

# TRANSPORT STATEMENT

PROPOSED CONVENIENCE STORE FORMER METHODIST CHURCH, LIVERPOOL ROAD, MAGHULL

On behalf of **Central England Cooperative** 

Report Reference: 23/170/23A

**JUNE 2023** 

#### MAGNA TRANSPORT PLANNING LTD



# REPORT CONTROL SHEET

Magna Ref. 23/170/23A

June 2023

Revision	Status	Date	Author
Α	CLIENT DRAFT 1	03/05/2023	AMOL PISAL
В	FINAL	23/06/2023	AMOL PISAL



# **CONTENTS**

1	INTRODUC	CTION	1
1.1	Purpose	Of Report	1
1.2	Structure	e of Report	1
2	SITE AND	SURROUNDING AREA	2
2.1	Site Des	cription	2
2.2	Local High	ghway Network	3
2.3	Accident	t Analysis	4
3	ACCESSIB	BILITY BY NON-CAR MODES OF TRANSPORT	5
3.1	Pedestria	ans and Cyclists	5
3.2	Public Tr	ransport	7
4	BASELINE	TRAFFIC CONDITIONS	9
4.1	2023 Tra	affic Surveys	9
4.2	2028 Bas	seline Flows	9
5		D DEVELOPMENT TRIP GENERATION	
5.1	TRICS A	ssessment	10
6		D DEVELOPMENT	
6.1		oosal	
6.2		Arrangements	
6.3		Arrangements	
6.4	Servicino	g Arrangements	12
7		MPACT ASSESSMENT	
7.1		tion	
7.2		d Co-op Store	
7.3		se + Development Flows	
7.4	Traffic In	npact Assessment	15
8		AND CONCLUSIONS	
8.1		у	
8.2	Conclusi	ion	18
APF	PENDIX 1.	ACCIDENT DATA	19
APF	PENDIX 2.	2023 SURVEY DATA	20
APF	PENDIX 3.	2023 SURVEYED PEAK HOUR FLOWS	21
APF	PENDIX 4.	2028 BASE FLOWS	22
APF	PENDIX 5.	TRICS: PLACE OF WORSHIP	
APF	PENDIX 6.	PERMITTED FLOWS	24
	PENDIX 7.	2028 BASE + PERMITTED FLOWS	25
	PENDIX 8.	PROPOSED SITE PLAN	
	PENDIX 9.	ACCESS ARRANGEMENTS	
	PENDIX 10.	SWEPT PATH ASSESSMENT	
	PENDIX 11.	TRICS: CONVENIENCE STORE	
APF	PENDIX 12.	DEVELOPMENT FLOWS	30
APF	PENDIX 13.	2028 BASE + DEVELOPMENT FLOWS	



# 1 Introduction

# 1.1 Purpose Of Report

- 1.1.1 Magna Transport Planning Ltd has been instructed by Central England Cooperative (CEC) to prepare this Transport Statement (TS) in support of a planning application for the proposed demolition of a former Methodist Church to provide Co-op foodstore, on land at Liverpool Road, Maghull, L31 2HP.
- 1.1.2 This TS has been prepared in accordance with the Department for Transport's (DfT) Overarching principles on Travel Plans, Transport Assessments and Statements, the National Planning Policy Framework (2019) and Sefton Council Local Plan.
- 1.1.3 The purpose of this report is to describe the proposed scheme in terms of access, parking and traffic impact. The report concludes that the proposed development will not have any severe traffic impact on the local road network.

# 1.2 Structure of Report

- 1.2.1 Section 2 describes the site in terms of its location and local highway network.
- 1.2.2 Section 3 describes site's accessibility by non-car modes of transport.
- 1.2.3 Section 4 details the existing traffic conditions.
- 1.2.4 Section 5 provides the permitted development trip generation.
- 1.2.5 Section 6 outlines details of the proposed development.
- 1.2.6 Section 7 sets out the traffic impact of the proposed development.
- 1.2.7 Section 8 concludes the report.



# 2 SITE AND SURROUNDING AREA

# 2.1 Site Description

- 2.1.1 The application site comprises a former Methodist Church adjacent to the junction of the A5147 Liverpool Road North with the B5407 Liverpool Road at Maghull, Sefton, L31 2HP.
- 2.1.2 The site is located approximately 800 metres north of Maghull Town Centre. The location of the site in its wider context is shown in Figure 2A.



- 2.1.3 Given the proximity of the site to Maghull Town centre i.e., 800 metres (or less than 12-minute walk), the site location could be classed as edge of town centre.
- 2.1.4 The total gross floor area (GFA) of the existing methodist church is approximately 674 sqm. There are approximately 15 to 20 car parking spaces within the application site.
- 2.1.5 The site is bound by Liverpool Road North and Liverpool Road along its eastern boundary and residential properties to the north, east and south.



2.1.6 The site location in its local context is shown in Figure 2B.





# 2.2 Local Highway Network

- 2.2.1 The existing site access is located on the B5407 Liverpool Road, at a distance of 9.5 metres north of the junction with the A5147 Liverpool Road North.
- 2.2.2 There are double yellow line restrictions on both these roads in the vicinity of the site, which restrict vehicles from stopping/waiting at all times.
- 2.2.3 The A5147 is a primary route through Maghull, connecting the site to the A59 Northway, located within one kilometre southwest of the site. The B5407 runs in the northeasterly direction and connects to the A59 at a distance of 1.5 kilometres from the site.
- 2.2.4 The site is therefore located in a prominent location with good links to local and strategic road network.



### 2.3 Accident Analysis

- 2.3.1 The personal Injury Collision (PIC) data for a period of latest five-year period has been obtained from Crashmap website. The search revealed that there has been one collision recorded on the A5147/B5407 junction adjacent to the site in September 2021. The accident report is provided in Appendix 1.
- 2.3.2 The accident occurred when a car travelling along the A5147 collided with a pedestrian who was crossing the road. The collision was classed as slight.
- 2.3.3 The accident search does not infer any accident clusters adjacent to the site.
- 2.3.4 As demonstrated within this report, the increase in traffic as a result of the proposed development, given the nature of the scheme, would not be significant and hence the existing accident situation will not be exacerbated.

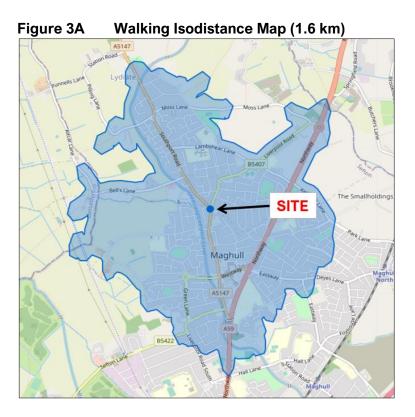


# 3 ACCESSIBILITY BY NON-CAR MODES OF TRANSPORT

# 3.1 Pedestrians and Cyclists

#### **Pedestrians**

- 3.1.1 The A5147 and B5407 benefit from footways and street lighting on both sides. These footways provide direct access to a number of residential and commercial properties that it fronts.
- 3.1.2 The junction with the A5147 with B5407 has pedestrian crossings on all three arms. These crossings are equipped with dropped kerbs with pedestrian refuge islands.
- 3.1.3 The Chartered Institute of Highways and Transportation's (CIHT) "Planning for Walking" document (2015) states that majority of the trips shorter than one mile (or 1.6 kilometres) are wholly on foot. A walking isodistance map showing streets within 1.6 kilometres walking distance from the site is provided in Figure 3A.



3.1.4 The map demonstrates that majority of streets within Maghull are within the 1.6 kilometres walking distance (or 22-minute walk) from the site. It is therefore very likely that the proposed development would attract local customers and staff who are likely to walk to the development.



# **Cycling**

3.1.5 CIHT's "Planning for Cycling" (2014) document states that majority of the cycling trips are for short distances with 80% being less than five miles (or eight kilometres). A plan displaying eight-kilometre cycle isochrone is shown in Figure 3B.

Figure 3B Cycling Isochrone Map (8 km)

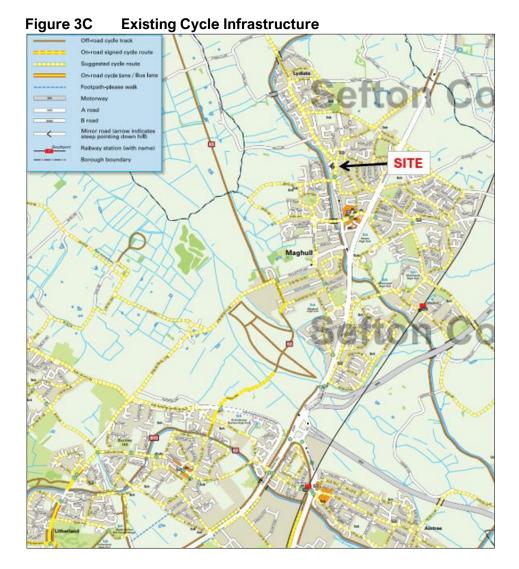


- As can be seen in Figure 3B, the cycle isochrone of eight kilometres covers the entirety of Maghull and wider areas including Kirkby, Ormskirk, Aintree and Litherland.
- 3.1.7 In the vicinity of the site, National Cycle Network Route 62 (NCN 62) runs along western side of Maghull, and it is a traffic free path. This route is located at a distance of approximately 1.5 kilometres west of the site and can be accessed via Green Lane.
- 3.1.8 NCN 62 provides a traffic free cycle access into areas to the south of the site such as Aintree and Litherland (via NCN 81).
- 3.1.9 In addition to the above, Leeds & Liverpool Canal towpath which can also be accessed via Green Lane, provides a traffic free route to Aintree and other areas to the south of Maghull.

3.1.10 The existing cycle infrastructure is shown in Figure 3C.

June 23 6





3.1.11 The site is therefore located in a highly sustainable location with good pedestrian and cycle links.

# 3.2 Public Transport

- 3.2.1 There are bus stops located on the A5147 within 200 metres south of the site.
- 3.2.2 The northbound bus stops in the vicinity of the site are characterised by bus shelter with seating arrangements, timetable information, and bus cage. The northbound bus stops are characterised by bus flag, timetable information and bus cage.
- 3.2.3 These bus stops are served by a regular bus routes 31, 31A and 300. These services are summarised in Table 3A.



Table 3A Bus Services

Route	Doute Description		Frequency							
No.	Route Description	Mon-Fri	Sat	Sun						
31	Southport Road Adjacent Pilling Lane - Kennessee Green	1 per hr	1 per hr	1 per hr						
31A	Kennessee Green - Kennessee Green	1 per hr	1 per hr	-						
300	Southport – Liverpool	2 per hr	2 per hr	1 per hr						

- 3.2.4 Table 3A shows that there are three regular bus services that serve the bus stops with close proximity to the site and provide access to locations such as Southport, Liverpool and other areas of Maghull.
- 3.2.5 The existing bus facilities in the vicinity of the site are considered to be adequate.



# 4 BASELINE TRAFFIC CONDITIONS

# 4.1 2023 Traffic Surveys

- 4.1.1 Magna instructed R D Services Ltd to undertake turning movement counts at the A5147/B5047 junction. The survey was undertaken on 19<sup>th</sup> April 2023 during these hours:
  - AM = 07:00 10:00 hours
  - PM = 15:00 18:00 hours
- 4.1.2 The survey data is provided in Appendix 2 and the survey results are summarised in Table 4A.

Table 4A A5147/B5047 Junction Survey Data

Hours	A5147 (North)	B5047	A5147 (South)	Total
07:00-08:00	562	187	382	1131
08:00-09:00	643	226	579	1448
09:00-10:00	415	195	459	1069
15:00-16:00	491	244	706	1441
16:00-17:00	479	250	797	1526
17:00-18:00	510	197	832	1539

- 4.1.3 Table 4A shows that the network peak hours are:
  - AM peak hour = 08:00 09:00 hours
  - PM peak hour = 17:00 18:00 hours
- 4.1.4 The 2023 surveyed peak hour flows are shown diagrammatically in Appendix 3.

#### 4.2 2028 Baseline Flows

- 4.2.1 The 2023 surveyed flows have been applied following growth factors from TEMPRO (Area Sefton, Area Type Urban, Road Type All) to estimate 2028 baseline flows (i.e., 2023 + 5 year growth):
  - AM peak 1.0382
  - PM peak 1.0358
- 4.2.2 The 2028 baseline peak hour flows are shown diagrammatically in Appendix 4.



# 5 PERMITTED DEVELOPMENT TRIP GENERATION

#### 5.1 TRICS Assessment

- 5.1.1 The existing Methodist Church on site is no longer in operation. Hence, TRICS v7.10.1 database has been interrogated to estimate permitted trip generation associated with this church, with a total floor area of approximately 674 sgm.
- 5.1.2 Following criteria within TRICS have been used to estimate trip generation associated with the existing public house:
  - Land use Leisure
  - Sub land use Place of Worship
  - Regions England (excl. Greater London), Wales and Scotland
  - Location Edge of town centre and Suburban Locations
  - Date of survey Surveys during COVID excluded.
- 5.1.3 The TRICS report is provided in Appendix 5 and the trip rates and vehicular trips during weekday network peak hours (08:00-09:00 and 17:00-18:00) are summarised in Table 5A.

Table 5A Permitted Trip Generation – Place of Worship

Hour	Trip	Rates	Trips (674 sqm)							
Hour	In	Out	In	Out	Two-way					
0800-0900	0.317	0.317	2	2	4					
1700-1800	1.667	1.032	11	7	18					

- 5.1.4 Table 5A shows that the exiting church has a potential to generate four and 18 two-way vehicular trips during weekday AM and PM peak hours respectively.
- 5.1.5 These permitted trips have been distributed onto the A5147 and B5407 based on the observed traffic movements at the A5147/B5407 junction. The permitted trips are shown diagrammatically in Appendix 6.
- 5.1.6 The permitted trips have been assigned to the 2028 baseline flows to obtain 2028 base plus permitted trips, and these are shown diagrammatically in Appendix 7.



### 6 Proposed Development

#### 6.1 The Proposal

6.1.1 It is proposed to demolish the existing church building and construct a new build Coop store with a total GFA of 420 sqm (made up of 280 sqm of retail/sales area and 140 sqm storage/back of house area), along with associated parking and landscaping. The proposed site plan is provided in Appendix 8.

# 6.2 Access Arrangements

- 6.2.1 The existing vehicular site access located on B5407 will be closed off and the footway will be reinstated as part of this proposed development.
- 6.2.2 A new site access is proposed on the A5147 Liverpool Road North. This access is approximately 30 metres south of the junction with B5407. The access will be in the form of a bell-mouth.
- 6.2.3 The existing pedestrian refuge island located on the A5147 where the new access is proposed will be relocated to the south of the new access, adjacent to house No. 178, as shown in Appendix 9.
- 6.2.4 The visibility splays of 2.4 metres x 43 metres are achieved at the site access in both directions. This meets the visibility splay standards for streets with the speed limit of 30mph.
- 6.2.5 An overrunable strip is proposed within the internal access road to allow large vehicles such as delivery and refuse trucks to enter the site from the north.
- 6.2.6 The aforementioned amendments to highway will be subject to Section 278 Highways Agreement.

#### 6.3 Parking Arrangements

### Car Parking

6.3.1 Sefton Council's Sustainable Travel and Development Supplementary Planning Document (June 2018) requires convenience stores to be provided with a maximum of one car parking space per 16 sqm; with 5% of the car parking spaces designated as accessible (disabled) bays.



- 6.3.2 Based on these standards, the proposed Co-op store with a total GFA of 420 sqm would require a maximum of 26 car parking spaces; of which at least one space would be required to be designated as accessible bay.
- 6.3.3 It is proposed to provide a total of 27 car parking spaces, including two accessible bays and two parent & child bays. The proposed car parking provision is therefore more or less in accordance with the Council's parking standards.
- 6.3.4 Out of the proposed 27 car parking spaces, two spaces (7%) could be equipped with Electric Vehicle Charging Point (EVCP) accessible bays.

#### Cycle Parking

- 6.3.5 Sefton Council's Sustainable Travel and Development SPD (June 2018) requires convenience stores to be provided with a minimum of one cycle parking space per 140 sqm.
- 6.3.6 Based on these standards, the proposed Co-op store with a total GFA of 420 sqm would require a minimum of three cycle parking spaces.
- 6.3.7 It is proposed to provide a total of three cycle stands (or six cycle parking spaces). The proposed cycle parking provision therefore exceeds Council's cycle parking standards.

#### Motorcycle Parking

- 6.3.8 Sefton Council's Sustainable Travel and Development SPD (June 2018) requires convenience stores to be provided with a one motorcycle parking space per 500 sgm.
- 6.3.9 Based on these standards, the proposed Co-op store with a total GFA of 420 sqm would require one motorcycle parking space.
- 6.3.10 It is proposed to provide a two motorcycle bays, which exceeds Council's parking standards.

#### 6.4 Servicing Arrangements

6.4.1 The deliveries and refuse collection associated with the proposed development will take place on site. The delivery vehicles (approximately 12 metres long) would enter



- the site via the proposed access and turn around at the rear of the site. A refuse truck (approximately 10 metres long) would be used.
- 6.4.2 The swept path assessment of a 12 metres long delivery truck is provided in Appendix 10. The swept path assessment shows that the layout is designed to accommodate these vehicles.
- 6.4.3 The proposed Co-op store is likely to generate up to four delivery and servicing trips on a weekly basis.
- 6.4.4 The delivery and servicing would be undertaken during the quite periods of the development and outside the typical commuter and school opening and closing hours; wherever possible. This would be detailed within a Delivery & Servicing Management Plan, which could be conditioned.
- 6.4.5 Given that emergency vehicles are smaller than 12 metres long delivery truck, the proposed site layout would be able to accommodate these vehicles also.



# 7 TRAFFIC IMPACT ASSESSMENT

#### 7.1 Introduction

7.1.1 TRICS database has been interrogated to estimate trip generation associated with the proposed Co-op store. The local road network peak hours of 08:00-09:00 and 17:00-18:00 have been assessed.

### 7.2 Proposed Co-op Store

- 7.2.1 Following criteria within TRICS have been used to estimate trip generation:
  - Land use Retail
  - Sub land use Convenience Store
  - Regions England (excl. Greater London), Wales and Scotland
  - Location Edge of town centre and Suburban Locations
  - Date of survey Pre-COVID period
- 7.2.2 The TRICS report is provided in Appendix 11 and the trip rates are summarised in Table 7A.

Table 7A Proposed Trip Generation – Co-op Store

Цени	Trip	Rates	Trips (420 sqm)	)				
Hour	In	Out	In	Out	Two-way			
0800-0900	8.311	8.223	35	35	70			
1700-1800	7.073	7.162	30	30	60			

- 7.2.3 Table 7A shows that the proposed Co-op store would generate 70 and 60 two-way vehicular trips during the AM and PM peak hours respectively.
- 7.2.4 It should be noted that very few convenience store trips will be for a 'main shopping trip'. Instead, they will almost entirely be incidental trips, which people will have already been making in any event. Due to the location of the site, fronting the A5147 and B5407, it is likely that majority of the trips to the store would already be on the local road network.
- 7.2.5 TRICS Research Report 14/1, outlines academic literature on pass-by, diverted and other secondary trips. With regard to the convenience store trip generation, the study undertaken by Ghezawi et al. (1998) concluded:



"The average percentage of pass-by trips recorded was 72%, with a range between the 13 stores of 61 to 85%. The study also found a positive relationship between passby trip percentage and adjacent street volumes using average daily traffic flows."

7.2.6 If the convenience store trips were to be reduced by 72% to discount the pass-by and diverted trips, the number of trips generated (i.e., new to the local road network) would be as per Table 7B below.

Table 7B Proposed Co-op: Factoring 72% Pass-by Trips

Harry	7	72% Decrease – New Trips					
Hour	In	Out	Two-way				
0800-0900	10	10	20				
1700-1800	8	8	16				

- 7.2.7 Table 7B demonstrates that the proposed Co-op store would more likely generate up to 10 new inbound vehicular trips to the highway network during a peak hours.
- 7.2.8 Remaining generated vehicular trips would be pass-by / diverted trips i.e., drivers who are already travelling on local road network.
- 7.2.9 The developments trips are distributed onto the local road network on the basis of the observed traffic movements on the A5147/B5407 junction. These are shown diagrammatically in Appendix 12.

### 7.3 2028 Base + Development Flows

7.3.1 The development flows from Appendix 12 are assigned to the 2028 baseline flows from Appendix 4 to obtain 2028 base plus development flows. These are shown diagrammatically in Appendix 13.

#### 7.4 Traffic Impact Assessment

7.4.1 The increase in new/additional traffic on local road network as a result of the proposed development when compared to the permitted situation is provided in Tables 7C.

Table 7C Permitted Scenario verses Proposed Scenario (Two-way Flows)

Hour	Link	2028 Base + Permitted	2028 Base + Development	Net Change in Traffic
	A5147 (N)	1119	1127	+0.7%
0800-0900	B5407	435	435	+0.0%
	A5147 (S)	1458	1466	+0.5%
	A5147 (N)	1237	1240	+0.2%
1700-1800	B5407	415	409	-1.4%
	A5147 (S)	1552	1555	+0.2%



7.4.2 Table 7C shows that during peak hours in 2028, the proposed development would result in an increase in traffic of no more than 1% on local road network when compared to the permitted situation. This is well within the typical +/-5% of daily variation of traffic on the local road network and hence such an increase will be imperceptible and hence not severe.



# 8 SUMMARY AND CONCLUSIONS

### 8.1 Summary

- 8.1.1 It is proposed to demolish the existing church building and construct a new build Coop store with a total GFA of 420 sqm (made up of 280 sqm of retail/sales area and 140 sqm storage/back of house area), along with associated parking and landscaping.
- 8.1.2 The majority of the streets in Maghull are located within well within acceptable walking distance (i.e., 1.6 kilometres). It is therefore very likely that the proposed development would attract local customers and staff who are likely to walk to the development.
- 8.1.3 The entirety of Maghull and wider areas including Kirkby, Ormskirk, Aintree and Litherland. The existing cycle infrastructure in and around the wider area is considered to be adequate and likely to be conducive to encourage people especially staff to cycle to work from further afield.
- 8.1.4 The site is therefore located in a sustainable location with good pedestrian and cycle links. The existing public transport facilities in the vicinity of the site are also considered to be adequate.
- 8.1.5 The existing vehicular site access located on B5407 will be closed off and the footway will be reinstated as part of this proposed development. A new site access is proposed on the A5147 Liverpool Road North. This access is approximately 30 metres south of the junction with B5407. The access will be in the form of a bell-mouth.
- 8.1.6 The existing pedestrian refuge island located on the A5147 where the new access is proposed will be relocated to the south of the new access, adjacent to house No. 178.
- 8.1.7 The visibility splays of 2.4 metres x 43 metres are achieved at the site access in both directions. This meets the visibility splay standards for streets with the speed limit of 30mph.
- 8.1.8 An overrunable strip is proposed within the internal access road to allow large vehicles such as delivery and refuse trucks to enter the site from the north.
- 8.1.9 It is proposed to provide a total of 27 car parking spaces, including two accessible bays and two parent & child bays. The proposed car parking provision is therefore more or less in accordance with the Council's parking standards. Out of the proposed 27 car



- parking spaces, two spaces (7%) could be equipped with Electric Vehicle Charging Point (EVCP) accessible bays.
- 8.1.10 It is proposed to provide a total of three cycle stands (or six cycle parking spaces). The proposed cycle parking provision therefore exceeds Council's cycle parking standards.
- 8.1.11 Two motorcycle bays are proposed, which exceed Council's parking standards.
- 8.1.12 The deliveries and refuse collection will take place on site. The layout is designed to accommodate a large 12 metres long rigid truck and a 11 metres long refuse truck.
- 8.1.13 The proposed Co-op store is likely to generate up to four delivery and servicing trips on a weekly basis. The delivery and servicing would be undertaken during the quite periods of the development and outside the typical commuter and school opening and closing hours; wherever possible. This would be detailed within a Delivery & Servicing Management Plan, which could be conditioned.
- 8.1.14 The majority of trips generated by the proposed development would be existing on the network and accordingly incidental on the highway network.
- 8.1.15 The traffic impact assessment concludes that the proposed development would result in an increase in traffic of no more than 1% on local road network when compared to the permitted situation. This is well within the typical +/-5% of daily variation of traffic on the local road network and hence such an increase will be imperceptible and hence not severe.
- 8.1.16 As a result, the existing accident situation on the A5147 and B5407 will not be exacerbated.

#### 8.2 Conclusion

#### 8.2.1 The NPPF states:

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

8.2.2 This TS demonstrates that proposal accords with the National Planning Policy Framework. Hence, there are no highway reasons to refuse this planning application.



# Appendix 1. Accident Data



**Validated Data** 

Crash Date: Thursday, September 02, 2021 Time of Crash: 3:59:00 PM Crash Reference: 2021052101809

Highest Injury Severity: Slight Road Number: A5147 Number of Casualties: 1

Highway Authority: Sefton Number of Vehicles: 1

**Local Authority:** Sefton Metropolitan Borough

**Weather Description:** Fine without high winds

**Road Surface Description:** Dry

Speed Limit: 30

**Light Conditions:** Daylight: regardless of presence of streetlights

Carriageway Hazards: None

**Junction Detail:** Not at or within 20 metres of junction

**Junction Pedestrian Crossing:** No physical crossing facility within 50 metres

**Road Type:** Single carriageway

**Junction Control:** Not Applicable



For more information about the data please visit: <a href="https://www.crashmap.co.uk/home/Faq">www.crashmap.co.uk/home/Faq</a>
To subscribe to unlimited reports using CrashMap Pro visit <a href="https://www.crashmap.co.uk/Home/Premium\_Services">www.crashmap.co.uk/Home/Premium\_Services</a>







#### **Validated Data**

### **Vehicles involved**

Vehicle Ref	Vehicle Type		Driver Gender	 Vehicle Maneouvre	First Point of Impact	_	_	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Female	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Unknown	None	None

# **Casualties**

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Pedestrian	Female	36 - 45	In carriageway, crossing elsewhere	Crossing from driver's offside

For more information about the data please visit: <a href="https://www.crashmap.co.uk/home/Faq">www.crashmap.co.uk/home/Faq</a>
To subscribe to unlimited reports using CrashMap Pro visit <a href="https://www.crashmap.co.uk/home/Premium\_Services">www.crashmap.co.uk/home/Premium\_Services</a>





# Appendix 2. 2023 Survey Data

# Road Data Services Ltd

Maghull

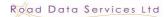
Wednesday 19th April 2023

Junction: 1

Approach: B5407 Liverpool Road

					To Access								To A5147	Liverpool R	oad North							To A51	47 Southpo	ort Road			
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	1	0	27	5	0	0	2	35	36.2	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	1	0	29	4	1	0	0	35	34.7	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	46	4	0	1	1	52	54.3	0	0	4	1	0	0	0	5	5.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	40	12	0	0	3	55	58.0	0	0	3	2	0	0	0	5	5.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	2	0	142	25	1	1	6	177	183.2	0	0	7	3	0	0	0	10	10.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	33	9	1	0	4	47	51.5	0	0	7	0	1	0	0	8	8.5
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	33	0	1	0	2	36	38.5	0	0	5	0	0	0	0	5	5.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	1	0	55	5	1	0	2	64	65.7	0	0	4	0	0	0	0	4	4.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	49	4	1	0	0	54	54.5	0	0	7	1	0	0	0	8	8.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	1	0	170	18	4	0	8	201	210.2	0	0	23	1	1	0	0	25	25.5
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	50	4	0	0	1	55	56.0	0	0	4	0	0	0	0	4	4.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	36	2	0	0	1	39	40.0	0	0	3	3	0	0	0	6	6.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	1	0	27	5	3	0	0	36	36.7	0	0	7	0	0	0	0	7	7.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	2	0	29	8	2	0	1	42	42.4	0	0	5	1	0	0	0	6	6.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	3	0	142	19	5	0	3	172	175.1	0	0	19	4	0	0	0	23	23.0
TOTAL	0	0	0	0	0	0	0	0	0.0	6	0	454	62	10	1	17	550	568.5	0	0	49	8	1	0	0	58	58.5
15:00 - 15:15	0	0	0	0	0	0	0	0	0.0	0	0	51	9	0	0	0	60	60.0	0	0	7	0	0	0	0	7	7.0
15:15 - 15:30	0	0	0	0	0	0	0	0	0.0	0	0	44	7	0	0	1	52	53.0	0	0	5	2	0	0	0	7	7.0
15:30 - 15:45	0	0	0	0	0	0	0	0	0.0	0	0	51	8	0	0	0	59	59.0	0	0	4	2	0	0	0	6	6.0
15:45 - 16:00	0	0	0	0	0	0	0	0	0.0	1	0	40	3	1	0	1	46	46.7	0	0	6	1	0	0	0	7	7.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	1	0	186	27	1	0	2	217	218.7	0	0	22	5	0	0	0	27	27.0
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	1	0	52	6	0	0	1	60	60.2	0	0	8	2	0	0	0	10	10.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	43	4	0	0	1	48	49.0	0	0	6	2	0	0	0	8	8.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	1	1	39	7	0	0	1	49	48.6	0	0	7	2	0	0	0	9	9.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	45	10	0	0	1	56	57.0	0	0	7	2	1	0	0	10	10.5
Hourly Total	0	0	0	0	0	0	0	0	0.0	2	1	179	27	0	0	4	213	214.8	0	0	28	8	1	0	0	37	37.5
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	34	2	0	0	1	37	38.0	0	0	2	1	0	0	0	3	3.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	40	8	0	0	1	49	50.0	0	0	6	1	0	0	0	7	7.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	41	4	0	0	1	46	47.0	0	2	4	1	0	0	0	7	5.8
17:45 - 18:00 Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	37 <b>152</b>	4 18	0	0	4	42 174	43.0 178.0	0	0 2	6 <b>18</b>	0 3	0	0	0	23	6.0 21.8
nourly lotal	U	U	U	U	U	U	U	U	0.0	U	U	152	18	U	U	4	174	178.0	U	2	18	3	U	U	U	23	21.8
TOTAL	0	0	n	l 0	0	0	0	0	0.0	3	1	517	72	1	0	10	604	611.5	0	2	68	16	1	0	0	87	86.3

PCU Factors:									
CYCLE	0.2								
M/CYCLE	0.4								
CAR	1.0								
LGV	1.0								
OGV1	1.5								
OGV2	2.3								
BUS	2.0								



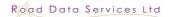
Maghull

Wednesday 19th April 2023

Junction: 1 Approach: Access

				To A5147	Liverpool I	Road North				1			To A51	47 Southpo	ort Road							To B5	407 Liverpo	ol Road			
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE							TOTAL	PCUs									
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
15:00 - 15:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
15:15 - 15:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
15:30 - 15:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
15:45 - 16:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
TOTAL	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0

PCU F	actors:
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0



Maghull

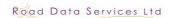
Wednesday 19th April 2023

Junction: 1

Approach: A5147 Liverpool Road North

				To A51	47 Southpo	ort Road							To B5	407 Liverpo	ol Road								To Access				
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	43	7	2	0	3	55	59.0	0	0	13	1	1	0	1	16	17.5	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	55	8	3	0	2	68	71.5	0	0	10	0	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	69	16	1	0	1	87	88.5	0	0	21	5	0	0	0	26	26.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	1	73	14	3	0	2	93	95.9	0	0	26	0	0	0	0	26	26.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	240	45	9	0	8	303	314.9	0	0	70	6	2	0	1	79	81.0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	93	23	2	0	1	119	121.0	0	0	23	8	3	0	0	34	35.5	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	2	0	67	17	2	2	2	92	96.0	2	0	26	5	0	0	0	33	31.4	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	77	17	8	1	1	104	110.3	1	0	40	7	0	0	0	48	47.2	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	72	19	0	2	1	94	97.6	1	0	51	3	0	0	0	55	54.2	0	0	0	0	0	0	0	0	0.0
Hourly Total	2	0	309	76	12	5	5	409	424.9	4	0	140	23	3	0	0	170	168.3	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	1	0	65	17	2	2	2	89	93.8	0	0	28	13	0	0	0	41	41.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	73	14	4	0	1	92	95.0	0	0	22	5	2	0	0	29	30.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	54	12	4	0	1	71	74.0	1	0	22	2	0	0	0	25	24.2	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	68	12	2	2	1	85	89.6	0	0	18	8	1	0	0	27	27.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	1	0	260	55	12	4	5	337	352.4	1	0	90	28	3	0	0	122	122.7	0	0	0	0	0	0	0	0	0.0
TOTAL	3	1	809	176	33	9	18	1049	1092.2	5	0	300	57	8	0	1	371	372.0	0	0	0	0	0	0	0	0	0.0
15:00 - 15:15	1	0	85	21	0	4	2	113	119.4	0	0	40	5	1	0	0	46	46.5	0	0	0	0	0	0	0	0	0.0
15:15 - 15:30	1	0	100	17	2	0	1	121	122.2	0	1	39	3	0	0	0	43	42.4	0	0	0	0	0	0	0	0	0.0
15:30 - 15:45	0	0	99	22	2	2	1	126	130.6	1	0	41	9	0	0	0	51	50.2	0	0	0	0	0	0	0	0	0.0
15:45 - 16:00	0	2	113	26	1	0	3	145	147.3	0	0	50	10	1	0	0	61	61.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	2	2	397	86	5	6	7	505	519.5	1	1	170	27	2	0	0	201	200.6	0	0	0	0	0	0	0	0	0.0
16:00 - 16:15	0	0	106	23	0	0	1	130	131.0	0	0	43	9	0	0	0	52	52.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	1	116	24	1	0	2	144	145.9	2	0	40	6	1	0	1	50	49.9	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	103	24	4	0	1	132	135.0	1	0	39	9	2	1	2	54	57.5	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	143	34	3	0	1	181	183.5	1	0	48	5	0	0	0	54	53.2	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	468	105	8	0	5	587	595.4	4	0	170	29	3	1	3	210	212.6	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	2	133	20	1	0	2	158	159.3	0	0	40	4	0	0	0	44	44.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	2	1	163	17	0	0	1	184	182.8	0	0	31	6	1	0	0	38	38.5	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	130	16	1	0	1	148	149.5	0	0	38	2	0	0	0	40	40.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	1	4	149	15	0	0	1	170	167.8	1	0	44	5	0	0	0	50	49.2	0	0	0	0	0	0	0	0	0.0
Hourly Total	3	7	575	68	2	0	5	660	659.4	1	0	153	17	1	0	0	172	171.7	0	0	0	0	0	0	0	0	0.0
TOTAL	5	10	1440	259	15	6	17	1752	1774.3	6	1	493	73	6	1	3	583	584.9	0	0	0	0	0	0	0	0	0.0

PCU F	actors:
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0



Maghull

Wednesday 19th April 2023

Junction: 1

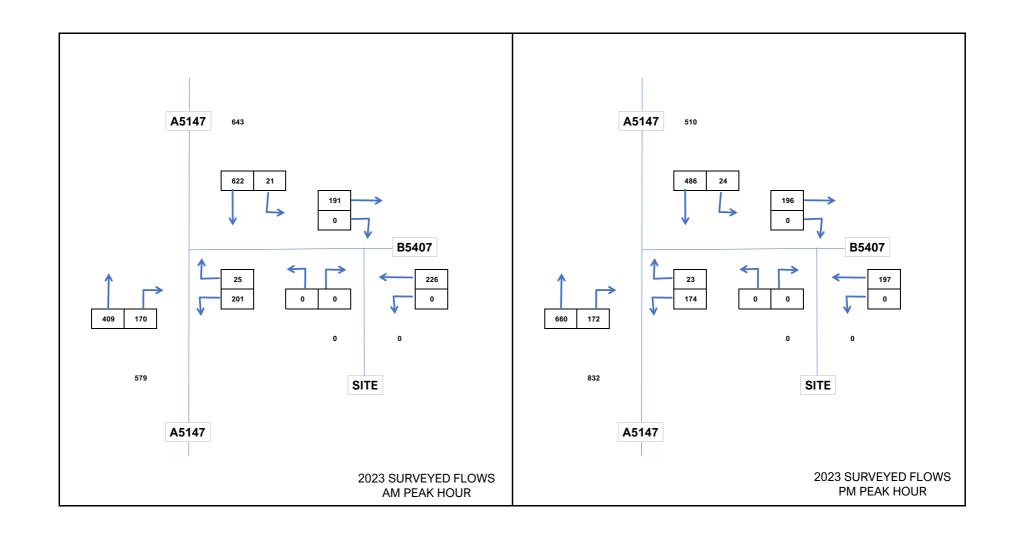
Approach: A5147 Southport Road

				To B5	407 Liverpo	ol Road								To Access								To A5147	Liverpool F	Road North			
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	1	1	91	18	2	1	1	115	116.9
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	1	1	114	18	2	1	1	138	139.9
07:30 - 07:45	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	1	109	24	3	1	0	138	140.2
07:45 - 08:00	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	1	135	27	2	0	1	166	167.4
Hourly Total	0	0	5	0	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0	2	4	449	87	9	3	3	557	564.4
08:00 - 08:15	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	123	20	1	1	0	145	146.8
08:15 - 08:30	0	0	2	2	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	0	122	13	2	1	2	140	144.3
08:30 - 08:45	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	0	134	28	3	1	0	166	168.8
08:45 - 09:00	0	0	11	0	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0	0	0	143	23	4	1	0	171	174.3
Hourly Total	0	0	18	3	0	0	0	21	21.0	0	0	0	0	0	0	0	0	0.0	0	0	522	84	10	4	2	622	634.2
09:00 - 09:15	0	0	3	2	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0	0	0	105	19	3	0	0	127	128.5
09:15 - 09:30	0	0	2	1	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	67	16	4	3	1	91	97.9
09:30 - 09:45	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	1	82	14	2	2	1	102	106.0
09:45 - 10:00	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	1	70	10	2	0	1	84	85.4
Hourly Total	0	0	8	3	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0	0	2	324	59	11	5	3	404	417.8
TOTAL	0	0	31	6	0	0	0	37	37.0	0	0	0	0	0	0	0	0	0.0	2	6	1295	230	30	12	8	1583	1616.4
15:00 - 15:15	0	0	5	1	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0	0	0	99	15	6	0	1	121	125.0
15:15 - 15:30	0	0	9	1	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0	0	0	95	18	0	1	0	114	115.3
15:30 - 15:45	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0	0	2	82	20	2	4	1	111	117.0
15:45 - 16:00	0	0	5	1	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0	0	0	91	23	2	0	0	116	117.0
Hourly Total	0	0	25	4	0	0	0	29	29.0	0	0	0	0	0	0	0	0	0.0	0	2	367	76	10	5	2	462	474.3
16:00 - 16:15	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0	0	0	75	14	1	1	1	92	94.8
16:15 - 16:30	0	0	5	1	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0	0	1	95	16	2	0	0	114	114.4
16:30 - 16:45	0	0	4	1	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0	0	0	108	16	1	1	2	128	131.8
16:45 - 17:00	0	0	3	1	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	0	106	14	3	0	1	124	126.5
Hourly Total	0	0	18	3	0	0	0	21	21.0	0	0	0	0	0	0	0	0	0.0	0	1	384	60	7	2	4	458	467.5
17:00 - 17:15	0	0	4	3	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0	0	1	100	13	1	0	0	115	114.9
17:15 - 17:30	0	0	6	0	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0.0	0	0	101	25	2	0	1	129	131.0
17:30 - 17:45	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	0	123	25	2	0	1	151	153.0
17:45 - 18:00	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0	0	0	80	9	1	0	1	91	92.5
Hourly Total	0	0	20	3	1	0	0	24	24.5	0	0	0	0	0	0	0	0	0.0	0	1	404	72	6	0	3	486	491.4
										_					_												
TOTAL	0	0	63	10	1 1	0	0	74	74.5	0	0	0	0	0	0	0	0	0.0	0	4	1155	208	23	7	9	1406	1433.2

PCU F	PCU Factors:							
CYCLE	0.2							
M/CYCLE	0.4							
CAR	1.0							
LGV	1.0							
OGV1	1.5							
OGV2	2.3							
BUS	2.0							

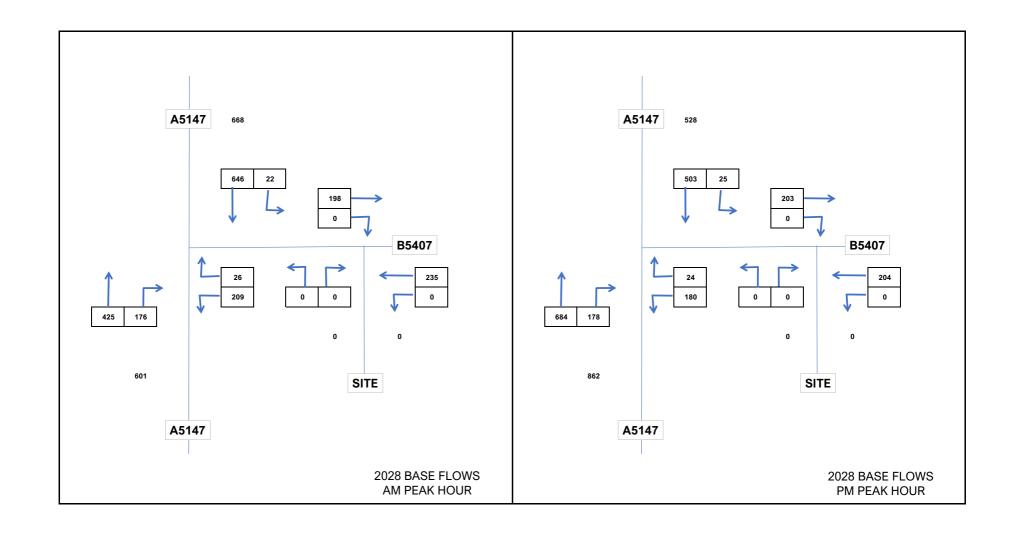


# Appendix 3. 2023 Surveyed Peak Hour Flows





# Appendix 4. 2028 Base Flows





# Appendix 5. TRICS: Place of Worship

TRICS 7.10.1 180423 B21.30 Database right of TRICS Consortium Limited, 2023. All rights reserved Wednesday 03/05/23 TRICS - Church Page 1

Magna Transport Planning Stow Park Cir Newport Licence No: 213601

Calculation Reference: AUDIT-213601-230503-0508

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE

Category : T - PLACE OF WORSHIP

TOTAL VEHICLES

#### Selected regions and areas:

D4 EAST ANGLIA

CAMBRIDGESHIRE 1 days

CA CO NORTH

TW TYNE & WEAR 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: Gross floor area
Actual Range: 360 to 900 (units: sqm)
Range Selected by User: 240 to 1300 (units: sqm)

Parking Spaces Range: All Surveys Included

#### Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/00 to 07/06/18

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

#### Selected survey days:

Thursday 1 days Friday 1 days

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

#### Selected survey types:

Manual count 2 days
Directional ATC Count 0 days

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

#### Selected Locations:

Edge of Town Centre

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.

2

#### Selected Location Sub Categories:

Built-Up Zone 1 High Street 1

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

#### Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included X days - Selected Servicing vehicles Excluded 2 days - Selected

TRICS 7.10.1 180423 B21.30 Database right of TRICS Consortium Limited, 2023. All rights reserved Wednesday 03/05/23 TRICS - Church Page 2

Magna Transport Planning Stow Park Cir Newport Licence No: 213601

Secondary Filtering selection:

Use Class:

F1(f) 2 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

25,001 to 50,000 1 days 250,001 to 500,000 1 days

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

Car ownership within 5 miles:

0.6 to 1.0 2 days

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

Travel Plan:

No 2 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 2 days

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

TRICS 7.10.1 180423 B21.30 Database right of TRICS Consortium Limited, 2023. All rights reserved Wednesday 03/05/23 TRICS - Church Page 3

Magna Transport Planning Stow Park Cir Newport Licence No: 213601

### LIST OF SITES relevant to selection parameters

1 CA-07-T-02 CATHOLI C CHURCH CAMBRI DGESHI RE

HIGH STREET CAMBOURNE

Edge of Town Centre High Street

Total Gross floor area: 360 sqm

Survey date: THURSDAY 07/06/18 Survey Type: MANUAL

2 TW-07-T-01 EVANGELICAL CHURCH TYNE & WEAR

STANHOPE STREET NEWCASTLE UPON TYNE

Edge of Town Centre Built-Up Zone

Total Gross floor area: 900 sqm

Survey date: FRIDAY 10/11/06 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.

Magna Transport Planning Stow Park Cir Newport

TRIP RATE for Land Use 07 - LEISURE/T - PLACE OF WORSHIP

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	630	0.000	2	630	1.429	2	630	1.429
08:00 - 09:00	2	630	0.317	2	630	0.317	2	630	0.634
09:00 - 10:00	2	630	0.794	2	630	0.635	2	630	1.429
10:00 - 11:00	2	630	0.952	2	630	0.794	2	630	1.746
11:00 - 12:00	2	630	0.476	2	630	0.635	2	630	1.111
12:00 - 13:00	2	630	0.238	2	630	0.238	2	630	0.476
13:00 - 14:00	2	630	0.079	2	630	0.079	2	630	0.158
14:00 - 15:00	2	630	0.317	2	630	0.476	2	630	0.793
15:00 - 16:00	2	630	0.794	2	630	0.635	2	630	1.429
16:00 - 17:00	2	630	1.429	2	630	1.190	2	630	2.619
17:00 - 18:00	2	630	1.667	2	630	1.032	2	630	2.699
18:00 - 19:00	2	630	1.190	2	630	1.429	2	630	2.619
19:00 - 20:00	1	360	2.222	1	360	3.611	1	360	5.833
20:00 - 21:00	1	360	0.000	1	360	1.389	1	360	1.389
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			10.475			13.889			24.364

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

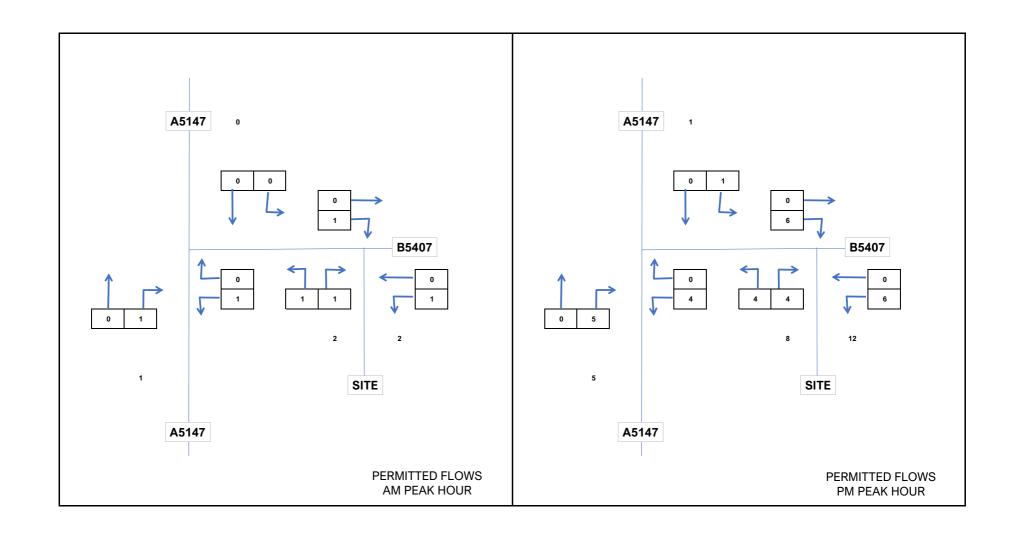
Trip rate parameter range selected: 360 - 900 (units: sqm) Survey date date range: 01/01/00 - 07/06/18

Number of weekdays (Monday-Friday): 2 Number of Saturdays: 0 Number of Sundays: 0 Surveys automatically removed from selection: 0 Surveys manually removed from selection: 0

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

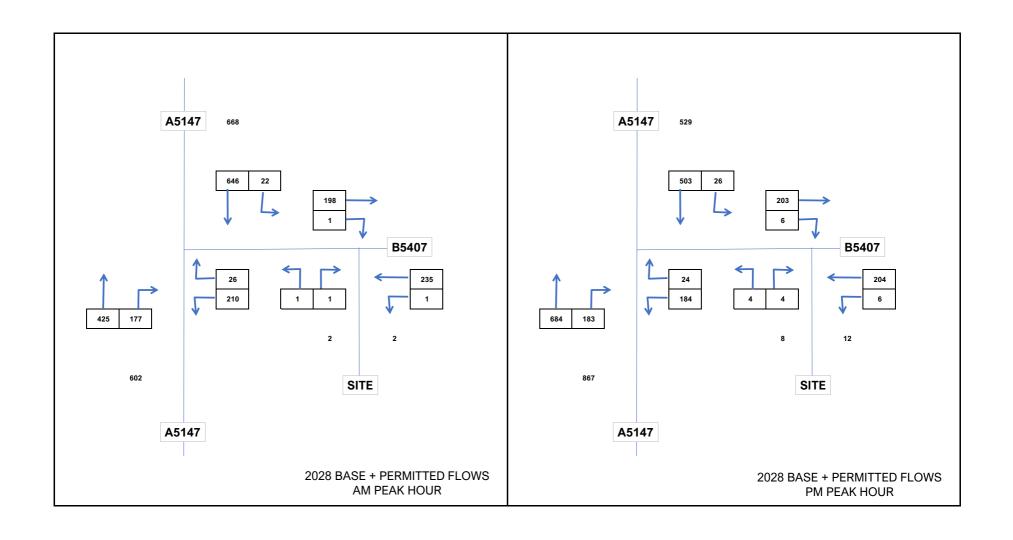


## Appendix 6. Permitted Flows



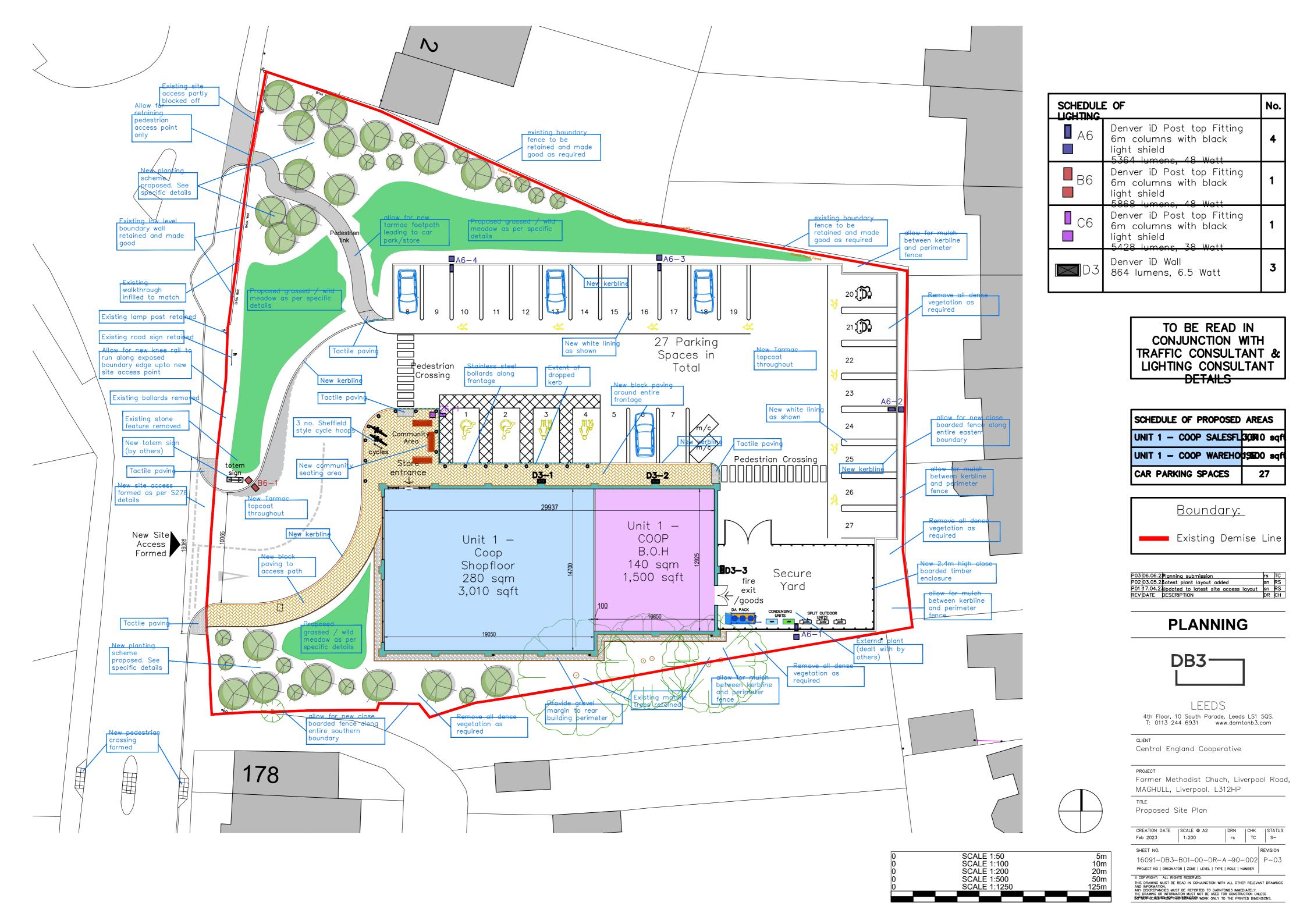


# Appendix 7. 2028 Base + Permitted Flows





## Appendix 8. Proposed Site Plan



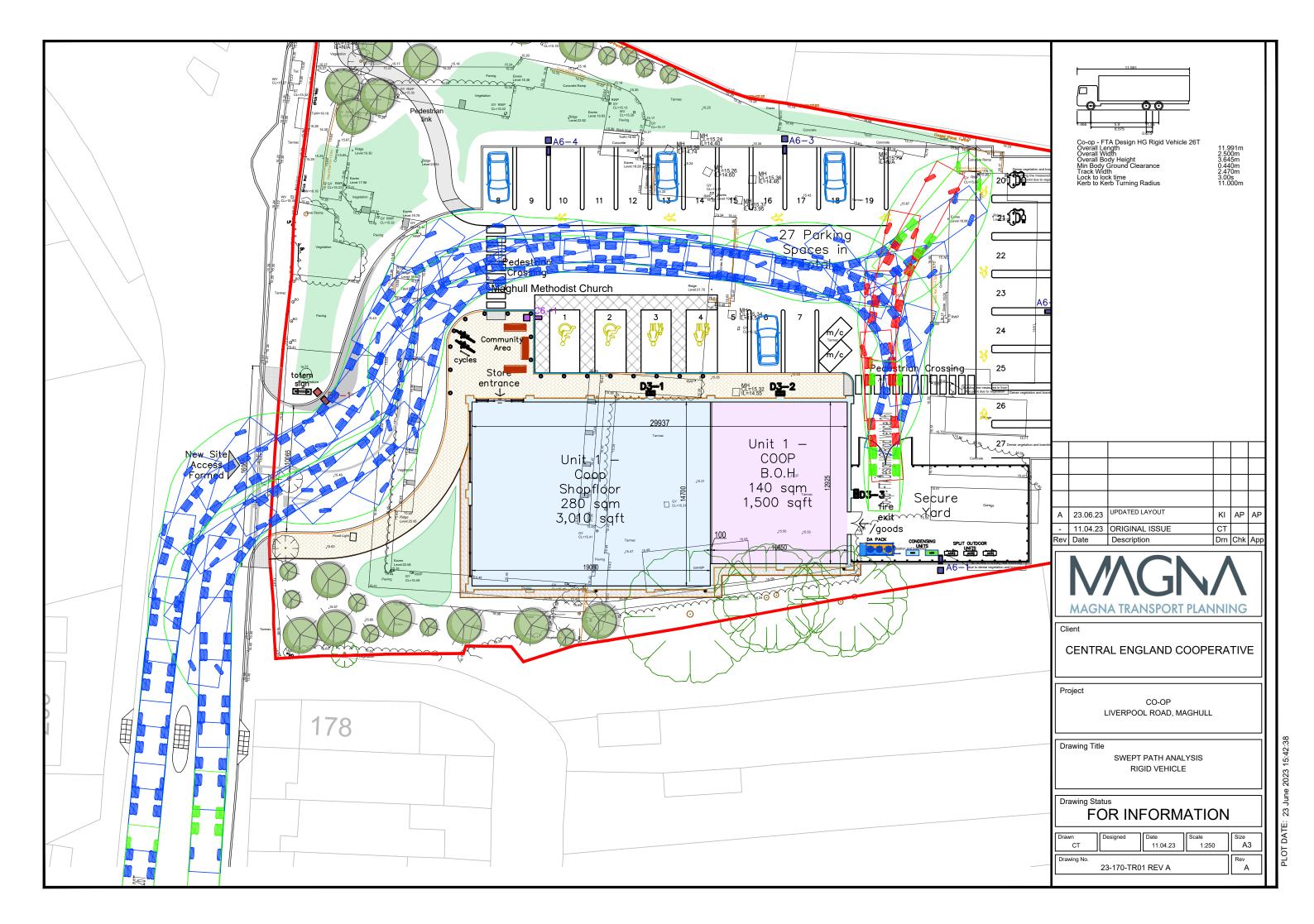


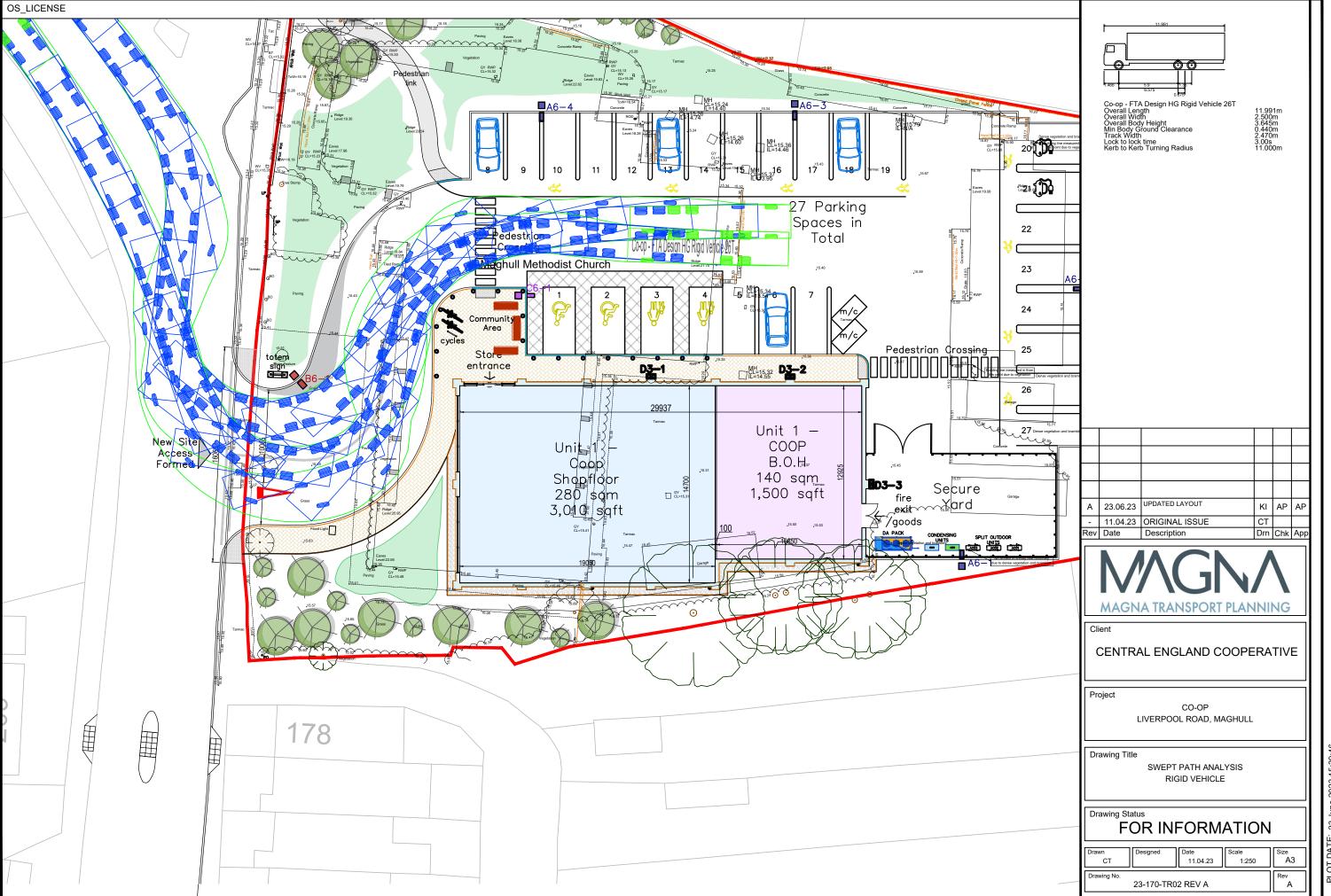
## **Appendix 9. Access Arrangements**





### **Appendix 10. Swept Path Assessment**





LOT DATE: 23 June 2023 15:39:46



## **Appendix 11. TRICS: Convenience Store**

TRICS 7.10.1 180423 B21.30 Database right of TRICS Consortium Limited, 2023. All rights reserved Wednesday 03/05/23 TRICS - Convenience Store Page 1

Magna Transport Planning Stow Park Cir Newport Licence No: 213601

Calculation Reference: AUDIT-213601-230503-0526

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL

Category : O - CONVENIENCE STORE

TOTAL VEHICLES

Selected regions and areas:

3 SOUTH WEST

SD SWINDON 1 days

05 EAST MIDLANDS

DY DERBY 1 days

07 YORKSHIRE & NORTH LINCOLNSHIRE

NY NORTH YORKSHIRE 1 days

09 NORTH

TW TYNE & WEAR 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: Gross floor area
Actual Range: 204 to 330 (units: sqm)
Range Selected by User: 70 to 1056 (units: sqm)

Parking Spaces Range: All Surveys Included

#### Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 29/09/22

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 Wednesday 1 days Friday 2 days

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

#### Selected survey types:

Manual count 4 days
Directional ATC Count 0 days

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

#### Selected Locations:

Edge of Town Centre 1
Suburban Area (PPS6 Out of Centre) 3

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 3
Built-Up Zone 1

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

#### Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 1 days - Selected Servicing vehicles Excluded 3 days - Selected

TRICS 7.10.1 180423 B21.30 Database right of TRICS Consortium Limited, 2023. All rights reserved Wednesday 03/05/23 TRICS - Convenience Store Page 2

Magna Transport Planning Stow Park Cir Newport Licence No: 213601

Secondary Filtering selection:

Use Class:

Not Known 1 days E(a) 3 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 <u>Population within 1 mile:</u>

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

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

Population within 5 miles:

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

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

Car ownership within 5 miles:

0.6 to 1.0 2 days 1.1 to 1.5 2 days

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

Petrol filling station:

Included in the survey count 0 days
Excluded from count or no filling station 4 days

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 4 days

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

PTAL Rating:

No PTAL Present 4 days

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

TRICS 7.10.1 180423 B21.30 Database right of TRICS Consortium Limited, 2023. All rights reserved Wednesday 03/05/23 TRICS - Convenience Store Page 3

Magna Transport Planning Stow Park Cir Newport Licence No: 213601

### LIST OF SITES relevant to selection parameters

1 DY-01-O-01 SAI NSBURY'S LOCAL DERBY NUNS STREET

DERBY

Edge of Town Centre

Built-Up Zone

Total Gross floor area: 204 sqm

Survey date: WEDNESDAY 25/09/19 Survey Type: MANUAL
NY-01-0-03 CO-OPERATIVE NORTH YORKSHIRE

2 NY-01-O-03 CO-OPERATIVE FOREST ROAD

NORTHALLERTON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Gross floor area: 305 sqm

Survey date: MONDAY 19/09/16 Survey Type: MANUAL

3 SD-01-O-01 ONE STOP SWINDON

THE CIRCLE SWINDON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Gross floor area: 292 sqm

Survey date: FRIDAY 23/09/16 Survey Type: MANUAL

TW-01-O-02 CO-OPERATIVE TYNE & WEAR

ETHEL TERRACE SUNDERLAND CASTLETOWN

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Gross floor area: 330 sqm

Survey date: FRIDAY 07/04/17 Survey Type: MANUAL

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

Magna Transport Planning Stow Park Cir Newport

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	204	0.490	1	204	0.000	1	204	0.490
06:00 - 07:00	2	255	6.483	2	255	6.483	2	255	12.966
07:00 - 08:00	4	283	8.223	4	283	7.958	4	283	16.181
08:00 - 09:00	4	283	8.311	4	283	8.223	4	283	16.534
09:00 - 10:00	4	283	6.101	4	283	5.836	4	283	11.937
10:00 - 11:00	4	283	5.393	4	283	5.128	4	283	10.521
11:00 - 12:00	4	283	5.128	4	283	5.482	4	283	10.610
12:00 - 13:00	4	283	6.985	4	283	6.720	4	283	13.705
13:00 - 14:00	4	283	5.924	4	283	5.836	4	283	11.760
14:00 - 15:00	4	283	5.570	4	283	5.747	4	283	11.317
15:00 - 16:00	4	283	6.012	4	283	5.836	4	283	11.848
16:00 - 17:00	4	283	7.427	4	283	7.515	4	283	14.942
17:00 - 18:00	4	283	7.073	4	283	7.162	4	283	14.235
18:00 - 19:00	4	283	9.107	4	283	9.107	4	283	18.214
19:00 - 20:00	4	283	8.930	4	283	8.488	4	283	17.418
20:00 - 21:00	3	280	3.099	3	280	2.980	3	280	6.079
21:00 - 22:00	3	280	1.788	3	280	2.145	3	280	3.933
22:00 - 23:00	1	204	3.922	1	204	3.431	1	204	7.353
23:00 - 24:00	1	204	1.961	1	204	2.451	1	204	4.412
Total Rates:			107.927			106.528			214.455

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

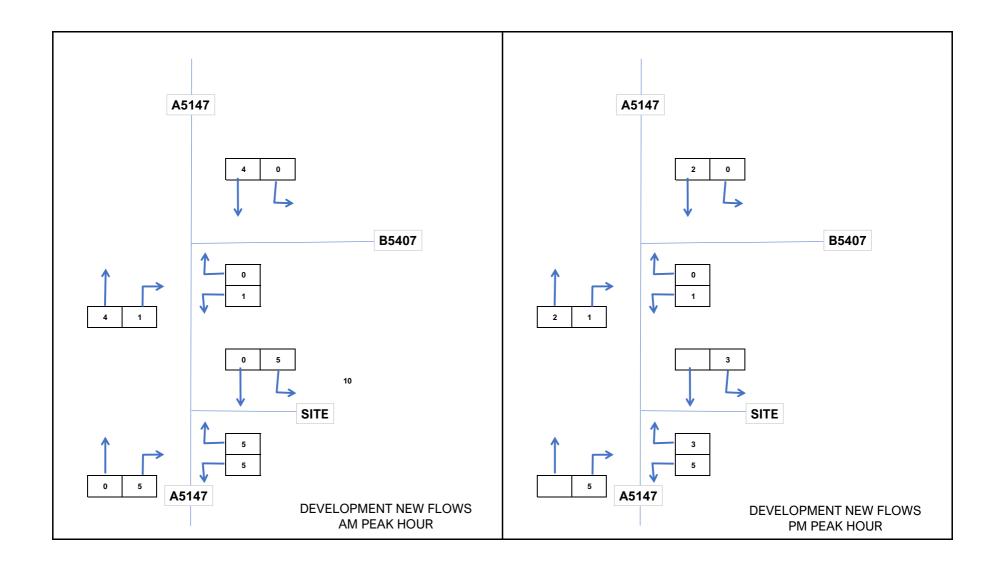
Trip rate parameter range selected: 204 - 330 (units: sqm) Survey date date range: 01/01/15 - 29/09/22

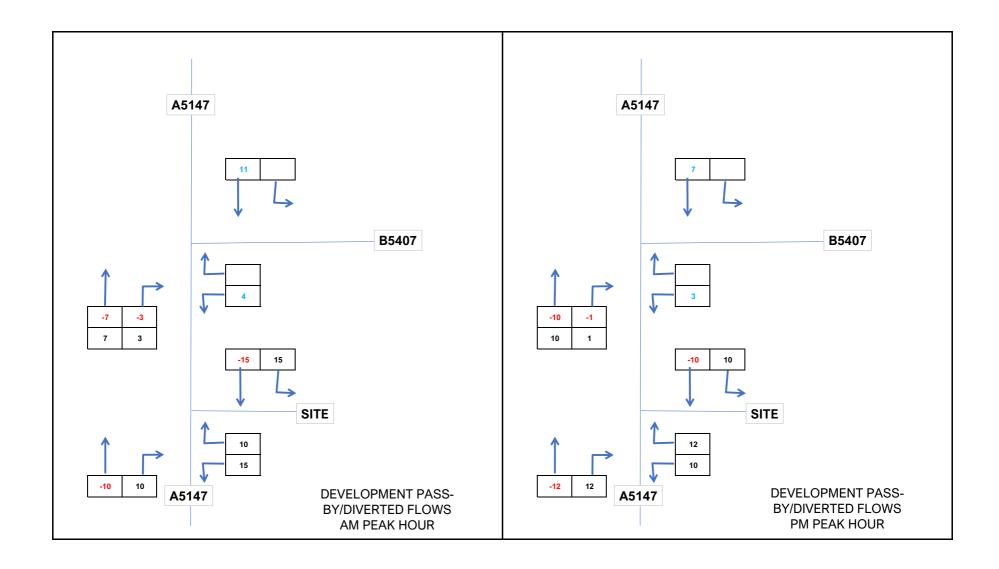
Number of weekdays (Monday-Friday): 4 Number of Saturdays: 0 Number of Sundays: 0 Surveys automatically removed from selection: 0 Surveys manually removed from selection: 0

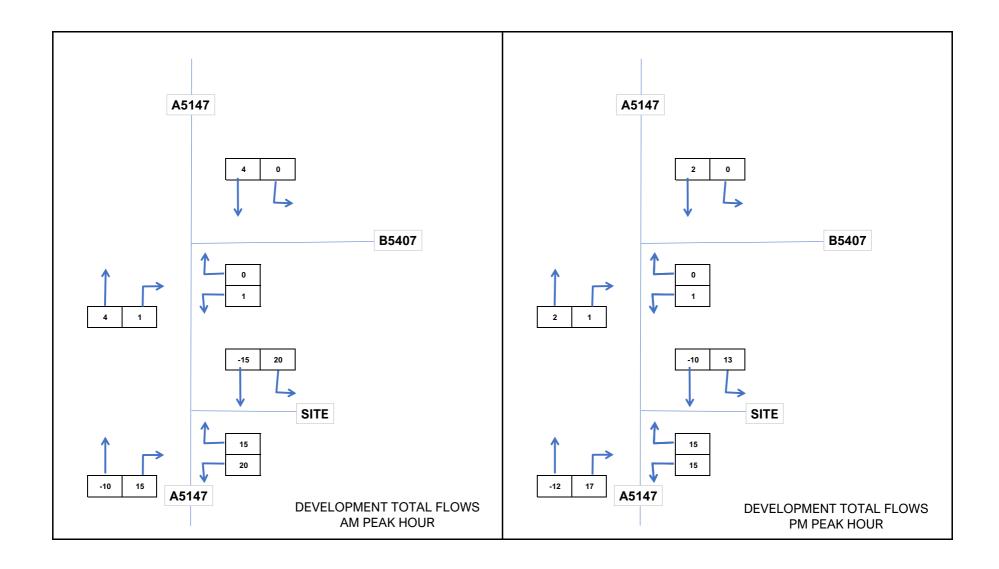
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are 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 12. Development Flows**









### Appendix 13. 2028 Base + Development Flows

