SCP

Transportation Planning : Infrastructure Design

Transport Assessment

Proposed Lidl Food Store

Church Road North, Wavertree

Lidl Great Britain Limited

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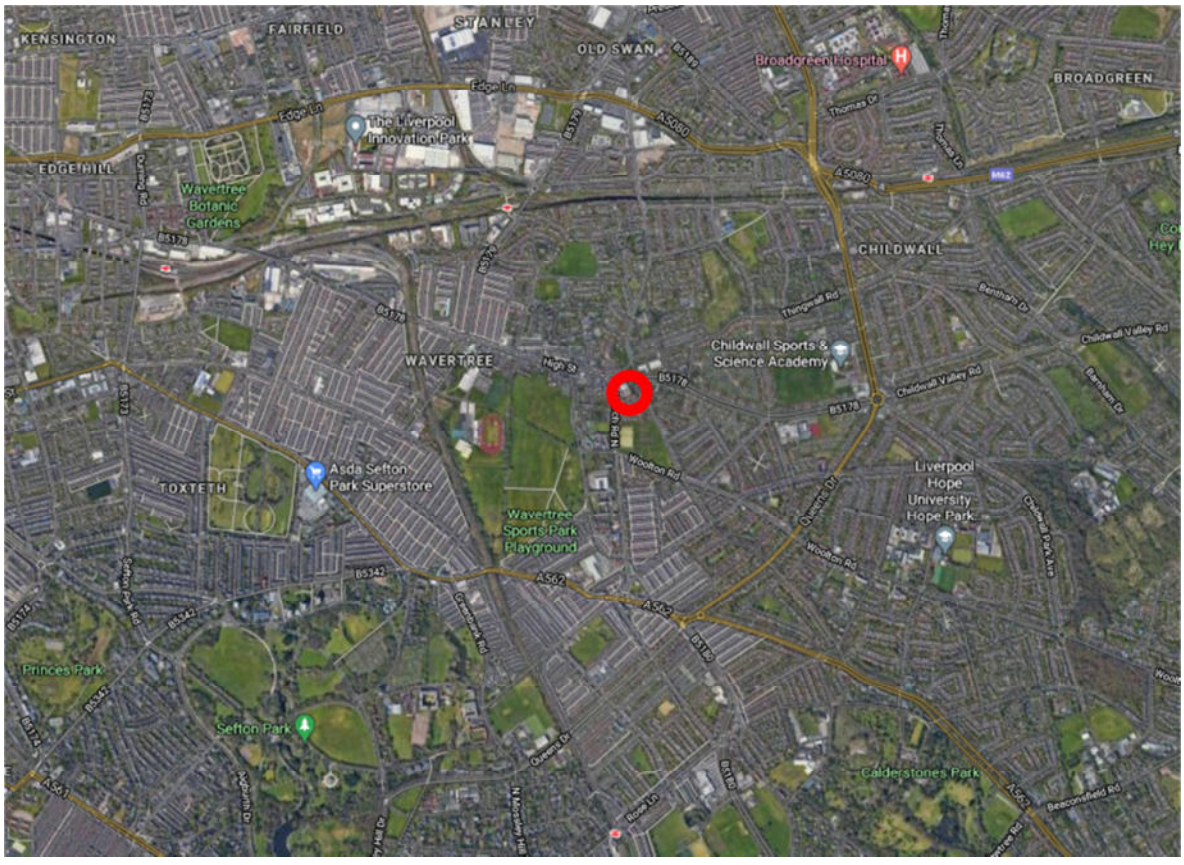
APPENDICES

1.0 INTRODUCTION

1.1 This Transport Assessment has been prepared on behalf of Lidl Great Britain Limited and provides a review of the transport and highway impacts related to the proposed development of a new discount food store at the junction of Church Road North with Childwall Road, in Wavertree, Liverpool. The site is currently occupied by a Co-op supermarket.

1.2 The location of the Application Site and the surrounding highway network is shown below in **Figure 1.1**.

Figure 1.1: Site Location Plan



1.3 This TA has been prepared to support a planning application to demolish the existing building on the site and replace it with a Lidl discount foodstore with associated car parking. It has been developed in accordance with the now superseded, but still best-practice, Department for Transport's (DfT's) March 2007 "Guidance on Transport Assessment" document, the National Planning Practice Guidance (NPPG) "Transport Evidence in Plan Making" document, Manual for Streets (MfS) and Manual for Streets 2.

Scope and Structure of This Report

1.4 This report seeks to demonstrate that the proposed development of the site can be accommodated without detriment to the operational capacity or safety of the local highway network, and that it can be readily accessed on foot, by bicycle and by local public transport services.

1.5 The content and structure of this report is set out below:

- Section 2 outlines the relevant national, regional and local transport policies applicable to the site and proposed development;
- Section 3 describes the characteristics of the existing site and reviews accident data for the surrounding local highway network of the site;
- Section 4 provides a review of the accessibility of the current site;
- Section 5 provides details of the proposed development,
- Section 6 presents the access strategy,
- Section 7 presents Lidl's standard approach to servicing,
- Section 8 considers parking provision and demand;
- Section 9 provides future baseline traffic conditions
- Section 10 outlines the site's likely peak-hour trip generation together with a comparison to the traffic impact of the existing development;
- Section 11 provides forecast capacity assessments of the local highway network to review the potential impacts of the proposed development on the local highway infrastructure, and;
- Section 12 provides a summary of the report and presents the conclusion reached.

2.0 TRANSPORT PLANNING POLICY

2.1 This chapter provides a summary of relevant national and local transport policies and provides a brief analysis of how the proposed development contributes towards the aims and objectives of these policies.

National Transport Policy

The National Planning Policy Framework (NPPF)

2.2 The National Planning Policy Framework (NPPF) was revised in 2018 and sets out the Government's planning policies for England and how these are expected to be applied. An update to NPPF was issued in February 2019. This did not alter anything in relation to transportation policy but did clarify that the presumption in favour of sustainable development would not apply if there was a negative impact on habitats.

2.3 At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development which for decision-taking means:

- Approving development proposals that accord with an up-to-date development plan without delay, and;
- Where there are no relevant development plan policies, or the policies which are the most important for determining the application are out of date, granting permission unless:

– The application of specific policies in this Framework which protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or

– Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.

2.4 With regard to 'Promoting sustainable transport' the NPPF states:

'All developments that will generate significant amounts of movement should be required to provide a Travel Plan, and the application should be supported by a Transport Statement or Transport Assessment so that the likely impacts of the proposal can be assessed. In assessing sites that may be allocated for development in plans, or specific applications for development, the decisions made should ensure that:

- Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, depending on the type of development and its location;

- Safe and suitable access to the site can be achieved for all users, and;
- Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

The Chartered Institute of Highways and Transportation: Manual for Streets / Manual for Streets 2 (2007 / 2010);

2.5 Manual for Streets (MfS) presents technical guidance and focuses on lightly-trafficked residential streets although many of its key principles may be applicable to other types of street such as high streets or lightly-trafficked lanes in rural areas. MfS is directed to all stakeholders involved in the planning, design, approval or adoption of new residential streets, and modifications to existing residential streets.

2.6 MfS is used for the design, construction, adoption and maintenance of new residential streets, but it is also applicable to existing residential streets subject to re-design.

2.7 MfS sets out detailed recommendations for street design with a focus on residential areas and motor vehicles, whilst MfS2 puts more emphasis on how and where key principles of MfS and MfS2 can be applied to busier streets and non-trunk roads; cycle infrastructure design is covered within MfS2 in detail too.

2.8 MfS and MfS2 state that the streets should:

'Not be designed just to accommodate the movement of motor vehicles. It is important that designers place a high priority and meet the needs of all users such as pedestrians, cyclists and public transport users so that growth in these modes of travel is encouraged.'

Regional Transport Policy

The Third Local Transport Plan for Merseyside (LTP3) 2011-2024: A New Mobility Culture for Merseyside

2.9 The Merseyside LTP3 was adopted in April 2011. The plan sets out the implementation plans in the short term to 2015 and looks to the longer term strategy for 2024 on how to improve transport in Merseyside.

2.10 The Third Local Transport Plan has the following vision;

'A city region committed to a low carbon future, which has a transport network and mobility culture that positively contributes to a thriving economy and the health and wellbeing of its citizens and where sustainable travel is the option of choice'.

2.11 The LTP3 has six goals:

- *Help create the right conditions for sustainable economic growth by supporting the priorities of the Liverpool City Region, the Local Enterprise Partnership and the Local Strategic Partnerships.*
- *Provide and promote a clean, low emission transport system which is resilient to changes to climate and oil availability.*
- *Ensure the transport system promotes and enables improved health and wellbeing and road safety.*
- *Ensure equality of travel opportunity for all, through a transport system that allows people to connect easily with employment, education, healthcare, other essential services and leisure and recreational opportunities.*
- *Ensure the transport network supports the economic success of the city region by the efficient movement of people and goods.*
- *Maintain our assets to a high standard.*

2.12 The development proposals will provide better access to employment as well as reducing carbon emissions by reducing the need to travel.

2.13 Merseyside's LTP supports the choice of travel in Merseyside. It states that they will continue to promote smarter choices via TravelWise and our Active Travel Strategy which help to promote and increase the use of the lowest carbon modes of transport. As well as deliver a transport system which ensures that people have more equal access to employment opportunities.

2.14 One action within the LTP is for new developments to be accessible to all and not just car users. Integrating the LTP with each local authority's LDF will ensure new developments are accessible to all. This will provide a robust planning framework that links transport with future developments that can significantly improve accessibility.

Analysis and Conclusions

2.15 In general, the national and local transport policies set out above follow similar themes and promote common aims. These are to provide sustainable development with good access to jobs and facilities, to encourage non-car modes of transport, to ensure that the highways impact of new developments is acceptable or mitigated against and to promote good site design with appropriate parking levels.

2.16 This TA demonstrates that these general transport policy aims can be met at the proposed Lidl store.

2.17 In terms of the location and accessibility of the store, it is located close to other shopping and leisure facilities, as well as being within easy walking distance of bus stops and railway stations and routes from surrounding residential areas, from where it can reasonably expect to draw the majority of its custom and staff.

2.18 The above analysis of relevant national, regional and local transport policies confirms that the proposed development is therefore compliant with relevant transport planning policies and can help contribute to their objectives.

3.0 EXISTING SITE CONTEXT

3.1 The existing site is occupied by a Co-operative foodstore. The site is bordered by Childwall Road to the north, Church Road North to the west and residential properties to the south and east. The site is situated in the area of Wavertree, approximately 5km east of Liverpool City Centre, as shown at **Figure 3.1** below.

Figure 3.1: Existing Site

Surrounding Highway Network

Church Road North

3.2 Church Road North runs south to north along the western boundary of the application site and is a primary distributor road that connects High Street and Childwall Road with Woolton Road and the A652 which can be used to access areas in and around Liverpool City Centre.

3.3 Church Road North is a single carriageway road. It has an average carriageway width of approximately 7.3m. There are footways on both sides of the road with an average consistent width of 2m. The speed limit of Church Road North is 30mph.

High Street / Childwall Road / Church Road North Roundabout

3.4 This roundabout is a 5-arm junction of unconventional design. Vehicles travelling from High Street do not give-way to any other arm. Vehicles wishing to travel eastbound from the other arms must use the roundabout and then use a priority-controlled junction within the roundabout to then turn right. Zebra crossings are provided on both the entry and exit arms of the Childwall Road approach.

Traffic Surveys

3.5 Traffic surveys were commissioned to record traffic counts at the existing Co-Op access and also the roundabout to the north.

3.6 These traffic surveys were conducted on Saturday 21st Manchester 2020. The raw traffic data is included in **Appendix 1** and summarised in Traffic Flow Figure 1.

3.7 In order to determine the flows for the PM peak scenario, existing data collected in connection with Lidl's application at London Road, Toxteth have been used to derive a factor of difference between peak hour flows in the PM and Saturday. This factor has then been applied to the Saturday data to give the estimated PM peak hour flows passing the site. This methodology has been used and accepted by Liverpool City Council in support of Lidl's recent applications at Childwall Valley Road and Great Homer Street.

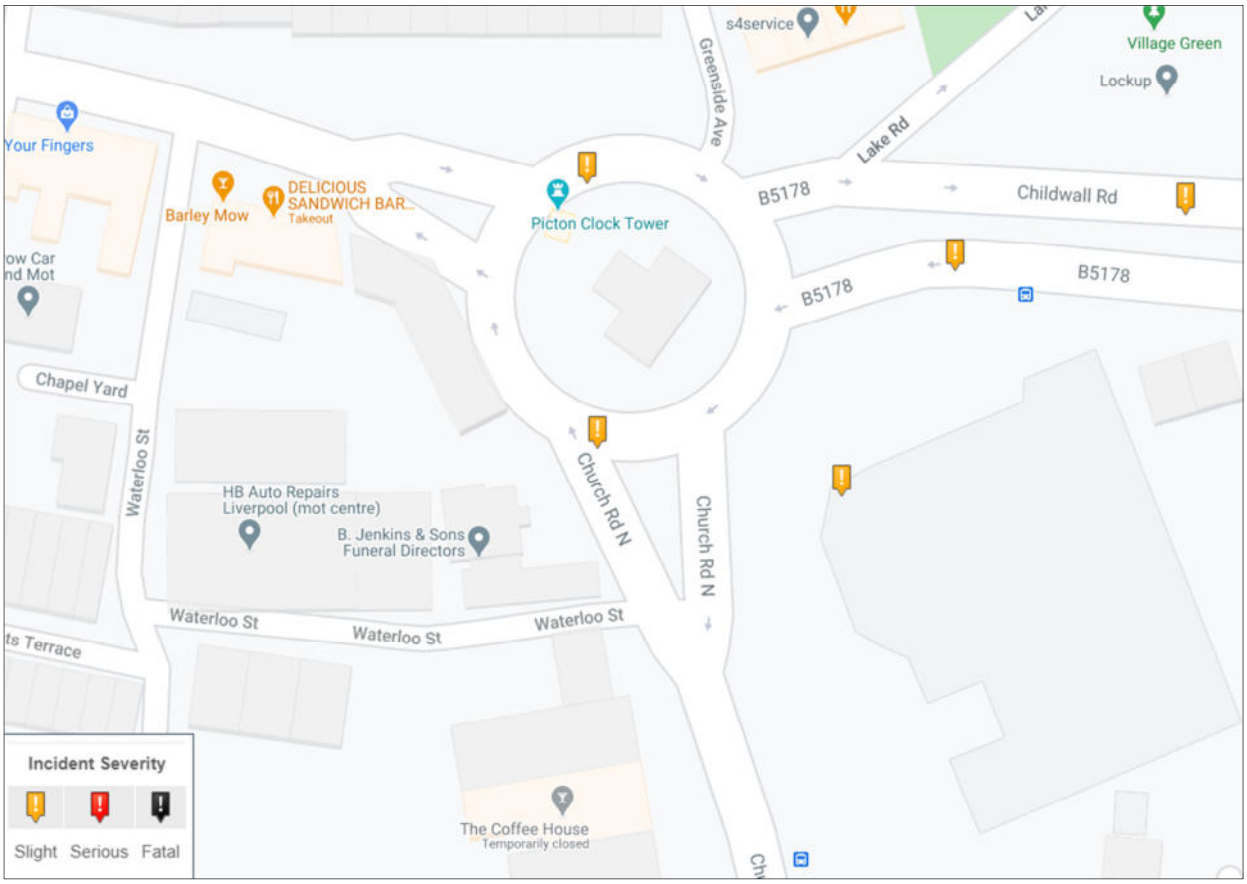
3.8 The raw data has been used to convert the traffic flows into passenger car units (PCUs) for weekday and Saturday highway peak hours at the site access and along Childwall Road. Analysis of this data highlighted the fact that the peak hour flows occurred during 17:00 to 18:00 for the weekday PM peak, and 12:00-13:00 in the Saturday peak.

Road Safety

3.9 Collision data was obtained from the Crashmap website for the area surrounding the Application Site for the period between 01/01/2015 to 31/12/2019. The accident reports provide information on the location and severity of all accidents which took place on the adjoining highway network.

3.10 The study area considered for the accident analysis is outlined below in Figure 3.2.

Figure 3.2: Accident Study Area



3.11 The evidence presented above and illustrated in Figure 3.2 suggests that the area in the vicinity of the proposed site does not have any significant highway safety problems and the potential intensification of the site access junction onto Church Road North would not present a material concern in regard to highway safety.

4.0 SUSTAINABLE TRANSPORT APPRAISAL

4.1 This section provides a review and description of the existing transport network surrounding the site in regards to walking, cycling and public transport modes.

Minimum Accessibility Standard Assessment (MASA)

4.2 A MASA assessment has been undertaken on the site and the following results were obtained. This confirms that the site either meets or exceeds targets for each measure. Further details of the site's accessibility criteria follow. The full MASA schedule is reproduced at Appendix 1 to the Travel Plan supporting this application.

Development Type	Location	Development Size	Target score for walking	Target score for cycling	Target score for Public Transport	Target score for vehicle access & parking
Retail	Other urban	Medium	4	3	4	1
Proposed Lidl	Church Road North, Wavertree	1,980sqm GIA	4 (meets above target)	3 (meets above target)	5 (exceeds above target)	2 (exceeds above target)

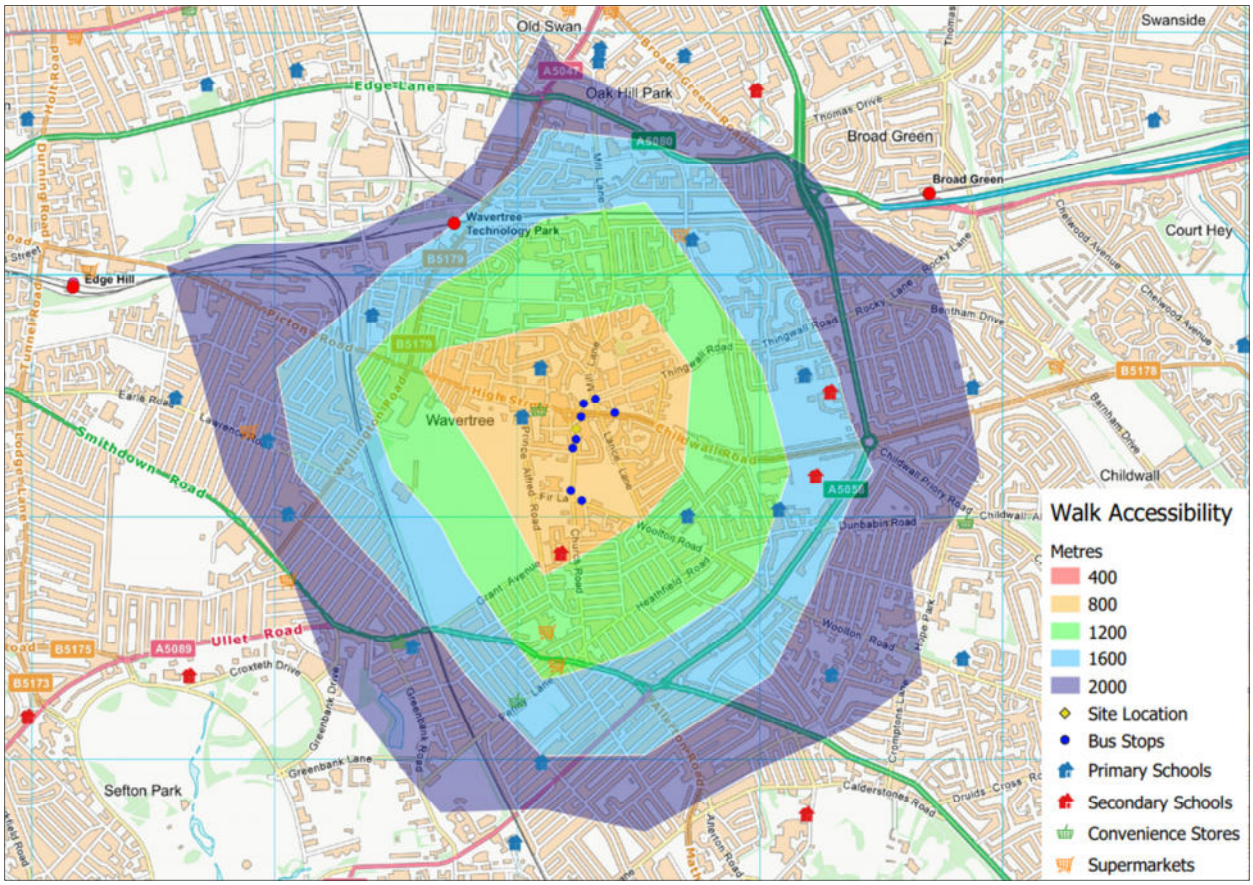
Access by Non-Car Modes: Walking

4.3 Walking is recognised as the most important mode of travel at a local level, and it offers the greatest potential to replace short car trips, particularly under 2 kilometres.

4.4 TRACC software has been used to assess the accessibility of the development by foot as shown on **Figure 4.1** below.

4.5 The figure demonstrates that, as is Lidl policy, employees from the local area will be able to access the site by foot. This also indicates that a significant proportion of potential customers will also be within reasonable walking distance of the site.

Figure 4.1: Walk Accessibility within 2km



4.6 A number of local amenities are also within a 2km walk of the site (up to 20 minutes' walk) which will promote linked trips, as shown in **Table 4.1** below:

Table 4.1 - Accessibility to Local Facilities from the Development Site

Service	Detail	Distance
Bus stops	Church Road North	<50m
	Childwall Road	120m
	Lake Road	170m
	Mill Lane	210m
Open Space	Village Green, Lake Road	90m
Nursery	Busy Bees Nursery, Childwall Road	190m
Primary School	Wavertree Church of England School	350m
Secondary School	The Liverpool Blue Coat School	400m
GP	Lance Lane Medical Centre	400m
Dentist	Duthie Dental, Woolton Road	650m
Supermarket	ASDA	1000m

4.7 The surrounding area benefits from a good level of pedestrian infrastructure. Street lighting and wide footways are provided on all the local roads. Dropped kerbs are provided at the majority of junctions in the vicinity of the application site, with tactile paving also provided at the controlled

roundabout crossing points. Combined, this infrastructure helps to create a conducive walking environment for pedestrians.

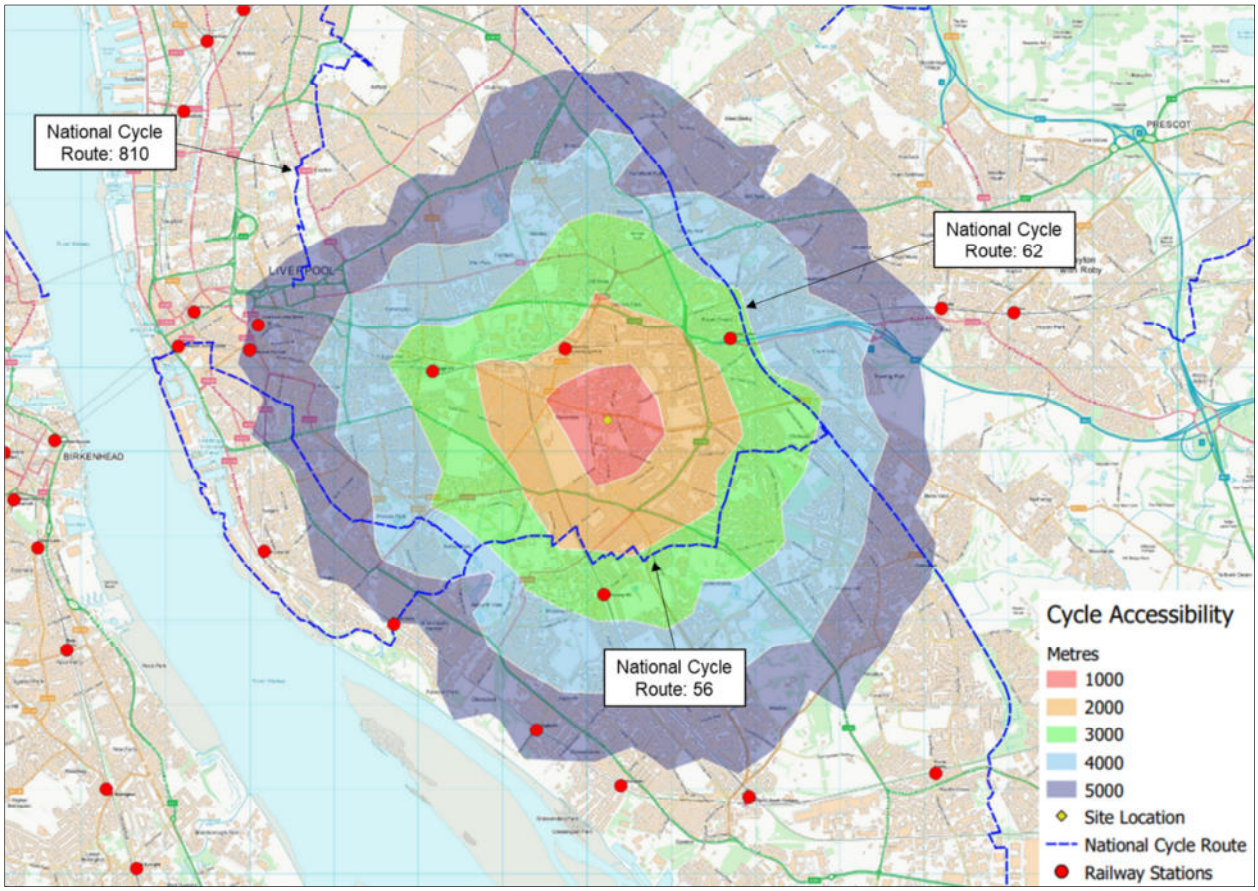
4.8 Numerous pedestrian crossing points will also be provided within the Lidl car park, allowing pedestrians and cyclists to access the store from Church Road North and Childwall Road.

Access by Non-Car Modes: Cycling

4.9 Transport policy identifies that cycling represents a realistic and healthy option when compared to the private car, for journeys up to 5km as a whole journey, or as part of a longer journey by public transport.

4.10 The cycle accessibility plan in **Figure 4.2** shows a 5 kilometre cycling catchment area from the site.

Figure 4.2: Cycle Accessibility within 5km



4.11 The mapping provided above demonstrates that areas such as Childwall, Mossley Hill, Edge Hill, Broad Green and Liverpool City Centre and the surrounding residential areas are within a 5km cycle distance from the site, in addition to the areas which are accessible on foot.

4.12 The map also demonstrates that the site is within 5km of National Cycle Routes 56, 62 and 810 which cater for longer cycling journeys.

4.13 The existing cycle infrastructure combined with the cycle parking provision and topography of the area will ensure that employees and customers will easily be able to access the proposed development by bike.

Public Transport: Bus

4.14 In terms of bus services, the Chartered Institute of Highways & Transportation's (CIHT's) *"Guidelines for Planning for Public Transport in Developments"* document identifies, at section 6.20, that *"Bus stops are located to minimise passengers' walking distance to their final destination. The maximum walking distance to a bus stop should not exceed 400m and preferably be no more than 300m*."

4.15 The nearest accessible bus stops to the site are located adjacent to the site access on Church Road North. Further bus stops are available on the Childwall Road, Lake Road and on Mill Lane. The Childwall Road, Lake Road and Church Road North bus stops provide a flag, shelter, seating and timetable information; the bus stop on Mill Lane provides a flag and timetable information. There are good pedestrian links directly from the site to the bus stops. All stops are within 400m of the site access.

4.16 The frequency of the different bus services available from the stops is outlined in Table 4.2.

Table 4.2: Bus services within 400m of the site

Service No.	Destinations	Bus Stop Location	Average Frequency		
			Weekday	Saturday	Sunday
61	Palace Fields - Liverpool	Childwall Road	30 mins	30 mins	60 mins
62	Melling Road – Coventry Road	Church Road North	30 mins	30 mins	30 mins
68	Ashfield Road – Bootle New Strand Station	Church Road North / Childwall Road	30 mins	30 mins	No Service
68A	Aigburth Vale - Bootle	Church Road North / Childwall Road	60 mins (evenings only)	60 mins (evenings only)	30 mins
78	Halewood – Queen Square Bus Station	Church Road North	30 mins	60 mins	60 mins
79	Liverpool ONE – Halewood Shopping Centre	Childwall Road	10 mins	10 mins	20 mins
79C	Liverpool – Widnes	Childwall Road	20 mins	20 mins	30 mins
204	Liverpool ONE Bus Station – Belle Vale Bus Facility	Childwall Road	60 mins	60 mins	60 mins

4.17 The above table demonstrates that prospective employees and shoppers of the site will have access to several bus services which provide access to a wide range of destinations across the Wavertree area, at a good frequency.

4.18 It is demonstrated that there are a variety of bus services within close proximity to the site which provide a range of opportunities for employees and customers to access the store via bus seven days a week.

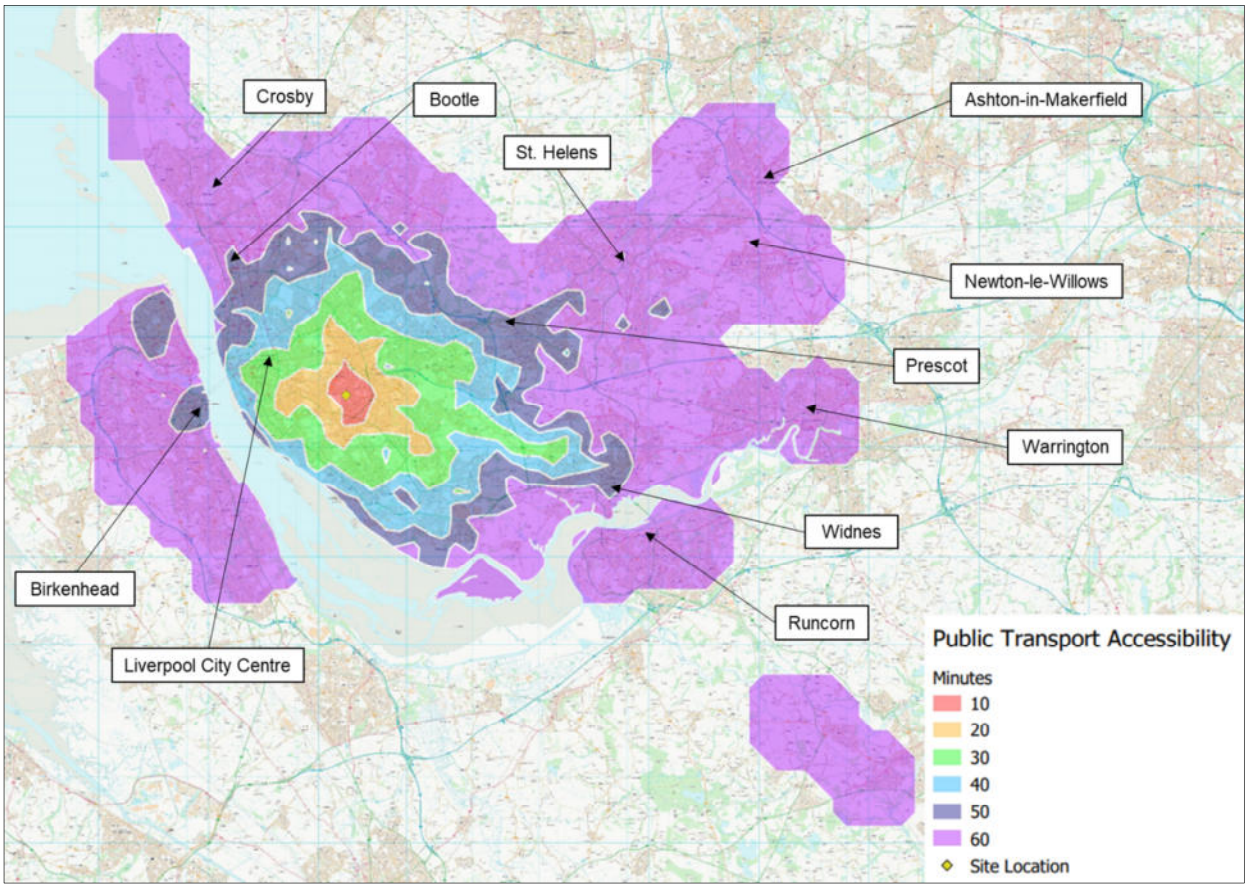
Public Transport - Rail

4.19 Wavertree Technology Park Railway Station is the nearest stations to the development site. This station is located within an approximate 20-minute walk / 5-minute cycle.

4.20 Wavertree Technology Park Railway Station provides a ticket office and ticket machines. Limited disabled parking is provided. Cycle storage is provided for 20 bikes. Services from the station run to Manchester Airport, Manchester Victoria, Liverpool Lime Street and Wigan North Western.

4.21 **Figure 4.3** below illustrates the distance that can be travelled within 60 minutes by public transport to and from the site.

Figure 4.3: Public transport accessibility within 60 minutes



4.22 The time includes the walk to the bus stops and demonstrates that key areas such as Birkenhead, Crosby, Bootle, St. Helens, Ashton-in-Makerfield, Newton-le-Willows, Prescot, Warrington, Widnes, Runcorn and Liverpool City Centre, in addition to the local surrounding areas, are within an acceptable 60 minute public transport commute.

Summary

4.23 Having regard to the above, it is considered that the site has excellent levels of accessibility by the main non-car modes of transport. Access to the site by foot and cycle is of a good standard, and both bus and rail connections are also available within close proximity, therefore enabling access to the site from a range of local locations.

5.0 PROPOSED DEVELOPMENT

Background

5.1 The proposals for the application site include the construction of a discount food retail unit (Use Class E) with a total retail floor area (RFA) of approximately 1,121sqm and a Gross Internal Area (GIA) of 1,654sqm (ground floor) with a further 326sqm at first floor level (warehousing and ancillary). The total GIA of the store is 1,980sqm.

5.2 A total of 70 car parking spaces are proposed on the site. Of the 70 spaces provided, five will be designated to parent and child standard, five will be DDA compliant. These spaces will be clearly marked and positioned close to the store entrance and trolley bays for customers' convenience. There will also be two electric vehicle charging points of rapid charger type.

5.3 A loading bay will be provided on site to accommodate delivery vehicles up to the size of a maximum legal articulated HGV. This is proposed on the western elevation of the foodstore and therefore occupying a similar location to the route that existing service would take when servicing the shopping centre.

5.4 Cycle parking is proposed at the front of the store as per similar Lidl sites of this scale. Four Sheffield stands, providing 8 cycle parking spaces for customers, are proposed under the store canopy for shelter and in front of the glazed elevation of the store. They are overlooked by customers at the packing shelf and are therefore under constant surveillance for maximum security.

5.5 Secure staff cycle parking is also provided for employees within the warehouse.

5.6 The proposed site layout plan is included at **Appendix 2**.

6.0 ACCESS STRATEGY

6.1 It is proposed that the existing access point for the Co-Op supermarket along Church Road North will continue to be used for Lidl's discount foodstore proposals. Due to the nature of the existing use on the site, it is considered that the existing bellmouth will continue to provide a safe point of access for the proposed development, with regards to junction visibility requirements.

7.0 DELIVERY, SERVICING & WASTE MANAGEMENT PLAN

Servicing and Deliveries

7.1 Servicing for the new foodstore will continue to conform to the typical Lidl model, with an on-site dedicated servicing bay at the rear of the store accessed from the customer car park via the site access on Church Road North. Deliveries to the store will be made by 16.5m articulated lorry via the access off Church Road North. Drawing number SCP/190920/ATR01 in **Appendix 3** illustrates the swept path analysis of a 16.5m long articulated lorry entering the access from Church Road North, turning within the proposed car park layout, reversing into the service area and then exiting the site in a forward gear via the site access back onto Church Road North.

7.2 The servicing area has been designed to accommodate the entry, manoeuvre, reverse onto the loading bay ramp and exit in forward gear of a 16.5 metre articulated vehicle. All manoeuvres take place within the store car park.

7.3 Internally, the HGV is able to manoeuvre without risk of vehicle strikes. The HGV does not reverse across any defined pedestrian crossing route, though there are many examples of Lidl stores where such manoeuvres do routinely take place with no risk to pedestrian safety.

7.4 Lidl routinely schedule deliveries for those periods outside peak-trading hours or when the store is closed to customers completely. Logistically this makes their own operation much more efficient as staff are able to re-stock more easily when there are fewer customers in the store and deliveries arriving over night or during the early hours of the morning are less susceptible to delays on the network.

7.5 However, flexibility is key to any retailer's operation and as a result, Lidl's standard DSWMP strategy is designed to inform decision makers about the impact of deliveries if arriving when the store is at its busiest and the car park is full.

7.7 The following concerns are typical of those that have been expressed by local planning and highway authorities across the UK over recent years.

- Concern 1

  How will the arrival of the HGV be communicated to the site?

  - The manager of each Lidl store is aware of the scheduled delivery time for each day and as a result prepares accordingly. In addition, the driver can telephone the site 20-30 minutes before arrival or in case of delay or any other alteration to the delivery schedule.

- Concern 2

  What is the length of time deliveries are likely to take?

  - Lidl deliveries are completed within a period of about 30 to 60 minutes depending on the size of the store. They are manoeuvring within the car park for only a fraction of this time.

- Concern 3

  Can vehicles enter and leave the main site in forwards gear minimising reversing?

  - The route for Lidl's delivery vehicles into the site, through the car park, onto the loading bay and out again has been carefully designed around a maximum legal articulated HGV. The HGV only reverses from the point at which the vehicle completes its u-turn in the car park. This minimises the extent the vehicle needs to reverse to just that section onto the loading bay ramp itself;

- Concern 4

  How will noise from reversing horns / sirens be controlled (as this could disrupt neighbours)?

  - Lidl's delivery vehicles will either be fitted with standard reversing beepers or with white-noise reversing bleepers. With regards to the former, these can be turned off if the vehicle is delivering overnight as there will be no-one else on the site. The driver has access to the warehouse and does not need a Lidl employee to open up. In terms of the white noise alarms, the white sound is emitted directionally and is therefore instantly locatable. White sound reversing alarms work effectively at lower decibel ratings containing any noise to the area behind and immediately around the rear of the reversing vehicle;

- Concern 5

  Is the loading bay at same level as the back of the vehicle (i.e. no need to roll cages up / down slopes rattling around)?

  - Lidl's loading bay is ramped allowing the vehicle to reverse down directly onto the warehouse doors at finished floor level. A dock leveller eliminates any differential between the floor of the trailer and the warehouse doors. There is therefore minimal transitioning of cages between the HGV and the warehouse and as soon as the cages leave the lorry they are inside the warehouse;

- Concern 6

  Are engines turned off when stationary during deliveries?

  - Yes, Lidl's HGV drivers are instructed to turn off their engines during the entire time that the vehicle is stationary against the loading bay doors;

- Concern 7

  Are refrigeration motors turned off during deliveries (or plugged into local electricity supply)?

  - Yes, Lidl's HGV drivers are instructed to turn off refrigeration units during the entire time that the vehicle is stationary against the loading bay doors;

- Concern 8

  Are drivers instructed to keep all other noises to a minimum if delivering overnight?

  - Yes, Lidl's HGV drivers are instructed to turn off all stereo equipment and be careful not to slam vehicle doors;

- Concern 9

  Are staff aware, particularly during night time hours (23:00 - 07:00), not to shout etc. outside?

  - The only staff on site overnight would be the delivery driver. At all other times, Lidl employees are required to be sensitive to their surroundings if working outside.

Monitoring

7.8 A Lidl store typically receives one/two delivery vehicles per store per day with a maximum of two/three at peak periods such as Easter and Christmas. Waste material is taken away by the same vehicles. HGV vehicle trips are monitored, and efforts made to remove any unnecessary HGV delivery trips to support normal business.

Waste Management

7.9 Waste is stored within the building close to the servicing bay, to enable easy collection by vehicles servicing the site. There is no external storage of either stock or waste.

7.10 Lidl operates a policy of reloading empty delivery HGVs with store waste to return to the depot for recycling. This reduces the number of on-site vehicle movements required. Empty pallets and TKT boxes along with waste and recycling are returned to the warehouse on the same HGV.

7.11 Lidl are committed to developing innovative ways to effectively manage waste streams to ensure that packaging requirements are reduced, more is recycled and surplus food is redistributed to charity.

7.12 Lidl boast an award-winning recycling and waste management programme. In-store and warehouse waste management concepts are integral to Lidl's Zero Waste Commitment. Through the commitment of Lidl's logistics and procurement teams and all store and warehouse employees, Lidl achieved Zero Waste to Landfill and are working hard to maintain this. Much of Lidl's waste is cardboard, which is reused for paper and packaging. Segregation is key to the programme's success by increasing Lidl's recycling streams and reducing their environmental impact.

7.13 Lidl offer recycling bins behind the tills in stores for customers to dispose of unwanted excess packaging. Lidl then recycle the material on their behalf.

In-Store Recycling

7.14 Plastic packaging serves important functions – such as containing product, protecting goods in transport, preserving the product and extending its shelf life and communicating product information to customers.

7.15 However, Lidl are very aware of the need to reduce the use of plastics in products' packaging and replacing them with more sustainable alternatives. Lidl are also working on increasing the recyclability of the materials. For this reason, Lidl have made ambitious packaging commitments to support the circular economy.

7.16 While Lidl continue to reduce and improve their plastic packaging, Lidl want to support their customers by reducing the amount of packaging they take home.

7.17 New in-store 'Recycling Stations' include three bin shoots, each for a different type of packaging, namely:

Cardboard & Paper

- Carboard packaging boxes e.g. cereal boxes, cosmetic paper boxes, etc.
- Old newspapers, magazines, envelopes, etc.
- Coffee cup from Lidl's vending machines.
- Unwanted shopping receipts.

Plastic

- Fruit and vegetable plastic wrapping and trays
- Old or broken carrier plastic bags
- Beverage plastic bottles

Other Recyclables

- All other recyclable materials are accepted in this bin such as aluminium and beverage cans.

7.18 The recyclability of the plastic depends on many different factors (Polymer type, use of laminates and adhesives etc). Material is assessed in store and by Lidl's waste providers. If the materials are contaminated, or made from a material that cannot be recycled, they will be sorted in recycling plants – all materials that can be recycled will be recycled and nothing will go to landfill.

7.19 Lidl's waste providers have confirmed that they have been able to recycle all materials collected to date.

Summary

7.20 Lidl's Delivery, Servicing and Waste-Management Plan for this site will conform to their own stringent standards applied across their UK estate.

7.21 The foodstore will be serviced by a 16.5m HGV from the site access onto Church Road North. Drivers are given precise instructions about how to access the store and manoeuvre within the car park and onto the loading bay prior to leaving the depot.

7.22 Deliveries and waste collection are part of the same operation as Lidl send delivery vehicles back to the depot loaded with recyclable waste. Deliveries and/or any waste collection will typically take place during the quietest time for the operator. Nevertheless, the store manager will manage the delivery slots, with clear instructions about delivery location and timing.

7.23 Lidl's Delivery, Servicing and Waste Management Strategy demonstrates that the store can be adequately serviced without detriment to the safety of customers or staff or to the residential amenity of the surrounding area.

7.24 Lidl are committed to developing innovative ways to effectively manage waste streams to ensure that packaging requirements are reduced, more is recycled and surplus food is redistributed to charity. Lidl work closely with packaging and waste experts to ensure that their operation is as efficient as possible.

7.25 It is anticipated that there will be two dedicated deliveries per average day and up to three deliveries during seasonal peak periods, such as Easter and Christmas. Recycling and waste will be taken away by the delivery vehicles, reducing the number of vehicles visiting the store per day.

7.26 Lidl would normally schedule delivery and servicing of the proposed store to take place outside of daytime operational hours or at times when the car park is closed to customers, or certainly when the store is less busy. However, Lidl are able to service during the day and these swept path assessments demonstrate that the store can be safely serviced even when the car park is full.

8.0 CAR PARKING

8.1 A total of 70 car parking spaces are proposed on the site. Of these, five will be designated to parent and child standard, five will be DDA compliant. To assess the suitability of the proposed parking provision on site, a parking accumulation exercise has been undertaken based upon the forecast trip generation associated with the new development. Details on the trip rates and the estimated generated traffic are presented at the following chapter.

8.2 Initial iterations were run to identify if in any instances the accumulation dropped below zero (where departure trips exceeded arrival trips) and in any instances where this occurred, the starting point for the accumulation was increased to a point where the minimum accumulation was no less than zero.

8.3 Assessments have been carried out for both a weekday and a Saturday and results are shown in **Figure 8.2** and **Figure 8.3** below.

8.4 During a weekday the peak forecast car parking demand is 43 spaces between 11:00 and 12:00. On a typical Saturday, the forecast car parking demand peaks at 57 spaces between 11:00 and 12:00. It is shown that both peaks in terms of car parking demand are below the provision of 69 spaces and therefore the demand from Lidl can easily be met by the site.

8.5 The proposed parking provision on site has been demonstrated to be sufficient to meet the forecast demand of the proposed development. Furthermore, it offers some additional headroom to service any peaks in demand over average forecast levels. It also allows for the additional demand placed on car parking due to an increase in the average length of stay arising from customers using the car park to visit both Lidl and a neighbouring retail or commercial use in the local centre within easy walking distance.

Figure 8.2: Estimated car trip generation and parking accumulation, weekday

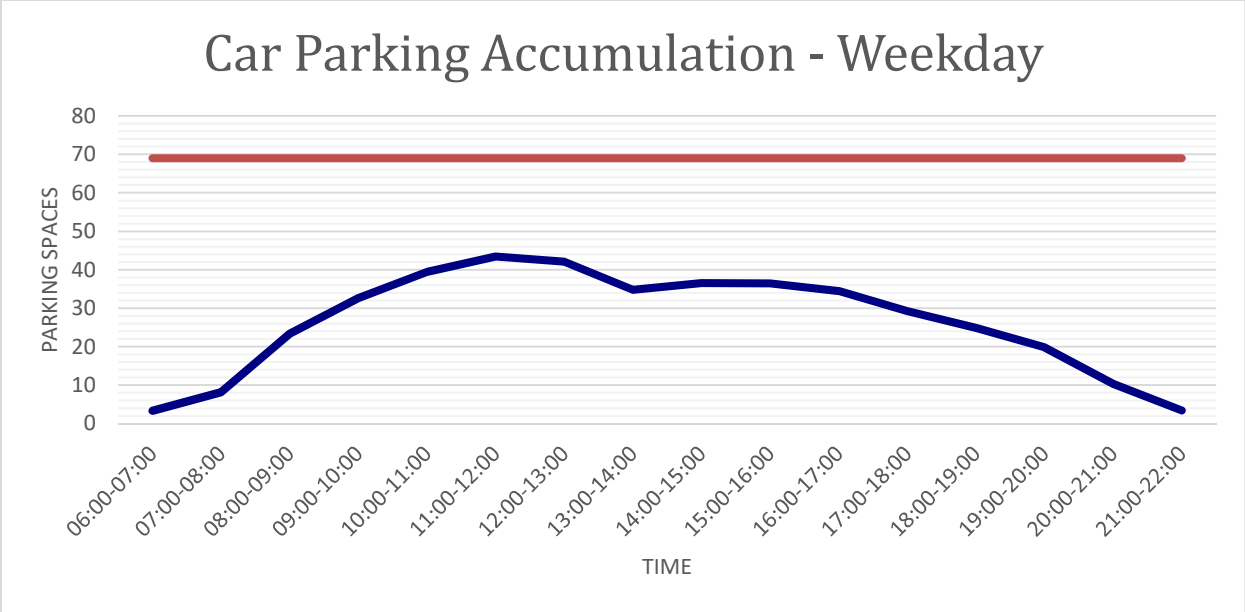
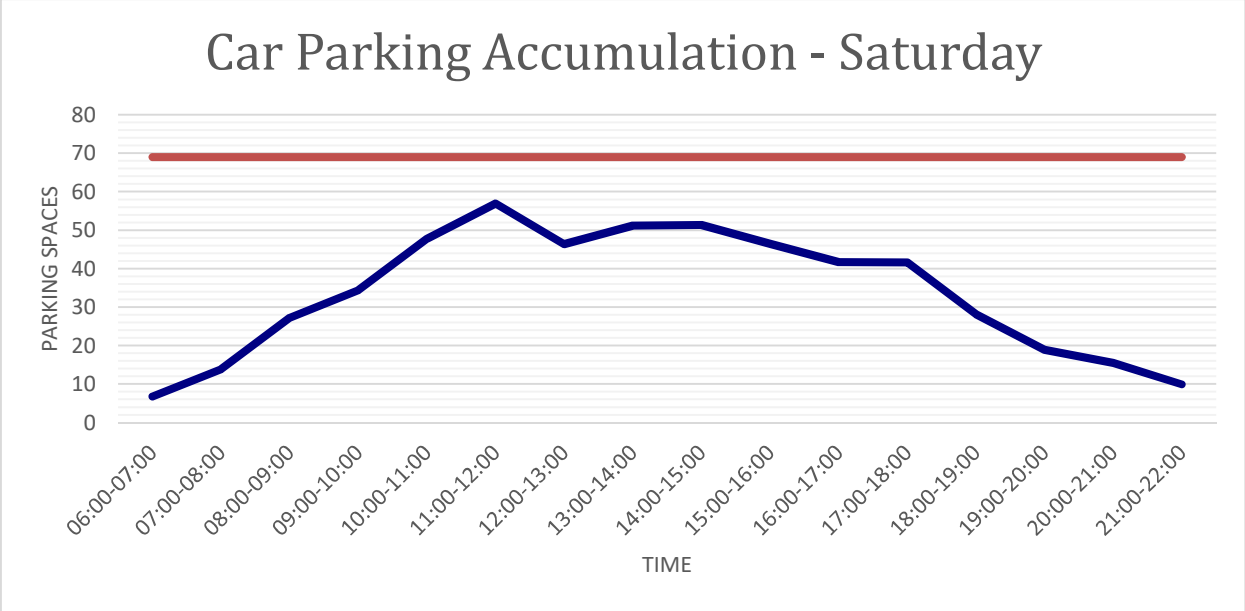


Figure 8.3: Estimated car trip generation and parking accumulation, Saturday



9.0 FUTURE BASELINE TRAFFIC CONDTIIONS

Introduction

9.1 This chapter describes the future baseline traffic conditions on the local highway network in relation to traffic growth and committed development traffic flows.

Traffic Growth

9.2 Capacity assessments have been undertaken for a horizon of 5-years post planning application. The anticipated future assessment year is therefore 2026

9.3 In order to quantify the level of background traffic growth that could occur on the local network, National Traffic Model (NTM) growth factors, modified by TEMPRO local growth factors, have been used for the Liverpool area dataset.

9.4 The growth factors used are summarised below: -

2020 – 2026

- PM Factor: 1.0795
- Saturday Factor: 1.0791

9.5 The above growth factors are applied to the 2020 survey traffic flow data to obtain the 2026 baseline traffic flows, as shown in **Traffic Flow Figure 3.**

Committed Developments

9.6 We are not aware of any committed development proposals that need to be allowed for specifically.

10.0 DEVELOPMENT RELATED TRANSPORT MOVEMENTS

10.1 This chapter provides an estimation of the likely trip-generating potential of the proposed development during the weekday PM and Saturday peak hours. The assessment is based on those peak hours when the combination of the development-related traffic and local highway peak traffic are highest, in order to present a robust, worst-case scenario. In this case, the peak hours to be assessed are 17:00 – 18:00 on a weekday and 12:00 – 13:00 on a Saturday.

10.2 The estimated distribution and assignment of development-related traffic and background traffic growth forecasts (to the assessment year of 2026) are also set out.

Proposed Food Store Trip Generation

10.3 In order to present a robust set of capacity assessments later in this TA, trip rates based on other existing Lidl stores within the TRICS database with a similar RFA have been used. The average trip rate was calculated from the TRICS outputs for a weekday and Saturday, shown in **Appendix 4.**

10.4 The table below provides the peak hour trip rates for these stores for the weekday PM and Saturday hourly peak periods. It also shows the estimated trip generation associated with the proposed discount foodstore calculated on an RFA of 1,121m².

10.5 The full TRICS outputs are summarised in **Table 10.1** below.

Table 10.1 – Weekday PM and Saturday Peak Hour Trip Rates and Trip Generation (per 100m² RFA)

Discount Food Retail Estimated Weekday PM and Saturday Peak Hour Trip Rates and Trip Generation				
Similar Lidl Stores	Weekday PM Peak		Saturday Peak	
	Arrivals	Departures	Arrivals	Departures
Vehicle Trip Rate	7.37	7.54	9.53	10.47
Vehicle Trip Generation	83	85	107	117

Trip Types

10.6 The latest research on trip types is set out within the TRICS Research Report 14/1 and supersedes TRICS Research Report 95/2. This has shown that the vast majority of trips associated with new food retail developments are not 'new' but are a 'secondary' trip as part of an existing journey. The secondary trips can be split into two types; 'linked' to other shops and 'pass-by' where trips are already on the main road past the site. The research does not specifically mention trips 'diverted' from other stores (although this may come under the linked umbrella) or 'transferred' from another store (using the new store instead of an existing foodstore). The research relating to linked trips do not differentiate between trips to other stores on the same site or trips to other stores off-site.

10.7 From established research, typical proportions of trip types are summarised in **Table 10.2.**

Table 10.2 Typical Trip Type Proportions

Typical Trip Type Proportions		
Research Source	Range of Each Trip Type (%)	
	Linked	Pass-By
Somerfield 1996	46%	
Benison et al 2000 for Tesco	40%	
Tesco 2001	49%	
Harrison et al 2012	57-67%	
Ghezani et al 2012		72%
Wrigley 2006	60%	
Alsop Verrill	20%	
MacIver 1999		15-35%

10.8 The general consensus from the research is that those stores located in Town Centres or on commuter routes will experience higher levels of pass-by and linked trips. Stores with floor areas of less than 4000m2 GFA are more likely to act as a convenience store and a convenience store is likely to experience much higher rates of pass-by traffic.

10.9 In light of this research and given the scale of the study area, the following trip type assumptions have been made:

i) New (primary) trips - It has been assumed that 40% of trips will be entirely new to the local highway network in this location.

ii) Pass-by/diverted/linked trips - These are trips that are already on the network as part of a primary trip. Given that the site is on a main route along Church Road North, the store may act as a convenience store for commuters on their way to/from work. A proportion of 60% has been assumed for this purpose.

10.10 The assessment of flows in this way is considered extremely robust as the pass-by trips are likely to make up a considerably higher proportion than 60% of all trips given the site's residential location.

Traffic Distribution and Assignment

10.11 The vehicular distribution of the development traffic has been split 50/50 at the site access, through reference to the percentage distribution of existing trips using the Co-Op access. The distribution can be seen in **Traffic Flow Figure 5**.

10.12 The 'pass-by' trip distribution has also been calculated using the same method as above and can be seen in **Traffic Flow Figure 4**.

10.13 The resultant generated traffic distributed on the local highway network from the site is indicated in **Traffic Flow Figure 8**.

10.14 Traffic flows for the future year of 2026 with Lidl are contained in **Traffic Flow Figure 10**.

11.0 ANTICIPATED HIGHWAY IMPACTS

Introduction

11.1 This Chapter describes the impact of the additional trips generated by the proposed development on the operation of the local highway network.

11.2 This TA includes assessments of the capacity of the proposed site access junction.

Assessment Methodology

11.3 Assessments have been undertaken using Junctions 9 (ARCADY & PICADY) software.

11.4 With the Junctions 9 models the results generated provide a Ratio to Flow capacity (RFC) along with an estimate of the likely traffic queues. RFC values between 0.00 and 0.85 are generally accepted as representing stable and acceptable operating conditions. Values between 0.85 and one represent variable operation (i.e. possible queues building up at the junction during the period under consideration and increases in vehicular delay moving through the junction). RFC values in excess of one represents overloaded conditions (i.e. congested conditions).

11.5 Assessments have been undertaken in the future assessment year of 2026 with and without the proposed food store.

Site Access / Church Road North

11.6 The PICADY results are presented in **Appendix 5** in ful,l with the results summarised in **Table 11.1** below.

Table 11.1 – Site Access / Church Road North

	PM				Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2021 + Development							
Stream B-C	0.1	8.57	0.10	A	0.1	7.84	0.12	A
Stream B-A	0.2	18.83	0.19	C	0.2	13.68	0.20	B
Stream C-AB	0.1	7.53	0.10	A	0.1	7.16	0.11	A
	Base 2026 + Development							
Stream B-C	0.1	8.87	0.10	A	0.1	8.00	0.13	A
Stream B-A	0.3	20.80	0.21	C	0.3	14.34	0.21	B
Stream C-AB	0.1	7.61	0.10	A	0.1	7.21	0.12	A

11.7 It can be seen above that the proposed site access junction arrangement works within capacity with a maximum RFC of 0.21 on the right turn movement out of the site access in the PM and Saturday peak periods. The maximum delay at the junction is experienced on the right turn out of the access. A delay of just over 20 seconds is forecast in the PM peak, but the RFC is just 0.21 and no queue results.

Childwall Road / Church Road North / High Street Roundabout

11.8 Due to the roundabouts unconventional design, several approaches have been used in order to estimate the likely impact of the proposed development at this location.

11.9 ARCADY has been used to test the 'roundabout as a whole'. This approach is felt to provide accurate results for both the Church Road North and Childwall Road arms. The ARCADY output can be found in **Appendix 6** and the results are summarised in **Table 11.2** below.

Table 11.2 - Childwall Road Roundabout

	PM				Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2021							
1 - Childwall Road	1.7	5.84	0.63	A	0.7	3.46	0.40	A
2 - Church Road North	1.3	5.23	0.56	A	0.5	3.15	0.32	A
3 - High Street	4.2	15.37	0.82	C	1.0	5.07	0.49	A
	Base 2026							
1 - Childwall Road	2.1	6.71	0.68	A	0.8	3.65	0.43	A
2 - Church Road North	1.5	5.91	0.61	A	0.5	3.29	0.35	A
3 - High Street	6.8	23.72	0.88	C	1.1	5.52	0.53	A
	Base 2021 + Development							
1 - Childwall Road	1.7	5.99	0.64	A	0.7	3.52	0.41	A
2 - Church Road North	1.3	5.37	0.57	A	0.5	3.22	0.34	A
3 - High Street	4.5	16.26	0.83	C	1.0	5.20	0.50	A
	Base 2026 + Development							
1 - Childwall Road	2.1	6.92	0.68	A	0.8	3.72	0.44	A
2 - Church Road North	1.6	6.09	0.62	A	0.6	3.37	0.36	A
3 - High Street	7.5	26.01	0.89	D	1.2	5.67	0.54	A

11.10 It can be seen above that both Childwall Road and Church Road North work well within capacity with the proposed development in place. While it also shows High Street to work over capacity in the future scenario with and without the proposed development, it is not felt this is a true representation of how that approach operates.

Roundabout Internal Priority Junction

11.11 As mentioned above, the use of ARCADY has not accurately represented some parts of the Childwall Road roundabout junction. The junction arrangement features a free flow for vehicles travelling eastbound from High Street. Due to this, vehicles travelling from Church Road North wishing to turn right onto Childwall Road or Lake Road must give way. **Figure 11.1** below shows the arrangement at this section of the junction.

Figure 11.1 – Roundabout Internal Junction

11.12 Due to its inclusion in the roundabout arrangement, PICADY software has been used to test this priority section in isolation. The PICADY output can be found in **Appendix 7** and the results are summarised in **Table 11.3** below.

Table 11.3 – High Street Priority Junction

	PM				Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2021							
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.5	7.59	0.34	A	0.3	6.12	0.22	A
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Base 2026							
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.6	7.95	0.37	A	0.3	6.28	0.24	A
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Base 2021 + Development							
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.5	7.68	0.35	A	0.3	6.21	0.23	A
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Base 2026 + Development							
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.6	8.05	0.38	A	0.3	6.37	0.25	A
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A

11.13 It can be seen above that the internal 'T-Junction' within the roundabout works within capacity with a maximum RFC of 0.38 on the right turn movement onto Childwall Road in the PM peak period. The maximum delay at the junction is experienced on the right turn onto High Street. A delay of just over 8 seconds is forecast in the PM peak, but the RFC is just 0.38 and a queue of one vehicle.

The above PICADY and ARCADY assessments together provide an accurate analysis of how the roundabout performs and therefore how the proposed development will impact at this location.

Summary

11.14 In summary the above assessments show that the proposed site access arrangement will operate well within capacity. The capacity assessments are extremely robust given the trip rates used for the site are based on similar Lidl stores elsewhere and that a high proportion (40%) of trips have been assessed as new to the network.

11.15 Similarly, the existing roundabout junction will not be adversely affected by the proposals. The peak hour forecasts allowing for growth in background traffic to 2026 and the addition of Lidl's trip generation as entirely new to the network, results in no impact that could be categorised as severe in the context of paragraph 109 of the NPPF.

11.16 Note also that we have not sought to net off the trips that are currently generated by the site, nor provide for just the difference between what could be generated by the site in its current form Lidl's proposals.

12.0 SUMMARY AND CONCLUSION

12.1 This Transport Assessment has been prepared on behalf of Lidl Great Britain Limited and provides a review of the transport and highway impacts related to the proposed development of a new discount food store along Church Road North, in Wavertree, Liverpool.

12.2 The proposed development comprises a discount food store (Use Class E) of 2,175sqm GIA with a sales area of 1,121sqm. A total of 70 parking spaces will be provided on site out of which four will be dedicated to disabled, five to parents with children and two will be electric charging points. Cycle provision will be available on site in the form of four cycle stands which will be located adjacent to the store entrance in a location that is sheltered and receives good surveillance. Furthermore, a loading bay will be provided on site to accommodate delivery vehicles.

12.3 The existing site is occupied by a Co-Operative foodstore. The site is bordered by Childwall Road to the north, Church Road North to the west and residential properties to the south and east. The site is situated in the area of Wavertree, approximately 5km east of Liverpool City Centre.

12.4 Following the review of the accessibility options by different modes of transport, it is considered that the site has excellent levels of accessibility. Access to the site on foot and by cycle is of a good standard, there are multiple bus stops nearby providing access to a range of local destinations and the nearby railway station has potential to transport staff and customers further afield. Moreover, the site is also well connected to the adjacent highway network allowing it to maximise the custom it attracts from existing pass-by traffic.

12.5 Servicing for the food store is via a dedicated service ramp accessed via the car park in line with the practice adopted at the vast majority of Lidl's stores across the UK. The store will be serviced up to two times a day on average (three at Christmas and Easter) by a maximum legal articulated HGV. Swept path analysis drawings provided demonstrate that a 16.5m articulated HGV can safely enter and exit the site in a forward gear.

12.6 To assess the suitability of the proposed parking provision on site, a parking accumulation exercise has been undertaken based upon the forecast trip generation associated with the new development. The proposed parking provision on site has been demonstrated to be sufficient to meet the forecast demand of the proposed development. Furthermore, it offers some additional headroom to service any peaks in demand over the average forecasts plus cater for multi-visitation to the neighbouring local centre.

12.7 The proposed access into the application site has been tested using Junctions 9 and the results have confirmed that it provides more than adequate levels of service for the forecast turning movements in and out of Lidl at peak times for both the store and the local highway network.

12.8 Off-site, the impact of the development at the neighbouring High Street/Childwall Road Roundabout junction with Church Road North has been found to be de minimis.

Conclusion

12.9 With all of the above in mind, it is concluded that the proposed development meets local and national transport policy objectives in terms of accessibility and sustainability. There is no evidence of any severe impact to the interests of the free-flow of traffic or to highway safety resulting from the proposals. We therefore consider there to be no highway reasons which could preclude the granting of planning permission.

S|C|P

APPENDIX 1

Liverpool, Merseyside
Classified Junction Count

Site 1 of 6
The Co-operative Food Site Access
Church Road (South)
Church Road (North)

Lat/Long
lat 53.397399° lon -2.915253°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 1a.1: Left from The Co-operative Food Site Access to Church Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	7	0	1	0	0	0	8	8.00
1115 - 1130	0	0	7	0	0	0	0	0	7	7.00
1130 - 1145	1	0	8	0	0	0	0	0	9	8.20
1145 - 1200	0	0	13	1	1	0	0	0	15	15.00
Hourly Total	**1**	**0**	**35**	**1**	**2**	**0**	**0**	**0**	39	38.20
Hourly Average	**0.25**	**0.00**	**8.75**	**0.25**	**0.50**	**0.00**	**0.00**	**0.00**	**9.75**	**9.55**
1200 - 1215	1	0	19	0	0	0	0	0	20	19.20
1215 - 1230	0	0	7	0	0	0	0	0	7	7.00
1230 - 1245	0	0	8	0	0	0	0	0	8	8.00
1245 - 1300	0	0	18	0	1	0	0	0	19	19.00
Hourly Total	**1**	**0**	**52**	**0**	**1**	**0**	**0**	**0**	54	53.20
Hourly Average	**0.25**	**0.00**	**13.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**13.50**	**13.30**
1300 - 1315	0	0	9	0	0	0	0	0	9	9.00
1315 - 1330	0	0	7	0	0	0	0	0	7	7.00
1330 - 1345	0	0	5	0	0	0	0	0	5	5.00
1345 - 1400	1	0	5	0	0	0	0	0	6	5.20
Hourly Total	**1**	**0**	**26**	**0**	**0**	**0**	**0**	**0**	27	26.20
Hourly Average	**0.25**	**0.00**	**6.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**6.75**	**6.55**

Session Total	**3**	**0**	**113**	**1**	**3**	**0**	**0**	**0**	120	117.60
Session Average	**0.25**	**0.00**	**9.42**	**0.08**	**0.25**	**0.00**	**0.00**	**0.00**	**10.00**	**9.80**

Liverpool, Merseyside
Classified Junction Count

Site 1 of 6
The Co-operative Food Site Access
Church Road (South)
Church Road (North)

Lat/Long
lat 53.397399° lon -2.915253°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 1a.2: Right from The Co-operative Food Site Access to Church Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	9	0	0	0	0	0	9	9.00
1115 - 1130	0	0	10	1	0	0	0	0	11	11.00
1130 - 1145	0	0	15	1	1	0	0	0	17	17.00
1145 - 1200	0	0	17	0	0	0	0	0	17	17.00
Hourly Total	**0**	**0**	**51**	**2**	**1**	**0**	**0**	**0**	54	54.00
Hourly Average	**0.00**	**0.00**	**12.75**	**0.50**	**0.25**	**0.00**	**0.00**	**0.00**	**13.50**	**13.50**
1200 - 1215	0	0	4	2	0	0	0	0	6	6.00
1215 - 1230	0	0	11	0	0	0	0	0	11	11.00
1230 - 1245	0	0	21	1	1	0	0	0	23	23.00
1245 - 1300	0	0	13	0	1	0	0	0	14	14.00
Hourly Total	**0**	**0**	**49**	**3**	**2**	**0**	**0**	**0**	54	54.00
Hourly Average	**0.00**	**0.00**	**12.25**	**0.75**	**0.50**	**0.00**	**0.00**	**0.00**	**13.50**	**13.50**
1300 - 1315	0	0	11	0	1	0	0	0	12	12.00
1315 - 1330	0	0	9	0	1	0	0	0	10	10.00
1330 - 1345	0	0	14	0	1	0	0	0	15	15.00
1345 - 1400	0	0	9	0	2	0	0	0	11	11.00
Hourly Total	**0**	**0**	**43**	**0**	**5**	**0**	**0**	**0**	48	48.00
Hourly Average	**0.00**	**0.00**	**10.75**	**0.00**	**1.25**	**0.00**	**0.00**	**0.00**	**12.00**	**12.00**

Session Total	**0**	**0**	**143**	**5**	**8**	**0**	**0**	**0**	156	156.00
Session Average	**0.00**	**0.00**	**11.92**	**0.42**	**0.67**	**0.00**	**0.00**	**0.00**	**13.00**	**13.00**

Liverpool, Merseyside
Classified Junction Count

Site 1 of 6
The Co-operative Food Site Access
Church Road (South)
Church Road (North)

Lat/Long
lat 53.397399° lon -2.915253°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 1a.3: Northbound from Church Road (South) to Church Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	99	0	8	0	0	2	109	111.00
1115 - 1130	0	0	94	1	12	0	0	1	108	109.00
1130 - 1145	1	0	89	0	7	0	0	2	99	100.20
1145 - 1200	0	0	117	6	10	0	0	3	136	139.00
Hourly Total	**1**	**0**	**399**	**7**	**37**	**0**	**0**	**8**	452	459.20
Hourly Average	**0.25**	**0.00**	**99.75**	**1.75**	**9.25**	**0.00**	**0.00**	**2.00**	113.00	114.80
1200 - 1215	1	1	99	1	9	0	0	1	112	111.60
1215 - 1230	0	1	101	0	13	0	0	2	117	118.40
1230 - 1245	1	0	98	4	8	0	0	2	113	114.20
1245 - 1300	0	0	102	2	9	0	0	3	116	119.00
Hourly Total	**2**	**2**	**400**	**7**	**39**	**0**	**0**	**8**	458	463.20
Hourly Average	**0.50**	**0.50**	**100.00**	**1.75**	**9.75**	**0.00**	**0.00**	**2.00**	114.50	115.80
1300 - 1315	0	1	92	5	5	0	0	1	104	104.40
1315 - 1330	0	0	106	3	7	0	0	2	118	120.00
1330 - 1345	1	0	95	3	6	0	0	2	107	108.20
1345 - 1400	0	1	88	4	6	0	0	2	101	102.40
Hourly Total	**1**	**2**	**381**	**15**	**24**	**0**	**0**	**7**	430	435.00
Hourly Average	**0.25**	**0.50**	**95.25**	**3.75**	**6.00**	**0.00**	**0.00**	**1.75**	107.50	108.75

Session Total	**4**	**4**	**1180**	**29**	**100**	**0**	**0**	**23**	1340	1357.40
Session Average	**0.33**	**0.33**	**98.33**	**2.42**	**8.33**	**0.00**	**0.00**	**1.92**	111.67	113.12

Liverpool, Merseyside
Classified Junction Count

Site 1 of 6
The Co-operative Food Site Access
Church Road (South)
Church Road (North)

Lat/Long
lat 53.397399° lon -2.915253°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 1a.4: Right from Church Road (South) to The Co-operative Food Site Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	4	0	0	0	0	0	4	4.00
1115 - 1130	0	0	10	0	0	0	0	0	10	10.00
1130 - 1145	0	0	10	0	0	0	0	0	10	10.00
1145 - 1200	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	**0**	**0**	**29**	**0**	**0**	**0**	**0**	**0**	29	29.00
Hourly Average	**0.00**	**0.00**	**7.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**7.25**	**7.25**
1200 - 1215	0	0	9	1	0	0	0	0	10	10.00
1215 - 1230	0	0	9	0	0	0	0	0	9	9.00
1230 - 1245	0	0	8	0	1	0	0	0	9	9.00
1245 - 1300	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	**0**	**0**	**32**	**1**	**1**	**0**	**0**	**0**	34	34.00
Hourly Average	**0.00**	**0.00**	**8.00**	**0.25**	**0.25**	**0.00**	**0.00**	**0.00**	**8.50**	**8.50**
1300 - 1315	0	0	3	0	0	0	0	0	3	3.00
1315 - 1330	0	0	3	0	0	0	0	0	3	3.00
1330 - 1345	1	0	6	0	0	0	0	0	7	6.20
1345 - 1400	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	**1**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	15	14.20
Hourly Average	**0.25**	**0.00**	**3.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.75**	**3.55**

Session Total	**1**	**0**	**75**	**1**	**1**	**0**	**0**	**0**	78	77.20
Session Average	**0.08**	**0.00**	**6.25**	**0.08**	**0.08**	**0.00**	**0.00**	**0.00**	**6.50**	**6.43**

Liverpool, Merseyside
Classified Junction Count

Site 1 of 6
The Co-operative Food Site Access
Church Road (South)
Church Road (North)

Lat/Long
lat 53.397399° lon -2.915253°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 1a.5: Left from Church Road (North) to The Co-operative Food Site Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	16	0	0	0	0	0	16	16.00
1115 - 1130	0	0	14	0	1	0	0	0	15	15.00
1130 - 1145	0	0	19	1	0	0	0	0	20	20.00
1145 - 1200	0	0	15	1	2	0	0	0	18	18.00
Hourly Total	**0**	**0**	**64**	**2**	**3**	**0**	**0**	**0**	69	69.00
Hourly Average	**0.00**	**0.00**	**16.00**	**0.50**	**0.75**	**0.00**	**0.00**	**0.00**	**17.25**	**17.25**
1200 - 1215	0	0	8	0	0	0	0	0	8	8.00
1215 - 1230	0	0	20	0	2	0	0	0	22	22.00
1230 - 1245	0	0	14	1	0	0	0	0	15	15.00
1245 - 1300	0	0	18	1	0	0	0	0	19	19.00
Hourly Total	**0**	**0**	**60**	**2**	**2**	**0**	**0**	**0**	64	64.00
Hourly Average	**0.00**	**0.00**	**15.00**	**0.50**	**0.50**	**0.00**	**0.00**	**0.00**	**16.00**	**16.00**
1300 - 1315	0	0	14	1	1	0	0	0	16	16.00
1315 - 1330	0	0	10	0	0	0	0	0	10	10.00
1330 - 1345	0	0	12	0	1	0	0	0	13	13.00
1345 - 1400	0	0	12	1	2	0	0	0	15	15.00
Hourly Total	**0**	**0**	**48**	**2**	**4**	**0**	**0**	**0**	54	54.00
Hourly Average	**0.00**	**0.00**	**12.00**	**0.50**	**1.00**	**0.00**	**0.00**	**0.00**	**13.50**	**13.50**

Session Total	**0**	**0**	**172**	**6**	**9**	**0**	**0**	**0**	187	187.00
Session Average	**0.00**	**0.00**	**14.33**	**0.50**	**0.75**	**0.00**	**0.00**	**0.00**	**15.58**	**15.58**

Liverpool, Merseyside
Classified Junction Count

Site 1 of 6
The Co-operative Food Site Access
Church Road (South)
Church Road (North)

Lat/Long
lat 53.397399° lon -2.915253°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 1a.6: Southbound from Church Road (North) to Church Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	77	0	16	0	0	1	94	95.00
1115 - 1130	0	0	82	2	9	0	0	2	95	97.00
1130 - 1145	0	0	92	0	8	1	0	2	103	105.50
1145 - 1200	0	0	75	0	5	0	0	3	83	86.00
Hourly Total	**0**	**0**	**326**	**2**	**38**	**1**	**0**	**8**	375	383.50
Hourly Average	**0.00**	**0.00**	**81.50**	**0.50**	**9.50**	**0.25**	**0.00**	**2.00**	93.75	95.88
1200 - 1215	2	0	109	1	8	0	0	0	120	118.40
1215 - 1230	0	0	80	2	7	0	0	3	92	95.00
1230 - 1245	2	0	98	2	7	1	0	2	112	112.90
1245 - 1300	0	0	99	0	11	0	0	3	113	116.00
Hourly Total	**4**	**0**	**386**	**5**	**33**	**1**	**0**	**8**	437	442.30
Hourly Average	**1.00**	**0.00**	**96.50**	**1.25**	**8.25**	**0.25**	**0.00**	**2.00**	109.25	110.58
1300 - 1315	0	1	96	1	7	0	0	1	106	106.40
1315 - 1330	0	0	85	3	8	0	0	2	98	100.00
1330 - 1345	0	1	102	1	4	0	0	2	110	111.40
1345 - 1400	1	0	105	2	11	0	0	2	121	122.20
Hourly Total	**1**	**2**	**388**	**7**	**30**	**0**	**0**	**7**	435	440.00
Hourly Average	**0.25**	**0.50**	**97.00**	**1.75**	**7.50**	**0.00**	**0.00**	**1.75**	108.75	110.00

Session Total	**5**	**2**	**1100**	**14**	**101**	**2**	**0**	**23**	1247	1265.80
Session Average	**0.42**	**0.17**	**91.67**	**1.17**	**8.42**	**0.17**	**0.00**	**1.92**	103.92	105.48

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.1: Left from Greenside Avenue to Lake Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	0	0	1	0	0	0	1	1.00
1115 - 1130	0	0	1	0	0	0	0	0	1	1.00
1130 - 1145	0	0	1	0	0	0	0	0	1	1.00
1145 - 1200	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**0**	**4**	**4.00**
Hourly Average	**0.00**	**0.00**	**0.75**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**1.00**	**1.00**
1200 - 1215	0	0	1	0	0	0	0	0	1	1.00
1215 - 1230	0	0	1	0	0	0	0	0	1	1.00
1230 - 1245	0	0	1	0	0	0	0	0	1	1.00
1245 - 1300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**3.00**
Hourly Average	**0.00**	**0.00**	**0.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.75**	**0.75**
1300 - 1315	0	0	0	0	0	0	0	0	0	0.00
1315 - 1330	0	0	1	0	0	0	0	0	1	1.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**1.00**
Hourly Average	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**0.25**

Session Total	**0**	**0**	**7**	**0**	**1**	**0**	**0**	**0**	**8**	**8.00**
Session Average	**0.00**	**0.00**	**0.58**	**0.00**	**0.08**	**0.00**	**0.00**	**0.00**	**0.67**	**0.67**

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.2: Left from Greenside Avenue to B5178 Childwall Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	0	0	0	0	0	0	0	0.00
1115 - 1130	0	0	0	0	0	0	0	0	0	0.00
1130 - 1145	0	0	0	0	0	0	0	0	0	0.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
1200 - 1215	0	0	2	0	0	0	0	0	2	2.00
1215 - 1230	0	0	1	0	0	0	0	0	1	1.00
1230 - 1245	0	0	0	0	0	0	0	0	0	0.00
1245 - 1300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	3	3.00
Hourly Average	**0.00**	**0.00**	**0.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.75**	**0.75**
1300 - 1315	0	0	1	0	0	0	0	0	1	1.00
1315 - 1330	0	0	1	0	1	0	0	0	2	2.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	3	3.00
Hourly Average	**0.00**	**0.00**	**0.50**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.75**	**0.75**

Session Total	**0**	**0**	**5**	**0**	**1**	**0**	**0**	**0**	6	6.00
Session Average	**0.00**	**0.00**	**0.42**	**0.00**	**0.08**	**0.00**	**0.00**	**0.00**	**0.50**	**0.50**

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.3: Southbound from Greenside Avenue to Church Road North								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	0	0	0	0	0	0	0	0.00
1115 - 1130	0	0	0	0	0	0	0	0	0	0.00
1130 - 1145	0	0	0	0	0	0	0	0	0	0.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
1200 - 1215	1	0	1	0	0	0	0	0	2	1.20
1215 - 1230	0	0	0	0	0	0	0	0	0	0.00
1230 - 1245	0	0	2	0	0	0	0	0	2	2.00
1245 - 1300	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	**1**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**5**	**4.20**
Hourly Average	**0.25**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.25**	**1.05**
1300 - 1315	0	0	1	0	0	0	0	0	1	1.00
1315 - 1330	0	0	0	0	0	0	0	0	0	0.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**1.00**
Hourly Average	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**0.25**

Session Total	**1**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**6**	**5.20**
Session Average	**0.08**	**0.00**	**0.42**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.50**	**0.43**

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.4: Right from Greenside Avenue to B5178 High Street								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	0	0	0	0	0	0	0	0.00
1115 - 1130	0	0	0	0	0	0	0	0	0	0.00
1130 - 1145	0	0	1	0	0	0	0	0	1	1.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	1	1.00
Hourly Average	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	0.25	0.25
1200 - 1215	0	0	0	0	0	0	0	0	0	0.00
1215 - 1230	0	0	0	0	0	0	0	0	0	0.00
1230 - 1245	0	0	1	0	0	0	0	0	1	1.00
1245 - 1300	0	0	0	0	1	0	0	0	1	1.00
Hourly Total	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	2	2.00
Hourly Average	**0.00**	**0.00**	**0.25**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	0.50	0.50
1300 - 1315	0	0	0	1	0	0	0	0	1	1.00
1315 - 1330	0	0	0	0	0	0	0	0	0	0.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	2	2.00
Hourly Average	**0.00**	**0.00**	**0.25**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	0.50	0.50

Session Total	**0**	**0**	**3**	**1**	**1**	**0**	**0**	**0**	5	5.00
Session Average	**0.00**	**0.00**	**0.25**	**0.08**	**0.08**	**0.00**	**0.00**	**0.00**	0.42	0.42

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.5: U-Turn from Greenside Avenue to Greenside Avenue								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	0	0	0	0	0	0	0	0.00
1115 - 1130	0	0	0	0	0	0	0	0	0	0.00
1130 - 1145	0	0	0	0	0	0	0	0	0	0.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
1200 - 1215	0	0	0	0	0	0	0	0	0	0.00
1215 - 1230	0	0	0	0	0	0	0	0	0	0.00
1230 - 1245	0	0	0	0	0	0	0	0	0	0.00
1245 - 1300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
1300 - 1315	0	0	0	0	0	0	0	0	0	0.00
1315 - 1330	0	0	0	0	0	0	0	0	0	0.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Session Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Session Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.6: Left from B5178 Childwall Road to Church Road North								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	53	0	10	0	0	1	64	65.00
1115 - 1130	0	0	55	1	4	0	0	1	61	62.00
1130 - 1145	0	0	65	1	5	0	0	2	73	75.00
1145 - 1200	0	0	56	1	2	0	0	2	61	63.00
Hourly Total	**0**	**0**	**229**	**3**	**21**	**0**	**0**	**6**	259	265.00
Hourly Average	**0.00**	**0.00**	**57.25**	**0.75**	**5.25**	**0.00**	**0.00**	**1.50**	64.75	66.25
1200 - 1215	1	0	66	0	5	0	0	1	73	73.20
1215 - 1230	0	0	66	2	3	0	0	1	72	73.00
1230 - 1245	2	0	60	1	6	1	0	2	72	72.90
1245 - 1300	0	0	70	1	4	0	0	2	77	79.00
Hourly Total	**3**	**0**	**262**	**4**	**18**	**1**	**0**	**6**	294	298.10
Hourly Average	**0.75**	**0.00**	**65.50**	**1.00**	**4.50**	**0.25**	**0.00**	**1.50**	73.50	74.53
1300 - 1315	0	1	66	1	8	0	0	1	77	77.40
1315 - 1330	0	1	55	2	5	0	0	1	64	64.40
1330 - 1345	0	0	67	0	3	0	0	2	72	74.00
1345 - 1400	1	0	71	0	7	0	0	1	80	80.20
Hourly Total	**1**	**2**	**259**	**3**	**23**	**0**	**0**	**5**	293	296.00
Hourly Average	**0.25**	**0.50**	**64.75**	**0.75**	**5.75**	**0.00**	**0.00**	**1.25**	73.25	74.00

Session Total	**4**	**2**	**750**	**10**	**62**	**1**	**0**	**17**	846	859.10
Session Average	**0.33**	**0.17**	**62.50**	**0.83**	**5.17**	**0.08**	**0.00**	**1.42**	70.50	71.59

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.7: Westbound from B5178 Childwall Road to B5178 High Street								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	67	1	11	0	0	3	82	85.00
1115 - 1130	0	1	47	1	7	0	0	3	59	61.40
1130 - 1145	0	0	70	1	8	0	0	3	82	85.00
1145 - 1200	1	1	62	0	5	0	0	2	71	71.60
Hourly Total	**1**	**2**	**246**	**3**	**31**	**0**	**0**	**11**	**294**	**303.00**
Hourly Average	**0.25**	**0.50**	**61.50**	**0.75**	**7.75**	**0.00**	**0.00**	**2.75**	**73.50**	**75.75**
1200 - 1215	0	2	69	0	4	0	0	2	77	77.80
1215 - 1230	0	2	57	2	5	0	0	4	70	72.80
1230 - 1245	1	0	71	2	10	0	0	2	86	87.20
1245 - 1300	0	0	69	0	10	0	0	3	82	85.00
Hourly Total	**1**	**4**	**266**	**4**	**29**	**0**	**0**	**11**	**315**	**322.80**
Hourly Average	**0.25**	**1.00**	**66.50**	**1.00**	**7.25**	**0.00**	**0.00**	**2.75**	**78.75**	**80.70**
1300 - 1315	0	0	41	1	7	0	0	2	51	53.00
1315 - 1330	0	0	64	3	2	0	0	3	72	75.00
1330 - 1345	0	0	62	2	12	0	0	2	78	80.00
1345 - 1400	0	0	72	1	1	0	0	4	78	82.00
Hourly Total	**0**	**0**	**239**	**7**	**22**	**0**	**0**	**11**	**279**	**290.00**
Hourly Average	**0.00**	**0.00**	**59.75**	**1.75**	**5.50**	**0.00**	**0.00**	**2.75**	**69.75**	**72.50**

Session Total	**2**	**6**	**751**	**14**	**82**	**0**	**0**	**33**	**888**	**915.80**
Session Average	**0.17**	**0.50**	**62.58**	**1.17**	**6.83**	**0.00**	**0.00**	**2.75**	**74.00**	**76.32**

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.8: Right from B5178 Childwall Road to Greenside Avenue								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	1	0	0	0	0	0	1	1.00
1115 - 1130	0	0	0	0	0	0	0	0	0	0.00
1130 - 1145	0	0	1	0	0	0	0	0	1	1.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**2.00**
Hourly Average	**0.00**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.50**	**0.50**
1200 - 1215	0	0	0	0	0	0	0	0	0	0.00
1215 - 1230	0	0	1	0	0	0	0	0	1	1.00
1230 - 1245	0	0	1	0	0	0	0	0	1	1.00
1245 - 1300	0	0	3	0	1	0	0	0	4	4.00
Hourly Total	**0**	**0**	**5**	**0**	**1**	**0**	**0**	**0**	**6**	**6.00**
Hourly Average	**0.00**	**0.00**	**1.25**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**1.50**	**1.50**
1300 - 1315	0	0	3	0	0	0	0	0	3	3.00
1315 - 1330	0	0	1	0	0	0	0	0	1	1.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	0	0	1	0	0	0	1	1.00
Hourly Total	**0**	**0**	**4**	**0**	**1**	**0**	**0**	**0**	**5**	**5.00**
Hourly Average	**0.00**	**0.00**	**1.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**1.25**	**1.25**

Session Total	**0**	**0**	**11**	**0**	**2**	**0**	**0**	**0**	**13**	**13.00**
Session Average	**0.00**	**0.00**	**0.92**	**0.00**	**0.17**	**0.00**	**0.00**	**0.00**	**1.08**	**1.08**

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.9: Right from B5178 Childwall Road to Lake Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	2	0	0	0	0	0	2	2.00
1115 - 1130	0	0	1	0	0	0	0	0	1	1.00
1130 - 1145	0	0	1	0	0	0	0	0	1	1.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	4	4.00
Hourly Average	**0.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.00	1.00
1200 - 1215	0	0	0	0	0	0	0	0	0	0.00
1215 - 1230	0	0	2	0	0	0	0	0	2	2.00
1230 - 1245	0	0	1	0	0	0	0	0	1	1.00
1245 - 1300	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	6	6.00
Hourly Average	**0.00**	**0.00**	**1.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	1.50	1.50
1300 - 1315	0	0	1	0	0	0	0	0	1	1.00
1315 - 1330	0	0	3	0	2	0	0	0	5	5.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	**0**	**0**	**6**	**0**	**2**	**0**	**0**	**0**	8	8.00
Hourly Average	**0.00**	**0.00**	**1.50**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	2.00	2.00

Session Total	**0**	**0**	**16**	**0**	**2**	**0**	**0**	**0**	18	18.00
Session Average	**0.00**	**0.00**	**1.33**	**0.00**	**0.17**	**0.00**	**0.00**	**0.00**	1.50	1.50

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
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Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.10: U-Turn from B5178 Childwall Road to B5178 Childwall Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	1	0	0	0	0	0	1	1.00
1115 - 1130	0	0	0	0	0	0	0	0	0	0.00
1130 - 1145	0	0	0	0	0	0	0	0	0	0.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	1	1.00
Hourly Average	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**0.25**
1200 - 1215	0	0	0	0	0	0	0	0	0	0.00
1215 - 1230	0	0	0	0	0	0	0	0	0	0.00
1230 - 1245	0	0	0	0	0	0	0	0	0	0.00
1245 - 1300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.00
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
1300 - 1315	0	0	0	0	0	0	0	0	0	0.00
1315 - 1330	0	0	1	0	0	0	0	0	1	1.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	1	1.00
Hourly Average	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**0.25**

Session Total	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	2	2.00
Session Average	**0.00**	**0.00**	**0.17**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.17**	**0.17**

Liverpool, Merseyside
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Site 4 of 6
Greenside Avenue
Lake Road
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Church Road North
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Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.11: Left from Church Road North to B5178 High Street								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	53	1	7	0	0	0	61	61.00
1115 - 1130	0	0	40	1	2	0	0	1	44	45.00
1130 - 1145	1	0	38	3	1	0	0	0	43	42.20
1145 - 1200	0	0	56	1	3	0	0	1	61	62.00
Hourly Total	**1**	**0**	**187**	**6**	**13**	**0**	**0**	**2**	209	210.20
Hourly Average	**0.25**	**0.00**	**46.75**	**1.50**	**3.25**	**0.00**	**0.00**	**0.50**	52.25	52.55
1200 - 1215	0	0	41	2	3	0	0	0	46	46.00
1215 - 1230	0	0	37	0	8	0	0	1	46	47.00
1230 - 1245	0	0	45	1	7	0	0	1	54	55.00
1245 - 1300	0	0	42	2	3	0	0	1	48	49.00
Hourly Total	**0**	**0**	**165**	**5**	**21**	**0**	**0**	**3**	194	197.00
Hourly Average	**0.00**	**0.00**	**41.25**	**1.25**	**5.25**	**0.00**	**0.00**	**0.75**	48.50	49.25
1300 - 1315	0	0	31	2	3	0	0	0	36	36.00
1315 - 1330	0	0	40	3	1	0	0	1	45	46.00
1330 - 1345	0	0	38	2	2	0	0	0	42	42.00
1345 - 1400	0	1	33	2	2	0	0	1	39	39.40
Hourly Total	**0**	**1**	**142**	**9**	**8**	**0**	**0**	**2**	162	163.40
Hourly Average	**0.00**	**0.25**	**35.50**	**2.25**	**2.00**	**0.00**	**0.00**	**0.50**	40.50	40.85

Session Total	**1**	**1**	**494**	**20**	**42**	**0**	**0**	**7**	565	570.60
Session Average	**0.08**	**0.08**	**41.17**	**1.67**	**3.50**	**0.00**	**0.00**	**0.58**	47.08	47.55

Liverpool, Merseyside
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Site 4 of 6
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Sunny Intervals
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1100 - 1400 (Saturday INT Peak)

	Movement 2a.12: Northbound from Church Road North to Greenside Avenue								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	0	0	0	0	0	0	0	0.00
1115 - 1130	0	0	0	0	0	0	0	0	0	0.00
1130 - 1145	0	0	0	0	0	0	0	0	0	0.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
1200 - 1215	0	0	1	0	0	0	0	0	1	1.00
1215 - 1230	0	0	1	0	0	0	0	0	1	1.00
1230 - 1245	0	0	0	0	0	0	0	0	0	0.00
1245 - 1300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**2.00**
Hourly Average	**0.00**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.50**	**0.50**
1300 - 1315	0	0	0	0	0	0	0	0	0	0.00
1315 - 1330	0	0	0	0	0	0	0	0	0	0.00
1330 - 1345	0	0	1	0	0	0	0	0	1	1.00
1345 - 1400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**1.00**
Hourly Average	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**0.25**

Session Total	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**3.00**
Session Average	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**0.25**

Liverpool, Merseyside
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Site 4 of 6
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Sunny Intervals
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1100 - 1400 (Saturday INT Peak)

	Movement 2a.13: Right from Church Road North to Lake Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	31	0	0	0	0	1	32	33.00
1115 - 1130	0	0	30	0	3	0	0	0	33	33.00
1130 - 1145	0	0	38	0	7	0	0	1	46	47.00
1145 - 1200	0	0	44	0	6	0	0	1	51	52.00
Hourly Total	**0**	**0**	**143**	**0**	**16**	**0**	**0**	**3**	162	165.00
Hourly Average	**0.00**	**0.00**	**35.75**	**0.00**	**4.00**	**0.00**	**0.00**	**0.75**	**40.50**	**41.25**
1200 - 1215	0	0	31	0	7	0	0	1	39	40.00
1215 - 1230	0	1	44	0	2	0	0	0	47	46.40
1230 - 1245	0	0	40	1	1	0	0	1	43	44.00
1245 - 1300	0	0	43	0	4	0	0	1	48	49.00
Hourly Total	**0**	**1**	**158**	**1**	**14**	**0**	**0**	**3**	177	179.40
Hourly Average	**0.00**	**0.25**	**39.50**	**0.25**	**3.50**	**0.00**	**0.00**	**0.75**	**44.25**	**44.85**
1300 - 1315	0	0	42	1	3	0	0	1	47	48.00
1315 - 1330	0	0	44	0	1	0	0	0	45	45.00
1330 - 1345	1	0	46	0	4	0	0	1	52	52.20
1345 - 1400	0	0	35	0	4	0	0	1	40	41.00
Hourly Total	**1**	**0**	**167**	**1**	**12**	**0**	**0**	**3**	184	186.20
Hourly Average	**0.25**	**0.00**	**41.75**	**0.25**	**3.00**	**0.00**	**0.00**	**0.75**	**46.00**	**46.55**

Session Total	**1**	**1**	**468**	**2**	**42**	**0**	**0**	**9**	523	530.60
Session Average	**0.08**	**0.08**	**39.00**	**0.17**	**3.50**	**0.00**	**0.00**	**0.75**	**43.58**	**44.22**

Liverpool, Merseyside
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Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.14: Right from Church Road North to B5178 Childwall Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	24	1	1	0	0	1	27	28.00
1115 - 1130	0	0	30	0	6	0	0	0	36	36.00
1130 - 1145	0	0	27	1	1	0	0	1	30	31.00
1145 - 1200	0	0	36	1	1	0	0	1	39	40.00
Hourly Total	**0**	**0**	**117**	**3**	**9**	**0**	**0**	**3**	132	135.00
Hourly Average	**0.00**	**0.00**	**29.25**	**0.75**	**2.25**	**0.00**	**0.00**	**0.75**	**33.00**	**33.75**
1200 - 1215	1	1	28	1	2	0	0	0	33	31.60
1215 - 1230	0	0	30	1	1	0	0	0	32	32.00
1230 - 1245	1	0	42	2	2	0	0	1	48	48.20
1245 - 1300	0	0	29	0	2	0	0	1	32	33.00
Hourly Total	**2**	**1**	**129**	**4**	**7**	**0**	**0**	**2**	145	144.80
Hourly Average	**0.50**	**0.25**	**32.25**	**1.00**	**1.75**	**0.00**	**0.00**	**0.50**	**36.25**	**36.20**
1300 - 1315	0	1	32	2	1	0	0	0	36	35.40
1315 - 1330	0	0	30	1	6	0	0	1	38	39.00
1330 - 1345	0	0	30	1	0	0	0	1	32	33.00
1345 - 1400	0	0	25	1	2	0	0	0	28	28.00
Hourly Total	**0**	**1**	**117**	**5**	**9**	**0**	**0**	**2**	134	135.40
Hourly Average	**0.00**	**0.25**	**29.25**	**1.25**	**2.25**	**0.00**	**0.00**	**0.50**	**33.50**	**33.85**

Session Total	**2**	**2**	**363**	**12**	**25**	**0**	**0**	**7**	411	415.20
Session Average	**0.17**	**0.17**	**30.25**	**1.00**	**2.08**	**0.00**	**0.00**	**0.58**	**34.25**	**34.60**

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.15: U-Turn from Church Road North to Church Road North								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	0	0	0	0	0	0	0	0.00
1115 - 1130	0	0	3	0	0	0	0	0	3	3.00
1130 - 1145	0	0	0	0	0	0	0	0	0	0.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	3	3.00
Hourly Average	**0.00**	**0.00**	**0.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.75**	**0.75**
1200 - 1215	0	0	1	0	0	0	0	0	1	1.00
1215 - 1230	0	0	2	0	0	0	0	0	2	2.00
1230 - 1245	0	0	1	0	0	0	0	0	1	1.00
1245 - 1300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	4	4.00
Hourly Average	**0.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**1.00**
1300 - 1315	0	0	0	0	0	0	0	0	0	0.00
1315 - 1330	0	0	0	0	0	0	0	0	0	0.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.00
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Session Total	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	7	7.00
Session Average	**0.00**	**0.00**	**0.58**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.58**	**0.58**

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
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Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.16: Left from B5178 High Street to Greenside Avenue								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	0	0	0	0	0	0	0	0.00
1115 - 1130	0	0	0	0	0	0	0	0	0	0.00
1130 - 1145	0	0	0	0	0	0	0	0	0	0.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
1200 - 1215	0	0	0	0	0	0	0	0	0	0.00
1215 - 1230	0	0	0	0	0	0	0	0	0	0.00
1230 - 1245	0	0	0	0	0	0	0	0	0	0.00
1245 - 1300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
1300 - 1315	0	0	0	0	0	0	0	0	0	0.00
1315 - 1330	0	0	0	0	0	0	0	0	0	0.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Session Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Session Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.17: Left from B5178 High Street to Lake Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	16	0	2	0	0	1	19	20.00
1115 - 1130	0	0	17	0	2	0	0	1	20	21.00
1130 - 1145	0	0	14	0	0	0	0	0	14	14.00
1145 - 1200	0	0	16	0	0	0	0	0	16	16.00
Hourly Total	**0**	**0**	**63**	**0**	**4**	**0**	**0**	**2**	69	71.00
Hourly Average	**0.00**	**0.00**	**15.75**	**0.00**	**1.00**	**0.00**	**0.00**	**0.50**	17.25	17.75
1200 - 1215	0	0	22	0	1	0	0	1	24	25.00
1215 - 1230	0	0	14	1	5	1	0	0	21	21.50
1230 - 1245	0	0	25	1	4	0	0	1	31	32.00
1245 - 1300	1	1	21	1	2	0	0	0	26	24.60
Hourly Total	**1**	**1**	**82**	**3**	**12**	**1**	**0**	**2**	102	103.10
Hourly Average	**0.25**	**0.25**	**20.50**	**0.75**	**3.00**	**0.25**	**0.00**	**0.50**	25.50	25.78
1300 - 1315	1	0	14	1	6	0	0	1	23	23.20
1315 - 1330	0	0	17	0	1	0	0	0	18	18.00
1330 - 1345	0	0	16	1	3	0	0	1	21	22.00
1345 - 1400	0	0	14	0	3	0	0	0	17	17.00
Hourly Total	**1**	**0**	**61**	**2**	**13**	**0**	**0**	**2**	79	80.20
Hourly Average	**0.25**	**0.00**	**15.25**	**0.50**	**3.25**	**0.00**	**0.00**	**0.50**	19.75	20.05

Session Total	**2**	**1**	**206**	**5**	**29**	**1**	**0**	**6**	250	254.30
Session Average	**0.17**	**0.08**	**17.17**	**0.42**	**2.42**	**0.08**	**0.00**	**0.50**	20.83	21.19

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
Lake Road
B5178 Childwall Road
Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.18: Eastbound from B5178 High Street to B5178 Childwall Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	47	0	9	0	0	3	59	62.00
1115 - 1130	0	1	45	0	12	0	0	3	61	63.40
1130 - 1145	0	1	47	0	7	1	0	1	57	57.90
1145 - 1200	1	2	52	0	7	0	0	3	65	66.00
Hourly Total	**1**	**4**	**191**	**0**	**35**	**1**	**0**	**10**	**242**	**249.30**
Hourly Average	**0.25**	**1.00**	**47.75**	**0.00**	**8.75**	**0.25**	**0.00**	**2.50**	**60.50**	**62.33**
1200 - 1215	0	1	61	0	8	0	0	1	71	71.40
1215 - 1230	0	2	59	1	10	1	0	2	75	76.30
1230 - 1245	2	3	50	0	4	0	1	3	63	63.90
1245 - 1300	0	0	87	0	5	0	0	3	95	98.00
Hourly Total	**2**	**6**	**257**	**1**	**27**	**1**	**1**	**9**	**304**	**309.60**
Hourly Average	**0.50**	**1.50**	**64.25**	**0.25**	**6.75**	**0.25**	**0.25**	**2.25**	**76.00**	**77.40**
1300 - 1315	0	0	50	1	3	0	0	2	56	58.00
1315 - 1330	1	1	63	1	3	1	0	2	72	73.10
1330 - 1345	0	1	49	0	4	0	0	2	56	57.40
1345 - 1400	0	0	63	1	2	0	0	1	67	68.00
Hourly Total	**1**	**2**	**225**	**3**	**12**	**1**	**0**	**7**	**251**	**256.50**
Hourly Average	**0.25**	**0.50**	**56.25**	**0.75**	**3.00**	**0.25**	**0.00**	**1.75**	**62.75**	**64.13**

Session Total	**4**	**12**	**673**	**4**	**74**	**3**	**1**	**26**	**797**	**815.40**
Session Average	**0.33**	**1.00**	**56.08**	**0.33**	**6.17**	**0.25**	**0.08**	**2.17**	**66.42**	**67.95**

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
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Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.19: Right from B5178 High Street to Church Road North								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	38	0	7	0	0	0	45	45.00
1115 - 1130	0	0	36	1	6	0	0	1	44	45.00
1130 - 1145	0	0	48	0	3	1	0	0	52	52.50
1145 - 1200	0	0	37	0	4	0	0	1	42	43.00
Hourly Total	**0**	**0**	**159**	**1**	**20**	**1**	**0**	**2**	183	185.50
Hourly Average	**0.00**	**0.00**	**39.75**	**0.25**	**5.00**	**0.25**	**0.00**	**0.50**	45.75	46.38
1200 - 1215	0	0	55	1	4	0	0	0	60	60.00
1215 - 1230	0	0	30	1	6	0	0	1	38	39.00
1230 - 1245	0	0	42	1	3	0	0	0	46	46.00
1245 - 1300	0	0	48	0	4	0	0	1	53	54.00
Hourly Total	**0**	**0**	**175**	**3**	**17**	**0**	**0**	**2**	197	199.00
Hourly Average	**0.00**	**0.00**	**43.75**	**0.75**	**4.25**	**0.00**	**0.00**	**0.50**	49.25	49.75
1300 - 1315	0	0	43	1	1	0	0	0	45	45.00
1315 - 1330	0	0	40	2	2	0	0	1	45	46.00
1330 - 1345	0	0	40	1	2	0	0	0	43	43.00
1345 - 1400	0	0	51	2	6	0	0	1	60	61.00
Hourly Total	**0**	**0**	**174**	**6**	**11**	**0**	**0**	**2**	193	195.00
Hourly Average	**0.00**	**0.00**	**43.50**	**1.50**	**2.75**	**0.00**	**0.00**	**0.50**	48.25	48.75

Session Total	**0**	**0**	**508**	**10**	**48**	**1**	**0**	**6**	573	579.50
Session Average	**0.00**	**0.00**	**42.33**	**0.83**	**4.00**	**0.08**	**0.00**	**0.50**	47.75	48.29

Liverpool, Merseyside
Classified Junction Count

Site 4 of 6
Greenside Avenue
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Church Road North
B5178 High Street

Lat/Long
lat 53.398069° lon -2.915621°

Date
Saturday 21 March 2020

Weather
Sunny Intervals
Temp: 9°C

1100 - 1400 (Saturday INT Peak)

	Movement 2a.20: U-Turn from B5178 High Street to B5178 High Street								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1100 - 1115	0	0	0	0	0	0	0	0	0	0.00
1115 - 1130	0	0	0	0	0	0	0	0	0	0.00
1130 - 1145	0	0	0	0	0	0	0	0	0	0.00
1145 - 1200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
1200 - 1215	0	0	0	0	0	0	0	0	0	0.00
1215 - 1230	0	0	0	0	0	0	0	0	0	0.00
1230 - 1245	0	0	0	0	1	0	0	0	1	1.00
1245 - 1300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.25**	**0.25**
1300 - 1315	0	0	0	0	0	0	0	0	0	0.00
1315 - 1330	0	0	0	0	0	0	0	0	0	0.00
1330 - 1345	0	0	0	0	0	0	0	0	0	0.00
1345 - 1400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**
Hourly Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Session Total	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1.00**
Session Average	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.00**	**0.00**	**0.00**	**0.08**	**0.08**

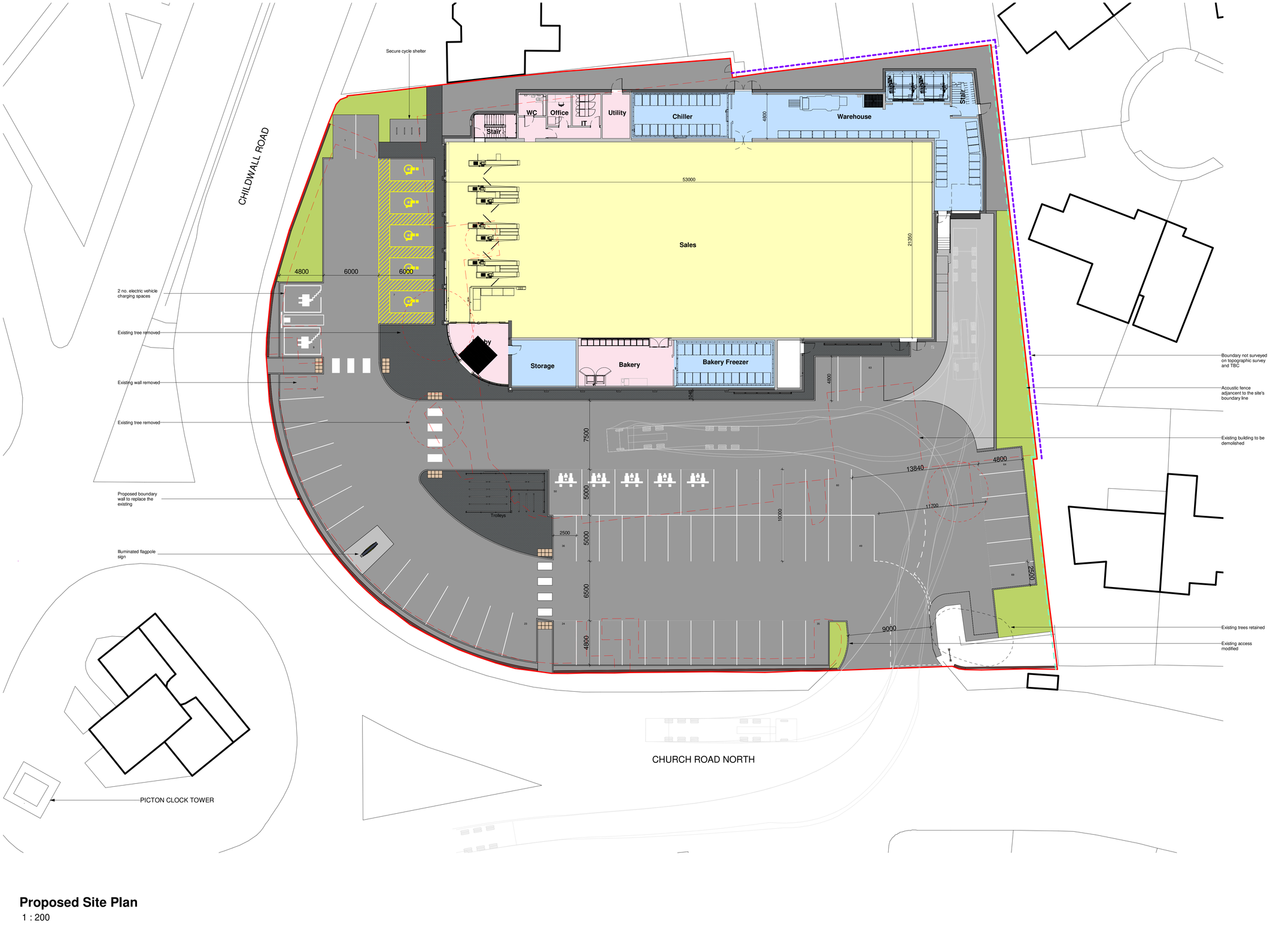
S|C|P

APPENDIX 2

Revision	Author	Checker	Date
P11	BS	DWW	27.10.20

Lidl Wavertree

Total Site Area	5,080m²	(0.51 ha)
GF GIA	1654m²	
FF GIA	326m²	
Total GIA	1980m²	
Sales Area	1121m²	
GF Warehouse	361m²	
FF Warehouse	244m²	
GF Ancillary	172m²	
FF Ancillary	82m²	
Aisles	5	
CAR PARKING		
Standard:	57	
Accessible:	5	
Parent & Child:	5	
EVC Points:	2	
Total:	69	



Proposed Site Plan

1 : 200

C:\Users\ben.scott\Desktop\CORONAVIRUS\Wavertree\08001-SPACE-ZZ-ZZ-M3-A-0001-MODEL-20.rvt

Store Specification
BESPOKE (BASED ON BBS 2020 ECO)

Drawing Purpose
PLANNING
This drawing has been prepared for the sole purpose of forming part of a planning application, and should not be used for any other purpose.

SPACE

Spaceworks, Benton Park Road, Newcastle upon Tyne, NE7 7LX
T: +44 (0)844 800 6660
www.spacearchitects.co.uk

Project
Lidl Wavertree

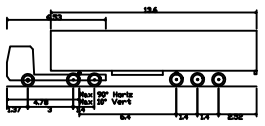
Drawing Title
Proposed Site Plan

Project No.	Drawing No.	Status	Revision	Scale at A1
08001	ZZ-XX-DR-A-91-0001	S3	P11	As indicated

File Reference: 08001-SPACE-ZZ-XX-DR-A-91-0001

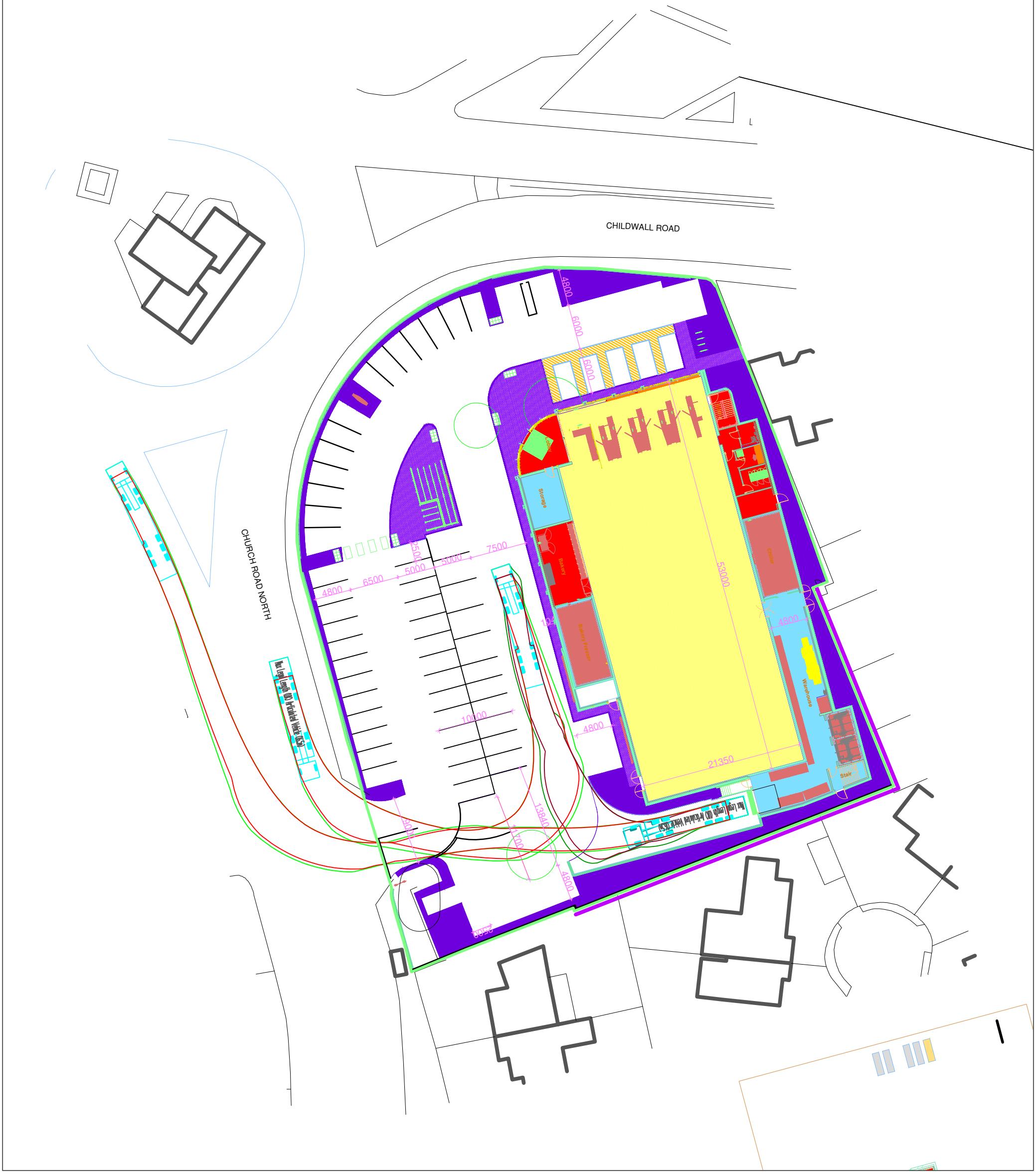
S|C|P

APPENDIX 3



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



S|C|P Transportation Planning : Infrastructure Design Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400, www.scptransport.co.uk, Email info@scptransport.co.uk	Client LIDL GREAT BRITAIN LTD Project Title LIDL, CHURCH ROAD NORTH, WAVERTREE	Drawing Title SWEPT PATHS OF MAXIMUM LEGAL ARTICULATED HGV BASED ON ZZ-XX-DR-A-91-0001-S3-P11	Scale 1:500 @ A3 Date 17.07.2020 Approved/ Unapproved -	By JH Checked JRB Status PLANNING	Drawing No. SCP/190675/ ATR01 Revision B

S|C|P

APPENDIX 4

Calculation Reference: AUDIT-726001-200818-0825

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : C - DISCOUNT FOOD STORES

MULTI-MODAL VEHICLES

Selected regions and areas:

03	**SOUTH WEST**		
	SM	SOMERSET	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
05	**EAST MIDLANDS**		
	LN	LINCOLNSHIRE	1 days
	NR	NORTHAMPTONSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	2 days
09	**NORTH**		
	NB	NORTHUMBERLAND	1 days
10	**WALES**		
	CF	CARDIFF	1 days
11	**SCOTLAND**		
	AD	ABERDEEN CITY	1 days
	SR	STIRLING	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: Retail floor area
Actual Range: 900 to 1690 (units: sqm)
Range Selected by User: 649 to 1690 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/07/16 to 29/11/19

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

Selected survey days:

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

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

Selected survey types:

Manual count	14 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	5
Suburban Area (PPS6 Out of Centre)	2
Edge of Town	4
Neighbourhood Centre (PPS6 Local 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:

Industrial Zone	2
Development Zone	1
Residential Zone	2
Retail Zone	2

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

Secondary Filtering selection:

Use Class:

A1	14 days

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

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	4 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	3 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	2 days
50,001 to 75,000	2 days
75,001 to 100,000	2 days
125,001 to 250,000	3 days
250,001 to 500,000	2 days
500,001 or More	2 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	4 days
1.1 to 1.5	10 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	14 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:

Not Known	1 days
Yes	2 days
No	11 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	14 days

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

LIST OF SITES relevant to selection parameters

1 **AD-01-C-01** **LIDL** **ABERDEEN CITY**
GREENWELL ROAD
ABERDEEN
EAST TULLOS IND. ESTATE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Retail floor area: 1650 sqm
Survey date: MONDAY *18/11/19* *Survey Type: MANUAL*

2 **CA-01-C-01** **LIDL** **CAMBRIDGESHIRE**
CROMWELL ROAD
WISBECH

Edge of Town
Retail Zone
Total Retail floor area: 913 sqm
Survey date: FRIDAY *21/10/16* *Survey Type: MANUAL*

3 **CF-01-C-01** **LIDL** **CARDIFF**
EAST TYNDALL STREET
CARDIFF

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Retail floor area: 1407 sqm
Survey date: THURSDAY *29/06/17* *Survey Type: MANUAL*

4 **LN-01-C-01** **LIDL** **LINCOLNSHIRE**
RICHMOND DRIVE
SKEGNESS

Edge of Town Centre
Built-Up Zone
Total Retail floor area: 1424 sqm
Survey date: TUESDAY *19/07/16* *Survey Type: MANUAL*

5 **NB-01-C-01** **LIDL** **NORTHUMBERLAND**
SCHALKSMUHLE ROAD
BEDLINGTON

Edge of Town Centre
No Sub Category
Total Retail floor area: 1425 sqm
Survey date: MONDAY *12/06/17* *Survey Type: MANUAL*

6 **NF-01-C-01** **LIDL** **NORFOLK**
AYLSHAM ROAD
NORWICH

Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Retail floor area: 1690 sqm
Survey date: FRIDAY *29/11/19* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

7 **NR-01-C-02** **LIDL** **NORTHAMPTONSHIRE**
NEWTON ROAD
RUSHDEN

Edge of Town Centre
Residential Zone
Total Retail floor area: 1424 sqm
Survey date: TUESDAY *19/07/16* *Survey Type: MANUAL*

8 **NT-01-C-01** **LIDL** **NOTTINGHAMSHIRE**
CHAPEL LANE
BINGHAM

Edge of Town
Industrial Zone
Total Retail floor area: 1424 sqm
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

9 **SM-01-C-01** **LIDL** **SOMERSET**
SEAWARD WAY
MINEHEAD

Edge of Town
No Sub Category
Total Retail floor area: 1407 sqm
Survey date: THURSDAY *22/06/17* *Survey Type: MANUAL*

10 **SR-01-C-01** **LIDL** **STIRLING**
PLAYERS ROAD
STIRLING

Edge of Town Centre
Built-Up Zone
Total Retail floor area: 1424 sqm
Survey date: THURSDAY *01/06/17* *Survey Type: MANUAL*

11 **WM-01-C-01** **LIDL** **WEST MIDLANDS**
MACKADOWN LANE
BIRMINGHAM
KITT'S GREEN
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Retail floor area: 1341 sqm
Survey date: TUESDAY *12/07/16* *Survey Type: MANUAL*

12 **WM-01-C-02** **LIDL** **WEST MIDLANDS**
HIGH STREET
WEST BROMWICH
GUNS VILLAGE
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Retail floor area: 1341 sqm
Survey date: TUESDAY *12/07/16* *Survey Type: MANUAL*

13 **WO-01-C-01** **LIDL** **WORCESTERSHIRE**
BLACKPOLE ROAD
WORCESTER
BRICKFIELDS
Edge of Town
Retail Zone
Total Retail floor area: 1424 sqm
Survey date: WEDNESDAY *13/07/16* *Survey Type: MANUAL*

14 **WO-01-C-02** **LIDL** **WORCESTERSHIRE**
WORCESTER ROAD
MALVERN

Edge of Town Centre
Residential Zone
Total Retail floor area: 900 sqm
Survey date: TUESDAY *26/06/18* *Survey Type: MANUAL*

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
DH-01-C-01	-
TW-01-C-01	-

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	1424	0.281	2	1424	0.070	2	1424	0.351
07:00 - 08:00	14	1371	0.662	14	1371	0.234	14	1371	0.896
08:00 - 09:00	14	1371	4.204	14	1371	2.845	14	1371	7.049
09:00 - 10:00	14	1371	5.580	14	1371	4.757	14	1371	10.337
10:00 - 11:00	14	1371	6.059	14	1371	5.455	14	1371	11.514
11:00 - 12:00	14	1371	6.950	14	1371	6.596	14	1371	13.546
12:00 - 13:00	14	1371	6.950	14	1371	7.065	14	1371	14.015
13:00 - 14:00	14	1371	6.846	14	1371	7.502	14	1371	14.348
14:00 - 15:00	14	1371	7.325	14	1371	7.164	14	1371	14.489
15:00 - 16:00	14	1371	7.158	14	1371	7.169	14	1371	14.327
16:00 - 17:00	**14**	**1371**	**7.367**	**14**	**1371**	**7.544**	**14**	**1371**	**14.911**
17:00 - 18:00	14	1371	6.742	14	1371	7.211	14	1371	13.953
18:00 - 19:00	14	1371	5.882	14	1371	6.268	14	1371	12.150
19:00 - 20:00	14	1371	4.444	14	1371	4.892	14	1371	9.336
20:00 - 21:00	14	1371	2.688	14	1371	3.532	14	1371	6.220
21:00 - 22:00	14	1371	1.209	14	1371	1.829	14	1371	3.038
22:00 - 23:00	13	1407	0.044	13	1407	0.344	13	1407	0.388
23:00 - 24:00									
Total Rates:			80.391			80.477			160.868

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:	900 - 1690 (units: sqm)
Survey date date range:	01/07/16 - 29/11/19
Number of weekdays (Monday-Friday):	14
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	1424	0.035	2	1424	0.000	2	1424	0.035
07:00 - 08:00	14	1371	0.016	14	1371	0.005	14	1371	0.021
08:00 - 09:00	14	1371	0.135	14	1371	0.094	14	1371	0.229
09:00 - 10:00	14	1371	0.115	14	1371	0.073	14	1371	0.188
10:00 - 11:00	14	1371	0.146	14	1371	0.125	14	1371	0.271
11:00 - 12:00	14	1371	0.099	14	1371	0.130	14	1371	0.229
12:00 - 13:00	14	1371	0.120	14	1371	0.141	14	1371	0.261
13:00 - 14:00	14	1371	0.120	14	1371	0.109	14	1371	0.229
14:00 - 15:00	14	1371	0.141	14	1371	0.125	14	1371	0.266
15:00 - 16:00	14	1371	0.162	14	1371	0.156	14	1371	0.318
16:00 - 17:00	14	1371	0.156	14	1371	0.099	14	1371	0.255
17:00 - 18:00	**14**	**1371**	**0.214**	**14**	**1371**	**0.234**	**14**	**1371**	**0.448**
18:00 - 19:00	14	1371	0.162	14	1371	0.156	14	1371	0.318
19:00 - 20:00	14	1371	0.063	14	1371	0.094	14	1371	0.157
20:00 - 21:00	14	1371	0.099	14	1371	0.125	14	1371	0.224
21:00 - 22:00	14	1371	0.010	14	1371	0.068	14	1371	0.078
22:00 - 23:00	13	1407	0.005	13	1407	0.027	13	1407	0.032
23:00 - 24:00									
Total Rates:			1.798			1.761			3.559

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

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

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	1424	0.386	2	1424	0.035	2	1424	0.421
07:00 - 08:00	14	1371	0.240	14	1371	0.026	14	1371	0.266
08:00 - 09:00	14	1371	1.266	14	1371	1.052	14	1371	2.318
09:00 - 10:00	14	1371	1.693	14	1371	1.553	14	1371	3.246
10:00 - 11:00	14	1371	2.011	14	1371	1.782	14	1371	3.793
11:00 - 12:00	14	1371	2.126	14	1371	2.173	14	1371	4.299
12:00 - 13:00	**14**	**1371**	**2.756**	**14**	**1371**	**2.688**	**14**	**1371**	**5.444**
13:00 - 14:00	14	1371	2.329	14	1371	2.490	14	1371	4.819
14:00 - 15:00	14	1371	2.110	14	1371	1.980	14	1371	4.090
15:00 - 16:00	14	1371	2.256	14	1371	2.371	14	1371	4.627
16:00 - 17:00	14	1371	2.532	14	1371	2.303	14	1371	4.835
17:00 - 18:00	14	1371	2.490	14	1371	2.298	14	1371	4.788
18:00 - 19:00	14	1371	1.954	14	1371	1.964	14	1371	3.918
19:00 - 20:00	14	1371	0.938	14	1371	1.349	14	1371	2.287
20:00 - 21:00	14	1371	0.927	14	1371	1.089	14	1371	2.016
21:00 - 22:00	14	1371	0.526	14	1371	0.787	14	1371	1.313
22:00 - 23:00	13	1407	0.000	13	1407	0.126	13	1407	0.126
23:00 - 24:00									
Total Rates:			26.540			26.066			52.606

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

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

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	1424	0.176	2	1424	0.000	2	1424	0.176
07:00 - 08:00	14	1371	0.068	14	1371	0.021	14	1371	0.089
08:00 - 09:00	14	1371	0.365	14	1371	0.146	14	1371	0.511
09:00 - 10:00	**14**	**1371**	**0.422**	14	1371	0.386	14	1371	0.808
10:00 - 11:00	14	1371	0.406	**14**	**1371**	**0.417**	**14**	**1371**	**0.823**
11:00 - 12:00	14	1371	0.406	14	1371	0.391	14	1371	0.797
12:00 - 13:00	14	1371	0.328	14	1371	0.313	14	1371	0.641
13:00 - 14:00	14	1371	0.406	14	1371	0.375	14	1371	0.781
14:00 - 15:00	14	1371	0.354	14	1371	0.359	14	1371	0.713
15:00 - 16:00	14	1371	0.380	14	1371	0.339	14	1371	0.719
16:00 - 17:00	14	1371	0.349	14	1371	0.307	14	1371	0.656
17:00 - 18:00	14	1371	0.302	14	1371	0.406	14	1371	0.708
18:00 - 19:00	14	1371	0.276	14	1371	0.323	14	1371	0.599
19:00 - 20:00	14	1371	0.151	14	1371	0.245	14	1371	0.396
20:00 - 21:00	14	1371	0.130	14	1371	0.146	14	1371	0.276
21:00 - 22:00	14	1371	0.052	14	1371	0.109	14	1371	0.161
22:00 - 23:00	13	1407	0.000	13	1407	0.022	13	1407	0.022
23:00 - 24:00									
Total Rates:			4.571			4.305			8.876

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

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

Calculation Reference: AUDIT-726001-200818-0827

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : C - DISCOUNT FOOD STORES

MULTI-MODAL VEHICLES

Selected regions and areas:

03	**SOUTH WEST**		
	SM	SOMERSET	1 days
05	**EAST MIDLANDS**		
	LN	LINCOLNSHIRE	2 days
	NR	NORTHAMPTONSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	1 days
09	**NORTH**		
	NB	NORTHUMBERLAND	1 days
10	**WALES**		
	CF	CARDIFF	1 days
11	**SCOTLAND**		
	SR	STIRLING	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: Retail floor area
Actual Range: 1235 to 1425 (units: sqm)
Range Selected by User: 649 to 1690 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/07/16 to 29/11/19

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:

Saturday	11 days

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

Selected survey types:

Manual count	11 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	4
Suburban Area (PPS6 Out of Centre)	2
Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Industrial Zone	1
Development Zone	1
Residential Zone	1
Retail Zone	1
Built-Up Zone	2
High Street	1
No Sub Category	4

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

Secondary Filtering selection:

Use Class:

A1	11 days

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

Population within 1 mile:

5,001 to 10,000	2 days
10,001 to 15,000	3 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
125,001 to 250,000	2 days
250,001 to 500,000	2 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	2 days
1.1 to 1.5	8 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	11 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:

Not Known	1 days
Yes	2 days
No	8 days

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

PTAL Rating:

No PTAL Present	11 days

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

LIST OF SITES relevant to selection parameters

1 **CF-01-C-01** **LIDL** **CARDIFF**
EAST TYNDALL STREET
CARDIFF

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Retail floor area: 1407 sqm
Survey date: SATURDAY *01/07/17* *Survey Type: MANUAL*

2 **LN-01-C-01** **LIDL** **LINCOLNSHIRE**
RICHMOND DRIVE
SKEGNESS

Edge of Town Centre
Built-Up Zone
Total Retail floor area: 1424 sqm
Survey date: SATURDAY *16/07/16* *Survey Type: MANUAL*

3 **LN-01-C-02** **LIDL** **LINCOLNSHIRE**
DIXON STREET
LINCOLN
NEW BOULTHAM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Retail floor area: 1235 sqm
Survey date: SATURDAY *28/10/17* *Survey Type: MANUAL*

4 **NB-01-C-01** **LIDL** **NORTHUMBERLAND**
SCHALKSMUHLE ROAD
BEDLINGTON

Edge of Town Centre
No Sub Category
Total Retail floor area: 1425 sqm
Survey date: SATURDAY *10/06/17* *Survey Type: MANUAL*

5 **NR-01-C-02** **LIDL** **NORTHAMPTONSHIRE**
NEWTON ROAD
RUSHDEN

Edge of Town Centre
Residential Zone
Total Retail floor area: 1424 sqm
Survey date: SATURDAY *16/07/16* *Survey Type: MANUAL*

6 **NT-01-C-01** **LIDL** **NOTTINGHAMSHIRE**
CHAPEL LANE
BINGHAM

Edge of Town
Industrial Zone
Total Retail floor area: 1424 sqm
Survey date: SATURDAY *16/07/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

7 **SM-01-C-01** **LIDL** **SOMERSET**
SEAWARD WAY
MINEHEAD

Edge of Town
No Sub Category
Total Retail floor area: 1407 sqm
Survey date: SATURDAY *24/06/17* *Survey Type: MANUAL*

8 **SR-01-C-01** **LIDL** **STIRLING**
PLAYERS ROAD
STIRLING

Edge of Town Centre
Built-Up Zone
Total Retail floor area: 1424 sqm
Survey date: SATURDAY *03/06/17* *Survey Type: MANUAL*

9 **WM-01-C-01** **LIDL** **WEST MIDLANDS**
MACKADOWN LANE
BIRMINGHAM
KITT'S GREEN
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Retail floor area: 1341 sqm
Survey date: SATURDAY *09/07/16* *Survey Type: MANUAL*

10 **WM-01-C-02** **LIDL** **WEST MIDLANDS**
HIGH STREET
WEST BROMWICH
GUNS VILLAGE
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Retail floor area: 1341 sqm
Survey date: SATURDAY *09/07/16* *Survey Type: MANUAL*

11 **WO-01-C-01** **LIDL** **WORCESTERSHIRE**
BLACKPOLE ROAD
WORCESTER
BRICKFIELDS
Edge of Town
Retail Zone
Total Retail floor area: 1424 sqm
Survey date: SATURDAY *16/07/16* *Survey Type: MANUAL*

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
LN-01-C-03	-

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES
MULTI-MODAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	1424	0.386	2	1424	0.140	2	1424	0.526
07:00 - 08:00	11	1389	0.812	11	1389	0.183	11	1389	0.995
08:00 - 09:00	11	1389	4.078	11	1389	2.887	11	1389	6.965
09:00 - 10:00	11	1389	5.662	11	1389	5.021	11	1389	10.683
10:00 - 11:00	11	1389	8.196	11	1389	7.004	11	1389	15.200
11:00 - 12:00	**11**	**1389**	**10.232**	11	1389	9.413	11	1389	19.645
12:00 - 13:00	11	1389	9.531	**11**	**1389**	**10.474**	**11**	**1389**	**20.005**
13:00 - 14:00	11	1389	9.492	11	1389	9.060	11	1389	18.552
14:00 - 15:00	11	1389	8.739	11	1389	8.726	11	1389	17.465
15:00 - 16:00	11	1389	8.648	11	1389	9.086	11	1389	17.734
16:00 - 17:00	11	1389	8.098	11	1389	8.523	11	1389	16.621
17:00 - 18:00	11	1389	6.926	11	1389	6.932	11	1389	13.858
18:00 - 19:00	11	1389	4.628	11	1389	5.826	11	1389	10.454
19:00 - 20:00	11	1389	3.411	11	1389	4.235	11	1389	7.646
20:00 - 21:00	11	1389	1.957	11	1389	2.265	11	1389	4.222
21:00 - 22:00	11	1389	0.975	11	1389	1.466	11	1389	2.441
22:00 - 23:00	11	1389	0.065	11	1389	0.347	11	1389	0.412
23:00 - 24:00									
Total Rates:			91.836			91.588			183.424

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:	1235 - 1425 (units: sqm)
Survey date date range:	01/07/16 - 29/11/19
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	11
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

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

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	1424	0.035	2	1424	0.000	2	1424	0.035
07:00 - 08:00	11	1389	0.033	11	1389	0.007	11	1389	0.040
08:00 - 09:00	11	1389	0.072	11	1389	0.052	11	1389	0.124
09:00 - 10:00	11	1389	0.079	11	1389	0.092	11	1389	0.171
10:00 - 11:00	11	1389	0.137	11	1389	0.072	11	1389	0.209
11:00 - 12:00	11	1389	0.144	11	1389	0.118	11	1389	0.262
12:00 - 13:00	11	1389	0.111	11	1389	0.092	11	1389	0.203
13:00 - 14:00	**11**	**1389**	**0.157**	11	1389	0.105	11	1389	0.262
14:00 - 15:00	11	1389	0.111	11	1389	0.144	11	1389	0.255
15:00 - 16:00	11	1389	0.098	11	1389	0.059	11	1389	0.157
16:00 - 17:00	11	1389	0.105	11	1389	0.151	11	1389	0.256
17:00 - 18:00	11	1389	0.111	**11**	**1389**	**0.177**	**11**	**1389**	**0.288**
18:00 - 19:00	11	1389	0.118	11	1389	0.124	11	1389	0.242
19:00 - 20:00	11	1389	0.124	11	1389	0.111	11	1389	0.235
20:00 - 21:00	11	1389	0.111	11	1389	0.111	11	1389	0.222
21:00 - 22:00	11	1389	0.039	11	1389	0.098	11	1389	0.137
22:00 - 23:00	11	1389	0.000	11	1389	0.013	11	1389	0.013
23:00 - 24:00									
Total Rates:			1.585			1.526			3.111

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

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

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	1424	0.562	2	1424	0.000	2	1424	0.562
07:00 - 08:00	11	1389	0.268	11	1389	0.092	11	1389	0.360
08:00 - 09:00	11	1389	0.871	11	1389	0.786	11	1389	1.657
09:00 - 10:00	11	1389	0.969	11	1389	1.093	11	1389	2.062
10:00 - 11:00	11	1389	1.781	11	1389	1.447	11	1389	3.228
11:00 - 12:00	11	1389	2.285	11	1389	2.389	11	1389	4.674
12:00 - 13:00	11	1389	3.123	11	1389	2.880	11	1389	6.003
13:00 - 14:00	11	1389	3.208	11	1389	2.913	11	1389	6.121
14:00 - 15:00	**11**	**1389**	**3.234**	11	1389	3.299	**11**	**1389**	**6.533**
15:00 - 16:00	11	1389	2.795	**11**	**1389**	**3.378**	11	1389	6.173
16:00 - 17:00	11	1389	3.116	11	1389	2.965	11	1389	6.081
17:00 - 18:00	11	1389	2.926	11	1389	2.710	11	1389	5.636
18:00 - 19:00	11	1389	2.704	11	1389	2.219	11	1389	4.923
19:00 - 20:00	11	1389	1.453	11	1389	1.853	11	1389	3.306
20:00 - 21:00	11	1389	1.447	11	1389	1.669	11	1389	3.116
21:00 - 22:00	11	1389	0.661	11	1389	0.877	11	1389	1.538
22:00 - 23:00	11	1389	0.072	11	1389	0.249	11	1389	0.321
23:00 - 24:00									
Total Rates:			31.475			30.819			62.294

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

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

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	1424	0.105	2	1424	0.035	2	1424	0.140
07:00 - 08:00	11	1389	0.079	11	1389	0.052	11	1389	0.131
08:00 - 09:00	11	1389	0.255	11	1389	0.157	11	1389	0.412
09:00 - 10:00	11	1389	0.301	11	1389	0.288	11	1389	0.589
10:00 - 11:00	11	1389	0.301	11	1389	0.236	11	1389	0.537
11:00 - 12:00	11	1389	0.327	11	1389	0.242	11	1389	0.569
12:00 - 13:00	11	1389	0.301	11	1389	0.236	11	1389	0.537
13:00 - 14:00	11	1389	0.268	11	1389	0.203	11	1389	0.471
14:00 - 15:00	**11**	**1389**	**0.347**	11	1389	0.281	**11**	**1389**	**0.628**
15:00 - 16:00	11	1389	0.275	**11**	**1389**	**0.295**	11	1389	0.570
16:00 - 17:00	11	1389	0.223	11	1389	0.295	11	1389	0.518
17:00 - 18:00	11	1389	0.196	11	1389	0.281	11	1389	0.477
18:00 - 19:00	11	1389	0.236	11	1389	0.229	11	1389	0.465
19:00 - 20:00	11	1389	0.137	11	1389	0.255	11	1389	0.392
20:00 - 21:00	11	1389	0.085	11	1389	0.157	11	1389	0.242
21:00 - 22:00	11	1389	0.046	11	1389	0.072	11	1389	0.118
22:00 - 23:00	11	1389	0.007	11	1389	0.033	11	1389	0.040
23:00 - 24:00									
Total Rates:			3.489			3.347			6.836

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.*

S|C|P

APPENDIX 5

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Church Road North_Site Access.j9
Path: M:\Job Library\2019\190675 - Lidl Wavertree\Traffic Data\Junction Modelling
Report generation date: 05/03/2021 14:00:35

Summary of junction performance

	PM				Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2021 + Development							
Stream B-C	0.1	8.57	0.10	A	0.1	7.84	0.12	A
Stream B-A	0.2	18.83	0.19	C	0.2	13.68	0.20	B
Stream C-AB	0.1	7.53	0.10	A	0.1	7.16	0.11	A
	Base 2026 + Development							
Stream B-C	0.1	8.87	0.10	A	0.1	8.00	0.13	A
Stream B-A	0.3	20.80	0.21	C	0.3	14.34	0.21	B
Stream C-AB	0.1	7.61	0.10	A	0.1	7.21	0.12	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.

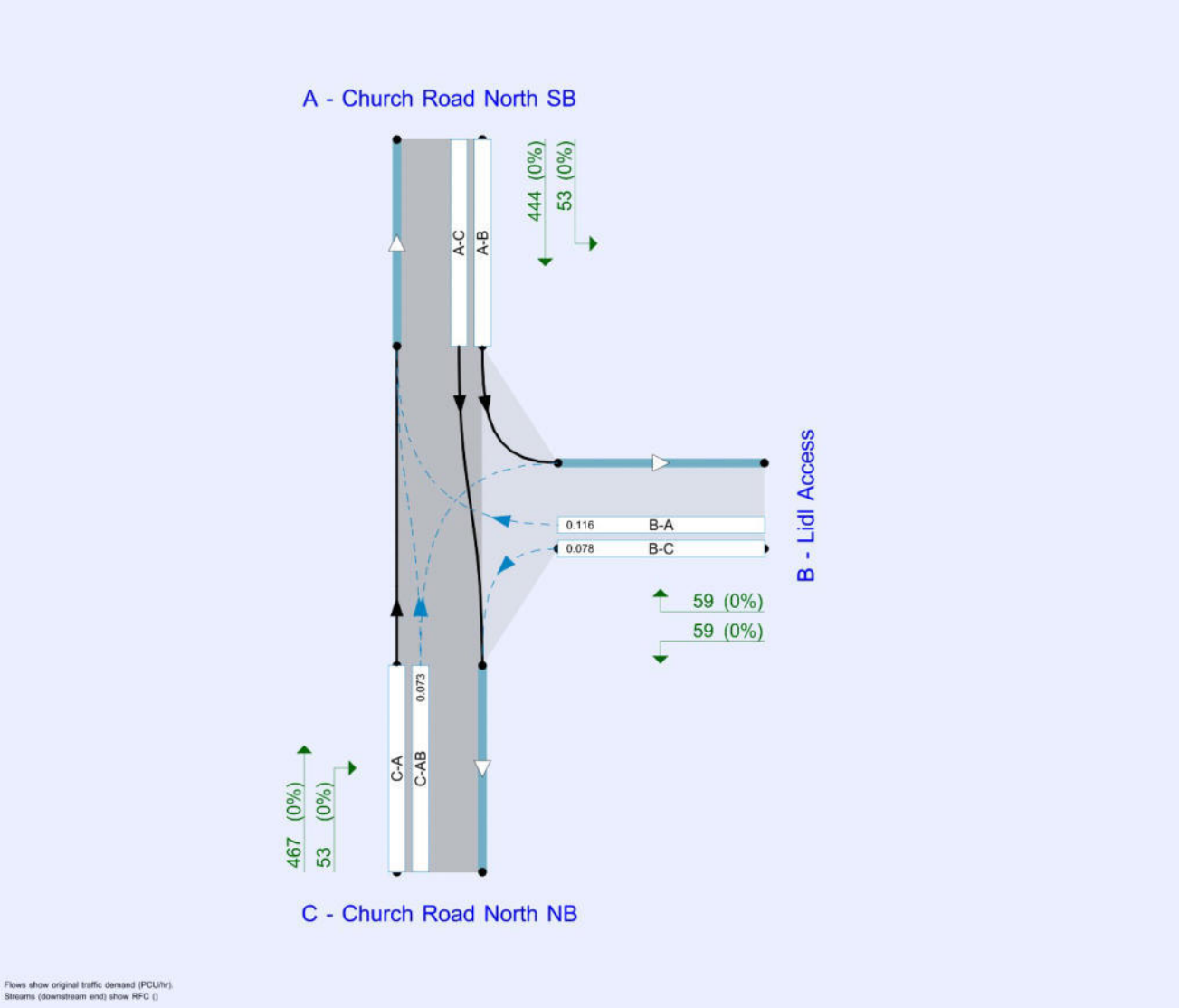
File summary

File Description

Title	
Location	
Site number	
Date	05/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\jack.hulme
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



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Base 2021 + Development	PM	ONE HOUR	16:45	18:15	15
D2	Base 2021 + Development	Saturday	ONE HOUR	11:45	13:15	15
D3	Base 2026 + Development	PM	ONE HOUR	16:45	18:15	15
D4	Base 2026 + Development	Saturday	ONE HOUR	11:45	13:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Base 2021 + 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	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Church Road North SB		Major
B	Lidl Access		Minor
C	Church Road North NB		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Church Road North NB	7.30			100.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Lidl Access	One lane plus flare	8.70	5.30	3.25	3.25	3.25	✓	1.00	30	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	527	0.091	0.229	0.144	0.327
1	B-C	675	0.098	0.247	-	-
1	C-B	632	0.231	0.231	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Base 2021 + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Road North SB		✓	688	100.000
B - Lidl Access		✓	84	100.000
C - Church Road North NB		✓	720	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Road North SB	B - Lidl Access	C - Church Road North NB
From	A - Church Road North SB	0	41	647
	B - Lidl Access	42	0	42
	C - Church Road North NB	679	41	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Road North SB	B - Lidl Access	C - Church Road North NB
From	A - Church Road North SB	0	0	0
	B - Lidl Access	0	0	0
	C - Church Road North NB	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Church Road North SB	16:45-17:00	518	518
	17:00-17:15	618	618
	17:15-17:30	758	758
	17:30-17:45	758	758
	17:45-18:00	618	618
	18:00-18:15	518	518
B - Lidl Access	16:45-17:00	63	63
	17:00-17:15	76	76
	17:15-17:30	92	92
	17:30-17:45	92	92
	17:45-18:00	76	76
	18:00-18:15	63	63
C - Church Road North NB	16:45-17:00	542	542
	17:00-17:15	647	647
	17:15-17:30	793	793
	17:30-17:45	793	793
	17:45-18:00	647	647
	18:00-18:15	542	542

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.10	8.57	0.1	A
B-A	0.19	18.83	0.2	C
C-AB	0.10	7.53	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	538	0.059	31	0.1	7.101	A
B-A	32	329	0.096	31	0.1	12.071	B
C-AB	33	543	0.060	32	0.1	7.048	A
C-A	509			509			
A-B	31			31			
A-C	487			487			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	509	0.074	38	0.1	7.636	A
B-A	38	291	0.130	38	0.1	14.219	B
C-AB	40	535	0.075	40	0.1	7.276	A
C-A	607			607			
A-B	37			37			
A-C	582			582			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	467	0.099	46	0.1	8.557	A
B-A	46	237	0.195	46	0.2	18.779	C
C-AB	52	531	0.099	52	0.1	7.525	A
C-A	740			740			
A-B	45			45			
A-C	712			712			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	466	0.099	46	0.1	8.574	A
B-A	46	237	0.195	46	0.2	18.830	C
C-AB	52	531	0.099	52	0.1	7.530	A
C-A	740			740			
A-B	45			45			
A-C	712			712			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	508	0.074	38	0.1	7.656	A
B-A	38	291	0.130	38	0.2	14.257	B
C-AB	40	535	0.075	40	0.1	7.281	A
C-A	607			607			
A-B	37			37			
A-C	582			582			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	537	0.059	32	0.1	7.126	A
B-A	32	329	0.096	32	0.1	12.106	B
C-AB	33	543	0.060	33	0.1	7.056	A
C-A	509			509			
A-B	31			31			
A-C	487			487			

Base 2021 + Development, Saturday

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	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	Base 2021 + Development	Saturday	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Road North SB		✓	468	100.000
B - Lidl Access		✓	118	100.000
C - Church Road North NB		✓	490	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Road North SB	B - Lidl Access	C - Church Road North NB
From	A - Church Road North SB	0	53	415
	B - Lidl Access	59	0	59
	C - Church Road North NB	437	53	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Road North SB	B - Lidl Access	C - Church Road North NB
From	A - Church Road North SB	0	0	0
	B - Lidl Access	0	0	0
	C - Church Road North NB	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Church Road North SB	11:45-12:00	352	352
	12:00-12:15	421	421
	12:15-12:30	515	515
	12:30-12:45	515	515
	12:45-13:00	421	421
	13:00-13:15	352	352
B - Lidl Access	11:45-12:00	89	89
	12:00-12:15	106	106
	12:15-12:30	130	130
	12:30-12:45	130	130
	12:45-13:00	106	106
	13:00-13:15	89	89
C - Church Road North NB	11:45-12:00	369	369
	12:00-12:15	440	440
	12:15-12:30	540	540
	12:30-12:45	540	540
	12:45-13:00	440	440
	13:00-13:15	369	369

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.12	7.84	0.1	A
B-A	0.20	13.68	0.2	B
C-AB	0.11	7.16	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	44	576	0.077	44	0.1	6.758	A
B-A	44	391	0.114	44	0.1	10.348	B
C-AB	42	574	0.072	41	0.1	6.751	A
C-A	327			327			
A-B	40			40			
A-C	312			312			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	555	0.096	53	0.1	7.169	A
B-A	53	365	0.145	53	0.2	11.532	B
C-AB	51	570	0.089	51	0.1	6.936	A
C-A	390			390			
A-B	48			48			
A-C	373			373			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	524	0.124	65	0.1	7.829	A
B-A	65	328	0.198	65	0.2	13.655	B
C-AB	65	568	0.114	64	0.1	7.153	A
C-A	475			475			
A-B	58			58			
A-C	457			457			

12:30 - 12:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	524	0.124	65	0.1	7.840	A
B-A	65	328	0.198	65	0.2	13.680	B
C-AB	65	568	0.114	65	0.1	7.160	A
C-A	475			475			
A-B	58			58			
A-C	457			457			

12:45 - 13:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	554	0.096	53	0.1	7.184	A
B-A	53	365	0.145	53	0.2	11.557	B
C-AB	51	570	0.089	51	0.1	6.943	A
C-A	390			390			
A-B	48			48			
A-C	373			373			

13:00 - 13:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	44	576	0.077	45	0.1	6.782	A
B-A	44	392	0.113	45	0.1	10.379	B
C-AB	42	574	0.072	42	0.1	6.762	A
C-A	327			327			
A-B	40			40			
A-C	312			312			

Base 2026 + 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	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.01	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	Base 2026 + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Road North SB		✓	731	100.000
B - Lidl Access		✓	84	100.000
C - Church Road North NB		✓	766	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Road North SB	B - Lidl Access	C - Church Road North NB
From	A - Church Road North SB	0	41	690
	B - Lidl Access	42	0	42
	C - Church Road North NB	725	41	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Road North SB	B - Lidl Access	C - Church Road North NB
From	A - Church Road North SB	0	0	0
	B - Lidl Access	0	0	0
	C - Church Road North NB	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Church Road North SB	16:45-17:00	550	550
	17:00-17:15	657	657
	17:15-17:30	805	805
	17:30-17:45	805	805
	17:45-18:00	657	657
	18:00-18:15	550	550
B - Lidl Access	16:45-17:00	63	63
	17:00-17:15	76	76
	17:15-17:30	92	92
	17:30-17:45	92	92
	17:45-18:00	76	76
	18:00-18:15	63	63
C - Church Road North NB	16:45-17:00	577	577
	17:00-17:15	689	689
	17:15-17:30	843	843
	17:30-17:45	843	843
	17:45-18:00	689	689
	18:00-18:15	577	577

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.10	8.87	0.1	A
B-A	0.21	20.80	0.3	C
C-AB	0.10	7.61	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	530	0.060	31	0.1	7.220	A
B-A	32	317	0.100	31	0.1	12.593	B
C-AB	33	538	0.061	33	0.1	7.119	A
C-A	544			544			
A-B	31			31			
A-C	519			519			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	499	0.076	38	0.1	7.806	A
B-A	38	276	0.137	38	0.2	15.098	C
C-AB	41	530	0.077	41	0.1	7.354	A
C-A	648			648			
A-B	37			37			
A-C	620			620			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	453	0.102	46	0.1	8.847	A
B-A	46	219	0.211	46	0.3	20.730	C
C-AB	53	527	0.101	53	0.1	7.602	A
C-A	790			790			
A-B	45			45			
A-C	760			760			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	452	0.102	46	0.1	8.869	A
B-A	46	219	0.211	46	0.3	20.802	C
C-AB	53	527	0.101	53	0.1	7.608	A
C-A	790			790			
A-B	45			45			
A-C	760			760			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	498	0.076	38	0.1	7.832	A
B-A	38	276	0.137	38	0.2	15.150	C
C-AB	41	530	0.077	41	0.1	7.363	A
C-A	648			648			
A-B	37			37			
A-C	620			620			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	529	0.060	32	0.1	7.245	A
B-A	32	317	0.100	32	0.1	12.633	B
C-AB	33	538	0.061	33	0.1	7.130	A
C-A	544			544			
A-B	31			31			
A-C	519			519			

Base 2026 + Development, Saturday

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	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Base 2026 + Development	Saturday	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Road North SB		✓	497	100.000
B - Lidl Access		✓	118	100.000
C - Church Road North NB		✓	520	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Road North SB	B - Lidl Access	C - Church Road North NB
From	A - Church Road North SB	0	53	444
	B - Lidl Access	59	0	59
	C - Church Road North NB	467	53	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Road North SB	B - Lidl Access	C - Church Road North NB
From	A - Church Road North SB	0	0	0
	B - Lidl Access	0	0	0
	C - Church Road North NB	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Church Road North SB	11:45-12:00	374	374
	12:00-12:15	447	447
	12:15-12:30	547	547
	12:30-12:45	547	547
	12:45-13:00	447	447
	13:00-13:15	374	374
B - Lidl Access	11:45-12:00	89	89
	12:00-12:15	106	106
	12:15-12:30	130	130
	12:30-12:45	130	130
	12:45-13:00	106	106
	13:00-13:15	89	89
C - Church Road North NB	11:45-12:00	391	391
	12:00-12:15	467	467
	12:15-12:30	573	573
	12:30-12:45	573	573
	12:45-13:00	467	467
	13:00-13:15	391	391

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	8.00	0.1	A
B-A	0.21	14.34	0.3	B
C-AB	0.12	7.21	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	44	571	0.078	44	0.1	6.831	A
B-A	44	383	0.116	44	0.1	10.598	B
C-AB	42	571	0.073	41	0.1	6.791	A
C-A	350			350			
A-B	40			40			
A-C	334			334			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	548	0.097	53	0.1	7.269	A
B-A	53	355	0.149	53	0.2	11.905	B
C-AB	51	567	0.090	51	0.1	6.983	A
C-A	416			416			
A-B	48			48			
A-C	399			399			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	516	0.126	65	0.1	7.984	A
B-A	65	316	0.206	65	0.3	14.307	B
C-AB	65	565	0.115	65	0.1	7.201	A
C-A	507			507			
A-B	58			58			
A-C	489			489			

12:30 - 12:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	515	0.126	65	0.1	7.996	A
B-A	65	316	0.206	65	0.3	14.339	B
C-AB	65	565	0.115	65	0.1	7.208	A
C-A	507			507			
A-B	58			58			
A-C	489			489			

12:45 - 13:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	548	0.097	53	0.1	7.286	A
B-A	53	355	0.149	53	0.2	11.939	B
C-AB	51	567	0.090	51	0.1	6.988	A
C-A	416			416			
A-B	48			48			
A-C	399			399			

13:00 - 13:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	44	570	0.078	45	0.1	6.856	A
B-A	44	383	0.116	45	0.1	10.635	B
C-AB	42	571	0.073	42	0.1	6.805	A
C-A	350			350			
A-B	40			40			
A-C	334			334			

S|C|P

APPENDIX 6

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Childwall Road Roundabout.j9
Path: M:\Job Library\2019\190675 - Lidl Wavertree\Traffic Data\Junction Modelling
Report generation date: 05/03/2021 14:53:47

Summary of junction performance

	PM				Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2021							
1 - Childwall Road	1.7	5.84	0.63	A	0.7	3.46	0.40	A
2 - Church Road North	1.3	5.23	0.56	A	0.5	3.15	0.32	A
3 - High Street	4.2	15.37	0.82	C	1.0	5.07	0.49	A
	Base 2026							
1 - Childwall Road	2.1	6.71	0.68	A	0.8	3.65	0.43	A
2 - Church Road North	1.5	5.91	0.61	A	0.5	3.29	0.35	A
3 - High Street	6.8	23.72	0.88	C	1.1	5.52	0.53	A
	Base 2021 + Development							
1 - Childwall Road	1.7	5.99	0.64	A	0.7	3.52	0.41	A
2 - Church Road North	1.3	5.37	0.57	A	0.5	3.22	0.34	A
3 - High Street	4.5	16.26	0.83	C	1.0	5.20	0.50	A
	Base 2026 + Development							
1 - Childwall Road	2.1	6.92	0.68	A	0.8	3.72	0.44	A
2 - Church Road North	1.6	6.09	0.62	A	0.6	3.37	0.36	A
3 - High Street	7.5	26.01	0.89	D	1.2	5.67	0.54	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.

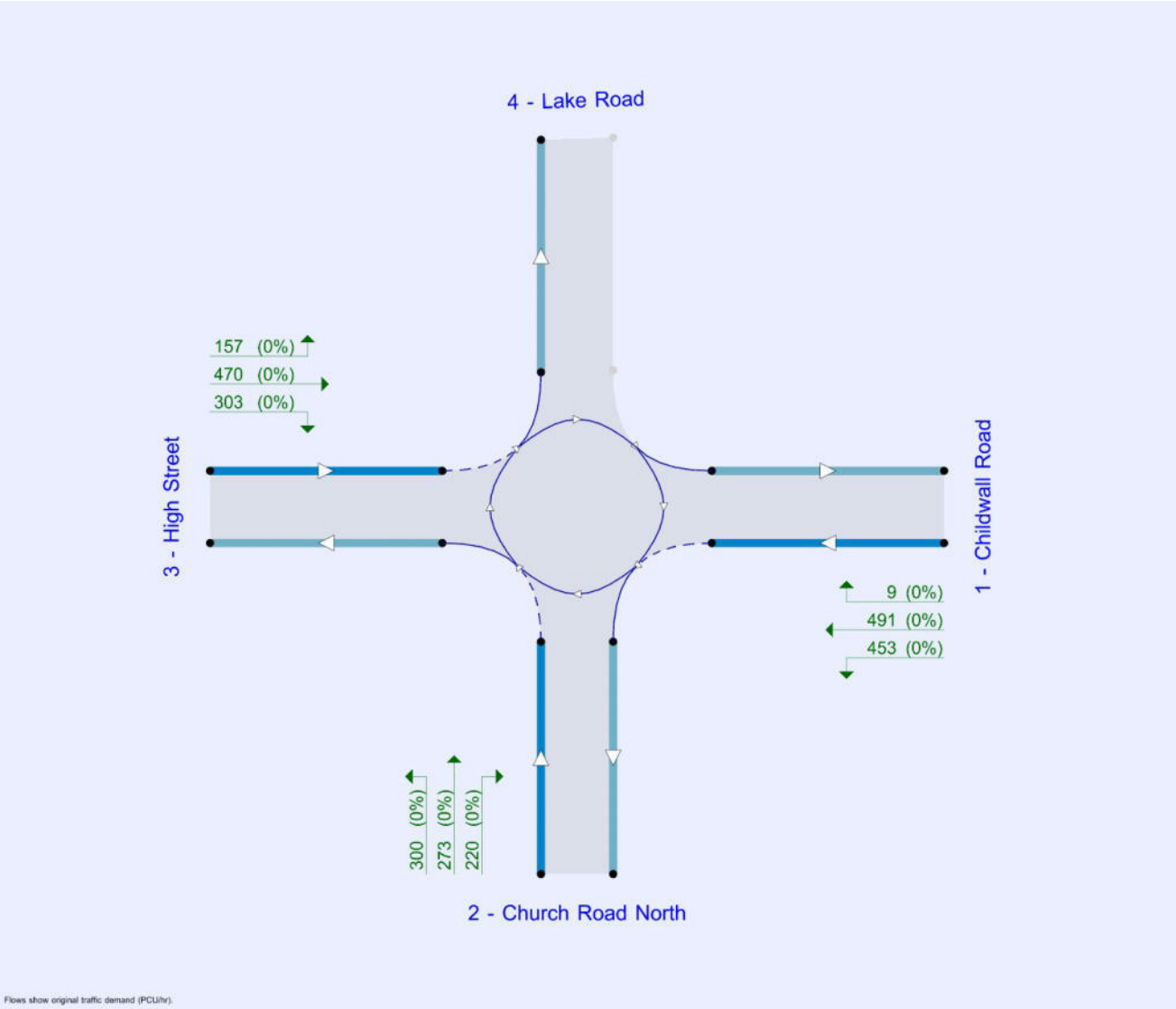
File summary

File Description

Title	
Location	
Site number	
Date	05/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\jack.hulme
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



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Base 2021	PM	ONE HOUR	16:45	18:15	15
D2	Base 2021	Saturday	ONE HOUR	11:45	13:15	15
D3	Base 2026	PM	ONE HOUR	16:45	18:15	15
D4	Base 2026	Saturday	ONE HOUR	11:45	13:15	15
D5	Base 2021 + Development	PM	ONE HOUR	16:45	18:15	15
D6	Base 2021 + Development	Saturday	ONE HOUR	11:45	13:15	15
D7	Base 2026 + Development	PM	ONE HOUR	16:45	18:15	15
D8	Base 2026 + Development	Saturday	ONE HOUR	11:45	13:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Base 2021, 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	untitled	Standard Roundabout		1, 2, 3, 4	8.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Childwall Road	
2	Church Road North	
3	High Street	
4	Lake Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Childwall Road	7.30	7.30	0.0	38.0	33.0	79.0	
2 - Church Road North	7.30	7.30	0.0	999.0	33.0	80.0	
3 - High Street	6.00	6.00	0.0	999.0	33.0	80.0	
4 - Lake Road							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Childwall Road	0.647	1887
2 - Church Road North	0.663	1934
3 - High Street	0.593	1590
4 - Lake Road		

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Base 2021	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Childwall Road		✓	953	100.000
2 - Church Road North		✓	799	100.000
3 - High Street		✓	932	100.000
4 - Lake Road				

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	453	491	9
	2 - Church Road North	220	6	300	273
	3 - High Street	470	303	2	157
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	0	0	0
	2 - Church Road North	0	0	0	0
	3 - High Street	0	0	0	0
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
1 - Childwall Road	16:45-17:00	717	717
	17:00-17:15	857	857
	17:15-17:30	1049	1049
	17:30-17:45	1049	1049
	17:45-18:00	857	857
	18:00-18:15	717	717
2 - Church Road North	16:45-17:00	602	602
	17:00-17:15	718	718
	17:15-17:30	880	880
	17:30-17:45	880	880
	17:45-18:00	718	718
	18:00-18:15	602	602
3 - High Street	16:45-17:00	702	702
	17:00-17:15	838	838
	17:15-17:30	1026	1026
	17:30-17:45	1026	1026
	17:45-18:00	838	838
	18:00-18:15	702	702
4 - Lake Road	16:45-17:00	0	0
	17:00-17:15	0	0
	17:15-17:30	0	0
	17:30-17:45	0	0
	17:45-18:00	0	0
	18:00-18:15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Childwall Road	0.63	5.84	1.7	A
2 - Church Road North	0.56	5.23	1.3	A
3 - High Street	0.82	15.37	4.2	C
4 - Lake Road				

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	717	233	1736	0.413	715	0.7	3.515	A
2 - Church Road North	602	376	1684	0.357	599	0.6	3.310	A
3 - High Street	702	381	1364	0.515	697	1.0	5.371	A
4 - Lake Road		749						

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	857	279	1707	0.502	856	1.0	4.223	A
2 - Church Road North	718	451	1635	0.439	717	0.8	3.918	A
3 - High Street	838	456	1319	0.635	835	1.7	7.400	A
4 - Lake Road		897						

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	1049	339	1667	0.629	1047	1.7	5.772	A
2 - Church Road North	880	551	1568	0.561	878	1.3	5.198	A
3 - High Street	1026	558	1259	0.815	1017	4.1	14.345	B
4 - Lake Road		1094						

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	1049	342	1666	0.630	1049	1.7	5.838	A
2 - Church Road North	880	553	1568	0.561	880	1.3	5.233	A
3 - High Street	1026	559	1258	0.816	1025	4.2	15.374	C
4 - Lake Road		1102						

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	857	283	1704	0.503	859	1.0	4.276	A
2 - Church Road North	718	453	1634	0.440	720	0.8	3.949	A
3 - High Street	838	458	1318	0.636	848	1.8	7.807	A
4 - Lake Road		909						

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	717	235	1735	0.414	719	0.7	3.546	A
2 - Church Road North	602	379	1683	0.357	602	0.6	3.336	A
3 - High Street	702	383	1362	0.515	704	1.1	5.496	A
4 - Lake Road		756						

Base 2021, Saturday

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	untitled	Standard Roundabout		1, 2, 3, 4	3.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	Base 2021	Saturday	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Childwall Road		✓	635	100.000
2 - Church Road North		✓	496	100.000
3 - High Street		✓	620	100.000
4 - Lake Road				

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	302	327	6
	2 - Church Road North	146	4	200	146
	3 - High Street	313	202	1	104
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	0	0	0
	2 - Church Road North	0	0	0	0
	3 - High Street	0	0	0	0
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
1 - Childwall Road	11:45-12:00	478	478
	12:00-12:15	571	571
	12:15-12:30	699	699
	12:30-12:45	699	699
	12:45-13:00	571	571
	13:00-13:15	478	478
2 - Church Road North	11:45-12:00	373	373
	12:00-12:15	446	446
	12:15-12:30	546	546
	12:30-12:45	546	546
	12:45-13:00	446	446
	13:00-13:15	373	373
3 - High Street	11:45-12:00	467	467
	12:00-12:15	557	557
	12:15-12:30	683	683
	12:30-12:45	683	683
	12:45-13:00	557	557
	13:00-13:15	467	467
4 - Lake Road	11:45-12:00	0	0
	12:00-12:15	0	0
	12:15-12:30	0	0
	12:30-12:45	0	0
	12:45-13:00	0	0
	13:00-13:15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Childwall Road	0.40	3.46	0.7	A
2 - Church Road North	0.32	3.15	0.5	A
3 - High Street	0.49	5.07	1.0	A
4 - Lake Road				

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	478	155	1787	0.268	477	0.4	2.746	A
2 - Church Road North	373	251	1768	0.211	372	0.3	2.579	A
3 - High Street	467	227	1455	0.321	465	0.5	3.629	A
4 - Lake Road		500						

12:00 - 12:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	571	186	1767	0.323	570	0.5	3.009	A
2 - Church Road North	446	300	1735	0.257	446	0.3	2.791	A
3 - High Street	557	271	1429	0.390	557	0.6	4.126	A
4 - Lake Road		598						

12:15 - 12:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	699	227	1740	0.402	698	0.7	3.455	A
2 - Church Road North	546	367	1690	0.323	546	0.5	3.142	A
3 - High Street	683	332	1393	0.490	681	1.0	5.052	A
4 - Lake Road		732						

12:30 - 12:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	699	228	1740	0.402	699	0.7	3.459	A
2 - Church Road North	546	368	1690	0.323	546	0.5	3.145	A
3 - High Street	683	333	1392	0.490	683	1.0	5.071	A
4 - Lake Road		733						

12:45 - 13:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	571	187	1766	0.323	572	0.5	3.016	A
2 - Church Road North	446	301	1735	0.257	446	0.3	2.797	A
3 - High Street	557	272	1428	0.390	559	0.6	4.145	A
4 - Lake Road		600						

13:00 - 13:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	478	156	1786	0.268	479	0.4	2.755	A
2 - Church Road North	373	252	1767	0.211	374	0.3	2.585	A
3 - High Street	467	228	1455	0.321	467	0.5	3.650	A
4 - Lake Road		502						

Base 2026, 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	untitled	Standard Roundabout		1, 2, 3, 4	12.38	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	Base 2026	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Childwall Road		✓	1014	100.000
2 - Church Road North		✓	849	100.000
3 - High Street		✓	992	100.000
4 - Lake Road				

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	482	522	10
	2 - Church Road North	234	6	319	290
	3 - High Street	501	322	2	167
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	0	0	0
	2 - Church Road North	0	0	0	0
	3 - High Street	0	0	0	0
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
1 - Childwall Road	16:45-17:00	763	763
	17:00-17:15	912	912
	17:15-17:30	1116	1116
	17:30-17:45	1116	1116
	17:45-18:00	912	912
	18:00-18:15	763	763
2 - Church Road North	16:45-17:00	639	639
	17:00-17:15	763	763
	17:15-17:30	935	935
	17:30-17:45	935	935
	17:45-18:00	763	763
	18:00-18:15	639	639
3 - High Street	16:45-17:00	747	747
	17:00-17:15	892	892
	17:15-17:30	1092	1092
	17:30-17:45	1092	1092
	17:45-18:00	892	892
	18:00-18:15	747	747
4 - Lake Road	16:45-17:00	0	0
	17:00-17:15	0	0
	17:15-17:30	0	0
	17:30-17:45	0	0
	17:45-18:00	0	0
	18:00-18:15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Childwall Road	0.68	6.71	2.1	A
2 - Church Road North	0.61	5.91	1.5	A
3 - High Street	0.88	23.72	6.8	C
4 - Lake Road				

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	763	247	1727	0.442	760	0.8	3.710	A
2 - Church Road North	639	400	1669	0.383	637	0.6	3.480	A
3 - High Street	747	405	1349	0.553	742	1.2	5.879	A
4 - Lake Road		797						

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	912	295	1696	0.538	910	1.1	4.573	A
2 - Church Road North	763	479	1616	0.472	762	0.9	4.210	A
3 - High Street	892	485	1302	0.685	888	2.1	8.622	A
4 - Lake Road		954						

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	1116	358	1655	0.674	1113	2.0	6.592	A
2 - Church Road North	935	586	1545	0.605	932	1.5	5.849	A
3 - High Street	1092	593	1238	0.882	1076	6.3	20.358	C
4 - Lake Road		1158						

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	1116	363	1652	0.676	1116	2.1	6.711	A
2 - Church Road North	935	588	1544	0.605	935	1.5	5.906	A
3 - High Street	1092	595	1237	0.883	1090	6.8	23.724	C
4 - Lake Road		1171						

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	912	303	1691	0.539	915	1.2	4.660	A
2 - Church Road North	763	482	1614	0.473	766	0.9	4.255	A
3 - High Street	892	487	1301	0.686	910	2.2	9.617	A
4 - Lake Road		973						

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	763	250	1725	0.442	765	0.8	3.756	A
2 - Church Road North	639	403	1667	0.383	640	0.6	3.509	A
3 - High Street	747	407	1348	0.554	751	1.3	6.065	A
4 - Lake Road		805						

Base 2026, Saturday

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	untitled	Standard Roundabout		1, 2, 3, 4	4.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Base 2026	Saturday	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Childwall Road		✓	675	100.000
2 - Church Road North		✓	529	100.000
3 - High Street		✓	661	100.000
4 - Lake Road				

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	321	348	6
	2 - Church Road North	156	4	213	156
	3 - High Street	334	215	1	111
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	0	0	0
	2 - Church Road North	0	0	0	0
	3 - High Street	0	0	0	0
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
1 - Childwall Road	11:45-12:00	508	508
	12:00-12:15	607	607
	12:15-12:30	743	743
	12:30-12:45	743	743
	12:45-13:00	607	607
	13:00-13:15	508	508
2 - Church Road North	11:45-12:00	398	398
	12:00-12:15	476	476
	12:15-12:30	582	582
	12:30-12:45	582	582
	12:45-13:00	476	476
	13:00-13:15	398	398
3 - High Street	11:45-12:00	498	498
	12:00-12:15	594	594
	12:15-12:30	728	728
	12:30-12:45	728	728
	12:45-13:00	594	594
	13:00-13:15	498	498
4 - Lake Road	11:45-12:00	0	0
	12:00-12:15	0	0
	12:15-12:30	0	0
	12:30-12:45	0	0
	12:45-13:00	0	0
	13:00-13:15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Childwall Road	0.43	3.65	0.8	A
2 - Church Road North	0.35	3.29	0.5	A
3 - High Street	0.53	5.52	1.1	A
4 - Lake Road				

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	508	165	1780	0.285	507	0.4	2.822	A
2 - Church Road North	398	266	1757	0.227	397	0.3	2.644	A
3 - High Street	498	242	1446	0.344	496	0.5	3.778	A
4 - Lake Road		532						

12:00 - 12:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	607	198	1759	0.345	606	0.5	3.120	A
2 - Church Road North	476	319	1723	0.276	475	0.4	2.886	A
3 - High Street	594	289	1418	0.419	593	0.7	4.362	A
4 - Lake Road		638						

12:15 - 12:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	743	242	1731	0.429	742	0.7	3.639	A
2 - Church Road North	582	390	1675	0.348	582	0.5	3.291	A
3 - High Street	728	354	1380	0.528	726	1.1	5.496	A
4 - Lake Road		780						

12:30 - 12:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	743	242	1730	0.430	743	0.8	3.646	A
2 - Church Road North	582	391	1675	0.348	582	0.5	3.294	A
3 - High Street	728	355	1379	0.528	728	1.1	5.524	A
4 - Lake Road		782						

12:45 - 13:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	607	198	1759	0.345	608	0.5	3.129	A
2 - Church Road North	476	320	1722	0.276	476	0.4	2.892	A
3 - High Street	594	290	1418	0.419	596	0.7	4.387	A
4 - Lake Road		640						

13:00 - 13:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	508	166	1780	0.286	509	0.4	2.835	A
2 - Church Road North	398	268	1757	0.227	399	0.3	2.653	A
3 - High Street	498	243	1446	0.344	498	0.5	3.802	A
4 - Lake Road		535						

Base 2021 + 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	untitled	Standard Roundabout		1, 2, 3, 4	9.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	Base 2021 + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Childwall Road		✓	963	100.000
2 - Church Road North		✓	815	100.000
3 - High Street		✓	938	100.000
4 - Lake Road				

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	463	491	9
	2 - Church Road North	224	6	306	279
	3 - High Street	470	309	2	157
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	0	0	0
	2 - Church Road North	0	0	0	0
	3 - High Street	0	0	0	0
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
1 - Childwall Road	16:45-17:00	725	725
	17:00-17:15	866	866
	17:15-17:30	1060	1060
	17:30-17:45	1060	1060
	17:45-18:00	866	866
	18:00-18:15	725	725
2 - Church Road North	16:45-17:00	614	614
	17:00-17:15	733	733
	17:15-17:30	897	897
	17:30-17:45	897	897
	17:45-18:00	733	733
	18:00-18:15	614	614
3 - High Street	16:45-17:00	706	706
	17:00-17:15	843	843
	17:15-17:30	1033	1033
	17:30-17:45	1033	1033
	17:45-18:00	843	843
	18:00-18:15	706	706
4 - Lake Road	16:45-17:00	0	0
	17:00-17:15	0	0
	17:15-17:30	0	0
	17:30-17:45	0	0
	17:45-18:00	0	0
	18:00-18:15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Childwall Road	0.64	5.99	1.7	A
2 - Church Road North	0.57	5.37	1.3	A
3 - High Street	0.83	16.26	4.5	C
4 - Lake Road				

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	725	237	1734	0.418	722	0.7	3.549	A
2 - Church Road North	614	376	1684	0.364	611	0.6	3.347	A
3 - High Street	706	389	1359	0.520	702	1.1	5.443	A
4 - Lake Road		757						

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	866	284	1703	0.508	864	1.0	4.286	A
2 - Church Road North	733	451	1635	0.448	732	0.8	3.980	A
3 - High Street	843	465	1314	0.642	841	1.8	7.562	A
4 - Lake Road		906						

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	1060	346	1663	0.637	1057	1.7	5.915	A
2 - Church Road North	897	551	1568	0.572	895	1.3	5.332	A
3 - High Street	1033	569	1252	0.825	1023	4.3	15.049	C
4 - Lake Road		1104						

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	1060	349	1661	0.638	1060	1.7	5.986	A
2 - Church Road North	897	553	1568	0.572	897	1.3	5.371	A
3 - High Street	1033	570	1251	0.825	1032	4.5	16.261	C
4 - Lake Road		1112						

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	866	289	1700	0.509	869	1.0	4.343	A
2 - Church Road North	733	453	1634	0.448	735	0.8	4.014	A
3 - High Street	843	467	1313	0.642	854	1.8	8.020	A
4 - Lake Road		918						

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	725	240	1732	0.419	726	0.7	3.586	A
2 - Church Road North	614	379	1683	0.365	615	0.6	3.374	A
3 - High Street	706	391	1358	0.520	709	1.1	5.575	A
4 - Lake Road		764						

Base 2021 + Development, Saturday

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	untitled	Standard Roundabout		1, 2, 3, 4	4.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	Base 2021 + Development	Saturday	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Childwall Road		✓	647	100.000
2 - Church Road North		✓	519	100.000
3 - High Street		✓	628	100.000
4 - Lake Road				

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	314	327	6
	2 - Church Road North	153	4	209	153
	3 - High Street	313	210	1	104
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	0	0	0
	2 - Church Road North	0	0	0	0
	3 - High Street	0	0	0	0
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
1 - Childwall Road	11:45-12:00	487	487
	12:00-12:15	582	582
	12:15-12:30	712	712
	12:30-12:45	712	712
	12:45-13:00	582	582
	13:00-13:15	487	487
2 - Church Road North	11:45-12:00	391	391
	12:00-12:15	467	467
	12:15-12:30	571	571
	12:30-12:45	571	571
	12:45-13:00	467	467
	13:00-13:15	391	391
3 - High Street	11:45-12:00	473	473
	12:00-12:15	565	565
	12:15-12:30	691	691
	12:30-12:45	691	691
	12:45-13:00	565	565
	13:00-13:15	473	473
4 - Lake Road	11:45-12:00	0	0
	12:00-12:15	0	0
	12:15-12:30	0	0
	12:30-12:45	0	0
	12:45-13:00	0	0
	13:00-13:15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Childwall Road	0.41	3.52	0.7	A
2 - Church Road North	0.34	3.22	0.5	A
3 - High Street	0.50	5.20	1.0	A
4 - Lake Road				

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	487	161	1783	0.273	486	0.4	2.773	A
2 - Church Road North	391	251	1768	0.221	390	0.3	2.609	A
3 - High Street	473	237	1449	0.326	471	0.5	3.672	A
4 - Lake Road		511						

12:00 - 12:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	582	193	1762	0.330	581	0.5	3.046	A
2 - Church Road North	467	300	1735	0.269	466	0.4	2.837	A
3 - High Street	565	284	1421	0.397	564	0.7	4.195	A
4 - Lake Road		612						

12:15 - 12:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	712	236	1734	0.411	712	0.7	3.516	A
2 - Church Road North	571	367	1690	0.338	571	0.5	3.213	A
3 - High Street	691	348	1383	0.500	690	1.0	5.183	A
4 - Lake Road		749						

12:30 - 12:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	712	237	1734	0.411	712	0.7	3.523	A
2 - Church Road North	571	368	1690	0.338	571	0.5	3.217	A
3 - High Street	691	348	1383	0.500	691	1.0	5.202	A
4 - Lake Road		750						

12:45 - 13:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	582	194	1762	0.330	582	0.5	3.054	A
2 - Church Road North	467	301	1735	0.269	467	0.4	2.840	A
3 - High Street	565	284	1421	0.397	566	0.7	4.216	A
4 - Lake Road		613						

13:00 - 13:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	487	162	1782	0.273	488	0.4	2.781	A
2 - Church Road North	391	252	1767	0.221	391	0.3	2.618	A
3 - High Street	473	238	1448	0.326	473	0.5	3.694	A
4 - Lake Road		513						

Base 2026 + 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	untitled	Standard Roundabout		1, 2, 3, 4	13.27	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	Base 2026 + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Childwall Road		✓	1024	100.000
2 - Church Road North		✓	866	100.000
3 - High Street		✓	999	100.000
4 - Lake Road				

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	492	522	10
	2 - Church Road North	239	6	325	296
	3 - High Street	501	329	2	167
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	0	0	0
	2 - Church Road North	0	0	0	0
	3 - High Street	0	0	0	0
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
1 - Childwall Road	16:45-17:00	771	771
	17:00-17:15	921	921
	17:15-17:30	1127	1127
	17:30-17:45	1127	1127
	17:45-18:00	921	921
	18:00-18:15	771	771
2 - Church Road North	16:45-17:00	652	652
	17:00-17:15	779	779
	17:15-17:30	953	953
	17:30-17:45	953	953
	17:45-18:00	779	779
	18:00-18:15	652	652
3 - High Street	16:45-17:00	752	752
	17:00-17:15	898	898
	17:15-17:30	1100	1100
	17:30-17:45	1100	1100
	17:45-18:00	898	898
	18:00-18:15	752	752
4 - Lake Road	16:45-17:00	0	0
	17:00-17:15	0	0
	17:15-17:30	0	0
	17:30-17:45	0	0
	17:45-18:00	0	0
	18:00-18:15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Childwall Road	0.68	6.92	2.1	A
2 - Church Road North	0.62	6.09	1.6	A
3 - High Street	0.89	26.01	7.5	D
4 - Lake Road				

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	771	252	1724	0.447	768	0.8	3.752	A
2 - Church Road North	652	400	1669	0.391	649	0.6	3.523	A
3 - High Street	752	413	1345	0.559	747	1.3	5.978	A
4 - Lake Road		806						

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	921	302	1692	0.544	919	1.2	4.649	A
2 - Church Road North	779	479	1616	0.482	777	0.9	4.287	A
3 - High Street	898	495	1296	0.693	894	2.2	8.872	A
4 - Lake Road		965						

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	1127	365	1651	0.683	1124	2.1	6.782	A
2 - Church Road North	953	586	1545	0.617	951	1.6	6.028	A
3 - High Street	1100	605	1231	0.894	1081	6.8	21.813	C
4 - Lake Road		1170						

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	1127	370	1647	0.684	1127	2.1	6.916	A
2 - Church Road North	953	588	1544	0.617	953	1.6	6.091	A
3 - High Street	1100	607	1230	0.894	1097	7.5	26.013	D
4 - Lake Road		1184						

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	921	310	1687	0.546	924	1.2	4.746	A
2 - Church Road North	779	482	1614	0.482	781	0.9	4.335	A
3 - High Street	898	497	1295	0.694	919	2.3	10.063	B
4 - Lake Road		986						

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	771	255	1722	0.448	773	0.8	3.800	A
2 - Church Road North	652	403	1667	0.391	653	0.6	3.554	A
3 - High Street	752	416	1343	0.560	756	1.3	6.176	A
4 - Lake Road		815						

Base 2026 + Development, Saturday

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	untitled	Standard Roundabout		1, 2, 3, 4	4.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	Base 2026 + Development	Saturday	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Childwall Road		✓	688	100.000
2 - Church Road North		✓	550	100.000
3 - High Street		✓	669	100.000
4 - Lake Road				

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	334	348	6
	2 - Church Road North	162	4	222	162
	3 - High Street	334	223	1	111
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Childwall Road	2 - Church Road North	3 - High Street	4 - Lake Road
From	1 - Childwall Road	0	0	0	0
	2 - Church Road North	0	0	0	0
	3 - High Street	0	0	0	0
	4 - Lake Road	Exit-only	Exit-only	Exit-only	Exit-only

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
1 - Childwall Road	11:45-12:00	518	518
	12:00-12:15	618	618
	12:15-12:30	758	758
	12:30-12:45	758	758
	12:45-13:00	618	618
	13:00-13:15	518	518
2 - Church Road North	11:45-12:00	414	414
	12:00-12:15	494	494
	12:15-12:30	606	606
	12:30-12:45	606	606
	12:45-13:00	494	494
	13:00-13:15	414	414
3 - High Street	11:45-12:00	504	504
	12:00-12:15	601	601
	12:15-12:30	737	737
	12:30-12:45	737	737
	12:45-13:00	601	601
	13:00-13:15	504	504
4 - Lake Road	11:45-12:00	0	0
	12:00-12:15	0	0
	12:15-12:30	0	0
	12:30-12:45	0	0
	12:45-13:00	0	0
	13:00-13:15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Childwall Road	0.44	3.72	0.8	A
2 - Church Road North	0.36	3.37	0.6	A
3 - High Street	0.54	5.67	1.2	A
4 - Lake Road				

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	518	171	1776	0.292	516	0.4	2.853	A
2 - Church Road North	414	266	1757	0.236	413	0.3	2.675	A
3 - High Street	504	251	1441	0.350	502	0.5	3.824	A
4 - Lake Road		543						

12:00 - 12:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	618	205	1755	0.353	618	0.5	3.165	A
2 - Church Road North	494	319	1723	0.287	494	0.4	2.930	A
3 - High Street	601	300	1412	0.426	601	0.7	4.433	A
4 - Lake Road		650						

12:15 - 12:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	758	250	1725	0.439	757	0.8	3.714	A
2 - Church Road North	606	390	1675	0.361	605	0.6	3.362	A
3 - High Street	737	367	1372	0.537	735	1.1	5.638	A
4 - Lake Road		796						

12:30 - 12:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	758	251	1725	0.439	757	0.8	3.721	A
2 - Church Road North	606	391	1675	0.362	606	0.6	3.365	A
3 - High Street	737	368	1372	0.537	737	1.2	5.669	A
4 - Lake Road		797						

12:45 - 13:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	618	206	1754	0.353	619	0.5	3.177	A
2 - Church Road North	494	320	1722	0.287	495	0.4	2.934	A
3 - High Street	601	301	1411	0.426	603	0.7	4.464	A
4 - Lake Road		652						

13:00 - 13:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Childwall Road	518	172	1776	0.292	518	0.4	2.863	A
2 - Church Road North	414	268	1757	0.236	414	0.3	2.684	A
3 - High Street	504	252	1440	0.350	504	0.5	3.849	A
4 - Lake Road		546						

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APPENDIX 7

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Church Road North_High Street_Internal Priority.j9
Path: M:\Job Library\2019\190675 - Lidl Wavertree\Traffic Data\Junction Modelling
Report generation date: 05/03/2021 14:31:54

Summary of junction performance

	PM				Saturday			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2021							
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.5	7.59	0.34	A	0.3	6.12	0.22	A
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Base 2026							
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.6	7.95	0.37	A	0.3	6.28	0.24	A
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Base 2021 + Development							
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.5	7.68	0.35	A	0.3	6.21	0.23	A
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Base 2026 + Development							
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	0.6	8.05	0.38	A	0.3	6.37	0.25	A
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	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.

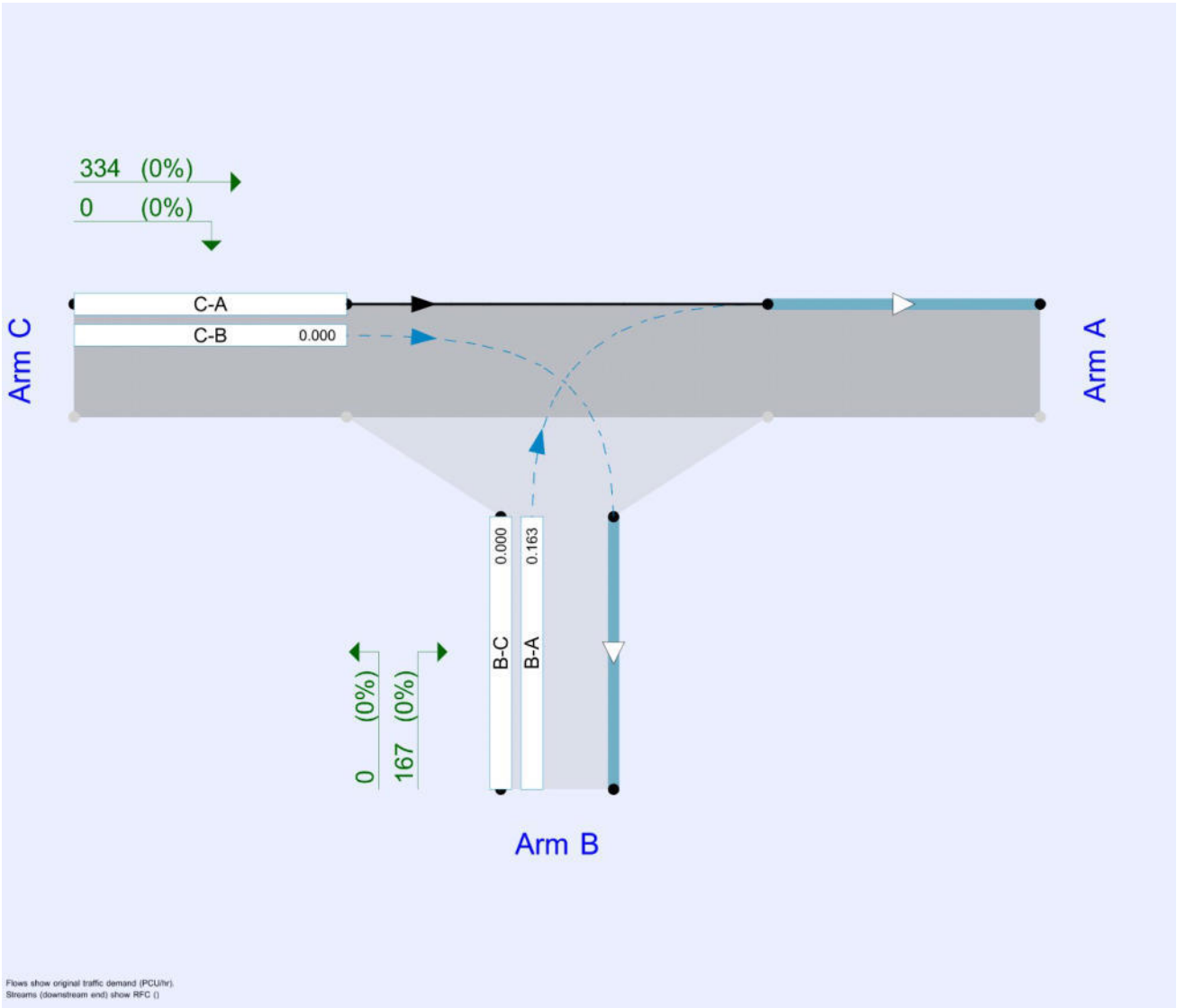
File summary

File Description

Title	
Location	
Site number	
Date	05/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\jack.hulme
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



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	Base 2026 + Development	Saturday	ONE HOUR	11:45	13:15	15

Base 2026 + Development, Saturday

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	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	One-way from C to A		2.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			250.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	7.70	6.00	4.80	3.50	✓	2.00	250	250

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	813	0.109	0.277	0.174	0.395
1	B-C	717	0.081	0.205	-	-
1	C-B	719	0.206	0.206	-	-

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

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

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

Traffic Demand

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	0	100.000
B		✓	167	100.000
C		✓	334	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	0
	B	167	0	0
	C	334	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A	11:45-12:00	0	0
	12:00-12:15	0	0
	12:15-12:30	0	0
	12:30-12:45	0	0
	12:45-13:00	0	0
	13:00-13:15	0	0
B	11:45-12:00	126	126
	12:00-12:15	150	150
	12:15-12:30	184	184
	12:30-12:45	184	184
	12:45-13:00	150	150
	13:00-13:15	126	126
C	11:45-12:00	251	251
	12:00-12:15	300	300
	12:15-12:30	368	368
	12:30-12:45	368	368
	12:45-13:00	300	300
	13:00-13:15	251	251

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.25	6.37	0.3	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	687	0.000	0	0.0	0.000	A
B-A	126	769	0.163	125	0.2	5.581	A
C-A	251			251			
C-B	0	719	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	681	0.000	0	0.0	0.000	A
B-A	150	761	0.197	150	0.2	5.893	A
C-A	300			300			
C-B	0	719	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	673	0.000	0	0.0	0.000	A
B-A	184	749	0.246	184	0.3	6.365	A
C-A	368			368			
C-B	0	719	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			

12:30 - 12:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	672	0.000	0	0.0	0.000	A
B-A	184	749	0.246	184	0.3	6.370	A
C-A	368			368			
C-B	0	719	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			

12:45 - 13:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	681	0.000	0	0.0	0.000	A
B-A	150	761	0.197	150	0.2	5.902	A
C-A	300			300			
C-B	0	719	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			

13:00 - 13:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	687	0.000	0	0.0	0.000	A
B-A	126	769	0.163	126	0.2	5.598	A
C-A	251			251			
C-B	0	719	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			

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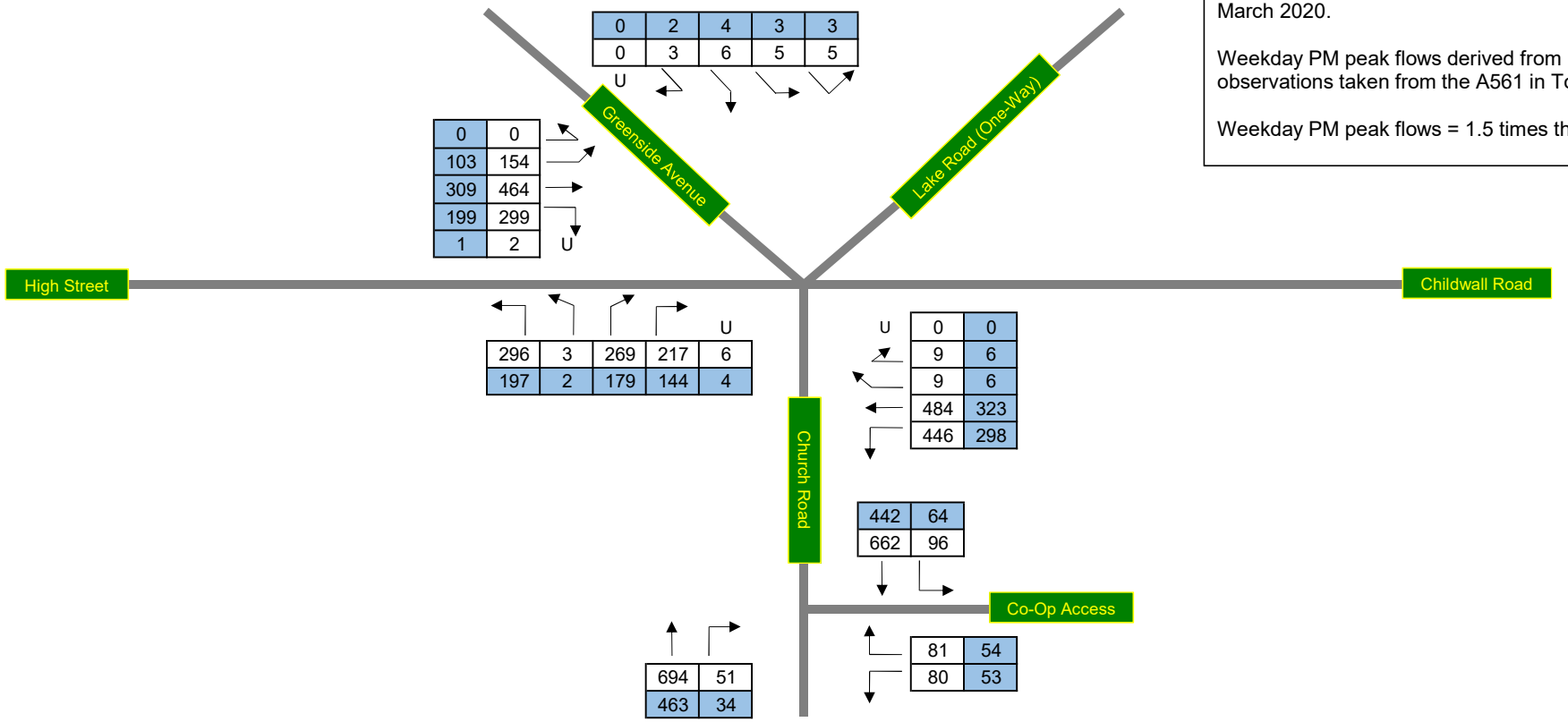
TRAFFIC FLOW FIGURES

Saturday flows directly observed on Saturday 21st March 2020.

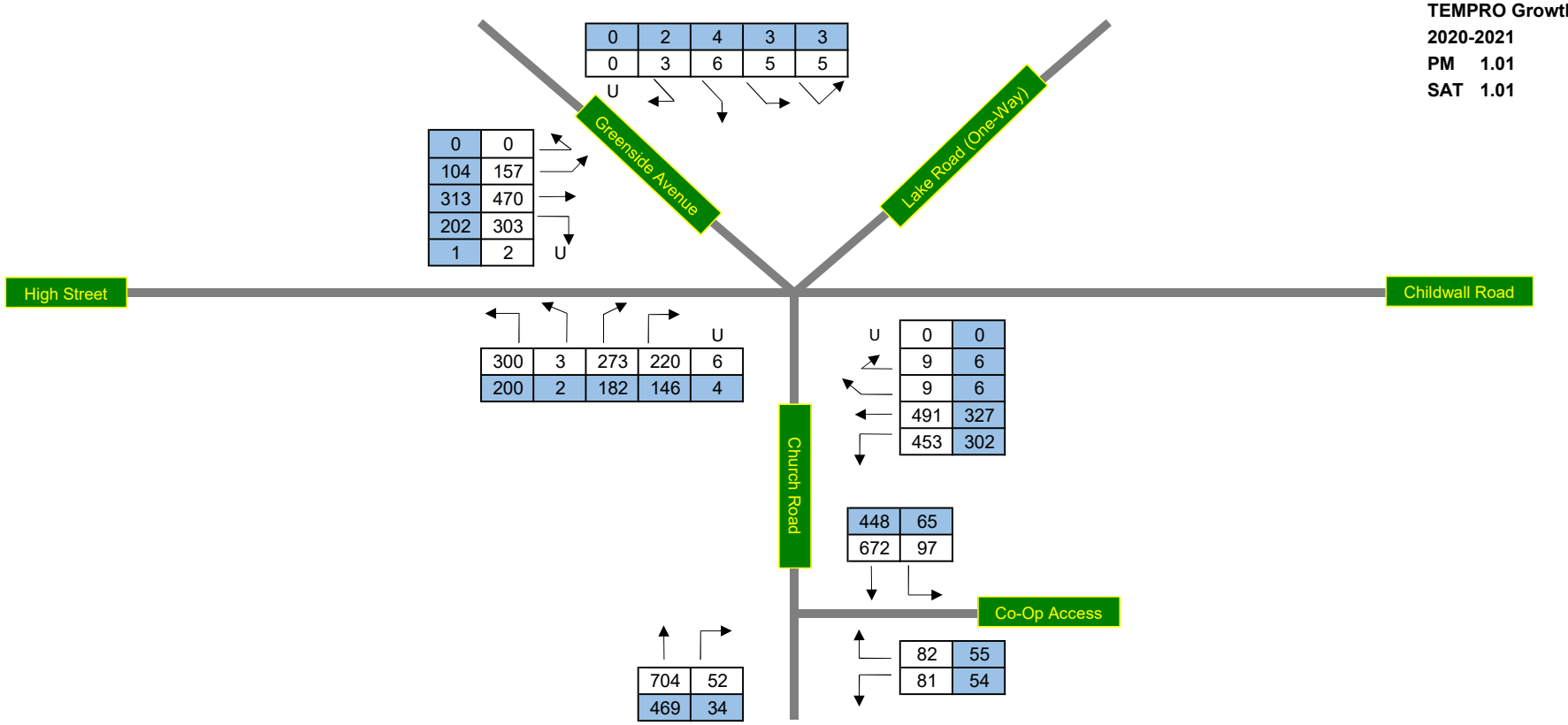
Weekday PM peak flows derived from observations taken from the A561 in Toxteth.

Weekday PM peak flows = 1.5 times the Saturday



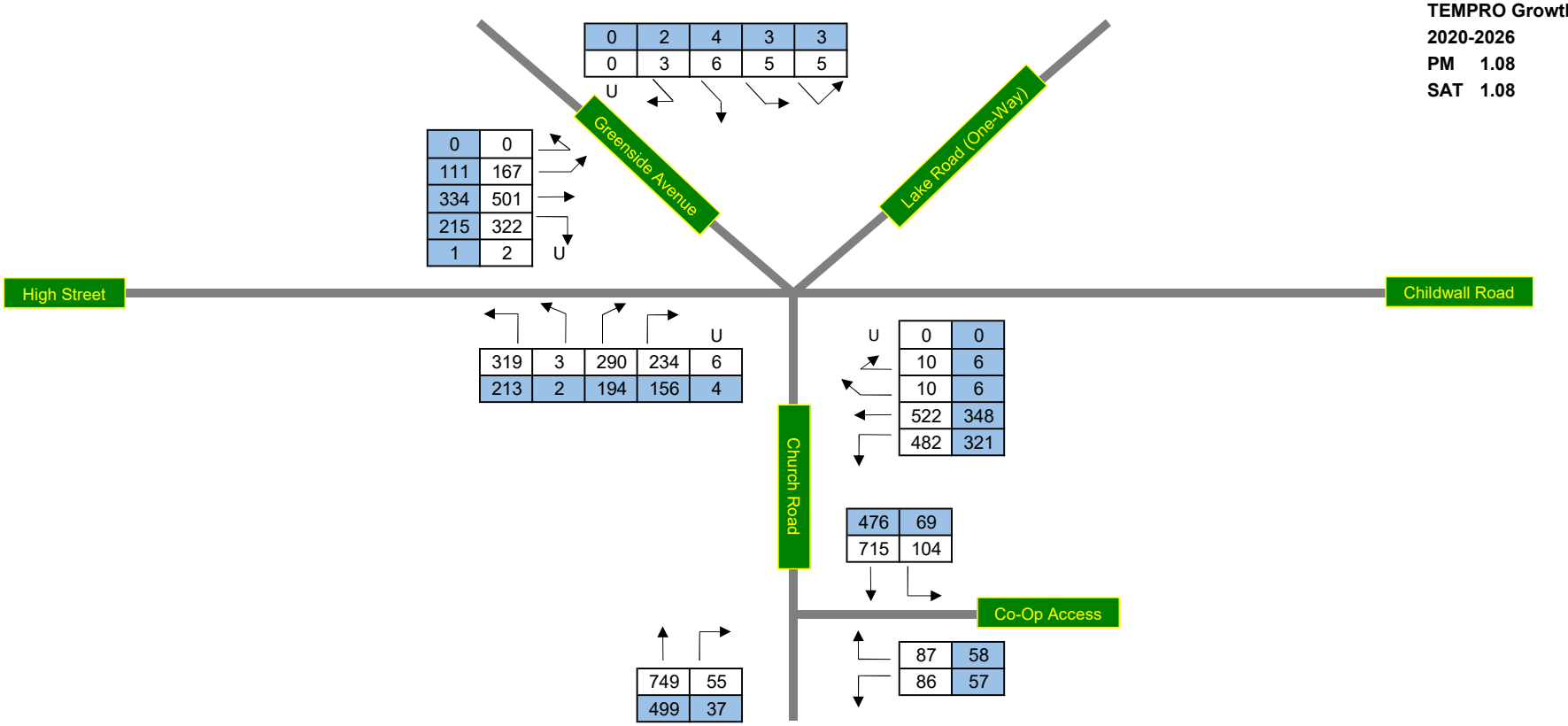
SCP Transportation Planning : Infrastructure Design	**Survey 2020**	**12/03/2021**	Job Number - SCP/190675
	Proposed Lidl, Church Road North, Wavertree		**Traffic Figure 1**

TEMPRO Growth Rates
2020-2021
PM 1.01
SAT 1.01

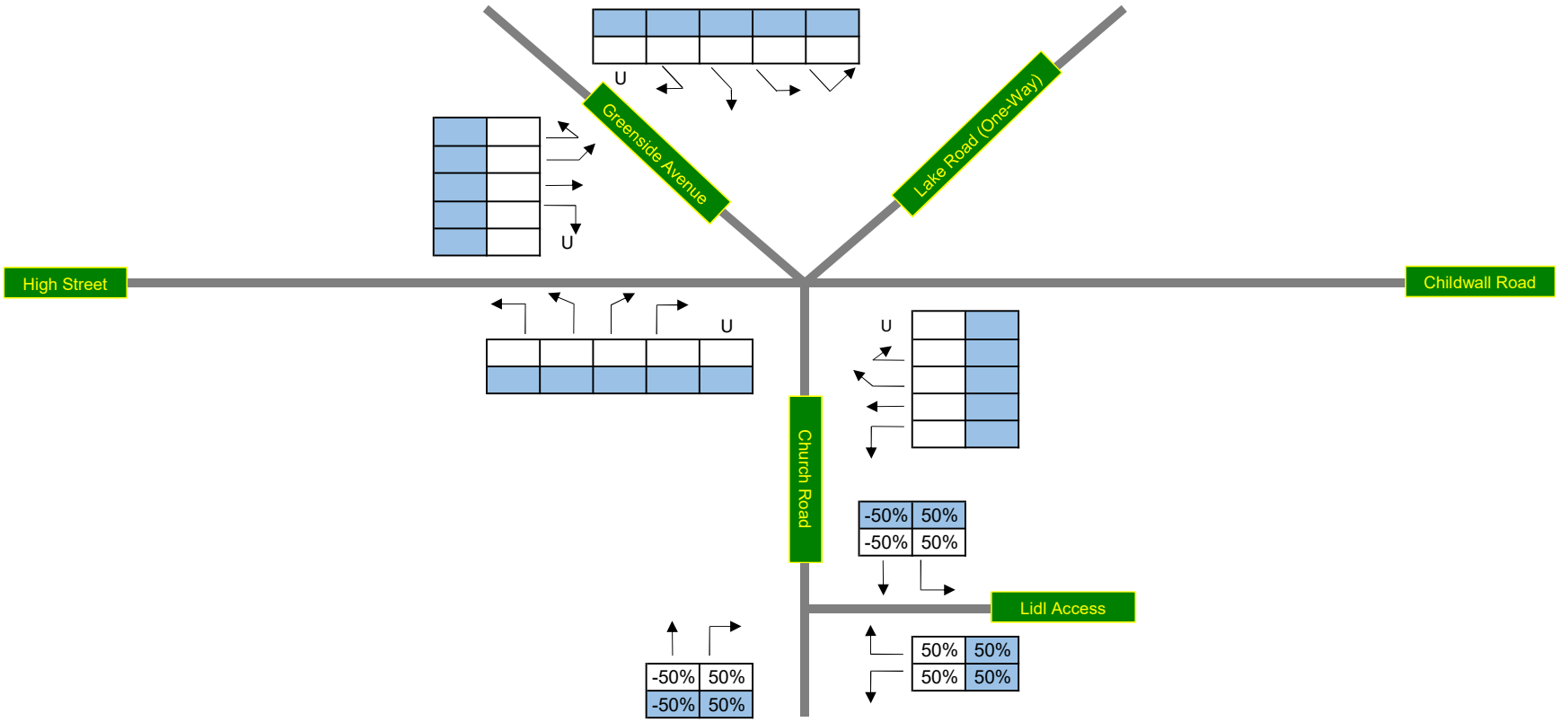


S C P Transportation Planning : Infrastructure Design	**Base 2021**	**12/03/2021**	Job Number - SCP/190675
	Proposed Lidl, Church Road North, Wavertree		**Traffic Figure 2**

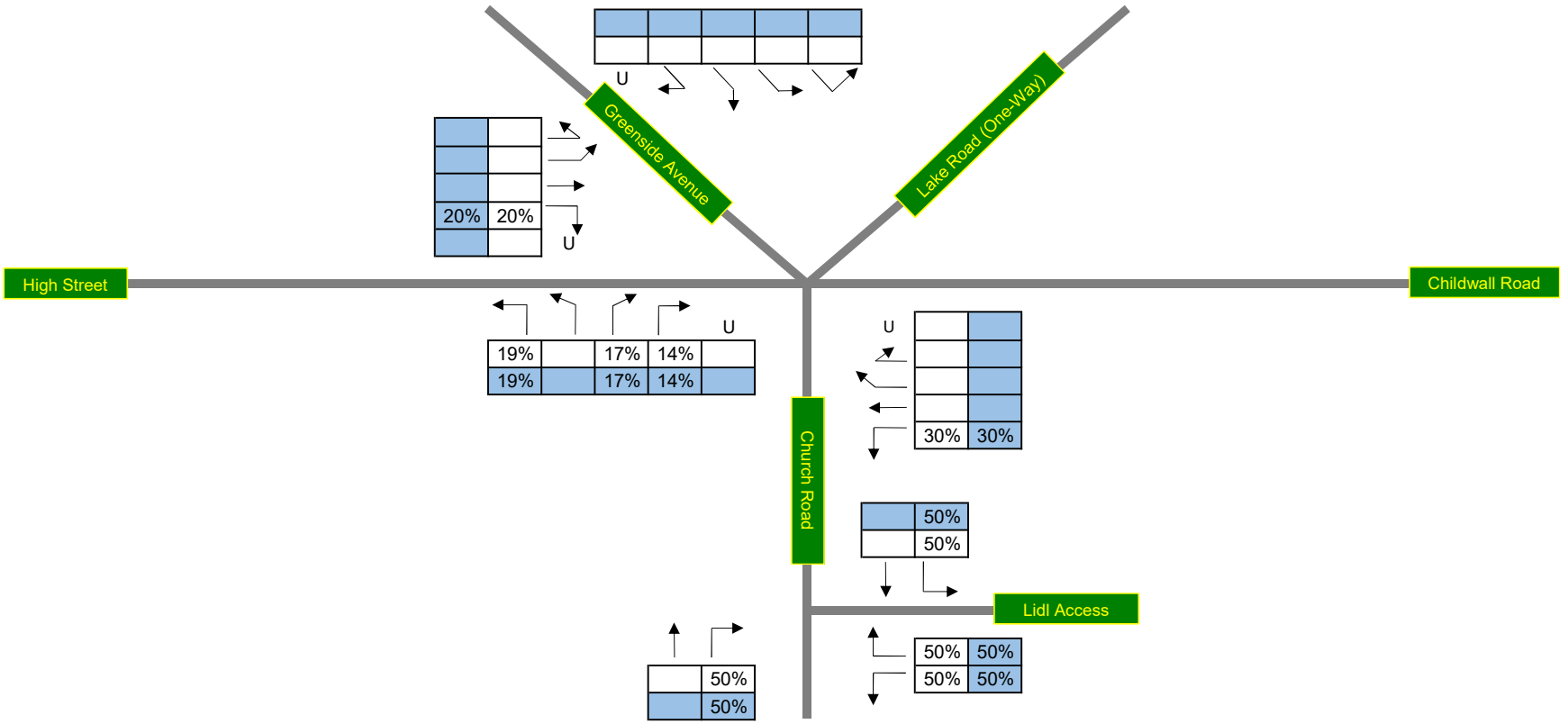
TEMPRO Growth Rates
2020-2026
PM 1.08
SAT 1.08



SCP Transportation Planning : Infrastructure Design	**Base 2026**	**12/03/2021**	Job Number - SCP/190675
	Proposed Lidl, Church Road North, Wavertree		**Traffic Figure 3**



S C P Transportation Planning : Infrastructure Design	**Development Traffic Distribution (Pass-by Trips)**	**12/03/2021**	Job Number - SCP/190675
	Proposed Lidl, Church Road North, Wavertree		**Traffic Figure 4**

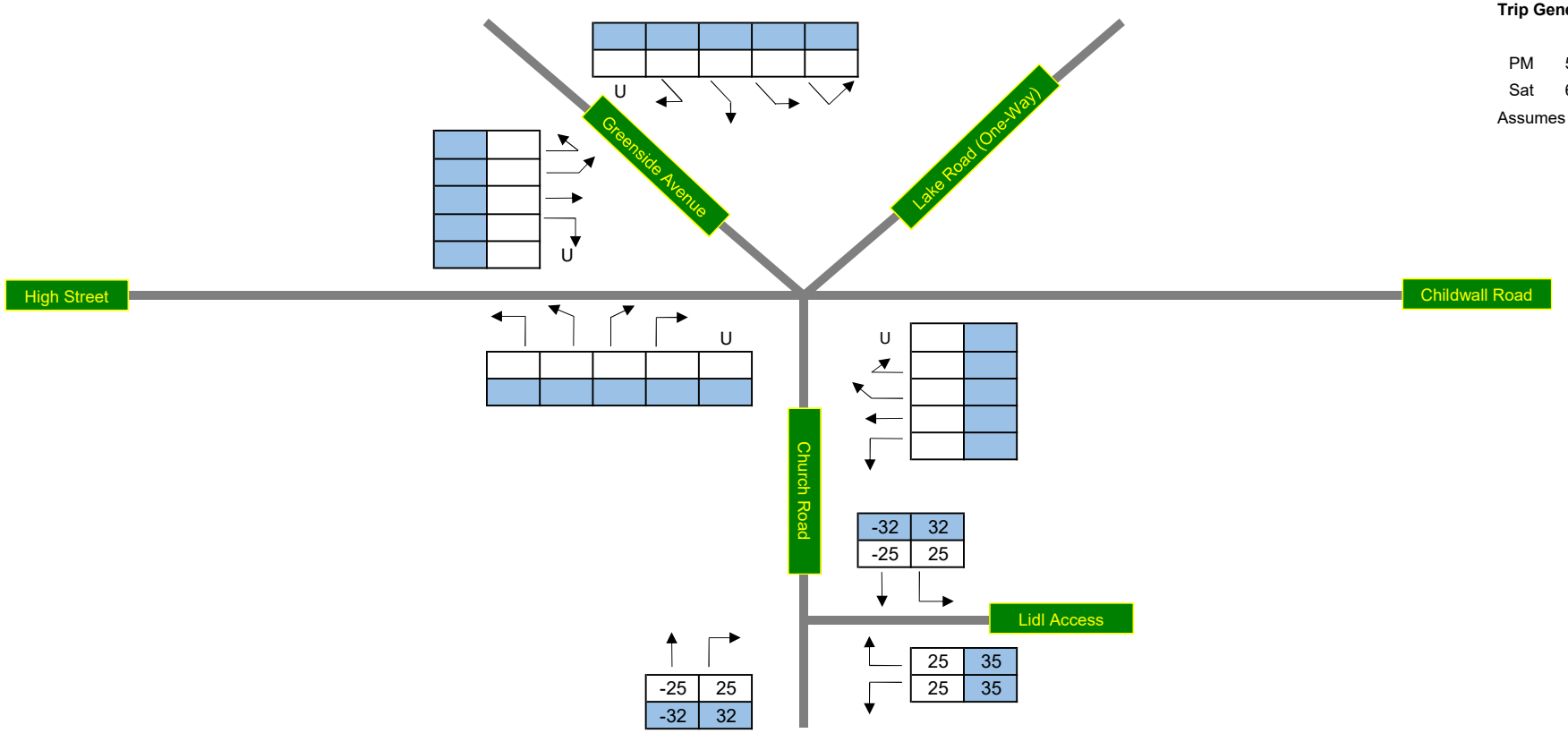


S C P Transportation Planning : Infrastructure Design	**Development Traffic Distribution (Primary Trips)**	**12/03/2021**	Job Number - SCP/190675
	Proposed Lidl, Church Road North, Wavertree		**Traffic Figure 5**

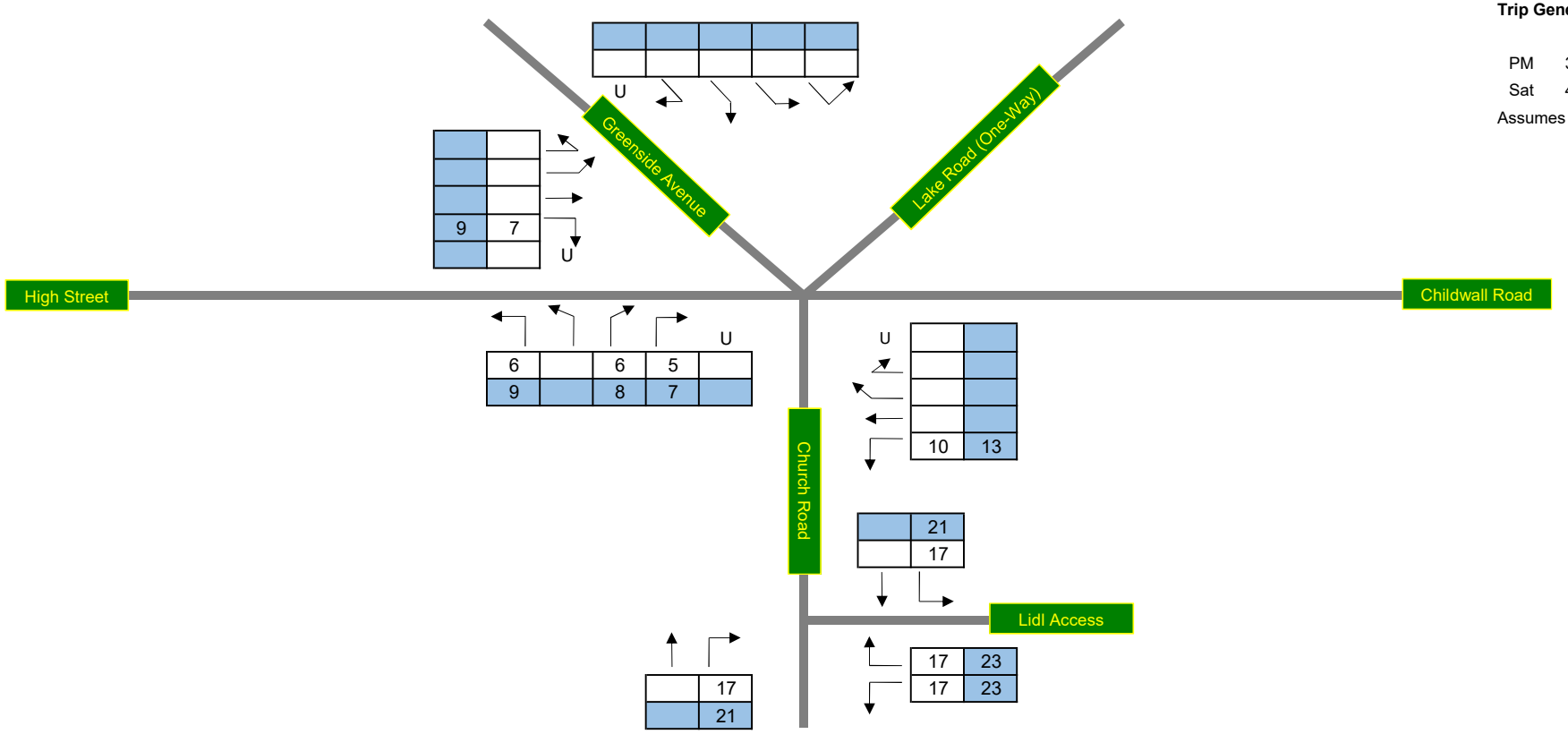
Trip Generation

	In	Out
PM	50	51
Sat	64	70

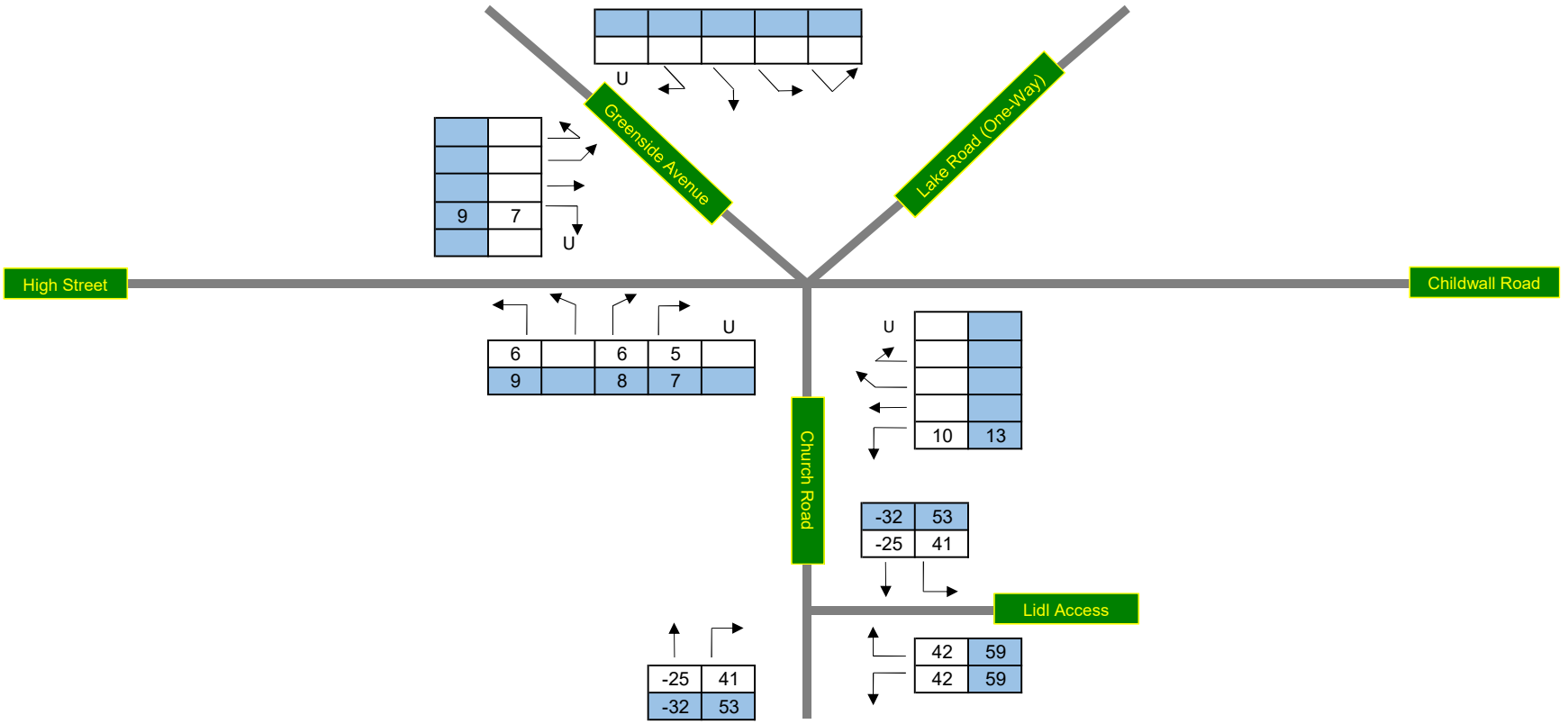
Assumes 60% Pass-by



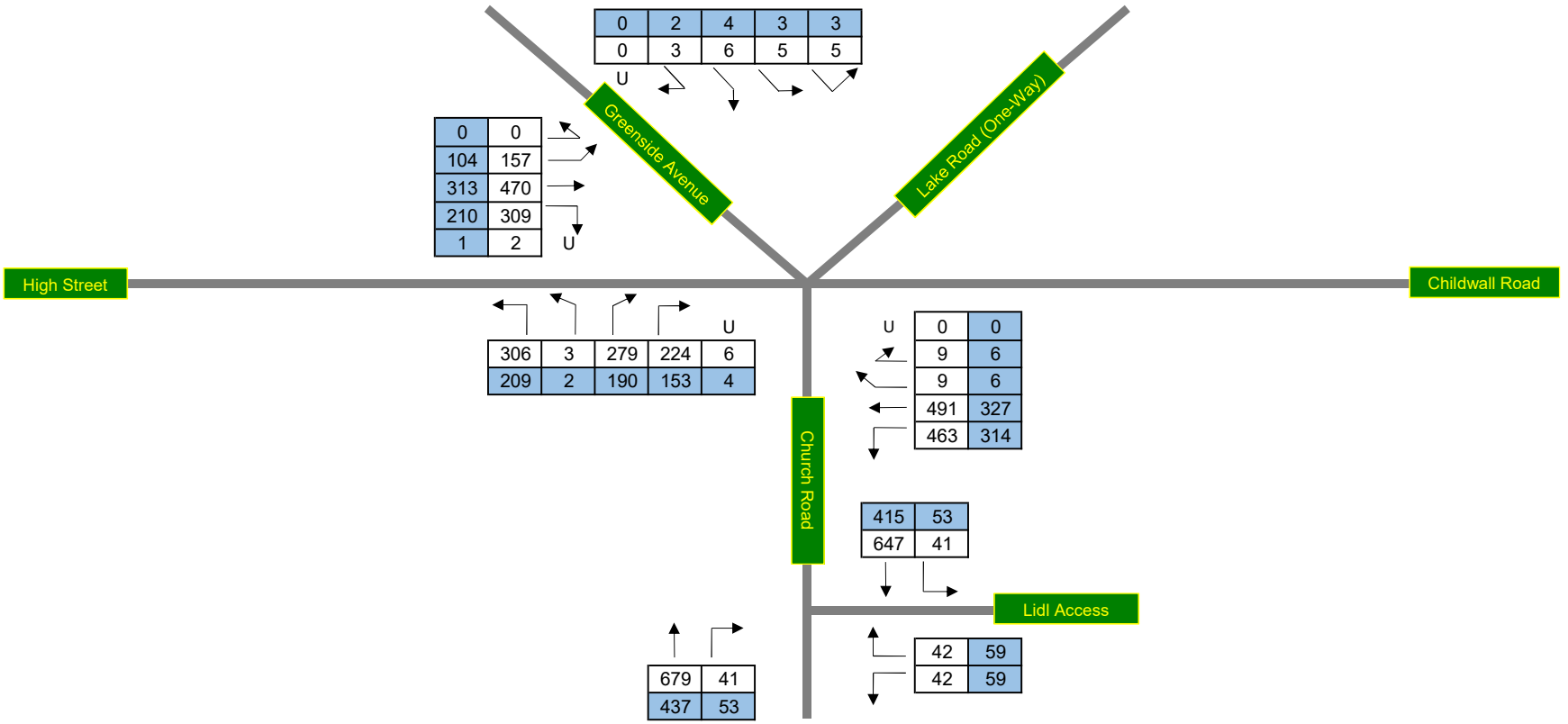
S C P Transportation Planning : Infrastructure Design	**Development Traffic Assignment (Pass-by Trips)**	**12/03/2021**	Job Number - SCP/190675
	Proposed Lidl, Church Road North, Wavertree		**Traffic Figure 6**



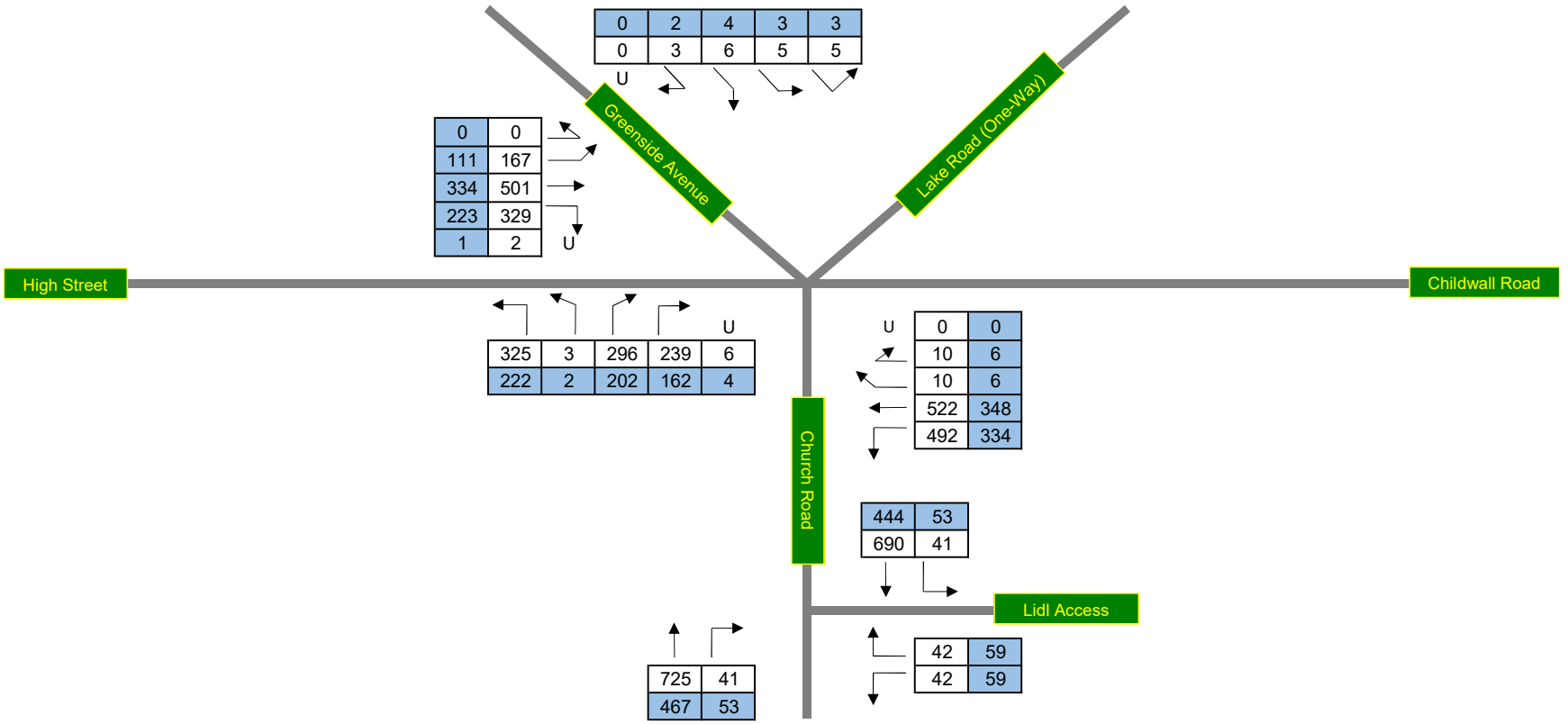
SCP Transportation Planning : Infrastructure Design	**Development Traffic Assignment (Pass-by Trips)**	**12/03/2021**	Job Number - SCP/190675
	Proposed Lidl, Church Road North, Wavertree		**Traffic Figure 7**



S C P Transportation Planning : Infrastructure Design	**Total Development Traffic Assignment**	**12/03/2021**	Job Number - SCP/190675
	Proposed Lidl, Church Road North, Wavertree		**Traffic Figure 8**



S C P Transportation Planning : Infrastructure Design	**Base 2021 + Totol Development Trips**	**12/03/2021**	Job Number - SCP/190675
	Proposed Lidl, Church Road North, Wavertree		**Traffic Figure 9**



SCP Transportation Planning : Infrastructure Design	**Base 2026 + Totol Development Trips**	**12/03/2021**	Job Number - SCP/190675
	Proposed Lidl, Church Road North, Wavertree		**Traffic Figure 10**