1
Central Bedfordshire	51	0	0	0	0	0	46	4	0	1
East Cambridgeshire	41	0	0	1	0	0	37	2	0	0
Peterborough	40	0	0	0	0	0	38	2	0	0
Uttlesford	32	0	0	0	0	0	32	0	0	0
Stevenage	20	0	0	0	0	0	19	1	0	0
Forest Heath	19	0	0	0	0	0	16	2	0	0
Camden	18	0	16	0	0	0	2	0	0	0
Welwyn Hatfield	16	0	0	0	0	0	16	0	0	0
Fenland	15	0	0	1	0	0	11	3	0	0
East Hertfordshire	15	0	0	0	0	0	15	0	0	0
St Edmundsbury	14	0	0	0	0	0	14	0	0	0
Milton Keynes	14	0	0	1	0	0	13	0	0	0
Luton	13	0	0	0	0	0	13	0	0	0
Tower Hamlets	11	0	8	1	0	0	2	0	0	0
Islington	9	0	8	0	0	0	0	0	0	1
Harlow	8	0	1	1	0	0	6	0	0	0
Broxbourne	6	0	0	0	0	0	6	0	0	0
Enfield	6	0	1	1	0	0	3	1	0	0
Hillingdon	6	0	0	0	0	0	6	0	0	0
Northampton	5	0	0	0	0	0	5	0	0	0
Cheshire East	4	0	0	0	0	0	4	0	0	0
East Northamptonshire	4	0	0	0	0	0	4	0	0	0
Chelmsford	4	0	0	0	0	0	4	0	0	0
St Albans	4	0	0	0	0	0	4	0	0	0
Southwark	4	0	4	0	0	0	0	0	0	0
South Kesteven	3	0	0	0	0	0	2	1	0	0
Kettering	3	0	0	0	0	0	3	0	0	0
South Northamptonshire	3	0	0	0	0	0	3	0	0	0
Wellingborough	3	0	0	0	0	0	3	0	0	0
Coventry	3	0	0	0	0	0	3	0	0	0
Basildon	3	0	0	0	0	0	3	0	0	0
Braintree	3	0	0	0	0	0	3	0	0	0
Epping Forest	3	0	0	0	0	0	3	0	0	0
Dacorum	3	0	0	0	0	0	3	0	0	0
Breckland	3	0	0	0	0	0	3	0	0	0
Broadland	3	0	0	0	0	0	3	0	0	0
Brent	3	0	2	0	0	0	1	0	0	0
Hackney	3	0	2	0	0	0	1	0	0	0
Hounslow	3	0	0	0	0	0	3	0	0	0
Lambeth	3	0	3	0	0	0	0	0	0	0
Slough	3	0	0	0	0	0	3	0	0	0
Crawley	3	0	0	0	0	0	3	0	0	0
Newcastle upon Tyne	2	0	0	1	0	0	1	0	0	0
Salford	2	0	0	0	0	0	2	0	0	0
Leicester	2	0	0	0	0	0	1	1	0	0
Rugby	2	0	0	0	0	0	2	0	0	0
Warwick	2	0	0	0	0	0	2	0	0	0
Walsall	2	0	0	0	0	0	2	0	0	0
Hertsmere	2	0	0	0	0	0	2	0	0	0
Watford	2	0	0	0	0	0	2	0	0	0
Mid Suffolk	2	0	0	0	0	0	2	0	0	0
Barnet	2	0	1	0	0	0	1	0	0	0
Reading	2	0	0	0	0	0	2	0	0	0
Oxford	2	0	0	0	0	0	2	0	0	0
Guildford	2	0	0	0	0	0	2	0	0	0
County Durham	1	0	1	0	0	0	0	0	0	0
Carlisle	1	0	0	0	0	0	1	0	0	0
Kingston upon Hull, City	1	0	0	0	0	0	1	0	0	0
East Riding of Yorkshire	1	0	0	0	0	0	1	0	0	0
North Lincolnshire	1	0	0	0	0	0	1	0	0	0
Craven	1	0	0	0	0	0	1	0	0	0
Barnsley	1	0	0	0	0	0	1	0	0	0
Bradford	1	0	0	0	0	0	1	0	0	0
Wakefield	1	0	0	1	0	0	0	0	0	0
Derby	1	0	0	0	0	0	0	0	0	1
Nottingham	1	0	0	0	0	0	1	0	0	0
Harborough	1	0	0	0	0	0	1	0	0	0
North West Leicestersh	1	0	0	0	0	0	1	0	0	0
Boston	1	0	0	0	0	0	1	0	0	0
Corby	1	0	0	0	0	0	1	0	0	0
Newark and Sherwood	1	0	1	0	0	0	0	0	0	0
Telford and Wrekin	1	0	1	0	0	0	0	0	0	0
East Staffordshire	1	0	0	0	0	0	1	0	0	0
Tamworth	1	0	0	0	0	0	1	0	0	0
Nuneaton and Bedwort	1	0	0	0	0	0	1	0	0	0
Stratford-on-Avon	1	0	0	0	0	0	1	0	0	0
Bromsgrove	1	0	0	0	0	0	1	0	0	0
Birmingham	1	0	0	0	0	0	1	0	0	0
Norwich	1	0	0	0	0	0	1	0	0	0
Babergh	1	0	0	0	0	0	1	0	0	0
Ealing	1	0	0	0	0	0	1	0	0	0
Hammersmith and Fulha	1	0	1	0	0	0	0	0	0	0
Havering	1	0	0	0	0	0	1	0	0	0
Lewisham	1	1	0	0	0	0	0	0	0	0
Redbridge	1	0	0	0	0	0	1	0	0	0
Richmond upon Thames	1	0	0	0	0	0	1	0	0	0
Sutton	1	0	0	1	0	0	0	0	0	0
Wandsworth	1	0	1	0	0	0	0	0	0	0
Windsor and Maidenhea	1	0	1	0	0	0	0	0	0	0
Wokingham	1	0	0	0	0	0	1	0	0	0
Chiltern	1	0	0	0	0	0	1	0	0	0
Wycombe	1	0	0	0	0	0	1	0	0	0
Hart	1	0	0	0	0	0	1	0	0	0
Ashford	1	0	0	0	0	0	1	0	0	0
Dartford	1	0	0	0	0	0	1	0	0	0
Maidstone	1	0	0	0	0	0	1	0	0	0
Tunbridge Wells	1	0	0	0	0	0	1	0	0	0
South Oxfordshire	1	0	0	0	0	0	0	0	0	1
Vale of White Horse	1	0	0	0	0	0	1	0	0	0
Mole Valley	1	0	0	0	0	0	1	0	0	0
Surrey Heath	1	0	0	0	0	0	1	0	0	0
Mid Sussex	1	0	0	0	0	0	1	0	0	0
Cornwall,Isles of Scilly	1	0	0	0	0	0	1	0	0	0
Poole	1	0	0	0	0	0	1	0	0	0
Swindon	1	0	0	0	0	0	1	0	0	0
Exeter	1	0	0	0	0	0	0	0	0	1
Gloucester	1	0	0	1	0	0	0	0	0	0
Hartlepool	0	0	0	0	0	0	0	0	0	0
Middlesbrough	0	0	0	0	0	0	0	0	0	0
Redcar and Cleveland	0	0	0	0	0	0	0	0	0	0
Stockton-on-Tees	0	0	0	0	0	0	0	0	0	0
Darlington	0	0	0	0	0	0	0	0	0	0
Northumberland	0	0	0	0	0	0	0	0	0	0
Gateshead	0	0	0	0	0	0	0	0	0	0
North Tyneside	0	0	0	0	0	0	0	0	0	0
South Tyneside	0	0	0	0	0	0	0	0	0	0
Sunderland	0	0	0	0	0	0	0	0	0	0
Halton	0	0	0	0	0	0	0	0	0	0
Warrington	0	0	0	0	0	0	0	0	0	0
Blackburn with Darwer	0	0	0	0	0	0	0	0	0	0
Blackpool	0	0	0	0	0	0	0	0	0	0
Cheshire West and Che	0	0	0	0	0	0	0	0	0	0
Allerdale	0	0	0	0	0	0	0	0	0	0
Barrow-in-Furness	0	0	0	0	0	0	0	0	0	0
Copeland	0	0	0	0	0	0	0	0	0	0
Eden	0	0	0	0	0	0	0	0	0	0
South Lakeland	0	0	0	0	0	0	0	0	0	0
Burnley	0	0	0	0	0	0	0	0	0	0
Chorley	0	0	0	0	0	0	0	0	0	0
Fylde	0	0	0	0	0	0	0	0	0	0
Hyndburn	0	0	0	0	0	0	0	0	0	0
Lancaster	0	0	0	0	0	0	0	0	0	0
Pendle	0	0	0	0	0	0	0	0	0	0
Preston	0	0	0	0	0	0	0	0	0	0
Ribble Valley	0	0	0	0	0	0	0	0	0	0
Rossendale	0	0	0	0	0	0	0	0	0	0
South Ribble	0	0	0	0	0	0	0	0	0	0
West Lancashire	0	0	0	0	0	0	0	0	0	0
Wyre	0	0	0	0	0	0	0	0	0	0
Bolton	0	0	0	0	0	0	0	0	0	0
Bury	0	0	0	0	0	0	0	0	0	0
Manchester	0	0	0	0	0	0	0	0	0	0
Oldham	0	0	0	0	0	0	0	0	0	0
Rochdale	0	0	0	0	0	0	0	0	0	0
Stockport	0	0	0	0	0	0	0	0	0	0
Tameside	0	0	0	0	0	0	0	0	0	0
Trafford	0	0	0	0	0	0	0	0	0	0
Wigan	0	0	0	0	0	0	0	0	0	0
Knowsley	0	0	0	0	0	0	0	0	0	0
Liverpool	0	0	0	0	0	0	0	0	0	0
St. Helens	0	0	0	0	0	0	0	0	0	0
Sefton	0	0	0	0	0	0	0	0	0	0
Wirral	0	0	0	0	0	0	0	0	0	0
North East Lincolnshire	0	0	0	0	0	0	0	0	0	0
York	0	0	0	0	0	0	0	0	0	0
Hambleton	0	0	0	0	0	0	0	0	0	0
Harrogate	0	0	0	0	0	0	0	0	0	0
Richmondshire	0	0	0	0	0	0	0	0	0	0
Ryedale	0	0	0	0	0	0	0	0	0	0
Scarborough	0	0	0	0	0	0	0	0	0	0
Selby	0	0	0	0	0	0	0	0	0	0
Doncaster	0	0	0	0	0	0	0	0	0	0
Rotherham	0	0	0	0	0	0	0	0	0	0
Sheffield	0	0	0	0	0	0	0	0	0	0
Calderdale	0	0	0	0	0	0	0	0	0	0
Kirklees	0	0	0	0	0	0	0	0	0	0
Leeds	0	0	0	0	0	0	0	0	0	0
Rutland	0	0	0	0	0	0	0	0	0	0
Amber Valley	0	0	0	0	0	0	0	0	0	0
Bolsover	0	0	0	0	0	0	0	0	0	0
Chesterfield	0	0	0	0	0	0	0	0	0	0
Derbyshire Dales	0	0	0	0	0	0	0	0	0	0
Erewash	0	0	0	0	0	0	0	0	0	0
High Peak	0	0	0	0	0	0	0	0	0	0
North East Derbyshire	0	0	0	0	0	0	0	0	0	0
South Derbyshire	0	0	0	0	0	0	0	0	0	0
Blaby	0	0	0	0	0	0	0	0	0	0
Charnwood	0	0	0	0	0	0	0	0	0	0
Hinckley and Bosworth	0	0	0	0	0	0	0	0	0	0
Melton	0	0	0	0	0	0	0	0	0	0
Oadby and Wigston	0	0	0	0	0	0	0	0	0	0
East Lindsey	0	0	0	0	0	0	0	0	0	0
Lincoln	0	0	0	0	0	0	0	0	0	0
North Kesteven	0	0	0	0	0	0	0	0	0	0
South Holland	0	0	0	0	0	0	0	0	0	0
West Lindsey	0	0	0	0	0	0	0	0	0	0
Daventry	0	0	0	0	0	0	0	0	0	0
Ashfield	0	0	0	0	0	0	0	0	0	0
Bassetlaw	0	0	0	0	0	0	0	0	0	0
Broxtowe	0	0	0	0	0	0	0	0	0	0
Gedling	0	0	0	0	0	0	0	0	0	0
Mansfield	0	0	0	0	0	0	0	0	0	0
Rushcliffe	0	0	0	0	0	0	0	0	0	0
Herefordshire, County of	0	0	0	0	0	0	0	0	0	0
Stoke-on-Trent	0	0	0	0	0	0	0	0	0	0
Shropshire	0	0	0	0	0	0	0	0	0	0
Cannock Chase	0	0	0	0	0	0	0	0	0	0
Lichfield	0	0	0	0	0	0	0	0	0	0
Newcastle-under-Lyme	0	0	0	0	0	0	0	0	0	0
South Staffordshire	0	0	0	0	0	0	0	0	0	0
Stafford	0	0	0	0	0	0	0	0	0	0
Staffordshire Moorlands	0	0	0	0	0	0	0	0	0	0
North Warwickshire	0	0	0	0	0	0	0	0	0	0
Malvern Hills	0	0	0	0	0	0	0	0	0	0
Redditch	0	0	0	0	0	0	0	0	0	0
Worcester	0	0	0	0	0	0	0	0	0	0
Wychavon	0	0	0	0	0	0	0	0	0	0
Wyre Forest	0	0	0	0	0	0	0	0	0	0
Dudley	0	0	0	0	0	0	0	0	0	0
Sandwell	0	0	0	0	0	0	0	0	0	0
Solihull	0	0	0	0	0	0	0	0	0	0
Wolverhampton	0	0	0	0	0	0	0	0	0	0
Southend-on-Sea	0	0	0	0	0	0	0	0	0	0
Thurrock	0	0	0	0	0	0	0	0	0	0
Brentwood	0	0	0	0	0	0	0	0	0	0
Castle Point	0	0	0	0	0	0	0	0	0	0
Colchester	0	0	0	0	0	0	0	0	0	0
Maldon	0	0	0	0	0	0	0	0	0	0
Rochford	0	0	0	0	0	0	0	0	0	0
Tendring	0	0	0	0	0	0	0	0	0	0
Three Rivers	0	0	0	0	0	0	0	0	0	0
Great Yarmouth	0	0	0	0	0	0	0	0	0	0
King's Lynn and West Norfolk	0	0	0	0	0	0	0	0	0	0
North Norfolk	0	0	0	0	0	0	0	0	0	0
South Norfolk	0	0	0	0	0	0	0	0	0	0
Ipswich	0	0	0	0	0	0	0	0	0	0
Suffolk Coastal	0	0	0	0	0	0	0	0	0	0
Waveney	0	0	0	0	0	0	0	0	0	0
Barking and Dagenham	0	0	0	0	0	0	0	0	0	0
Bexley	0	0	0	0	0	0	0	0	0	0
Bromley	0	0	0	0	0	0	0	0	0	0
Croydon	0	0	0	0	0	0	0	0	0	0
Greenwich	0	0	0	0	0	0	0	0	0	0
Haringey	0	0	0	0	0	0	0	0	0	0
Harrow	0	0	0	0	0	0	0	0	0	0
Kensington and Chelsea	0	0	0	0	0	0	0	0	0	0
Kingston upon Thames	0	0	0	0	0	0	0	0	0	0
Merton	0	0	0	0	0	0	0	0	0	0
Newham	0	0	0	0	0	0	0	0	0	0
Waltham Forest	0	0	0	0	0	0	0	0	0	0
Medway	0	0	0	0	0	0	0	0	0	0
Bracknell Forest	0	0	0	0	0	0	0	0	0	0
West Berkshire	0	0	0	0	0	0	0	0	0	0
Brighton and Hove	0	0	0	0	0	0	0	0	0	0
Portsmouth	0	0	0	0	0	0	0	0	0	0
Southampton	0	0	0	0	0	0	0	0	0	0
Isle of Wight	0	0	0	0	0	0	0	0	0	0
Aylesbury Vale	0	0	0	0	0	0	0	0	0	0
South Bucks	0	0	0	0	0	0	0	0	0	0
Eastbourne	0	0	0	0	0	0	0	0	0	0
Hastings	0	0	0	0	0	0	0	0	0	0
Lewes	0	0	0	0	0	0	0	0	0	0
Rother	0	0	0	0	0	0	0	0	0	0
Wealden	0	0	0	0	0	0	0	0	0	0
Basingstoke and Deane	0	0	0	0	0	0	0	0	0	0
East Hampshire	0	0	0	0	0	0	0	0	0	0
Eastleigh	0	0	0	0	0	0	0	0	0	0
Fareham	0	0	0	0	0	0	0	0	0	0
Gosport	0	0	0	0	0	0	0	0	0	0
Havant	0	0	0	0	0	0	0	0	0	0
New Forest	0	0	0	0	0	0	0	0	0	0
Rushmoor	0	0	0	0	0	0	0	0	0	0
Test Valley	0	0	0	0	0	0	0	0	0	0
Winchester	0	0	0	0	0	0	0	0	0	0
Canterbury	0	0	0	0	0	0	0	0	0	0
Dover	0	0	0	0	0	0	0	0	0	0
Gravesham	0	0	0	0	0	0	0	0	0	0
Sevenoaks	0	0	0	0	0	0	0	0	0	0
Shepway	0	0	0	0	0	0	0	0	0	0
Swale	0	0	0	0	0	0	0	0	0	0
Thanet	0	0	0	0	0	0	0	0	0	0
Tonbridge and Malling	0	0	0	0	0	0	0	0	0	0
Cherwell	0	0	0	0	0	0	0	0	0	0
West Oxfordshire	0	0	0	0	0	0	0	0	0	0
Elmbridge	0	0	0	0	0	0	0	0	0	0
Epsom and Ewell	0	0	0	0	0	0	0	0	0	0
Reigate and Banstead	0	0	0	0	0	0	0	0	0	0
Runnymede	0	0	0	0	0	0	0	0	0	0
Spelthorne	0	0	0	0	0	0	0	0	0	0
Tandridge	0	0	0	0	0	0	0	0	0	0
Waverley	0	0	0	0	0	0	0	0	0	0
Woking	0	0	0	0	0	0	0	0	0	0
Adur	0	0	0	0	0	0	0	0	0	0
Arun	0	0	0	0	0	0	0	0	0	0
Chichester	0	0	0	0	0	0	0	0	0	0
Horsham	0	0	0	0	0	0	0	0	0	0
Worthing	0	0	0	0	0	0	0	0	0	0
Bath and North East So	0	0	0	0	0	0	0	0	0	0
Bristol, City of	0	0	0	0	0	0	0	0	0	0
Wiltshire	0	0	0	0	0	0	0	0	0	0
North Somerset	0	0	0	0	0	0	0	0	0	0
South Gloucestershire	0	0	0	0	0	0	0	0	0	0
Plymouth	0	0	0	0	0	0	0	0	0	0
Torbay	0	0	0	0	0	0	0	0	0	0
Bournemouth	0	0	0	0	0	0	0	0	0	0
East Devon	0	0	0	0	0	0	0	0	0	0
Mid Devon	0	0	0	0	0	0	0	0	0	0
North Devon	0	0	0	0	0	0	0	0	0	0
South Hams	0	0	0	0	0	0	0	0	0	0
Teignbridge	0	0	0	0	0	0	0	0	0	0
Torridge	0	0	0	0	0	0	0	0	0	0
West Devon	0	0	0	0	0	0	0	0	0	0
Christchurch	0	0	0	0	0	0	0	0	0	0
East Dorset	0	0	0	0	0	0	0	0	0	0
North Dorset	0	0	0	0	0	0	0	0	0	0
Purbeck	0	0	0	0	0	0	0	0	0	0
West Dorset	0	0	0	0	0	0	0	0	0	0
Weymouth and Portland	0	0	0	0	0	0	0	0	0	0
Cheltenham	0	0	0	0	0	0	0	0	0	0
Cotswold	0	0	0	0	0	0	0	0	0	0
Forest of Dean	0	0	0	0	0	0	0	0	0	0
Stroud	0	0	0	0	0	0	0	0	0	0
Tewkesbury	0	0	0	0	0	0	0	0	0	0
Mendip	0	0	0	0	0	0	0	0	0	0
Sedgemoor	0	0	0	0	0	0	0	0	0	0
South Somerset	0	0	0	0	0	0	0	0	0	0
Taunton Deane	0	0	0	0	0	0	0	0	0	0
West Somerset	0	0	0	0	0	0	0	0	0	0
Isle of Anglesey	0	0	0	0	0	0	0	0	0	0
Gwynedd	0	0	0	0	0	0	0	0	0	0
Conwy	0	0	0	0	0	0	0	0	0	0
Denbighshire	0	0	0	0	0	0	0	0	0	0
Flintshire	0	0	0	0	0	0	0	0	0	0
Wrexham	0	0	0	0	0	0	0	0	0	0
Ceredigion	0	0	0	0	0	0	0	0	0	0
Pembrokeshire	0	0	0	0	0	0	0	0	0	0
Carmarthenshire	0	0	0	0	0	0	0	0	0	0
Swansea	0	0	0	0	0	0	0	0	0	0
Neath Port Talbot	0	0	0	0	0	0	0	0	0	0
Bridgend	0	0	0	0	0	0	0	0	0	0
The Vale of Glamorgan	0	0	0	0	0	0	0	0	0	0
Cardiff	0	0	0	0	0	0	0	0	0	0
Rhondda Cynon Taf	0	0	0	0	0	0	0	0	0	0
Caerphilly	0	0	0	0	0	0	0	0	0	0
Blaenau Gwent	0	0	0	0	0	0	0	0	0	0
Torfaen	0	0	0	0	0	0	0	0	0	0
Monmouthshire	0	0	0	0	0	0	0	0	0	0
Newport	0	0	0	0	0	0	0	0	0	0
Powys	0	0	0	0	0	0	0	0	0	0
Merthyr Tydfil	0	0	0	0	0	0	0	0	0	0
Total (exc. <4)	**3314**	**0**	**110**	**102**	**0**	**28**	**2488**	**121**	**64**	**351**
Total (All)	**3,443**	**3**	**128**	**113**	**3**	**29**	**2,600**	**136**	**64**	**360**

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

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02006874 : South Cambridgeshire 021 (2011 super output area - middle layer)

place of work : 2011 super output area - middle layer	All categories: Method of travel to work (2001 specification)	Underground, metro, light rail or tram	Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van	Bicycle	On foot
E02006874 : South Can	494	0	4	0	0	0	166	12	28	283
E02003781 : South Can	123	0	0	2	0	2	111	4	4	0
E02006873 : South Can	188	0	0	3	0	1	125	19	6	34
E02003791 : South Can	68	0	0	1	0	0	63	4	0	0
E02003784 : South Can	66	0	0	4	0	0	56	2	0	4
E02003779 : South Can	53	0	0	2	0	1	47	3	0	0
E02003780 : South Can	53	0	1	0	0	0	44	5	0	3
E02003777 : South Can	53	0	0	0	0	0	48	3	1	1
E02003785 : South Can	34	0	0	0	0	0	33	0	0	1
E02003783 : South Can	33	0	0	0	0	2	26	5	0	0
E02003793 : South Can	29	0	1	0	0	0	23	2	0	3
E02003778 : South Can	29	0	0	0	1	0	23	2	2	1
E02003792 : South Can	28	0	0	0	0	0	28	0	0	0
E02003788 : South Can	24	0	0	0	0	0	22	1	0	1
E02003789 : South Can	23	0	0	0	0	0	21	1	0	1
E02003786 : South Can	17	0	0	0	0	0	15	1	0	1
E02003787 : South Can	15	0	0	0	0	0	15	0	0	0
E02003775 : South Can	14	0	0	0	0	0	13	0	1	0
E02003776 : South Can	9	0	0	0	0	0	9	0	0	0
E02003790 : South Can	6	0	0	0	0	0	5	0	0	1
Total (exc. <4)	**1359**	**0**	**4**	**4**	**0**	**0**	**893**	**49**	**38**	**321**
Total (All)	**1359**	**0**	**6**	**12**	**1**	**6**	**893**	**64**	**42**	**334**

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

Appendix D

Southern Site Access: A1198/ Site Access Roundabout Junctions 11 Model Output

Junctions 11

ARCADY 11 - Roundabout Module

Filename: T25646 A1198 Roundabout Site Access - Southern.j11
Path: C:\Users\EleanorStickler\Hub Transport Planning Ltd\Hub Transport Planning - General\Projects\T25646 Cambourne\Modelling\Arcady
Report generation date: 14/01/2026 11:15:25

»D1 - 2034 | + Committed Development + Proposed Development | AM
»D2 - 2034 | + Committed Development + Proposed Development | PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	2034 - + Committed Development + Proposed Development											
B - Site Access	D1	0.1	3.98	0.12	A	24 % [C - A1198 South]	D2	0.1	4.00	0.05	A	80 % [C - A1198 South]
C - A1198 South		3.2	9.68	0.76	A			1.1	4.73	0.52	A	
A - A1198 North		0.7	3.90	0.39	A			1.0	4.67	0.51	A	

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

File summary

File Description

Title	A1198 Roundabout Site Access - Southern
Location	Cambourne
Site number	
Date	06/01/2026
Version	
Status	(new file)
Identifier	
Client	Richborough
Jobnumber	T25646
Enumerator	AzureAD\EleanorStickler
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75					✓	Delay	0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2034	+ Committed Development + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓
D2	2034	+ Committed Development + Proposed Development	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

D1 - 2034 | + Committed Development + Proposed Development | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		B, C, A	7.49	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	24	C - A1198 South	7.49	A

Arms

Arms

Arm	Name	Description	No give-way line
B	Site Access		
C	A1198 South		
A	A1198 North		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
B - Site Access	3.70	7.00	3.4	25.0	48.0	35.0		
C - A1198 South	4.70	6.50	3.5	25.0	48.0	30.0		
A - A1198 North	4.70	6.50	4.1	25.0	48.0	41.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
B - Site Access	0.548	1354
C - A1198 South	0.609	1646
A - A1198 North	0.590	1604

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2034	+ Committed Development + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
B - Site Access		ONE HOUR	✓	108	100.000
C - A1198 South		ONE HOUR	✓	1106	100.000
A - A1198 North		ONE HOUR	✓	570	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		B - Site Access	C - A1198 South	A - A1198 North
From	B - Site Access	0	44	64
	C - A1198 South	15	0	1091
	A - A1198 North	22	548	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		B - Site Access	C - A1198 South	A - A1198 North
From	B - Site Access	0	0	0
	C - A1198 South	0	0	4
	A - A1198 North	0	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B - Site Access	0.12	3.98	0.1	A	99	149
C - A1198 South	0.76	9.68	3.2	A	1015	1522
A - A1198 North	0.39	3.90	0.7	A	523	785

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	81	20	411	1129	0.072	81	28	0.0	0.1	3.435	A
C - A1198 South	833	208	48	1617	0.515	828	444	0.0	1.1	4.720	A
A - A1198 North	429	107	11	1597	0.269	428	865	0.0	0.4	3.221	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	97	24	492	1084	0.090	97	33	0.1	0.1	3.645	A
C - A1198 South	994	249	57	1611	0.617	992	532	1.1	1.6	6.022	A
A - A1198 North	512	128	13	1596	0.321	512	1036	0.4	0.5	3.477	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	119	30	603	1024	0.116	119	41	0.1	0.1	3.977	A
C - A1198 South	1218	304	70	1603	0.760	1212	651	1.6	3.1	9.410	A
A - A1198 North	628	157	16	1594	0.394	627	1266	0.5	0.7	3.897	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	119	30	603	1023	0.116	119	41	0.1	0.1	3.979	A
C - A1198 South	1218	304	70	1603	0.760	1217	652	3.1	3.2	9.683	A
A - A1198 North	628	157	17	1594	0.394	628	1271	0.7	0.7	3.902	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	97	24	493	1084	0.090	97	33	0.1	0.1	3.651	A
C - A1198 South	994	249	58	1611	0.617	1000	533	3.2	1.7	6.185	A
A - A1198 North	512	128	14	1596	0.321	513	1044	0.7	0.5	3.485	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	81	20	413	1128	0.072	81	28	0.1	0.1	3.439	A
C - A1198 South	833	208	48	1617	0.515	835	446	1.7	1.1	4.800	A
A - A1198 North	429	107	11	1597	0.269	430	872	0.5	0.4	3.231	A

D2 - 2034 | + Committed Development + Proposed Development | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		B, C, A	4.68	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	80	C - A1198 South	4.68	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2034	+ Committed Development + Proposed Development	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
B - Site Access		ONE HOUR	✓	44	100.000
C - A1198 South		ONE HOUR	✓	775	100.000
A - A1198 North		ONE HOUR	✓	728	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		B - Site Access	C - A1198 South	A - A1198 North
From	B - Site Access	0	18	26
	C - A1198 South	39	0	736
	A - A1198 North	57	671	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		B - Site Access	C - A1198 South	A - A1198 North
From	B - Site Access	0	0	0
	C - A1198 South	0	0	2
	A - A1198 North	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B - Site Access	0.05	4.00	0.1	A	40	61
C - A1198 South	0.52	4.73	1.1	A	711	1067
A - A1198 North	0.51	4.67	1.0	A	668	1002

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	33	8	503	1078	0.031	33	72	0.0	0.0	3.443	A
C - A1198 South	583	146	19	1634	0.357	581	517	0.0	0.6	3.476	A
A - A1198 North	548	137	29	1587	0.345	546	571	0.0	0.5	3.483	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	40	10	603	1024	0.039	40	86	0.0	0.0	3.656	A
C - A1198 South	697	174	23	1632	0.427	696	619	0.6	0.8	3.915	A
A - A1198 North	654	164	35	1583	0.413	654	684	0.5	0.7	3.906	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	48	12	738	950	0.051	48	106	0.0	0.1	3.993	A
C - A1198 South	853	213	29	1629	0.524	852	757	0.8	1.1	4.713	A
A - A1198 North	802	200	43	1579	0.508	800	838	0.7	1.0	4.659	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	48	12	739	949	0.051	48	106	0.1	0.1	3.996	A
C - A1198 South	853	213	29	1629	0.524	853	759	1.1	1.1	4.730	A
A - A1198 North	802	200	43	1579	0.508	802	839	1.0	1.0	4.674	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	40	10	604	1023	0.039	40	86	0.1	0.0	3.663	A
C - A1198 South	697	174	23	1632	0.427	698	621	1.1	0.8	3.933	A
A - A1198 North	654	164	35	1583	0.413	656	686	1.0	0.7	3.922	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B - Site Access	33	8	506	1077	0.031	33	72	0.0	0.0	3.451	A
C - A1198 South	583	146	20	1634	0.357	584	519	0.8	0.6	3.498	A
A - A1198 North	548	137	29	1587	0.345	549	574	0.7	0.5	3.504	A

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Appendix E
Proposed Site Access: School Lane/A1198/ Site Access Roundabout Junctions 11 Model Output

Junctions 11

ARCADY 11 - Roundabout Module

Filename: T25646 A1198 Roundabout Site Access_School Lane.j11
Path: C:\Users\NeilBateman\Hub Transport Planning Ltd\Hub Transport Planning - General\Projects\T25646 Cambourne\Modelling\Arcady
Report generation date: 15/01/2026 14:17:45

»D1 - 2034 | + Committed Development + Proposed Development | AM
»D2 - 2034 | + Committed Development + Proposed Development | PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	2034 - + Committed Development + Proposed Development											
A - School Lane	D1	0.5	3.92	0.35	A	25 % [C - A1198 South]	D2	1.0	5.47	0.50	A	54 % [A - School Lane]
B - Site Access		0.3	5.39	0.23	A			0.1	5.38	0.11	A	
C - A1198 South		2.8	7.48	0.74	A			0.9	3.54	0.46	A	
D - A1198 West		0.5	3.64	0.34	A			0.8	4.15	0.45	A	

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

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

File summary

File Description

Title	A1198 Roundabout Site Access - Northern
Location	Cambourne
Site number	
Date	06/01/2026
Version	
Status	(new file)
Identifier	
Client	Richborough
Jobnumber	T25646
Enumerator	AzureAD\EleanorStickler
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75					✓	Delay	0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2034	+ Committed Development + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓
D2	2034	+ Committed Development + Proposed Development	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

D1 - 2034 | + Committed Development + Proposed Development | AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Expanded Roundabout	Standard Roundabout		A, B, C, D	5.86	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	25	C - A1198 South	5.86	A

Arms

Arms

Arm	Name	Description	No give-way line
A	School Lane		
B	Site Access		
C	A1198 South		
D	A1198 West		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
A - School Lane	3.30	7.00	18.0	32.0	48.0	30.0		
B - Site Access	3.70	7.00	3.4	25.0	48.0	35.0		
C - A1198 South	4.70	8.50	20.0	25.0	48.0	41.0		
D - A1198 West	4.70	6.14	15.0	25.0	48.0	30.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - School Lane	0.624	1707
B - Site Access	0.548	1354
C - A1198 South	0.681	2079
D - A1198 West	0.634	1775

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2034	+ Committed Development + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - School Lane		ONE HOUR	✓	451	100.000
B - Site Access		ONE HOUR	✓	178	100.000
C - A1198 South		ONE HOUR	✓	1227	100.000
D - A1198 West		ONE HOUR	✓	463	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - School Lane	B - Site Access	C - A1198 South	D - A1198 West
From	A - School Lane	0	4	295	152
	B - Site Access	10	0	0	168
	C - A1198 South	385	0	0	842
	D - A1198 West	38	59	366	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A - School Lane	B - Site Access	C - A1198 South	D - A1198 West
From	A - School Lane	0	0	0	0
	B - Site Access	0	0	0	0
	C - A1198 South	0	0	0	0
	D - A1198 West	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - School Lane	0.35	3.92	0.5	A	414	621
B - Site Access	0.23	5.39	0.3	A	163	245
C - A1198 South	0.74	7.48	2.8	A	1126	1689
D - A1198 West	0.34	3.64	0.5	A	425	637

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	340	85	319	1508	0.225	338	325	0.0	0.3	3.075	A
B - Site Access	134	34	610	1020	0.131	133	47	0.0	0.2	4.059	A
C - A1198 South	924	231	247	1911	0.483	920	496	0.0	0.9	3.620	A
D - A1198 West	349	87	296	1587	0.220	347	871	0.0	0.3	2.901	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	405	101	382	1469	0.276	405	389	0.3	0.4	3.384	A
B - Site Access	160	40	730	954	0.168	160	57	0.2	0.2	4.532	A
C - A1198 South	1103	276	296	1877	0.588	1101	594	0.9	1.4	4.626	A
D - A1198 West	416	104	354	1550	0.268	416	1043	0.3	0.4	3.173	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	497	124	467	1415	0.351	496	475	0.4	0.5	3.912	A
B - Site Access	196	49	894	864	0.227	196	69	0.2	0.3	5.383	A
C - A1198 South	1351	338	363	1832	0.737	1346	727	1.4	2.7	7.321	A
D - A1198 West	510	127	433	1500	0.340	509	1275	0.4	0.5	3.630	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	497	124	468	1415	0.351	497	477	0.5	0.5	3.918	A
B - Site Access	196	49	895	863	0.227	196	69	0.3	0.3	5.392	A
C - A1198 South	1351	338	363	1832	0.738	1351	728	2.7	2.8	7.477	A
D - A1198 West	510	127	435	1499	0.340	510	1279	0.5	0.5	3.637	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	405	101	383	1468	0.276	406	391	0.5	0.4	3.390	A
B - Site Access	160	40	732	953	0.168	160	57	0.3	0.2	4.545	A
C - A1198 South	1103	276	297	1877	0.588	1108	595	2.8	1.4	4.717	A
D - A1198 West	416	104	357	1549	0.269	417	1049	0.5	0.4	3.183	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	340	85	320	1507	0.225	340	327	0.4	0.3	3.086	A
B - Site Access	134	34	613	1018	0.132	134	47	0.2	0.2	4.074	A
C - A1198 South	924	231	249	1910	0.484	926	498	1.4	0.9	3.664	A
D - A1198 West	349	87	298	1586	0.220	349	876	0.4	0.3	2.910	A

D2 - 2034 | + Committed Development + Proposed Development | PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Expanded Roundabout	Standard Roundabout		A, B, C, D	4.34	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	54	A - School Lane	4.34	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2034	+ Committed Development + Proposed Development	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - School Lane		ONE HOUR	✓	608	100.000
B - Site Access		ONE HOUR	✓	73	100.000
C - A1198 South		ONE HOUR	✓	794	100.000
D - A1198 West		ONE HOUR	✓	645	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - School Lane	B - Site Access	C - A1198 South	D - A1198 West
From	A - School Lane	0	9	422	177
	B - Site Access	4	0	0	69
	C - A1198 South	280	0	0	514
	D - A1198 West	93	150	402	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A - School Lane	B - Site Access	C - A1198 South	D - A1198 West
From	A - School Lane	0	0	0	0
	B - Site Access	0	0	0	0
	C - A1198 South	0	0	0	0
	D - A1198 West	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - School Lane	0.50	5.47	1.0	A	558	837
B - Site Access	0.11	5.38	0.1	A	67	100
C - A1198 South	0.46	3.54	0.9	A	729	1093
D - A1198 West	0.45	4.15	0.8	A	592	888

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	458	114	414	1449	0.316	456	283	0.0	0.5	3.620	A
B - Site Access	55	14	751	943	0.058	55	119	0.0	0.1	4.053	A
C - A1198 South	598	149	187	1952	0.306	596	618	0.0	0.4	2.652	A
D - A1198 West	486	121	213	1640	0.296	484	570	0.0	0.4	3.110	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	547	137	496	1398	0.391	546	339	0.5	0.6	4.222	A
B - Site Access	66	16	899	861	0.076	66	143	0.1	0.1	4.523	A
C - A1198 South	714	178	224	1926	0.371	713	740	0.4	0.6	2.965	A
D - A1198 West	580	145	255	1613	0.359	579	683	0.4	0.6	3.479	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	669	167	607	1328	0.504	668	415	0.6	1.0	5.438	A
B - Site Access	80	20	1100	751	0.107	80	175	0.1	0.1	5.364	A
C - A1198 South	874	219	275	1892	0.462	873	906	0.6	0.9	3.529	A
D - A1198 West	710	178	312	1577	0.450	709	836	0.6	0.8	4.142	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	669	167	608	1328	0.504	669	415	1.0	1.0	5.466	A
B - Site Access	80	20	1102	750	0.107	80	175	0.1	0.1	5.375	A
C - A1198 South	874	219	275	1892	0.462	874	907	0.9	0.9	3.536	A
D - A1198 West	710	178	313	1577	0.450	710	837	0.8	0.8	4.153	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	547	137	497	1397	0.391	548	339	1.0	0.6	4.247	A
B - Site Access	66	16	902	860	0.076	66	143	0.1	0.1	4.534	A
C - A1198 South	714	178	225	1926	0.371	715	742	0.9	0.6	2.977	A
D - A1198 West	580	145	256	1613	0.360	581	684	0.8	0.6	3.493	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - School Lane	458	114	416	1447	0.316	458	284	0.6	0.5	3.641	A
B - Site Access	55	14	755	940	0.058	55	120	0.1	0.1	4.067	A
C - A1198 South	598	149	189	1951	0.306	598	621	0.6	0.4	2.664	A
D - A1198 West	486	121	214	1639	0.296	486	573	0.6	0.4	3.125	A