LAND AT FORMER WALTON HOSPITAL SITE,

RICE LANE, LIVERPOOL

TRANSPORT ASSESSMENT

PREPARED ON BEHALF OF:

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1.0 INTRODUCTION

1.1 Background

1.1.1 This Transport Assessment has been prepared by Cameron Rose Associates on behalf of the joint applicants, in order to examine the highway and transportation issues associated with the proposed redevelopment of part of the former Walton Hospital Site, off Rice Lane, totalling 5.12 ha.

1.1.2 The development which is the subject of this planning application includes the construction of an Aldi food store with a GFA of 1,804 sqm, with associated service facilities and car parking and 195 residential units comprising 138 houses, six bungalows and 51 apartments.

1.1.3 This Transport Assessment has been prepared to support the planning application for the proposed development and includes an analysis of the existing transport provision within the vicinity of the site, including sustainable transport facilities, traffic flows and the operation of the existing highway network. This assessment considers the adequacy of this existing provision to accommodate the future demands associated with the application proposals.

1.1.4 Details of the proposed pedestrian and vehicular access arrangements, quantum of car and cycle parking and servicing arrangements are set out in this report, together with a detailed assessment of the potential traffic impact of the development proposals on the surrounding local highway network.

1.1.5 The report has been prepared in line with Government guidance set out in the Department for Transports 'Guidance on Transport Assessments' (2007) and following scoping discussions held with Liverpool City Council (LCC) as local Highway Authority.

1.1.6 This report concludes that the proposed development can be accommodated without detriment to the operational capacity or safety of the local highway network and that it can be readily accessed by sustainable modes.

1.2 Structure

1.2.1 The structure of the report herein is set out as follows:

- **Section 2.0** considers the location of the development site, the local highway network and the existing infrastructure provision for sustainable modes of transport;
- **Section 3.0** examines national and local transport policy objectives relevant to the proposed development;
- **Section 4.0** sets out the details of the development proposals, site access, parking provision and servicing arrangements;
- **Section 5.0** presents the baseline conditions of the local highway network;
- **Section 6.0** deals with the potential trip generation/ attraction of the proposed development considering the various trip types;
- **Section 7.0** considers the operational performance of the local highway network for a future assessment year, with and without the development in operation; and
- **Section 8.0** provides a summary and conclusion to the report derived from the analysis presented in the above chapters.

1.2.2 The report has been prepared solely in connection with the proposed development as stated above. As such, no responsibility is accepted to any third party for all or any part of this report, or in connection with any other development

2.0 THE DEVELOPMENT SITE

2.1 Site Location and Surrounding Area

2.1.1 The site is located in Walton within Liverpool. The site lies to the west of the A59 Rice Lane. The A59 provides a direct route to Liverpool city centre from the north.

2.1.2 The proposed development, which will be built on part of the former Walton Hospital Site, includes a discount food store, with a GFA of 1,804 sqm and 195 residential units comprising 138 houses, six bungalows and 51 apartments. The development proposals are described in further detail in **Section 4.0**.

2.1.3 The site is bounded to the north and northeast by residential development, to the east by the A59 Rice Lane, to the south by a residential development and the Walton Progressive School and Resource Centre and to the west by residential development and the railway line. The location of the site in relation to the local highway network is illustrated in **Figure 2-1**.

Figure 2-1: Site Location

2.2 Local Highway Network

2.2.1 The study area, which was agreed with the local Highway Authority during pre-application discussions, includes the junction of the A59 Rice Lane/ Cavendish Drive/ Site Access and the access into the proposed Aldi food store.

2.2.2 The A59 Rice Lane provides a direct route to Liverpool city centre from the north. Rice Lane is a single carriageway road subject to a 30 mph speed limit, within the study area.

2.2.3 At the junction with Rice Lane/ the Site/ Cavendish Drive, the A59 flares from a single lane approach to a three lane approach from the south and a four lane approach from the north. Cavendish Drive flares to a two lane approach at the junction. From the site access arm, queuing space is limited, as this arm forms the minor arm of a priority controlled junction within the site. On the approach to the signalised junction the site access arm provides storage for two vehicles. Between the exit for the signalised junction and the priority controlled junction within the site, there is storage for three vehicles.

2.2.4 Controlled pedestrian crossing facilities are provided on all arms of the signalised junction, except the site access arm, where only dropped kerbs and tactile paving is provided. Advanced cycle stop lines are provided on all arms.

2.2.5 Traffic counts on the local highway network have been obtained from an independent traffic count undertaken on Friday 23 and Saturday 24 January 2015, at the junction of the A59 Rice Lane/ Cavendish Drive/ Site Access.

2.3 Accessibility by Sustainable Modes

2.3.1 The proposal site is accessible by a number of non-car modes, providing real potential to reduce private car use. This section provides an appraisal of the existing sustainable transport network surrounding the development site, with due regard to the following:

- walking and cycling network;
- Merseytravel bus network; and

- rail infrastructure.

Walking

2.3.2 An acceptable walking distance is generally considered to be two kilometres. Although cancelled and replaced by National Planning Policy Framework, Planning Policy Guidance Note 13 on Transport (PPG13) is still viewed as a relevant source of guidance and states:

'Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips particularly under two kilometres'.

2.3.3 The site is located within a two kilometre walking distance of a number of residential areas in Walton, as illustrated in **Figure 2-2**. This makes journeys on foot between local residential areas and the site a viable option, in addition to encouraging linked trips.

2.3.4 As part of the development proposals footways will be provided on both sides of the carriageway providing links between the site and the existing footway infrastructure beyond. Controlled pedestrian crossing facilities are provided at the junction of the A59 Rice Lane/ Cavendish Drive, on all arms except the site access. As part of the development proposals it is proposed to incorporate controlled crossing facilities onto this arm. Further details are provided in **Section 4.0** of this report.

2.3.5 Street lighting is provided along all roads within the vicinity of the site, aiding pedestrian security and enhancing road safety. Dropped kerbs are also provided at all junctions for the convenience of pedestrians.

Cycling

2.3.6 On the A59 Rice Lane approximately 60 metres from the access to the site, an on-road cycle route is present on the north western side of the carriageway.

2.3.7 Various advisory/ suggested cycle routes are also present in close proximity to the proposed development, including Cavendish Drive and Yew Tree Road/ Highfield Road which connect to the northern section of the development.

2.3.8 An acceptable cycle distance is considered to be up to five kilometres. PPG13 notes that:

'Cycling also has the potential to substitute for short car trips, particularly those under 5km and to form part of a longer journey by public transport.'

2.3.9 A five kilometre radius of the site includes the areas of Litherland, Fazakerley, Aintree, Bootle and Everton. This is illustrated in **Figure 2-3**. This area also encompasses the anticipated catchment of the proposed store. Thus, the location of the proposed site would provide the opportunity for shoppers and employees to access the development by bicycle.

2.3.10 Within the vicinity of the site, National Route 810 of the Cycle Network connects Ainsdale Rail Station and central Liverpool via Formby, Crosby and Stanley Park. In the vicinity of the proposed development the route runs along Breeze Hill and Stuart Road North.

2.3.11 National Cycle Route 62 is within a 1.5 kilometre distance, to the east of the site, operating along the former railway line. The route connects Fleetwood on the Fylde region of Lancashire with Selby in North Yorkshire and forms part of the Trans Pennine Trail.

2.3.12 An extract of the 'Travelwise Merseyside – Liverpool Cycle Map' is shown in **Figure 2-4**.

2.3.13 As part of the travel planning process for the development, cycle parking for up to 16 bicycles will be provided within the development site close to the store entrances. Changing and locker facilities will also be provided for Aldi staff. Such measures will increase the attractiveness of cycling as a mode of transport by employees and customers of the site.

Public Transport

2.3.14 Access to the site by public transport is excellent. Guidance published by the Institute of Highways and Transportation 'Planning for Public Transport in Developments' (1999) recommends that the maximum walking distance to a railway station should be 800 metres and 400 metres to a bus stop, equating to an approximate ten and five minute walk respectively.

Bus Services

2.3.15 Several bus services are accessible within a short walk of the site, with a bus stop located approximately 200 metres from the junction of Rice Lane/ Cavendish Drive. Services that operate along the A59 Rice Lane are detailed in **Table 2-1**.

Table 2-1: Bus Services and Headways

Service	Destination	Bus Headway (minutes)		
		Mon – Fri	Saturday	Sunday
830/ 831	Liverpool - Netherton	2 services	-	-
835	Northwood – Liverpool Freeport	1 service	-	-
345	Liverpool – Waddicar or Skelmersdale	30	30	-
20/ 21/ 242/ 821	Liverpool – Tower Hill or Northwood Netherton – Liverpool	5	10	10
210/ 241/ 250/ 310/ 311	Liverpool – Maghull or Skelmersdale	30	30	30 (Liverpool to Maghull only)
209/ 259	Bootle Bus Station – Netherton circulars	30	30	30
217/ 227	Huyton – Kirkby	30	30	-
68/ 168	Bootle – Aigburth Vale	15	20	30
121/ 215	Walton – Croxteth/ Croxteth Park circulars	30	30	30
122	Crosby – Fazakerley	30	60	-
130	Old Roan – Liverpool – Dingle	30	30	30
62/ 62A/ 162	Penny Lane – Crosby/ North Park	15	30	30

Source: www.merseytravel.gov.uk

2.3.16 The table demonstrates that there are a number of services operating along the A59 Rice Lane, throughout the week and during weekends. These services provide connections into Crosby, Liverpool, Skelmersdale, Netherton, as well as linking to other surrounding residential areas.

2.3.17 In addition to the above services, service 159 operates a 30 minute frequency service Monday to Saturday between Walton Park and Aintree University Hospital.

Railway Stations

2.3.18 Rice Lane Railway Station is located on the A59 Rice Lane approximately c. 800 metres from the site. The station is located on the Kirkby branch of the Merseyrail networks Northern Line. The rail service operating at the station offers a 30 minute headway service between Kirkby and Liverpool Centre, Monday to Saturday as is detailed in **Table 2-2**.

Table 2-2: Rail Service and Headways

Route	Rail Headways (minutes)		
	Mon – Fri	Saturday	Sunday
Liverpool to Kirkby & Ormskirk	30	30	30

2.3.19 The station is with an acceptable walking distance of the proposed development. It is also within cycling distance of the site. Merseyrail services permit bicycles on all services and also have secure parking at a number of stations, although this currently does not include Rice Lane.

2.3.20 Although the use of rail for retail food shopping trips is limited, the proximity of the proposed store to the rail station offers the potential for employees and residents at the site to travel by rail.

2.3.21 The Travel Plans for the food store and residential element of the development will include measures to encourage the use of public transport. An Interim Travel Plan is included in **Appendix C** for the Aldi food store and **Appendix D** contains a Framework Travel Plan for the residential element of the development.

2.4 Accessibility of Key Destinations

2.4.1 Analysis of census data indicates that the main employment locations for residents of the Warbreck Ward (which includes the proposed site) are:

- Warbreck – 21%;
- Everton – 14%;
- Fazakerley – 7%;
- Abercromby – 5%; and

- Netherton and Orrell – 4%.

2.4.2 The surrounding area has a range of services and facilities which can be accessed by future residents of the site. These are summarised below:

- Liverpool city centre – has a large range of employment locations including offices, retail, leisure and other jobs, a range of shops, banks, post office, library, pubs, restaurants/ cafes, leisure facilities including swimming pool and medical facilities;

- Education provision - there are primary schools including Northcote Primary School and Rice Lane Infant and Nursery School. Secondary schools include Alsop High School and Hillside High School. The University of Liverpool and Liverpool John Moores University are both within an acceptable cycle distance;

- Health facilities - including dentists, doctors, Pharmacy and Opticians.

- Food shopping – food retail units within close proximity to the proposed residential development include the proposed Aldi Store, Sainsbury's, Iceland and The Co-operative; and

- Leisure and Recreation – including recreation grounds, parks, Library, Swimming Pool, football stadiums and outdoor playing areas.

2.4.3 The local facilities which are accessible to the proposed development are summarised in **Table 2-3** below. The table includes approximate distances from a central point within the residential element of the site.

2.4.4 The table also notes whether or not the facilities are accessible on foot, by cycle and by bus from the site. The criteria adopted in PPG13 have been used to determine the accessibility by walking (i.e. within two kilometres) and by cycling (i.e. within five kilometres) and the facilities are noted as being accessible by public transport if they are accessible by the bus services outlined above.

Table 2-3: Key Facilities and Services

Journey Purpose	Destination	Distance from Site	Accessibility by Walking (W), Cycling (C) and Public Transport (PT)
Employment	Warbreck	c. 500m	W/C/PT
	Everton	c. 3.5km	C/PT
	Fazakerley	c. 3.1km	C/PT
	Abercromby	c. 6.0km	PT
	Netherton and Orrell	c. 3.5km	C/PT
Education	Northcote Primary School	c. 550m	W/C
	Rice Lane Infant & Nursery School	c. 1.3km	W/C/PT
	Alsop High School	c. 1.0km	W/C/PT
	Hillside High School	c. 1.3km	WC/PT
	University of Liverpool	c. 5.8km	PT
	Liverpool John Moores University	c. 6.0km	PT
Health Facilities	Orrell Park Medical Centre	c. 1.6km	W/C/PT
	Patrick Marray Dental Surgery	c. 1.0km	W/C/PT
	Orrell Park Pharmacy	c. 1.6km	W/C/PT
	Royal Liverpool Hospital	c. 5.8km	PT
Retail	Proposed Aldi Food Store	c. 300m	W/C
	Sainsbury's	c. 500m	W/C
	Next	c. 500m	W/C
	Liverpool city centre	5.8km	PT
Leisure and Recreation	Walton Library	c. 750m	W/C/PT
	Walton Hall Park	c. 1.1km	W/C/PT
	Bootle Football & Leisure Centre	c. 1.2km	W/C

2.5 Accessibility Score Calculator

2.5.1 As per Liverpool City Council's guidance accessibility questionnaires have been completed for each element of the development, contained within the Supplementary Planning Document 'Ensuring a Choice of Travel'.

2.5.2 The completed questionnaire is contained in **Appendix E**.

2.6 Summary

2.6.1 The site is situated in an accessible location. Convenience stores, recreation facilities and schools are within a reasonable walking distance and employment areas, schools, leisure facilities, recreation facilities and the railway station are all located within cycling distance of the site and are accessible by regular bus services.

2.6.2 Overall, it is concluded that a range of key facilities and services, including employment, retail, health and education uses, are readily accessible from the site. It is also evident that the site is accessible to pedestrians, cyclists and users of public transport. The proposed development will include measures to promote the use of such sustainable modes of transport.

2.6.3 It is therefore considered that the location of the site is consistent with national and local policy objectives.

3.0 TRANSPORT PLANNING POLICY CONTEXT

3.1.1 This section examines national and local transport policy objectives relevant to the proposed redevelopment site. The purpose of this section is to provide the relevant background to demonstrate that the proposed development is compliant with policy objectives at local and national levels, focusing on the key transport-related policy aspects.

3.2 National Policy

National Planning Policy Framework

3.2.1 The preparation of this Transport Assessment is consistent with national transport policy guidance set out in National Planning Policy Framework (NPPF, 2012), which advocates the submission of such documents to support applications for new development, which generate significant amounts of movement.

3.2.2 The NPPF provides a policy structure, which is inherently limited in specific guidance relating to planning policy from a national level; and requires Local Plans to define specifics.

3.2.3 However the NPPF central theme is presumption in favour of sustainable development. It defines transport planning policies as a key element to the delivery of sustainable development. In this regard the NPPF identifies the following guidance with regard to location and design of development proposals:

'Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore developments should be located and designed where practical to:

- *To accommodate the efficient delivery of goods and supplies;*
- *Give priority to pedestrian and cycle movements, and have access to high quality public transport;*
- *Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*

- *Incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*

- *Consider the need of people with disabilities by all modes of transport.'* (Para. 35)

3.2.4 Clearly not all the objectives of the NPPF presented above are relevant to the proposed redevelopment site. However, it is considered that the site is located in a sustainable position with regard to local residential populations, the potential for attracting trips that are already on the highway network and access to high quality public transport facilities, particularly travel by bus.

3.2.5 In addition, the site benefits from good pedestrian and cycle connectivity and can be accessed by such modes, by a wide residential population, as demonstrated in the following chapters.

3.2.6 It is therefore concluded that the development proposal accords with the overriding objectives of the NPPF and can be considered to be a sustainable development in the context of the policy.

3.2.7 With regard to traffic impact of development proposals, the NPPF states:

'All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*

- *safe and suitable access to the site can be achieved for all people; and*

- *improvements can be undertaken within the transport network that cost effectively limits the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe'.* (Para. 32)

3.2.8 Given the scale of the development, a Transport Assessment has been produced to accompany the application. This Transport Assessment examines the required elements defined within the NPPF as summarised above and finds that the development proposals meet with the defined guidance criteria.

3.2.9 The preparation of this Transport Assessment in support of the proposed development therefore complies with this guidance.

3.3 Local Policy

Merseyside Local Transport Plan

3.3.1 Local Transport Plans (LTP's) are aimed at tackling congestion and pollution, improving accessibility and safety and are used by Central Government to determine borrowing approvals for funding transport schemes.

3.3.2 The third Local Transport Plan (LTP3) for Merseyside became active 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.

3.3.3 The vision of LTP3 states:

'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' (Para. 8)

3.3.4 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; and*

- *Maintain our assets to a high standard'. (Para. 10)*

3.4 Summary

3.4.1 The overriding theme of national policy is that developments should be accessible by sustainable means of transport and accessible to all members of the local community.

3.4.2 Local policy echoes the sustainability sentiment of national policy and provides more detail in terms of access and parking.

3.4.3 **Section 2.0** of this document demonstrates that the site benefits from a good level of pedestrian, cycle and public transport accessibility and therefore accords with the aims of sustainable development as set out above.

3.4.4 The following chapters of this report will show that the proposed development is compliant with local and national policy objectives in this respect.

4.0 THE PROPOSED DEVELOPMENT

4.1 Overview

4.1.1 The development proposals include the redevelopment of part of the former Walton Hospital site to include a discount food store and a housing scheme. The retail element of the development will include an Aldi discount food store of approximately 1,804 sqm GFA, with associated service area and 126 car parking spaces (including six disabled and nine parent and child parking spaces) and stands to accommodate 16 bicycles. In addition four motorcycle parking spaces will be provided with ground anchors to provide a safe locking point. Whilst a taxi rank will not be provided on site, suitable facilities for drop-off and pick-up trips are incorporated into the scheme. The affordable housing scheme will include 195 residential units comprising 138 houses, six bungalows and 51 apartments.

4.1.2 The proposed site layout for the development is attached in **Appendix A**.

4.2 Proposed Means of Access

4.2.1 The proposed access will be via the signal controlled junction of Rice Lane/ Cavendish Drive. Two of the proposed residential houses will not be accessed via this junction but from Highfield Road to the north.

4.2.2 As part of the development proposals it is proposed to alter the layout of the arm into the development. The current arrangement allows storage for c. two vehicles at the stop line, before this arm forms the minor arm of a priority controlled junction within the site. It is proposed as part of the redevelopment of the site to alter this priority junction arrangement, so that the southern arm becomes the minor arm of the junction. The arm that meets the signal controlled junction with Rice Lane will then be extended into the site, providing access to the proposed Aldi food store and 68 units of the residential development and the existing Vale Lodge residential unit. The arm which serves the southern and western section of the site, including the mental health facility, will then form the minor arm of the priority controlled junction.

4.2.3 Controlled pedestrian crossing facilities are provided on all arms of the junction, except the site access. Dropped kerbs and tactile paving are provided on all arms including the development access. Advanced stop lines are provided on all arms for cyclists. As part of the development proposals it is proposed to incorporate controlled crossing facilities on the development access arm of the junction. The general access arrangement is illustrated in drawing 100-01/GA-04 attached in **Appendix B**.

4.2.4 In addition to the improvements to the existing signal junction to accommodate controlled crossing facilities, it is proposed that the eastbound approach to the signal junction is increased in width to accommodate a six pcu left turn facility into the development site. Further information pertaining to this arrangement is presented in **Section 7.0** of this Transport Assessment.

4.2.5 A footway/ cycle connection is to be provided in the south eastern corner of the development site; this provides a non-vehicular connection to Breeze Lane and this is illustrated in drawing 100-01/GA-05 contained in **Appendix B**.

4.2.6 The arrangement of the residential access road accords with the design principles of Manual for Streets and therefore operates as 20 mph roads by virtue of their geometry. Therefore no traditional traffic calming has been incorporated in to the scheme.

4.2.7 From the development access road, access to the proposed Aldi food store will be approximately 90 metres from the signal controlled junction with Rice Lane. Access to the store will form the minor arm of a priority controlled junction with the access road. Access to part of the residential element (Site A) of the development will be via a continuation of the access road.

4.2.8 A swept path analysis of the largest vehicle that would use the proposed Aldi food store site access junction, a 16.5 metre articulated vehicle, is illustrated in drawing 100-01/ATR-01, attached in **Appendix B**. It is demonstrated that the site access junction and service area can suitably accommodate this size of vehicle.

4.3 Accessibility Appraisal

4.3.1 As discussed earlier in the report, the proposal site offers a good level of accessibility by sustainable modes of transport, namely by walking, cycling, and public transport; for instance:

- The redevelopment would provide retail opportunity and residential development within walking distance of local shops, services and residential areas of Walton, with good, well-lit footways and pedestrian crossings in the vicinity of the site;
- Numerous bus services stop within a short walk of the proposed site; and
- The proposed retail element of the scheme would incorporate facilities to encourage sustainable trip movements, including on site cycle parking and changing and locker facilities for staff.

4.4 Parking

4.4.1 Parking standards for Liverpool City Council have been considered for this development site. These standards are set out in Liverpool City Council: Ensuring a Choice of Travel; this document identifies a maximum car parking provision (including disabled parking provision).

Food Retail

4.4.2 For the food element of the development the following provision has been identified:

- One space per 14 sqm GFA for car parking;
- 6% of total car parking provision to be disabled parking provision;
- One cycle parking space per 300 sqm for staff and one cycle parking space per 200 sqm for customers;
- One motorcycle space per 500 sqm (minimum of 2 spaces); and
- One taxi pick-up/ set down required above 1,000 sqm.

4.4.3 The maximum car parking provision for the 1,804 sqm discount food retail store would be 129. It is proposed that the store be supported by the provision of 126 car parking spaces, including six disabled and nine parent and child parking spaces. This provision is less than the permitted maximum car parking, which reflects the site's accessible location and encourages the use of alternative travel modes to the private car. Furthermore, the provision of six disabled and nine parent and child parking spaces complies with inclusive mobility standards.

4.4.4 In addition four motorcycle parking spaces will be provided with ground anchors to provide a safe locking point. Whilst a taxi rank will not be provided on site, suitable facilities for drop-off and pick-up trips are incorporated into the scheme.

4.4.5 Furthermore, the proposed Aldi food store is supported by an Interim Travel Plan, which is attached as **Appendix C**. The Interim Travel Plan draws on features of the site, which encourage sustainable travel and supplements these with a range of measures and initiatives to be considered in the development of the Travel Plan that would further promote the use of sustainable methods of travel to users of the site.

4.4.6 The Interim Travel Plan describes the strategy through which initiatives will be adopted in order to encourage modal shift as well as detailing how these will be monitored.

4.4.7 It is stated in the Department for Transport document The Essential Guide to Travel Planning (March 2008), that:

'Good travel plans have typically succeeded in cutting the number of people driving to work by 15%. This modest sounding percentage translates into a lot of car miles and congestion avoided..... The difference to congestion is proportionally more because the difference between a jammed road and a free-flowing one can be just a small amount of traffic that tips it over capacity. Travel Plans reduce traffic most during the key periods – the rush hour peaks'.

4.4.8 Although this 15% discount has not been applied to the vehicular trip attraction of the site detailed in Section 6.0, it is clear that thorough travel planning initiatives will have a significant effect on minimising the traffic associated with the development. In this regard the assessments undertaken for this report represent a robust case.

Residential Dwellings

4.4.9 For the residential element of the development the following provision has been identified:

- Car parking (guidelines only) - Houses – average of 1.5 spaces per dwelling and Flats – one space per dwelling; and
- Cycle parking: Houses – No minimum; Flats – One secure cycle space for every one flat, plus one visitor cycle stand per 20 units.

4.4.10 It is proposed that car and cycle parking provision for the proposed residential element of the development, will be provided in line with these standards.

4.5 Aldi Food Store Servicing

4.5.1 Servicing of the proposed development will take place via the main vehicular access. This is common practice nationwide in Aldi food stores. Approximately four 16.5 metre articulated service vehicles would access the site per day, in association with the proposed discount food store. In addition to a daily milk delivery and bin collection via rigid vehicle.

4.5.2 A track plot analysis of a 16.5 metre refrigerated articulated vehicle has been undertaken using AutoTrack, a specialist computer package that allows designers to assess the swept path of different vehicles as they negotiate path alignments. The swept path of these vehicles to and from the site service ramp is satisfactory, as demonstrated in drawing 100-01/ATR-01 attached in **Appendix B**.

5.0 BASELINE TRAFFIC CONDITIONS

5.1 Introduction

5.1.1 This section provides an appraisal of the transport network surrounding the proposed development site, including the baseline traffic flows on the study area network and an analysis of accident records for the local highway network.

5.1.2 Liverpool City Council have requested, during scoping discussions that the study area includes an analysis of the following junctions:

- Aldi food store proposed site access; and
- A59 Rice Lane/ Cavendish Drive/ Site Access.

5.1.3 The following sections therefore present the methodology adopted to establish baseline conditions within the agreed study area.

5.2 Baseline Traffic Flows

5.2.1 Peak hour traffic flows have been derived from independent manual turning counts undertaken by PCC Traffic Information Consultancy on Friday 23 and Saturday 24 January 2015 at the A59 Rice Lane/ Cavendish Drive/ Site Access junction.

5.2.2 Surveys were undertaken for a Weekday AM (0730 – 0930), Weekday PM (1500 – 1830) and Saturday (1000 – 1500) peak periods. Analysis of the data has determined that the peak hours are 0815 - 0915 during the Weekday AM peak and 1515 – 1615 during the Weekday PM peak and 1300 - 1400 during the Saturday peak. The full survey results are attached in **Appendix F**. The resulting turning flows at the junction are illustrated in **Figure 5-1**.

5.3 Assessment Years

5.3.1 The base traffic has been growthed for assessment to a design year five years after application registration (2020). The TEMPRO database has been interrogated to obtain growth factors for Liverpool, using the default planning assumptions. TEMPRO outputs are contained in **Appendix G**.

Table 5-1: Proposed Growth Factors (Liverpool)

Growth Period	AM Weekday Peak	PM Weekday Peak	Saturday Peak Period
2015 – 2020	1.0811	1.0799	1.0787

5.3.2 The growth factors presented above, have been applied to the surveyed traffic flows. **Figure 5-2** illustrated the 2020 (design year) baseline traffic flows.

5.4 Personal Injury Accident Data

5.4.1 Personal Injury Accident data has been obtained from Liverpool City Council for the approved study area for the period January 2009 to December 2013. This data is contained in **Appendix H**, along with an illustrative plan.

5.4.2 In total six personal injury accidents were recorded at the junctions within the study area, of which one was serious and five were slight in severity.

5.4.3 The serious accident resulted from a vehicle travelling in a south west to north east direction losing control in wet conditions. Road works were present at the junction at the time of the accident. No other vehicle was involved in the accident.

5.4.4 Of the remaining slight accidents one involved a collision between a pedal cycle and a taxi. Both were travelling in a south west to north east direction at the time of the collision. The rest were vehicle collisions, three of which involved collisions between vehicles travelling in a north east to south west direction, one of which was a loss of control. The remaining collision occurred between two vehicles travelling in a south west to north east direction.

5.4.5 Although detailed descriptions are not available on the cause of the accidents recorded in the study area, the personal injury accident data would suggest that there is no particular trend or pattern of road accidents in the vicinity of the site resulting from any deficiencies in the local road network, or the operation of the exiting site.

6.0 DEVELOPMENT TRIP ATTRACTION, ASSIGNMENT AND DISTRIBUTION

6.1 Overview

6.1.1 An estimate of the vehicular trip attraction and generation of the proposed use of the site has been based on trip rates derived from the TRICS database for the local highway networks Weekday AM, PM and Saturday peak hours.

6.1.2 Travel demand associated with the proposed development has been estimated based on gross floor area (GFA) for the proposed Aldi Food Store and number of units for the residential element, using trip rates derived from the TRICS database.

6.1.3 The DfT's 'Guidance for Transport Assessments' provides the following guidance regarding the use of TRICS for establishing trip rates to be used in Transport Assessments:

"If sites with comparable accessibility as well as scale and location cannot be found when using a standard database system, 85th percentile trip generation rates should be considered as a starting point for assessment of the baseline trip generation. The reasons for this are:

i) Since the level of public transport and non-car mode travel for sites within such trip database is often unknown, a true like for like comparison is unlikely to be achieved; and

ii) It is considered that the use of average trip rates with deductions for sustainability measures could result in overly optimistic trip rates for the proposed development.

In cases where the degree of comparability of source data sites to the development proposals is difficult to determine, it may be appropriate (in consultation with the appropriate highway authorities) to undertake a sensitivity analysis using both 85th percentile and average (50th percentile) trip rates to inform the process of the differences between these two assumptions."

6.1.4 Given the accessible location of the site and the good range of data available within the TRICS database for the proposed land uses, it is considered unlikely that such 85th percentile rates would occur in practice. Notwithstanding this, in order to ensure a robust assessment, 85th percentile trip attraction rates have also been included in this assessment as a sensitivity test.

6.2 Proposed Development Trip Attraction/ Generation

Residential Units Trip Generation

6.2.1 The development trip rates have been based on the trip rate profiles of Affordable/ Local Authority Houses and Affordable/ Local Authority Apartments of similar sizes and locations to that of the proposed development.

6.2.2 The average and 85th percentile trip rates are summarised below in **Table 6-1** for the affordable houses and **Table 6-2** for the affordable apartments, the full calculation and output from TRICS is attached in **Appendix I**.

Table 6-1: Affordable Houses Residential Trip Rates per Unit

Trip Rate	Peak Period	Arrivals	Departures	Two-Way
Average	AM Peak (0800 – 0900)	0.138	0.253	0.391
	PM Peak (1500 – 1600)	0.186	0.139	0.325
	Saturday Peak (1300 – 1400)	0.186	0.253	0.439
85th %tile	AM Peak (0800 – 0900)	0.186	0.373	0.559
	PM Peak (1500 – 1600)	0.349	0.250	0.599
	Saturday Peak (1300 – 1400)	0.349	0.373	0.722

Table 6-2: Affordable Apartments Residential Trip Rates per Unit

Trip Rate	Peak Period	Arrivals	Departures	Two-Way
Average	AM Peak (0800 – 0900)	0.091	0.085	0.176
	PM Peak (1500 – 1600)	0.087	0.105	0.192
	Saturday Peak (1300 – 1400)	0.091	0.105	0.196
85th %tile	AM Peak (0800 – 0900)	0.174	0.210	0.384
	PM Peak (1500 – 1600)	0.112	0.181	0.293
	Saturday Peak (1300 – 1400)	0.174	0.210	0.384

6.2.3 The affordable housing scheme will include 195 residential units comprising 138 houses, six bungalows and 51 apartments. Two of the proposed residential houses will not be accessed via the A59 Rice Lane/ Cavendish Drive/ Site Access junction but from Highfield Road to the north, these are therefore not included in the following calculations.

6.2.4 The quantum of traffic generated by the residential units, based on these trip rates, is summarised in **Table 6-2**.

Table 6-3: Affordable Houses Residential Vehicular Trip Generation

Trip Rate	Peak Period	Arrivals	Departures	Two-Way
Average	AM Peak (0800 – 0900)	20	36	56
	PM Peak (1500 – 1600)	26	20	46
	Saturday Peak (1300 – 1400)	26	36	62
85th %tile	AM Peak (0800 – 0900)	26	53	79
	PM Peak (1500 – 1600)	50	35	85
	Saturday Peak (1300 – 1400)	50	53	103

Table 6-4: Affordable Apartments Residential Vehicular Trip Generation

Trip Rate	Peak Period	Arrivals	Departures	Two-Way
Average	AM Peak (0800 – 0900)	5	4	9
	PM Peak (1500 – 1600)	4	5	10
	Saturday Peak (1300 – 1400)	5	5	10
85th %tile	AM Peak (0800 – 0900)	9	11	20
	PM Peak (1500 – 1600)	6	9	15
	Saturday Peak (1300 – 1400)	9	11	20

6.2.5 The trip generation of the proposed residential element of the development is anticipated to be 64 two-way trips in the Weekday AM peak hour, 56 two-way trips in the Weekday PM peak hour and 72 in the Saturday peak hour.

Aldi Food Store Trip Attraction/

6.2.6 The traffic generation of the proposed food store has been estimated on the basis of comparable survey data contained within the TRICS database. Survey data for discount food stores has been used to assess the likely traffic attraction of the proposed development.

6.2.7 The trip rates presented below consider the traffic generation of the proposed store before the effects of pass-by, transferred or linked trips are taken into consideration.

6.2.8 The average and 85th percentile trip rates are summarised below in **Table 6-5**, the full calculation and output from TRICS is attached in **Appendix I**.

Table 6-5: Discount Food Store Trip Rates per 100 sqm GFA

Trip Rate	Peak Period	Arrivals	Departures	Two-Way
Average	AM Peak (0800 – 0900)	1.062	0.616	1.678
	PM Peak (1500 – 1600)	3.801	3.842	7.643
	Saturday Peak (1300 – 1400)	6.173	6.203	12.376
85th %tile	AM Peak (0800 – 0900)	1.548	0.923	2.471
	PM Peak (1500 – 1600)	4.641	4.588	9.068
	Saturday Peak (1300 – 1400)	7.696	8.502	16.198

6.2.9 The quantum of traffic attracted by the 1,804 sqm GFA Aldi food store, based on these trip rates, is summarised in **Table 6-6**.

Table 6-6: Discount Food Store Vehicular Trip Attraction

Trip Rate	Peak Period	Arrivals	Departures	Two-Way
Average	AM Peak (0800 – 0900)	19	11	30
	PM Peak (1500 – 1600)	69	69	138
	Saturday Peak (1300 – 1400)	111	112	223
85th %tile	AM Peak (0800 – 0900)	28	17	45
	PM Peak (1500 – 1600)	84	83	166
	Saturday Peak (1300 – 1400)	139	153	292

6.2.10 The trip attraction of the proposed food store is anticipated to be 30 two-way trips in the Weekday AM peak hour, 138 two-way trips in the Weekday PM peak hour and 223 in the Saturday peak hour.

Total Trip Attraction

6.2.11 The total trip attraction of the proposed development is summarised in **Table 6-7**.

Table 6-7: Total Vehicular Trip Attraction/ Generation

Trip Rate	Peak Period	Arrivals	Departures	Two-Way
Average	AM Peak (0800 – 0900)	43	51	94
	PM Peak (1500 – 1600)	100	94	194
	Saturday Peak (1300 – 1400)	142	153	295
85th %tile	AM Peak (0800 – 0900)	63	81	144
	PM Peak (1500 – 1600)	139	128	266
	Saturday Peak (1300 – 1400)	197	217	414

6.2.12 The total trip attraction/ generation of the proposed development is anticipated to be 94 two-way trips in the Weekday AM peak hour, 194 two-way trips in the Weekday PM peak hour and 295 in the Saturday peak hour.

6.3 Aldi Food Store Trip Types

6.3.1 It is widely accepted that, the total number of trips attracted to a new retail development are not comprised wholly of new trips to the local highway network. Many of the trips may in fact already exist on the network, albeit at another location, or where a visit to the store will be incorporated into an existing pattern of travel behaviour. The following vehicular trip types have been identified in association with new retail developments (Guidance on Transport Assessment, DfT, 2007):

- New Trips: Trips that do not appear anywhere on the road network prior to the opening of the development.
- Pass-by Trips: Trips which are already present on the road network directly adjacent to the point of access to the site, which will turn into the site.
- Linked Trips: Trips that will have multiple destinations either within the proposed development site, between both the development site and existing adjacent sites, or between the development site and an established town centre.

- Diverted Trips: Trips which are already present on the local road network but not the road from which the site access is taken and will divert from their existing use to access the site.

- Transferred Trips: Trips which are already present on the local road network, accessing similar sites in close proximity to the proposed development. Slightly different from diverted trips, these wholly transfer from using an existing development to a new one, i.e. shoppers switching to a new food store that is more conveniently located for them.

6.3.2 The importance of non-primary trips, i.e. Pass-by, Linked, Diverted and Transferred trips are emphasised by retailers who suggest that they rely heavily on these trip types in order to survive.

6.3.3 The premise of non-primary trips is one that is particularly true in locations where the highway network experiences peak hour congestion as customers are unlikely to embark on a single purpose home based trip to undertake food shopping at these times. During the hours of peak traffic demand on the local highway network, it is likely that the majority of customers to the proposed food store, who travel by car, would have already been present on the local highway network.

6.3.4 For a robust assessment, it has been assumed that 20% of the vehicular total trips attracted to the proposed discount food store will be new trips on the network, i.e. trips that do not appear anywhere on the road network prior to the opening of the development (the TRICS research paper 95/2 suggested that as few as 10% of trips to food retail stores could be new trips). The remaining 80% of total trips will be non-primary trips comprising pass-by, diverted and transferred trips from other retail units in the local area.

6.3.5 It is worth noting that discounting the total vehicular trips to the development, to account for non-primary trips, is not simply a case of deducting 80%, but rather redistributing the non-primary trips according to their likely origins and destinations, prior to the opening of the proposed development.

6.3.6 For the purpose of this assessment it has been assumed that:

- 20% of journeys will be new to the network;
- 55% of journeys will be pass-by trips that are already on A59 Rice Lane during the Weekday peaks and 20% of journeys will be pass-by trips that are already on A59 Rice Lane during the Saturday peak;
- 10% of journeys will be diverted trips from the A5098 to the north and the A5058 to the south during the Weekday peaks and 30% of journeys will be diverted trips from the A5098 to the north and the A5058 to the south during the Saturday peak; and
- 15% of journeys will be existing trips to other supermarkets which will transfer to the new facility during the Weekday peaks and 30% of journeys will be existing trips to other supermarkets which will transfer to the new facility during the Saturday peak.

6.3.7 The resulting trip attraction for each trip type are summarised in **Table 6-8** and **Table 6-9**.

Table 6-8: Vehicle Trip Attraction by Trip Type – Average Trip Rates

Peak	Trip Type	Proportion	Trip Attraction		
			Arrivals	Departures	Two-Way
AM Peak (0800 – 0900)	New	20%	4	2	6
	Pass-by	55%	11	6	17
	Diverted	10%	2	1	3
	Transferred	15%	3	2	5
	Total	**100%**	**19**	**11**	**30**
PM Peak (1500 – 1600)	New	20%	14	14	28
	Pass-by	55%	38	38	76
	Diverted	10%	7	7	14
	Transferred	15%	10	10	21
	Total	**100%**	**69**	**69**	**138**
Saturday Peak (1300 – 1400)	New	20%	22	22	45
	Pass-by	20%	22	22	45
	Diverted	30%	33	34	67
	Transferred	30%	33	34	67
	Total	**100%**	**111**	**112**	**223**

Table 6-9: Vehicle Trip Attraction by Trip Type – 85th Percentile Trip Rates

Peak	Trip Type	Proportion	Trip Attraction		
			Arrivals	Departures	Two-Way
AM Peak (0800 – 0900)	New	20%	6	3	9
	Pass-by	55%	15	9	25
	Diverted	10%	3	2	4
	Transferred	15%	4	2	7
	Total	**100%**	**28**	**17**	**45**
PM Peak (1500 – 1600)	New	20%	17	17	33
	Pass-by	55%	46	46	92
	Diverted	10%	8	8	17
	Transferred	15%	13	12	25
	Total	**100%**	**84**	**83**	**166**
Saturday Peak (1300 – 1400)	New	20%	28	31	58
	Pass-by	20%	28	31	58
	Diverted	30%	42	46	88
	Transferred	30%	42	46	88
	Total	**100%**	**139**	**153**	**292**

6.4 Residential Trip Distribution and Assignment

6.1 The distribution of residential trips on the local highway network has been based on existing turning proportions based on the 2015 survey flows illustrated in **Figure 5-1**.

6.4.1 The distribution of residential trips is shown in **Figure 6-1**. The assignment of the proposed development traffic in these proportions is illustrated in **Figure 6-2** for the average and **Figure 6-3** for the 85th percentile trip rate.

6.5 Retail Trip Distribution and Assignment

6.5.1 As detailed in **Table 6-8**, the trips attracted to the development are split into New, Transferred, Diverted and Pass-by Trips. The distribution associated with each trip type is detailed below. Given the extent of the study area it is proposed to combine the New, Diverted and Transferred Trips and assume that these trips are new to the study area network.

New, Diverted and Transferred Trips Distribution

6.2 To reflect the above assumption the distribution of New, Diverted and Transferred trips on the local highway network has been based on existing turning proportions based on the 2015 survey flows illustrated in **Figure 5-1**.

6.3 The distribution of New, Diverted and Transferred trips is shown in **Figure 6-4**. The assignment of the proposed development traffic in these proportions is illustrated in **Figure 6-5** for the average and **Figure 6-6** for the 85th percentile trip rate.

Pass-by Trip Distribution

6.5.1 Given that the anticipated catchment of the proposed development will be local, it is likely that a proportion of trips to the development, in the peak hours, will be Pass-by Trips made by people already travelling along the A59 Rice Lane. These trips effectively comprise trips which will turn into the proposed development on their way to/ from other destinations. This would therefore represent a discount to traffic downstream of the site access for the duration of the Pass-by Trip to the development, but the trip is subsequently added back to the network once the visit has ended. Thus no reduction has been made to the traffic on the local highway network outside of the site access junction. Albeit that the possible trip timeline is extended beyond the highway network peak hours.

6.5.2 The distribution of Pass-by trips is shown in **Figure 6-7**. The assignment of the proposed development traffic in these proportions is illustrated in **Figure 6-8** for the average and **Figure 6-9** for the 85th percentile trip rate.

6.6 Development Trip Assignment

6.6.1 The total development traffic flows are shown in **Figure 6-1**/ for the average trips rates and **Figure 6-11** for the 85th percentile trip rates.

6.6.2 The 2020 Base plus Development traffic flows are illustrated in **Figure 6-12** for the average trip rates and **Figure 6-13** for the 85th percentile trip rates.

7.0 IMPACT OF DEVELOPMENT PROPOSALS ON THE OPERATIONAL PERFORMANCE OF THE LOCAL HIGHWAY NETWORK

7.1 Introduction

7.1.1 The following capacity assessments examine the impact of the proposed development on the operational performance of the local highway network.

7.2 Junction Capacity Assessments

7.2.1 Capacity assessments have been undertaken for a Weekday AM, PM and Saturday peak period. Assessments have been undertaken for the following junctions, as agreed with Liverpool City Council, using the software noted:

- Aldi food store/ Site Access Road – PICADY; and
- Rice Lane/ Cavendish Drive/ Site Access – LINSIG.

7.2.2 PICADY presents results as Ratio of Flow to Capacity (RFC) and corresponding 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 unity 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).

7.2.3 LINSIG presents results as a percentage Degree of Saturation (DoS) and corresponding likely traffic queues for each modelled link at the junction. For Traffic Signals it is generally accepted that a Degree of Saturation (DoS) of 90% or less on individual links represent satisfactory signal operation.

Aldi Food Store/ Site Access Road

7.2.4 The results of the PICADY assessment are set out in **Appendix J** and summarised in **Table 7-1**.

Table 7-1: Aldi Food Store/ Site Access Road – PICADY Results

Scenario	Arm	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
		RFC	Queue	RFC	Queue	RFC	Queue
2020 Base + Dev (85th)	Aldi Access	0.034	0	0.166	0	0.312	1
	Site Access Road (w) – right turn	0.000	0	0.000	0	0.000	0

7.2.5 The results of the assessment show that the site access could accommodate the development proposals, without detriment to the operational performance of the highway network.

Rice Lane/ Cavendish Drive/ Site Access

Existing Layout

7.2.6 In order to validate the operational performance of the signal junction in a 2015 assessment year, queue surveys were undertaken at the time of the traffic count survey. The results of the queue survey are summarised in **Table 7-2** for the peak hours under consideration.

Table 7-2: Rice Lane/ Cavendish Drive/ Site Access – Queue Survey

Peak	Arm	Lane	Queue	
			Maximum	Average
AM Peak (0815 – 0915)	Rice Lane (N)	1	0	0
		2	9	8
		3	10	9
		4	1	0
	Cavendish Road	1	3	2
		2	2	1
	Rice Lane (S)	1	8	5
		2	4	3
		3	3	2
	Site Access	1	1	1
PM Peak (1515 – 1615)	Rice Lane (N)	1	0	0
		2	14	10
		3	7	4
		4	0	0
	Cavendish Road	1	6	5
		2	5	5
	Rice Lane (S)	1	11	8
		2	9	7
		3	8	3
	Site Access	1	0	0
Saturday Peak (1300 – 1400)	Rice Lane (N)	1	0	0
		2	11	7
		3	4	3
		4	0	0
	Cavendish Road	1	4	3
		2	3	2
	Rice Lane (S)	1	5	4
		2	4	4
		3	4	4
	Site Access	1	0	0

7.2.7 The operational performance of the signalised junction of Rice Lane/ Cavendish Drive/ Site Access has been modelled based on their current operation. The results of the LINSIG assessment are set out in **Appendix K** and summarised in **Table 7-3** for the current operation.

Table 7-3: Rice Lane/ Cavendish Drive/ Site Access – LINSIG Results Existing

Scenario	Arm	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
		RFC	Queue	RFC	Queue	RFC	Queue
2015 Survey	Walton Hospital – ahead & left	6.3%	0	8.1%	1	6.5%	1
	Walton Hospital – right	15.8%	0	13.9%	0	13.0%	0
	A59 Rice Lane (n) – left & ahead	80.9%	9	76.7%	9	82.3%	10
	A59 Rice Lane (n) – right & ahead	77.3%	9	70.1%	8	72.5%	9
	Cavendish Drive – ahead & left	79.0%	6	79.9%	10	86.4%	9
	Cavendish Drive – right	39.5%	2	52.9%	5	79.0%	7
	A59 Rice Lane (s) – ahead & left	62.3%	6	62.4%	11	47.8%	7
	A59 Rice Lane (s) – right & ahead	: 82.7%	7	76.9%	9	60.0%	6
2020 Base + Committed	Walton Hospital – ahead & left	8.8%	0	9.3%	1	6.6%	1
	Walton Hospital – right	15.8%	0	23.8%	1	16.5%	0
	A59 Rice Lane (n) – left & ahead	67.0%	7	62.3%	7	72.9%	8
	A59 Rice Lane (n) – right & ahead	77.1%	10	72.4%	10	92.3%	14
	Cavendish Drive – ahead & left	105.4%	16	100.4%	18	92.3%	11
	Cavendish Drive – right	50.1%	3	65.6%	6	84.7%	8
	A59 Rice Lane (s) – ahead & left	123.5%	95	104.3%	52	84.0%	18
	A59 Rice Lane (s) – right & ahead	99.8%	12	73.8%	9	58.1%	7

Cycle Time – AM Peak: 60 seconds, PM Peak: 90 seconds & Saturday Peak: 85 seconds.

7.2.8 The results of the 2015 Survey assessments demonstrate that the model validates well against the observed queue lengths. The results of the future year capacity assessments show that the junction would be operating over capacity during the AM and PM peak 2020 Base plus Committed Development.

7.2.9 During the 2020 Base plus Committed Development AM peak scenario, the maximum DoS occurs on A59 Rice Lane (s) of 123.5% with an associated queue of 95 pcus

Proposed Layout

7.2.10 As part of the development proposals it is proposed to alter the layout of the arm into the development. The current arrangement allows storage for c. two vehicles at the stop line, before this arm forms the minor arm of a priority controlled junction within the site. It is proposed as part of the development to close the northern arm of this priority controlled junction, which will become the car park for the proposed Aldi store. The arm that meet the signal controlled junction with Rice Lane, will then be extended into the site, providing access to the proposed store and residential element of the development. The arm which serves the western section of the site, including the mental health facility, will then form the minor arm of a priority controlled junction with arm serving the proposed development.

7.2.11 Controlled pedestrian crossing facilities are also proposed on the site access arm. In order to incorporate this facility at the junction, the site access and Cavendish Drive no longer operate in the same stage. Running these two arms in concurrent stages allows the provision of walk-with crossing facilities on the site access arm.

7.2.12 As a result of the loss of green time, due to incorporating crossing facilities at this junction, it is also proposed to incorporate a left turn flare of six pcus in length on Rice Lane (s), to improve the capacity of the junction

7.2.13 The results of the LINSIG assessment are set out in **Appendix L** and summarised in **Table 7-4** for the proposed operation.

Table 7-4: Rice Lane/ Cavendish Drive/ Site Access – LINSIG Results Proposed

Scenario	Arm	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
		RFC	Queue	RFC	Queue	RFC	Queue
2020 Base + Dev (Average)	Walton Hospital –ahead & left	40.3%	2	72.8%	4	85.9%	6
	Walton Hospital – right	37.4%	2	49.4%	3	71.7%	4
	A59 Rice Lane (n) – left & ahead	63.3%	13	72.3%	11	74.8%	13
	A59 Rice Lane (n) – right & ahead	59.1%	14	69.0%	11	69.2%	12
	Cavendish Drive – ahead & left	89.0%	12	91.8%	16	86.1%	13
	Cavendish Drive – right	41.7%	4	48.6%	6	67.0%	9
	A59 Rice Lane (s) – ahead & left	91.5%	30	92.9%	30	87.5%	26
	A59 Rice Lane (s) – right & ahead	88.7%	11	83.0%	14	62.9%	10
2020 Base + Dev (85th)	Walton Hospital –ahead & left	51.8%	2	88.0%	6	83.1%	6
	Walton Hospital – right	50.2%	3	60.5%	3	71.2%	5
	A59 Rice Lane (n) – left & ahead	63.6%	13	71.9%	11	82.1%	14
	A59 Rice Lane (n) – right & ahead	59.6%	14	63.1%	11	75.4%	12
	Cavendish Drive – ahead & left	89.0%	12	92.0%	16	86.3%	13
	Cavendish Drive – right	41.7%	4	48.6%	6	67.0%	9
	A59 Rice Lane (s) – ahead & left	90.9%	30	92.8%	30	87.9%	25
	A59 Rice Lane (s) – right & ahead	88.7%	11	84.1%	15	66.6%	10

Cycle Time – 120 seconds for all peaks

7.2.14 The results of the assessment show that with the development in place and with the improvement measures proposed at the junction, it would operate within capacity and perform better than the 2020 Base plus Committed Development scenario, assuming the existing junction arrangement remains. The maximum RFC occurs in the PM Peak 2020 Base plus Committed plus Development scenario, of 92.8% on Rice Lane (s) with an associated queue of 30 pcus. There is a reduction in queuing of 22 pcus when compared to the 2020 Base plus Committed Development scenario (Table 7-3).

7.2.15 Overall, it is concluded that with the improvement measures in place, the development traffic would not have a material impact upon the operation of the junction as a whole. The improvement measures proposed would not only improve the junction for pedestrians but also improve the junction operation capacity for vehicles.

7.3 Summary

7.3.1 The junction capacity assessments undertaken indicate that the junctions considered on the local highway network, will operate within acceptable capacity limits for a future assessment year, following the development of the site.

8.0 SUMMARY AND CONCLUSIONS

8.1 Summary

8.1.1 This report has examined the highway and transportation matters associated with the proposed redevelopment of the Walton Hospital Site, off Rice Lane.

8.1.2 The development which is the subject of this planning application includes the construction of an Aldi food store with a GFA of 1,804 sqm, with associated service facilities and car parking and 195 residential units comprising 138 houses, six bungalows and 51 apartments.

8.1.3 The proposed development will promote accessibility by all modes of travel, in particular public transport, cycling and walking through its location within a large residential catchment.

8.1.4 The proposed retail scheme would influence travel behaviour by incorporating facilities to encourage sustainable trip movements, including on site cycle parking and changing and locker facilities for staff. An Interim/ Framework Travel Plan has been developed for the site which describes the strategy through which initiatives will be adopted in order to encourage the use of sustainable modes of transport to the site.

8.1.5 The majority of car trips to the retail element of the development will not be new to the network, but rather transferred or linked trips, there is likely to be an overall vehicle kilometre saving given the more convenient location of the stores to the catchment. Such a reduction in travel distance will effectively improve upstream and downstream capacity dependent on travel direction.

8.1.6 The impacts of the proposals have been assessed across an agreed study area network which includes the junctions of:

- Aldi Food Store/ Site Access Road; and
- Rice Lane/ Cavendish Drive/ Site Access.

8.1.7 As part of the development proposals, an internal junction within the development will be altered to change the priority of the junction. It is also proposed to alter the layout of the Rice Lane/ Cavendish Drive/ Site Access junction. Controlled pedestrian crossing facilities are proposed on the site access arm. It is also proposed to incorporate a left turn flare of six pcus in length on Rice Lane (s), to improve the capacity of the junction

8.1.8 The results of the impact analysis demonstrate that the local highway network would have sufficient capacity to accommodate forecast traffic levels up to 2020 and beyond.

8.2 Conclusions

8.2.1 This report has demonstrated how the proposed development promotes accessibility by all modes of travel, in particular public transport, cycling and walking by virtue of its sustainable location and the physical infrastructure that would be put in place (cycle parking and the front of the store), as well as the Travel Plan which would be used to influence travel behaviour.

8.2.2 It has also been demonstrated how the development would reduce the need to travel, especially by car with regard to the element of pass-by, diverted and transferred trips – i.e. the majority of vehicular trips to the proposed development would not be new trips on the network and may well be shorter given the more convenient location of the store to the catchment.

8.2.3 The impacts of residual trips from the proposed development have been assessed and it is evident that these would not have a significant impact on the operational performance and safety of the local highway network.

8.2.4 It is concluded that there are no overriding reasons preventing the Local Planning Authority from recognising that the proposal is acceptable with regard to the local highway network.

CAMERON ROSE
ASSOCIATES

FIGURES

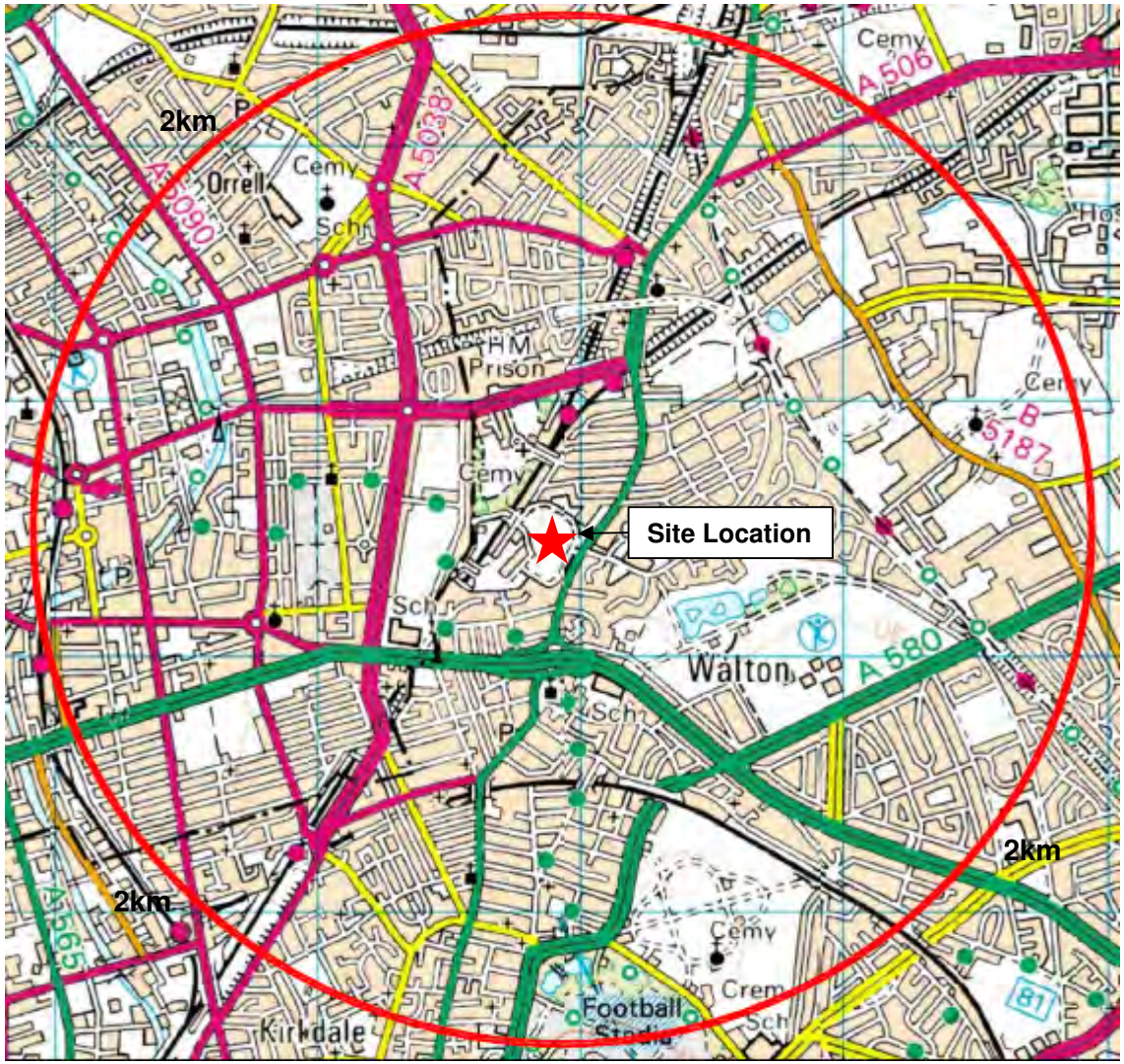


Figure 2-2	Walking Catchment	CAMERON ROSE ASSOCIATES
	Rice Lane, Liverpool	

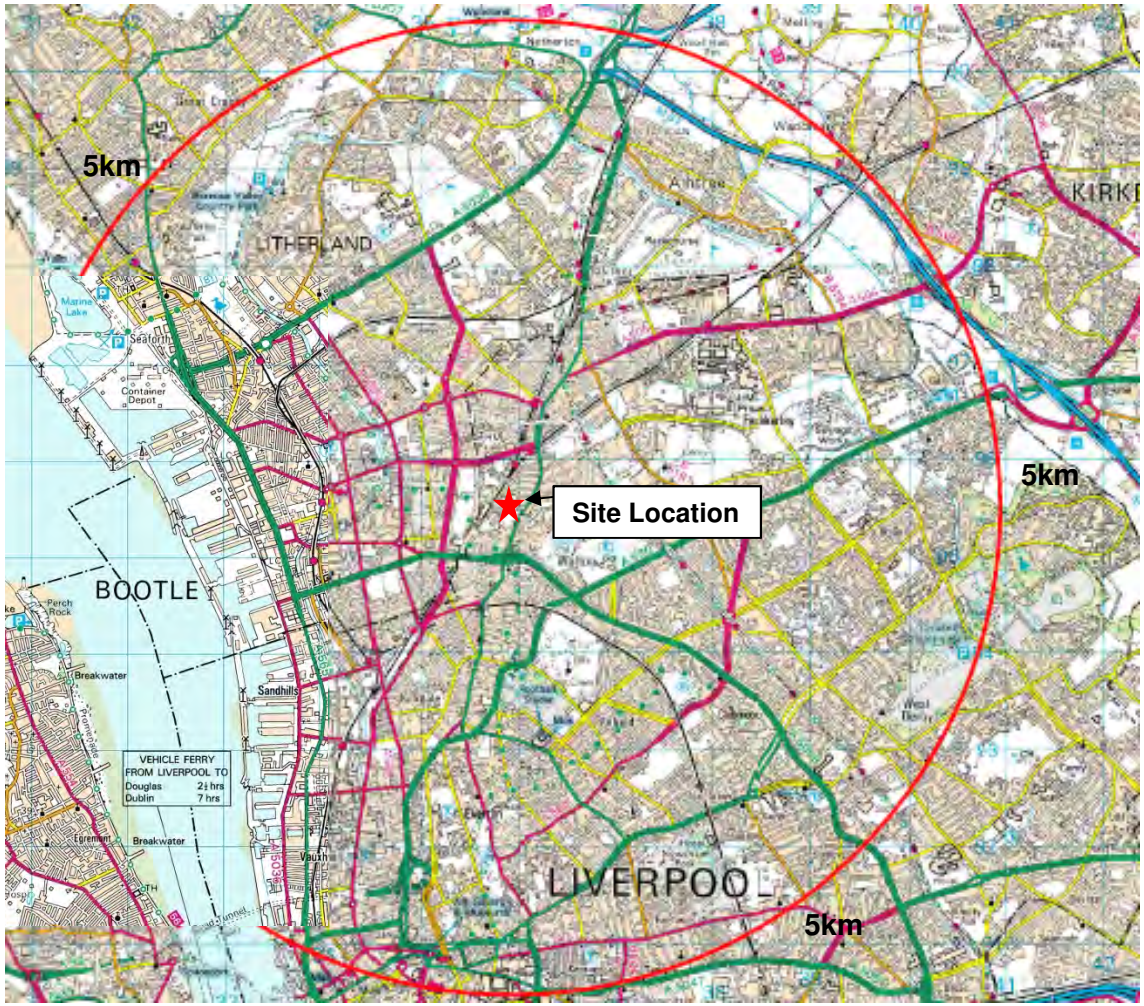
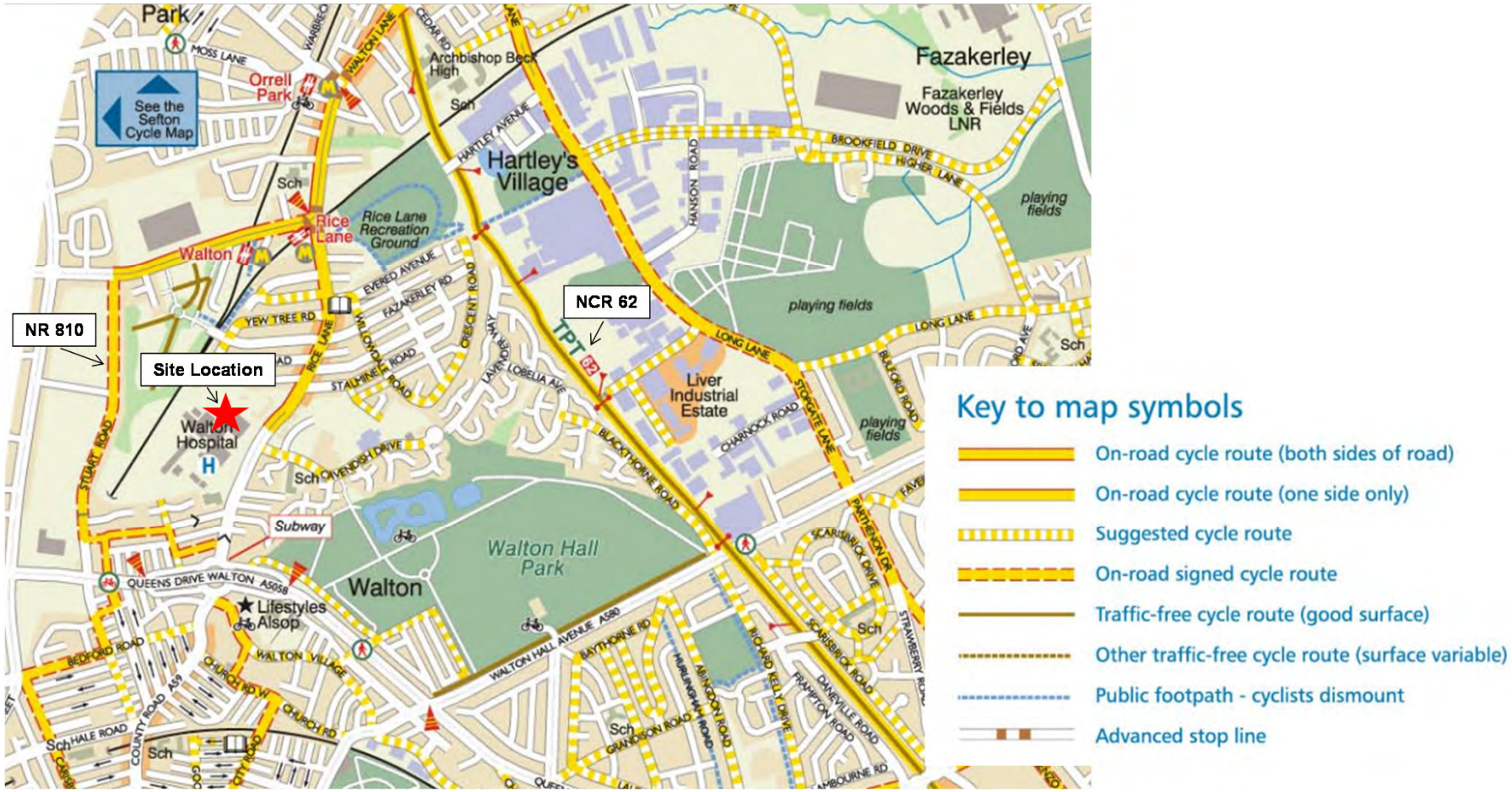
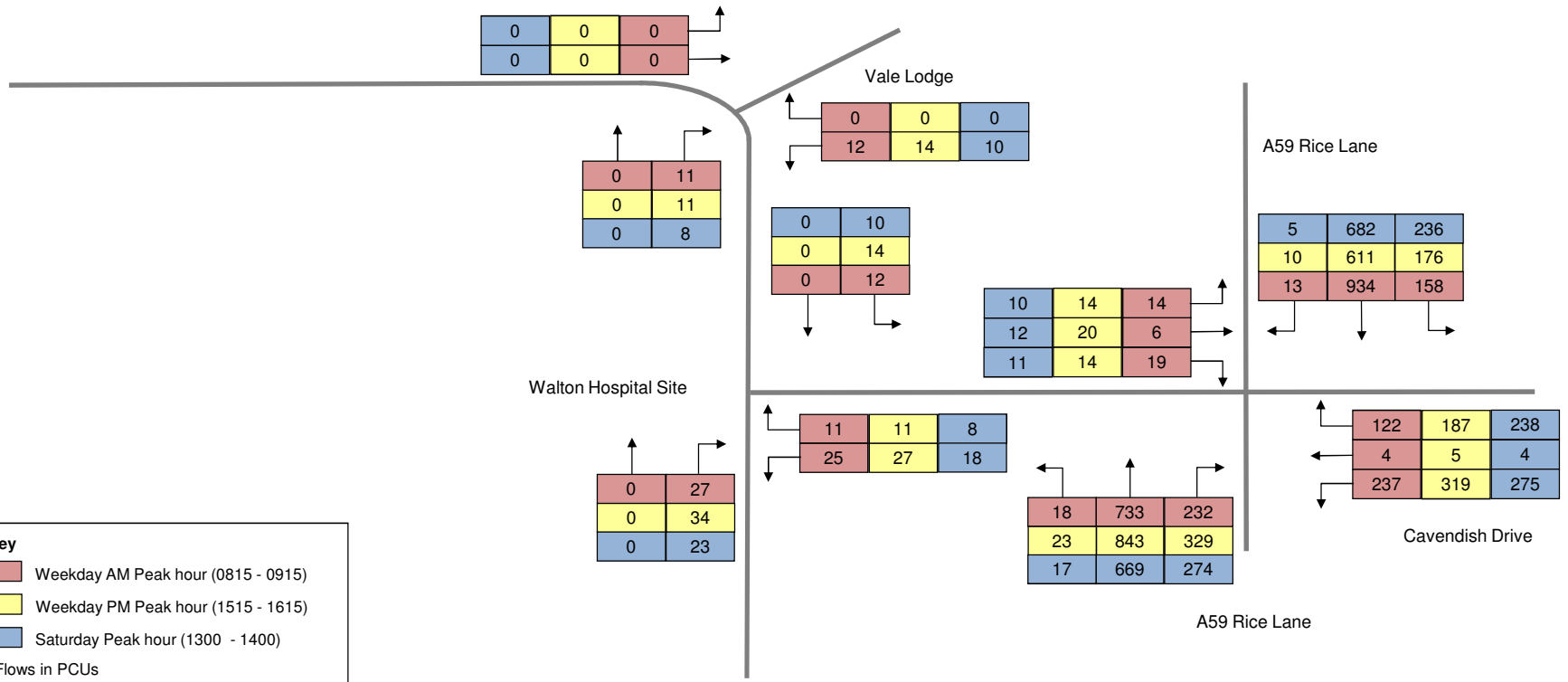


Figure 2-3	Cycling Catchment	CAMERON ROSE ASSOCIATES
	Rice Lane, Liverpool	



Source: http://www.letstravelwise.org/

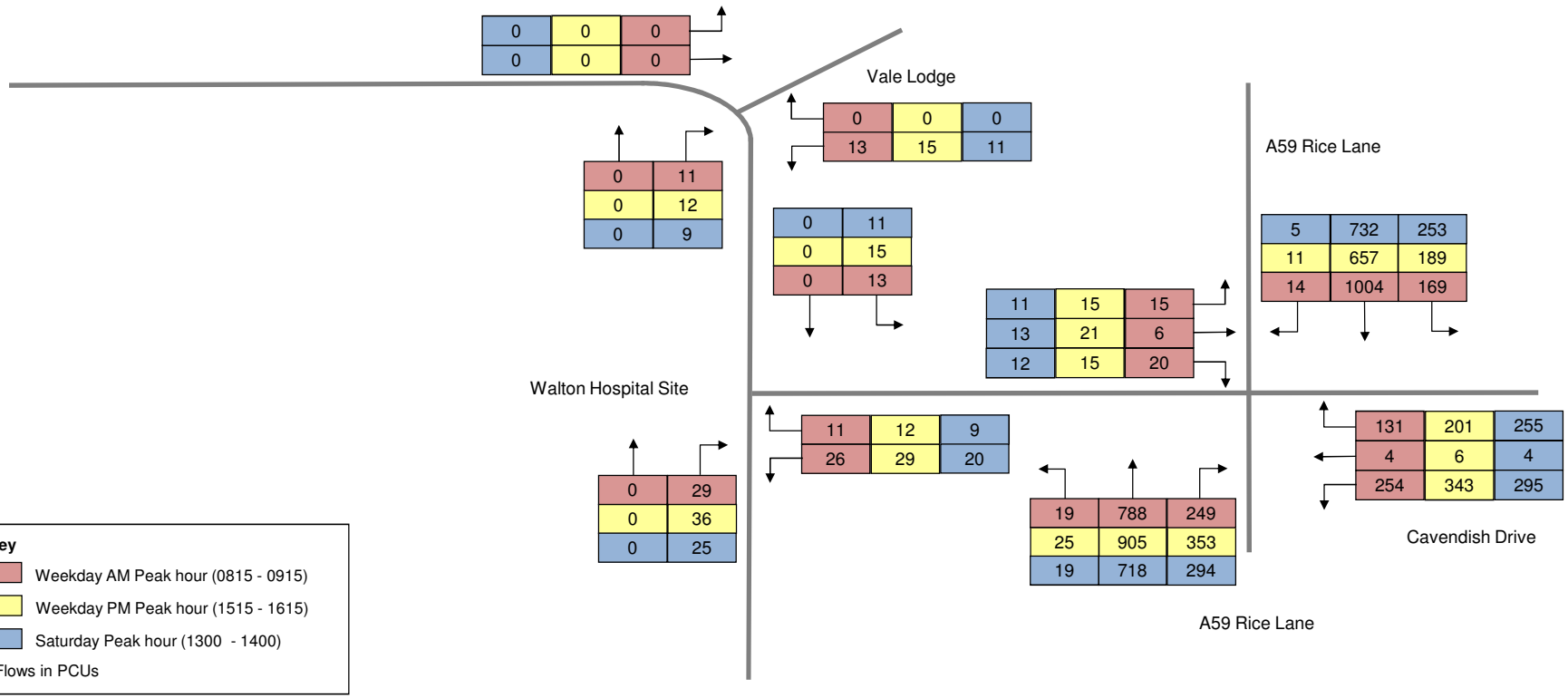
Figure 2-4	Travel Merseyside – Extract of the Liverpool Cycle Map	CAMERON ROSE ASSOCIATES
	Rice Lane, Liverpool	



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
2015 Survey Traffic Flows

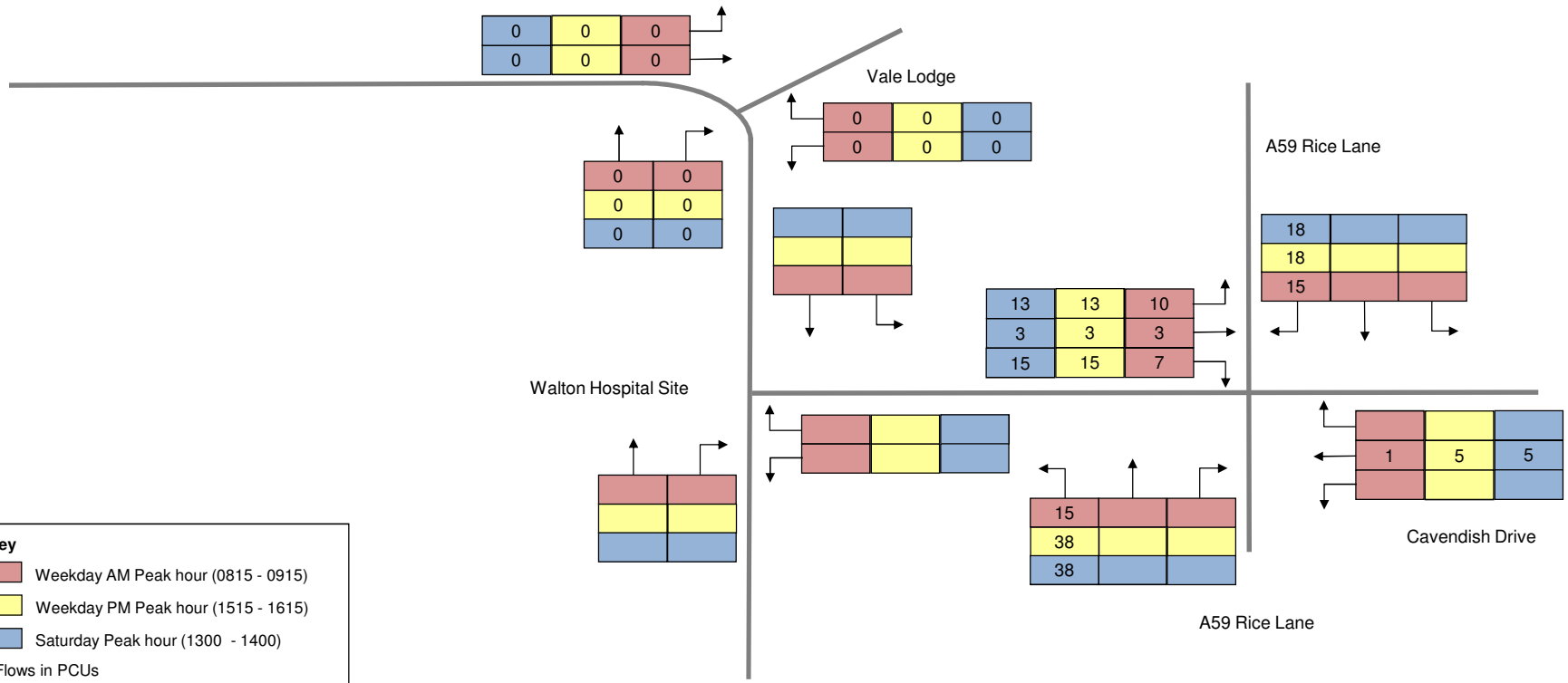
FIGURE 5-1



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
2020 Base Traffic Flows

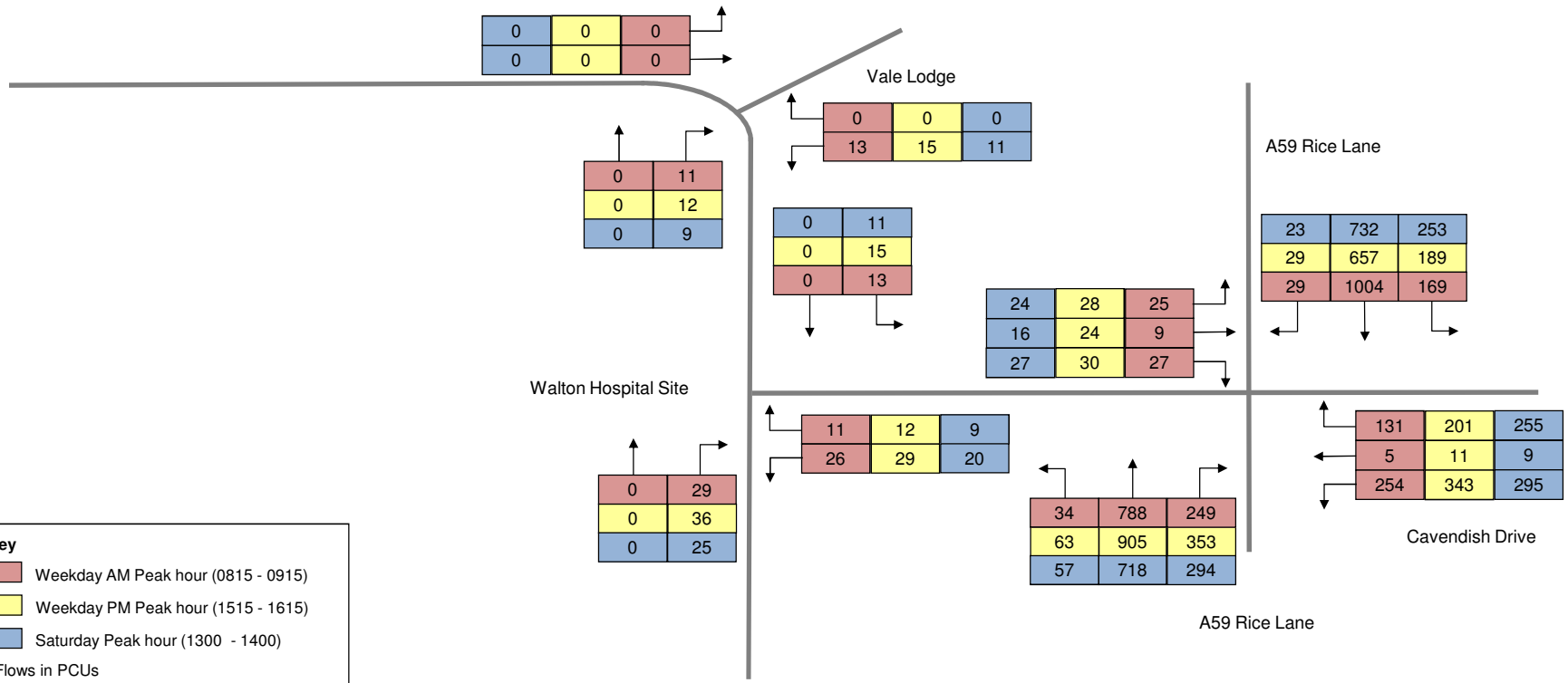
FIGURE 5-2



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
Committed Development Traffic Flows - Mental Health Facility

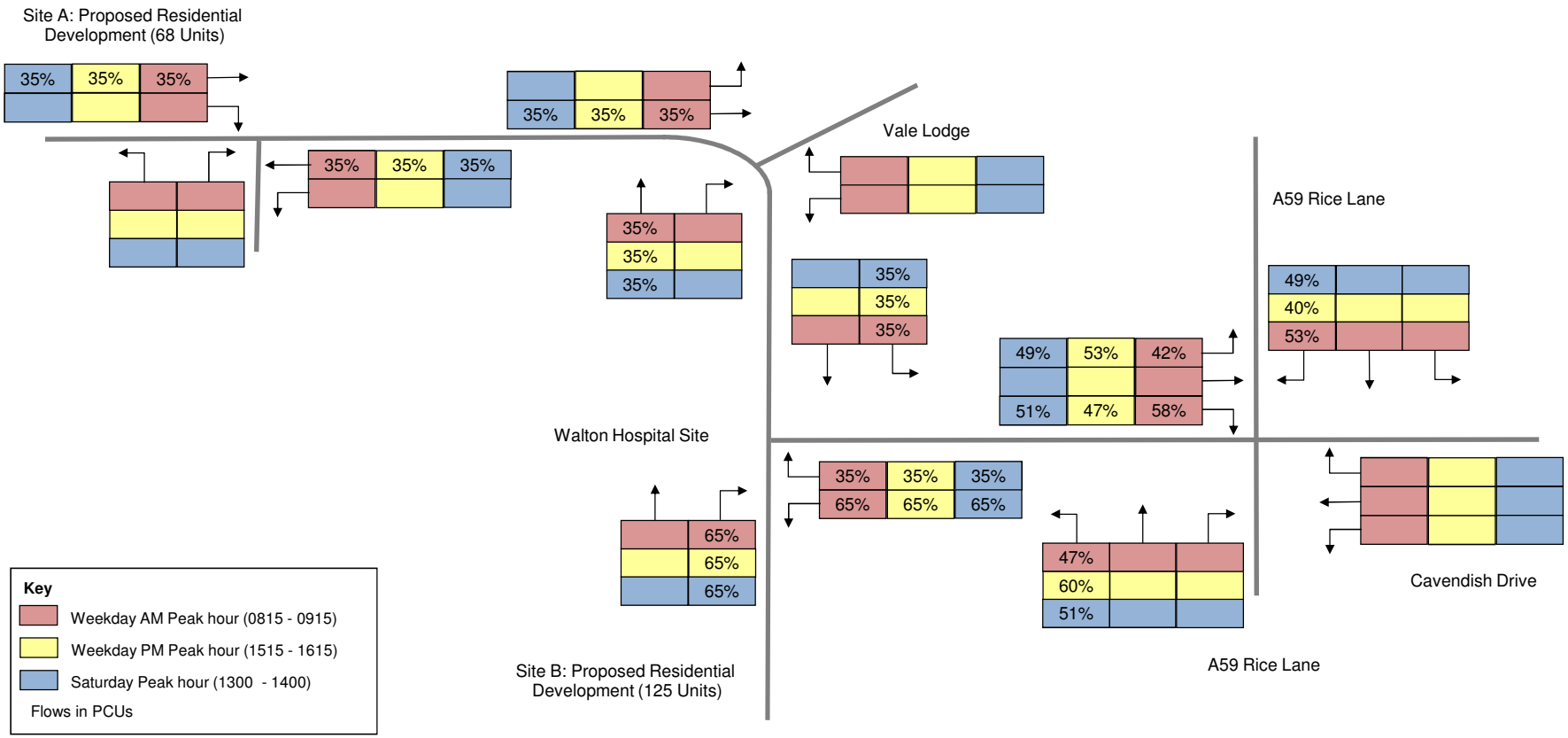
FIGURE 5-3



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
2020 Base plus Committed Development Traffic Flows

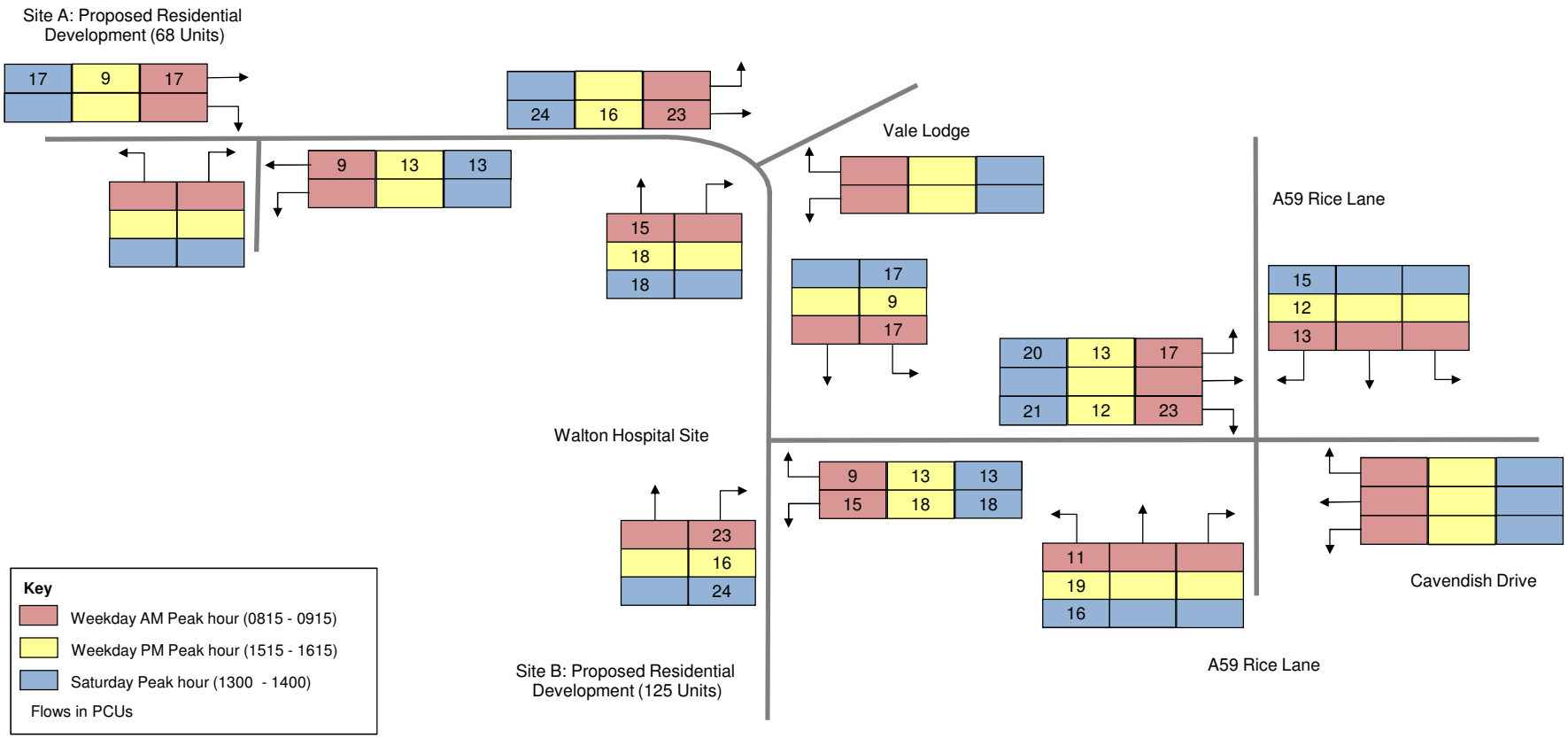
FIGURE 5-4



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
Residential Development Distribution

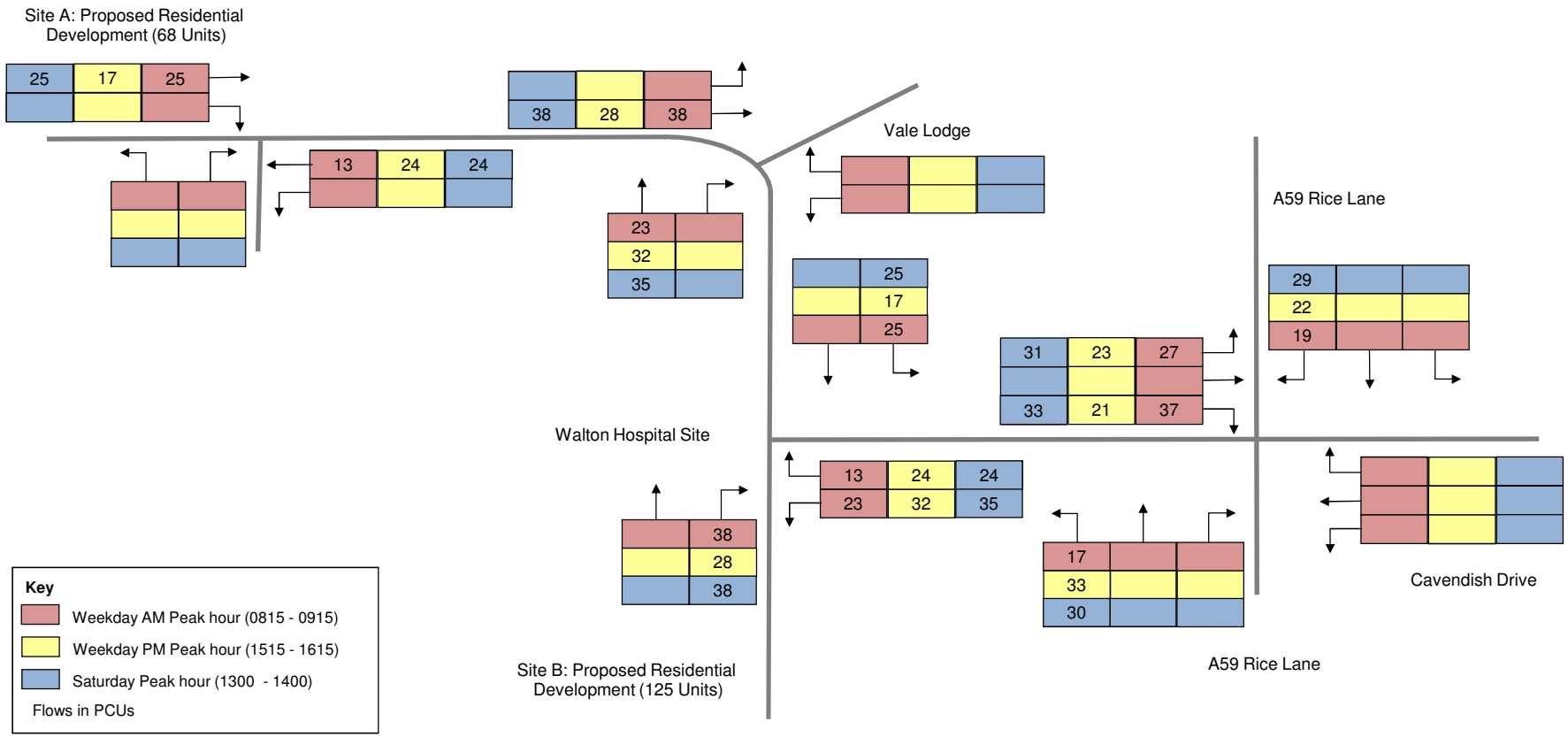
FIGURE 6-1



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
Residential Development Assignment - Average Trip Rates

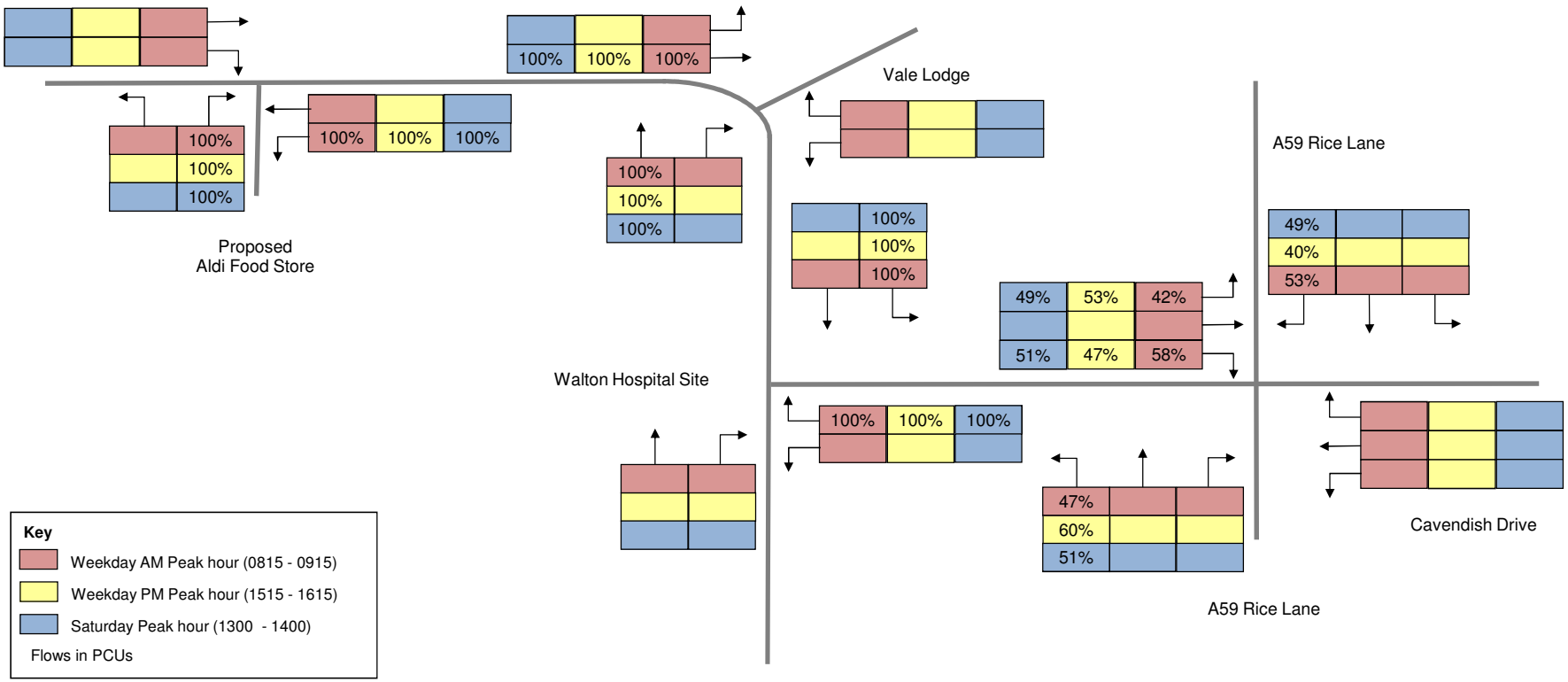
FIGURE 6-2



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
Residential Development Assignment - 85th % tile Trip Rates

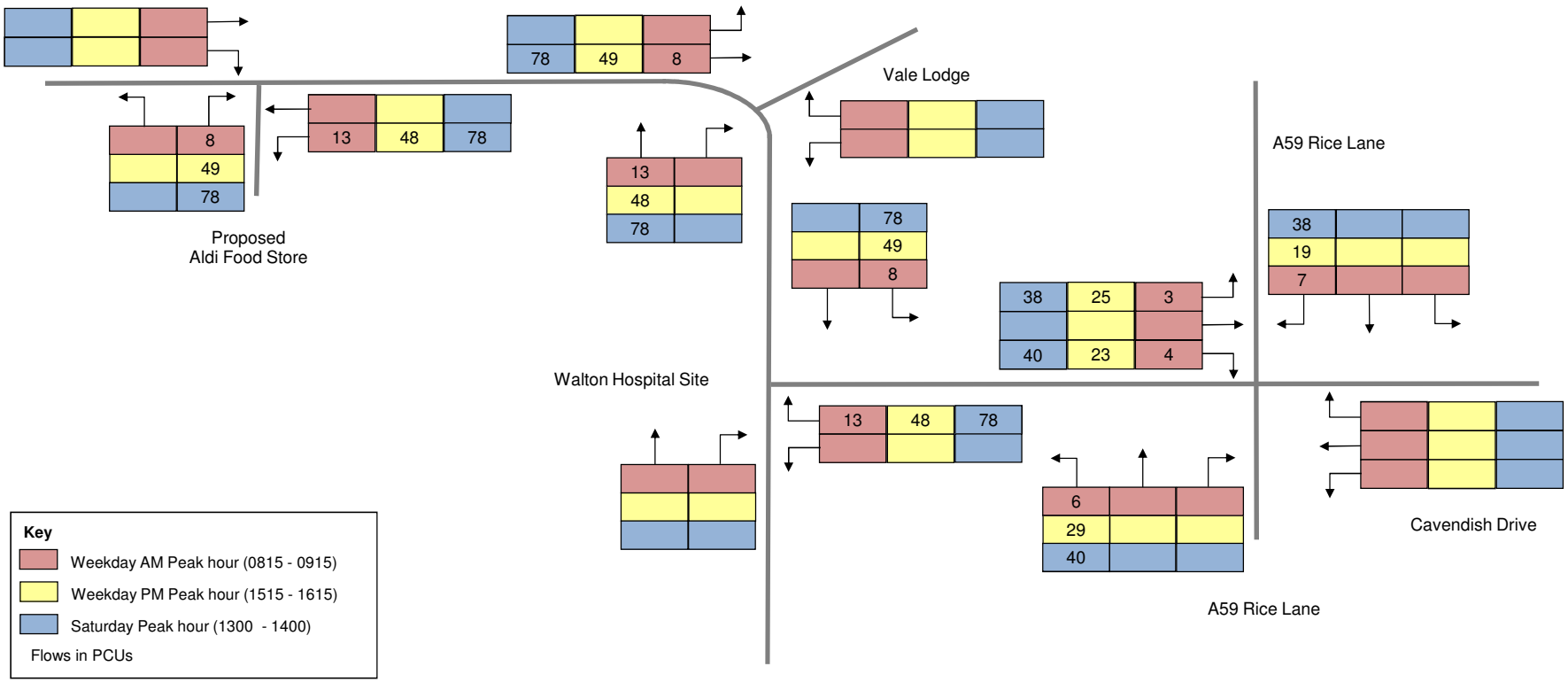
FIGURE 6-3



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
Aldi Food Store Development Distribution - New, Transferred & Diverted Trips

FIGURE 6-4

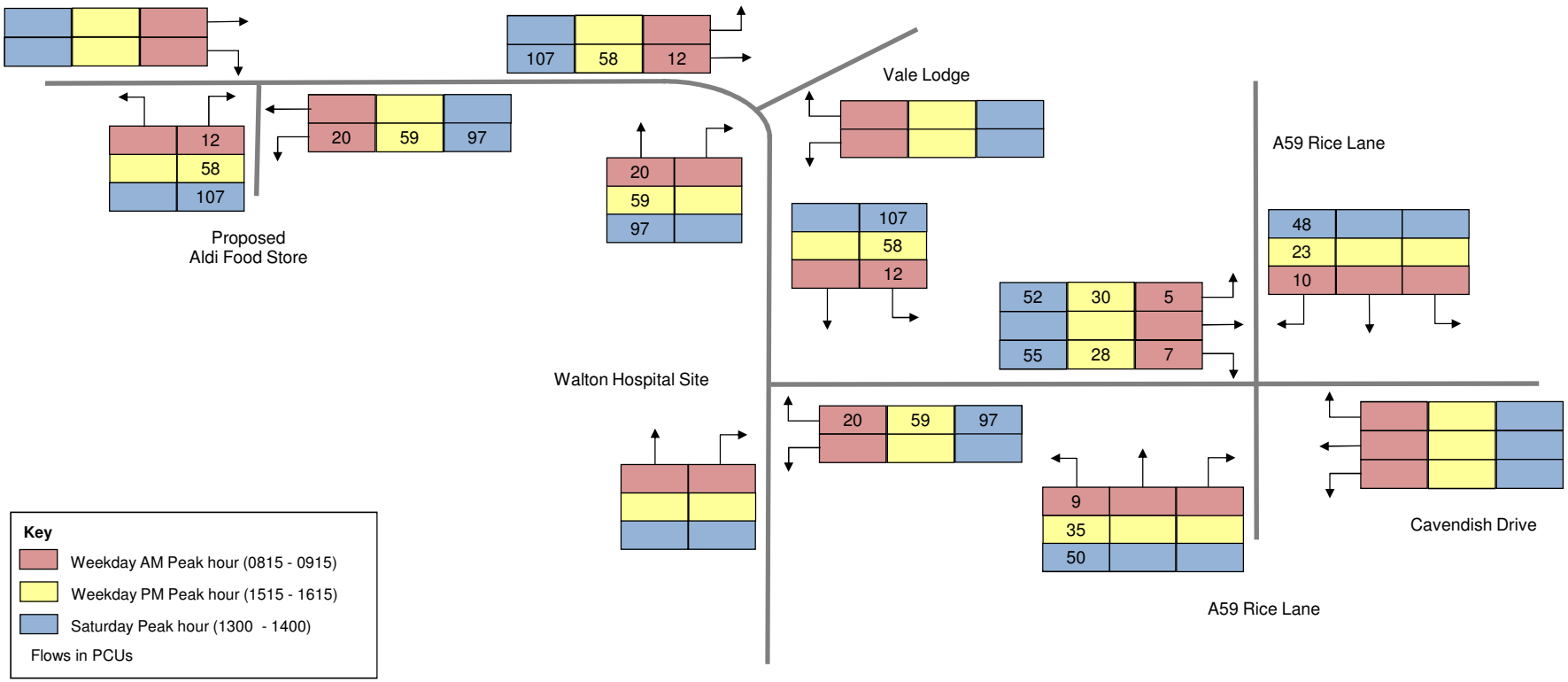


CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool

Aldi Food Store Development Assignment - New, Transferred & Diverted Trips - Average Trip Rates

FIGURE 6-5

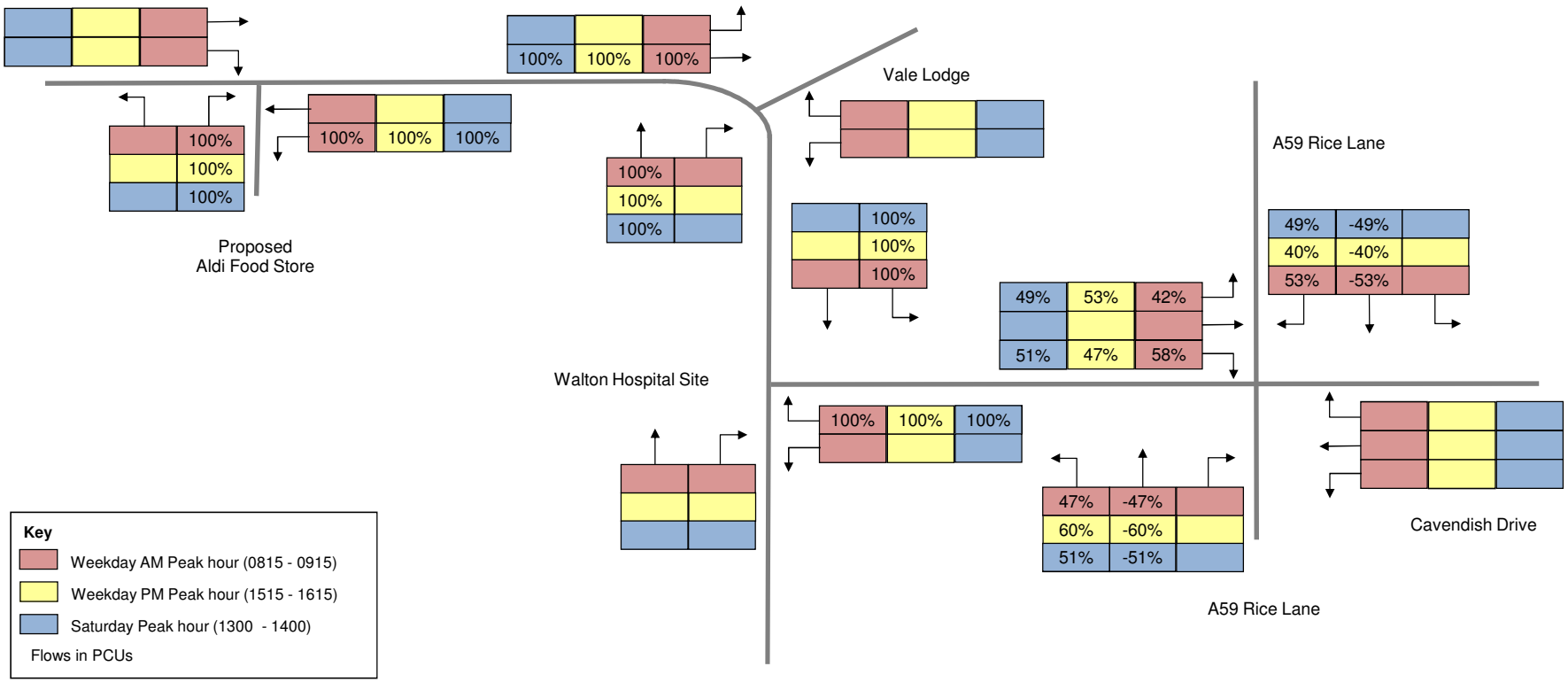


CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool

Aldi Food Store Development Assignment - New, Transferred & Diverted Trips - 85th PercentleTrip Rates

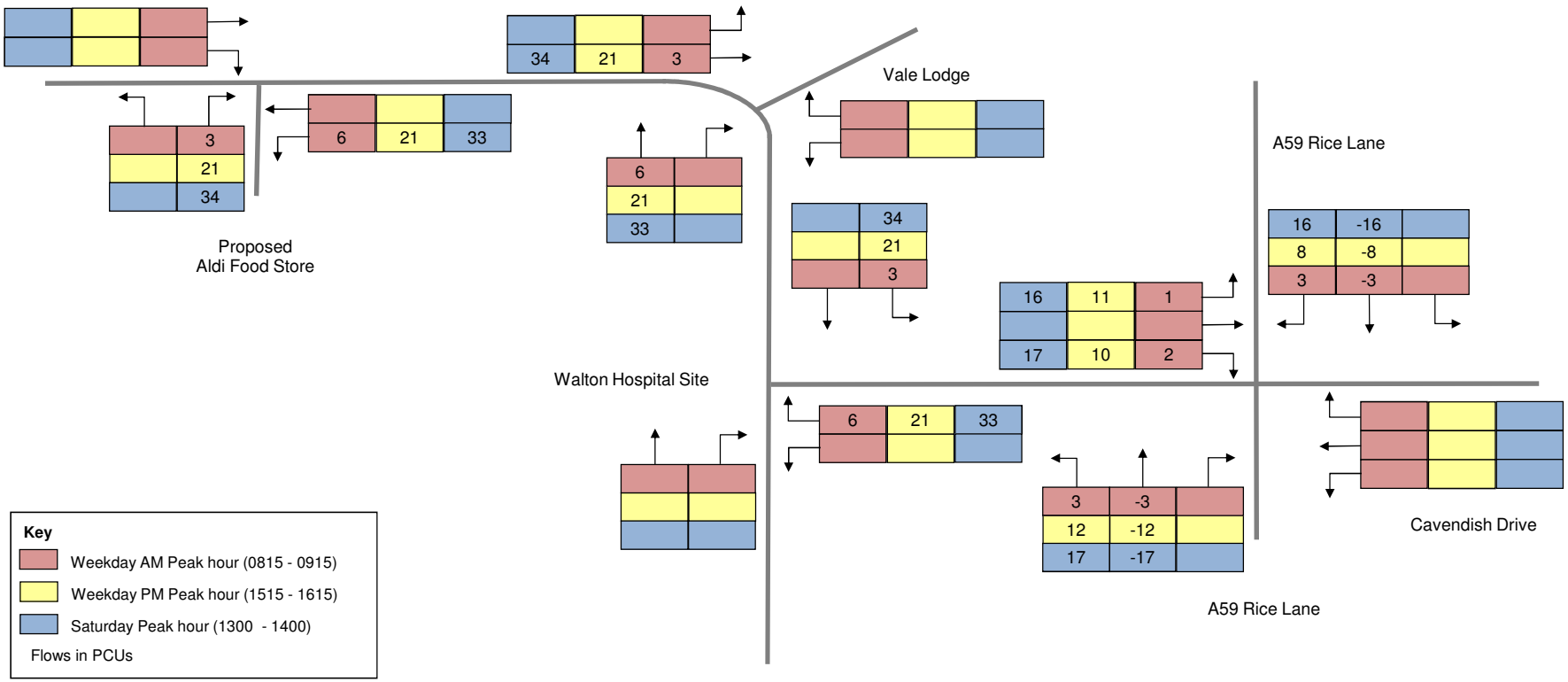
FIGURE 6-6



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
Aldi Food Store Development Distribution - Pass-by Trips

FIGURE 6-7

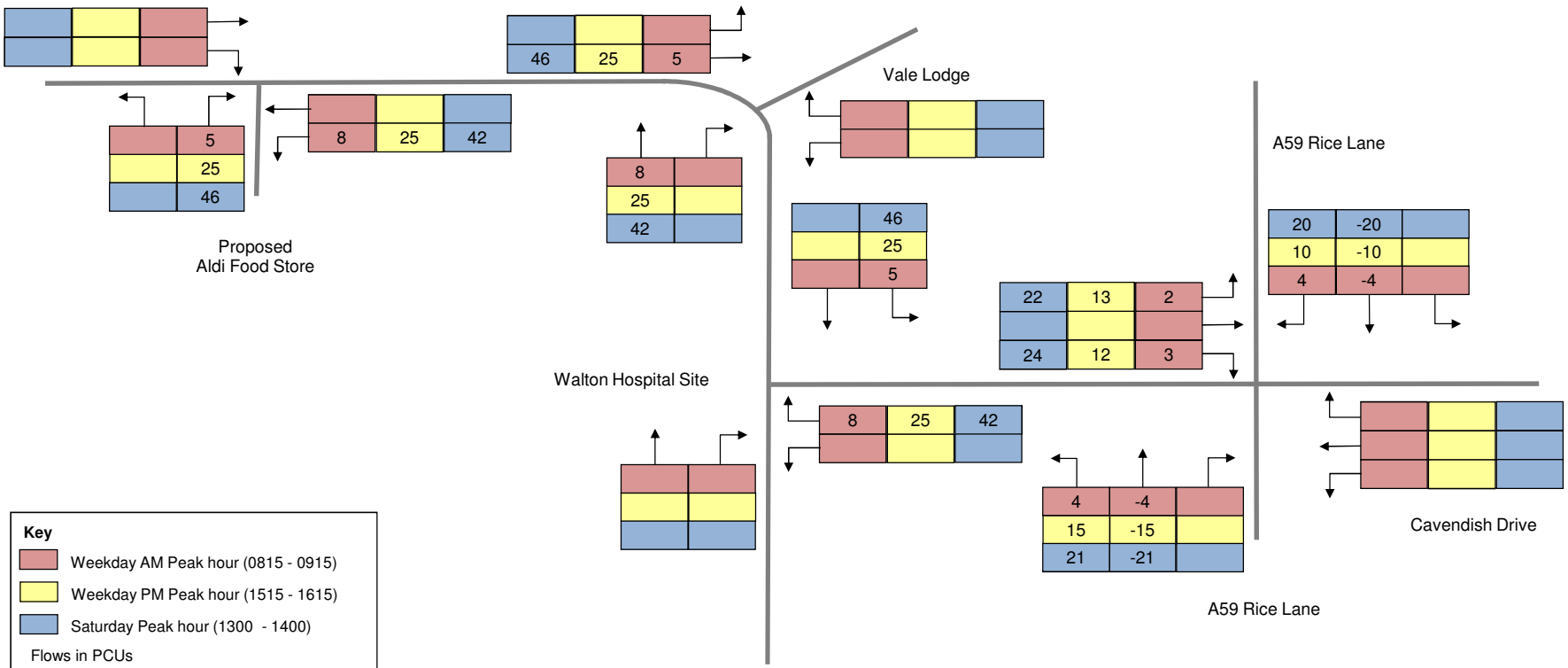


CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool

Aldi Food Store Development Assignment - Pass-by Trips - Average Trip Rates

FIGURE 6-8

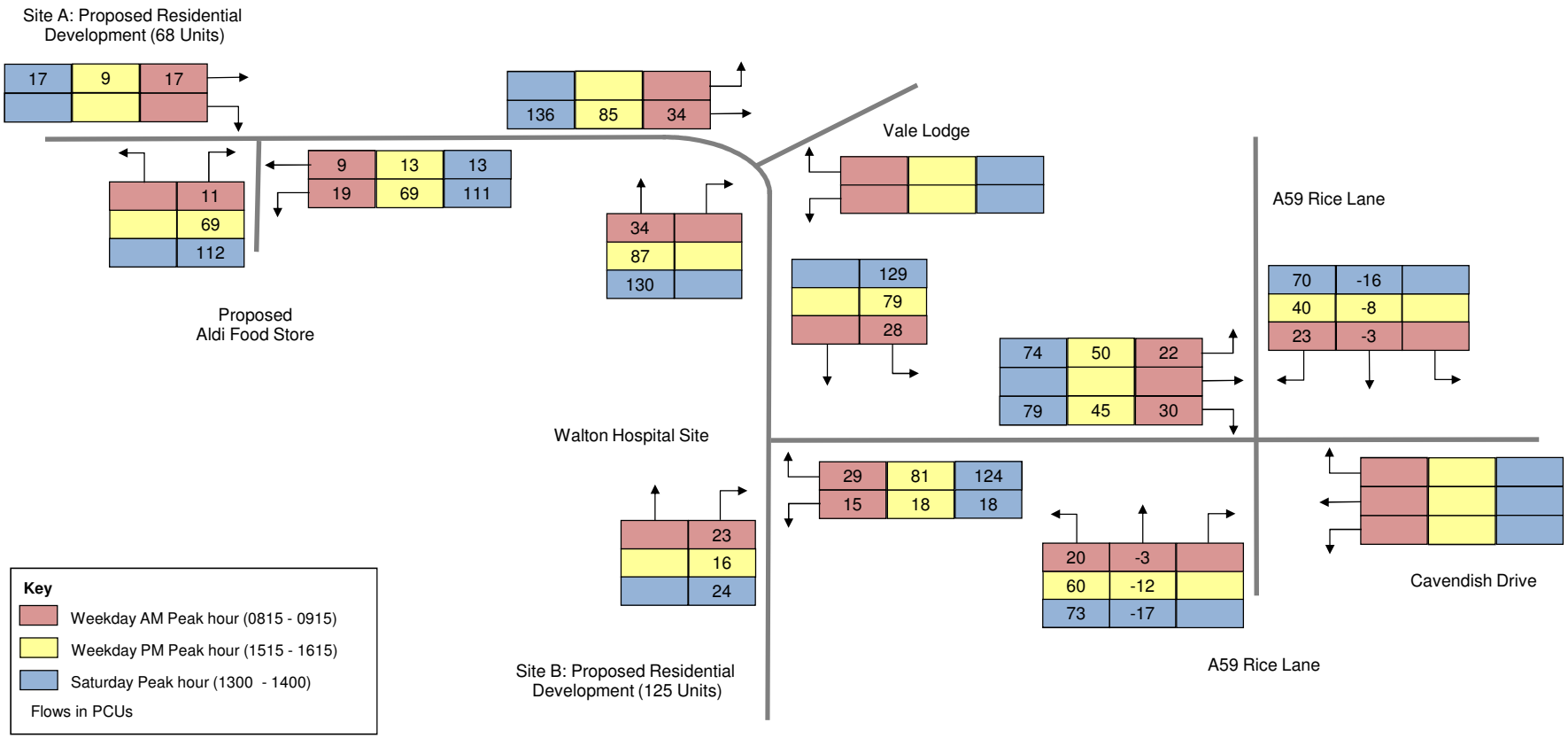


CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool

Aldi Food Store Development Assignment - Pass-by Trips - 85th Percentile Trip Rates

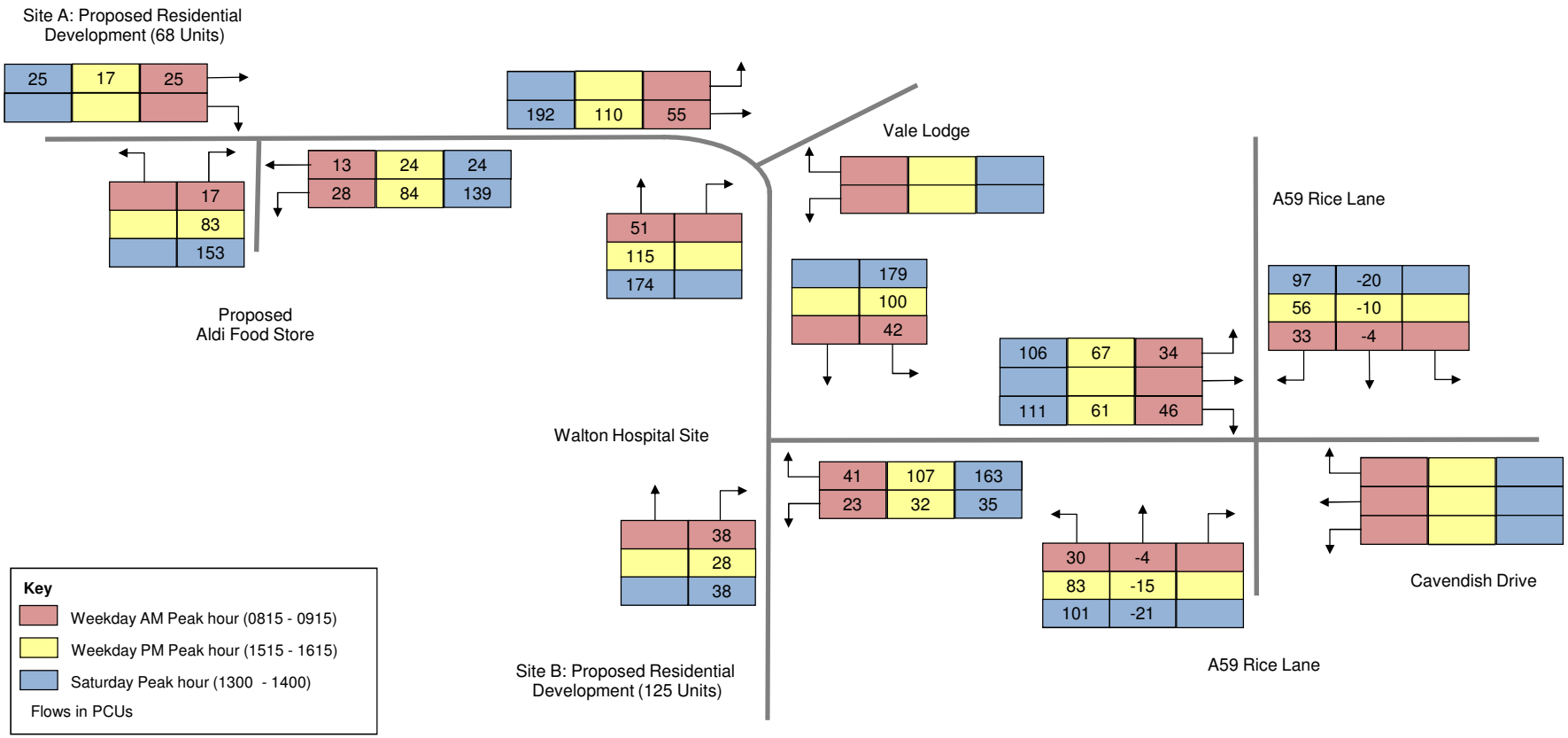
FIGURE 6-9



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
Total Development Assignment - Average Trip Rates

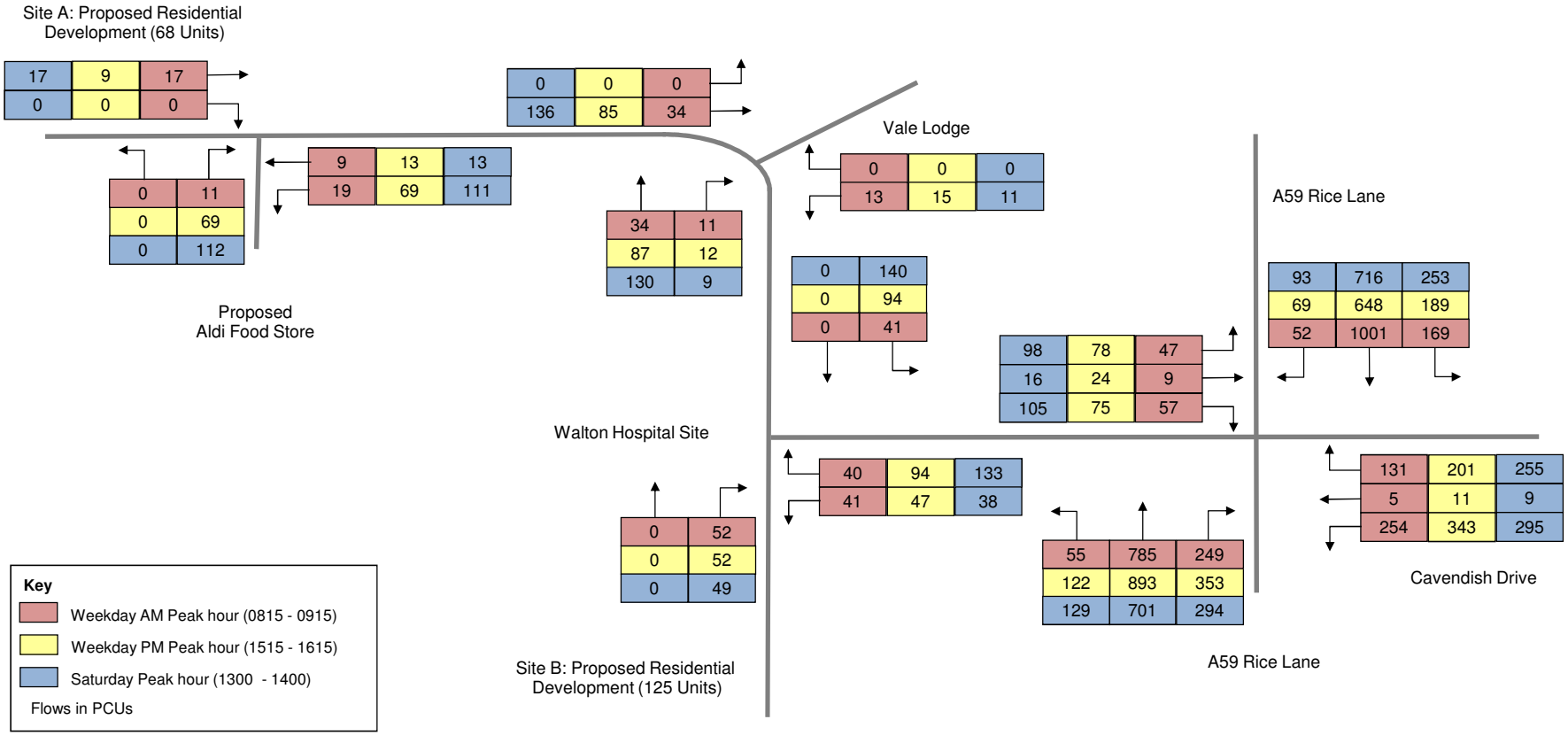
FIGURE 6-10



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
Total Development Assignment - 85th Percentile Trip Rates

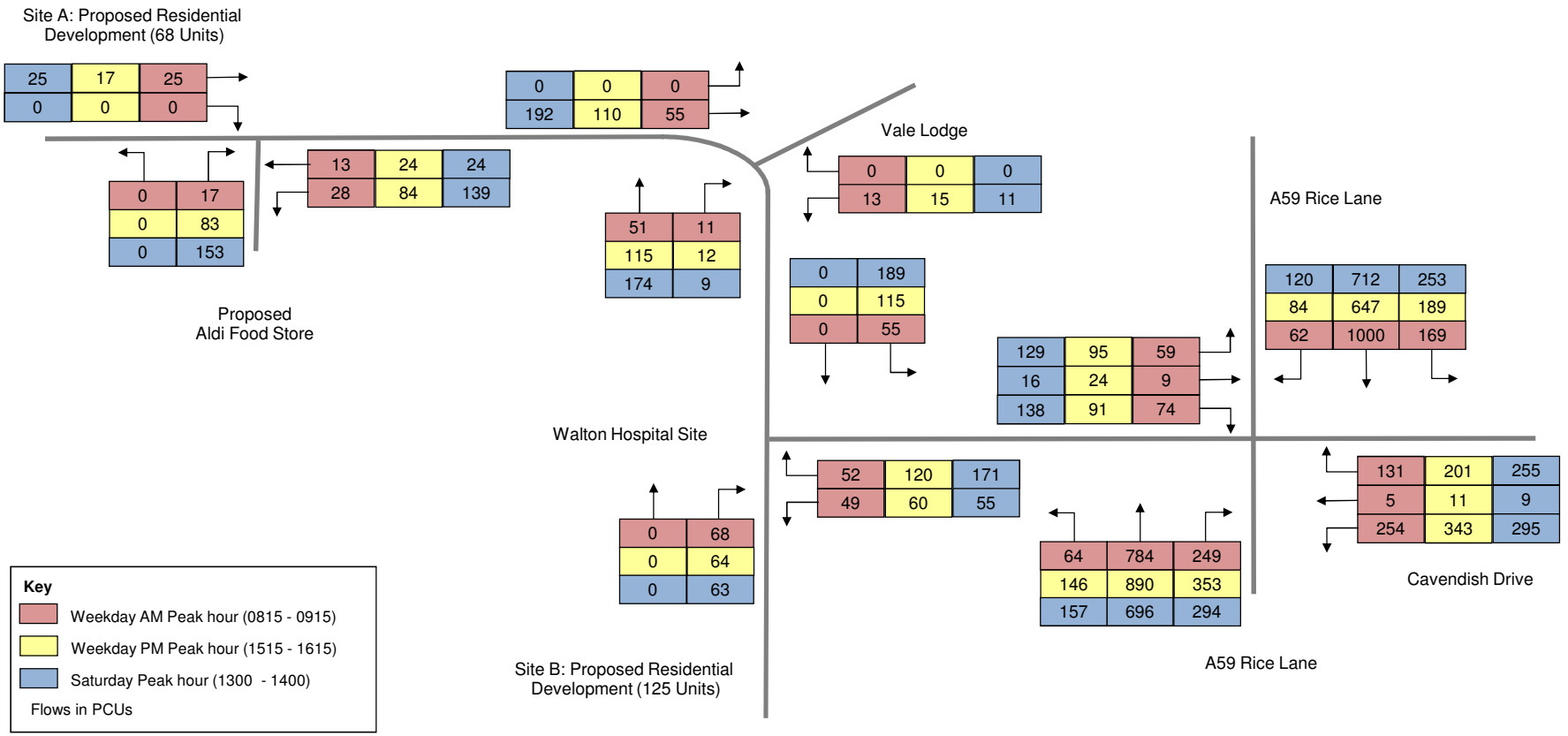
FIGURE 6-11



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool
2020 Base plus Committed plus Development Traffic Flows - Average Trip Rates

FIGURE 6-12



CAMERON ROSE ASSOCIATES

Rice Lane, Liverpool

2020 Base plus Committed plus Development Traffic Flows - 85th Percentile Trip Rates

FIGURE 6-13

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APPENDICES

CAMERON ROSE
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APPENDIX A

DEVELOPMENT PROPOSALS

CLOCKTOWER DRIVE

HIGHFIELD ROAD

TRESSELL ST

BREEZE LANE

HERBARTH CLOSE

LANCASTER STREET

RICE LANE

Emergency access with bollards

Bin store

Bicycle store

100% apartment parking

Possible substation

Block A
15 x 1b2p apartments
12 x 2b3p apartments
total of 27 apartments
over 3 storeys

Merseycare NHS development

Block B
24 x 1b2p apartments
total of 24 apartments
over 3 storeys

Open space

Bin store

Landscaping

Possible substation

Proposed Aldi foodstore

Notes

The extent of some areas of adopted highway is based on scanned information. Though using best endeavors to reproduce this information, Eden Building Design can not be held responsible for any discrepancies in the scanned plans.

Site area and immediate surrounds based on topographical survey; wider area based on Ordnance Survey data.

Existing roads
Extent of existing adopted highway

Sites Ai and Aii

2b4p house		
	Comfrey	24
2b3p bungalow		
	A1	6
3b5p house		
	Charlock	25
	Hollyhock	12
	Woodrush	3
	Total	70

Sites Aiii to Avi

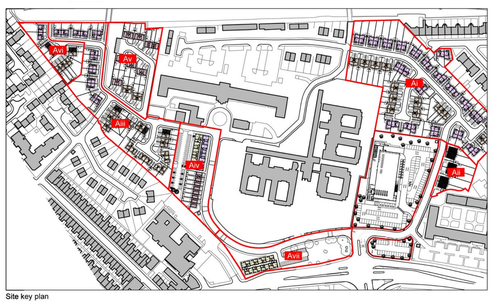
2b3p house		29
2b3p house with potential attic conversion to 3b house		6
3b5p house		16
3b5p townhouse		23
1b2p apartment		15
2b3p apartment		12
	Total	101

Site Avii

1b2p apartment		24
	Total	24
	Grand total	195

Block A and units 38 to 74 (inclusive) to be rented; remaining units in Sites Aiii to Avi to be shared ownership.

Site Ai	1.56ha/3.85 acres
Site Aii	0.19ha/0.46 acres
Site Aiii	0.89ha/2.20 acres
Site Aiv	0.47ha/1.17 acres
Site Av	0.55ha/1.37 acres
Site Avi	0.23ha/0.58 acres
Site Avii	0.47ha/1.17 acres



Site key plan

C Initial issue 25/03/15

Project: Proposed Housing Scheme at Walton Hospital Site, Liverpool for Mulbury Homes

Title: Proposed Site Plan

Status: Planning

Scale: 1:500 at A0

Drawing No: 13-160-P02

Date: 25/03/15

Drawn: APS

Checked: APS

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Email: info@edenbuildingdesign.co.uk
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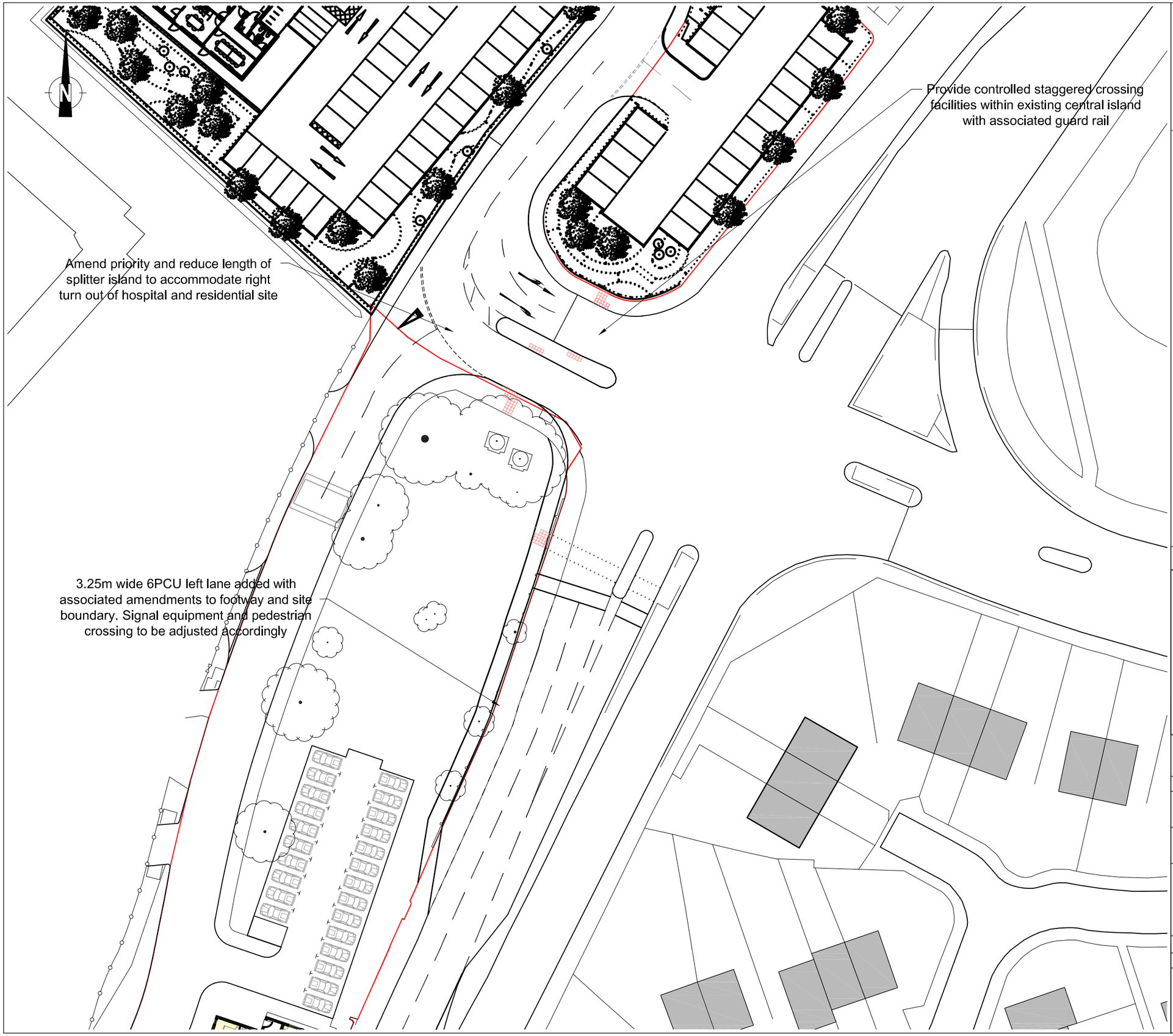
APPENDIX B

GENERAL ACCESS ARRANGEMENT AND SWEPT PATH AUTOTRACK ANALYSIS



•	Revision History	• Date
A	Revised Masterplan	14/04/15
B	desc	date b
C	desc	date c
D	desc	date d
E	desc	date e
F	desc	date f
G	desc	date g
H	desc	date h
I	desc	date i
J	desc	date j

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www.cameron-rose.co.uk

CAMERON ROSE ASSOCIATES

client: Aldi Stores Ltd, Derwent Lodge Estates, Riverside Group & Mulbury Homes Ltd

project: Rice Lane
Liverpool

drawing title: Site Access Concept
Option Four
Major Arm to Aldi with Crossing Facilities

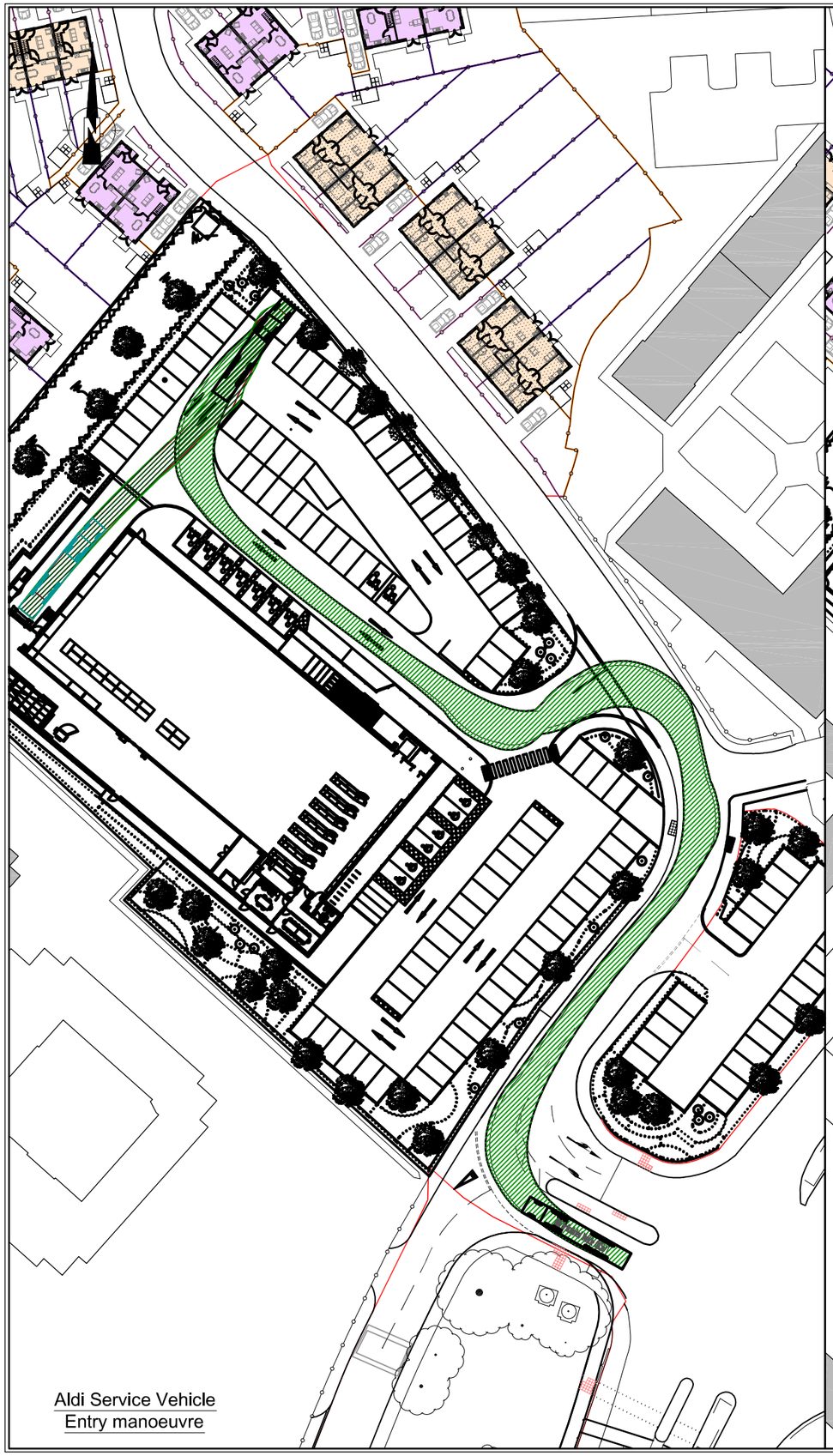
scale(s):	1/500	date:	20/03/15	drawn by:	checked:
drawing number:	100-01/GA-04			IJM	

xrefs:

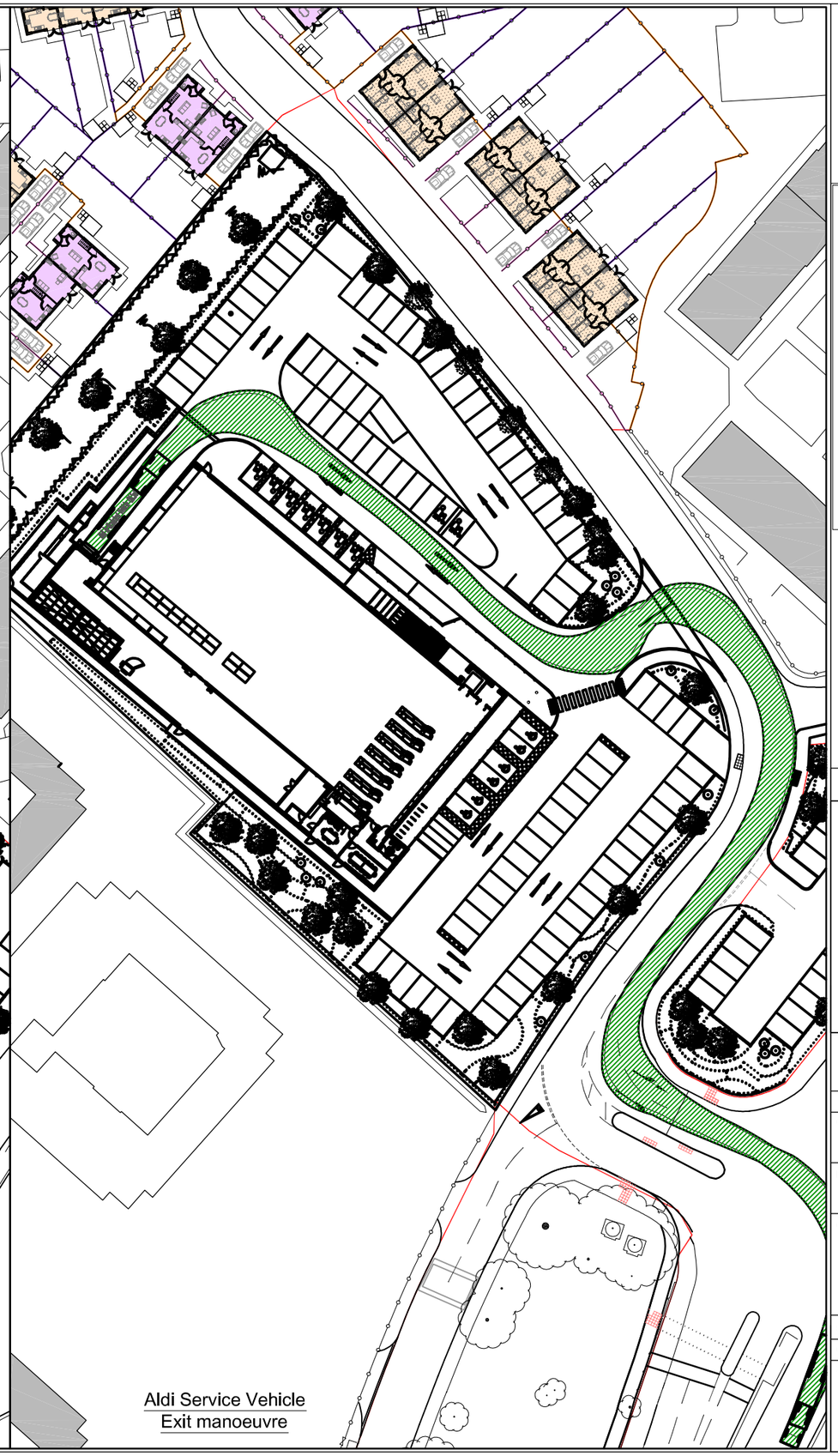
status: Information

rev: A

DATE PRINTED:



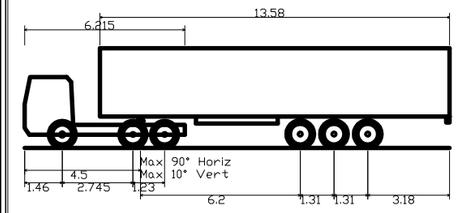
Aldi Service Vehicle
Entry manoeuvre



Aldi Service Vehicle
Exit manoeuvre

Follow any figured dimensions - do not scale. IF IN DOUBT ASK.

This drawing has been prepared for feasibility purposes and does not represent a construction plan. All design aspects to be confirmed at the appropriate detailed design stage.



Aldi Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.600m
Overall Body Height	3.863m
Min Body Ground Clearance	0.511m
Max Track Width	2.500m
Lock to Lock Time	8.00s
Wall to Wall Turning Radius	8.250m

• Revision History		• Date
A	desc	date a
B	desc	date b
C	desc	date c
D	desc	date d
E	desc	date e
F	desc	date f
G	desc	date g
H	desc	date h
I	desc	date i
J	desc	date j

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CAMERON ROSE ASSOCIATES

client: Aldi Stores Ltd, Derwent Lodge Estates, Riverside Group & Mulbury Homes

project: Rice Lane
Liverpool

drawing title: Aldi Store
16.5metre Articulated Vehicle
Track Plot Analysis

scale(s): 1/750	date: 14/04/15	drawn by: IJM	checked:
drawing number: 100-01/ATR-02			
xrefs:		status: Information	
		rev: -	

DATE PRINTED:

APPENDIX C

INTERIM TRAVEL PLAN – ALDI FOOD STORE

ALDI FOOD STORE

LAND AT FORMER WALTON HOSPITAL SITE,

RICE LANE, LIVERPOOL

INTERIM TRAVEL PLAN

PREPARED ON BEHALF OF:

MULBURY HOMES LIMITED;

DERWENT LODGE ESTATES LIMITED;

RIVERSIDE GROUP;

ALDI STORES LIMITED.

CAMERON ROSE ASSOCIATES

10 King Street

Newcastle under Lyme

ST5 1EL

CONTENTS

1.0 INTRODUCTION

1.1.1 This Interim Travel Plan has been produced by Cameron Rose Associates on behalf of the joint applicants, in support of an application for a residential and retail development on land at the former Walton Hospital site off Rice Lane, Liverpool. This document is relevant to the retail element only and applies to both staff and customers of the proposed Aldi store. This document will suggest initiatives to maximise the sustainable transport opportunities of the site and will, prior to trading, develop the Travel Plan into a stand-alone document.

1.1.2 This Interim Travel Plan sets out the overall outcomes, targets and indicators for the site. Aldi will administer the Plan centrally. The final Travel Plan produced by Aldi will be consistent with the wider targets and requirements set out in this Interim Travel Plan. The final Travel Plan will be completed within three months of occupation of the site, to allow time for travel characteristic surveys to be undertaken and suitable consultation with Liverpool City Council.

2.0 DEVELOPMENT PROPOSALS

2.1.1 The retail element of the proposed development involves the erection of an Aldi neighbourhood discount food store of approximately 1,804 sqm Gross External Area. The remainder of the site would be used to provide a service area, 126 car parking spaces and stands to accommodate 16 bicycles.

2.1.2 The proposed site layout is included as **Appendix A** to the Transport Assessment (TA).

2.1.3 The existing highway infrastructure has been discussed in **Section 2.0** of the TA and the full details of the development proposal in **Section 4.0**. The development proposal includes provision for on-site cycle parking for staff and customers. Changing and locker facilities will be provided for staff.

2.1.4 The proposed development would provide retail opportunity within a reasonable walking and cycling distance of existing and future committed residential areas, reducing the need for these residents to travel further for their food shopping needs. Frequent bus services are accessible from the Rice Lane, which is within an acceptable walking distance (400 metres) of the site. The use of public transport will be promoted through the travel plan to employees at the site.

3.0 PROPOSED TRAVEL PLAN INITIATIVES

3.1.1 An Aldi store employs up to 50 members of staff. However the primary source of traffic generation and therefore greatest opportunity for modal shift is customers. It is clear that Aldi cannot dictate its customers' choice of transport but can seek to influence it by provision of adequate facilities and information.

3.1.2 Features of the development proposal that would encourage non-car trips to the site include:

- 16 cycle parking spaces, through the provision of eight Sheffield loop stands;
- Enhanced pedestrian crossing facilities at the junction of Rice Lane/ Cavendish Drive/ Site Access;
- Changing and locker facilities would be provided for staff; and
- Pedestrian and cycle links from the store to the local highway network.

3.2 Other Initiatives

3.2.1 Staff and customers will be encouraged to use sustainable forms of transport such as walking, cycling and bus travel to access the store by the provision of appropriate facilities and in-store public transport information.

3.2.2 To further encourage travel to the site by modes other than the private car, Aldi will consider other modal initiatives including:

<u>Cycling</u>

3.2.3 Cycling is a key mode of sustainable transport and it is therefore important to encourage cycling as part of the site's Travel Plan; this will be achieved by implementing the initiatives detailed below;

- The provision of safe and convenient cycle parking facilities for shoppers as described above;
- Provision for in-store cycle storage facilities for employees; and

- Bicycles are regularly available as 'special purchases' within Aldi stores. This provides a good opportunity for staff and customers alike to purchase bicycles at greatly discounted rates thus encouraging this mode of transport.

Walking

3.2.4 The pedestrian environment has to be such that it provides pedestrians with safe and convenient routes to and from their origin/ destinations. To encourage this mode of transport, the applicants will provide the following:

- Direct pedestrian links within the site by means of suitable footpaths;
- Enhanced pedestrian crossing facilities at the junction of Rice Lane/ Cavendish Road/ Site Access; and
- The provision of adequate street lighting and lighting within the site to provide pedestrians with a well-lit environment hence enhancing safety and encouraging pedestrian movements.

Car Sharing Scheme

3.2.5 The availability of car sharing schemes is limited in the case of food retail, as the store cannot dictate car sharing among customers and employee numbers are small. Nevertheless employees will be encouraged to car-share if another member of staff lives close by.

3.2.6 The Travel Plan Co-ordinator will promote the use of car sharing amongst employees and will promote national car sharing schemes such as Lift Share (www.liftshare.com). These schemes will be promoted to employees upon commencement of employment and continually promoted through promotional material displayed on notice boards. This information will be provided by the Travel Plan Co-ordinator within three months of the stores opening and continually monitored to ensure the information provided is up to date.

Aldi Servicing

3.2.7 Aldi service deliveries are carried out in such a way as to minimise vehicle kilometres. Each store receives circa five deliveries by articulated lorry per day. This is substantially lower than the delivery pattern associated with larger food superstores.

3.2.8 The articulated vehicles operate from a central distribution centre. Each lorry delivers to a number of stores in a specific circuit and in this way minimises vehicle kilometres and therefore reduces emissions.

3.2.9 Deliveries to the store will aim to arrive outside of the established highway peak periods namely 0800 - 0900 during the morning and 1700 – 1800 during the evening

Provision of Information

3.2.10 Each new member of staff will be briefed on all aspects of the Travel Plan as part of their staff induction. In this way, each new member of staff will be aware of the advantages, accessibility and convenience of non-car modes of transport to and from the store, given its location and therefore abundance of public transport alternatives.

3.2.11 If the message is to be portrayed to staff and customers that sustainable forms of transport are preferable to the private car, then it is essential that adequate information is available in the store; to this end:

- Bus stop location, timetable information and route plans will be provided within the store;
- The above information will be provided to new employees as part of the staff induction process;
- Information on the beneficial effects of cycling on both health and the environment will be provided in the form of leaflets to all staff; and
- Copies of relevant cycle maps will be provided, thus encouraging sustainable forms of transport.

3.2.12 Aldi will appoint a person to be responsible for co-ordinating the Travel Plan and ensuring that the information is up to date and located in the appropriate location.

4.0 IMPLEMENTATION AND REVIEW

4.1.1 In order to establish an effective Travel Plan, a coherent understanding of staff travel patterns and attitudes to travel will need to be collected. A Travel Plan Co-ordinator will be appointed who will be responsible for on-going monitoring and annual surveys. Information gathered will be submitted to Liverpool City Council.

4.1.2 A Travel Plan Co-ordinator will be appointed prior to the opening of the store, to implement the Travel Plan and to promote the aims and objectives of the Plan amongst employees and visitors of the site. The Travel Plan Co-ordinator will play a key role in the promotion of the Plan and in the delivery of the Plans measures.

4.1.3 The Final Travel Plan will set out specific details on the role of the Travel Plan Co-ordinator.

4.1.4 The Travel Plan Co-ordinator will oversee the overall operation of the Travel Plan and be responsible for monitoring the effectiveness of the Plan and liaising with Liverpool City Council.

4.1.5 The Travel Plan Co-ordinator will be responsible for the preparation of the Final Travel Plan and will be required to develop and implement the Travel Plan and to monitor the effectiveness of the Plan.

4.1.6 Liverpool City Council will be notified of the name of the Travel Plan Co-ordinator upon their appointment and similarly the Travel Plan Co-ordinator will be advised of the names of the relevant contact details at the various organisations with whom they will be required to consult, including Liverpool City Council Travel Planning officers, public transport operators and other key stakeholders.

4.1.7 It is envisaged that the Travel Plan Co-ordinator role will be fulfilled by the Store Manager. The contact details of the Store Manager will be provided to Liverpool City Council, prior to the store opening.

4.1.8 The Travel Plan Co-ordinator will be the first point of contact for employees, visitors and other outside organisations in all matters regarding the detailed Travel Plan that will be developed.

4.1.9 The general responsibilities of the Travel Plan Co-ordinator will include:

- Implementing Travel Plan measures across the site and for ensuring that these measures are realistic and achievable, through continued review and assessment of their success;
- Developing, managing and implementing the Travel Plan strategy so that effective sustainable transport solutions can be achieved;
- On-going review and assessment of the Travel Plan to determine if objectives are being achieved and initiating new measures when required. The Travel Plan Co-ordinator will also be expected to update the Travel Plan to ensure their success;
- Ensuring that all employees and visitors have good travel information and are made aware of all of the travel choices they have available to them, to promote sustainable travel;
- To use effective marketing and awareness-raising schemes to assist in the promotion of the Travel Plan and sustainable travel across the site; and
- To work together with the local highway authority to ensure that the management and monitoring of the Travel Plan is efficiently and effectively undertaken and that the Travel Plan measures are being delivered.

4.1.10 The Travel Plan will be implemented and monitored as set below:

- Prior to development occupation a final travel plan and staff travel survey pro-forma will be agreed;
- Three months after occupation the initial staff travel survey will be undertaken and reported to Liverpool City Council within two months (this information will be gathered after this time to ensure representative data once staff have established themselves in to their new travel routine); and

- Annually thereafter for a period of five years after occupation the staff travel survey will be undertaken and reported to Liverpool City Council within two months.

4.2 Summary of Framework for Implementation

4.2.1 There are a number of elements of the Travel Plan which will need to be submitted, agreed and implemented at different timescales.

4.2.2 The following table therefore summarises the key areas of implementation and sets the framework, which will form the basis of the agreement between the applicants and Liverpool City Council.

Table 4-1: Framework for Implementation

Item/Measure	Timescale
Agreement of Interim Travel Plan	Prior to issue of planning permission
Issue draft Final Travel Plan (excluding details of staff travel patterns) to Flintshire County Council for approval	3 months prior to occupation of the development
Occupier to be notified of Travel Plan obligations	Within the lease and upon occupation
Undertake staff travel surveys	Within 3 months of opening of food store. Then annually for a period of five years.
Issue Travel Plan with staff travel patterns and set targets	Within 2 months of undertaking surveys
Infrastructure measures (upgrade pedestrian/ cycle access, cycle parking) to be implemented	Prior to occupation of the development
Appointment of Travel Plan Co-ordinator	3 months prior to occupation of the development
Issue 'Employee Travel Packs' to all employees	At commencement of employment
Develop/ promote car-share scheme	Within travel packs & on notice boards.
Period of formal monitoring of Travel Plan by the Developer	5 years from Occupation of the Development

5.0 TARGETS - STAFF

5.1.1 Travel Plan targets will be formally set following the initial employee surveys and updated annually. The Travel Plan Co-ordinator will liaise with the Council to set suitable targets.

5.1.2 Travel plans evolve over time and adapt to changing conditions. As the staff travel patterns may be liable to change over time, it will be necessary to carry out reviews of staff travel behaviour. The results from these reviews will enable the Travel Plan initiatives to be adapted as necessary.

5.1.3 It should be recognised that a genuine modal shift ultimately relates to an individual choosing an alternative means of travel to the private car rather than any apparent modal shifts caused by staff turnover (i.e. a cyclist replaced by a car driver or vice versa). The specified targets should therefore be used as a guide with specific circumstances taken into account at the time of the annual reviews.

6.0 CONCLUSIONS

6.1.1 To achieve the target set out within this Travel Plan, Aldi will encourage employees and customers alike, to take into account the benefits of sustainable forms of transport that are available to them given the highly accessible location of the site.

6.1.2 The applicants will undertake local infrastructure improvements to further enhance sustainable transport options in the vicinity of the site. This, allied with progressive management practices and the provision of adequate information, will influence and encourage staff and customers to choose sustainable transport options in preference to the private car.

6.1.3 The Travel Plan will seek to achieve significant reductions in car usage for journeys to and from the store. This will produce resultant benefits in terms of air quality and emissions and will also significantly reduce car parking demand and traffic generation associated with the development.

CAMERON ROSE
ASSOCIATES

APPENDIX D

FRAMEWORK TRAVEL PLAN – RESIDENTIAL DEVELOPMENT

RESIDENTIAL DEVELOPMENT

LAND AT FORMER WALTON HOSPITAL SITE,

RICE LANE, LIVERPOOL

TRAVEL PLAN FRAMEWORK

PREPARED ON BEHALF OF:

MULBURY HOMES LIMITED;

DERWENT LODGE ESTATES LIMITED;

RIVERSIDE GROUP;

ALDI STORES LIMITED.

CAMERON ROSE ASSOCIATES

10 King Street

Newcastle under Lyme

ST5 1EL

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1.0 INTRODUCTION

1.1 Background

1.1.1 The joint applicants propose to redevelop part of the former Walton Hospital site to accommodate up to 195 residential units comprising 138 houses, six bungalows and 51 apartments. Vehicular access to the residential development would be gained via the signal controlled junction of Rice Lane/ Cavendish Drive. Two of the proposed residential houses will not be accessed via this junction but from Highfield Road to the north.

1.1.2 The site is located in Walton within Liverpool. The site lies to the west of the A59 Rice Lane. The A59 provides a direct route to Liverpool city centre from the north. The site is situated in an accessible location. Convenience stores, recreation facilities and schools are within a reasonable walking distance and employment areas, schools, leisure facilities, recreation facilities and the railway station are all located within cycling distance of the site and are accessible by regular bus services.

1.1.3 A Travel Plan will be prepared for the development in accordance with current policy and guidance. The Travel Plan will form a strategy for the promotion of sustainable travel associated with the proposed development. The Travel Plan will evolve as dwellings are occupied and information on the residents becomes available, such as their means of travel and the locations they travel to. As such, the Travel Plan is a living document, which will be funded by on-going financial commitments from the developer of the site, for the life of the plan.

1.1.4 As noted above, the Travel Plan will evolve and this initial Travel Plan has been prepared to support the planning application for the proposals. The key aim of the Travel Plan is to set out the range of measures that will be implemented at the site to demonstrate how sustainable travel can be promoted.

1.1.5 The Travel Plan is designed to improve awareness of the opportunities for reducing car usage (particularly single occupancy journeys) through the promotion of car sharing, walking, cycling and the use of public transport. The Travel Plan will be promoted widely amongst residents.

1.2 Policy Context

National Planning Policy Framework

1.2.1 Travel plans were first secured within the planning system within the context of Planning Policy Guidance Note 13: Transport published by the Government in March 2001. The publication of the government's National Planning Policy Framework (NPPF) has replaced PPG13 in its entirety. The NPPF is aimed at streamlining the planning process, making it more accessible at neighbourhood and community level and simplifying the decision making process where proposals are considered to be fully in accordance with a current development plan or sustainable, subject to no over-riding detriment to any other interest that cannot be mitigated.

1.2.2 Guidance within NPPF states that developments should be located and designed where practical to:

- *accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
- *incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *consider the needs of people with disabilities by all modes of transport.*

1.2.3 Para 36 states that:

A key tool to facilitate this will be a Travel Plan. All developments which generate significant amounts of movement should be required to provide a Travel Plan.

Good Practice Guidance Delivering Travel Plans Though The Planning Process

1.2.4 The Department for Transport published these good practice guidelines in April 2009. The guidance assists in the creation and implementation of Travel Plans, describes the process involved and sets out good practice steps for achieving successful and sustainable Travel Plans.

1.2.5 The guidance sets out different types of Travel Plans, depending on the size, location and context of development.

1.3 Report Structure

1.3.1 The remainder of this report is structured as follows:

- **Section 2.0** summarises the development proposals that are the focus of this Framework Travel Plan;
- **Section 3.0** provides details of the existing site location in terms of its proximity to key local facilities;
- **Section 4.0** summarised the objectives of the Travel Plan;
- **Section 5.0** outlines measures and initiatives which are currently proposed on site and measures to encourage sustainable travel. The role of the Travel Plan Co-ordinator will also be detailed;
- **Section 6.0** sets out the targets of the travel plan;
- **Section 7.0** detail the development action plan, implementation strategy; and
- **Section 8.0** draws conclusions and summarised the content of the report.

2.0 PROPOSED RESIDENTIAL DEVELOPMENT

2.1.1 The site is located in Walton within Liverpool. The site lies to the west of the A59 Rice Lane. The A59 provides a direct route to Liverpool city centre from the north.

2.1.2 The proposed development, which will be built on part of the former Walton Hospital Site, includes a discount food store, with a GFA of 1,804 sqm and 195 residential units comprising 138 houses, six bungalows and 51 apartments.

2.1.3 The site is bounded to the north and northeast by residential development, to the east by the A59 Rice Lane, to the south by a residential development and the Walton Progressive School and Resource Centre and to the west by residential development and the railway line. The location of the site in relation to the local highway network is illustrated in **Figure 2-1**.

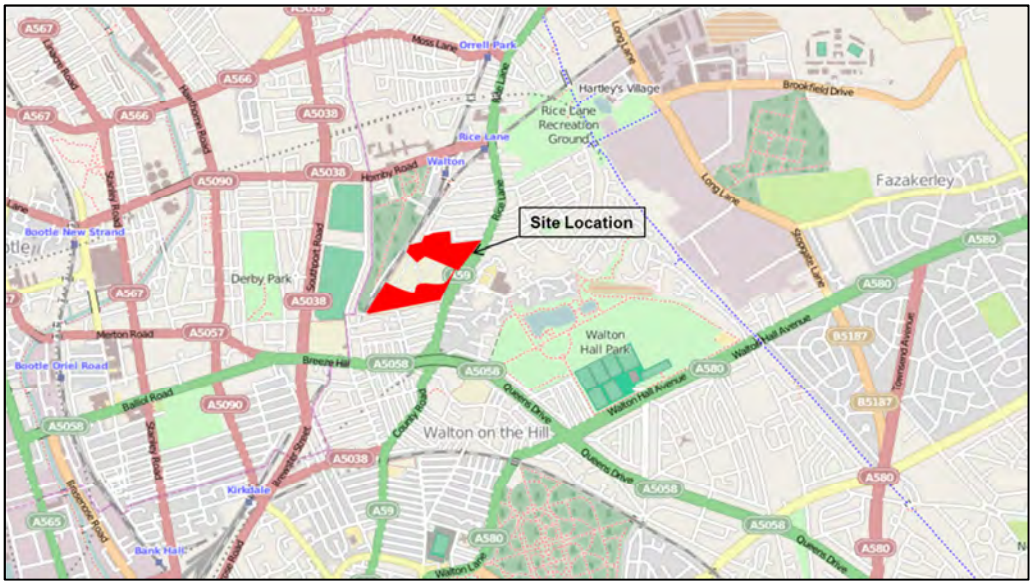

Figure 2-1: Site Location

2.1.4 Vehicular access to the residential development would be gained via the signal controlled junction of Rice Lane/ Cavendish Drive. Two of the proposed residential houses will not be accessed via this junction but from Highfield Road to the north.

2.2 Development Masterplan

2.2.1 The development site is located off Rice Lane in Walton within Liverpool. The area surrounding the development site is largely residential and commercial in nature.

2.2.2 A Masterplan has been developed for the site which indicates that the site could accommodate up to 195 residential units.

2.2.3 The Masterplan proposals are contained within **Appendix A**.

2.3 Proposed Access and Servicing Arrangements

2.3.1 Vehicular access to the residential development would be gained via the signal controlled junction of Rice Lane/ Cavendish Drive. Two of the proposed residential houses will not be accessed via this junction but from Highfield Road to the north. Further details are provided in **Section 4.0** of the accompanying Transport Assessment.

2.3.2 A footway/ cycle connection is to be provided in the south eastern corner of the development site; this provides a non-vehicular connection to Breeze Lane

2.3.3 The design of footpath connections on the site will facilitate easy and convenient access to bus stops. The layout will include high quality footway and cycleway links, designed to promote walking and cycling around and off the site. Connections will be provided to the wider pedestrian and cycle networks within Walton.

2.4 Proposed Parking Provision

2.4.1 No cycle parking is required for individual houses, with garages and rear gardens meeting this need.

2.4.2 One secure cycle space for every one flat, plus one visitor cycle stand per 20 units will be provided in line with standards.

3.0 ACCESSIBILITY OF THE SITE

3.1.1 The proposal site is accessible by a number of non-car modes, providing real potential to reduce private car use. One of the key objectives of the Travel Plan is to encourage the use of sustainable travel modes. The position of the site can take advantage of the transport, employment and other key facilities located within close proximity to the site.

Walking

3.1.2 Existing infrastructure, including good footways and street lighting between the proposed residential development and surrounding areas, are conducive to such journeys on foot.

3.1.3 The local roads to the development site are all subject to a 30 mph speed limit and therefore provide a convivial environment for pedestrians.

3.1.4 Pedestrian crossings within the site are limited; however the low traffic flows and proportional low pedestrian movements would not warrant a crossing facility as determined by the PV2 calculation. Controlled pedestrian crossings are provided at the junction of Rice Lane/ Cavendish Drive. As part of the development proposals, a controlled crossing facility will also be incorporated onto the site access arm of the junction.

3.1.5 An acceptable walking distance is generally considered to be two kilometres. Although cancelled and replaced by National Planning Policy Framework, Planning Policy Guidance Note 13 on Transport (PPG13) is still viewed as a relevant source of guidance and states:

'Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips particularly under two kilometres'.

3.1.6 The two kilometre walk catchment of the site is demonstrated in **Figure 3-1**. The development is located within a two kilometre catchment of a number of local facilities including the local primary and high schools within Walton.

3.2 Cycling

3.2.1 Access to the site by bicycle is also good. Within the vicinity of the site, National Route 810 of the Cycle Network connects Ainsdale Rail Station and central Liverpool via Formby, Crosby and Stanley Park. In the vicinity of the proposed development the route runs along Breeze Hill and Stuart Road North.

3.2.2 National Cycle Route 62 is within a 1.5 kilometre distance, to the east of the site, operating along the former railway line. The route connects Fleetwood on the Fylde region of Lancashire with Selby in North Yorkshire and forms part of the Trans Pennine Trail.

3.2.3 An acceptable cycle distance is considered to be up to 5 km. PPG13 notes that:

'Cycling also has the potential to substitute for short car trips, particularly those under 5km and to form part of a longer journey by public transport.'

3.2.4 Litherland, Fazakerley, Aintree, Bootle and Everton lie within a five kilometre radius of the site; this is illustrated in **Figure 3-2**.

3.2.5 Thus the location of the proposed development would provide the opportunity for residents to access local facilities and enjoy leisure rides.

Public Transport

Bus Services

3.2.6 Guidance published by the Institute of Highways and Transportation 'Planning for Public Transport in Developments' (1999) recommends that the maximum walking distance to a bus stop should be 400 metres, equating to an approximate five minute walk.

3.2.7 Several bus services are accessible within a short walk of the site, with a bus stop located approximately 200 metres from the junction of Rice Lane/ Cavendish Drive. Services that operate along the A59 Rice Lane are detailed in **Table 3-1**.

Table 3-1: Bus Services and Headways

Service	Destination	Bus Headway (minutes)		
		Mon – Fri	Saturday	Sunday
830/ 831	Liverpool - Netherton	2 services	-	-
835	Northwood – Liverpool Freeport	1 service	-	-
345	Liverpool – Waddicar or Skelmersdale	30	30	-
20/ 21/ 242/ 821	Liverpool – Tower Hill or Northwood Netherton – Liverpool	5	10	10
210/ 241/ 250/ 310/ 311	Liverpool – Maghull or Skelmersdale	30	30	30 (Liverpool to Maghull only)
209/ 259	Bootle Bus Station – Netherton circulars	30	30	30
217/ 227	Huyton – Kirkby	30	30	-
68/ 168	Bootle – Aigburth Vale	15	20	30
121/ 215	Walton – Croxteth/ Croxteth Park circulars	30	30	30
122	Crosby – Fazakerley	30	60	-
130	Old Roan – Liverpool – Dingle	30	30	30
62/ 62A/ 162	Penny Lane – Crosby/ North Park	15	30	30

Source: www.merseytravel.gov.uk

3.2.8 The table demonstrates that there are a number of services operating along the A59 Rice Lane, throughout the week and during weekends. These services provide connections into Crosby, Liverpool, Skelmersdale, Netherton, as well as linking to other surrounding residential areas.

3.2.9 In addition to the above services, service 159 operates a 30 minute frequency service Monday to Saturday between Walton Park and Aintree University Hospital.

Railway Stations

3.2.10 Rice Lane Railway Station is located on the A59 Rice Lane approximately c. 800 metres from the site. The station is located on the Kirkby branch of the Merseyrail networks Northern Line. The rail service operating at the station offers a 30 minute headway service between Kirkby and Liverpool Centre, Monday to Saturday as is detailed in **Table 3-2**.

Table 3-2: Rail Service and Headways

Route	Rail Headways (minutes)		
	Mon – Fri	Saturday	Sunday
Liverpool to Kirkby & Ormskirk	30	30	30

3.2.11 The station is with an acceptable walking distance of the proposed development. It is also within cycling distance of the site. Merseyrail services permit bicycles on all services and also have secure parking at a number of stations, although this currently does not include Rice Lane.

3.3 Accessibility of Key Destinations

3.3.1 The proposal site is highly accessible by sustainable modes of transport, namely by walking, cycling, and public transport; for instance:

- Liverpool city centre – has a large range of employment locations including offices, retail, leisure and other jobs, a range of shops, banks, post office, library, pubs, restaurants/ cafes, leisure facilities including swimming pool and medical facilities;
- Education provision - there are primary schools including Northcote Primary School and Rice Lane Infant and Nursery School. Secondary schools include Alsop High School and Hillside High School. The University of Liverpool and Liverpool John Moores University are both within an acceptable cycle distance;
- Health facilities - including dentists, doctors, Pharmacy and Opticians.
- Food shopping – food retail units within close proximity to the proposed residential development include the proposed Aldi Store, Sainsbury's, Iceland and The Co-operative; and
- Leisure and Recreation – including recreation grounds, parks, Library, Swimming Pool, football stadiums and outdoor playing areas.

3.3.2 The local facilities which are accessible to the proposed development are summarised in **Table 3-3** below. The table includes approximate distances from a central point within the residential element of the site.

3.3.3 The table also notes whether or not the facilities are accessible on foot, by cycle and by bus from the site. The criteria adopted in PPG13 have been used to determine the accessibility by walking (i.e. within two kilometres) and by cycling (i.e. within five kilometres) and the facilities are noted as being accessible by public transport if they are accessible by the bus services outlined above.

Table 3-3: Key Facilities and Services

Journey Purpose	Destination	Distance from Site	Accessibility by Walking (W), Cycling (C) and Public Transport (PT)
Employment	Warbreck	c. 500m	W/C/PT
	Everton	c. 3.5km	C/PT
	Fazakerley	c. 3.1km	C/PT
	Abercromby	c. 6.0km	PT
	Netherton and Orrell	c. 3.5km	C/PT
Education	Northcote Primary School	c. 550m	W/C
	Rice Lane Infant & Nursery School	c. 1.3km	W/C/PT
	Alsop High School	c. 1.0km	W/C/PT
	Hillside High School	c. 1.3km	WC/PT
	University of Liverpool	c. 5.8km	PT
	Liverpool John Moores University	c. 6.0km	PT
Health Facilities	Orrell Park Medical Centre	c. 1.6km	W/C/PT
	Patrick Marray Dental Surgery	c. 1.0km	W/C/PT
	Orrell Park Pharmacy	c. 1.6km	W/C/PT
	Royal Liverpool Hospital	c. 5.8km	PT
Retail	Proposed Aldi Food Store	c. 300m	W/C
	Sainsbury's	c. 500m	W/C
	Next	c. 500m	W/C
	Liverpool city centre	5.8km	PT
Leisure and Recreation	Walton Library	c. 750m	W/C/PT
	Walton Hall Park	c. 1.1km	W/C/PT
	Bootle Football & Leisure Centre	c. 1.2km	W/C

3.4 Summary

3.4.1 The site is situated in an accessible location. Convenience stores, recreation facilities and schools are within a reasonable walking distance and employment areas, schools, leisure facilities, recreation facilities and the railway station are all located within cycling distance of the site and are accessible by regular bus services.

3.4.2 Overall, it is concluded that a range of key facilities and services, including employment, retail, health and education uses, are readily accessible from the site. It is also evident that the site is accessible to pedestrians, cyclists and users of public transport. The proposed development will include measures to promote the use of such sustainable modes of transport.

3.4.3 It is therefore considered that the location of the site is consistent with national and local policy objectives

4.0 OBJECTIVES

4.1.1 This section outlines the vision and objectives that will guide the development and implementation of the Travel Plan. This Travel Plan is designed to improve awareness of the opportunities for reducing car usage (particularly single occupancy journeys) through the promotion of car sharing, walking, cycling and the use of public transport.

4.1.2 The Travel Plan will be promoted widely amongst residents, not only to minimise any traffic impacts associated with the residential units on the surrounding network, but also to promote the health and environmental benefits of taking exercise by walking and cycling as well as the social aspects of car sharing.

4.1.3 This Travel Plan aims to deliver the following objectives:

- To minimise the total distance travelled by residents and visitors to the site through the reduction in journey lengths and frequency, particularly single occupancy car trips. This will in turn reduce congestion and improve air quality and noise pollution;
- To improve awareness and usage of the alternative modes of transport and reduce the reliance on the private car;
- To promote car sharing, walking, cycling and public transport as safe, efficient, affordable alternatives to private cars and to highlight the health and environmental benefits of adopting sustainable travel patterns; and
- To enable people to make more informed travel choices.

4.1.4 Residents will be informed of the locally available non-car modes of transport and the benefits of adopting sustainable travel patterns. Regular liaison with residents will seek to achieve a long term commitment to changing travel behaviour at the site.

4.1.5 There are a number of benefits that will be derived from the successful implementation of the Travel Plan for residents and visitors to the site as well as the wider community. Benefits are expected to include:

- A better environment within the site and its immediate environs as vehicular movements are minimised;
- Increased flexibility offered through wider travel choices;
- The social aspects of sharing transport with others; and
- Improved health and fitness through increased levels of walking and cycling.

4.1.6 In terms of the wider community, the successful implementation of the Travel Plan will result in reduced traffic congestion and improved air quality as a result of the reduction in car use.

4.1.7 The overall Travel Plan strategy includes physical measures designed to enhance the sustainable transport provision at the site, travel awareness initiatives and other measures to assist in the achievement of the objectives of the Plan.

5.0 TRAVEL PLAN MEASURES AND INITIATIVES

5.1.1 This Framework Travel Plan sets out a range of measures that will be incorporated within the development proposals, to encourage sustainable travel and to achieve the objectives of the Plan, as outlined above. These measures and their timescales for implementation are detailed below.

Table 5-1: Travel Plan Measures and Timescales

Measures	Timescales
Appointment of Travel Plan Co-ordinator (TPC)	Opening of sales suite
Personalised Travel Planning Sessions	On-going and organised by the TPC
Travel Information Pack and Guides	Upon Occupation of Dwellings
Community Website	Prior to occupation of first unit
Community Notice Board	Prior to occupation of first unit
Bike User Group	On-going and organised by the TPC
Walking Bus (School)	Following initial survey.

Travel Plan Co-ordinator

5.1.2 A Travel Plan Co-ordinator (TPC) will be appointed to promote the Travel Plan amongst residents. The TPC will be a member of developer's sales and marketing team who will be based on site throughout the construction period.

5.1.3 The TPC will have overall responsibility for the development and implementation of the final Travel Plan and for monitoring the success of the Plan on an on-going basis.

5.1.4 The TPC will be employed from the initial marketing of the properties for whichever is the later period of five years from first occupation of the site; or six months after full occupation of the site.

5.1.5 Their duties will also include liaison with Liverpool City Council and monitoring the usage of the facilities implemented as part of the Travel Plan.

5.1.6 The TPC will be available on-site to answer any travel-related queries that residents have and to assist new residents in their travel planning.

5.1.7 The scale of resource required to fulfill the role of the TPC will vary throughout the lifetime of the development. At the outset of the development, the TPC will need to dedicate a reasonable level of time and resource to the implementation of the Plan and to conduct the initial travel surveys and report the results. At other times the role will reduce in scale, but regular interaction with residents and with the local authority will be necessary to ensure that the Plan continues to be implemented effectively.

5.1.8 The TPC will be the key decision maker on day-to-day matters of implementation of the Travel Plan, and the role will encompass the following:

- To promote and encourage the use of travel modes other than the car, including the distribution of publicity material;
- Promoting the Travel Plan internally;
- To ensure that all relevant information is provided to all residents and that up-to-date information is clearly displayed in prominent locations where available;
- To ensure that relevant information is made available to visitors;
- To co-ordinate soft measures;
- To arrange for travel surveys to be undertaken where necessary; and
- To provide a point of contact with transport operators and officers of the Council.

Personalised Travel Planning

5.1.9 The TPC will answer any travel-related queries that residents have and assist new residents in their travel planning. Studies undertaken by the Department for Transport indicate that travel planning can reduce car use by c. 10% (DfT, 2004). The TPC will therefore offer personalised travel planning to each household, by way of visits to each household and organised drop-in sessions.

Travel Information Packs

5.1.10 Travel Packs will be issued to all new residents at the site upon first occupation of their property, as part of the Home Information Pack supplied with all new properties.

5.1.11 A lack of information on the available travel opportunities is often cited as a reason for not using sustainable travel modes. To overcome such a barrier, new residents will be supplied with 'Travel Packs' which will set out information relating to the walking, cycling and bus routes available to access the development.

5.1.12 The packs will include bus route plans, timetable information and information on cycling and walking routes leading to/ from key destinations, bus stops, railway station, and the surrounding areas. Links will be provided to key websites including www.merseytravel.gov.uk, www.walkit.com and www.share-a-lift.co.uk.

5.1.13 .It will be the Travel Plan Co-ordinators responsibility to ensure that these are distributed to all residents and that all subsequent new residents are provided with this information. The TPC will also ensure that this information is kept up to date.

Community Website

5.1.14 A regularly updated community website providing comprehensive travel information of the type included in the welcome pack, with details of public transport timetable changes and new promotional offers will be set up. The website will also include details of car share databases and links to home delivery and shopping services.

Community Notice Board

5.1.15 It is also proposed that a community notice board will be placed in a central location within the development. The board will be used to promote community travel forums at which residents will be invited to give feedback to the TPC.

Bike User Group

5.1.16 The TPC could co-ordinate a Bicycle User Group (BUG), which could provide a platform for people to share their interest in cycling to work and by doing so, encourage others to join and exchange hints and tips on safe routes and bike maintenance. The BUG will be informal in nature and details on how to join and who to contact will be published in an appropriate manor.

5.1.17 Should there be a high number of cyclists to/ from the site, the TPC could investigate the possibility of introducing professional cycle training at the site. This can increase confidence, encouraging people to increase the frequencies/ lengths of these journeys and also teach safer cycling.

Car Sharing

5.1.18 Benefits of car sharing include saving money on vehicle operating costs, cutting down on congestion and pollution as well as social benefits of sharing lifts and meeting new people.

5.1.19 Car sharing represents a relatively convenient form of travel whilst offering a significant potential to reduce overall mileage of residents and employees.

5.1.20 The Travel Plan Co-ordinator will explore the possibility of creating an informal car sharing scheme at the site for residents. This will be promoted through the Travel Packs.

5.1.21 In addition to any on-site based car sharing scheme, the Travel Plan Co-ordinator will inform residents of the web-based Lift Share schemes (www.share-a-lift.co.uk) and the national Lift Share scheme (www.liftshare.org).

5.1.22 The TPC will promote the benefits of this service and provide support in helping people to register via the Travel Packs. This will enable residents to either car share amongst themselves or with other car sharers living in the surrounding area.

Walking Bus

5.1.23 Following the completion of the initial travel surveys, the TPC will review the travel patterns associated with trips to school. If necessary, the TPC will liaise with the local primary schools to assess the feasibility of developing a walking bus from the site and the development will provide funding for one walking bus if required.

6.0 TARGETS

6.1.1 Modal split targets will be set throughout the monitoring period of the Travel Plan, to ensure that the measures are being implemented properly and are achieving the goals of the Travel Plan and providing benefits to the residents at the site.

6.1.2 These targets will be set after the results of the initial travel surveys are undertaken and agreed with officers at Liverpool City Council.

7.0 ACTION PLAN FOR MONITORING AND IMPLEMENTATION

7.1 Action Plan

7.1.1 An Action Plan has been prepared setting out a list of measures to be implemented as part of the Plan and identifying who is responsible for its implementation, in addition to associated timescales has been examined. This is set out in **Table 7-1** below

Table 7-1: Travel Plan Action Plan

Action	Date	Responsibility
Agree Framework Travel Plan	Outline planning application	Developer
Implement pedestrian/ cycle links across the development	Delivered as part of site construction	Developer
Appoint Travel Plan Co-ordinator	3 months prior to occupation of first dwelling	Developer
Produce Marketing Material	Prior to marketing the units	Developer / TPC
Travel Packs including bus routes, timetables and cycle/ walking routes	Upon occupation of dwellings and reviewed annually	TPC
Walking Maps/ Routes to Key Destinations	Upon occupation of dwellings	TPC
Investigate Walking Bus	On-going from occupation	TPC
Cycle Maps	Upon occupation of dwellings and reviewed annually	TPC
Investigate BUG	On-going from occupation	TPC
Promote National Cycle Initiatives	Annually	TPC
Information on Bus and Rail Services	Upon occupation of dwellings and reviewed annually	TPC
Investigating a Car Share Scheme	On-going from occupation	TPC
Broadband/ Internet Provision	Delivered as part of site construction	Developer
Promote Home Delivery Services	On-going from occupation	TPC

7.2 Timescales for Monitoring and Implementation

7.2.1 The Travel Plan will be formally monitored annually by the TPC.

7.2.2 The monitoring of the Travel Plan will be based upon resident travel surveys which will be arranged by the TPC. The initial baseline travel survey will be conducted when 33% of the dwellings are occupied (i.e. prior to occupation of the 65th dwelling, based on 195 units). The format of the travel questionnaire will be agreed with Liverpool City Council prior to occupation of the first unit on the site. Additional travel surveys will then be undertaken by the TPC annually thereafter, to assess the success of the Travel Plan measures.

7.2.3 Following the completion of the travel surveys and analysis of the survey results, the TPC will be responsible for the preparation of an annual monitoring report for issue to Liverpool City Council. The annual report will be issued to the Council within three months of completion of the surveys.

7.2.4 The annual monitoring report will set out a comparison of the residents' modal splits against the agreed target modal splits and will provide a summary of the travel plan measures that have been implemented throughout the previous year and their effectiveness.

7.2.5 If the agreed target modal splits have not been achieved, the TPC will prepare a detailed action plan setting out which additional travel plan measures would be implemented at the site, together with dates for their implementation, to seek to achieve the targets. Within three months of the additional measures being implemented a review will be undertaken to assess the effectiveness of these measures, to allow changes to be made prior to the annual survey being undertaken. These additional measures will be funded by the developer.

7.2.6 The TPC will attempt to set up a residents' management group, who could take on the monitoring of the Travel Plan once the TPC role has ceased.

7.3 Responsibility, Ownership and Implementation

7.3.1 The developer will assume overall responsibility for ensuring that the Travel Plan is implemented at the site. The implementation of the Travel Plan measures will be delegated to the TPC who will carry out the day-to-day management of the plan and whose role will be key to the success of the plan.

7.3.2 The TPC will liaise with residents and with the relevant officers of Liverpool City Council. Liverpool City Council will be notified of the TPC's contact details upon their appointment.

8.0 CONCLUSION

8.1.1 This Framework Travel Plan has been prepared in advance of the Full Travel Plan and is based on the Masterplan that is the subject of the planning application.

8.1.2 To achieve the target set out within this Travel Plan, the developer will encourage residents, to take into account the benefits of sustainable forms of transport that are available to them given the highly accessible location of the site.

8.1.3 The Travel Plan will seek to achieve significant reductions in car usage, particularly single occupancy trips. This will produce resultant benefits in terms of air quality and emissions and will also significantly reduce car parking demand and traffic generation associated with the development.

8.1.4 This Travel Plan aims to deliver the following objectives:

- To minimise the total distance travelled by residents and visitors to the site through the reduction in journey lengths and frequency, particularly single occupancy car trips. This will in turn reduce congestion and improve air quality and noise pollution;
- To improve awareness and usage of the alternative modes of transport and reduce the reliance on the private car;
- To promote car sharing, walking, cycling and public transport as safe, efficient, affordable alternatives to private cars and to highlight the health and environmental benefits of adopting sustainable travel patterns; and
- To enable people to make more informed travel choices.

8.1.5 In conclusion, this Framework Travel Plan document represents an excellent opportunity to build on the sustainable location of the site and create sustainable travel patterns throughout the lifetime of the development.

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FIGURES

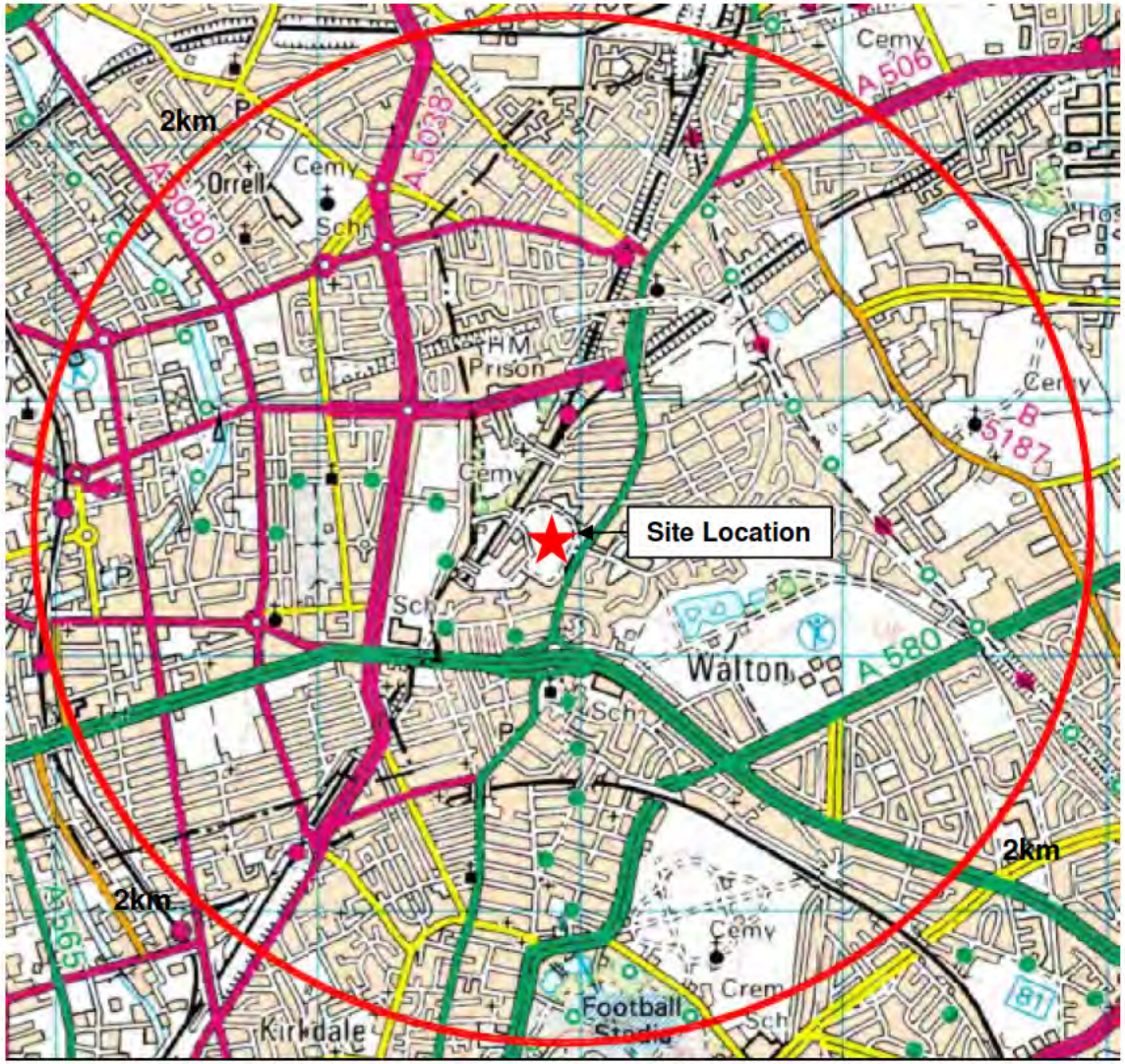

Figure 3-1

Walking Catchment

Rice Lane, Liverpool

CAMERON ROSE ASSOCIATES

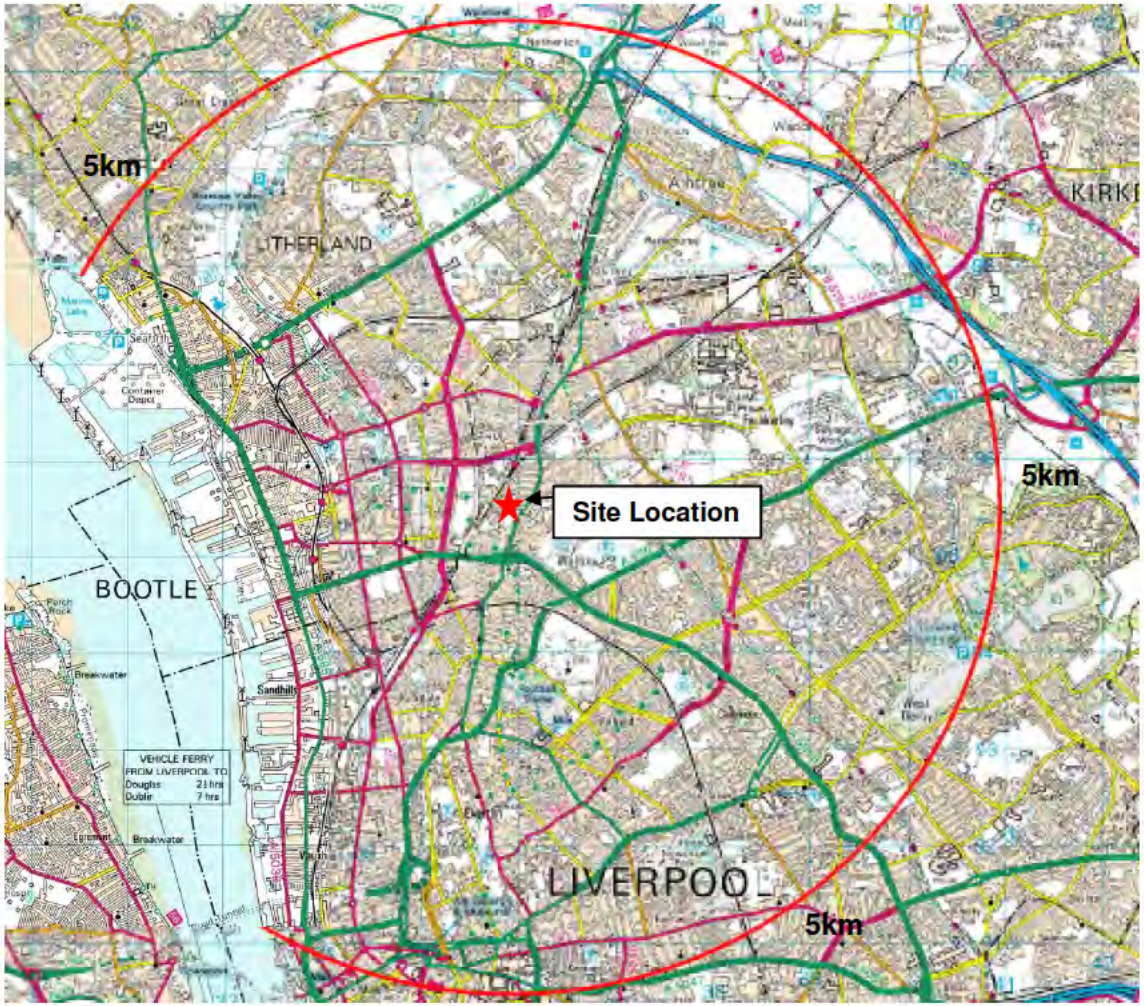

Figure 3-2	Cycling Catchment	CAMERON ROSE ASSOCIATES
	Rice Lane, Liverpool	

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APPENDICES

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APPENDIX A

DEVELOPMENT PROPOSALS


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APPENDIX E

ACCESSIBILITY QUESTIONNAIRES

Retail Element (major).

Address: former Walton Hospital, Rice Lane				
Completed By: Cameron Rose Associates.				
Access Diagram				
Has a diagram been submitted which shows how people move to and through the development and how this links to the surrounding roads, footpaths and sight lines? (This can be included within the Design and Access Statement, see Section 2.25.) If a diagram has not been submitted your application may not be processed.				(Yes) / No
Access on Foot			**Points**	**Score**
Safety	Is there safe pedestrian access to and within the site, and for pedestrians passing the site (2m minimum width footpath on both sides of the road)? If no your application must address safe pedestrian access.			(Yes) / No
Location *	Housing Development: Is the development within 500m of a district or local centre (see Accessibility Map 1 in Appendix F) Other development: Is the density of existing local housing (i.e. within 800m) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)	Yes	(2)	2.
		No	0	
Internal Layout	Does 'circulation' and access inside the sites reflect direct, safe and easy to use pedestrian routes for all; with priority given to pedestrians when they have to cross roads or cycle routes?	Yes	(1)	1
		No	0	
External Layout	Are there barriers between site and local facilities or housing which restrict pedestrian access? (see Merseyside Code of Practice on Access and Mobility)e.g. • No dropped kerbs at crossings or on desire lines; • Steep gradients; • A lack of a formal crossing where there is heavy traffic; • Security concerns, e.g. lack of lighting.	There are barriers	-2	1
		There are no barriers	(1)	
Other	The development links to identified recreational walking network (see Accessibility Map 1). If no, please provide reasons why not.			(Yes) / No
			Total (B)	4

Summary	Box A: Minimum Standard (from Table 3.1)	4	**Comments or action needed to correct any shortfall**
	Box B: Actual Score	4.	

Access by Cycle				**Points**	**Score**
Safety	Are there safety issues for cyclists either turning into or out of the site or a road junctions within 400m of the site (e.g. dangerous right turns for cyclists due to the level of traffic)? If yes, you must address safety issues in your application.				Yes / (No)
Cycle Parking	Does the development meet cycle parking standards, in a secure location with natural surveillance, or where appropriate contribute to communal cycle parking facilities? If no, you must address cycle parking standards and cycle parking facilities.				(Yes) / No
Location	Housing Development: Is the development within 1 mile of a district or local centre (see Accessibility Map 1) Other Development: Is the density of local housing (e.g. within 1 mile) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)		(Yes)	2	2
			No	0	
Internal layout	Does 'circulation' and access inside the site reflect direct and safe cycle routes; with priority given to cyclists where they meet motor vehicles?		(Yes)	1	1
			No	0	
External Access	The development is within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F) and / or proposes to create a link to a cycle route, or develop a route?			(1)	1
	The development is not within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F)			-1	
Other	Development includes shower facilities and lockers for cyclists lockers only.		Yes	1	1/2.
			No	0	
				Total (B)	

Summary	Box A: **Minimum Standard** (From Table 3.1)	5.	**Comments or action needed to correct any shortfall** changing facilities + lodger only are provided in Aldi stores.

	Box B: **Actual Score**	4.5.	

Access by Public Transport			**Points**	**Score**
Location and access to public transport	Is the site within a 200m safe and convenient walking distance of a bus stop, and/or within 400m of a rail station? (See Accessibility Map 2 in Appendix F).	Yes	(2)	2
		No	0	
	Are there barriers on direct and safe pedestrian routes to bus stops or rail stations i.e. • A lack of dropped kerbs; • Pavements less than 2m wide; • A lack of formal crossings where there is heavy traffic; or • Bus access kerbs.	There are barriers	(0)	0
		There are no barriers	1	
Frequency	High (four or more bus services or trains an hour)		(2)	2
	Medium (two or three bus services or trains an hour)		1	
	Low (less than two bus services or trains an hour)		0	
Other	The proposal contributes to bus priority measures serving the site		1	
	The proposal contributes to bus stops, bus interchange or bus or rail stations in the vicinity and/or provides bus stops or bus interchange in the site		1	
	The proposal contributes to an existing or new bus service		1	
			Total (B):	4

Summary	Box A: **Minimum Standard** (from Table 3.1)	6	**Comments or action needed to correct any shortfall** lack of controlled pedestrian crossing on site access arm of the junction of Rice Lane / Cavendish Drive. Crossing facility is proposed as part of the development proposals.
	Box B: **Total Score**	4	

Vehicle Access and Parking		**Points**	**Score**
Vehicle access and circulation	Is there safe access to and from the road? If no, you must address safety issues.		(Yes) / No
	Can the site be adequately serviced? If no, you must address service issues.		(Yes) / No
	Is the safety and convenience of other users (pedestrians, cyclists and public transport) affected by the proposal? If yes, you must address safety issues.		Yes / (No)
	Has access for the emergency services been provided? If no, you must provide emergency service provision.		(Yes) / No
	For development which generates significant freight movements, is the site easily accessed from the road or rail freight route networks (i.e. minimising the impact of traffic on local roads and neighbourhoods) (see Accessibility Map 3 in Appendix F)? If no, please provide an explanation.		(Yes) / No
Parking	The off-street parking provided is more than advised in Section 4 for that development type. If yes, parking provision must be reassessed.		Yes / (No)

	The off-street parking provided is as advised in Section 4 for that development type	1	(Yes) / No
	The off-street parking provided is less than 75% of the amount advised in Section 4 for that development type (or shares parking provision with another development)	2	(Yes) / No
	For development in controlled parking zones:		Yes / (No)
	• Is it a car free development?	1	Yes / No N/A
	• Supports the control or removal of on-street parking spaces (inc provision of disabled spaces), or contributes to other identified measures in the local parking strategy (including car clubs)	1	Yes / No N/A.
		Total (B):	3.

Summary	Box A: **Minimum Standard** (From Table 3.1)	2	**Comments or action needed to correct any shortfall. If conditions are appropriate for the reduced level of parking (see section 4), but this has not been provided, please explain why.**

Housing Element (major)

Address: former Walton Hospital, Rice Lane				
Completed By: Cameron Rose Associates				
Access Diagram				
Has a diagram been submitted which shows how people move to and through the development and how this links to the surrounding roads, footpaths and sight lines? (This can be included within the Design and Access Statement, see Section 2.25.) If a diagram has not been submitted your application may not be processed.				(Yes) / No
Access on Foot			**Points**	**Score**
Safety	Is there safe pedestrian access to and within the site, and for pedestrians passing the site (2m minimum width footpath on both sides of the road)? If no your application must address safe pedestrian access.			(Yes) / No
Location *	Housing Development: Is the development within 500m of a district or local centre (see Accessibility Map 1 in Appendix F) Other development: Is the density of existing local housing (i.e. within 800m) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)	Yes	(2)	2
		No	0	
Internal Layout	Does 'circulation' and access inside the sites reflect direct, safe and easy to use pedestrian routes for all; with priority given to pedestrians when they have to cross roads or cycle routes?	Yes	(1)	1
		No	0	
External Layout	Are there barriers between site and local facilities or housing which restrict pedestrian access? (see Merseyside Code of Practice on Access and Mobility)e.g. • No dropped kerbs at crossings or on desire lines; • Steep gradients; • A lack of a formal crossing where there is heavy traffic; • Security concerns, e.g. lack of lighting.	There are barriers	-2	1
		There are no barriers	(1)	
Other	The development links to identified recreational walking network (see Accessibility Map 1). If no, please provide reasons why not.			(Yes) / No
			Total (B)	4.

Summary	Box A: Minimum Standard (from Table 3.1)	4.	**Comments or action needed to correct any shortfall**
	Box B: Actual Score	4.	

Access by Cycle				**Points**	**Score**
Safety	Are there safety issues for cyclists either turning into or out of the site or a road junctions within 400m of the site (e.g. dangerous right turns for cyclists due to the level of traffic)? If yes, you must address safety issues in your application.				Yes / (No)
Cycle Parking	Does the development meet cycle parking standards, in a secure location with natural surveillance, or where appropriate contribute to communal cycle parking facilities? If no, you must address cycle parking standards and cycle parking facilities.				(Yes) / No
Location *	Housing Development: Is the development within 1 mile of a district or local centre (see Accessibility Map 1) Other Development: Is the density of local housing (e.g. within 1 mile) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)		Yes	(2)	2
			No	0	
Internal layout	Does 'circulation' and access inside the site reflect direct and safe cycle routes; with priority given to cyclists where they meet motor vehicles?		Yes	(1)	1
			No	0	
External Access	The development is within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F) and / or proposes to create a link to a cycle route, or develop a route?			(1)	1
	The development is not within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F)			-1	
Other	Development includes shower facilities and lockers for cyclists		Yes	1	
			No	0	N/A
				Total (B)	4.

Summary	Box A: **Minimum Standard** (From Table 3.1)	5.	**Comments or action needed to correct any shortfall** unable to score more due to nature of dev't.

	Box B: **Actual Score**	4.	

Access by Public Transport			**Points**	**Score**
Location and access to public transport	Is the site within a 200m safe and convenient walking distance of a bus stop, and/or within 400m of a rail station? (See Accessibility Map 2 in Appendix F).	Yes	(2)	2
		No	0	
	Are there barriers on direct and safe pedestrian routes to bus stops or rail stations i.e. • A lack of dropped kerbs; • Pavements less than 2m wide; • A lack of formal crossings where there is heavy traffic; or • Bus access kerbs.	There are barriers	0	1
		There are no barriers	(1)	
Frequency	High (four or more bus services or trains an hour)		2	1
	Medium (two or three bus services or trains an hour)		(1)	
	Low (less than two bus services or trains an hour)		0	
Other	The proposal contributes to bus priority measures serving the site		1	
	The proposal contributes to bus stops, bus interchange or bus or rail stations in the vicinity and/or provides bus stops or bus interchange in the site		1	
	The proposal contributes to an existing or new bus service		1	
			Total (B):	4

Summary	Box A: **Minimum Standard** (from Table 3.1)	5.	**Comments or action needed to correct any shortfall**
	Box B: **Total Score**	4.	

Vehicle Access and Parking		**Points**	**Score**
Vehicle access and circulation	Is there safe access to and from the road? If no, you must address safety issues.		(Yes) / No
	Can the site be adequately serviced? If no, you must address service issues.		(Yes) / No
	Is the safety and convenience of other users (pedestrians, cyclists and public transport) affected by the proposal? If yes, you must address safety issues.		Yes / (No)
	Has access for the emergency services been provided? If no, you must provide emergency service provision.		(Yes) / No
	For development which generates significant freight movements, is the site easily accessed from the road or rail freight route networks (i.e. minimising the impact of traffic on local roads and neighbourhoods) (see Accessibility Map 3 in Appendix F)? If no, please provide an explanation.		Yes / No N/A.
Parking	The off-street parking provided is more than advised in Section 4 for that development type. If yes, parking provision must be reassessed.		Yes / (No).

	The off-street parking provided is as advised in Section 4 for that development type	1	(Yes) / No
	The off-street parking provided is less than 75% of the amount advised in Section 4 for that development type (or shares parking provision with another development)	2	Yes / No N/A.
	For development in controlled parking zones:		Yes / (No)
	• Is it a car free development?	1	Yes / No N/A
	• Supports the control or removal of on-street parking spaces (inc provision of disabled spaces), or contributes to other identified measures in the local parking strategy (including car clubs)	1	Yes / No N/A
		Total (B):	1.

Summary	Box A: **Minimum Standard** (From Table 3.1)	1.	**Comments or action needed to correct any shortfall. If conditions are appropriate for the reduced level of parking (see section 4), but this has not been provided, please explain why.**

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APPENDIX F

TRAFFIC COUNT DATA

Liverpool - Manual Traffic Survey, Friday 23rd January 2015

Junction: (1) A59 Rice Lane / Cavendish Drive

Approach: A59 Rice Lane (North)

	Left to Cavendish Drive								Ahead to A59 Rice Lane (South)								Right to Western Arm							
TIME	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	20	5	0	0	1	**26**	1	0	141	37	2	1	6	**188**	0	0	0	0	0	0	0	**0**
0745 - 0800	0	0	31	1	0	0	0	**32**	0	0	188	19	1	1	8	**217**	0	0	1	0	1	0	0	**2**
Hourly Total	**0**	**0**	**51**	**6**	**0**	**0**	**1**	**58**	**1**	**0**	**329**	**56**	**3**	**2**	**14**	**405**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**2**
0800 - 0815	0	0	29	4	1	0	1	**35**	1	1	188	35	2	0	6	**233**	0	0	0	0	0	0	0	**0**
0815 - 0830	0	0	38	4	0	0	0	**42**	3	1	220	31	4	0	5	**264**	1	2	0	0	0	0	0	**3**
0830 - 0845	0	0	31	0	0	0	1	**32**	0	1	208	23	0	4	8	**244**	0	0	2	1	0	0	0	**3**
0845 - 0900	0	0	36	3	0	0	0	**39**	0	3	175	31	3	3	6	**221**	0	0	3	0	0	0	0	**3**
Hourly Total	**0**	**0**	**134**	**11**	**1**	**0**	**2**	**148**	**4**	**6**	**791**	**120**	**9**	**7**	**25**	**962**	**1**	**2**	**5**	**1**	**0**	**0**	**0**	**9**
0900 - 0915	0	0	35	6	0	0	1	**42**	0	0	137	17	2	0	6	**162**	0	0	5	1	0	0	0	**6**
0915 - 0930	0	0	28	3	0	0	0	**31**	1	0	126	26	3	1	7	**164**	0	0	1	1	0	0	0	**2**
Hourly Total	**0**	**0**	**63**	**9**	**0**	**0**	**1**	**73**	**1**	**0**	**263**	**43**	**5**	**1**	**13**	**326**	**0**	**0**	**6**	**2**	**0**	**0**	**0**	**8**
Session Total	**0**	**0**	**248**	**26**	**1**	**0**	**4**	**279**	**6**	**6**	**1383**	**219**	**17**	**10**	**52**	**1693**	**1**	**2**	**12**	**3**	**1**	**0**	**0**	**19**
1500 - 1515	0	0	45	4	0	0	0	**49**	0	0	129	14	2	1	7	**153**	0	0	2	2	0	0	0	**4**
1515 - 1530	0	0	52	2	0	0	0	**54**	0	1	113	23	1	0	7	**145**	0	0	2	0	0	0	0	**2**
1530 - 1545	1	0	32	3	0	0	1	**37**	1	0	121	13	4	1	7	**147**	0	0	1	0	0	0	0	**1**
1545 - 1600	0	0	45	2	0	0	1	**48**	0	0	130	12	0	0	7	**149**	0	0	5	0	0	0	0	**5**
Hourly Total	**1**	**0**	**174**	**11**	**0**	**0**	**2**	**188**	**1**	**1**	**493**	**62**	**7**	**2**	**28**	**594**	**0**	**0**	**10**	**2**	**0**	**0**	**0**	**12**
1600 - 1615	1	0	33	2	0	0	0	**36**	0	0	107	20	0	0	5	**132**	0	0	2	0	0	0	0	**2**
1615 - 1630	0	0	36	3	0	0	1	**40**	1	1	112	22	2	0	7	**145**	0	0	3	0	0	0	0	**3**
1630 - 1645	0	0	33	2	0	0	0	**35**	0	0	134	19	0	0	5	**158**	0	0	3	0	1	0	0	**4**
1645 - 1700	0	0	35	1	0	0	1	**37**	2	0	146	8	1	0	7	**164**	0	0	2	0	0	0	0	**2**
Hourly Total	**1**	**0**	**137**	**8**	**0**	**0**	**2**	**148**	**3**	**1**	**499**	**69**	**3**	**0**	**24**	**599**	**0**	**0**	**10**	**0**	**1**	**0**	**0**	**11**
1700 - 1715	0	0	37	1	0	0	0	**38**	0	0	128	15	0	0	5	**148**	0	0	0	0	0	0	0	**0**
1715 - 1730	0	0	45	4	0	0	1	**50**	0	0	114	16	0	0	4	**134**	0	0	4	0	0	0	0	**4**
1730 - 1745	0	0	51	3	0	0	0	**54**	0	2	117	15	1	0	8	**143**	0	0	4	2	0	0	0	**6**
1745 - 1800	0	0	39	3	0	0	1	**43**	0	0	120	14	0	0	5	**139**	1	0	1	0	0	0	0	**2**
Hourly Total	**0**	**0**	**172**	**11**	**0**	**0**	**2**	**185**	**0**	**2**	**479**	**60**	**1**	**0**	**22**	**564**	**1**	**0**	**9**	**2**	**0**	**0**	**0**	**12**
1800 - 1815	0	0	35	0	0	0	0	**35**	0	0	124	8	0	0	11	**143**	0	0	3	1	0	0	0	**4**
1815 - 1830	0	0	48	0	0	0	0	**48**	0	0	157	10	0	0	1	**168**	0	0	2	0	0	0	0	**2**
Hourly Total	**0**	**0**	**83**	**0**	**0**	**0**	**0**	**83**	**0**	**0**	**281**	**18**	**0**	**0**	**12**	**311**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**6**
Session Total	**2**	**0**	**566**	**30**	**0**	**0**	**6**	**604**	**4**	**4**	**1752**	**209**	**11**	**2**	**86**	**2068**	**1**	**0**	**34**	**5**	**1**	**0**	**0**	**41**

Liverpool - Manual Traffic Survey, Friday 23rd January 2015

Junction: (1) A59 Rice Lane / Cavendish Drive

Approach: Cavendish Drive

	Left to A59 Rice Lane (South)								Ahead to Western Arm								Right to A59 Rice Lane (North)							
TIME	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	29	4	0	0	0	**33**	0	0	0	0	0	0	0	**0**	0	0	11	2	0	0	1	**14**
0745 - 0800	0	0	33	4	0	0	1	**38**	0	0	0	0	0	0	0	**0**	0	0	19	5	0	0	0	**24**
Hourly Total	**0**	**0**	**62**	**8**	**0**	**0**	**1**	**71**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**7**	**0**	**0**	**1**	**38**
0800 - 0815	0	0	39	4	0	0	0	**43**	0	0	0	0	0	0	0	**0**	0	0	15	2	0	0	1	**18**
0815 - 0830	0	0	37	4	1	0	1	**43**	0	0	0	0	0	0	0	**0**	0	0	13	2	0	0	0	**15**
0830 - 0845	0	0	46	5	1	0	0	**52**	0	0	1	0	0	0	0	**1**	0	0	19	1	0	0	1	**21**
0845 - 0900	0	0	47	8	0	0	1	**56**	0	0	2	0	0	0	0	**2**	0	0	36	2	0	0	0	**38**
Hourly Total	**0**	**0**	**169**	**21**	**2**	**0**	**2**	**194**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**83**	**7**	**0**	**0**	**2**	**92**
0900 - 0915	0	0	74	7	0	0	0	**81**	0	0	1	0	0	0	0	**1**	0	0	41	3	0	0	1	**45**
0915 - 0930	0	0	43	6	0	0	1	**50**	0	0	2	0	0	0	0	**2**	0	0	20	3	0	0	0	**23**
Hourly Total	**0**	**0**	**117**	**13**	**0**	**0**	**1**	**131**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**61**	**6**	**0**	**0**	**1**	**68**
Session Total	**0**	**0**	**348**	**42**	**2**	**0**	**4**	**396**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**174**	**20**	**0**	**0**	**4**	**198**
1500 - 1515	0	0	51	7	0	0	0	**58**	0	0	0	0	0	0	0	**0**	0	0	36	4	0	0	1	**41**
1515 - 1530	0	0	58	1	0	0	1	**60**	0	0	2	0	0	0	0	**2**	0	0	46	7	0	0	0	**53**
1530 - 1545	2	0	93	5	0	0	0	**100**	0	0	1	0	0	0	0	**1**	0	0	37	2	0	0	0	**39**
1545 - 1600	0	0	86	6	0	0	1	**93**	0	0	1	0	0	0	0	**1**	0	0	40	6	0	0	1	**47**
Hourly Total	**2**	**0**	**288**	**19**	**0**	**0**	**2**	**311**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**159**	**19**	**0**	**0**	**2**	**180**
1600 - 1615	0	0	63	2	0	0	0	**65**	1	0	0	1	0	0	0	**2**	0	0	43	4	0	0	0	**47**
1615 - 1630	1	0	64	3	0	0	0	**68**	0	0	0	0	0	0	0	**0**	0	0	51	2	0	0	1	**54**
1630 - 1645	0	0	60	5	0	0	0	**65**	0	0	1	0	0	0	0	**1**	0	0	34	0	0	0	1	**35**
1645 - 1700	0	0	63	3	0	0	1	**67**	0	0	0	0	0	0	0	**0**	0	0	41	3	0	0	1	**45**
Hourly Total	**1**	**0**	**250**	**13**	**0**	**0**	**1**	**265**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**3**	**0**	**0**	**169**	**9**	**0**	**0**	**3**	**181**
1700 - 1715	0	0	62	2	0	0	0	**64**	0	0	3	1	0	0	0	**4**	0	0	53	1	0	0	0	**54**
1715 - 1730	0	0	61	3	0	0	0	**64**	0	0	3	1	0	0	0	**4**	0	0	25	4	0	0	0	**29**
1730 - 1745	0	0	59	3	0	0	2	**64**	0	0	3	0	0	0	0	**3**	0	0	38	2	0	0	0	**40**
1745 - 1800	0	1	59	3	0	0	0	**63**	0	0	1	0	0	0	0	**1**	0	0	43	4	0	0	1	**48**
Hourly Total	**0**	**1**	**241**	**11**	**0**	**0**	**2**	**255**	**0**	**0**	**10**	**2**	**0**	**0**	**0**	**12**	**0**	**0**	**159**	**11**	**0**	**0**	**1**	**171**
1800 - 1815	0	0	67	2	0	0	1	**70**	0	0	2	0	0	0	0	**2**	0	0	52	2	0	0	0	**54**
1815 - 1830	0	0	57	4	0	0	0	**61**	0	0	2	0	0	0	0	**2**	0	0	45	1	0	0	0	**46**
Hourly Total	**0**	**0**	**124**	**6**	**0**	**0**	**1**	**131**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**97**	**3**	**0**	**0**	**0**	**100**
Session Total	**3**	**1**	**903**	**49**	**0**	**0**	**6**	**962**	**1**	**0**	**19**	**3**	**0**	**0**	**0**	**23**	**0**	**0**	**584**	**42**	**0**	**0**	**6**	**632**

Liverpool - Manual Traffic Survey, Friday 23rd January 2015

Junction: (1) A59 Rice Lane / Cavendish Drive

Approach: A59 Rice Lane (South)

	Left to Western Arm								Ahead to A59 Rice Lane (North)								Right to Cavendish Drive							
TIME	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	4	0	0	0	0	**4**	0	0	94	21	2	0	7	**124**	0	0	13	2	0	0	1	**16**
0745 - 0800	0	0	3	1	0	0	0	**4**	0	1	90	26	2	0	5	**124**	1	0	23	10	0	0	1	**35**
Hourly Total	**0**	**0**	**7**	**1**	**0**	**0**	**0**	**8**	**0**	**1**	**184**	**47**	**4**	**0**	**12**	**248**	**1**	**0**	**36**	**12**	**0**	**0**	**2**	**51**
0800 - 0815	0	0	1	1	0	0	0	**2**	1	0	118	20	2	1	6	**148**	0	0	36	2	0	0	1	**39**
0815 - 0830	0	0	3	0	0	0	0	**3**	1	1	144	22	6	2	7	**183**	0	0	45	0	1	0	0	**46**
0830 - 0845	0	0	3	0	0	0	0	**3**	0	0	133	17	0	1	6	**157**	0	0	52	8	0	0	1	**61**
0845 - 0900	0	0	4	0	0	0	0	**4**	0	0	155	26	4	2	6	**193**	0	0	60	3	0	0	0	**63**
Hourly Total	**0**	**0**	**11**	**1**	**0**	**0**	**0**	**12**	**2**	**1**	**550**	**85**	**12**	**6**	**25**	**681**	**0**	**0**	**193**	**13**	**1**	**0**	**2**	**209**
0900 - 0915	0	0	7	1	0	0	0	**8**	0	1	126	16	5	0	4	**152**	0	0	52	5	0	0	1	**58**
0915 - 0930	0	0	1	0	0	0	0	**1**	0	1	104	13	1	0	8	**127**	0	0	50	5	1	1	0	**57**
Hourly Total	**0**	**0**	**8**	**1**	**0**	**0**	**0**	**9**	**0**	**2**	**230**	**29**	**6**	**0**	**12**	**279**	**0**	**0**	**102**	**10**	**1**	**1**	**1**	**115**
Session Total	**0**	**0**	**26**	**3**	**0**	**0**	**0**	**29**	**2**	**4**	**964**	**161**	**22**	**6**	**49**	**1208**	**1**	**0**	**331**	**35**	**2**	**1**	**5**	**375**
1500 - 1515	0	0	3	1	0	0	0	**4**	0	1	161	20	2	1	5	**190**	0	0	59	4	0	0	1	**64**
1515 - 1530	0	0	4	0	0	0	0	**4**	4	0	156	23	2	0	4	**189**	0	1	89	4	0	0	1	**95**
1530 - 1545	0	0	8	0	0	0	0	**8**	0	0	191	28	2	0	7	**228**	0	0	80	9	0	0	1	**90**
1545 - 1600	0	0	5	1	0	0	0	**6**	3	2	151	21	0	0	5	**182**	0	0	55	7	0	0	0	**62**
Hourly Total	**0**	**0**	**20**	**2**	**0**	**0**	**0**	**22**	**7**	**3**	**659**	**92**	**6**	**1**	**21**	**789**	**0**	**1**	**283**	**24**	**0**	**0**	**3**	**311**
1600 - 1615	0	0	3	2	0	0	0	**5**	2	1	180	23	4	0	6	**216**	0	0	76	4	0	0	0	**80**
1615 - 1630	0	0	2	1	0	0	0	**3**	3	0	162	24	2	0	7	**198**	0	0	53	1	0	0	0	**54**
1630 - 1645	0	0	2	0	0	0	0	**2**	3	0	182	27	1	0	7	**220**	0	0	70	6	0	0	1	**77**
1645 - 1700	0	0	4	1	0	0	0	**5**	0	1	138	29	1	0	5	**174**	0	0	61	3	0	0	1	**65**
Hourly Total	**0**	**0**	**11**	**4**	**0**	**0**	**0**	**15**	**8**	**2**	**662**	**103**	**8**	**0**	**25**	**808**	**0**	**0**	**260**	**14**	**0**	**0**	**2**	**276**
1700 - 1715	0	0	7	0	0	0	0	**7**	2	1	177	18	3	1	7	**209**	0	0	63	4	0	0	1	**68**
1715 - 1730	0	0	3	0	0	0	0	**3**	1	2	168	21	0	0	4	**196**	0	0	59	5	0	0	0	**64**
1730 - 1745	0	0	7	0	0	0	0	**7**	1	1	162	18	0	0	6	**188**	0	0	61	3	0	0	0	**64**
1745 - 1800	0	0	5	0	0	0	0	**5**	1	1	168	24	0	0	7	**201**	0	0	54	7	0	0	1	**62**
Hourly Total	**0**	**0**	**22**	**0**	**0**	**0**	**0**	**22**	**5**	**5**	**675**	**81**	**3**	**1**	**24**	**794**	**0**	**0**	**237**	**19**	**0**	**0**	**2**	**258**
1800 - 1815	0	0	3	0	0	0	0	**3**	0	1	132	18	0	0	7	**158**	0	0	50	4	0	0	0	**54**
1815 - 1830	0	0	5	0	0	0	0	**5**	0	0	130	11	0	0	5	**146**	0	0	25	0	0	0	0	**25**
Hourly Total	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**8**	**0**	**1**	**262**	**29**	**0**	**0**	**12**	**304**	**0**	**0**	**75**	**4**	**0**	**0**	**0**	**79**
Session Total	**0**	**0**	**61**	**6**	**0**	**0**	**0**	**67**	**20**	**11**	**2258**	**305**	**17**	**2**	**82**	**2695**	**0**	**1**	**855**	**61**	**0**	**0**	**7**	**924**

Liverpool - Manual Traffic Survey, Friday 23rd January 2015

Junction: (1) A59 Rice Lane / Cavendish Drive

Approach: Western Arm

	Left to A59 Rice Lane (North)								Ahead to Cavendish Drive								Right to A59 Rice Lane (South)							
TIME	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	3	0	0	0	0	**3**	0	0	0	0	0	0	0	**0**	0	0	2	0	0	0	0	**2**
0745 - 0800	0	0	1	1	0	0	0	**2**	0	0	3	0	0	0	0	**3**	0	0	3	0	1	0	0	**4**
Hourly Total	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**5**	**0**	**1**	**0**	**0**	**6**
0800 - 0815	0	0	7	0	0	0	0	**7**	0	0	0	0	0	0	0	**0**	0	0	4	1	0	0	0	**5**
0815 - 0830	0	0	4	0	0	0	0	**4**	0	0	0	1	0	0	0	**1**	0	0	4	1	0	0	0	**5**
0830 - 0845	0	0	2	2	0	0	0	**4**	0	0	2	0	0	0	0	**2**	0	0	6	0	0	0	0	**6**
0845 - 0900	0	0	5	0	0	0	0	**5**	0	0	3	0	0	0	0	**3**	0	0	6	0	0	0	0	**6**
Hourly Total	**0**	**0**	**18**	**2**	**0**	**0**	**0**	**20**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**6**	**0**	**0**	**20**	**2**	**0**	**0**	**0**	**22**
0900 - 0915	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	**0**	0	0	1	1	0	0	0	**2**
0915 - 0930	0	0	3	2	0	0	0	**5**	0	0	1	0	0	0	0	**1**	0	0	1	1	0	0	0	**2**
Hourly Total	**0**	**0**	**4**	**2**	**0**	**0**	**0**	**6**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**4**
Session Total	**0**	**0**	**26**	**5**	**0**	**0**	**0**	**31**	**0**	**0**	**9**	**1**	**0**	**0**	**0**	**10**	**0**	**0**	**27**	**4**	**1**	**0**	**0**	**32**
1500 - 1515	0	0	3	0	0	0	1	**4**	0	0	2	0	0	0	0	**2**	0	0	1	0	0	0	0	**1**
1515 - 1530	0	0	3	2	0	0	0	**5**	0	0	2	0	0	0	0	**2**	0	0	3	1	0	0	0	**4**
1530 - 1545	0	0	4	0	0	0	0	**4**	0	0	9	1	0	0	0	**10**	0	0	2	0	0	0	0	**2**
1545 - 1600	0	0	0	1	1	0	0	**2**	0	0	4	0	0	0	0	**4**	0	0	2	2	0	0	0	**4**
Hourly Total	**0**	**0**	**10**	**3**	**1**	**0**	**1**	**15**	**0**	**0**	**17**	**1**	**0**	**0**	**0**	**18**	**0**	**0**	**8**	**3**	**0**	**0**	**0**	**11**
1600 - 1615	0	0	2	0	0	0	0	**2**	0	0	4	0	0	0	0	**4**	0	0	4	0	0	0	0	**4**
1615 - 1630	0	0	0	0	0	0	0	**0**	0	0	1	0	0	0	0	**1**	0	0	2	3	0	0	0	**5**
1630 - 1645	0	0	0	1	0	0	0	**1**	0	0	2	0	0	0	0	**2**	0	0	5	0	0	0	0	**5**
1645 - 1700	0	0	1	0	0	0	0	**1**	0	0	4	0	0	0	0	**4**	0	0	4	0	0	0	0	**4**
Hourly Total	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**15**	**3**	**0**	**0**	**0**	**18**
1700 - 1715	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	**0**	0	0	2	1	0	0	0	**3**
1715 - 1730	0	0	2	0	0	0	0	**2**	0	0	0	1	0	0	0	**1**	0	0	6	0	0	0	0	**6**
1730 - 1745	0	0	2	0	0	0	0	**2**	0	0	3	0	0	0	0	**3**	0	0	1	0	0	0	0	**1**
1745 - 1800	0	0	0	0	0	0	0	**0**	0	0	3	0	0	0	0	**3**	0	0	0	0	0	0	0	**0**
Hourly Total	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**7**	**0**	**0**	**9**	**1**	**0**	**0**	**0**	**10**
1800 - 1815	0	0	2	0	0	0	0	**2**	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	**0**
1815 - 1830	0	0	0	1	0	0	0	**1**	0	0	0	1	0	0	0	**1**	0	0	2	0	0	0	0	**2**
Hourly Total	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**
Session Total	**0**	**0**	**20**	**5**	**1**	**0**	**1**	**27**	**0**	**0**	**34**	**3**	**0**	**0**	**0**	**37**	**0**	**0**	**34**	**7**	**0**	**0**	**0**	**41**

Liverpool - Manual Traffic Survey, Saturday 24th January 2015

Junction: (1) A59 Rice Lane / Cavendish Drive / Western Arm

Approach: A59 Rice Lane (North)

	Left to Cavendish Drive								Ahead to A59 Rice Lane (South)								Right to Western Arm								U-Turn							
TIME	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
1000 - 1015	0	0	48	3	0	0	0	**51**	0	0	103	18	0	0	6	**127**	0	0	2	0	0	0	0	**2**	0	0	0	0	0	0	0	**0**
1015 - 1030	0	0	39	3	0	0	0	**42**	1	0	99	13	1	0	3	**117**	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	**0**
1030 - 1045	0	0	43	2	0	0	1	**46**	0	0	130	6	0	0	5	**141**	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	**0**
1045 - 1100	1	0	39	4	0	0	0	**44**	0	0	85	12	0	0	4	**101**	0	0	0	1	0	0	0	**1**	0	0	0	0	0	0	0	**0**
Hourly Total	**1**	**0**	**169**	**12**	**0**	**0**	**1**	**183**	**1**	**0**	**417**	**49**	**1**	**0**	**18**	**486**	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1100 - 1115	0	0	64	0	0	0	1	**65**	1	0	121	8	1	0	7	**138**	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	**0**
1115 - 1130	0	0	44	3	0	0	0	**47**	0	1	126	11	0	0	4	**142**	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	**0**
1130 - 1145	0	0	43	2	0	0	1	**46**	0	1	124	11	0	0	6	**142**	0	0	2	0	0	0	0	**2**	0	0	0	0	0	0	0	**0**
1145 - 1200	0	0	54	3	0	0	0	**57**	0	0	110	10	1	0	4	**125**	0	0	2	1	0	0	0	**3**	0	0	0	0	0	0	0	**0**
Hourly Total	**0**	**0**	**205**	**8**	**0**	**0**	**2**	**215**	**1**	**2**	**481**	**40**	**2**	**0**	**21**	**547**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1200 - 1215	0	0	62	2	0	0	1	**65**	0	1	140	15	0	0	5	**161**	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	**0**
1215 - 1230	0	0	52	5	0	0	0	**57**	0	0	137	12	1	0	5	**155**	0	0	2	1	0	0	0	**3**	0	0	0	0	0	0	0	**0**
1230 - 1245	0	0	57	1	0	0	1	**59**	0	0	141	12	1	1	6	**161**	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	**0**
1245 - 1300	0	0	56	3	0	0	0	**59**	1	0	132	9	0	0	5	**147**	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	**0**
Hourly Total	**0**	**0**	**227**	**11**	**0**	**0**	**2**	**240**	**1**	**1**	**550**	**48**	**2**	**1**	**21**	**624**	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1300 - 1315	1	0	59	4	0	0	1	**65**	0	0	138	17	0	0	5	**160**	0	0	3	0	0	0	0	**3**	0	0	0	0	0	0	0	**0**
1315 - 1330	0	0	57	3	0	0	1	**61**	1	2	160	16	0	0	5	**184**	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	**0**
1330 - 1345	0	0	47	4	0	0	1	**52**	0	1	121	12	0	0	5	**139**	0	0	1	0	0	0	0	**1**	0	0	1	0	0	0	0	**1**
1345 - 1400	0	0	51	4	0	0	0	**55**	0	0	153	16	0	1	5	**175**	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	**0**
Hourly Total	**1**	**0**	**214**	**15**	**0**	**0**	**3**	**233**	**1**	**3**	**572**	**61**	**0**	**1**	**20**	**658**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**
1400 - 1415	0	2	53	1	1	0	1	**58**	1	1	131	6	0	0	4	**143**	0	0	2	0	0	0	0	**2**	0	0	0	0	0	0	0	**0**
1415 - 1430	0	0	52	2	0	0	1	**55**	0	1	133	9	2	0	7	**152**	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	**0**
1430 - 1445	1	0	51	2	0	0	0	**54**	0	1	123	13	0	0	5	**142**	0	0	1	0	0	0	0	**1**	0	0	0	0	0	0	0	**0**
1445 - 1500	0	1	67	0	0	0	0	**68**	1	1	122	12	0	0	5	**141**	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	**0**
Hourly Total	**1**	**3**	**223**	**5**	**1**	**0**	**2**	**235**	**2**	**4**	**509**	**40**	**2**	**0**	**21**	**578**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**3**	**3**	**1038**	**51**	**1**	**0**	**10**	**1106**	**6**	**10**	**2529**	**238**	**7**	**2**	**101**	**2893**	**0**	**0**	**22**	**3**	**0**	**0**	**0**	**25**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Liverpool - Manual Traffic Survey, Saturday 24th January 2015

Junction: (1) A59 Rice Lane / Cavendish Drive / Western Arm

Approach: Cavendish Drive

	Left to A59 Rice Lane (South)								Ahead to Western Arm								Right to A59 Rice Lane (North)							
TIME	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	**TOTAL**	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	**TOTAL**	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	**TOTAL**
1000 - 1015	0	0	46	5	0	0	1	**52**	0	0	3	0	0	0	0	**3**	0	0	25	4	0	0	0	**29**
1015 - 1030	0	0	39	2	0	0	0	**41**	0	0	1	0	0	0	0	**1**	0	0	29	2	0	0	1	**32**
1030 - 1045	0	0	42	3	0	0	1	**46**	0	0	4	0	0	0	0	**4**	0	0	32	1	0	0	0	**33**
1045 - 1100	0	0	38	8	0	0	0	**46**	0	0	0	0	0	0	0	**0**	0	0	37	2	0	0	1	**40**
Hourly Total	**0**	**0**	**165**	**18**	**0**	**0**	**2**	**185**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**123**	**9**	**0**	**0**	**2**	**134**
1100 - 1115	1	0	58	3	0	1	1	**64**	0	0	1	0	0	0	0	**1**	0	0	42	2	0	0	1	**45**
1115 - 1130	0	0	64	0	0	0	0	**64**	0	0	0	0	0	0	0	**0**	0	0	46	0	0	0	0	**46**
1130 - 1145	0	0	46	3	0	0	1	**50**	0	0	1	0	0	0	0	**1**	0	0	54	3	0	0	0	**57**
1145 - 1200	0	0	50	3	0	0	1	**54**	0	0	0	0	0	0	0	**0**	0	0	59	5	0	0	1	**65**
Hourly Total	**1**	**0**	**218**	**9**	**0**	**1**	**3**	**232**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**201**	**10**	**0**	**0**	**2**	**213**
1200 - 1215	0	0	49	2	0	0	0	**51**	0	0	3	0	0	0	0	**3**	0	0	63	3	0	0	1	**67**
1215 - 1230	0	0	58	4	0	0	0	**62**	0	0	1	1	0	0	0	**2**	0	0	50	3	0	0	0	**53**
1230 - 1245	0	0	69	4	0	0	1	**74**	0	0	0	0	0	0	0	**0**	0	0	56	3	0	0	1	**60**
1245 - 1300	0	0	70	3	0	0	0	**73**	0	0	0	0	0	0	0	**0**	0	0	40	1	0	0	0	**41**
Hourly Total	**0**	**0**	**246**	**13**	**0**	**0**	**1**	**260**	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**0**	**0**	**209**	**10**	**0**	**0**	**2**	**221**
1300 - 1315	0	0	69	4	0	1	1	**75**	0	0	1	0	0	0	0	**1**	0	0	63	2	0	0	0	**65**
1315 - 1330	0	0	50	3	0	0	0	**53**	0	0	0	0	0	0	0	**0**	0	0	45	3	0	0	1	**49**
1330 - 1345	1	0	72	1	0	0	1	**75**	0	0	2	0	0	0	0	**2**	0	1	69	0	0	0	0	**70**
1345 - 1400	0	0	63	6	0	0	0	**69**	0	0	0	1	0	0	0	**1**	0	0	49	2	0	0	1	**52**
Hourly Total	**1**	**0**	**254**	**14**	**0**	**1**	**2**	**272**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**0**	**1**	**226**	**7**	**0**	**0**	**2**	**236**
1400 - 1415	1	0	83	1	0	0	1	**86**	0	0	0	0	0	0	0	**0**	0	0	61	2	0	0	0	**63**
1415 - 1430	0	0	63	1	0	0	1	**65**	0	0	0	1	0	0	0	**1**	0	1	50	0	0	0	1	**52**
1430 - 1445	1	0	67	5	0	0	0	**73**	0	0	2	0	0	0	0	**2**	1	0	55	3	0	0	1	**60**
1445 - 1500	0	0	67	4	0	0	0	**71**	0	0	1	0	0	0	0	**1**	0	0	54	1	0	0	0	**55**
Hourly Total	**2**	**0**	**280**	**11**	**0**	**0**	**2**	**295**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**1**	**1**	**220**	**6**	**0**	**0**	**2**	**230**
TOTAL	**4**	**0**	**1163**	**65**	**0**	**2**	**10**	**1244**	**0**	**0**	**20**	**3**	**0**	**0**	**0**	**23**	**1**	**2**	**979**	**42**	**0**	**0**	**10**	**1034**

Liverpool - Manual Traffic Survey, Saturday 24th January 2015

Junction: (1) A59 Rice Lane / Cavendish Drive / Western Arm

Approach: A59 Rice Lane (South)

	Left to Western Arm								Ahead to A59 Rice Lane (North)								Right to Cavendish Drive								U-Turn							
TIME	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
1000 - 1015	0	0	3	2	0	0	0	**5**	0	0	101	6	0	0	3	**110**	0	0	36	9	0	0	0	**45**	0	0	0	0	0	0	0	**0**
1015 - 1030	0	0	1	0	0	0	0	**1**	0	0	102	17	1	0	5	**125**	0	0	46	4	0	0	1	**51**	0	0	0	0	0	0	0	**0**
1030 - 1045	0	0	1	0	0	0	0	**1**	0	0	94	14	0	0	4	**112**	0	0	50	2	0	0	0	**52**	0	0	0	0	0	0	0	**0**
1045 - 1100	0	0	3	3	0	0	0	**6**	1	0	99	18	0	0	4	**122**	0	0	54	5	0	1	1	**61**	0	0	0	0	0	0	0	**0**
Hourly Total	**0**	**0**	**8**	**5**	**0**	**0**	**0**	**13**	**1**	**0**	**396**	**55**	**1**	**0**	**16**	**469**	**0**	**0**	**186**	**20**	**0**	**1**	**2**	**209**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1100 - 1115	0	0	4	0	0	0	0	**4**	0	0	84	10	0	0	4	**98**	0	0	51	1	0	0	0	**52**	0	0	0	0	0	0	0	**0**
1115 - 1130	0	0	2	0	0	0	0	**2**	0	0	142	14	1	0	5	**162**	0	0	62	3	1	1	1	**68**	0	0	0	0	0	0	0	**0**
1130 - 1145	0	0	2	1	0	0	0	**3**	0	0	111	10	1	2	4	**128**	0	0	61	3	0	0	1	**65**	0	0	0	0	0	0	0	**0**
1145 - 1200	0	0	7	1	0	0	0	**8**	0	4	125	12	1	0	4	**146**	0	0	57	5	0	0	0	**62**	0	0	0	0	0	0	0	**0**
Hourly Total	**0**	**0**	**15**	**2**	**0**	**0**	**0**	**17**	**0**	**4**	**462**	**46**	**3**	**2**	**17**	**534**	**0**	**0**	**231**	**12**	**1**	**1**	**2**	**247**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1200 - 1215	0	0	3	0	0	0	0	**3**	0	0	159	12	0	0	4	**175**	0	0	66	6	0	0	0	**72**	0	0	0	0	0	0	0	**0**
1215 - 1230	0	0	1	0	0	0	0	**1**	0	1	118	7	1	0	4	**131**	0	0	70	1	0	0	1	**72**	0	0	0	0	0	0	0	**0**
1230 - 1245	0	0	3	0	0	0	0	**3**	1	1	138	13	1	0	5	**159**	0	0	53	5	0	0	0	**58**	0	0	0	0	0	0	0	**0**
1245 - 1300	0	0	5	1	0	0	0	**6**	0	0	143	16	0	0	5	**164**	0	0	63	2	0	0	1	**66**	0	0	0	0	0	0	0	**0**
Hourly Total	**0**	**0**	**12**	**1**	**0**	**0**	**0**	**13**	**1**	**2**	**558**	**48**	**2**	**0**	**18**	**629**	**0**	**0**	**252**	**14**	**0**	**0**	**2**	**268**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1300 - 1315	0	0	5	0	0	0	0	**5**	0	0	129	10	2	0	6	**147**	0	0	63	5	0	0	0	**68**	0	0	0	0	0	0	0	**0**
1315 - 1330	0	0	0	2	0	0	0	**2**	1	1	155	20	0	1	6	**184**	1	0	61	1	0	0	0	**63**	0	0	0	0	0	0	0	**0**
1330 - 1345	0	1	4	0	0	0	0	**5**	0	1	139	9	0	0	3	**152**	0	0	72	0	0	0	0	**72**	0	0	0	0	0	0	0	**0**
1345 - 1400	0	0	6	0	0	0	0	**6**	0	1	137	12	1	0	6	**157**	0	1	66	3	0	0	1	**71**	0	0	0	0	0	0	0	**0**
Hourly Total	**0**	**1**	**15**	**2**	**0**	**0**	**0**	**18**	**1**	**3**	**560**	**51**	**3**	**1**	**21**	**640**	**1**	**1**	**262**	**9**	**0**	**0**	**1**	**274**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1400 - 1415	0	0	3	0	0	0	0	**3**	0	0	116	17	2	0	5	**140**	0	0	79	6	0	0	0	**85**	0	0	0	0	0	0	0	**0**
1415 - 1430	0	0	6	0	0	0	0	**6**	2	1	157	5	1	0	6	**172**	0	0	64	2	0	0	1	**67**	0	0	1	0	0	0	0	**1**
1430 - 1445	0	0	1	0	0	0	0	**1**	0	0	126	10	0	0	5	**141**	0	0	81	4	0	0	0	**85**	0	0	0	0	0	0	0	**0**
1445 - 1500	0	0	2	0	0	0	0	**2**	0	0	145	11	1	0	6	**163**	0	0	58	4	0	0	0	**62**	0	0	0	0	0	0	0	**0**
Hourly Total	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**12**	**2**	**1**	**544**	**43**	**4**	**0**	**22**	**616**	**0**	**0**	**282**	**16**	**0**	**0**	**1**	**299**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**
TOTAL	**0**	**1**	**62**	**10**	**0**	**0**	**0**	**73**	**5**	**10**	**2520**	**243**	**13**	**3**	**94**	**2888**	**1**	**1**	**1213**	**71**	**1**	**2**	**8**	**1297**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Liverpool - Manual Traffic Survey, Saturday 24th January 2015

Junction: (1) A59 Rice Lane / Cavendish Drive / Western Arm

Approach: Western Arm

	Left to A59 Rice Lane (North)								Ahead to Cavendish Drive								Right to A59 Rice Lane (South)							
TIME	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	**TOTAL**	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	**TOTAL**	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	**TOTAL**
1000 - 1015	0	0	4	0	0	0	0	**4**	0	0	3	0	0	0	0	**3**	0	0	1	1	0	0	0	**2**
1015 - 1030	0	0	7	0	0	0	0	**7**	0	0	1	0	0	0	0	**1**	0	0	6	1	0	0	0	**7**
1030 - 1045	0	0	1	0	0	0	0	**1**	0	0	5	0	0	0	0	**5**	0	0	3	1	0	0	0	**4**
1045 - 1100	0	0	3	0	0	0	0	**3**	0	0	0	0	0	0	0	**0**	0	0	3	1	0	0	0	**4**
Hourly Total	**0**	**0**	**15**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**13**	**4**	**0**	**0**	**0**	**17**
1100 - 1115	0	0	0	0	0	0	0	**0**	0	0	3	0	0	0	0	**3**	0	0	3	0	0	0	0	**3**
1115 - 1130	0	0	2	2	0	0	0	**4**	0	0	0	0	0	0	0	**0**	0	0	1	1	0	0	0	**2**
1130 - 1145	0	0	2	0	0	0	0	**2**	0	0	2	0	0	0	0	**2**	0	0	2	0	0	0	0	**2**
1145 - 1200	0	0	1	1	0	0	0	**2**	0	0	3	1	0	0	0	**4**	0	0	2	0	0	0	0	**2**
Hourly Total	**0**	**0**	**5**	**3**	**0**	**0**	**0**	**8**	**0**	**0**	**8**	**1**	**0**	**0**	**0**	**9**	**0**	**0**	**8**	**1**	**0**	**0**	**0**	**9**
1200 - 1215	0	0	2	0	0	0	0	**2**	0	0	3	1	0	0	0	**4**	0	0	1	1	0	0	0	**2**
1215 - 1230	0	0	1	0	0	0	0	**1**	0	0	1	0	0	0	0	**1**	0	0	1	0	0	0	0	**1**
1230 - 1245	0	0	2	0	0	0	0	**2**	0	0	3	0	0	0	0	**3**	0	0	2	0	0	0	0	**2**
1245 - 1300	0	0	0	0	0	0	0	**0**	0	0	5	0	0	0	0	**5**	0	0	1	1	0	0	0	**2**
Hourly Total	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**12**	**1**	**0**	**0**	**0**	**13**	**0**	**0**	**5**	**2**	**0**	**0**	**0**	**7**
1300 - 1315	0	0	2	0	0	0	0	**2**	0	0	4	0	0	0	0	**4**	0	0	2	1	0	0	0	**3**
1315 - 1330	0	0	1	0	0	0	0	**1**	0	0	1	0	0	0	0	**1**	0	0	1	1	0	0	0	**2**
1330 - 1345	0	0	3	1	0	0	0	**4**	0	0	4	0	0	0	0	**4**	0	0	2	0	0	0	0	**2**
1345 - 1400	0	0	2	1	0	0	0	**3**	0	0	3	0	0	0	0	**3**	0	0	4	0	0	0	0	**4**
Hourly Total	**0**	**0**	**8**	**2**	**0**	**0**	**0**	**10**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**9**	**2**	**0**	**0**	**0**	**11**
1400 - 1415	0	0	1	1	0	0	0	**2**	0	0	6	1	0	0	0	**7**	0	0	3	1	0	0	0	**4**
1415 - 1430	0	0	4	0	0	0	0	**4**	0	0	5	0	0	0	0	**5**	0	0	1	0	0	0	0	**1**
1430 - 1445	0	0	2	0	0	0	0	**2**	0	0	0	0	0	0	0	**0**	0	0	3	1	0	0	0	**4**
1445 - 1500	0	0	1	1	0	0	0	**2**	0	0	2	0	0	0	0	**2**	0	0	3	1	0	0	0	**4**
Hourly Total	**0**	**0**	**8**	**2**	**0**	**0**	**0**	**10**	**0**	**0**	**13**	**1**	**0**	**0**	**0**	**14**	**0**	**0**	**10**	**3**	**0**	**0**	**0**	**13**
TOTAL	**0**	**0**	**41**	**7**	**0**	**0**	**0**	**48**	**0**	**0**	**54**	**3**	**0**	**0**	**0**	**57**	**0**	**0**	**45**	**12**	**0**	**0**	**0**	**57**

Liverpool - Maximum Queue Length Survey, January 2015

Junction 1

Time	Friday 23rd January 2015									
	Rice Lane				Cavendish Road		Rice Lane (S)			West Arm
	Lane 1	Lane 2	Lane 3	Lane 4	Lane 1	Lane 2	Lane 1	Lane 2	Lane 3	Lane 1
07:45	0	2	6	0	2	2	4	4	0	0
08:00	0	4	7	0	1	1	11	6	1	0
08:15	0	8	10	0	3	1	8	4	0	1
08:30	0	9	10	1	2	2	6	4	1	0
08:45	0	7	8	0	1	0	2	1	3	0
09:00	0	8	9	0	3	2	3	4	2	1
09:15	0	10	8	0	4	2	5	3	2	0
09:30	0	7	3	0	2	3	6	4	1	0
15:15	0	8	2	0	5	4	5	5	1	0
15:30	0	9	5	0	5	5	9	7	2	0
15:45	0	10	7	0	6	4	11	9	1	0
16:00	0	14	2	0	5	5	6	5	8	0
16:15	0	9	3	4	3	4	11	12	4	0
16:30	0	8	5	0	4	2	8	7	5	0
16:45	0	11	2	0	3	3	9	8	3	0
17:00	0	7	3	0	4	5	5	7	2	0
17:15	0	5	4	0	3	3	5	6	1	0
17:30	0	9	4	0	3	1	6	6	4	0
17:45	0	10	5	0	4	3	4	5	4	0
18:00	0	8	3	0	4	6	6	5	3	0
18:15	0	10	3	0	5	3	5	4	3	0
18:30	0	7	4	0	3	3	4	5	4	0

Time	Saturday 24th January 2015									
	Rice Lane				Cavendish Road		Rice Lane (S)			West Arm
	Lane 1	Lane 2	Lane 3	Lane 4	Lane 1	Lane 2	Lane 1	Lane 2	Lane 3	Lane 1
10:15	0	2	1	0	1	0	3	2	4	0
10:30	0	5	4	0	2	1	3	3	2	0
10:45	0	6	3	0	3	1	3	4	2	0
11:00	0	4	3	0	2	0	4	3	3	0
11:15	0	3	1	0	2	2	3	2	2	0
11:30	0	2	0	0	3	3	2	3	3	0
11:45	0	6	3	0	5	4	3	4	2	0
12:00	0	0	0	0	0	1	4	5	3	0
12:15	0	9	5	0	4	4	2	3	6	0
12:30	0	11	1	0	3	4	3	4	3	0
12:45	0	5	1	0	4	5	3	8	2	0
13:00	0	5	2	0	3	3	3	4	4	0
13:15	0	11	4	0	4	2	3	3	4	0
13:30	0	8	4	0	2	1	3	4	4	0
13:45	0	5	2	0	1	2	5	3	2	0
14:00	0	7	3	0	5	4	4	2	4	1
14:15	0	7	4	0	5	3	5	4	4	0
14:30	0	5	2	0	3	4	2	3	4	0
14:45	0	8	4	0	3	3	6	9	5	0
15:00	0	7	4	0	4	3	5	10	4	0

CAMERON ROSE
ASSOCIATES

APPENDIX G

TEMPRO GROWTH FACTORS

TEMPRO GROWTH FACTORS

Dataset Version:	62
Results Type:	Trip ends by time period
Base Year:	2015
Future Year:	2020
Trip Purpose Group:	All purposes
Time Period:	Weekday AM peak period (0700 - 0959)
Trip End Type:	Origin/ Destinations
Area/ Road Type:	Urban - All
Alternative Assumptions Applied:	No

Level	Area	Local Growth Factor
Authority	Liverpool	1.0811

Dataset Version:	62
Results Type:	Trip ends by time period
Base Year:	2015
Future Year:	2020
Trip Purpose Group:	All purposes
Time Period:	Weekday PM peak period (1600 - 1859)
Trip End Type:	Origin/ Destinations
Area/ Road Type:	Urban - All
Alternative Assumptions Applied:	No

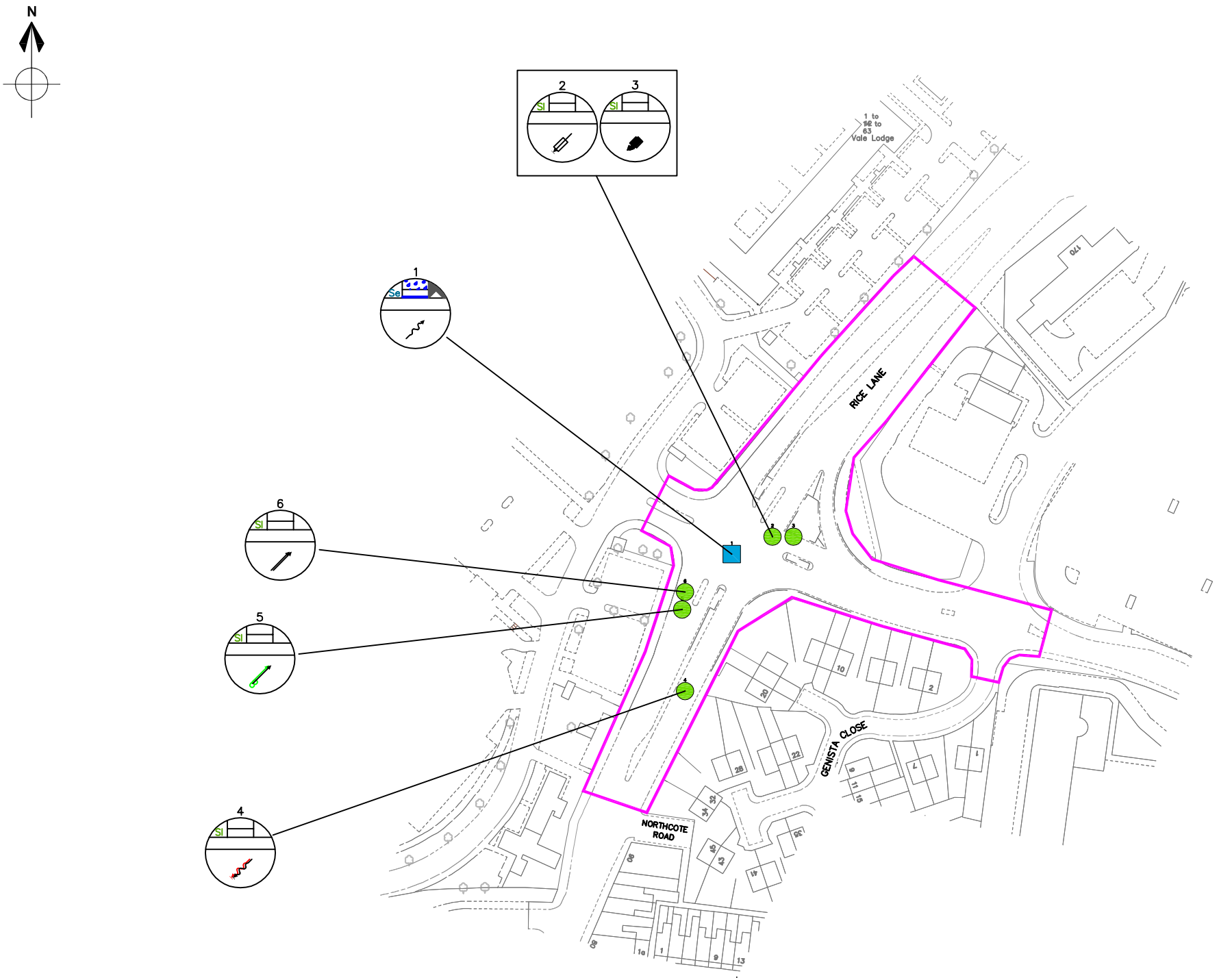
Level	Area	Local Growth Factor
Authority	Liverpool	1.0799

Dataset Version:	62
Results Type:	Trip ends by time period
Base Year:	2015
Future Year:	2020
Trip Purpose Group:	All purposes
Time Period:	Saturday (all times of the day)
Trip End Type:	Origin/ Destinations
Area/ Road Type:	Urban - All
Alternative Assumptions Applied:	No

Level	Area	Local Growth Factor
Authority	Liverpool	1.0787

APPENDIX H

PERSONAL INJURY ACCIDENT DATA



The City of Liverpool

Liverpool City Council
Transportation Services
4th Floor, Millennium House,
60 Victoria Street, Liverpool L1 6JF

Drawing Status: ACTIVE	Other Ref.
	Scale: NTS

Title
Rice Lane Junction
01.01.2009 to 31.12.2013

	Survey	Drawn by	Designed	Checked	Approved
Initial		VB			JB
Date		18.03.2014			18.03.2014

Drawing Number: RS/REQ/COLS/RLJ
Rev.: 1

Rice Lane Junction 01.01.2009 to 31.12.2014

No	Area	L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street
1	E7	E08000012		Serious	Monday	15/02/2010	01:43	336002/395382		L09391 L09537

Location: A59 Rice Lane at Junction with U Cavendish Drive, Liverpool, Merseyside, L09391/L09537 **1st Rd:** A59 **2nd Rd:** U

Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard
MPH	Dual c'way	T/Stag ATS	Dark/lights lit	Rain	Wet	None	Ped Phase	Rdworks	None

Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	SW NE	On main	Junt appr	Over	Kerb	O/s & crossed	None	Male		N/C

Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil
1	1	Drv/Rider	Male	28	Serious	No	Not ped	Not ped	Not ped	Other
2	1	Passenger	Male	28	Serious	Front	Not ped	Not ped	Not ped	Other
3	1	Passenger	Male	28	Serious	Rear	Not ped	Not ped	Not ped	Other

User Information:

No	Area	L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street
2	E7	E08000012		Slight	Wednesday	21/04/2010	18:50	336016/395388		L09391 L09537

Location: A59 Rice Lane at Junction with U Cavendish Drive, Liverpool, Merseyside L09391/L09537 **1st Rd:** A59 **2nd Rd:** U

Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard
MPH	Dual c'way	Multi ATS	Daylight	Fine	Dry	None	None	Rdworks	None

Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Stop	NE SW	On main	Junt appr	No	None		None	Female		N/C
2	Car	No	Waiting	NE SW	On main	Junt appr	No	None		None	Female		N/C

Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil
1	2	Drv/Rider	Female	26	Slight	No	Not ped	Not ped	Not ped	Other

User Information:

No	Area	L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street
3		E08000012		Slight	Monday	02/05/2011	15:50	336016/395388		

Location: A59 Rice Lane at Junction with U Cavendish Drive, Walton, L09391/L09537 **1st Rd:** A59 **2nd Rd:** U

Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard
MPH	Dual c'way	X-Rds ATS	Daylight	Fine	Dry	None	None	None	None

Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Start	NE SW	On main	Junt appr	No	None		None	Female		N/R
2	Car	No	Start	NE SW	On main	Junt appr	No	None		None	Male	0	N/R

Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil
1	1	Drv/Rider	Female	25	Slight	No	Not ped	Not ped	Not ped	Other
2	1	Passenger	Male	44	Slight	Front	Not ped	Not ped	Not ped	Other

User Information:

No	Area	L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street
4		E08000012		Slight	Tuesday	11/05/2010	13:20	335986/395335		

Location: A59 Rice Lane 30 Metres South West of Cavendish Drive, Walton, Liverpool, L09391/L09537 **1st Rd:** A59 **2nd Rd:**

Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard
MPH	Dual c'way	NotJCT	Daylight	Fine	Dry	None	Ped Phase	None	None

Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Bus or Coach	No	Stop	NE SW	On main	Not at	Yes	None		None	Male		-ve
2	Car	No	Stop	NE SW	On main	Not at	Yes	None		None	Male		-ve

Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil
1	1	Passenger	Female	66	Slight	No	Not ped	Not ped	Not ped	Other
2	2	Drv/Rider	Male	25	Slight	No	Not ped	Not ped	Not ped	Other

User Information:

No	Area	L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street
5		E08000012		Slight	Friday	04/06/2010	14:55	335985/395363		

Location: A59 Rice Lane 25 Metres South of U Cavendish Drive, Liverpool, Merseyside L09391/L09537 **1st Rd:** A59 **2nd Rd:**

Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard
MPH	Single c'way	NotJCT	Daylight	Fine	Dry	None	Ped Phase	None	None

Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Pedal Cycle	No	Going ahead	SW NE	On main	Not at	No	None		None	Male		N/R
2	Taxi	No	Going ahead	SW NE	On main	Not at	No	None		None	Male		-ve

Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil
1	1	Drv/Rider	Male	40	Slight	No	Not ped	Not ped	Not ped	Other

User Information:

No	Area	L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street
6		E08000012		Slight	Sunday	12/09/2010	13:40	335986/395369		

Location: A59 Rice Lane at Junction with Cavendish Drive, Walton, Liverpool, Merseyside, L09391/L09245 **1st Rd:** A59 **2nd Rd:** U

Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard
MPH	Dual c'way	Multi ATS	Daylight	Fine	Dry	None	Ped Phase	None	None

Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	SW NE	On main	Junt appr	No	None		None	Male		N/R
2	Car	No	Going ahead	SW NE	On main	Junt appr	No	None		None	Male	-1	N/R

Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil
1	1	Drv/Rider	Male	54	Slight	No	Not ped	Not ped	Not ped	Other
2	1	Passenger	Female	54	Slight	Front	Not ped	Not ped	Not ped	Other
3	1	Passenger	Female	30	Slight	Rear	Not ped	Not ped	Not ped	Other
4	1	Passenger	Male	18	Slight	Rear	Not ped	Not ped	Not ped	Other

User Information: