mode
transport planning

Macdonald Hotels & Resorts Ltd

Lymm Hotel, Warrington

Transport Assessment

July 2018

modetransport.co.uk

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Lymm Hotel, Warrington

Transport Assessment

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CONTENTS

1 Introduction

1.1 Preamble

1.1.1 Mode Transport Planning ('Mode') has been appointed by Macdonald Hotels & Resorts Ltd (the 'Client') to provide transport and highways advice for a mixed-use development at the Lymm Hotel on Whitbarrow Road in Lymm, Warrington.

1.1.2 The development proposals comprise 45 retirement apartments, 66 bed care home and 90 place children's nursery, with vehicular access provided via Whitbarrow Road and Statham Avenue. The existing 62-bedroom hotel will be demolished to facilitate the new development.

1.1.3 This Transport Assessment (TA) has been prepared to assess the development proposals, with particular consideration to the expected trip generation, on-site parking provision and accessibility to the site by sustainable modes of travel. In addition to this report, a Framework Travel Plan (FTP) has also been produced.

1.2 Recent Planning History

1.2.1 The latest development proposals represent a reduced scale of development when compared to the recently refused planning application (Planning Ref: 2017/31811) submitted in December 2017, which comprised 52 retirement apartments, 72 bed care home and 120 place children's nursery.

1.2.2 In June 2010, the existing hotel was subject to a consented planning application (Planning Ref: 2010/16647) to extend the hotel, creating 29 additional bedrooms (91 bedrooms in total), health/ leisure suite and conference/ business facilities. The consent for the hotel extension development was made extant in 2013, and therefore remains valid.

1.3 Methodology and Scoping Discussions

1.3.1 The methodology of the TA adopts the guidance set out within Department for Transport (DfT) 'Transport Evidence Bases in Plan Making and Decision Taking' (2014), which superseded 'Guidance on Transport Assessment' (2007). While the 2014 guidance places a focus on agreeing a scope of works with the Local Highway Authority, the 2007 guidance nonetheless remains instructive and therefore informs the structure of the TA.

1.3.2 Prior to producing this report, a pre-application meeting was held with Warrington Borough Council (WBC) Highways on 13th June 2018 to discuss the latest scheme proposals. The agreed pre-application meeting minutes and other relevant scoping correspondence is attached in **Appendix A**.

1.3.3 The scope of works is based on the pre-application discussions, but also takes account of the agreed TA Scoping Note produced to support the previous planning application (Planning Ref: 2017/31811).

1.4 Report Structure

1.4.1 Following this introduction, the TA report is structured as follows:

- **Chapter 2** sets out the relevant national and local transport policy context;
- **Chapter 3** describes the existing conditions, including a description of the surrounding transport facilities;

- **Chapter 4** outlines the development proposals;
- **Chapter 5** provides a detailed review of the highway safety record of the adjacent highway network;
- **Chapter 6** assesses the sustainable accessibility of the proposed development;
- **Chapter 7** provides an assessment of the impact of traffic generated by the proposed development;
- **Chapter 8** assesses the car parking provision at the site;
- **Chapter 9** provides an overview of construction traffic management; and
- **Chapter 10** summarises and concludes the findings of the report.

2 Policy Review

2.1 Overview

2.1.1 This section identifies the key national and local policy documents relevant to the proposed development. The following policy documents have been reviewed:

- National Planning Policy Framework (2018);
- WBC's Third Local Transport Plan 2011 – 2030; and
- WBC's Local Plan Core Strategy (2014)

2.2 National Policy

National Planning Policy Framework

2.2.1 The National Planning Policy Framework (NPPF) (2018) sets out the Government's planning policies for England and how these are expected to be applied. Planning law requires that applications for planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise. The NPPF must be taken into account in the preparation of local and neighbourhood plans and is a material consideration in planning decisions.

2.2.2 Chapter 9 'Promoting Sustainable Transport', notes that transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives.

2.2.3 NPPF states that all developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment, and planning 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;
- Safe and suitable access to the site can be achieved for all users; and
- Improvements can be undertaken within the transport network that cost effectively limits the significant impacts of the development. Developments should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

2.2.4 Decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. 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 quality public transport facilities;
- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter; and
- Consider the needs of people with disabilities by all modes of transport.

2.2.5 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.

2.3 Local Policy

WBC's Third Local Transport Plan

2.3.1 WBC's Third Local Transport Plan (LTP3) covers the period from 2011 to 2030, setting out the Council's transport policies and proposals to address local transport issues. The LTP3 provides a framework for decisions on future investment by setting objectives for transport to support wider goals and ambitions, establishing policies to help us achieve the transport objectives, and plans for implementing the transport policies.

2.3.2 The key policies of the plan promote the provision of safe, integrated, efficient and economic transport in the Borough. The policies build upon the transport direction set out in the previous Local Transport Plan (LTP2), which has been superseded by LTP3.

2.3.3 The core objectives for LTP3 include the need to build and manage a transport network that:

- Is integrated and customer focused and reduces the need to travel by car.
- Maintains the highway, minimises congestion for all modes of travel and enables Warrington's 'smart growth'.
- Improves everyone's access to health, employment, education, culture, leisure and the natural environment.
- Enhances accessibility for those in disadvantaged communities or groups.
- Reduces the impact of traffic on air quality in Warrington and helps to reduce carbon emissions and tackle climate change.
- Integrates with transport networks outside Warrington to enhance the sustainability of cross boundary travel.

WBC's Local Plan Core Strategy

2.3.4 WBC's Local Plan Core Strategy was adopted by the council in July 2014 and forms the overarching strategic policy document in the Local Planning Framework, which details the planning framework for guiding the location and level of development in the borough up to 2017.

2.3.5 The Core Strategy set out a Strategic Vision for the borough, together with a number of overarching guiding principles to achieve this vision in the form of Strategic Objectives. Objective 'W4' relates to transport and states that development should be 'as accessible as possible whilst reducing the need to travel and providing opportunities to move people and goods by non-car modes'.

2.3.6 The Strategy complements several of the key themes in WBC's LTP3 and helps to deliver its objectives, including to need to reduce the use of private; promote accessibility by public transport, walking and cycling.

2.3.7 The Strategy establishes the essential link between land use and transport that underpins the approach to sustainable development and looks to actively manage growth to make the fullest use of existing infrastructure and services including public transport. Overall, the Strategy looks to deliver the majority of housing and business development in areas where public transport and active travel modes are already realistic travel alternatives.

2.3.8 The key policies in the Strategy that relate to transport include the following:

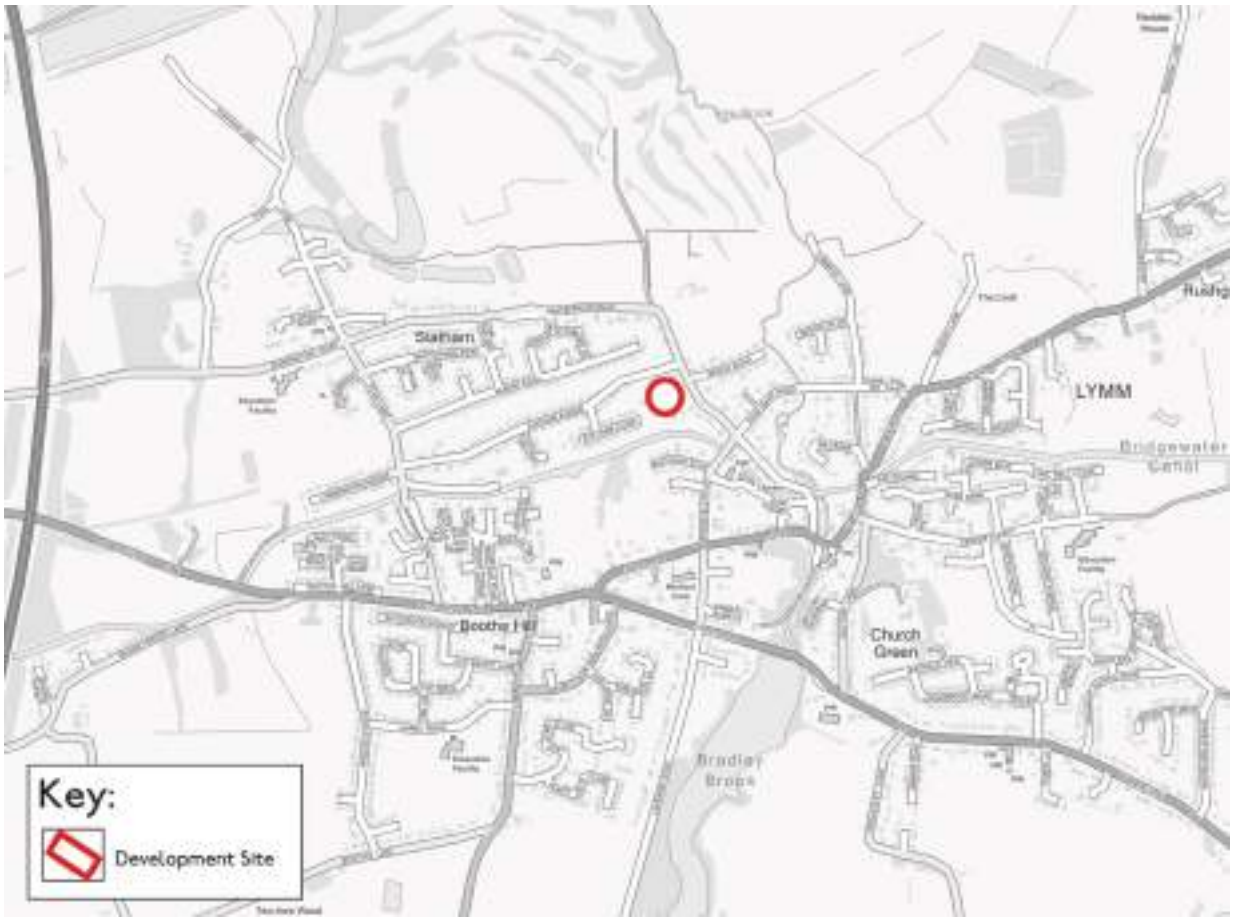
- Policy CS 1 – Delivering Sustainable Development: Policy CS 1 states that development must have regard to the need to develop sites, services and facilities in appropriate locations accessible by public transport, walking and cycling.
- Policy CS 4 – Transport: Policy CS 4 states that development will be located to reduce the need to travel, especially by car, and to enable people as far as possible to meet their needs locally.
- Policy CS 6 – Strategic Green Links: Policy CS 6 states that a key focus will be on reinforcing and maximising the environmental and socio-economic benefits from Strategic Green Links which connect the borough to the wider sub-regional, such as the Trans Pennine Trail.

3 Existing Conditions

3.1 Site Location and Existing Use

3.1.1 As shown in **Figure 3.1**, the site lies approximately 0.5km to the northwest of Lymm Village Centre, bound by Whitbarrow Road to the east and Statham Avenue to the north. In a wider regional context, the site lies approximately 8km to the east of Warrington and approximately 10km to the west of Altrincham.

Figure 3.1: Site Location Plan



3.1.2 The site is located in a predominately residential area, with the Bridgewater Canal located immediately to the south. Lymm Golf Club, agricultural fields and Manchester Ship Canal are located within an area approximately 1km to the north.

3.1.3 The site is currently an operational 62-bedroom hotel with meeting and conference facilities for up to 150 delegates. The hotel is served by two car parking areas located to the south and west of the main hotel building; accessed via priority junctions off Whitbarrow Road and Statham Avenue respectively, as shown in **Photograph 3.1** and **Photograph 3.2**.

3.1.4 As described previously, the site was subject to a consented planning application in 2010 (Planning Ref: 2010/16647) to extend the existing hotel, creating 29 additional bedrooms (91 bedrooms in total), health/

leisure suite and conference/ business facilities. The consented hotel extension development was not constructed and in 2013 the planning permission lapsed.

Photograph 3.1: Whitbarrow Road Access

Photograph 3.2: Statham Avenue Access

3.2 Local Highway Network

Whitbarrow Road

3.2.1 Whitbarrow Road has a c.6.3m wide two-way carriageway that runs along the eastern site boundary and is subject to a 20mph speed limit. In the vicinity of the site, Whitbarrow Road is fronted predominantly by residential properties with unrestricted parking along the majority of the road.

3.2.2 Whitbarrow Road leads towards Lymm Village Centre approximately 0.5km to the south and surrounding residential areas to the north, with ongoing connecting routes towards Thelwall, Grappenhall and Warrington further to the west.

3.2.3 Opposite the site's existing car park access, Whitbarrow Road forms the major arm of a priority junction with Brook Road that serves c.16 residential dwellings. Approximately 170m to the south, Whitbarrow Road forms the minor arm of a priority cross-roads junction with Dane Bank Road.

3.2.4 A c.1.6m wide footway and street lighting is provided along the western side of Whitbarrow Road, providing a continuous lit pedestrian route towards the north and south of the site, as shown in **Photograph 3.3** and **Photograph 3.4**. A narrow c.1.0m wide footway is provided along the eastern side of Whitbarrow Road for approximately 60m between Brook Street and the Trans Pennine Trail, beyond which the carriageway is abutted by walls or hedgerows in both directions.

3.2.5 An uncontrolled pedestrian crossing comprising dropped kerbs, crosses Whitbarrow Road approximately 50m to the north, which forms part of the Trans Pennine Trail.

Photograph 3.3: Whitbarrow Road (northbound)

Photograph 3.4: Whitbarrow Road (southbound)

Statham Avenue

3.2.6 Statham Avenue has a c.6.1m wide two-way carriageway that runs along the northern site boundary and forms the minor arm of a priority junction with Whitbarrow Road to the east. Statham Avenue turns into a private road on the approach to Barsbank Lane approximately 500m to the west of the site.

3.2.7 The road is fronted predominantly by residential properties with unrestricted parking along both sides of the carriageway. Approximately 25m to the east of site access, vehicle access is provided to a small area of car parking serving the Trans Pennine Trail.

3.2.8 Statham Avenue is subject to a 20mph speed limit with c.1.5m wide footways and street lighting provided along both sides of the carriageway, as shown in Photograph 3.5 and Photograph 3.6.

3.2.9 Service vehicles (including 10m rigid HGVs) currently access the site via the Statham Avenue junction and turn within the car park.

Photograph 3.5: Statham Avenue (westbound)

Photograph 3.6: Statham Avenue (eastbound)

3.3 Public Rights of Way

3.3.1 There are no Public Rights of Way (PRoW) within the site boundary.

3.3.2 The nearest existing PRoW in the vicinity of the site are located along the northern side of the Bridgewater Canal; linking Albany Road and Statham Avenue (between 43 and 45 Statham Avenue); and between Whitbarrow Road and Lymmhay Lane (to the north of Whitbarrow Farm).

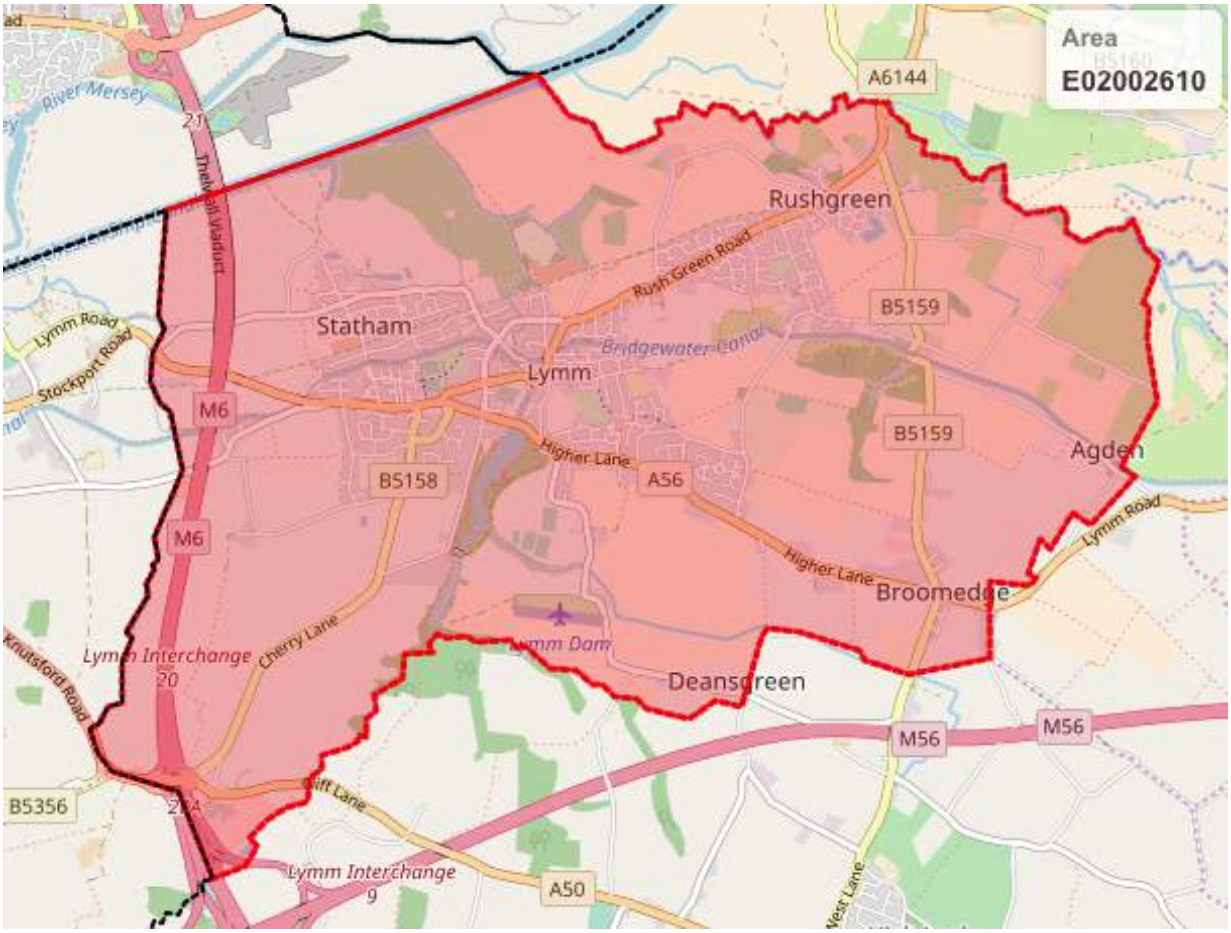
3.3.3 Although not technically a PRoW, immediately to the north of Statham Avenue, the Trans Pennine Trail provides a walking and cycling path along the route of a dismantled railway. The cycle and pedestrian links are described further in **Section 6** of this report.

3.4 Existing Modal Split

3.4.1 To provide an accurate estimate of the existing modal split in Lymm (Warrington 021 Middle Super Output Area – shown in **Figure 3.2**), journey to work census data has been obtained from the Office of National Statistics for the following scenarios:

- Scenario 1 – people living and working in Lymm;
- Scenario 2 – people living in Lymm and working anywhere; and
- Scenario 3 – people living anywhere and working in Lymm.

Figure 3.2: Warrington 021 MSOA - Area E02002610 (source: Office of National Statistics)



3.4.2 The travel to work data from the 2011 Census has been examined and is summarised in **Table 3.1**.

Table 3.1: Travel to Work Census Data – Modal Split (Warrington 021 MSOA)

Mode of Travel	Scenario 1 (live/work in Lymm)	Scenario 2 (live in Lymm/work anywhere)	Scenario 3 (live anywhere/work in Lymm)
Underground, metro, light rail or tram	1%	1%	0%
Train	0%	1%	1%
Bus, minibus or coach	1%	2%	3%
Taxi	0%	0%	0%
Motorcycle, scooter or moped	0%	1%	1%
Driving a car or van	**50%**	**83%**	**71%**
Passenger in a car or van	7%	3%	7%
Bicycle	4%	2%	2%
On foot	37%	2%	14%
Other	0%	5%	1%

3.4.3 In summary, in terms of driving a car or van, **Table 3.1** shows that:

- 50% of people that live and work in Lymm (Scenario 1) choose to drive;
- 83% of people that live in Lymm and work anywhere (Scenario 2) choose to drive; and
- 71% of people that live anywhere and work in Lymm (Scenario 3) choose to drive.

3.5 Air Quality

3.5.1 WBC has no Air Quality Management Areas in the vicinity of the site.

4 Development Proposals

4.1 Development Proposals

4.1.1 The quantum of development proposed at the site comprises the following:

- 45 retirement apartments;
- 66 bed care home; and
- Children's nursery with capacity for a maximum of 90 children;

4.1.2 The latest development layout plan is attached in **Appendix B**.

4.2 Site Access Proposals

4.2.1 The existing Whitbarrow Road access junction is to be retained to provide vehicular access to the car park serving the retirement apartments. The junction layout comprises a c.6.8m wide carriageway with c.2.5m radii at the junction bell-mouth.

4.2.2 The existing Statham Avenue access junction is to be retained as part of a separate in/out access arrangement serving the nursery and care home. The existing access will serve as the exit to the car park and a new separate entry junction is proposed off Statham Avenue located approximately 15m to the east. The new entry junction layout comprises a c.4.5m wide carriageway with c.7m kerb radii at the junction bell-mouth, and the existing exit junction layout comprises a c.4.9m wide carriageway with c.4m kerb radii at the bell-mouth.

4.2.3 Within the site, a separate footpath is proposed to the west of the nursery/ care home car park egress, which will link to the existing footway on Statham Avenue.

4.2.4 In accordance with MfS for 20mph traffic speeds, a 2.4 x 25m horizontal visibility splay is achievable in both directions along Whitbarrow Road and Statham Avenue from the access junctions. The access junctions, footways and horizontal visibility splays are all located within the land ownership and adopted highway boundaries. Adopted highway boundary information has been obtained from WBC's interactive online mapping.

4.2.5 The access junctions and horizontal visibility splays are shown on **Drawing J32-3138-PS-002** attached in **Appendix C.**

4.3 Car Parking Provision

Retirement Apartments

4.3.1 The development proposals include 47 car parking spaces to serve the retirement apartments, equivalent to one parking space per apartment, plus two visitor spaces. This level of parking provision complies with pre-application comments received from WBC Highways and is an increase of 10 spaces when compared to the previous application for a larger scheme.

4.3.2 As summarised in **Table 4.1**, the proposed car parking provision exceeds local minimum parking standards for retirement apartments (independent living housing) specified in WBC's Supplementary Planning Document (SPD) 'Standards for Parking in New Development'.

Table 4.1: WBC Car Parking Standards – Independent Living Housing (45 apartments)

Parking Criteria	Parking Spaces
1 space per 2 residential units	22.5
1 space per resident staff	1
1 space per 5 dwellings for visitor/care workers	9
Total minimum spaces	**33**
Proposed spaces	**47**

4.3.3 As agreed with WBC Highways during pre-application discussions, the car parking provision for the retirement apartments includes four enlarged disabled bays located close to the building's main entrance, equivalent to 8.5% of the total parking provision.

Care Home and Nursery

4.3.4 The latest development proposals include 45 car parking spaces to serve both the care home and nursery; an increase of 8 spaces when compared to the previous application for a larger scheme.

4.3.5 Pre-application comments state that the WBC Highways is comfortable with this level of shared car parking provision, subject to supporting evidence from the trip generation and car parking occupancy assessment (detailed in **Section 7** and **Section 8** of this report).

4.3.6 Previous WBC Highway's comments have acknowledged that the peak demand for parking for the two uses is unlikely to coincide, therefore the total parking requirement will not necessarily be the sum of each use. With this in mind, **Table 4.2** and **Table 4.3** show that individually the proposed parking provision complies with WBC parking standards for care homes and children's nurseries respectively.

Table 4.2: WBC Car Parking Standards – Care Home (66 beds)

Parking Criteria	Parking Spaces
1 space per resident staff	0
1 space per 2 non-resident staff	12
1 space per 3 beds for visitor/care workers	22
Total minimum spaces	**34**
Proposed spaces	**45**

Table 4.3: WBC Car Parking Standards – Day Nursery (90 places)

Parking Criteria	Parking Spaces
1 space per 1 member of staff	22.5
1 space per 4 day care attendees	22.5
Total maximum spaces	**45**
Proposed spaces	**45**

4.3.7 As shown in **Table 4.2**, separately, the proposed parking provision exceeds the minimum standard for a care home by 11 spaces. **Table 4.3** shows that, separately, the proposed parking provision complies with the parking standards for the maximum number of children and staff.

4.3.8 The purpose of the information in **Table 4.2** and **Table 4.3** is to demonstrate that separately there is sufficient parking to satisfy the parking standards for each use; however, it should be reiterated that the shared parking requirement for the care home and nursery is not the sum of each use (i.e. 79 spaces).

4.3.9 In an approach agreed with WBC Highways, it has been acknowledged that the peak demand for parking for the two uses is unlikely to coincide, therefore a 79-space car park would represent a significant over-provision of parking. Instead, a robust site specific and evidence-based approach has been taken to present a case to justify the level of shared parking provision proposed (detailed in **Section 7**).

4.3.10 The car parking provision for the care home and nursery include four enlarged (3.6 x 6m) disabled bays located close to the main entrances; equivalent to around 8.8% of the total parking provision.

4.4 Cycle, Motorcycle and Electric Vehicle Parking

4.4.1 As summarised in **Table 4.4**, the proposed cycle parking provision matches or exceeds the minimum requirements for each land use, as specified in WBC's Supplementary Planning Document (SPD) 'Standards for Parking in New Development'.

Table 4.4: WBC Cycle Parking Standards

Development Proposals	Minimum Standard	Minimum Spaces	Proposed Spaces
Retirement apartments (45 apartments)	1 space per 15 units/dwellings (minimum of 2 spaces)	3 spaces	6 spaces
Care Home (66 beds)	1 space per 40 beds (minimum of 2 spaces)	2 spaces	2 spaces
Nursery (90 places)	1 space per 4 staff and 1 per 200 sqm for visitors (minimum of 2 spaces)	9 spaces	11 spaces

4.4.2 Table 4.4 shows that a total of 6 cycle parking spaces are proposed at the retirement apartments. The cycle parking for the retirement apartments is located in a secure internal room, with direct external access and ramp to the car park area, as shown in Figure 4.1.

Figure 4.1: Retirement Apartment – Secure Internal Cycle Parking Provision

4.4.3 In compliance with WBC standards, a total of 2 cycle parking spaces are proposed to serve the care home, located in a secure/covered external cycle store with ramped access to the car park area, as shown in Figure 4.2.

4.4.4 As shown in Figure 4.3, a total of 11 cycle parking spaces are proposed to serve the nursery, including 7 spaces in a secure/covered external cycle store and 4 'Sheffield stand' type spaces – both visible and accessible from the main building entrance.

Figure 4.2: Care Home – Secure External Cycle Store

Figure 4.3: Nursery – Secure External Cycle Store and Cycle Stands

4.4.5 As shown in **Table 4.5**, the development proposals include 2 motorcycle parking spaces. This is in accordance with the minimum requirements for retirement apartments, as specified in WBC's

Supplementary Planning Document (SPD) 'Standards for Parking in New Development'. A total of 2 shared motorcycle cycle parking spaces are proposed to serve the care home and nursery.

Table 4.5: WBC Motorcycle Parking Standards

Development Proposals	Minimum Standard	Minimum Spaces	Proposed Spaces
Retirement apartments (45 apartments)	1 space per 50 beds (minimum of 2 spaces)	2 spaces	2 spaces
Care Home (66 beds)	1 space per 100 beds (minimum of 2 spaces)	2 spaces	2 spaces*
Nursery (90 places)	1 space per 20 staff	2 spaces	2 spaces

* shared motorcycle parking provision

4.4.6 In accordance with WBC Highways pre-application comments, the motorcycle parking comprises 2m x 1m spaces with ground locking points, located for easy access within each car park. These are shown in **Figure 4.4** and **Figure 4.5**.

Figure 4.4: Retirement Apartments – MC Parking

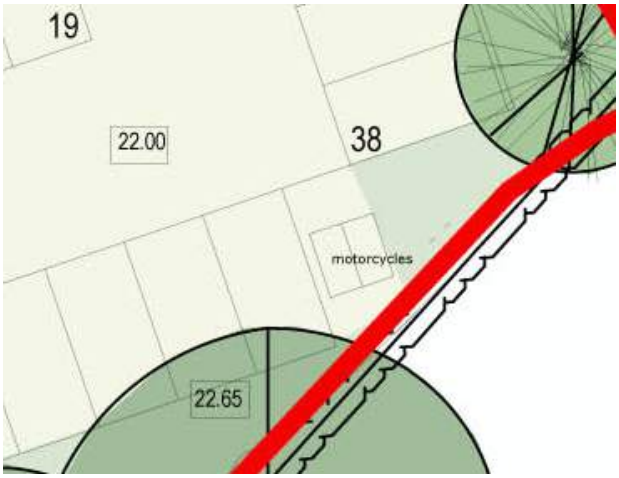
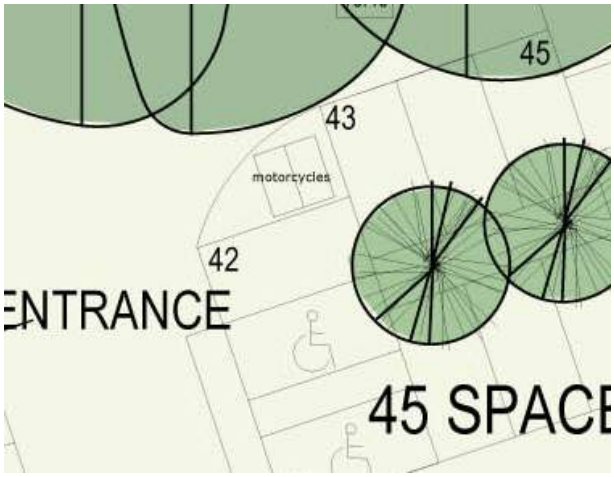


Figure 4.5: Care Home/Nursery – MC Parking



4.4.7 The position of vehicle electric charging (EC) points is indicated within the car park layout at locations where the required infrastructure can be suitably accommodated, as shown in **Figure 4.6** and **Figure 4.7**. As agreed with WBC Highways during pre-application discussions, only the ducting would be provided at this stage to allow for the future introduction of charging spaces subject to demand.

Figure 4.6: Retirement Apartment – EC Points.

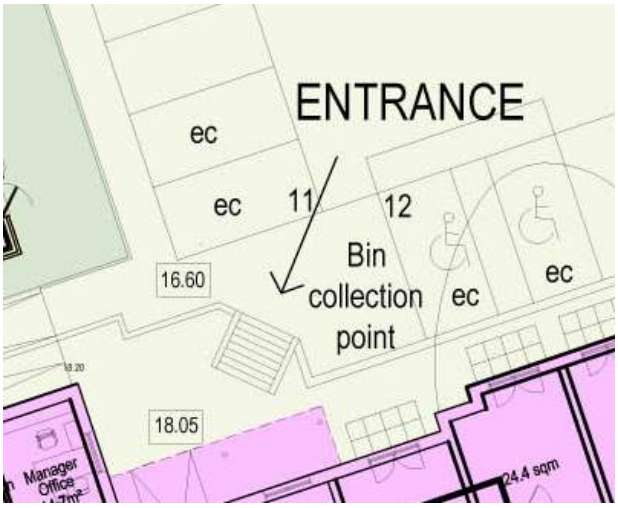


Figure 4.7: Care Home/Nursery – EC Points

4.5 Servicing Arrangements

4.5.1 As agreed with WBC Highways during pre-application discussions, servicing for the whole site will take place via the Statham Avenue car park, including all servicing for the retirement apartments. There will be no servicing via the Whitbarrow Road car park, which will be enforced by signage at the entrance, on-site management and prior communication with service/delivery companies.

4.5.2 No servicing and deliveries will take place on the local highway network.

4.5.3 All elements of the development will be privately serviced, with the preferred delivery time, frequency and type of vehicle specified by the site operators. There will also be staff on-site during delivery periods to ensure service vehicles are managed efficiently and disruption to the car park operation and local highway is minimised.

4.5.4 Following consultation with the site operators, it is understood that the largest regular service vehicle accessing the site will be a 10m rigid. Deliveries and servicing will be scheduled to take place during off-peak periods, typically after 0900hrs, in order to minimise the impact on the car park.

4.5.5 Further delivery and servicing information, including vehicle type, delivery times and frequency, has been provided by the site operators and is summarised in **Section 7**.

4.5.6 As requested by WBC Highways, a robust swept path analysis has been undertaken for a 12m rigid delivery vehicle and 11.2m refuse vehicle, which demonstrates that both vehicle types can enter/egress the site in forward gear and turn within the car park whilst avoiding all car parking spaces.

4.5.7 The swept path analysis within the Statham Avenue car park is shown on **Drawing J32-3138-PS001** which is attached in **Appendix D**.

4.5.8 All bins on site will stored in a dedicated and suitably screened storage areas, within the curtilage of the development. The proposed retirement apartments have an internal bin store and a designated collection point in the car park, from which the bins will be emptied.

4.5.9 The proposed nursery and care home have external bin stores for waste. The nursery bin store (located to the north of the nursery) is accessible for collection directly from the car park. The care home has a designated collection point in the car park and site management staff will move the bins to this area on the relevant collection days.

4.5.10 The operators of the care home will also be responsible for moving the bins from the retirement apartment building to the collection point. All bins will be moved back to the storage areas as soon as they have been emptied.

4.5.11 The swept path analysis shows that a refuse vehicle can manoeuvre to within approximately 10m of both bin collection points and the nursery bin store, in compliance with MfS (Paragraph 6.8.11); which states that the distance over which weekly waste containers are transported by collectors *'should not normally exceed 15m for two-wheeled containers, and 10m for four-wheeled containers'*.

4.5.12 As requested by WBC Highways during pre-application discussions, in the unlikely event that a large delivery vehicle accesses the site via the Whitbarrow Road car park, swept path analysis has also been undertaken at the junction for a 12m rigid vehicle. The analysis shows that the 12m vehicle can enter/egress in a forward gear and turn within the car park. Therefore, should this event occur, there would be minimal impact on the highway network.

4.5.13 The swept path analysis within the Whitbarrow Road car park is shown on **Drawing J32-3138-PS001** attached in **Appendix D**.

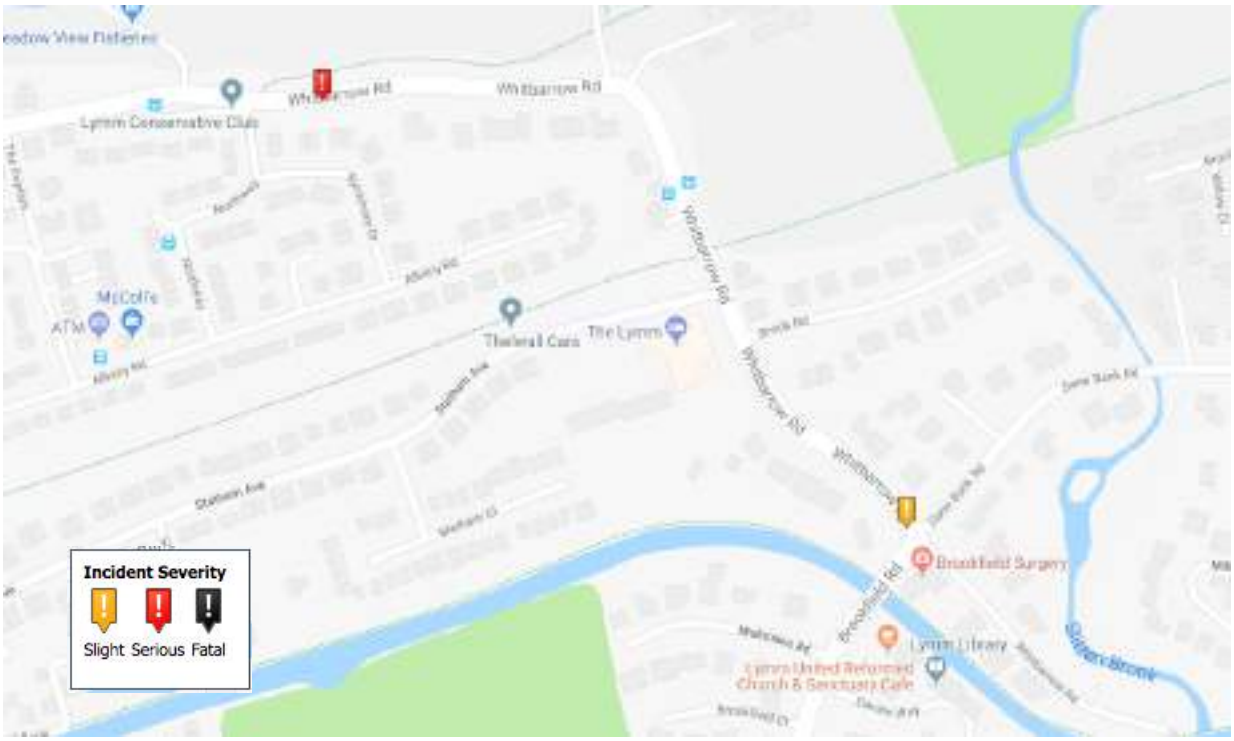
5 Road Collision Analysis

5.1.1 The latest recorded Personal Injury Collision (PIC) data on the local highway network has been obtained from Crashmap (crashmap.co.uk) for a study period from January 2013 and September 2017. The local highway network in the vicinity of site has been considered in the analysis, and includes the following roads:

- Statham Avenue;
- Whitbarrow Road (between Whitbarrow Farm and Dane Bank Road);
- Brook Road;
- Dane Bank Road; and
- Brookfield Road.

5.1.2 Figure 5.1 shows the extent of the local highway network being considered and the location of PICs reported during the study period.

Figure 5.1: Personal Injury Collision Location Plan (source: Crashmap website)



5.1.3 A review of the PIC data shows that two collisions were reported on the local highway network between January 2013 and September 2017, as summarised in Table 5.1.

Table 5.1: Road Accident Summary

No.	Year	Location	Severity	Vehs Involved
1	2017	Whitbarrow Road (east of Northway)	Serious	1
2	2016	Whitbarrow Road / Brookfield Road	Slight	2

5.1.4 The PIC record shows that a 'serious' collision occurred on Whitbarrow Road (east of Northway) involving a single vehicle and a pedestrian, and a 'slight' collision occurred at the junction of Whitbarrow Road/ Brookfield Road involving two vehicles.

5.1.5 There were no fatal collisions reported on the local highway network during the study period.

5.2 Summary

5.2.1 Analysis of the PIC data collected between 2013 and 2017 has demonstrated that the existing collision record does not lead to any significant concerns, nor demonstrate any discernible pattern or trends which could require further study or mitigation measures as a result of the proposed development.

5.2.2 Therefore, there is no evidence to suggest that the proposed development would increase any risk of collisions or accidents in the area.

6 Sustainable Accessibility

6.1 Introduction

6.1.1 Current Government policy/guidance places significant emphasis on the promotion of sustainable transport modes for all new developments. This forms part of a long-term strategy to reduce the reliance on private car trips. This chapter considers accessibility via sustainable modes of transport to the proposed development site, including access by public transport, cycle and on foot.

6.2 Pedestrian Accessibility

6.2.1 Guideline walking distances provided in the Chartered Institution of Highways and Transportation (CIHT) document 'Guidelines for Providing for Journeys on Foot', are shown in **Table 6.1**.

Table 6.1: CIHT Guideline Acceptable Walking Distances

Criteria	Town Centre	Commuting / Sight Seeing	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1,000m	800m
Preferred Maximum	800m	2,000m	1,200m

6.2.2 The CIHT guidelines shown in **Table 6.1** suggest that, for 'town centre' access, up to 200m is the desirable walking distance, up to 400m is an acceptable walking distance and 800m is the preferred maximum walking distance.

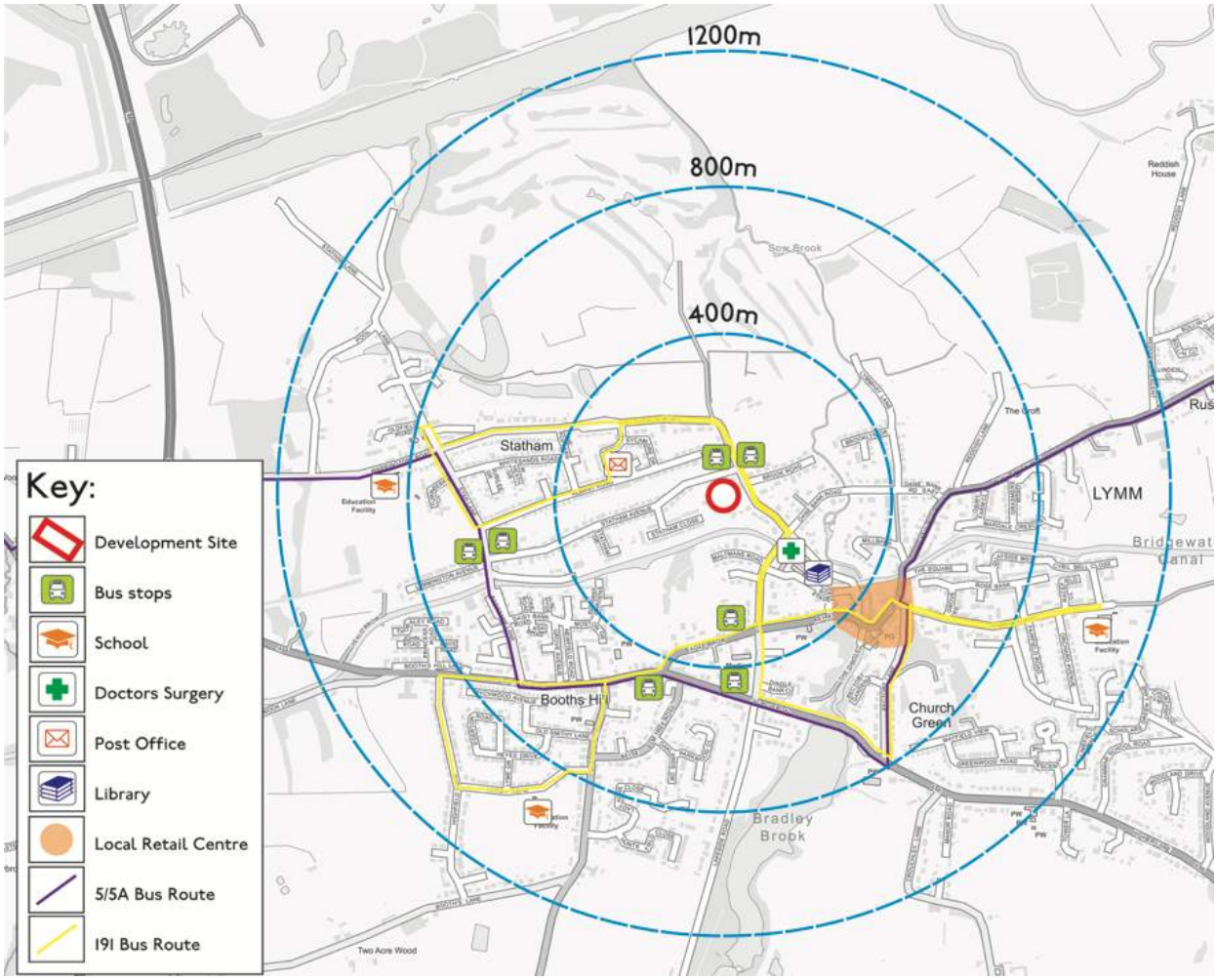
6.2.3 For 'elsewhere', these distances increase with 800m considered an acceptable walking distance and 1,200m the preferred maximum walking distance. For 'commuting' purposes, these distances increase further with 1km considered an acceptable walking distance and 2,000m the preferred maximum walking distance.

6.2.4 Appropriate walking distances are dependent upon the location of the specific development; more remote locations will see people being prepared to walk further to their end destination. Similarly, appropriate walking distances are also dependent upon the standard of existing pedestrian infrastructure provision, with further walking distances achievable in locations with extensive and high-quality pedestrian footways and crossings.

6.2.5 As described previously, good quality pedestrian footways and street lighting are provided in the vicinity of the site. This includes footways on both sides of Statham Avenue and a footway on the eastern side of Whitbarrow Road, providing pedestrian access to Lymm Village Centre and surrounding residential areas.

6.2.6 **Figure 6.1** shows local amenities and the acceptable commuting walking distances around the site for 400m, 800m and 1,200m catchments, as specified in CIHT guidance.

Figure 6.1: Walking Catchment Areas and Local Amenities



6.2.7 As can be seen in **Figure 6.1**, the majority of Lymm is located within an 800m catchment of the site, with wider residential areas located within a 1,200m catchment. The figure also indicatively shows the variety of local amenities accessible from the site, all located within the CIHT's preferred maximum distance for 800m for 'town centre' access.

6.2.8 **Table 6.2** provides a summary of actual walking distance and times to a range of local amenities accessible from the site via good quality and continuous footways.

Table 6.2: Walking Distances/ Times to Local Amenities

Amenity	Approx. Walking Distance	Approx. Walking Time*
Bus Service on Whitbarrow Road	<50m	<1 min
Doctor's Surgery on Brookfield Road	250m	3.0 mins
Church on Brookfield Road	300m	3.6 mins
Library and Citizens Advice Bureau	400m	4.8 mins
Convenience Store/ Post Office on Albany Road	450m	5.4 mins
Bus Services on Barsbank Lane (via Statham Ave)	650m	7.7 mins
Bus Services on Barsbank Lane (via Trans Pennine Trail)	700m	8.3 mins
Bus Services on Barsbank Lane (via Albany Road)	800m	9.5 mins
Lymm Village Centre	800m	9.5 mins

*assuming 1.4 m/s walking speed

6.2.9 **Table 6.2** shows that a convenience store, post office, doctors surgery and library are all located within a 450m walking distance from the site.

6.2.10 Overall, considering the edge-of-village location, the site is highly accessible by trips on foot, due to a good standard of existing pedestrian infrastructure, proximity to surrounding residential areas and range of local amenities all available within an acceptable walking distance.

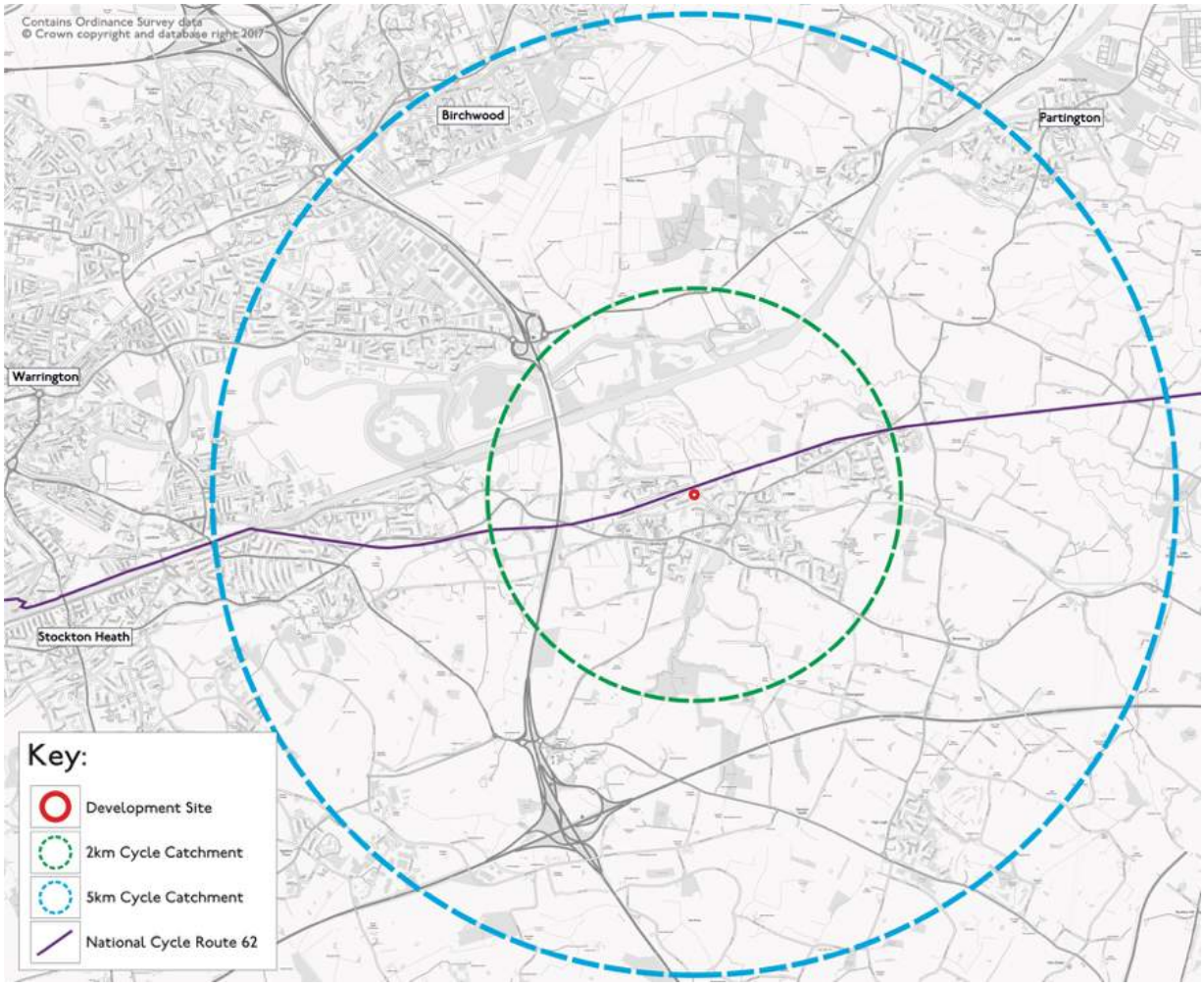
6.3 Cycle Accessibility

6.3.1 As with pedestrian accessibility, the level of a site's cycle accessibility depends upon a combination of the distance from local amenities and the standard of existing cycle infrastructure. It should, however, be noted that that cycle infrastructure can include facilities shared with vehicles and pedestrians as well as dedicated cycle infrastructure.

6.3.2 In respect of acceptable cycle distances, *"Local Transport Note 2/08: Cycling Infrastructure Design"*, published by DfT, states that many utility cycle trips are less than three miles (approximately five kilometres), but for commuter journeys a distance of over five miles (approximately eight kilometres) is not uncommon.

6.3.3 **Figure 6.2** presents the cycling catchment area around the proposed development site for 2km and 5km.

Figure 6.2: Cycle Catchment Areas and National Cycle Routes



6.3.4 As shown in Figure 6.2, Lymm Village Centre and surrounding residential areas are accessible within a 2km catchment of the site. Further afield, areas of Warrington to the east are accessible by cycle within a 5km catchment.

6.3.5 In terms of existing cycle infrastructure, the site benefits from its close proximity to the Trans Pennine Trail West, which runs along the northern side Statham Avenue immediately to the north of the site, as shown in Figure 6.2.

6.3.6 The Trans Pennine Trail is a long-distance path running coast to coast across Northern England routed largely along disused railway lines and canal towpaths. The trail is a surfaced route with only gentle gradients, making it suitable for cyclists, pushchairs and wheelchair users. The Trans Pennine Trail forms part of the National Cycle Network (NCN) Route 62.

6.3.7 The Trans Pennine Trail West is a 96-mile section of the route between Southport and Barnsley, travelling through Liverpool before following the River Mersey through Widnes and on through Warrington, Sale and Stockport before ascending the Pennines through Hyde.

6.3.8 There is no dedicated cycle infrastructure on the local road network in the vicinity of the site, however the 20mph speed limit and relatively low traffic volumes makes the surrounding roads conducive to cycling for commuting and leisure purposes.

6.4 Local Bus Services

6.4.1 The CIHT guidance document *'Planning for Public Transport in Developments'* (1999) recommends a walking distance of up to 400m to bus waiting facilities from new developments, which is equivalent to a five-minute walk based on approximately 1.4m/s walking speed. It should be noted that the CIHT guidance make no allowance for development in a village/semi-rural setting where public transport provision is typically less abundant.

6.4.2 Alternatively, and perhaps more relevant to the site location, the National Travel Survey undertaken by the DfT, applies a standard definition to measure the availability of bus services to households, based on whether there is a bus stop with an hourly or better bus service within a 13-minute walking distance (approximately 1,100m),

6.4.3 That said, the site benefits from an existing 'hail-a-ride' circular bus service (No. 191 'Lymm Shopper') to Lymm Village Centre, operating 3 days a week (Tuesday, Thursday and Friday) northbound and southbound along Whitbarrow Road immediately adjacent to the site, as shown in **Photograph 6.1**.

Photograph 6.1: Local Bus Service on Whitbarrow Road – No. 191 'Lymm Shopper' (southbound)

6.4.4 The No. 191 'Lymm Shopper' route is shown in **Figure 6.1**, and the timetable is summarised in **Table 6.3** with the full timetable attached in **Appendix E**.

Table 6.3: Local Bus Timetable – No. 191 'Lymm Shopper'

Bus Stop	Timetable			Approx. Journey time to village centre
Whitbarrow Road (northbound)	10:13	11:13	12:13	17 minutes
Whitbarrow Road (southbound)	10:20	11:20	12:20	10 minutes

6.4.5 Table 6.3 shows that the No. 191 'Lymm Shopper' passes the site on Whitbarrow Road six times a day on Tuesday, Thursday and Friday. The circular route also allows passengers to be picked up on the nearside footway, meaning there is no requirement to cross the road, albeit with a slightly increased journey time to Lymm Village Centre.

6.4.6 From the site, the journey time to Lymm Village Centre on the No. 191 'Lymm Shopper' is approximately 10 minutes when boarded southbound on Whitbarrow Road, increasing to approximately 17 minutes when boarded northbound.

6.4.7 It is acknowledged that the 191 service is infrequent, and therefore not suitable for regular commuting trips; however, this is off-set by its close proximity to the site, making it a highly accessible and valued service to residents at the retirement apartments for shopping and leisure trips to Lymm Village Centre.

6.4.8 In terms of commuting trips, staff are more likely to walk longer distances to access more regular bus services, with around 1000m considered an acceptable distance according to both the CIHT and DfT. Furthermore, it is not unreasonable for people in a more rural setting to be expected to walk a slightly further distance to access higher frequency bus services to wider destinations.

6.4.9 With this in mind, the closest regular bus services (No. 5/5A) are available from Barsbank Lane, to the west of the site, providing a half hourly service northbound to Warrington and southbound to Altrincham, as shown in Photograph 6.2.

6.4.10 The No. 5/5A route is shown in Figure 6.1 and the timetable is summarised in Table 6.4 and shown in full in Appendix E.

Table 6.4: Local Bus Timetable – No. 5/5A

Bus Stop	Frequency per hour				Approx. journey time
	Weekday AM/PM	Weekday Off-peak	Sat	Sun	
Barsbank Lane (northbound)	2	2	2	1	From Altrincham – 30 mins (No.5)
Barsbank Lane (southbound)	2	2	2	1	From Warrington – 30 mins

6.4.11 Table 6.4 shows that the No. 5/5A service provides a half hourly service on weekdays and Saturdays, reducing to an hourly service on Sundays. The journey time from Altrincham and Warrington to Barsbank Lane is approximately 30 minutes in both directions.

Photograph 6.2: Local Bus Service on Barsbank Lane – No. 5A (southbound)

6.4.12 The bus stops on Barsbank Lane are accessible on foot from the site via the Statham Avenue, the Trans Pennine Trail and Albany Road. As detailed in **Table 6.2**, in terms of walking distances to Barsbank Lane, the Statham Avenue route is 650m, the Trans Pennine route is c.700m and the Albany Road route is 800m.

6.4.13 All these walking routes are relatively flat, with the option of a traffic-free route along the Trans Pennine Trail and a route with continuous footway and street lighting via Albany Road. A photographic record of each walking route from the site to Barsbank Lane is shown in **Figure 6.5.**

Figure 6.5: Walking Routes to Buses Stops

6.5 Rail services

6.5.1 By distance, the nearest rail station is Birchwood Rail Station, located approximately 4km to the north-west of the site. However, Warrington Central and Warrington Bank Quay Rail Stations, located approximately 8km to the west are more accessible in terms of journey time by car, bus and cycling.

6.5.2 A summary of key train services from Warrington Central and Warrington Bank Quay Rail Station are shown in **Table 6.5** and **Table 6.6**.

Table 6.5: Rail Services from Warrington Central

Final Destination	Approx. Frequency	Approx. Journey Time
Liverpool South Parkway	2 services / hour	25 minutes
Manchester Oxford Road	2 service / hour	35 minutes

Table 6.6: Rail Services from Warrington Bank Quay

Final Destination	Approx. Frequency	Approx. Journey Time
London Euston	3 services / hour	2 hours 50 minutes
Manchester Piccadilly	2 service / hour	35 minutes
Glasgow Central	2 services / hour	2 hours 59 minutes

6.5.3 In summary, train services accessible from Warrington provide regular services to local destinations and major town and city destinations across the country.

6.6 Promoting Sustainable Travel via Travel Plans

6.6.1 It should be noted that this TA has been produced in parallel with a Framework Travel Plan (FTP) report, which outlines initial strategies and measures for encouraging staff, nursery pupils/parents and residents to travel by sustainable modes.

6.7 Summary

6.7.1 In summary, considering the site's village location, the development benefits from excellent links to pedestrian/cycling infrastructure and good public transport services, specifically:

- Excellent access to the Trans Pennine Trail, providing a dedicated cycle route to destinations in the region, including Warrington and Sale;
- Direct connections to good quality footways on the local road network providing links towards Lymm Village Centre and surrounding residential areas;
- Local bus services are accessible from the site, including No.191 'Lymm Shopper' available from Whitbarrow Road and No. 5/5A is available from Barsbank Lane 650m to the west of the site, which providing a half hourly service to both Warrington and Altrincham. Further bus services are also available from Lymm Village Centre that provide regular services to the surrounding area; and
- Regional and national rail services available from Warrington Central and Warrington Bank Quay located approximately 8km from the site.

6.7.2 Overall, travel by sustainable modes of transport is a realistic alternative to private car journeys at the site.

7 Trip Generation

7.1 Introduction

7.1.1 As agreed with WBC Highways during scoping discussions, the trip generation exercise has been undertaken for the proposed development using the following methodologies:

- TRICS based assessment - producing an hourly trip generation for each land use across a full day; and
- First principle approach – producing a robust AM peak trip generation for the care home and nursery only, calculated based on operator information, strong evidence base and WBC approved assumptions.

7.1.2 In order to assess the potential change in traffic generated at the site, a comparison exercise has been undertaken between the existing hotel trip generation and proposed development trip generation.

7.2 Existing Trip Generation

7.2.1 The existing trip generation at the hotel site has been established by undertaking a survey to record traffic entering and egressing the site via the car park access junctions on Whitbarrow Road and Statham Avenue. The traffic survey was conducted by an independent survey company.

7.2.2 The survey was carried out over a 12 hour period (07:00 to 19:00) on Tuesday 31st October 2017 during routine hotel operations, and is therefore representative of typical existing traffic generation at the site. The raw observed survey outputs are included in **Appendix F**.

7.2.3 **Table 7.1** shows the vehicular trips generated at each car park during the AM peak, PM peak and total over the 12 hour period.

Table 7.1: Existing Trip Generation

	AM 08:00-09:00			PM 17:00-18:00			Full Day 07:00-19:00		
Car Park	Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Arrive
Statham Avenue	1	8	9	15	7	22	59	63	122
Whitbarrow Road	2	3	5	1	1	2	31	29	60
Total Trips	3	11	14	16	8	24	90	92	182

7.2.4 The results in **Table 7.1** shows that the existing hotel site generates a total of 14 trips during the AM peak, 24 trips during the PM peak and 182 trips over the full 12-hour period.

7.3 Future Trip Generation - TRICS

7.3.1 As agreed during pre-application scoping discussions with WBC Highways, TRICS trip rates have been calculated for each development category to estimate the future trip generation at the site.

7.3.2 In order to generate representative trip rates from the TRICS database, sites in London, Scotland and Ireland have been excluded.

7.3.3 The TRICS categories used to generate the trip rates for each land use proposed at the site are detailed below:

- Children's Nursery - Land Use 4 Education, Category D Nursery;
- Care Home - Land Use 5 Health, Category F Care Home (Elderly Residential); and
- Retirement Apartments – Land Use 3 Residential, Category C Flats Privately Owned.

7.3.4 As requested by WBC Highways during pre-application discussions, 'Category C Flats Privately Owned' category has been used for the retirement apartments, rather than 'Category N Retirement Flats', as these are considered by WBC Highways as being more representative of future vehicle movements at the site.

7.3.5 The weekday peak hour TRICS trip rates are presented in **Table 7.2** and the full TRICS outputs are shown in **Appendix G**.

Table 7.2: TRICS Trip Rates – Peak Hour

	AM 08:00-09:00			PM 17:00-18:00			Full Day 07:00-19:00		
Land Use	Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Arrive
Nursery (per pupil)	0.204	0.188	0.392	0.121	0.143	0.264	0.952	0.953	1.905
Care Home (per bed)	0.113	0.065	0.178	0.038	0.086	0.124	0.656	0.630	1.286
Apartments (per dwelling)	0.060	0.223	0.287	0.228	0.108	0.336	1.301	1.353	2.658

7.3.6 The vehicle trip generation for a fully occupied/attended site, including a 90 pupil children's nursery, 66 bed care home and 45 retirement apartments is summarised in **Table 7.3**.

Table 7.3: Proposed Development Trip Generation – Fully Occupied/Attended

	AM 08:00-09:00			PM 17:00-18:00			Full Day 07:00-19:00		
Land Use	Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Arrive
Nursery (per pupil)	19	17	36	11	13	24	86	86	172
Care Home (per bed)	8	4	12	3	6	9	43	42	85
Apartments (per dwelling)	3	10	13	11	5	16	59	61	120
Total	30	31	61	25	24	49	188	189	377

7.3.7 The trip generation results in **Table 7.3** show that, in total, the proposed development is expected to generate 61 two-way trips during the AM peak hour, 49 two-way trips during the PM peak hour and 377 two-way trips over the 12 hour period.

7.3.8 When divided between the two vehicle accesses, this is equivalent to 13 two-way AM trips and 16 two-way PM trips using the Whitbarrow Road access, and 48 two-way AM trips and 33 two-way trips using the Statham Avenue.

7.4 Trip Generation Comparison

7.4.1 The surveyed hotel traffic flow and the TRICS based development flow have been compared in order to estimate the change in traffic generated at the site. **Table 7.4** and **Table 7.5** show the existing and proposed trip comparison for the Whitbarrow Road access and Statham Avenue access.

Table 7.4: Trip Generation Comparison - Statham Avenue Car Park

	AM 08:00-09:00			PM 17:00-18:00			Full Day 07:00-19:00		
Land Use	Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Arrive
Existing Hotel	1	8	9	15	7	22	59	63	122
Nursery/Care Home	25	21	46	14	19	33	129	128	257
Difference	24	13	37	-1	12	11	70	65	135

7.4.2 **Table 7.4** shows that the proposed nursery / care home will generate approximately 37 additional two-way trips during the AM peak and 11 additional two-way trips during the PM peak. Over a full day (12-hour period), the proposed nursery / care home will generate approximately 135 additional two-way trips.

7.4.3 Although additional trips will be generated, the proposed nursery / care home will only generate a total of 46 two-way trips during the AM peak and 33 two-way trips during the PM peak, which is equivalent to less than 1 vehicle per minute.

Table 7.5: Trip Generation Comparison – Whitbarrow Road Car Park

	AM 08:00-09:00			PM 17:00-18:00			Full Day 07:00-19:00		
Land Use	Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Arrive
Existing Hotel	2	3	5	1	1	2	31	29	60
Apartments	3	10	13	11	5	16	59	61	120
Difference	1	7	8	10	4	14	28	32	60

7.4.4 Table 7.5 shows that the proposed apartments will generate approximately 8 additional two-way trips during the AM peak and 14 additional two-way trips during the PM peak. Over a full day (12-hour period), the proposed apartments will generate approximately 60 additional two-way trips.

7.4.5 The retirement apartments are only expected to generate approximately 13 two-way trips during the AM peak hour and 16 two-way trips during the PM peak hour.

7.4.6 Overall, Table 7.4 and Table 7.5 show that the proposed development is expected to generate a total of 195 additional two-way trips during 12-hour day, equivalent to 98 additional arrivals and 97 additional departures.

7.4.7 Considering the additional trips will be spread over a 12-hour period, it can be concluded that the proposed development will have a low impact on the local highway network during peak periods, and negligible impact during off-peak periods.

7.4.8 This is a particularly robust conclusion as the trip generation has been based TRICS trip rates agreed with WBC Highways and calculated based on a fully occupied/attended site.

7.5 Future Trip Distribution

7.5.1 The distribution exercise for future trips at the site has focussed on the AM and PM peaks, when the majority of trips are likely to be staff and nursery trips which will follow a more regular and predictable pattern. The inter-peak distribution has not been considered as trips are less frequent during this period and are more likely to be visitor and delivery type trips, which follow a less regular distribution.

7.5.2 As the majority of existing trips during the AM peak period are hotel staff traveling between home and the site, it is reasonable to assume that nursery trips (staff and parents), care home trips and apartment trips travelling to the proposed site would following a similar distribution.

7.5.3 The majority of nursery trips to the site are likely to be parents dropping off/picking up as part of a wider journey to/from employment destination. As such, AM departures and PM arrival nursery trips have been estimated based on 'place of work' census data for people living in the ward. The 'place of work' census data is shown in Appendix H.

7.5.4 It is assumed that the existing trips departing the site during the AM peak and arriving during the PM peak will include hotel guests, which is therefore not representative of the future trip distribution. Therefore, for the purposes of this assessment it has been assumed that care home and apartment trips will follow the AM arrival pattern in both directions.

7.5.5 The distribution shows that all trips on Statham Avenue will arrive and depart from the east. Along Whitbarrow Road, broadly 70% to 80% of trips arrive/depart from the south, with 20% to 30% of trips arriving/departing from the north.

7.5.6 The AM and PM peak trip distribution for each future land use is attached in Appendix I.

7.6 Trip Generation - First Principles Approach

7.6.1 As requested by WBC Highways, a first principles-based trip generation exercise has been undertaken for the care home and nursery only. This is in order to provide a robust estimate of expected vehicle movements during the AM peak period, when the majority of children and staff will arrive/depart.

7.6.2 The first principles approach is based on operator information, strong evidence base and robust assumptions. The proposed methodology, including evidence base and all assumptions applied, has been approved by WBC Highways for the purposes of providing a robust trip generation assessment.

Deliveries and Servicing

7.6.3 The regular deliveries and servicing for the care home and nursery are shown in **Table 7.6** and **Table 7.7** respectively.

Table 7.6: Regular Deliveries and Servicing – Care Home

Delivery Type	Vehicle No/Type	Typical Schedule
Maintenance	1 x Small van	On demand
Food	1 x Rigid HGV	09:30-11:00 (Tues & Fri)
Waste	1 x RSV	8:30-9:00 (Mon)
Clinical Supplies	1 x Large van	10:00-11:00 (Weds or Fri)
Laundry	1 x Large van	10:00-11:00 (Thurs)

Table 7.7: Regular Deliveries and Servicing – Nursery

Delivery Type	Vehicle No/Type	Typical Schedule
Consumables	1 x Van	1 or 2 per week
Food	1 x Van	Daily

7.6.4 As shown in **Table 7.6** and **Table 7.7**, the care home and nursery is expected to generate around 9 delivery/servicing trips throughout the week, with the majority typically expected to take place during after the AM peak period.

Staff and Children

7.6.5 The expected maximum staff/pupil numbers and shift patterns for the care home and nursery are shown in **Table 7.8** and **Table 7.9**.

Table 7.8: Staff Numbers and Shift Patterns – Care Home

Staff Type	Weekday	Weekend	Night	Typical Shift Patterns
Manager/Admin	2	-	-	9:00-17:00
Nurses & Carers	13	13	7	7:45-20:00 and 19:45-8:00
Housekeeping	3	3	-	8:00-14:00
Catering	3	3	-	07:00-19:00
Hospitality	2	2	-	8:00-18:00
Reception	1	1	-	10:00-15:00
Total	24	22	7	

Table 7.9: Staff / Pupil Numbers and Arrival/Departure Pattern – Nursery

Staff Type	Weekday	Typical Shift/Arrival Pattern
All staff	23*	07:00/9:00 to 16:30/18:30
Pupils	90	7:30/9:30 to 4:30/18:30 (some lunchtime turn around and 15:00 days)

*based on a 1:4 staff/child ratio as advised by the operator

7.6.6 Based on the information provided by the operator and evidence-based assumptions, the AM peak vehicle trip generation has been estimated for the nursery and care home. Delivery and servicing vehicles have not been included as these will typically take place after the peak periods.

Nursery – First Principles Trip Generation Methodology (AM Peak Period):

7.6.7 In term of children trips to the nursery, the following approach has been applied:

- 90 children trips – based on 100% attendance (robust as 80-85% attendance advised by operator based on other sites, and also assumes all children attend on same day);
- 83% parents drive to nursery – based on 2011 travel to work census data for people living in Lymm (Warrington 021 MSOA) and working anywhere – see **Table 3.1**;
- Resulting in 75 children car trips – based on 100% attendance and 2011 census data.

7.6.8 The rational for the use of census data is that, typically, children are put into nurseries because their parents work, and the drop-off would form part of the parent's journey to work. Therefore, travel-to-work data, specifically for people that live in Lymm (and work anywhere) gives a good indication of the mode of travel.

7.6.9 Pre-application discussions with WBC Highways suggest that this proportion of car users (83%) is reasonable, however corroborative evidence has been requested to demonstrate that this is a reliable indicator for nursery drop-offs, namely in the form of Travel Plan survey data at existing sites.

7.6.10 To support this approach further, travel plan survey data at existing nurseries (from publicly available data sources) has been summarised in Table 7.10.

Table 7.10: Existing Nurseries – Mode of Travel

Name	Location	Walk	Cycle	Public Transport	Car	Other
Bright Futures Day Nursery	West View, Clitheroe	46%	1%	3%	49%	0%
Bram Longstaffe Nursery School	Farm Street, Barrow-in-Furness	26%	3%	15%	47%	9%
Lawns Nursery	Middle Path, Crewkerne	55%	0%	0%	45%	0%
Goldfield Infants & Nursery	Christchurch Road, Tring	52%	17%	0%	25%	6%
Penn Wood Primary & Nursery	Penn Road, Slough	56%	3%	1%	38%	2%

7.6.11 Table 7.10 shows that less than 50% of children travel to nursery by car at the existing nursery sites, therefore the proportion of car user (83%) based on 2011 census data is considered particularly robust.

7.6.12 In terms of staff trips to the nursery, the following approach has been applied:

- 23 nursery staff – based on 1:4 staff/children ratio as advised by operator;
- 71% staff drive to nursery – based on 2011 travel to work census data for people working in Lymm (Warrington 021 MSOA) and living anywhere – see Table 3.1;
- Resulting in 16 staff car trips – based on 100% attendance and 2011 census data.

Care Home – First Principles Trip Generation Methodology (AM Peak Period):

7.6.13 In terms of care home staff trips to the nursery, the following approach has been applied:

- 24 staff – as advised by operator based on 100% occupancy;
- 71% drive to work – based on 2011 travel to work census data for people working in Lymm (Warrington 021 MSOA) and living anywhere – see Table 3.1;
- Resulting in 17 staff car trips – based on 100% occupancy and 2011 census data.

7.6.14 Considering the proportion of car travel and staff shift/pupil arrival pattern, it can be concluded that the information provided by the operators broadly aligns with the TRICS outputs, albeit the first principles approach results in greater trip generation due to the robust assumptions applied (i.e. 100% attendance/occupancy and high proportion of car drivers).

7.6.15 As advised by the future site operator, it should be noted that the arrival of staff and children at the nursery is typically spread across a 2-hours (07:30-09:30).

7.6.16 Clearly, there will be additional visitor and delivery trips during the day in addition to the regular staff and delivery/serving arrivals; however, it can be concluded that the operator information and census data validates the trip generation exercise and thereby the parking accumulation shown in Section 8 presents a realistic assessment of future site operations.

7.7 Summary

7.7.1 In summary, the trip comparison exercise shows that the proposed development will generate additional trips when compared to existing hotel use. However, the increase in traffic from the proposed development will not result in significant additional trips, equivalent to less than 1 trip per minute.

7.7.2 It should be noted the majority of the additional trips are likely to occur at nursery drop off / pick up times and not throughout the day.

7.7.3 In terms of off-site highway impact, the expected development flows will have a minimal residual impact on Statham Avenue and Whitbarrow Road during both peak periods.

7.7.4 In terms of highways impact, NPPF states in paragraph 109 that, *"developments should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe"*.

7.7.5 Therefore, given the minimal residual impact on the highway network, the development proposals are not considered to have a severe impact and is in accordance with the NPPF.

8 Car Parking Assessment

8.1 Introduction

8.1.1 The development proposals include a total of 92 car parking spaces, comprising 47 spaces serving the retirement apartments and 45 spaces serving the nursery and care home.

8.1.2 As requested by WBC Highways, a car parking accumulation exercise has been undertaken to confirm if there are sufficient car parking spaces proposed on-site to accommodate demand.

8.1.3 A car park occupancy assessment has also been carried out for the following scenarios:

- Full Day - occupancy assessment for the retirement apartments and nursery/care home across a full day based on the agreed TRICS trip rates.
- AM Peak Period - occupancy assessment for the nursery / care home car park based on the robust AM peak 'first-principles' trip generation, specifically to assess fluctuations during morning period when the majority of children and staff will arrive/depart.

8.2 Car Park Occupancy – Full Day

8.2.1 The car parking occupancy exercise has been carried out using the results of the agreed TRICS trip rates for each land use throughout the day.

8.2.2 The peak car park occupancy for the retirement apartments, based on the 'Category C Flats Privately Owned' TRICS trip rates, is summarised in Table 8.1.

Table 8.1: Retirement Apartments - Car Park Occupancy

Time Period	Arrival	Departure	Occupancy
07:00 – 08:00	2	6	43*
08:00 – 09:00	3	10	36
09:00 – 10:00	4	6	34
10:00 – 11:00	4	5	34
11:00 – 12:00	4	4	34
12:00 – 13:00	5	4	35
13:00 – 14:00	4	5	34
14:00 – 15:00	5	5	34
15:00 – 16:00	5	4	35
16:00 – 17:00	6	4	36
17:00 – 18:00	10	5	41
18:00 – 19:00	7	4	45

*based on full initial occupancy – 47 vehicles

8.2.3 Table 8.1 shows that the Whitbarrow Road car park, serving the retirement apartments, is expected to remain below full occupancy (47 spaces) throughout the day.

8.2.4 The combined car park occupancy for the proposed nursery and care home, based on agreed TRICS trip rates, is summarised in Table 8.2

Table 8.2: Nursery/ Care Home - Car Park Occupancy

Time Period	Arrival	Departure	Occupancy
07:00 – 08:00	16	9	14
08:00 – 09:00	25	21	19
09:00 – 10:00	11	9	21
10:00 – 11:00	4	2	23
11:00 – 12:00	8	8	23
12:00 – 13:00	7	6	24
13:00 – 14:00	10	11	22
14:00 – 15:00	9	8	22
15:00 – 16:00	10	14	17
16:00 – 17:00	14	14	16
17:00 – 18:00	14	19	11
18:00 – 19:00	3	6	9

*initial occupancy based on maximum care home night staff levels – 7 vehicles

8.2.5 Table 8.2 shows that the Statham Avenue car park, serving the nursery and care home, is expected to remain below full occupancy (45 spaces) throughout the day.

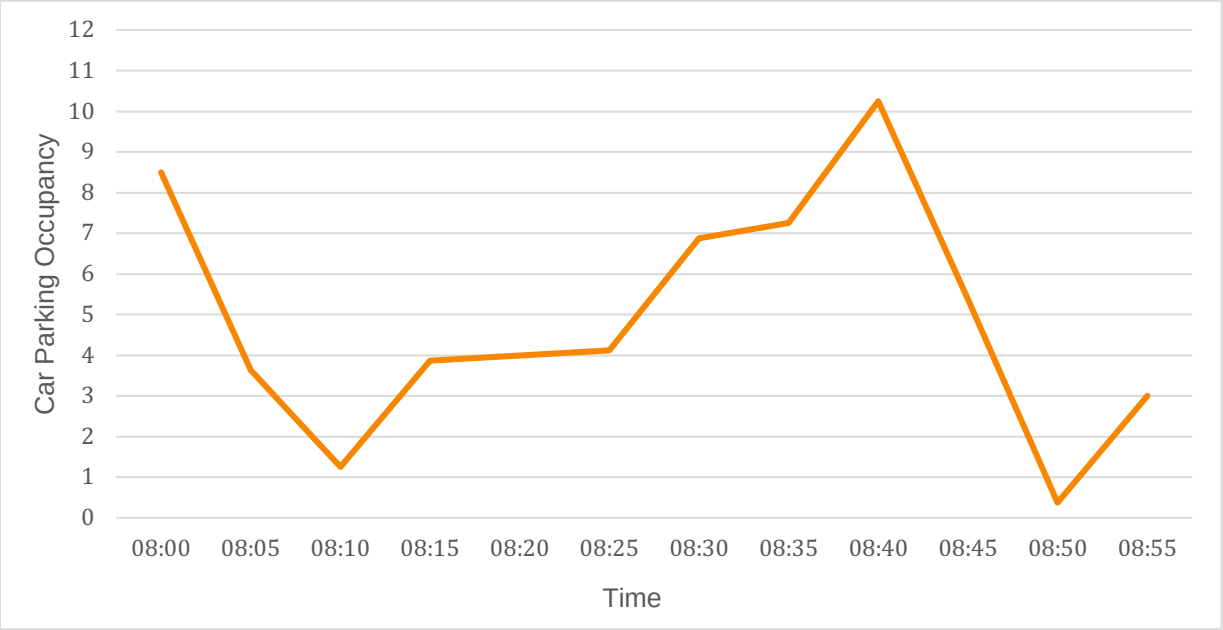
8.3 Car Park Occupancy – AM Peak

8.3.1 In order to assess potential fluctuations in vehicle movements during morning period at the nursery / care home, an occupancy assessment for the car park has been undertaken based on the robust AM peak 'first-principles' trip generation, described in Section 7.

8.3.2 The AM peak 'first principles' occupancy assessment for the nursery/ care home is described below:

- 33 spaces required for nursery and care home staff parking – based on 100% attendance/occupancy and 2011 census data;
- 12 spaces remaining for children drop-offs – assuming all staff parked before children arrive;
- Children drop-off is typically spread over a 2-hour period, however a weighted majority of 70% has been applied between 08:00 – 09:00 in order to provide a robust assessment, as requested by WBC Highways;
- An observed 08:00 – 09:00 arrival/ departure pattern recorded on Monday 19th March 2018 at an existing nursery on Deansgate Lane, Timperley has been applied to the 70% weighted majority, as shown in Figure 8.1, with full analysis attached in Appendix J.

Figure 8.1: Car Park Occupancy – Nursery Children (70% Weighted Majority)



8.3.3 Figure 8.1 shows that car park occupancy for the nursery children remains below 12 vehicles. This is with the application of a 70% weighted majority between 08:00 – 09:00 and traffic fluctuations observed at an existing nursery.

8.3.4 It is considered that the approach provides a robust assessment of AM peak car parking occupancy at the nursery / care home and should give confidence in conclusions of the assessment, particularly due to the following assumptions:

- 100% attendance/occupancy assessed – the operator has advised that 80-85% attendance is typical at other nursery sites;
- All children assumed to arrive on the same AM peak – the operator has advised that not all children are full time or attend on same day;
- All staff are parked before children arrival – the operator has advised that the staff arrival throughout the morning; and
- Strong evidence-based assumptions – using information provided by future operators and robust 2011 census data.

8.4 Summary

8.4.1 The car park occupancy results demonstrate that the proposed parking provision at the site is sufficient to accommodate future car park usage for the nursery/care home and retirement apartments.

8.4.2 The results provide reassurance that there will be enough off-street parking provision to serve the future site uses and also any occasional fluctuations in demand could also be accommodated without impacting on the local highway network.

9 Construction Traffic Management

9.1 Overview

9.1.1 A Construction Traffic Management Plan (CTMP) will be drawn up for the proposed development by the contractor prior to commencement of works on site. This is a common approach for developments and construction projects in the UK. The CTMP would need to be discussed and agreed with WBC prior to commencement of any construction works and is subject to planning approval being granted.

9.2 Construction Traffic Movement and Distribution

9.2.1 Appointed contractors will be required to operate in accordance with a full CTMP. This will contain identified construction traffic routes to the site, estimated movements per day and safety procedure, including but not limited to:

- Integration of a traffic management scheme with surrounding construction developments and any traffic engineering or traffic calming measures;
- Access, egress, drop off and turning area;
- Temporary alterations to local traffic routes (both vehicular and pedestrian);
- Additions, alterations and position of any temporary signage, road markings or protection barriers;
- Pedestrian access around site and relevant protection, lighting and signage schemes;
- Temporary suspension/relocation of parking bays and bus stops;
- Segregation of plant, materials and pedestrians on-site and safe access routes between welfare and site areas;
- The provision of car parking, and public transport strategy to all site staff; and
- Loading bays, hoist positions and crane areas.

9.2.2 The principal objective of the CTMP is to minimise the impact of construction operations on the surrounding properties, local highways and public space.

9.2.3 Deliveries will endeavour to be made outside of peak network hours to minimise local disruption to the highway network. Construction traffic routes will be outlined and agreed with WBC as part of the CTMP ahead of commencement of site works.

10 Summary and Conclusions

10.1.1 Mode Transport Planning has been appointed by Macdonald Hotels & Resorts Ltd to provide transport and highways advice for a mixed-use nursery, care home and retirement development at the Lymm Hotel site on Whitbarrow Road in Lymm.

10.1.2 The development proposals comprise a children's nursery (max. 90 children), 45 no. retirement apartments, a 66-bed care home, with vehicular access provided via Whitbarrow Road and Statham Avenue. The existing 62-bedroom hotel will be demolished to facilitate the new development.

10.1.3 The analysis in this report is based on pre-application discussions with WBC Highways and has been carried out in accordance with current policy, guidance and best practice. The analysis within this Transport Assessment report demonstrates that:

- The proposed accesses achieve the required visibility in accordance with Manual for Streets Sight Stopping Distances;
- Following a review of the most recent personal injury collisions records, there is no evidence to show the proposed development will have a detrimental impact on highway safety;
- This site is accessible by a range of sustainable modes of transport, including bus services, cycling and on foot;
- The proposed development will generate additional trips when compared to existing hotel use; however, the increase in traffic will not result in significant additional trips, equivalent to less 1 trip per minute during peak periods;
- In terms of off-site highway impact, the expected development flows will have a minimal residual impact on Statham Avenue and Whitbarrow Road, including during peak periods;
- The car park occupancy assessment demonstrates that the proposed parking provision at the site is sufficient to accommodate future car park usage; and
- The development proposals can be implemented in accordance with current highway design standards and is compliant with policy, including the National Planning Policy Framework.

10.1.4 In conclusion, based on the evidence and analysis within this report, there should be no highways or transportation reasons that prevents this planning application from being approved.

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APPENDICES

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APPENDIX A – Scoping and Pre-App Correspondence

Minutes of Meeting

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Meeting	Lymm Hotel Pre-application Highways Meeting
Job number	J322138
Date	13/06/2018
Time	15:00
Location	WCC Office, New Town House, Buttermarket St, Warrington
Noted by	Michael Anthony

Present

Kevin Jackson (KJ) - WCC Highways Development Control
Suzanne Belfield (SB) - Street Design Partnership
Mark Edwards (ME) - Mode Transport Planning
Michael Anthony (MA) - Mode Transport Planning

Apologies NA

This pre-application meeting with WCC Highways relates to the latest scheme proposed at the Lymm Hotel site at Whitbarrow Road, Lymm (Planning Ref: PR/2018/04101).

1. Overview of latest scheme

MA provided an overview of the latest scheme, detailing the 45 retirement apartments 66 bedroom care home and 90 place children's nursery. This represents a reduced scale of development when compared to the previously refused planning application (Planning Ref: 2017/31811) which comprised 52 retirement apartments, 72 bedroom care home and 120 place children's nursery.

2. Proposed Parking Provision

MA highlighted the level parking provision proposed in the latest scheme, specifically 47 spaces for the retirement apartments, comprising one parking space per apartment plus two visitor spaces. This level of provision complies with pre-application comments received from KJ and is an increase of 10 spaces when compared to the refused larger application.

KJ stated that the level of provision should be adequate for the retirement apartments, subject to parking accumulation assessment. KJ also confirmed that 2 visitor spaces were a reasonable provision.

SB highlighted the 4 disabled spaces shown near the retirement apartment entrance. KJ stated that 5% disabled parking provision is typically accepted, and therefore confirmed that the 4 spaces proposed is acceptable. KJ requested that these are shown as 4 spaces are shown to a DDA complaint standard. The on-site disabled provision can then be managed depending on demand.

MA described the 45 spaces shared between the care home and children's nursery. This level of provision is an increase of 8 spaces when compared to the refused larger application.

KJ commented that the parking provision is acceptable for the care home and he is reasonably comfortable with its shared use with the children's nursery. However, a case still needs to be presented to justify 45 spaces, particularly during the AM peak, when children and staff will arrive/depart.

KJ suggested a first principles approach to assess AM peak occupancy based on staff numbers, shift patterns, child arrivals.

SB presented the proposed cycle parking, motor cycle parking and electric-vehicle charging provision which meets or exceeds WCC's minimum parking standards for all elements.

KJ confirmed they will be looking for:

- secure/covered and easily accessible/visible cycle parking for residents/staff cycle parking and Sheffield stand type cycle parking for visitors;
- 2m x 1m motorcycle parking spaces with ground locking point and easy access or MC parking;
- Electric charging point should be suitably located to accommodate infrastructure. At this stage ducting only could be provided to allow future introduction of charging spaces, dependent on demand.

KJ advised that a Car Park Management Plan is likely to be conditioned, should to application be approved.

KJ was comfortable with the circulatory lane being removed to allow an additional two spaces in Statham Avenue, if required.

3. Trip Generation and Off-site Impact

KJ agreed that trip rates used in previous application for care home and nursery are still applicable. A first principles approach is advised to assess AM peak car parking occupancy.

KJ stated that average 'private residential flats' trip rates could be used to provide a robust estimate of trip generation and car park occupancy at the retirement apartments. This would complement the TRICS trip rates presented for retirement apartments.

KJ reiterated that the anticipated level of off-site impact is acceptable, subject to sufficient parking on site being demonstrated by the parking accumulation assessment.

4. Servicing and Delivery Arrangements

MA highlighted the separate in/out access arrangement being proposed for the Statham Avenue car park. The exit is located at the current access point, with a new entry located to the east.

MA presented swept path analysis showing a 12m rigid HGV accessing/egressing the Statham Avenue car park. The vehicle can safely enter and exit the car park in forward gear, avoiding all car parking spaces.

MA also presented swept path analysis showing a 12m rigid HGV safely accessing/aggressing the Whitbarrow Road car park in a forward gear. Whilst it is unlikely that larger vehicles would service or deliver to this car park, instead of the Statham Avenue one, this would provide WBC Highways the comfort that no disruption would occur on the highway in the event of a delivery driver choosing to use the car park.

KJ advised that all servicing and deliveries could be taken from Statham Avenue car park but wanted to see evidence that a large vehicle can access/egress the Whitbarrow Road car park – should they miss signs/management instructions and turn into car park.

SB suggested that the Transport Assessment include further detail from the future site operators about how they expect the site to operate based on their experience with existing sites.

5. **Sustainable accessibility**

MA set out proximity and walking routes to local amenities, and described local bus services accessible from the site, including the No. 191 service along Whitbarrow Road and No.5 accessible c.650m from Barsbank Lane.

MA agreed to provide a detailed sustainable access strategy in the Transport Assessment, clearly setting out accessibility to local amenities, pedestrian routes, cycle routes and bus services – particularly for staff at the care home/nursery.

Subject: RE: Lymm Hotel - meeting with WCC Highways
Date: Monday, 23 July 2018 at 16:45:42 British Summer Time
From: Jackson, Kevin
To: Michael Anthony
CC: Mark Edwards, Davies, Michael (Planning)
Attachments: image002.png, image003.png, image004.png, image005.png, image007.png, image009.png

Hi Mike
I can confirm that the assessment would be considered robust based on the assumptions, criteria and evidence below. I would suggest a tidy, revised version of the assessment is formally submitted and then I can update my comments accordingly.

Regards

Kevin

Kevin Jackson
Principal Engineer Development Control

Warrington Borough Council
Environment & Regeneration Directorate
3rd Floor New Town House
Buttermarket Street
Warrington, WA1 2NH.
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Fax: 01925 443255
Email: x-kjackson@warrington.gov.uk
Web: www.warrington.gov.uk

From: Michael Anthony [mailto:michaelanthony@modetransport.co.uk]
Sent: 09 July 2018 17:19
To: Jackson, Kevin
Cc: Mark Edwards; Davies, Michael (Planning)
Subject: RE: Lymm Hotel - meeting with WCC Highways

Hi Kevin,

Thank you for your comments. I have added our further comments below (in green).

I would be grateful if you could provide comment to the remaining highways points.

Kind regards,

Mike.

Michael Anthony MCIHT
Associate
mode transport planning

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From: "Jackson, Kevin" < >
Date: Tuesday, 3 July 2018 at 12:52
To: Michael Anthony <michaelanthony@modetransport.co.uk>
Cc: Mark Edwards <markedwards@modetransport.co.uk>, "Davies, Michael (Planning)" <
Subject: RE: Lymm Hotel - meeting with WCC Highways

Hi Mike

For ease, I have added comments into the statement below.
Broadly speaking there does not appear to be an issue, but I have made some suggestions/comments to strengthen the case. I would suggest making the revisions and formally submitting via planning.

Regards

Kevin
Kevin Jackson
Principal Engineer Development Control

Warrington Borough Council
Environment & Regeneration Directorate
3rd Floor New Town House
Buttermarket Street
Warrington, WA1 2NH.
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Fax: 01925 443255
Email: x-kjackson@warrington.gov.uk
Web: www.warrington.gov.uk

From: Michael Anthony [mailto:michaelanthony@modetransport.co.uk]
Sent: 02 July 2018 16:49
To: Jackson, Kevin
Cc: Mark Edwards
Subject: Re: Lymm Hotel - meeting with WCC Highways

Hi Kevin,

Following our pre-app meeting last month, I have been working through the trip generation and car park occupancy assessment for the revised scheme at Lymm Hotel – based on a first principles approach. The analysis is set out below for the AM peak, which is the worst-case peak, and includes the methodology and assumptions applied.

At this stage, I would be grateful if you could review the analysis and confirm you are happy that the approach being taken provides a robust assessment of parking usage at the site.

AM Peak Trip Generation – Nursery & Care Home

Nursery (max. 90 spaces):

- 90 children trips – based on 100% attendance (robust as 80-85% attendance advised by operator based on other sites, and also assumes all children arrive on same day); Agreed Noted
- 83% parents drive to nursery – based on 2011 travel to work census data for people living in Lymm (Warrington 021 MSOA); 83% doesn't seem unreasonable, but unless there is some corroborative evidence / convincing rationale it is difficult to accept that journey to work data is a reliable indicator. Are you able to separate journeys via nursery? Do none of the existing nurseries have Travel Plans with survey data? The rational is that, typically, children at that age are put into nurseries because their parents work, and therefore the drop-off would form part of the parents trip to work. Therefore, travel-to-work data, specifically for people that live in Lymm (and work anywhere) gives a good indication of the mode of travel. To support this approach further, as you suggested, travel plan survey data at existing nurseries (using publicly available data) has been summarised in the table below. The actual Travel Plan survey data shows <50% travel by car.

Existing Nurseries - Travel Plan Survey

		Children Travel by Mode				
Name	Location	Walk	Cycle	Public Transport	Car	Other
Bright Futures Day Nursery	West View, Clitheroe	46%	1%	3%	49%	0%
Bram Longstaffe Nursery School	Farm Street, Barrow-in-Furness	26%	3%	15%	47%	9%
Lawns Children's Nursery	Middle Path, Crewkerne	55%	0%	0%	45%	0%
Goldfield Infants and Nursery	Christchurch Road, Tring	52%	17%	0%	25%	6%
Penn Wood Primary and Nursery	Penn Road, Slough	56%	3%	1%	38%	2%

- **75 children car trips** – based on 100% attendance and 2011 census data.

- 23 nursery staff – based on 1:4 staff/children ratio as advised by operator;
- 50% junior staff arrive on foot, bike or dropped off by family member – as advised by operator based on staffing structure and local recruitment; I have no way of knowing how many are "junior staff" and drop off is still a car trip/parking space occupied albeit briefly, furthermore some will spend money on a car (at least if they live at home and their outgoings are otherwise low). I would suggest a more robust/defensible approach is to use the census data for this element (83% car driver /drop off). Alternatively, reference to an average of TP surveys if you have access for existing enterprises. The reality is likely to be somewhere in between, but the more robust the assessment the better. You could use both to demonstrate an envelope if it helps. Noted. 2011 travel to work census data (71% drive to work) for people working in Lymm (Warrington 021 MSOA) will be applied to all staff – 23 staff in total, therefore 16 staff drive. See explanation below for 83% and 71% drive to work census data.
- **12 staff car trips** – making no further allowance for sustainable travel. Updated: 16 staff car trips - see above.

The spreadsheet uses a duration of stay as five minutes consistently, but states 5-10minutes in the titles. The figures currently show some tolerance for a small number to be ten minutes, so not an issue, but needs to be clarified. The assumption of perfectly even timings/profiling is unrealistic. As I recall you have a survey of another nursery, which you submitted previously. I would suggest using that profile in the first instance. The attached suggests everyone would have gone by 0835hrs, when in fact this is likely to be the busiest time. Noted. The observed arrival/departure profile from the nursery in Timperley between 08:00-09:00 will be applied to take into account fluctuations in arrival patterns and time parked on site – see further detail below.

Care Home (max. 66 bedrooms):

- 24 staff – as advised by operator based on 100% occupancy;
- 71% drive to work – based on 2011 travel to work census data for people working in Lymm (Warrington 021 MSOA); Please clarify, journey to work data above is 83%.

Method of travel to work data for 'Warrington 021' Middle Super Output Area (MSOA), which includes Lymm, has been obtained for the following scenarios:

- Staff at the care home/ nursery (71% drive to work) – assumed to be people **living anywhere** and working in Lymm (Warrington 021 MSOA), as summarised in Table 7.10; and

Table 7.10: Travel to Work Census Data – people living anywhere / working in Lymm

Mode of Travel	Split
Underground, metro, light rail or tram	0%
Train	1%
Bus, minibus or coach	3%
Taxi	0%
Motorcycle, scooter or moped	1%
Driving a car or van	71%
Passenger in a car or van	7%
Bicycle	2%
On foot	14%
Other	0%

- Nursery drop-offs (83% drive to work) – assumed to be people **living in Lymm** (Warrington 021 MSOA) and working anywhere, as summarised in Table 7.11.

Table 7.11: Travel to Work Census Data – people living in Lymm / working anywhere

Mode of Travel	Split
Underground, metro, light rail or tram	1%
Train	1%
Bus, minibus or coach	2%
Taxi	0%
Motorcycle, scooter or moped	1%
Driving a car or van	83%
Passenger in a car or van	3%
Bicycle	2%
On foot	6%
Other	0%

- **17 staff car trips** – based on 100% occupancy and 2011 census data

Car Park Occupancy – Nursery & Care Home

- 45 car parking spaces available;
- 33 spaces required for nursery and care home staff parking – based on 100% attendance/occupancy;
- 12 spaces remaining for children drop-offs (1 space per 5.6 children) – assuming all staff parked before children arrive (WCC standards state maximum 1 space per 4 children);
- Children drop-off spread over a 2 hour period (07:30-09:30) – as advised by operator; This needs to be weighted to a majority between 0800 and 0900hrs. We have the observed arrival/departure pattern over a 2 hour period recorded at an existing nursery in Timperley, however for robustness, and as requested, this can be weighted to have the majority arriving between 08:00-09:00 – this is assuming a robust 70% of children arrival in this 1-hour period. This is a particularly robust scenario considering it is more likely that children will arrive more evenly across a 2-hour period, as advised by the operator. Furthermore, we have included robust assumptions such as 100% attendance/100% staffing levels and staff parked before children arrive.
- Occupancy assessment (attached) based on robust 30 minute drop-off period and 5-10 minute parking time shows 12 car peak occupancy;
- Sufficient space for 21% of children car trips simultaneously – 16 car trips on site at same time.

It is our view that the approach set out above provides a robust assessment of trip generation at the site and should give confidence in the resulting car parking assessment, particularly due to the following assumptions:

- 100% attendance/occupancy assessed; robust
- All children assumed to arrive on the same AM peak; robust
- All staff parked before children arrival; robust
- Evidence based assumptions (using information provided by future operators and 2011 census data); Not clear what has been derived from the census at this point. Noted – see explanation re. travel-to-work census data.

Retirement Apartments – Trip Generation

- As agreed at the pre-app meeting, 'flats privately owned' TRICS trip rates will be used to assess the retirement apartment – please see the attached TRICS output for your approval.

The use of "houses split into flats" is not considered robust or representative. I would suggest removing these from the sample. This should be submitted for an agreed position on generation, but traffic levels are not considered an issue per se. It would be interesting to see the trics data for car park accumulation for the remaining samples. Averaging over the number of units etc would suggest the number of parking spaces needed and may support the **agreed position** we have taken. Noted – TRICS output (excluding 'houses split into flats') attached for approval.

I would be grateful if you could provide your comments on the above.

Kind regards,

Michael.

Michael Anthony MCIHT
Associate
mode transport planning

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From: "Jackson, Kevin" <x-kjackson@warrington.gov.uk>
Date: Friday, 15 June 2018 at 14:32
To: Michael Anthony <michaelanthony@modetransport.co.uk>, Suzanne Belfield <SuzanneBelfield@street-design.net>, Mark Edwards <markedwards@modetransport.co.uk>
Subject: RE: Lymm Hotel - meeting with WCC Highways

Thanks Michael

Nothing to add.

Kevin Jackson
Principal Engineer Development Control

Warrington Borough Council
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Buttermarket Street
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Web: www.warrington.gov.uk

From: Michael Anthony [mailto:michaelanthony@modetransport.co.uk]
Sent: 14 June 2018 16:56
To: Jackson, Kevin; Suzanne Belfield; Mark Edwards
Subject: Re: Lymm Hotel - meeting with WCC Highways

Hi All,

Following yesterday's pre-application meeting on latest scheme at Lymm Hotel, please find attached the meeting minutes for your reference. Should you have any comments please let me know by Thursday 21st June.

Kind regards,

Michael.

Michael Anthony MCIHT
Associate
mode transport planning

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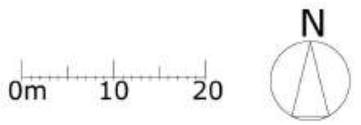
From: michaelanthony@modetransport.co.uk
When: 15:00 - 16:00 13 June 2018
Subject: Lymm Hotel - meeting with WCC Highways
Location: New Town House, Buttermarket Street Warrington WA1 2NH

APPENDIX B – Proposed Layout Plan



KEY

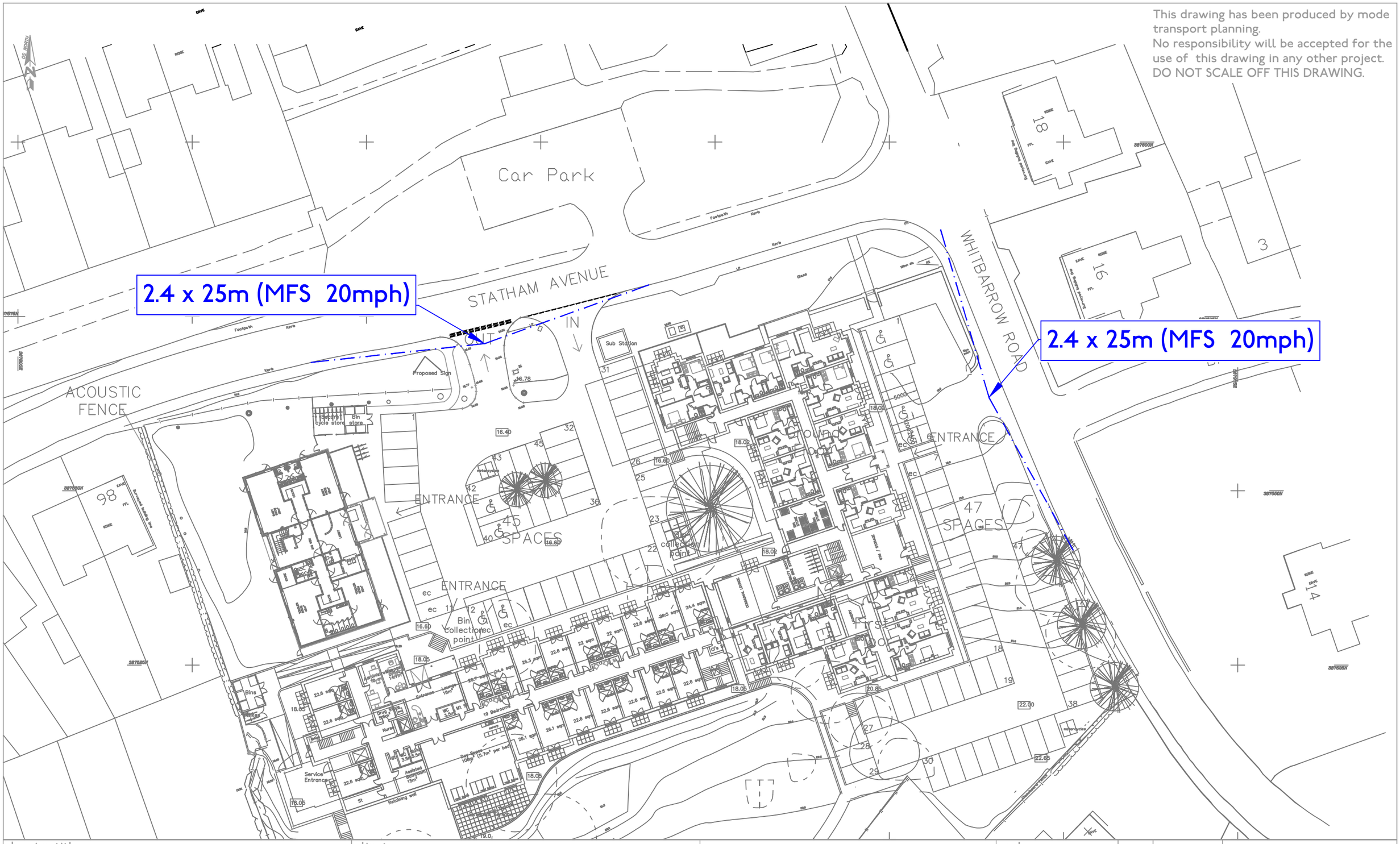
- CHILDREN'S NURSERY 632 SQM / 90 NO. CHILDREN
- 45 NO. RETIREMENT APARTMENTS
- 66 NO. BED CARE HOME
- TREES TO BE RETAINED
- TREES TO BE REMOVED
- PROPOSED TREES
- ACOUSTIC FENCE
- LINE OF EXISTING BUILDING TO BE DEMOLISHED

	revision:		date:
client:	project:		drawing:
VILLAFONT (LYMM) LTD.	MIXED USE DEV. LYMM HOTEL WARRINGTON		PROPOSED SITE PLAN

project no:	drawing no:	revision:	drawn:	checked:	date:	scale @ A2
6640	P02		JH		20/07/18	1:500

street design partnership
architecture · urban design · interiors
19 Brewery Yard · Deva City Office Park · Salford · M3 7BB · 0161 834 7202 · info@street-design.net · www.street-design.net

APPENDIX C – Access Junction Plans



drawing title
Junction Visibility Splays

client
Street Design Partnership

job title
Lymm Hotel, Warrington

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transport planning

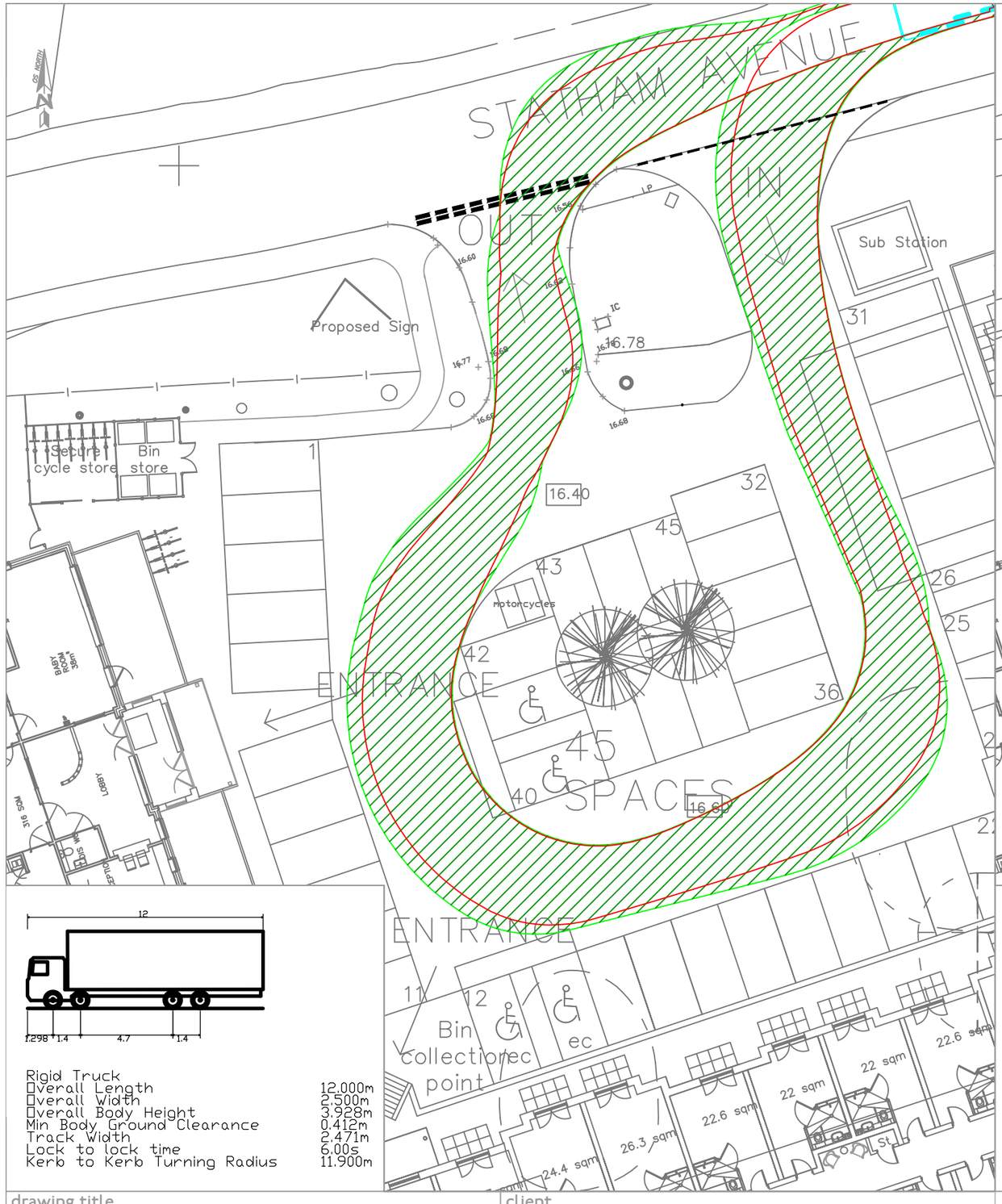
scale	1:500@A3
drawn	LCW
checked	ME
created	Jul 18

B	24-07-18	Issued
A	30-11-17	Issued
-	15-11-17	Issued

drawing no.
J32-3138-PS-002

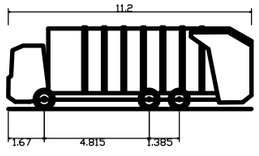
File: Y:\Dropbox (mode)\Project\Manchester\Projects\J323138_Lymm Hotel, Warrington\5. Graphics\2. CAD\2. Sheets\J32-3138-PS-001 Rev B.dwg

APPENDIX D – Swept Path Analysis



Rigid Truck

Overall Length	12.000m
Overall Width	2.500m
Overall Body Height	3.928m
Min Body Ground Clearance	0.412m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.900m



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)

Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

drawing title
Service Vehicle Swept Path Analysis

client
Street Design Partnership

job title
Lymm Hotel, Warrington

mode transport planning
Jactin House
24 Hood Street
Manchester
M4 6WX

t 0161 974 3208
e info@modetransport.co.uk
w www.modetransport.co.uk

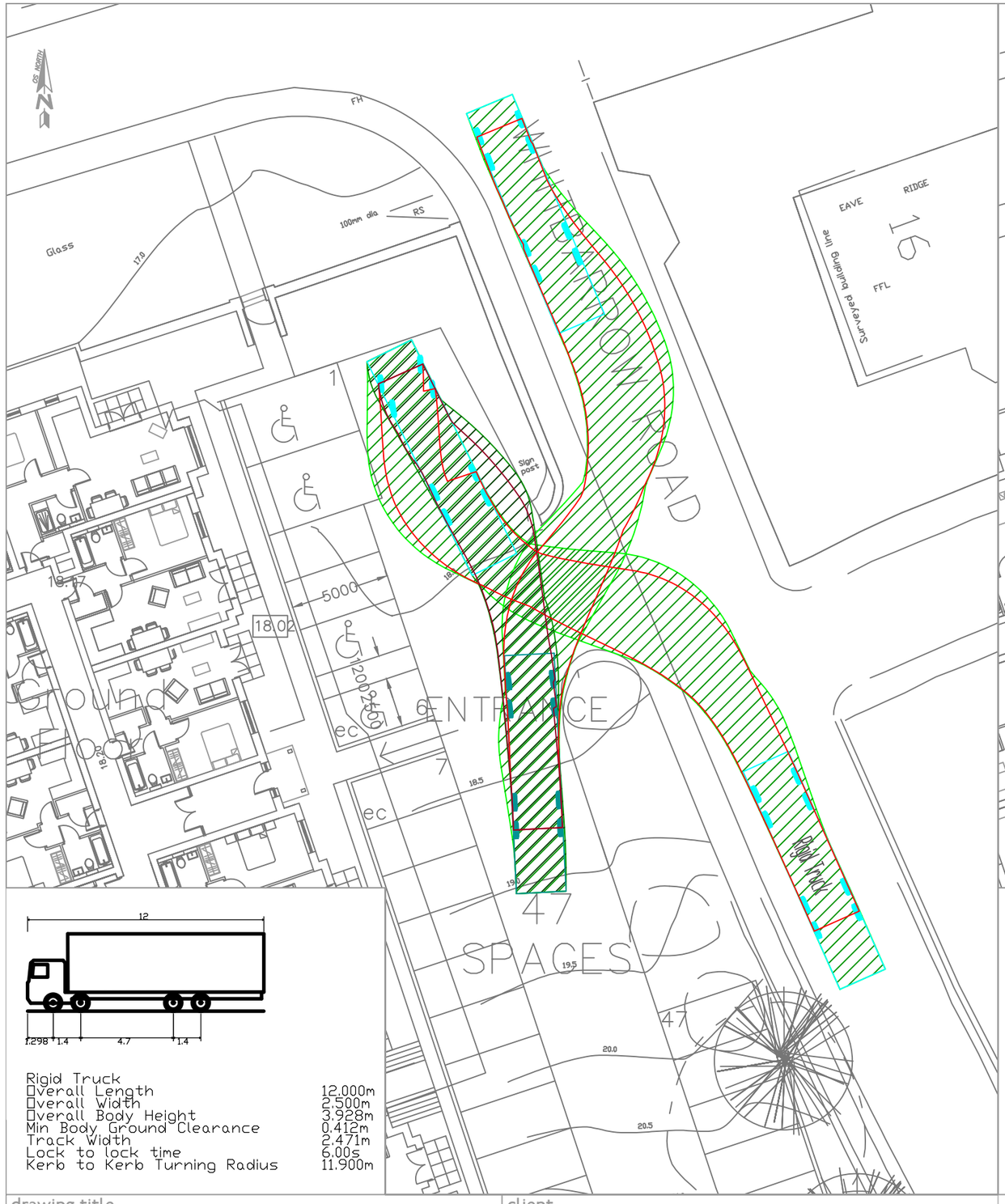
mode
transport planning

scale	1:250@A3
drawn	LCW
checked	ME
created	Jul 18

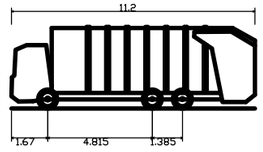
C	24-07-18	Issued
B	20-03-18	Issued
A	30-11-17	Issued
-	27-09-17	Issued

drawing no.
J32-3138-PS-001

File: Y:\Dropbox (mode)\Project\Manchester\Projects\J323138_Lymm Hotel, Warrington\5. Graphics\2. CAD\2. Sheets\J32-3138-PS-001 Rev B.dwg



Rigid Truck	
Overall Length	12.000m
Overall Width	2.500m
Overall Body Height	3.928m
Min Body Ground Clearance	0.412m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.900m



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)	
Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

drawing title

Service Vehicle Swept Path Analysis

client

Street Design Partnership

job title

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Jactin House
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t 0161 974 3208
e info@modetransport.co.uk
w www.modetransport.co.uk

mode
transport planning

scale	1:250@A3
drawn	LCW
checked	ME
created	Jul 18

-	25-07-18	Issued

drawing no. J32-3138-PS-003

File: Y:\Dropbox (mode)\Project\Manchester\Projects\J323138_Lymm Hotel, Warrington\5. Graphics\2. CAD\2. Sheets\J32-3138-PS-001 Rev B.dwg

APPENDIX E – Local Bus Timetables

191 Oughtrington - Lymm

J J Travel

Mondays to Fridays [1]

Oughtrington, Sandy Lane Post Office (NW-bound)	***dep***	**10:00**			
Oughtrington, Sandy Lane (NW-bound)		10:01			
Rushgreen, nr Sandy Lane		**10:02**			
Rushgreen, opp Whitefield Grove		10:03			
Rushgreen, opp Reddish Crescent		10:04			
Lymm, adj Reddish Lane		10:05			
Lymm, o/s Sommerfields	***arr***	**10:07**			
Lymm, o/s Sommerfields	***dep***		**10:10**	**11:10**	**12:10**
Lymm, Methodist Church (SW-bound)			10:10	11:10	12:10
Lymm, Brookfield Road (N-bound)			10:11	11:11	12:11
Statham, Whitbarrow Road (NW-bound)			10:13	11:13	12:13
Statham, Meadow View (W-bound)			**10:15**	**11:15**	**12:15**
Statham, Pool Lane (NW-bound)			10:16	11:16	12:16
Statham, Oldfield Road (W-bound)			**10:17**	**11:17**	**12:17**
Statham, Pool Lane (SE-bound)			10:17	11:17	12:17
Statham, nr Whitbarrow Road			10:17	11:17	12:17
Statham, Albany Road (NE-bound)			10:18	11:18	12:18
Statham, Northway (N-bound)			**10:19**	**11:19**	**12:19**
Statham, Whitbarrow Road (SE-bound)			10:20	11:20	12:20
Lymm, Brookfield Road (S-bound)			10:21	11:21	12:21
Lymm, Brookfield Road South (S-bound)			10:22	11:22	12:22
Church Green, adj Lymm Church			10:23	11:23	12:23
Lymm, o/s Lymm Cross			**10:25**	**11:25**	**12:25**
Lymm, opp The Peppers			10:25	11:25	12:25
Lymm, Ravenscourt (E-bound)			**10:27**	**11:27**	**12:27**
Lymm, nr The Peppers			10:28	11:28	12:28
Lymm, o/s Sommerfields			**10:30**	**11:30**	**12:30**
Lymm, Methodist Church (SW-bound)			10:31	11:31	12:31
Lymm, Brookfield Road (SW-bound)			10:32	11:32	12:32
Lymm, opp Welfare Centre			10:33	11:33	12:33
Statham, Booths Hill Close (SW-bound)			**10:34**	**11:34**	**12:34**
Statham, Cherry Lane (S-bound)			10:34	11:34	12:34
Statham, Hardy Road (W-bound)			10:35	11:35	12:35
Statham, Highfield Road (N-bound)			**10:36**	**11:36**	**12:36**
Statham, Elms Farm Estate (E-bound)			**10:38**	**11:38**	**12:38**
Statham, nr Barsbank Lane			**10:40**	**11:40**	**12:40**
Lymm, o/s Welfare Centre			10:41	11:41	12:41

Church Green, adj Lymm Church		10:42	11:42	12:42
Lymm, o/s Lymm Cross		**10:44**	**11:44**	**12:44**
Lymm, o/s Sommerfields		**10:45**	**11:45**	**12:45**
Lymm, Methodist Church (SW-bound)		10:45	11:45	12:45
Lymm, Brookfield Road South (S-bound)		10:45	11:45	12:45
Church Green, adj Lymm Church		10:46	11:46	12:46
Church Green, opp Lymm Church		10:46	11:46	12:46
Church Green, nr Grammar School Road		**10:47**	**11:47**	**12:47**
Church Green, nr Woodlands Avenue		10:47	11:47	12:47
Broomedge, nr Oughtrington Lane		10:48	11:48	12:48
Broomedge, opp Field House		**10:49**	**11:49**	**12:49**
Broomedge, Park Road (NE-bound)		**10:55**	**11:55**	**12:55**
Broomedge, Burford Lane (N-bound)		**10:57**	**11:57**	**12:57**
Oughtrington, Stage Lane (W-bound)		10:59	11:59	12:59
Oughtrington, Sandy Lane Post Office (NW-bound)		**11:00**	**12:00**	**13:00**
Oughtrington, Sandy Lane (NW-bound)		11:01	12:01	
Rushgreen, nr Sandy Lane		**11:02**	**12:02**	
Rushgreen, opp Whitefield Grove		11:03	12:03	
Rushgreen, opp Reddish Crescent		11:04	12:04	
Lymm, adj Reddish Lane		11:05	12:05	
Lymm, o/s Sommerfields	***arr***	**11:07**	**12:07**	
Notes	[THF]	[THF]	[THF]	[THF]

[1] Only runs on Tuesday, Thursday, Friday
[THF] Tuesday, Thursday and Friday Only
Compiled from data for the period Fri 27-Oct-2017 to Thu 02-Nov-2017. Times not in bold are estimated by using the distance between the stops.

Transport for Greater Manchester

Buses

Cat 5 Cat 5A

Easy access on all buses

Warrington
Stockton Heath
Grappenhall
Thelwall
Statham
Lymm
Warburton
Partington
Broadheath
Dunham
Bowdon
Altrincham

From 9 April 2018

From 9 April

5

Times are changed with additional journeys introduced partly replacing bus 35. Alternate journeys are rerouted to run via Partington and Broadheath between Lymm and Altrincham. These journeys are renumbered Cat 5A. Journeys via Dunham are renumbered Cat 5.

5E

Times are changed with buses renumbered Cat 5

35

Route withdrawn. Partly replaced by additional bus Cat 5 and Cat 5A journeys

Buses Cat 5 and Cat 5A are also rerouted to serve Warrington Bank Quay train station and Centre Park

For public transport information phone **0161 244 1000**

7am – 8pm Mon to Fri
8am – 8pm Sat, Sun & public holidays

This timetable is available online at www.tfgm.com

PO Box 429, Manchester, M60 1HX

Operated by
Network Warrington

Additional information

Alternative format

To ask for leaflets to be sent to you, or to request large print, Braille or recorded information phone 0161 244 1000 or visit www.tfgm.com

Easy access on buses

Journeys run with low floor buses have no steps at the entrance, making getting on and off easier. Where shown, low floor buses have a ramp for access and a dedicated space for wheelchairs and pushchairs inside the bus. The bus operator will always try to provide easy access services where these services are scheduled to run.

Using this timetable

Timetables show the direction of travel, bus numbers and the days of the week.
Main stops on the route are listed on the left.
Where no time is shown against a particular stop, the bus does not stop there on that journey.
Check any letters which are shown in the timetable against the key at the bottom of the page.

Where to find information about service changes

www.tfgm.com
Bus station posters
Leaflets from outlets.

Tickets and information

Bus companies offer a range of tickets for use on their own buses. For travel on any service in the County, use System One tickets, including DaySaver. Travelshops provide tickets, information and journey planning advice on buses, trains and trams for work and pleasure.

Using the 24 hour clock

Times are shown in four figures. The first two are the hour and the last two are the minutes.

0753 is 53 minutes past 7am
1953 is 53 minutes past 7pm

Operator details

Network Warrington
Wilderspool Causeway
Warrington, Cheshire, WA4 6PT
Telephone 01925 634296

Travelshops

Altrincham Interchange
Mon to Fri 6.40am to 8.20pm
Saturday 7.10am to 8.20pm
Sunday* 9.20am to 4.50pm

*Including public holidays

Printed on coated recycled paper made using 50% recycled fibre from post consumer sources and 50% virgin fibre from sustainable forests.

Altrincham — Dunham — Warburton — Lymm — Stockton Heath — Warrington Cat 5
Altrincham — Broadheath — Partington — Lymm — Stockton Heath — Warrington Cat 5A

Mondays to Fridays

	Cat5	Cat5	Cat5	Cat5	Cat5A SD e	Cat5A SH	Cat5	Cat5	Cat5	Cat5A	Cat5	Cat5A	Cat5	Cat5A	Cat5	Cat5A	Cat5	Cat5A	Cat5
Altrincham, Interchange			0648	0708	0725	0725		0825	0858	0921	1001	1021	1101	1121	1201	1221	1301	1321	1401
Broadheath, Asda					0731j	0731j				0929		1029		1129		1229		1329	
Partington, Manchester New Road					0744	0744				0945		1045		1145		1245		1345	
Dunham, Smithy Lane			0658	0720	0755	0755		0839	0912		1011		1111		1211		1311		1411
Warburton, Egerton Avenue			0707	a	a	a		a	a		1019		1119		1219		1319		1419
Lymm Cross	0625	0653	0717	0737	0805	0815	0829	0854	0927	0957	1027	1057	1127	1157	1227	1257	1327	1357	1427
Lymm, Church	0626	0654	0719	0739	0817	0817	0836	0856	0929	0959	1029	1059	1129	1159	1229	1259	1329	1359	1429
Statham, Star Lane	0630	0658	0723	0744	0822	0822	0841	0901	0933	1003	1033	1103	1133	1203	1233	1303	1333	1403	1433
Thelwall, Pickering Arms	0634	0703	0729	0750	0828	0828	0847	0907	0938	1008	1038	1108	1138	1208	1238	1308	1338	1408	1438
Grappenhall, Bradshaw Lane	0639	0708	0734	0755	0833	0833	0852	0912	0943	1013	1043	1113	1143	1213	1243	1313	1343	1413	1443
Stockton Heath, Victoria Square	0647	0716	0745	0805	0845	0845	0902	0922	0952	1022	1052	1122	1152	1222	1252	1322	1352	1422	1452
Warrington, Interchange	0700	0730	0800	0820	0900	0900	0915	0935	1005	1035	1105	1135	1205	1236	1306	1336	1405	1435	1505

	Cat5A	Cat5A	Cat5	Cat5A	Cat5	Cat5	Cat5A	Cat5	Cat5A	Cat5	Cat5	Cat5
Altrincham, Interchange	1421	1511	1535	1615	1635	1715	1725	1805	1830	1905	1930	
Broadheath, Asda	1429	1520		1625			1735		1838			
Partington, Manchester New Road	1445	1537		1642			1737		1854			
Dunham, Smithy Lane			1547		1647	1727		1816		1913	1938	
Warburton, Egerton Avenue			1557		a	a		a		1921	1946	
Lymm Cross	1457	1550	1607	1655	1702	1742	1805	1832	1906	1928	1953	2128
Lymm, Church	1459	1552	1609	1657	1704	1744	1807	1834	1908	1929	1954	2129
Statham, Star Lane	1503	1556	1613	1701	1708	1748	1811	1838	1912	1933	1958	2133
Thelwall, Pickering Arms	1508	1601	1618	1706	1713	1753	1816	1843	1917	1937	2002	2137
Grappenhall, Bradshaw Lane	1513	1606	1623	1711	1718	1758	1821	1848	1922	1941	2006	2141
Cobbs Estate, Dale Lane												2147
Stockton Heath, Victoria Square	1522	1616	1633	1721	1728	1808	1830	1856	1929	1948	2013	2151
Warrington, Interchange	1537	1632	1649	1737	1744	1824	1845	1907	1940	1959	2024	2202

Additional journeys (Priestley College Days only) 1552 and 1600 Wilderspool, Causeway Avenue – Warrington, Interchange (bus Cat 5)

Buses Cat 5 and Cat 5A are provided partly with the financial support of Transport for Greater Manchester and Warrington Borough Council

a – Runs direct via Bent Lane, not via Townfield Lane. e – Runs via Higher Lane and Oughtrington Lane for Lymm High School arriving 0810

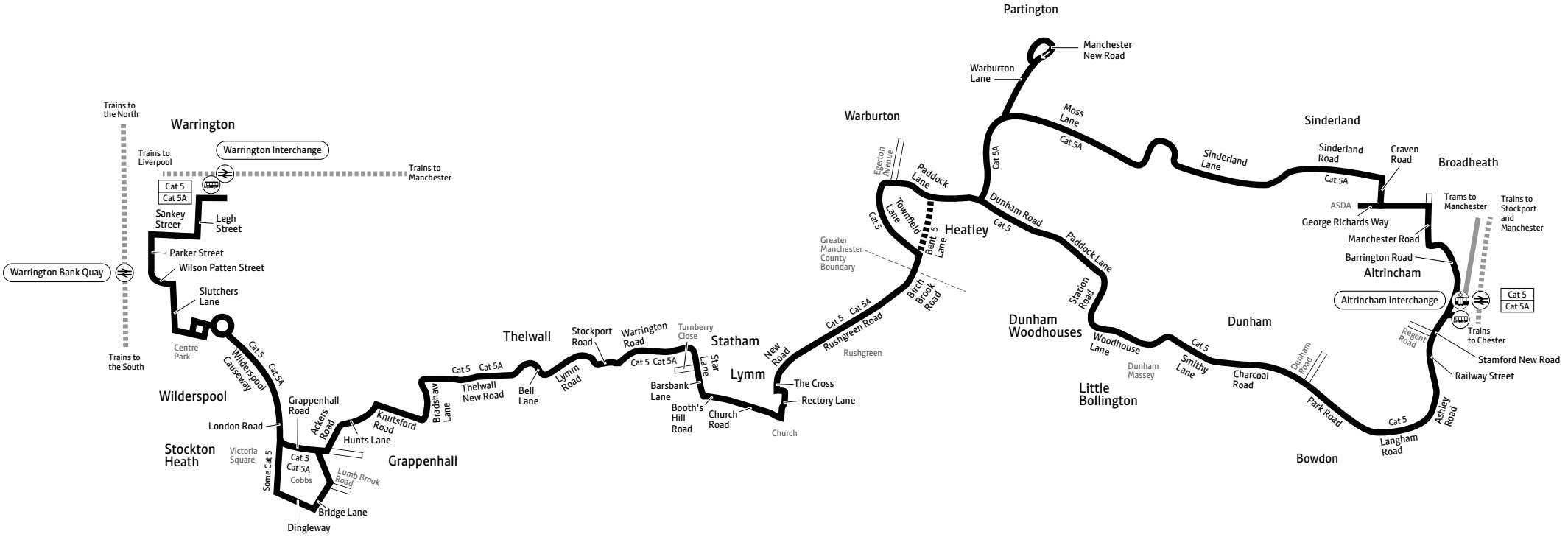
j – Time at Broadheath Primary School. Does not serve Asda. Also runs via Moss Lane, Wood Lane and Oak Road in Partington

SD – Schooldays only. SH – School holidays only

♿ – All bus Cat 5 and Cat 5A journeys are run using easy access buses. See inside front cover of this Bus Times leaflet for details

Continues after route plan

Cat 5 Cat 5A



Key

- Bus route
- Journeys terminating at Warburton and some Monday to Friday peak period journeys only
- Train line
- Tram line
- Direction of travel
- Bus station/connection point
- Train station
- Metrolink stop
- 5 Terminus

Altrincham — Dunham — Warburton — Lymm — Stockton Heath — Warrington Cat 5
Altrincham — Broadheath — Partington — Lymm — Stockton Heath — Warrington Cat 5A

Saturdays

	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5A	Cat5		Cat5A	Cat5		Cat5	Cat5A	Cat5	Cat5	Cat5	Cat5
Altrincham, Interchange						0921	1001		21	01		1701	1721	1801			
Broadheath, Asda						0929			29				1729				
Partington, Manchester New Road						0945			45				1745				
Dunham, Smithy Lane							1011			11		1711		1811			
Warburton, Egerton Avenue		0749	0819	0849	0919		1019			19	mins	1719		1819	1826	1854	
Lymm Cross	0727	0757	0827	0857	0927	0957	1027	then	57	27	past	1727	1757	1827	1834	1902	2128
Lymm, Church	0729	0759	0829	0859	0929	0959	1029	at	59	29	each	1729	1759	1829	1836	1904	2129
Statham, Star Lane	0733	0803	0833	0903	0933	1003	1033		03	33	hour	1733	1803	1833	1840	1908	2133
Thelwall, Pickering Arms	0738	0808	0838	0908	0938	1008	1038		08	38	until	1738	1808	1838	1845	1913	2137
Grappenhall, Bradshaw Lane	0743	0813	0843	0913	0943	1013	1043		13	43		1743	1813	1843	1850	1918	2141
Cobbs Estate, Dale Lane																	2147
Stockton Heath, Victoria Square	0752	0822	0852	0922	0952	1022	1052		22	52		1752	1822	1851	1857	1925	2151
Warrington, Interchange	0805	0835	0905	0935	1005	1035	1105		35	05		1805	1833	1902	1908	1936	2202

Sundays and public holidays (except Christmas and New Year period)

	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5
Altrincham, Interchange			1041	1141	1241	1355	1455	1555	1655	1755	
Dunham, Smithy Lane			1050	1150	1250	1404	1504	1604	1704	1804	
Warburton, Egerton Avenue		0958	1058	1158	1258	1412	1512	1612	1712	1812	1819
Lymm Cross	0905	1005	1105	1205	1305	1419	1519	1619	1719	1819	1826
Lymm, Church	0906	1006	1106	1206	1306	1420	1520	1620	1720	1820	1827
Statham, Star Lane	0910	1010	1110	1210	1310	1424	1524	1624	1724	1824	1831
Thelwall, Pickering Arms	0915	1015	1115	1215	1315	1429	1529	1629	1729	1828	1835
Grappenhall, Bradshaw Lane	0919	1019	1119	1219	1319	1433	1533	1633	1733	1832	1839
Stockton Heath, Victoria Square	0927	1027	1127	1227	1327	1441	1541	1641	1741	1838	1845
Warrington, Interchange	0940	1040	1140	1240	1340	1454	1554	1654	1754	1849	1856

Bus Cat 5A does not run on Sundays or public holidays

For details of buses during Christmas and New Year, please phone 0161 244 1000

Buses Cat 5 and Cat 5A are provided partly with the financial support of Transport for Greater Manchester and Warrington Borough Council

♿ – All bus Cat 5 and Cat 5A journeys are run using easy access buses. See inside front cover of this Bus Times leaflet for details

Warrington — Stockton Heath — Lymm — Warburton — Dunham — Altrincham Cat 5
Warrington — Stockton Heath — Lymm — Partington — Broadheath — Altrincham Cat 5A

Mondays to Fridays

	Cat5	Cat5	Cat5	Cat5	Cat5A	Cat5	Cat5	Cat5A	Cat5	Cat5A	Cat5	Cat5A	Cat5	Cat5A	Cat5	Cat5A	Cat5	Cat5A	Cat5
	k	k	k			SH													
Warrington, Interchange	0553	0613	0630	0710	0722	0745	0808	0838	0910	0940	1010	1040	1110	1140	1208	1238	1308	1340	1410
Stockton Heath, Victoria Square	0600	0620	0637	0722	0736	0759	0822	0852	0922	0952	1022	1052	1122	1152	1222	1252	1322	1352	1422
Grappenhall, Bradshaw Lane	0608	0628	0645	0732	0745	0809	0832	0900	0930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1431
Thelwall, Pickering Arms	0611	0631	0648	0736	0749	0813	0836	0904	0934	1004	1034	1104	1134	1204	1234	1304	1334	1404	1435
Statham, Star Lane	0616	0636	0653	0741	0754	0818	0841	0909	0939	1009	1039	1109	1139	1209	1239	1309	1339	1409	1440
Lymm, Church	0620	0640	0657	0746	0759	0825b	0846	0914	0944	1014	1044	1114	1144	1214	1244	1314	1344	1414	1445
Warburton, Egerton Avenue	0629	0651	0708	a					0954		1054		1154		1254		1354		1456
Partington, Manchester New Road					0813			0928		1028		1128		1228		1328		1428	
Broadheath, Asda					0829			0944		1044		1144		1244		1344		1444	
Dunham, Smithy Lane	0636	0658	0715	0804			0903		1002		1102		1202		1302		1402		1504
Altrincham, Interchange	0645	0708	0725	0820	0839n		0916	0952	1014	1052	1114	1152	1214	1252	1314	1352	1414	1452	1517

	Cat5A	Cat5A	Cat5	Cat5A	Cat5	Cat5A	Cat5	Cat5A	Cat5	Cat5	Cat5	Cat5
	SD e	SH			m	m	m	m	m			
Warrington, Interchange	1440	1440	1520	1550	1610	1640	1710	1740	1830	1853	2053	2300
Stockton Heath, Victoria Square	1452	1452	1535	1605	1625	1655	1725	1755	1842	1903	2104	2311
Cobbs Estate, Dale Lane										1907	2108	2315
Grappenhall, Bradshaw Lane	1502	1502	1545	1615	1635	1705	1735	1805	1850	1914	2115	2322
Thelwall, Pickering Arms	1506	1506	1549	1619	1639	1709	1739	1809	1853	1917	2118	2325
Statham, Star Lane	1511	1511	1554	1624	1644	1714	1744	1814	1857	1921	2122	2329
Lymm, Church	1517	1527	1559	1629	1649	1719	1749	1819	1901	1926b	2127b	2333b
Warburton, Egerton Avenue			a		a		a		1910			
Partington, Manchester New Road	1543	1543		1644		1734		1833				
Broadheath, Asda	1607j	1607j		1700		1750		1849				
Dunham, Smithy Lane			1616		1706		1804		1918			
Altrincham, Interchange	1613	1613	1629	1710	1719	1800	1815	1857	1928			

Additional journey (Priestley College Days only) 0853 Warrington, Interchange - Wilderspool Causway (Bus Cat 5)

Buses Cat 5 and Cat 5A are provided partly with the financial support of Transport for Greater Manchester and Warrington Borough Council

a – Runs direct via Bent Lane, not via Townfield Lane b – Time at Lymm Cross

e – Runs via Higher Lane and Oughtrington Lane for Lymm High School departing 1524

j – Time at Broadheath Primary School. Does not serve Asda. Also runs via Moss Lane, Wood Lane and Oak Road in Partington

k – Does not serve Warrington Bank Quay or Centre Park. m – Does not serve Centre Park. n – Continues to Blessed Thomas Holford School arriving at 0846

SD – Schooldays only. SH – School holidays only

♿ – All bus Cat 5 and Cat 5A journeys are run using easy access buses. See inside front cover of this Bus Times leaflet for details

Warrington — Stockton Heath — Lymm — Warburton — Dunham — Altrincham Cat 5
Warrington — Stockton Heath — Lymm — Partington — Broadheath — Altrincham Cat 5A

Saturdays

	Cat5	Cat5	Cat5	Cat5	Cat5A	Cat5		Cat5A	Cat5		Cat5	Cat5A	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5
Warrington, Interchange	0700	0730	0800	0810	0840	0910		40	10		1610	1640	1710	1740	1810	1853	2053	2300
Stockton Heath, Victoria Square	0712	0742	0812	0822	0852	0922		52	22		1622	1652	1722	1752	1820	1903	2103	2310
Cobbs Estate, Dale Lane																1907	2107	2314
Grappenhall, Bradshaw Lane	0720	0750	0820	0830	0900	0930		00	30	mins	1630	1700	1730	1800	1828	1914	2114	2321
Thelwall, Pickering Arms	0724	0754	0824	0834	0904	0934	then	04	34	past	1634	1704	1734	1804	1832	1917	2117	2324
Statham, Star Lane	0729	0759	0829	0839	0909	0939	at	09	39	each	1639	1709	1739	1809	1837	1921	2121	2328
Lymm, Church	0733	0803	0833	0844	0914	0944		14	44	hour	1644	1714	1743	1813	1841	1926b	2126b	2332b
Warburton, Egerton Avenue	0743	0813	0843	0854		0954			54	until	1654		1753	1823	1851			
Partington, Manchester New Road					0928			28				1728						
Broadheath, Asda					0944			44				1744						
Dunham, Smithy Lane				0902		1002			02		1702							
Altrincham, Interchange				0912	0952	1012		52	12		1712	1752						

Sundays and public holidays (except Christmas and New Year period)

	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5	Cat5
Warrington, Interchange	0835	0915	0940	1040	1140	1254	1354	1454	1554	1654	1740
Stockton Heath, Victoria Square	0847	0927	0952	1052	1152	1306	1406	1506	1606	1706	1752
Grappenhall, Bradshaw Lane	0854	0934	0959	1059	1159	1313	1413	1513	1613	1713	1759
Thelwall, Pickering Arms	0857	0937	1003	1103	1203	1317	1417	1517	1617	1717	1802
Statham, Star Lane	0901	0941	1008	1108	1208	1322	1422	1522	1622	1722	1806
Lymm, Church	0905b	0945	1012	1112	1212	1326	1426	1526	1626	1726	1810
Warburton, Egerton Avenue		0952	1020	1120	1220	1334	1434	1534	1634	1734	1817
Dunham, Smithy Lane			1027	1127	1227	1341	1441	1541	1641	1741	
Altrincham, Interchange			1037	1137	1237	1351	1451	1551	1651	1751	

Bus Cat 5A does not run on Sundays or public holidays

For details of buses during Christmas and New Year, please phone 0161 244 1000

Buses Cat 5 and Cat 5A are provided partly with the financial support of Transport for Greater Manchester and Warrington Borough Council

b – Time at Lymm Cross

♿ – All bus Cat 5 and Cat 5A journeys are run using easy access buses. See inside front cover of this Bus Times leaflet for details

APPENDIX F – Traffic Survey Data

8044/LYMM HOTEL
OCTOBER 17
CAR PARK OCCUPANCY

SITE: 1 DATE: 31/10/2017

LOCATION: Lymn Hotel DAY: Tuesday
Occupancy at 07:00 31
Total Available Spaces 59

TIME	A - B	B - A	C - B	B - C	TOT OCC	TOT OCC %
07:00	0	0	1	1	31	53%
07:15	0	0	0	3	28	47%
07:30	0	0	0	7	21	36%
07:45	0	0	2	3	20	34%
08:00	0	0	0	4	16	27%
08:15	0	0	1	1	16	27%
08:30	0	0	0	3	13	22%
08:45	0	0	0	0	13	22%
09:00	0	0	1	0	14	24%
09:15	0	0	0	2	12	20%
09:30	0	1	2	0	13	22%
09:45	0	0	0	2	11	19%
10:00	0	0	1	5	7	12%
10:15	0	0	0	1	6	10%
10:30	0	0	1	0	7	12%
10:45	0	0	0	1	6	10%
11:00	0	0	0	0	6	10%
11:15	0	0	0	0	6	10%
11:30	0	0	0	0	6	10%
11:45	0	0	0	0	6	10%
12:00	0	0	1	0	7	12%
12:15	0	0	0	0	7	12%
12:30	0	0	1	0	8	14%
12:45	0	1	1	1	7	12%
13:00	0	0	0	0	7	12%
13:15	0	0	0	0	7	12%
13:30	0	0	0	0	7	12%
13:45	0	0	1	2	6	10%
14:00	0	0	3	0	9	15%
14:15	0	0	1	3	7	12%
14:30	0	1	2	3	5	8%
14:45	0	0	2	0	7	12%
15:00	0	0	0	1	6	10%
15:15	0	0	0	1	5	8%
15:30	0	0	0	0	5	8%
15:45	0	0	1	1	5	8%
16:00	0	0	1	1	5	8%
16:15	0	0	4	0	9	15%
16:30	0	0	2	1	10	17%
16:45	0	0	0	0	10	17%
17:00	0	0	2	2	10	17%
17:15	0	0	2	1	11	19%
17:30	0	0	5	3	13	22%
17:45	0	0	6	1	18	31%
18:00	0	0	5	3	20	34%
18:15	0	1	5	2	22	37%
18:30	0	0	3	0	25	42%
18:45	0	0	2	0	27	46%
P/TOT	0	4	59	59		

8044/LYMM HOTEL
OCTOBER 17
CAR PARK OCCUPANCY

SITE: 2 DATE: 31/10/2017

LOCATION: Lymn Hotel DAY: Tuesday
Occupancy at 07:00 6
Total Available Spaces 47

TIME	A - B	B - A	C - B	B - C	TOT OCC	TOT OCC %
07:00	0	0	0	0	6	13%
07:15	0	0	0	0	6	13%
07:30	0	0	1	0	7	15%
07:45	0	0	1	0	8	17%
08:00	0	1	1	0	8	17%
08:15	0	0	0	0	8	17%
08:30	0	0	0	0	8	17%
08:45	0	1	1	1	7	15%
09:00	0	0	1	1	7	15%
09:15	1	0	2	2	8	17%
09:30	1	1	0	1	7	15%
09:45	0	0	0	1	6	13%
10:00	1	0	1	0	8	17%
10:15	0	1	1	1	7	15%
10:30	0	0	0	0	7	15%
10:45	1	1	1	0	8	17%
11:00	0	0	2	1	9	19%
11:15	0	0	1	0	10	21%
11:30	0	0	0	1	9	19%
11:45	0	0	0	0	9	19%
12:00	1	0	0	0	10	21%
12:15	1	0	1	0	12	26%
12:30	0	0	0	0	12	26%
12:45	0	0	1	1	12	26%
13:00	0	0	0	1	11	23%
13:15	0	0	0	0	11	23%
13:30	0	0	0	0	11	23%
13:45	0	0	1	0	12	26%
14:00	0	0	0	3	9	19%
14:15	0	0	0	0	9	19%
14:30	0	1	0	0	8	17%
14:45	0	0	0	1	7	15%
15:00	0	0	0	1	6	13%
15:15	0	0	0	0	6	13%
15:30	0	0	0	0	6	13%
15:45	0	1	0	0	5	11%
16:00	0	0	0	0	5	11%
16:15	0	2	2	1	4	9%
16:30	0	0	0	0	4	9%
16:45	0	0	1	0	5	11%
17:00	0	1	1	0	5	11%
17:15	0	0	0	0	5	11%
17:30	0	0	0	0	5	11%
17:45	0	0	0	0	5	11%
18:00	0	0	3	1	7	15%
18:15	0	1	1	0	7	15%
18:30	0	0	1	0	8	17%
18:45	0	0	0	0	8	17%
P/TOT	6	11	25	18		

APPENDIX G – TRICS Outputs

Calculation Reference: AUDIT-754101-180703-0704

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED

VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	EX	ESSEX	2 days
	HC	HAMPSHIRE	1 days
	OX	OXFORDSHIRE	1 days
03	**SOUTH WEST**		
	DC	DORSET	1 days
	DV	DEVON	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	2 days
	NF	NORFOLK	1 days
	SF	SUFFOLK	2 days
06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	RI	EAST RIDING OF YORKSHIRE	1 days
09	**NORTH**		
	CB	CUMBRIA	2 days
	TV	TEES VALLEY	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 6 to 94 (units:)
Range Selected by User: 6 to 215 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 26/09/17

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

Selected survey days:

Monday	3 days
Tuesday	5 days
Wednesday	4 days
Thursday	3 days
Friday	2 days

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

Selected survey types:

Manual count	17 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	6
Suburban Area (PPS6 Out of Centre)	9
Edge of Town	2

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

Selected Location Sub Categories:

Residential Zone	12
Built-Up Zone	2
No Sub Category	3

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

Secondary Filtering selection:

Use Class:

C3	17 days

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

Population within 1 mile:

1,001 to 5,000	2 days
10,001 to 15,000	5 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	6 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	5 days
100,001 to 125,000	1 days
125,001 to 250,000	6 days
250,001 to 500,000	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	13 days

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

Travel Plan:

No	17 days

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

PTAL Rating:

No PTAL Present	17 days

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

LIST OF SITES relevant to selection parameters

1 **CA-03-C-02** **BLOCK OF FLATS** **CAMBRIDGESHIRE**
WESTFIELD ROAD
NETHERTON
PETERBOROUGH
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 44
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

2 **CA-03-C-03** **BLOCKS OF FLATS** **CAMBRIDGESHIRE**
CROMWELL ROAD

CAMBRIDGE
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 82
Survey date: MONDAY *18/09/17* *Survey Type: MANUAL*

3 **CB-03-C-02** **BLOCK OF FLATS** **CUMBRIA**
BRIDGE LANE

PENRITH
Edge of Town
No Sub Category
Total Number of dwellings: 35
Survey date: WEDNESDAY *11/06/14* *Survey Type: MANUAL*

4 **CB-03-C-03** **FLATS & BUNGALOWS** **CUMBRIA**
LOUND STREET

KENDAL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 33
Survey date: MONDAY *09/06/14* *Survey Type: MANUAL*

5 **DC-03-C-02** **FLATS IN BLOCKS** **DORSET**
PALM COURT
SPA ROAD
WEYMOUTH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 14
Survey date: FRIDAY *28/03/14* *Survey Type: MANUAL*

6 **DV-03-C-01** **BLOCK OF FLATS** **DEVON**
BONHAY ROAD

EXETER
Edge of Town Centre
Residential Zone
Total Number of dwellings: 27
Survey date: MONDAY *10/07/17* *Survey Type: MANUAL*

7 **ES-03-C-01** **BLOCK OF FLATS** **EAST SUSSEX**
OLD SHOREHAM RD
HOVE
BRIGHTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 71
Survey date: TUESDAY *26/09/17* *Survey Type: MANUAL*

8 **EX-03-C-01** **FLATS** **ESSEX**
WESTCLIFF PARADE
WESTCLIFF
SOUTHEND-ON-SEA
Edge of Town Centre
Residential Zone
Total Number of dwellings: 6
Survey date: TUESDAY *22/10/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **EX-03-C-02** **BLOCK OF FLATS** **ESSEX**
WESTCLIFF PARADE
WESTCLIFF
SOUTHEND-ON-SEA
Edge of Town Centre
Residential Zone
Total Number of dwellings: 94
Survey date: TUESDAY *22/10/13* *Survey Type: MANUAL*

10 **HC-03-C-02** **FLATS** **HAMPSHIRE**
WORTING ROAD

BASINGSTOKE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 16
Survey date: THURSDAY *21/10/10* *Survey Type: MANUAL*

11 **NF-03-C-01** **BLOCKS OF FLATS** **NORFOLK**
PAGE STAIR LANE

KING'S LYNN
Edge of Town Centre
Built-Up Zone
Total Number of dwellings: 51
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

12 **OX-03-C-01** **BLOCK OF FLATS** **OXFORDSHIRE**
OXFORD ROAD
COWLEY
OXFORD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 14
Survey date: WEDNESDAY *20/10/10* *Survey Type: MANUAL*

13 **RI-03-C-01** **FLATS** **EAST RIDING OF YORKSHIRE**
465 PRIORY ROAD

HULL
Edge of Town
Residential Zone
Total Number of dwellings: 20
Survey date: TUESDAY *13/05/14* *Survey Type: MANUAL*

14 **SF-03-C-01** **BLOCKS OF FLATS** **SUFFOLK**
STATION HILL

BURY ST EDMUNDS
Edge of Town Centre
Built-Up Zone
Total Number of dwellings: 85
Survey date: THURSDAY *18/12/14* *Survey Type: MANUAL*

15 **SF-03-C-03** **BLOCKS OF FLATS** **SUFFOLK**
TOLLGATE LANE

BURY ST EDMUNDS
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 30
Survey date: WEDNESDAY *03/12/14* *Survey Type: MANUAL*

16 **TV-03-C-02** **FLATS** **TEES VALLEY**
ACKLAM ROAD
LINTHORPE
MIDDLESBROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 85
Survey date: WEDNESDAY *29/06/11* *Survey Type: MANUAL*

17 **WM-03-C-04** **BLOCKS OF FLATS** **WEST MIDLANDS**
GILLQUART WAY
PARKSIDE
COVENTRY
Edge of Town Centre
Residential Zone
Total Number of dwellings: 55
Survey date: FRIDAY *11/11/16* *Survey Type: MANUAL*

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
DB-03-C-01	As requested by WCC Highways
NT-03-C-01	As requested by WCC Highways
NT-03-C-02	As requested by WCC Highways

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	45	0.042	17	45	0.127	17	45	0.169
08:00 - 09:00	17	45	0.060	**17**	**45**	**0.223**	17	45	0.283
09:00 - 10:00	17	45	0.087	17	45	0.125	17	45	0.212
10:00 - 11:00	17	45	0.091	17	45	0.105	17	45	0.196
11:00 - 12:00	17	45	0.093	17	45	0.089	17	45	0.182
12:00 - 13:00	17	45	0.108	17	45	0.079	17	45	0.187
13:00 - 14:00	17	45	0.089	17	45	0.115	17	45	0.204
14:00 - 15:00	17	45	0.109	17	45	0.114	17	45	0.223
15:00 - 16:00	17	45	0.109	17	45	0.087	17	45	0.196
16:00 - 17:00	17	45	0.125	17	45	0.093	17	45	0.218
17:00 - 18:00	17	45	0.228	17	45	0.108	17	45	0.336
18:00 - 19:00	17	45	0.160	17	45	0.088	17	45	0.248
19:00 - 20:00	**2**	**15**	**0.333**	2	15	0.200	**2**	**15**	**0.533**
20:00 - 21:00	2	15	0.100	2	15	0.033	2	15	0.133
21:00 - 22:00	2	15	0.133	2	15	0.100	2	15	0.233
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.867			1.686			3.553

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

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

Parameter summary

Trip rate parameter range selected:	6 - 94 (units:)
Survey date date range:	01/01/10 - 26/09/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	3

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

Calculation Reference: AUDIT-754101-170928-0924

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION
Category : D - NURSERY

VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	KC	KENT	1 days
05	**EAST MIDLANDS**		
	LE	LEICESTERSHIRE	1 days
09	**NORTH**		
	TW	TYNE & WEAR	1 days

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

Secondary Filtering selection:

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

Parameter:	Number of pupils
Actual Range:	80 to 124 (units:)
Range Selected by User:	60 to 240 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/09 to 10/12/14

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

Selected survey days:

Wednesday	2 days
Thursday	1 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	1

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

Selected Location Sub Categories:

Residential Zone	3

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

Secondary Filtering selection:

Use Class:

D1	3 days

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

Population within 1 mile:

10,001 to 15,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

100,001 to 125,000	1 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	2 days

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

Travel Plan:

No	3 days

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

PTAL Rating:

No PTAL Present	3 days

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

LIST OF SITES relevant to selection parameters

1 **KC-04-D-01** **NURSERY** **KENT**
PEMBURY ROAD

TONBRIDGE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 124
Survey date: WEDNESDAY *09/12/09* *Survey Type: MANUAL*

2 **LE-04-D-01** **NURSERY** **LEICESTERSHIRE**
WIGSTON ROAD
OADBY
LEICESTER
Edge of Town
Residential Zone
Total Number of pupils: 80
Survey date: THURSDAY *30/10/14* *Survey Type: MANUAL*

3 **TW-04-D-02** **NURSERY** **TYNE & WEAR**
ETTRICK GROVE
HIGH BARNES
SUNDERLAND
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 110
Survey date: WEDNESDAY *28/11/12* *Survey Type: MANUAL*

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

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

VEHICLES

Calculation factor: 1

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	105	0.111	3	105	0.064	3	105	0.175
08:00 - 09:00	**3**	**105**	**0.204**	**3**	**105**	**0.188**	**3**	**105**	**0.392**
09:00 - 10:00	3	105	0.076	3	105	0.073	3	105	0.149
10:00 - 11:00	3	105	0.016	3	105	0.010	3	105	0.026
11:00 - 12:00	3	105	0.051	3	105	0.045	3	105	0.096
12:00 - 13:00	3	105	0.041	3	105	0.048	3	105	0.089
13:00 - 14:00	3	105	0.067	3	105	0.080	3	105	0.147
14:00 - 15:00	3	105	0.054	3	105	0.048	3	105	0.102
15:00 - 16:00	3	105	0.080	3	105	0.092	3	105	0.172
16:00 - 17:00	3	105	0.118	3	105	0.124	3	105	0.242
17:00 - 18:00	3	105	0.121	3	105	0.143	3	105	0.264
18:00 - 19:00	3	105	0.013	3	105	0.038	3	105	0.051
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.952			0.953			1.905

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

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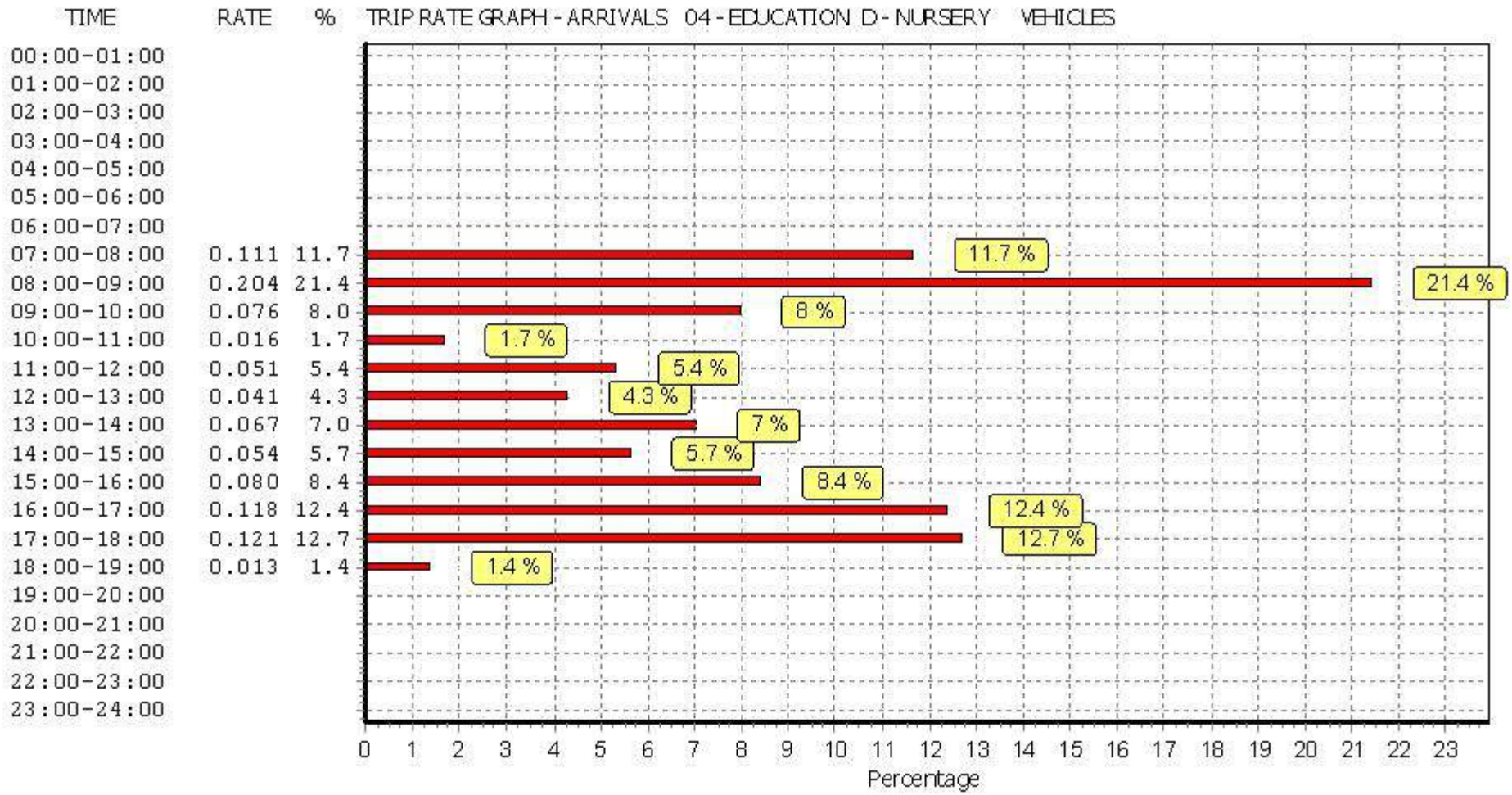
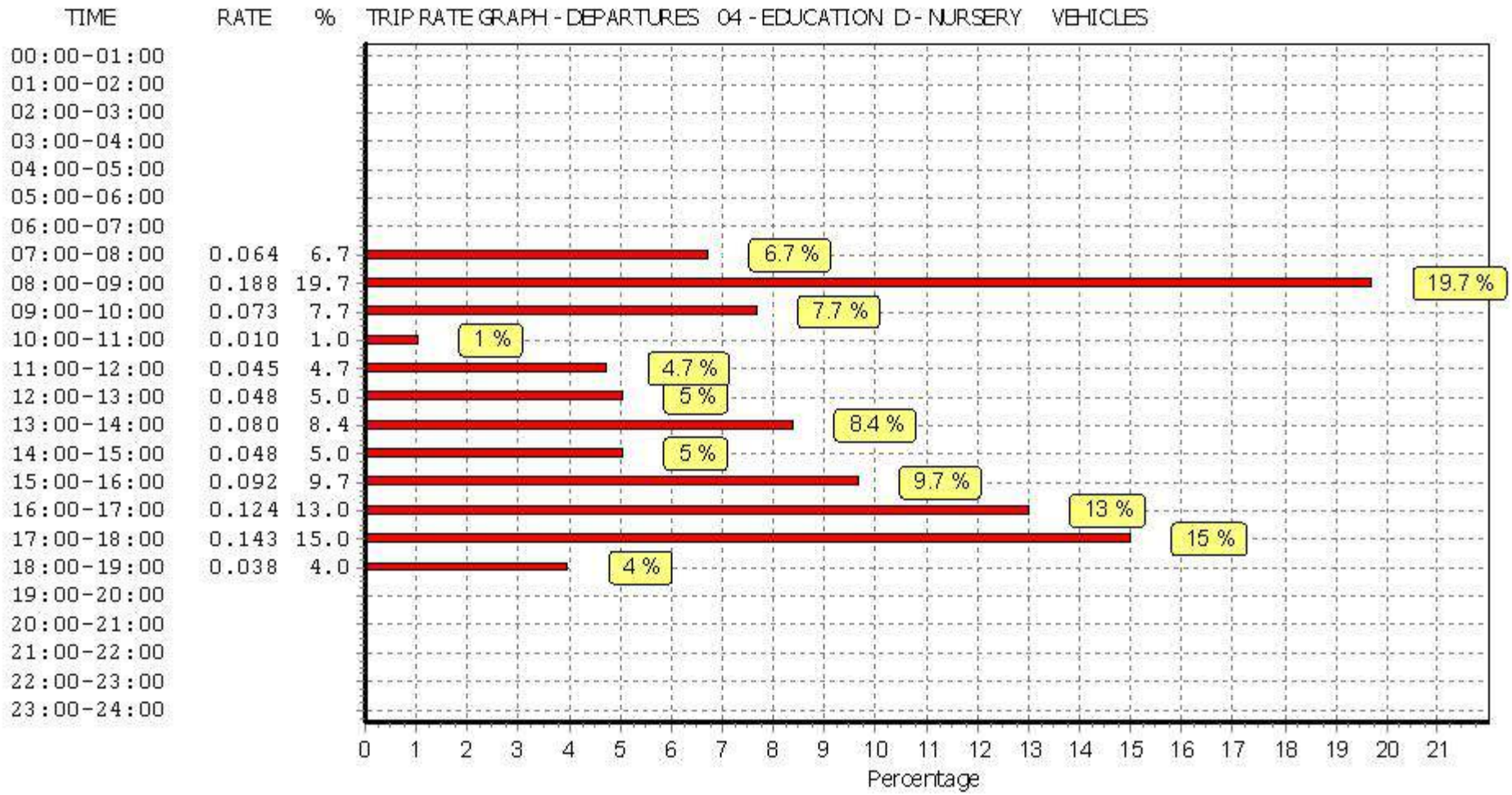
Parameter summary

Trip rate parameter range selected:	80 - 124 (units:)
Survey date date range:	01/01/09 - 10/12/14
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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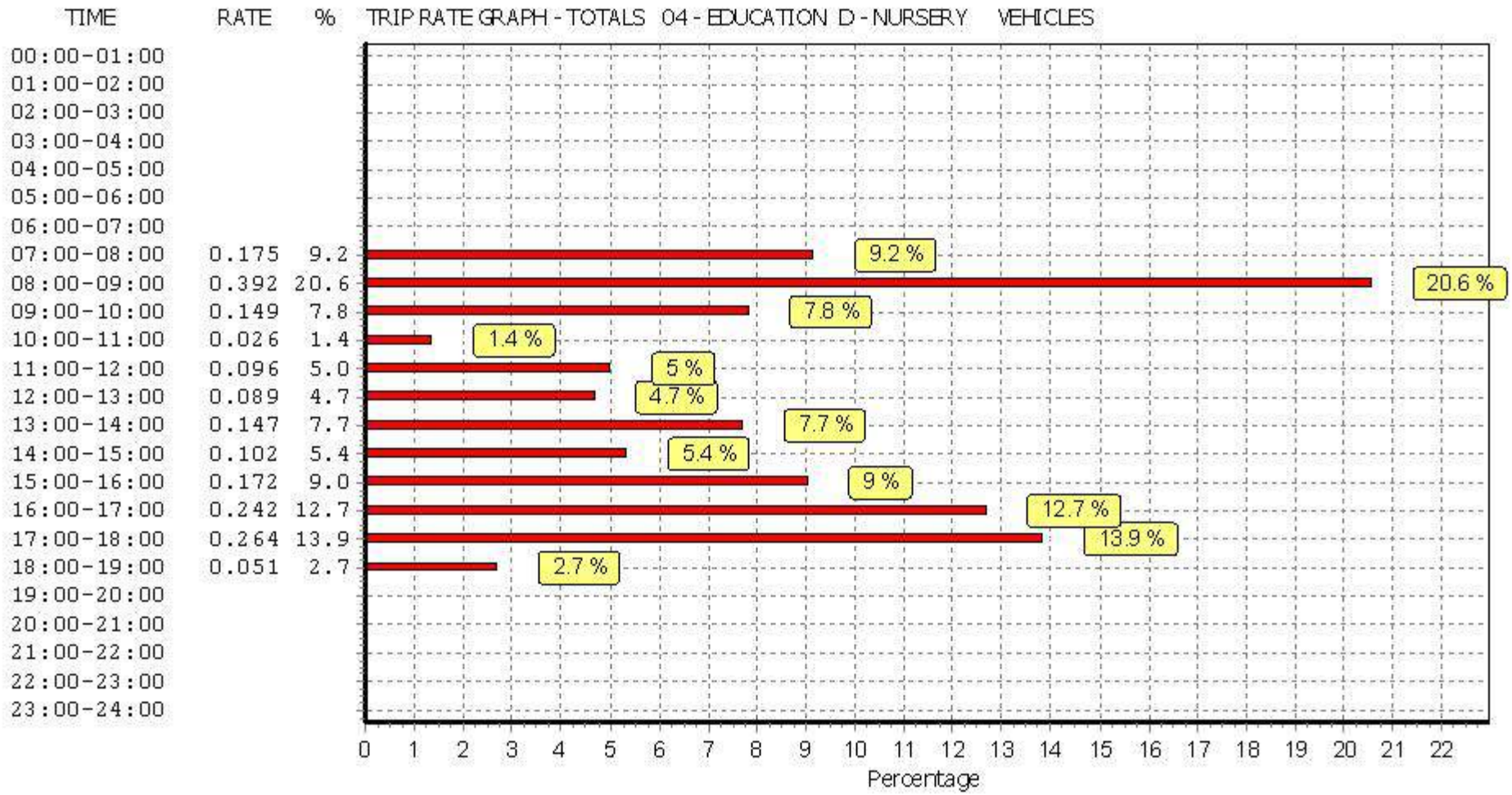

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TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY

TAXIS

Calculation factor: 1

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	**3**	**105**	**0.003**	**3**	**105**	**0.003**	**3**	**105**	**0.006**
08:00 - 09:00	3	105	0.000	3	105	0.000	3	105	0.000
09:00 - 10:00	3	105	0.000	3	105	0.000	3	105	0.000
10:00 - 11:00	3	105	0.003	3	105	0.003	3	105	0.006
11:00 - 12:00	3	105	0.000	3	105	0.000	3	105	0.000
12:00 - 13:00	3	105	0.000	3	105	0.000	3	105	0.000
13:00 - 14:00	3	105	0.000	3	105	0.000	3	105	0.000
14:00 - 15:00	3	105	0.000	3	105	0.000	3	105	0.000
15:00 - 16:00	3	105	0.000	3	105	0.000	3	105	0.000
16:00 - 17:00	3	105	0.000	3	105	0.000	3	105	0.000
17:00 - 18:00	3	105	0.000	3	105	0.000	3	105	0.000
18:00 - 19:00	3	105	0.000	3	105	0.000	3	105	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.006			0.012

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

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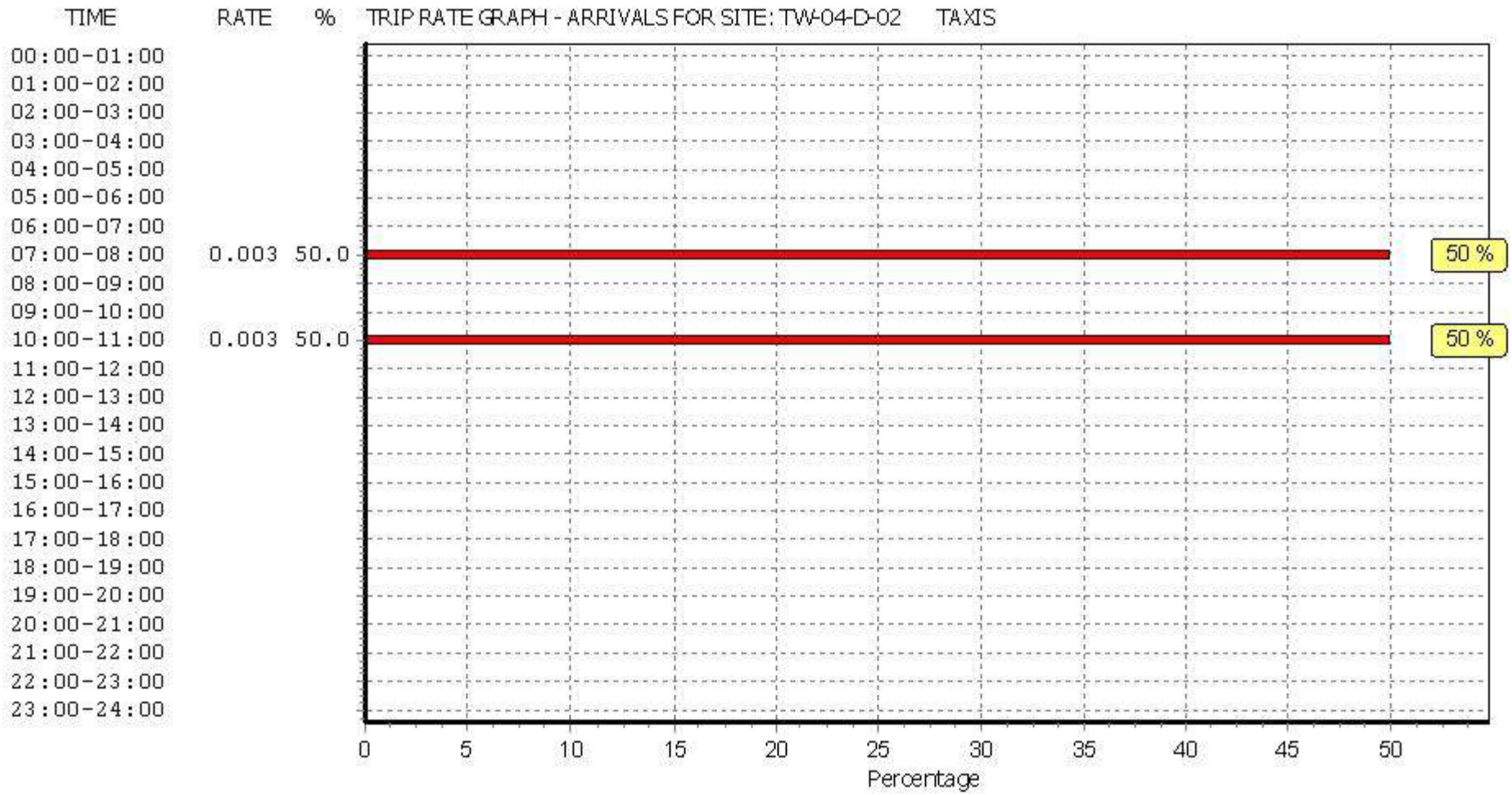
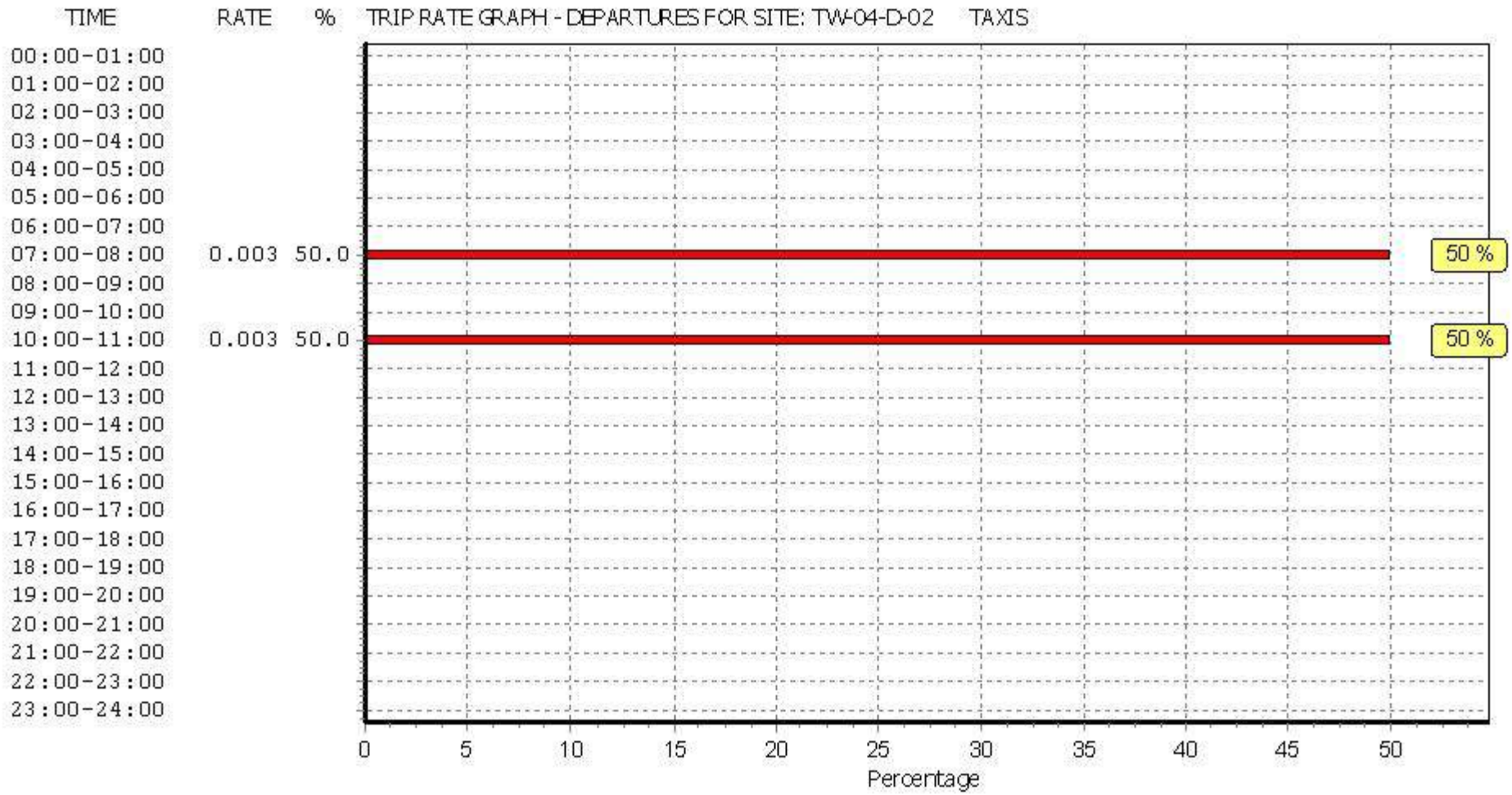
Parameter summary

Trip rate parameter range selected:	80 - 124 (units:)
Survey date date range:	01/01/09 - 10/12/14
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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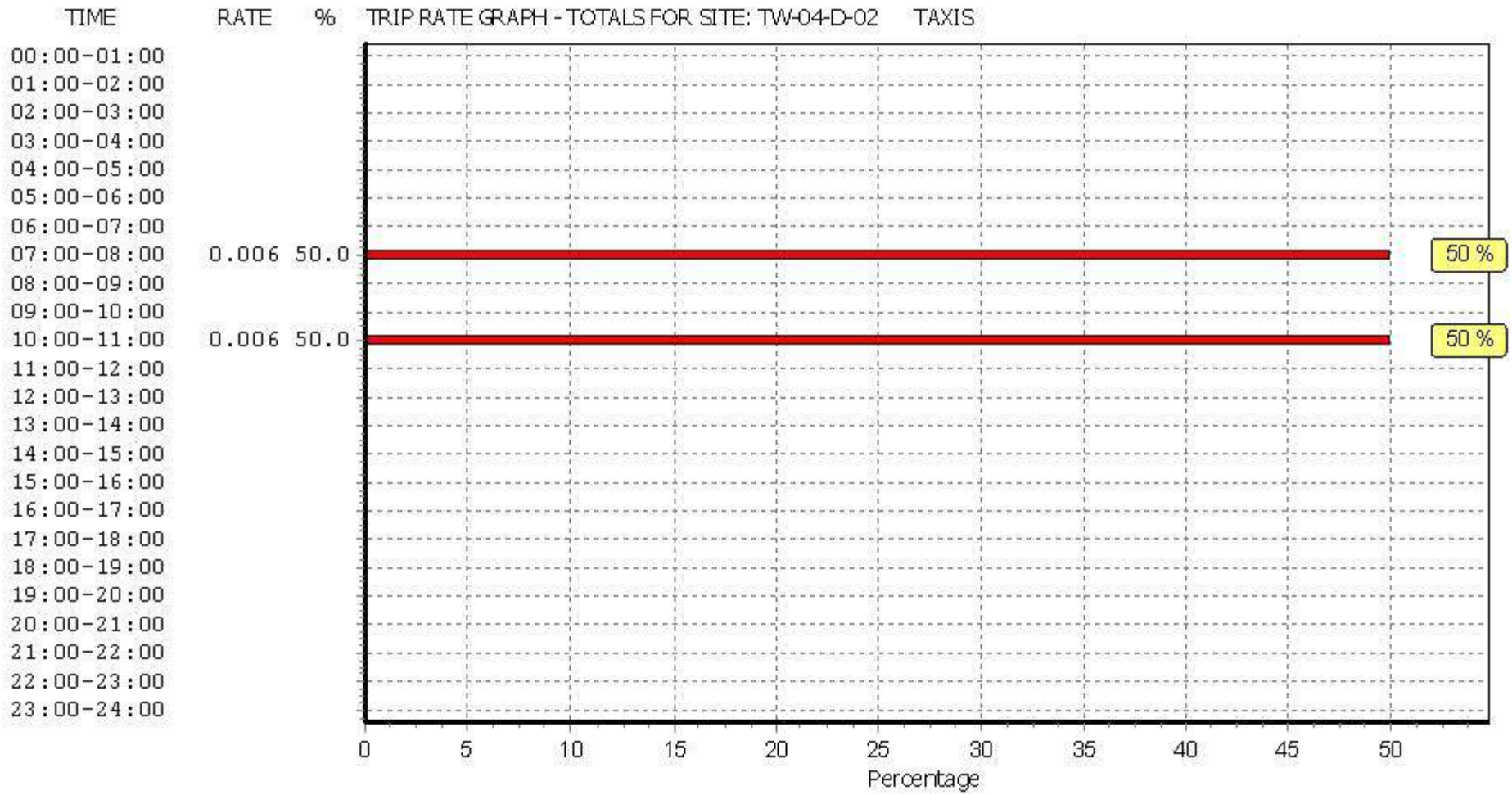

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TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY

OGVS

Calculation factor: 1

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	105	0.000	3	105	0.000	3	105	0.000
08:00 - 09:00	**3**	**105**	**0.003**	3	105	0.000	3	105	0.003
09:00 - 10:00	3	105	0.003	**3**	**105**	**0.006**	**3**	**105**	**0.009**
10:00 - 11:00	3	105	0.000	3	105	0.000	3	105	0.000
11:00 - 12:00	3	105	0.000	3	105	0.000	3	105	0.000
12:00 - 13:00	3	105	0.000	3	105	0.000	3	105	0.000
13:00 - 14:00	3	105	0.000	3	105	0.000	3	105	0.000
14:00 - 15:00	3	105	0.000	3	105	0.000	3	105	0.000
15:00 - 16:00	3	105	0.000	3	105	0.000	3	105	0.000
16:00 - 17:00	3	105	0.000	3	105	0.000	3	105	0.000
17:00 - 18:00	3	105	0.000	3	105	0.000	3	105	0.000
18:00 - 19:00	3	105	0.000	3	105	0.000	3	105	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.006			0.012

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

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Parameter summary

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Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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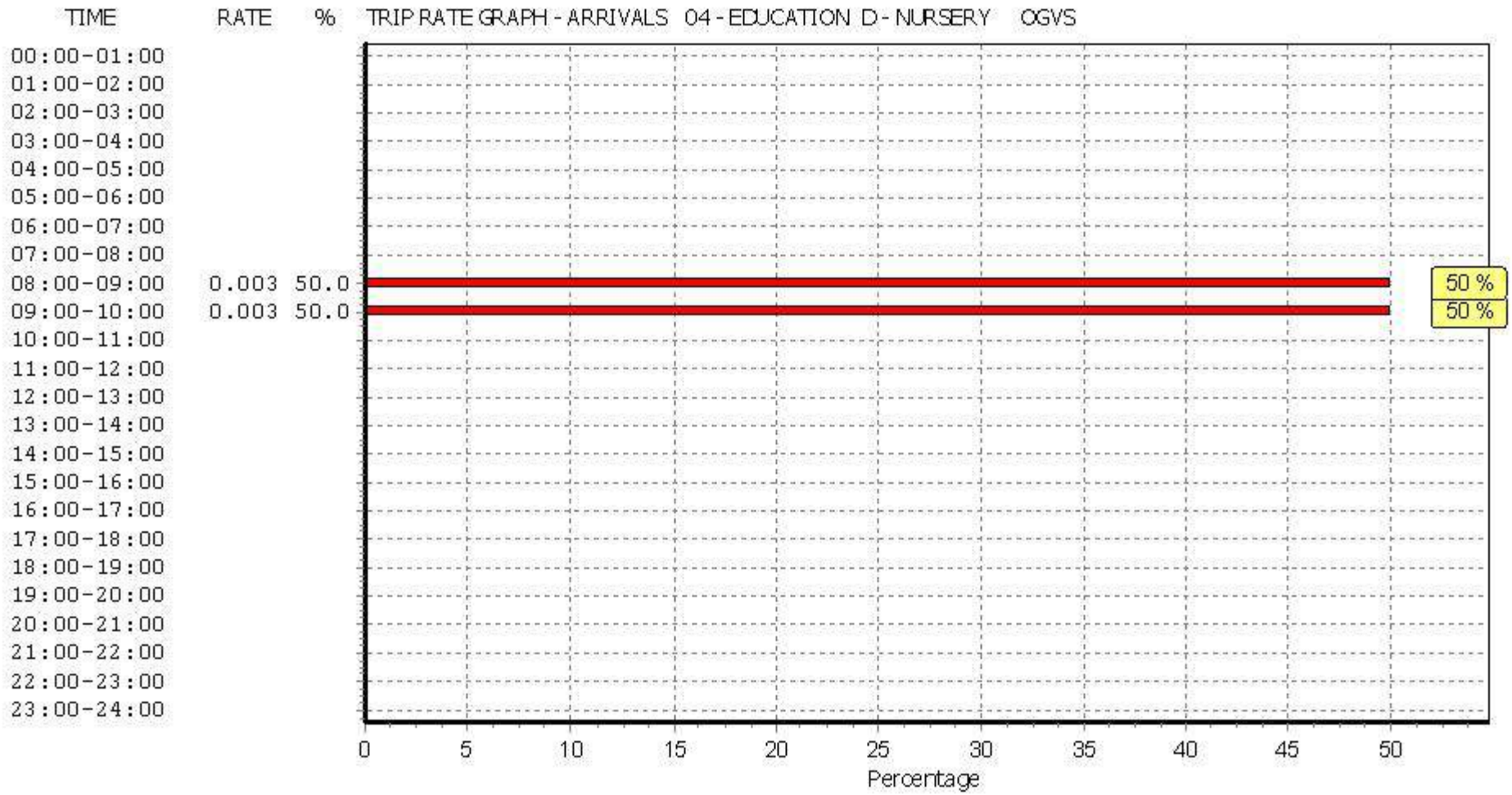

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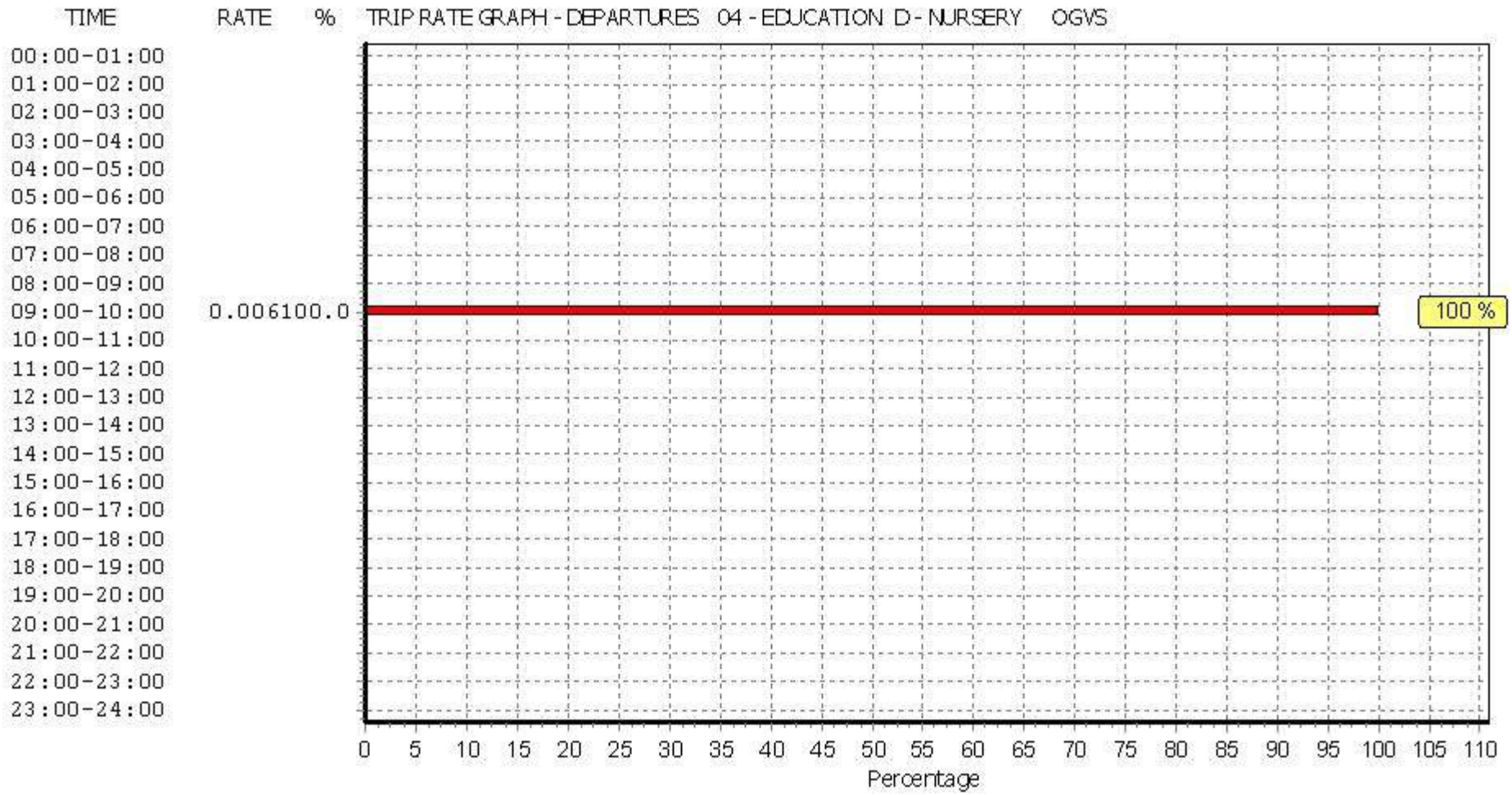

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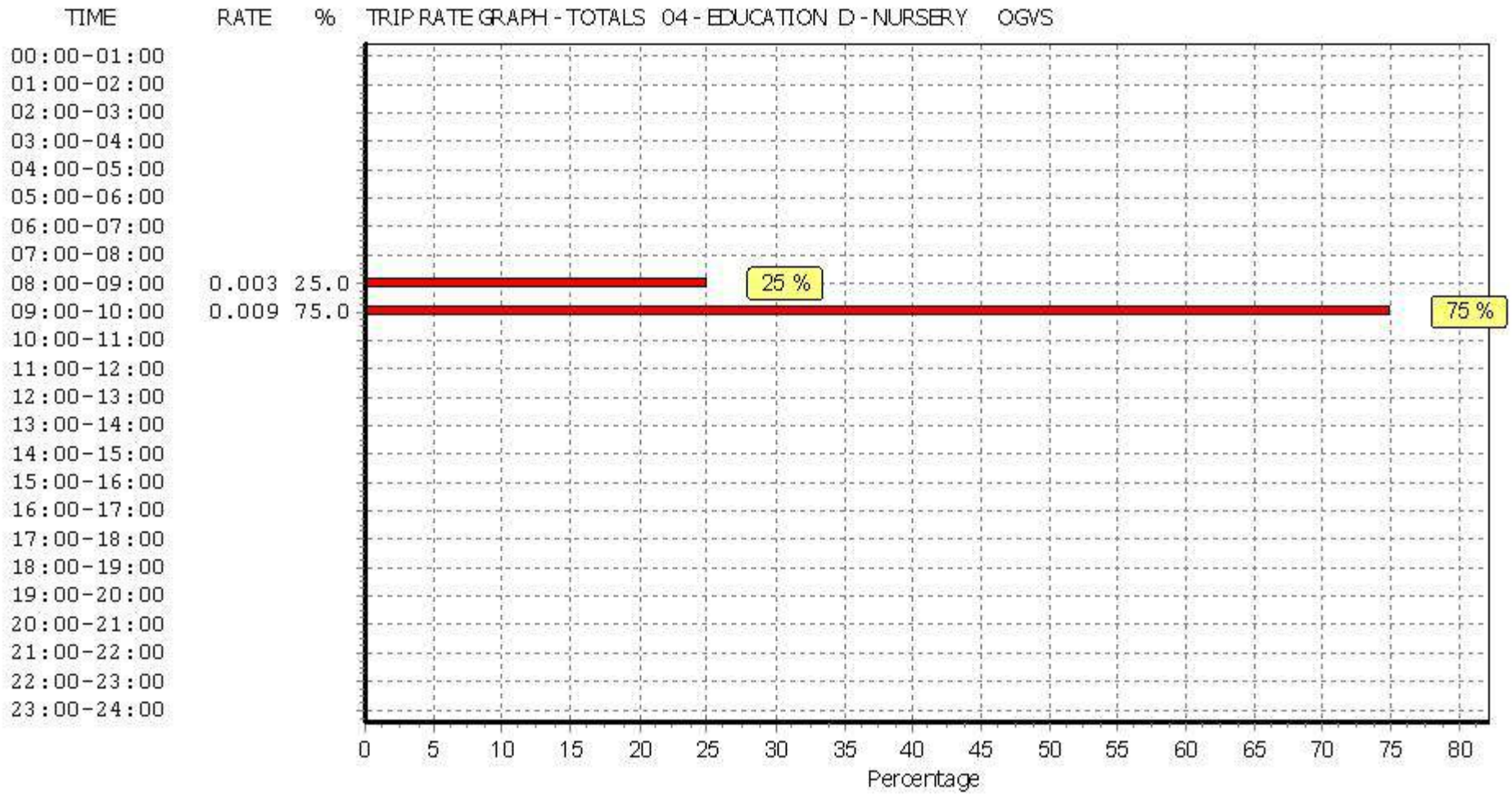

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TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY

PSVS

Calculation factor: 1

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	105	0.000	3	105	0.000	3	105	0.000
08:00 - 09:00	**3**	**105**	**0.003**	**3**	**105**	**0.003**	**3**	**105**	**0.006**
09:00 - 10:00	3	105	0.000	3	105	0.000	3	105	0.000
10:00 - 11:00	3	105	0.000	3	105	0.000	3	105	0.000
11:00 - 12:00	3	105	0.000	3	105	0.000	3	105	0.000
12:00 - 13:00	3	105	0.000	3	105	0.000	3	105	0.000
13:00 - 14:00	3	105	0.000	3	105	0.000	3	105	0.000
14:00 - 15:00	3	105	0.000	3	105	0.000	3	105	0.000
15:00 - 16:00	3	105	0.000	3	105	0.000	3	105	0.000
16:00 - 17:00	3	105	0.000	3	105	0.000	3	105	0.000
17:00 - 18:00	3	105	0.000	3	105	0.000	3	105	0.000
18:00 - 19:00	3	105	0.000	3	105	0.000	3	105	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.003			0.003			0.006

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Parameter summary

Trip rate parameter range selected:	80 - 124 (units:)
Survey date date range:	01/01/09 - 10/12/14
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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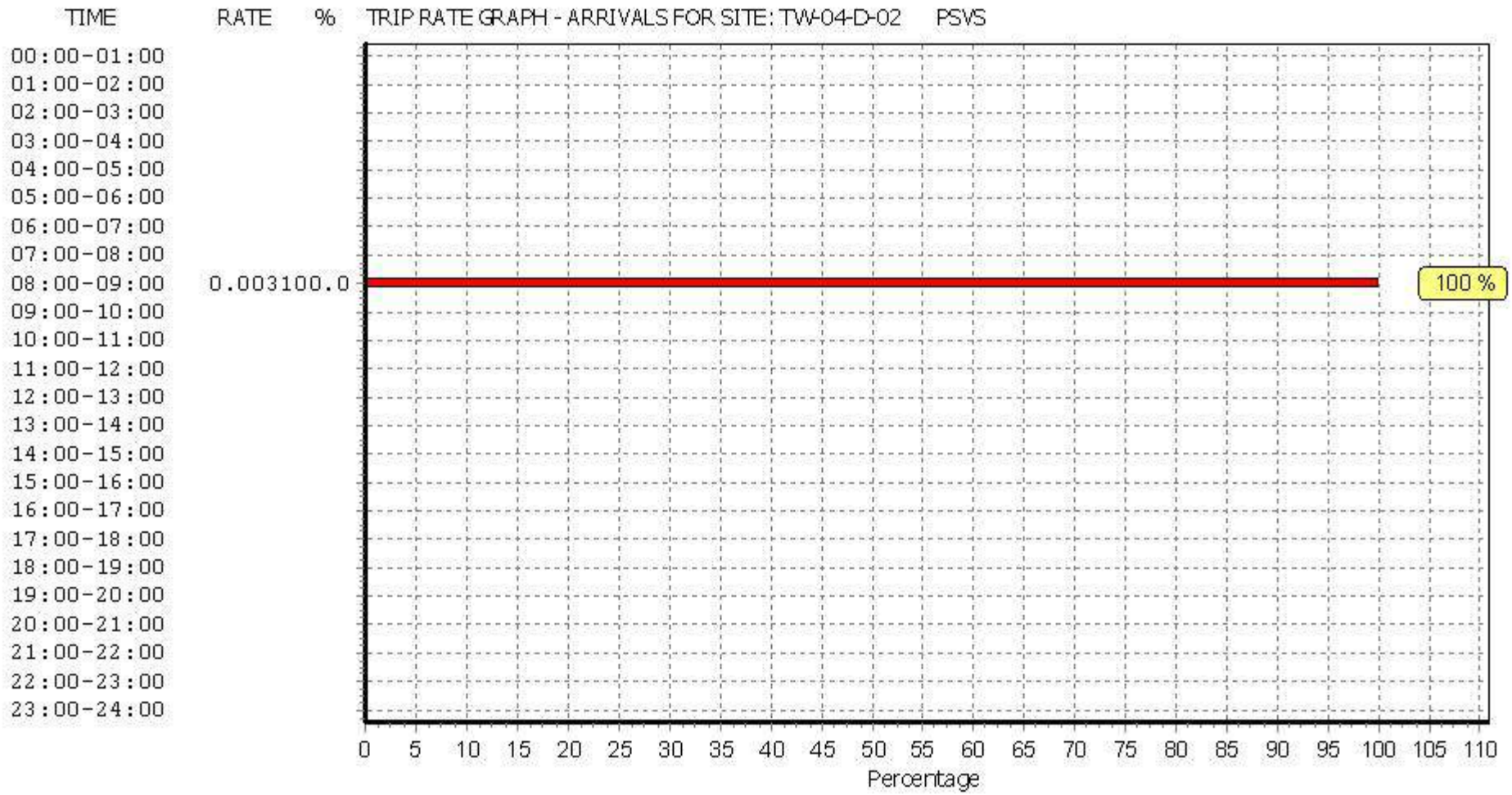

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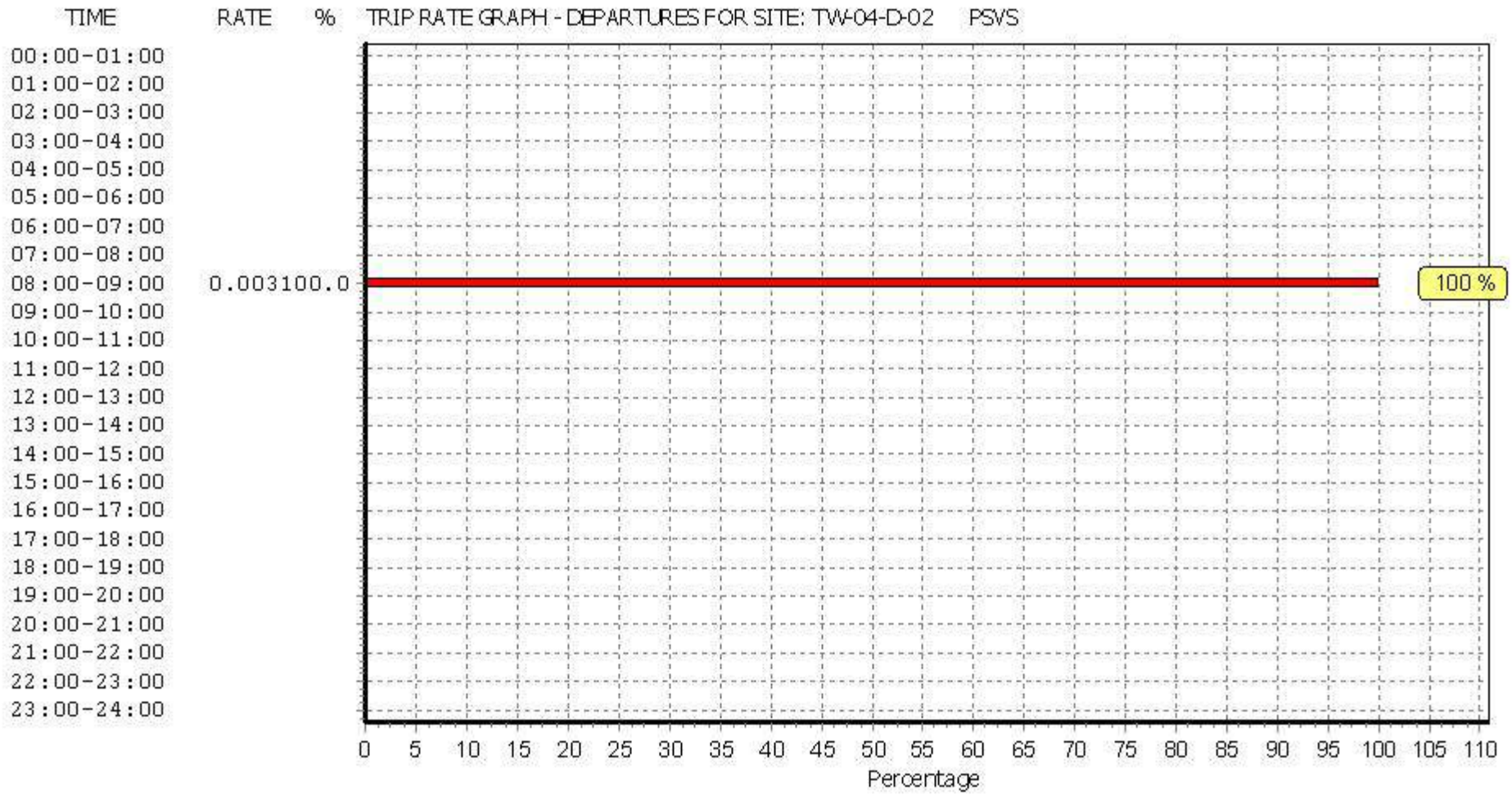

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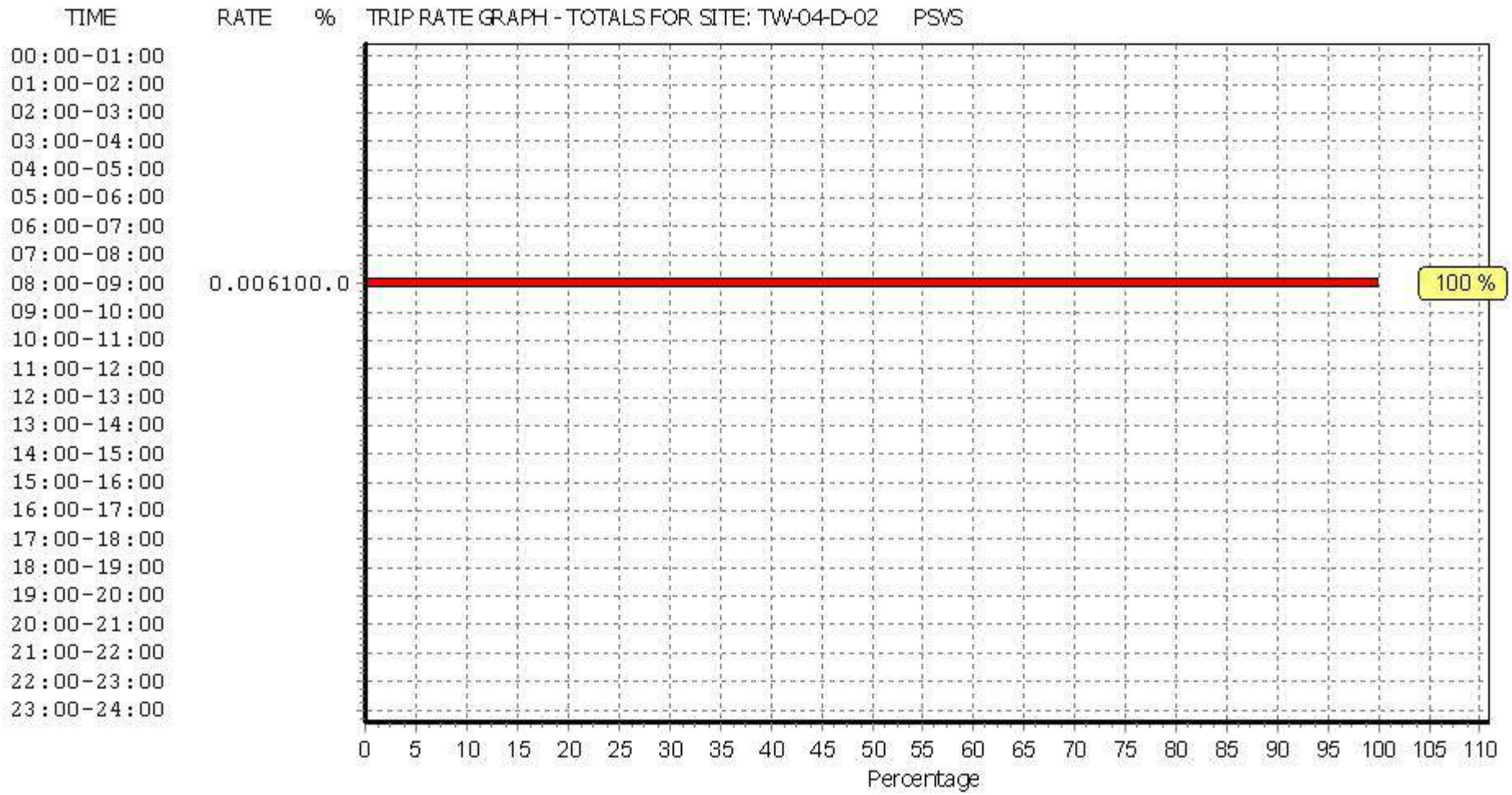

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TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY

CYCLISTS

Calculation factor: 1

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	105	0.000	3	105	0.000	3	105	0.000
08:00 - 09:00	3	105	0.000	3	105	0.000	3	105	0.000
09:00 - 10:00	3	105	0.000	3	105	0.000	3	105	0.000
10:00 - 11:00	3	105	0.000	3	105	0.000	3	105	0.000
11:00 - 12:00	3	105	0.000	3	105	0.000	3	105	0.000
12:00 - 13:00	3	105	0.000	3	105	0.000	3	105	0.000
13:00 - 14:00	3	105	0.000	3	105	0.000	3	105	0.000
14:00 - 15:00	3	105	0.000	3	105	0.000	3	105	0.000
15:00 - 16:00	3	105	0.000	3	105	0.000	3	105	0.000
16:00 - 17:00	3	105	0.000	3	105	0.000	3	105	0.000
17:00 - 18:00	3	105	0.000	3	105	0.000	3	105	0.000
18:00 - 19:00	3	105	0.000	3	105	0.000	3	105	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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

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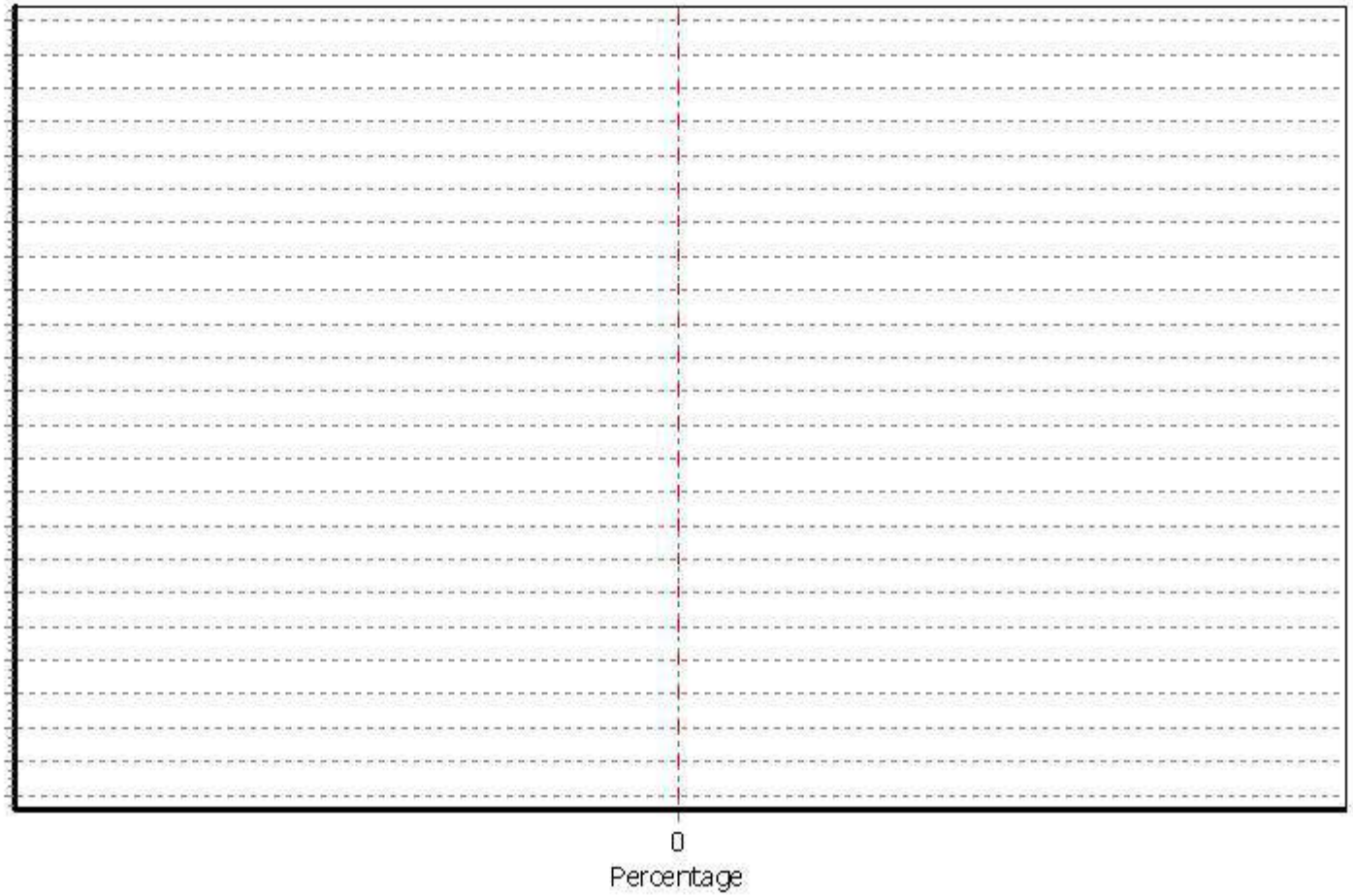
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE GRAPH - ARRIVALS 04 - EDUCATION D - NURSERY CYCLISTS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00		
08:00-09:00		
09:00-10:00		
10:00-11:00		
11:00-12:00		
12:00-13:00		
13:00-14:00		
14:00-15:00		
15:00-16:00		
16:00-17:00		
17:00-18:00		
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE GRAPH - DEPARTURES 04 - EDUCATION D - NURSERY CYCLISTS

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00		
08:00-09:00		
09:00-10:00		
10:00-11:00		
11:00-12:00		
12:00-13:00		
13:00-14:00		
14:00-15:00		
15:00-16:00		
16:00-17:00		
17:00-18:00		
18:00-19:00		
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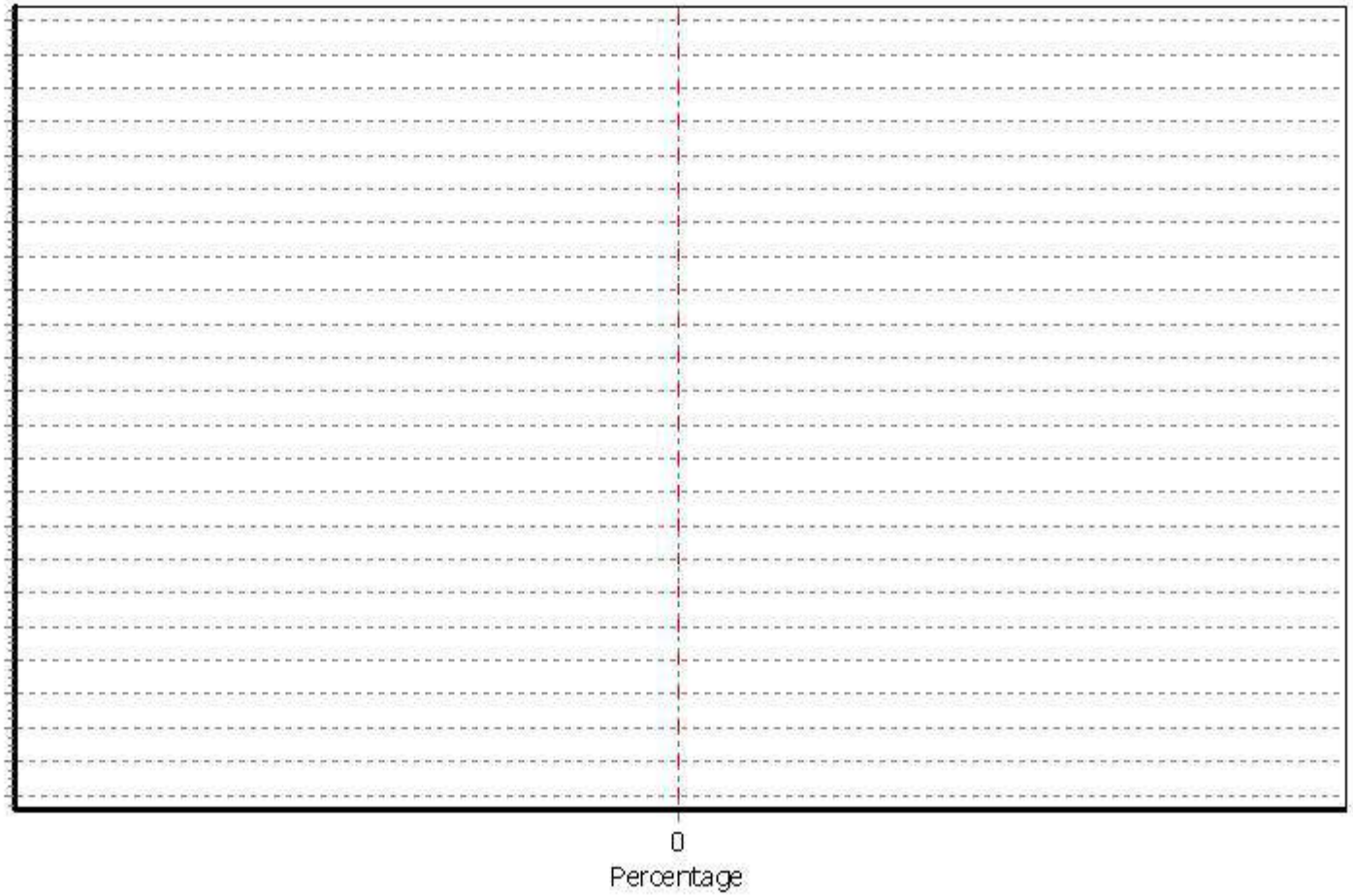
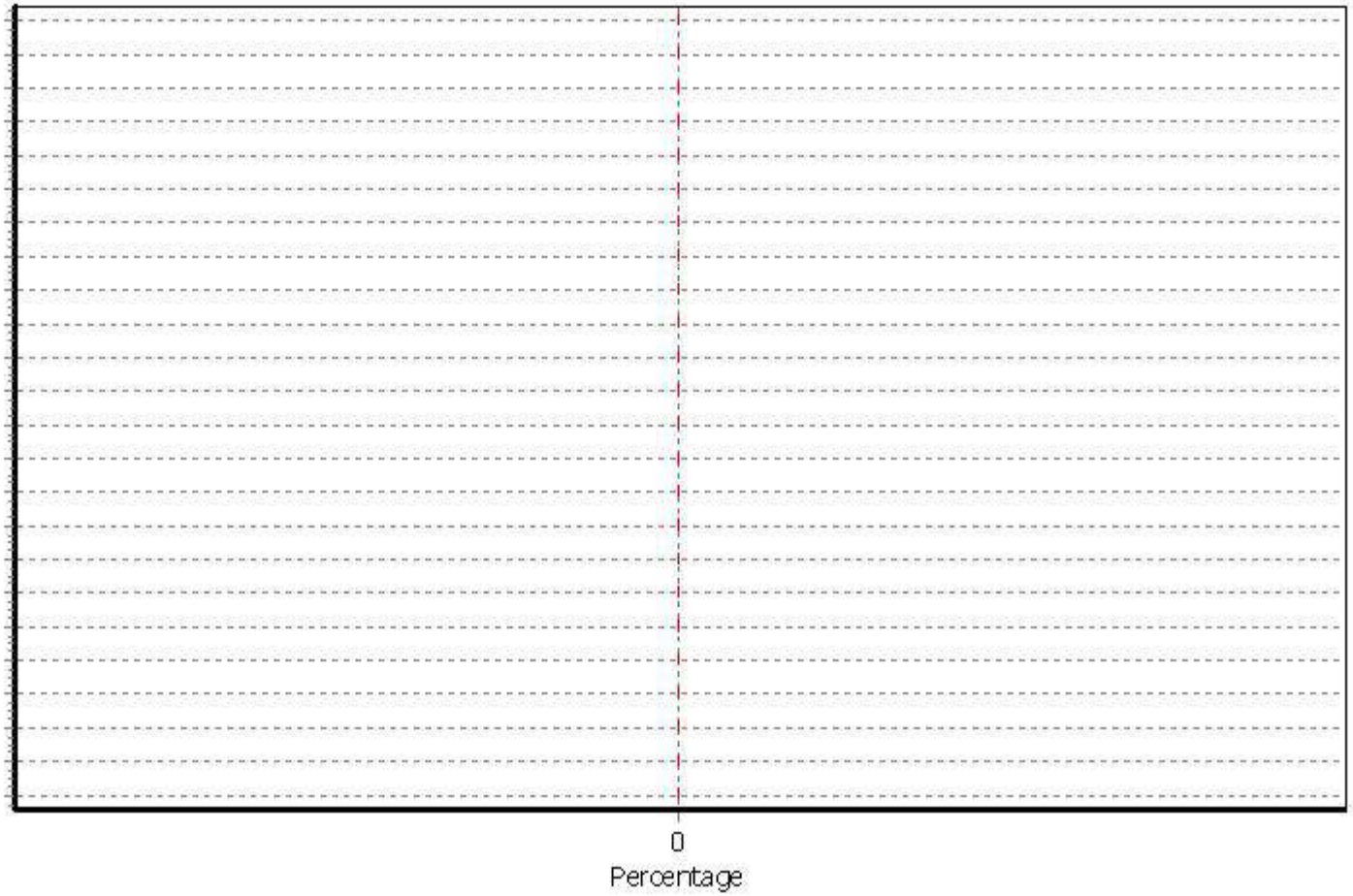
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TIME	RATE	%
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00		
08:00-09:00		
09:00-10:00		
10:00-11:00		
11:00-12:00		
12:00-13:00		
13:00-14:00		
14:00-15:00		
15:00-16:00		
16:00-17:00		
17:00-18:00		
18:00-19:00		
19:00-20:00		
20:00-21:00		
21:00-22:00		
22:00-23:00		
23:00-24:00		

TRIP RATE GRAPH - TOTALS 04 - EDUCATION D - NURSERY CYCLISTS



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Calculation Reference: AUDIT-754101-171101-1120

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : F - CARE HOME (ELDERLY RESIDENTIAL)

VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	WG	WOKINGHAM	1 days
05	**EAST MIDLANDS**		
	DS	DERBYSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	1 days

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

Secondary Filtering selection:

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

Parameter: Number of residents
Actual Range: 58 to 70 (units:)
Range Selected by User: 36 to 144 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/09 to 16/10/16

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

Selected survey days:
Tuesday 3 days

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

Selected survey types:
Manual count 3 days
Directional ATC Count 0 days

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

Selected Locations:
Suburban Area (PPS6 Out of Centre) 3

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

Selected Location Sub Categories:
Residential Zone 3

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

Secondary Filtering selection:

Use Class:
C2 3 days

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

20,001 to 25,000	2 days
25,001 to 50,000	1 days

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

Population within 5 miles:

125,001 to 250,000	1 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

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

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

Travel Plan:

No	3 days

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

PTAL Rating:

No PTAL Present	3 days

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

LIST OF SITES relevant to selection parameters

1 **DS-05-F-01** **NURSING HOME** **DERBYSHIRE**
29 VILLAGE STREET

DERBY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of residents: 70
Survey date: TUESDAY *21/10/14* *Survey Type: MANUAL*

2 **WG-05-F-01** **NURSING HOME** **WOKINGHAM**
BARKHAM ROAD

WOKINGHAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of residents: 58
Survey date: TUESDAY *20/11/12* *Survey Type: MANUAL*

3 **WY-05-F-01** **NURSING HOME** **WEST YORKSHIRE**
CLIFF ROAD
HYDE PARK
LEEDS
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of residents: 58
Survey date: TUESDAY *15/06/10* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

VEHICLES

Calculation factor: 1 RESIDE

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	62	0.091	3	62	0.043	3	62	0.134
08:00 - 09:00	**3**	**62**	**0.113**	3	62	0.065	**3**	**62**	**0.178**
09:00 - 10:00	3	62	0.054	3	62	0.032	3	62	0.086
10:00 - 11:00	3	62	0.043	3	62	0.016	3	62	0.059
11:00 - 12:00	3	62	0.048	3	62	0.054	3	62	0.102
12:00 - 13:00	3	62	0.048	3	62	0.027	3	62	0.075
13:00 - 14:00	3	62	0.054	3	62	0.065	3	62	0.119
14:00 - 15:00	3	62	0.054	3	62	0.059	3	62	0.113
15:00 - 16:00	3	62	0.038	**3**	**62**	**0.097**	3	62	0.135
16:00 - 17:00	3	62	0.043	3	62	0.048	3	62	0.091
17:00 - 18:00	3	62	0.038	3	62	0.086	3	62	0.124
18:00 - 19:00	3	62	0.032	3	62	0.038	3	62	0.070
19:00 - 20:00	3	62	0.075	3	62	0.043	3	62	0.118
20:00 - 21:00	3	62	0.027	3	62	0.070	3	62	0.097
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.758			0.743			1.501

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

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

Parameter summary

Trip rate parameter range selected:	58 - 70 (units:)
Survey date date range:	01/01/09 - 16/10/16
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

APPENDIX H – 2011 Census Distribution Data

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

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	All categories: Method of travel to work (2001 specification)

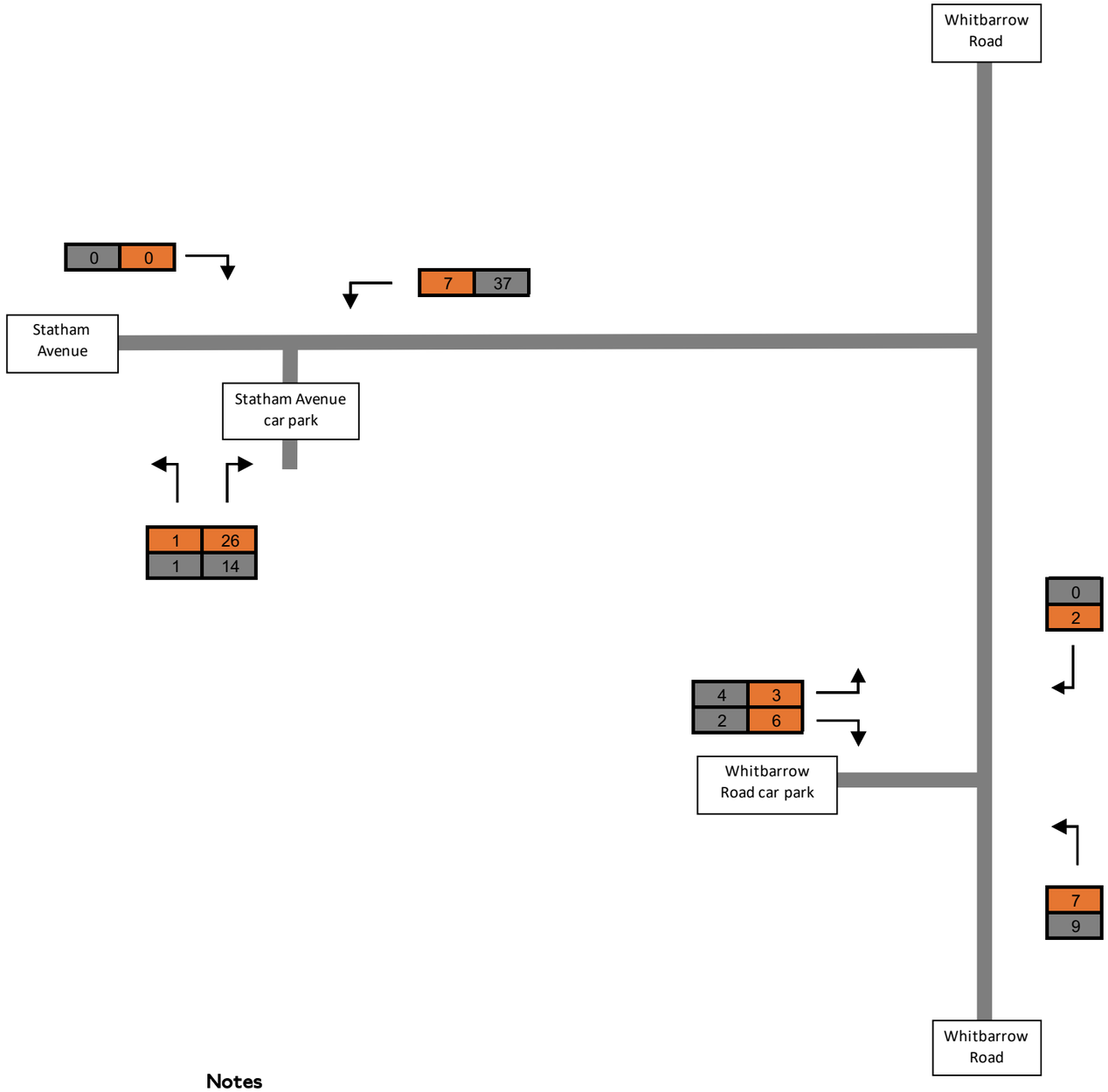
	place of work	Direction from site	
usual residence	**E02002610 : Warrington 021**	**Whitbarrow Rd (NB**	**Whitbarrow Rd (SB)**
E02002610 : Warrington 021	693	8.5%	25.6%
Trafford	172		8.5%
E02002611 : Warrington 022	132	6.5%	
Cheshire East	126		6.2%
Cheshire West and Chester	96		4.7%
Halton	59		2.9%
Manchester	56		2.8%
E02002609 : Warrington 020	52	2.6%	
E02002606 : Warrington 017	51	2.5%	
E02002612 : Warrington 023	47	2.3%	
E02002614 : Warrington 025	45	2.2%	
Salford	45		2.2%
E02002613 : Warrington 024	44	2.2%	
Wigan	41		2.0%
St. Helens	40		2.0%
Stockport	38		1.9%
E02002603 : Warrington 014	35		1.7%
E02002591 : Warrington 002	32		1.6%
E02002601 : Warrington 012	31		1.5%
E02002600 : Warrington 011	30		1.5%
E02002599 : Warrington 010	27	1.3%	
E02002607 : Warrington 018	27	1.3%	
E02002597 : Warrington 008	24		1.2%
E02002605 : Warrington 016	21	1.0%	
E02002593 : Warrington 004	18		0.9%
E02002598 : Warrington 009	17	0.8%	
E02002596 : Warrington 007	16		0.8%
E02002602 : Warrington 013	14	0.7%	
E02002608 : Warrington 019	14		
E02002595 : Warrington 006	13		

Total	**Sample Size**	**Sample Percentage**
2,235	2,029	91%

Whitbarrow Rd (NB)	**32%**
Whitbarrow Rd (SB)	**68%**

Wirral	13
Leeds	13
E02002594 : Warrington 005	11
Bolton	11
Tameside	10
E02002604 : Warrington 015	9
Bury	9
Chorley	8
Knowsley	8
Liverpool	7
E02002590 : Warrington 001	6
E02002592 : Warrington 003	6
Wrexham	6
Oldham	5
South Lakeland	4
West Lancashire	4
Rochdale	4
Sefton	4
Flintshire	4
Lancaster	3
High Peak	3
Newcastle-under-Lyme	3
Isle of Anglesey	3
County Durham	2
Stafford	2
Denbighshire	2
Blackburn with Darwen	1
Blackpool	1
Fylde	1
Preston	1
South Ribble	1
Sheffield	1
Calderdale	1
Kirklees	1
Wakefield	1
Derby	1
Erewash	1
Stoke-on-Trent	1
Birmingham	1
Coventry	1
King's Lynn and West Norfolk	1
Havering	1
Oxford	1
Bath and North East Somerset	1
Swansea	1

APPENDIX I – Traffic Flow Diagrams



Legend

0
0

AM Peak Period (07:00-10:00)
PM Peak Period (16:00-19:00)

Notes

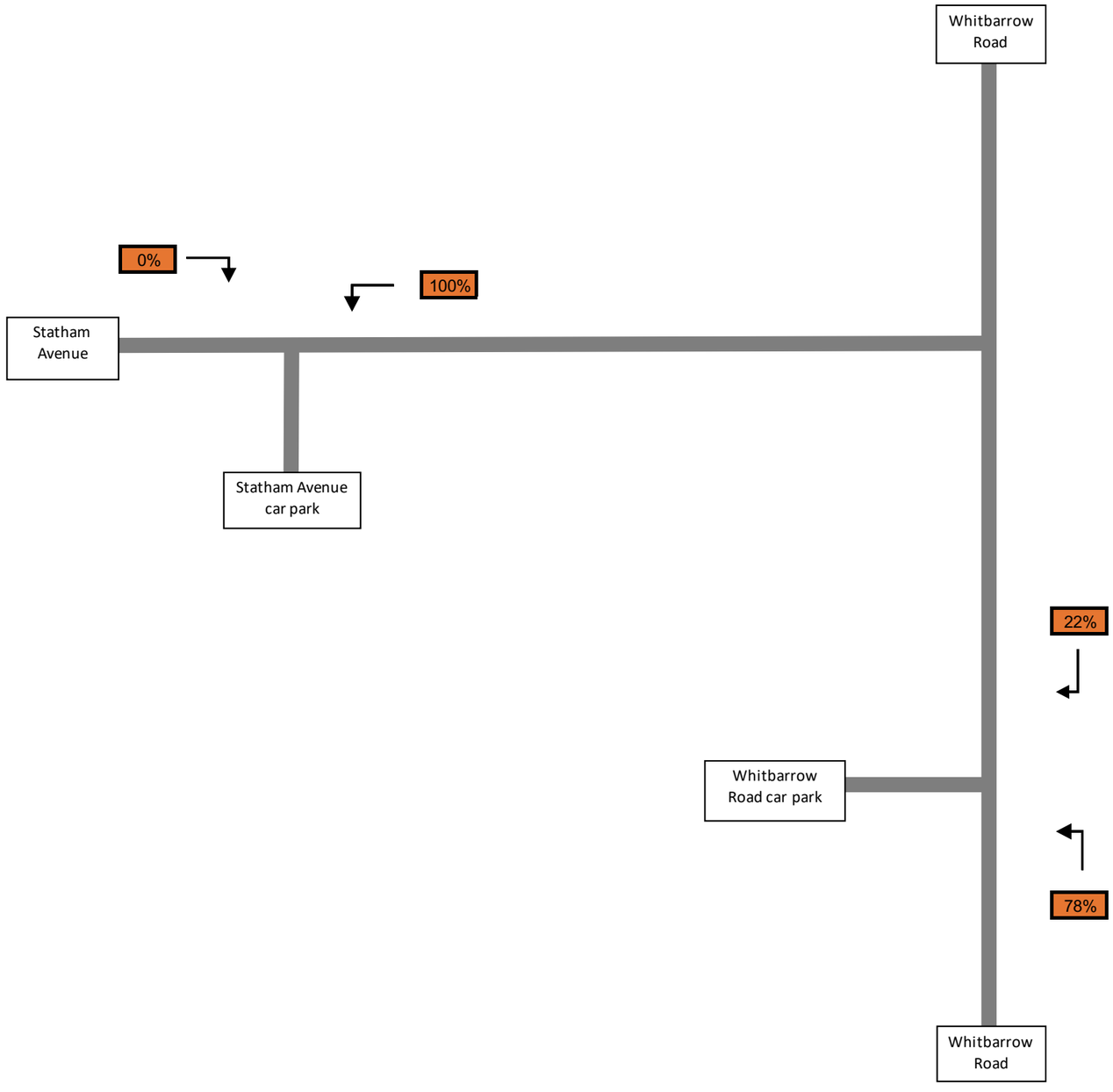
All flows are in vehicles

3 hour peak period selected to increase sample size

Note: All Flows are in Vehs

Figure Title	2017 Base		
Job Title	Lymm Hotel, Lymm		
Job Number	J323138		
Date:	25/07/2018	Diagram:	1
Prepared:	MA	Checked:	ME

mode transport planning



Legend

0 AM Peak Period (07:00-10:00)

Note: All Flows are in Vehs

Figure Title	2017 Distribution (AM Arrival)		
Job Title	Lymm Hotel, Lymm		
Job Number	J323138		
Date:	25/07/2018	Diagram:	2
Prepared:	MA	Checked:	ME

mode transport planning

Whitbarrow Road

32%

Statham Avenue

Statham Avenue car park

Whitbarrow Road car park

68%

Whitbarrow Road

Legend

0 AM Peak (based on census data)

Note: All Flows are in Vehs

Figure Title	ensus Distribution (AM Depar		
Job Title	Lymm Hotel, Lymm		
Job Number	J323138		
Date:	25/07/2018	Diagram:	3
Prepared:	MA	Checked:	ME

mode transport planning

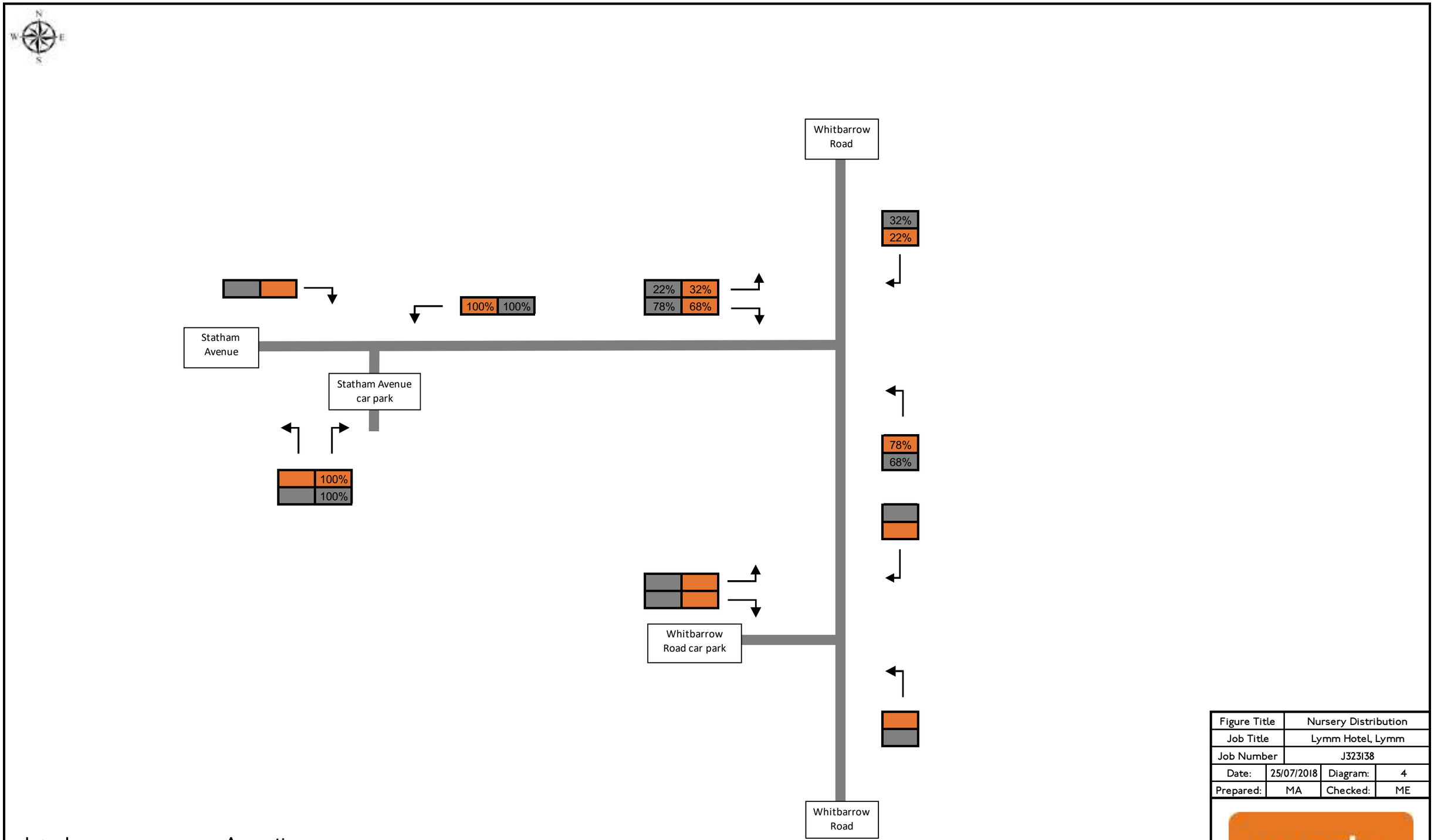


Figure Title	Nursery Distribution
Job Title	Lymm Hotel, Lymm
Job Number	J323138
Date: 25/07/2018	Diagram: 4
Prepared: MA	Checked: ME

Legend

0 AM Peak
0 PM Peak

Assumptions:

AM arrival follows existing hotel distribution
AM Depart/PM Arrival follows census place of work distribution
PM departures follows existing hotel AM distribution as assumed to be staff trips

Note: All Flows are in Vehs

mode transport planning

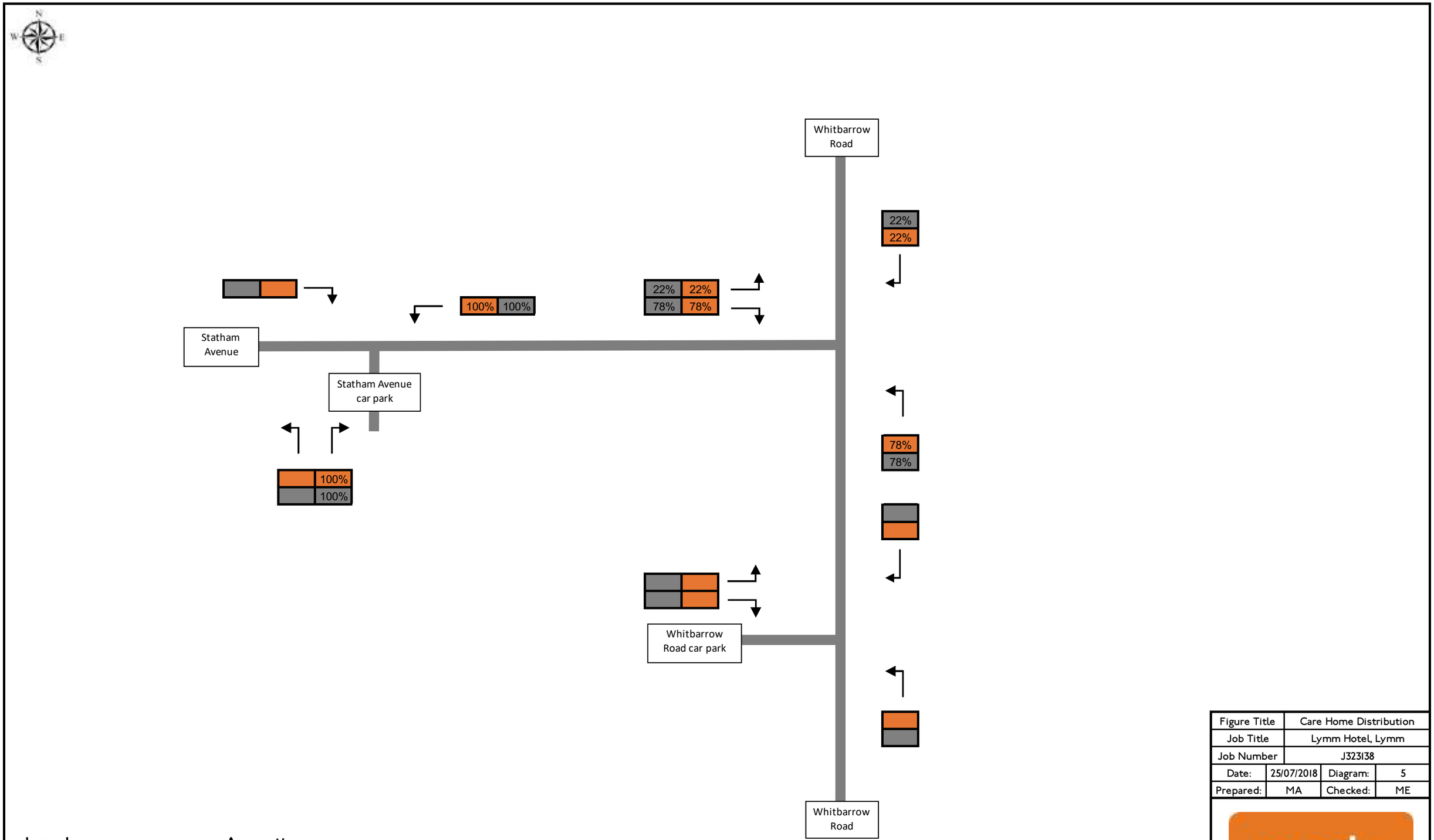


Figure Title	Care Home Distribution		
Job Title	Lymm Hotel, Lymm		
Job Number	J323138		
Date:	25/07/2018	Diagram:	5
Prepared:	MA	Checked:	ME

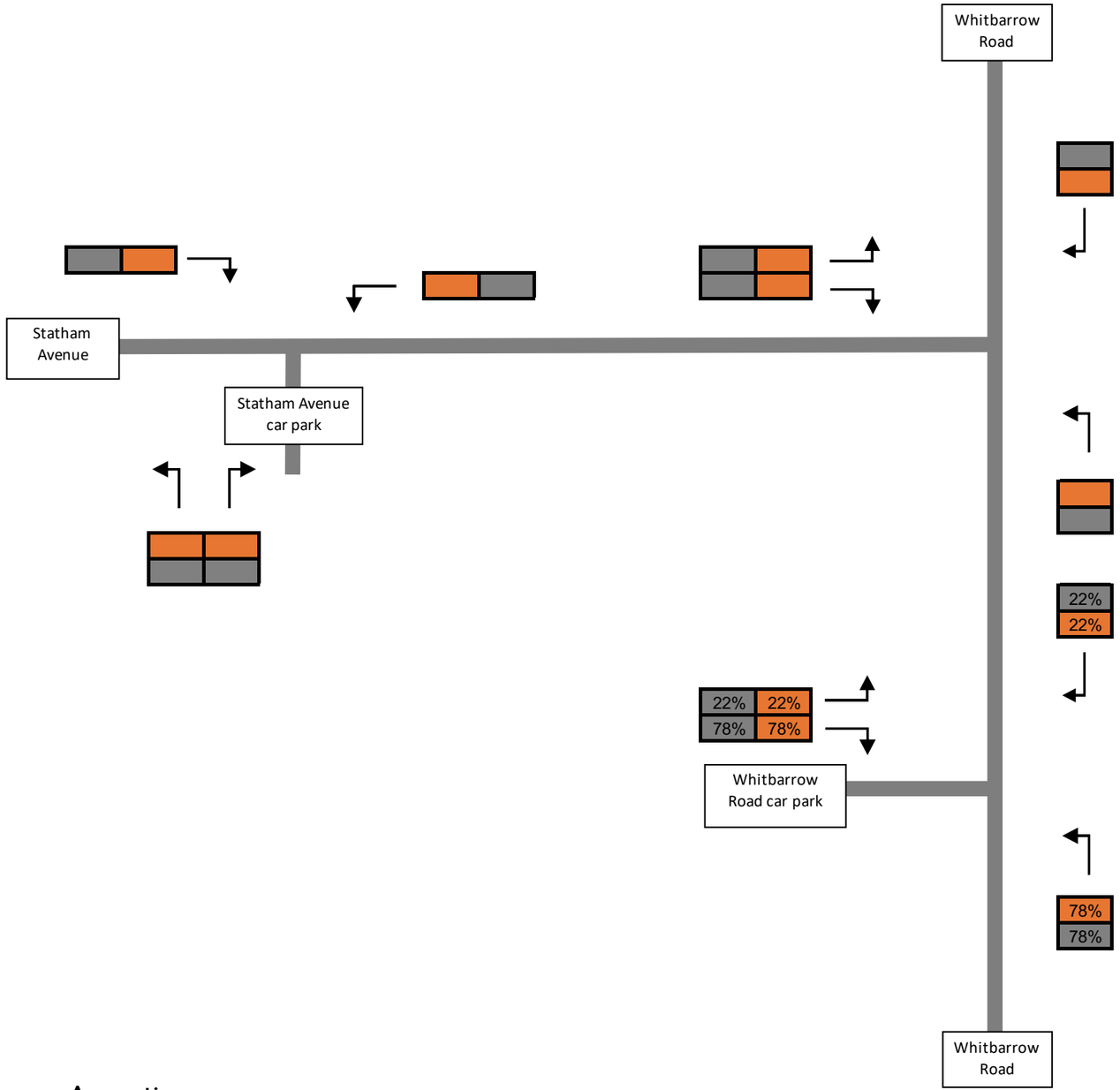
Legend

0 AM Peak
0 PM Peak

Note: All Flows are in Vehs

Assumptions:
AM and PM arrival/departures follows existing AM hotel distribution as assumed to be staff trips

mode transport planning



Legend

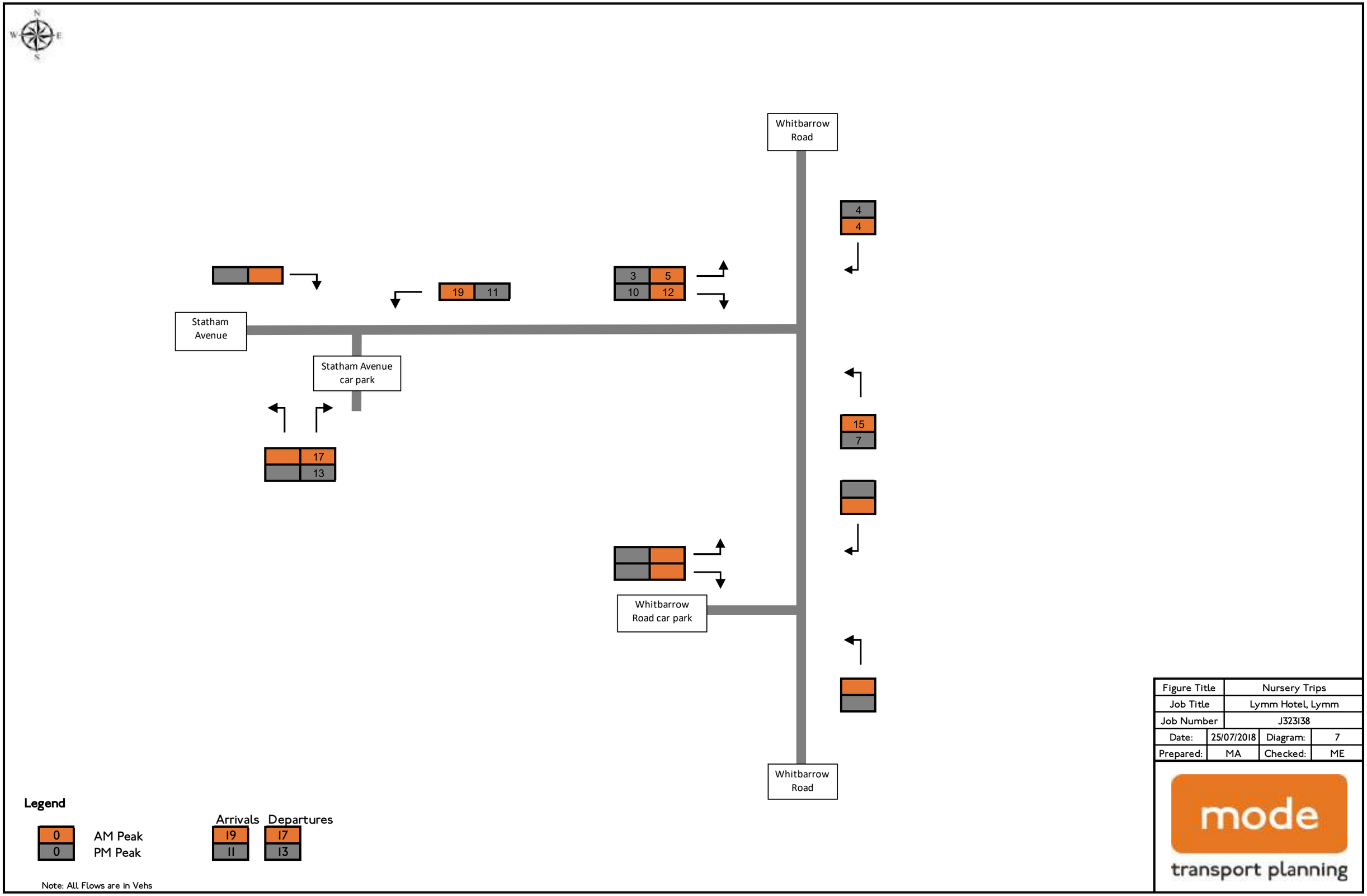
0 AM Peak
0 PM Peak

Note: All Flows are in Vehs

Assumptions:
AM and PM arrival/departures follows existing AM hotel distribution as majority of trips expected towards Lymm

Figure Title	Apartment Distribution		
Job Title	Lymm Hotel, Lymm		
Job Number	J323138		
Date:	25/07/2018	Diagram:	6
Prepared:	MA	Checked:	ME

mode transport planning



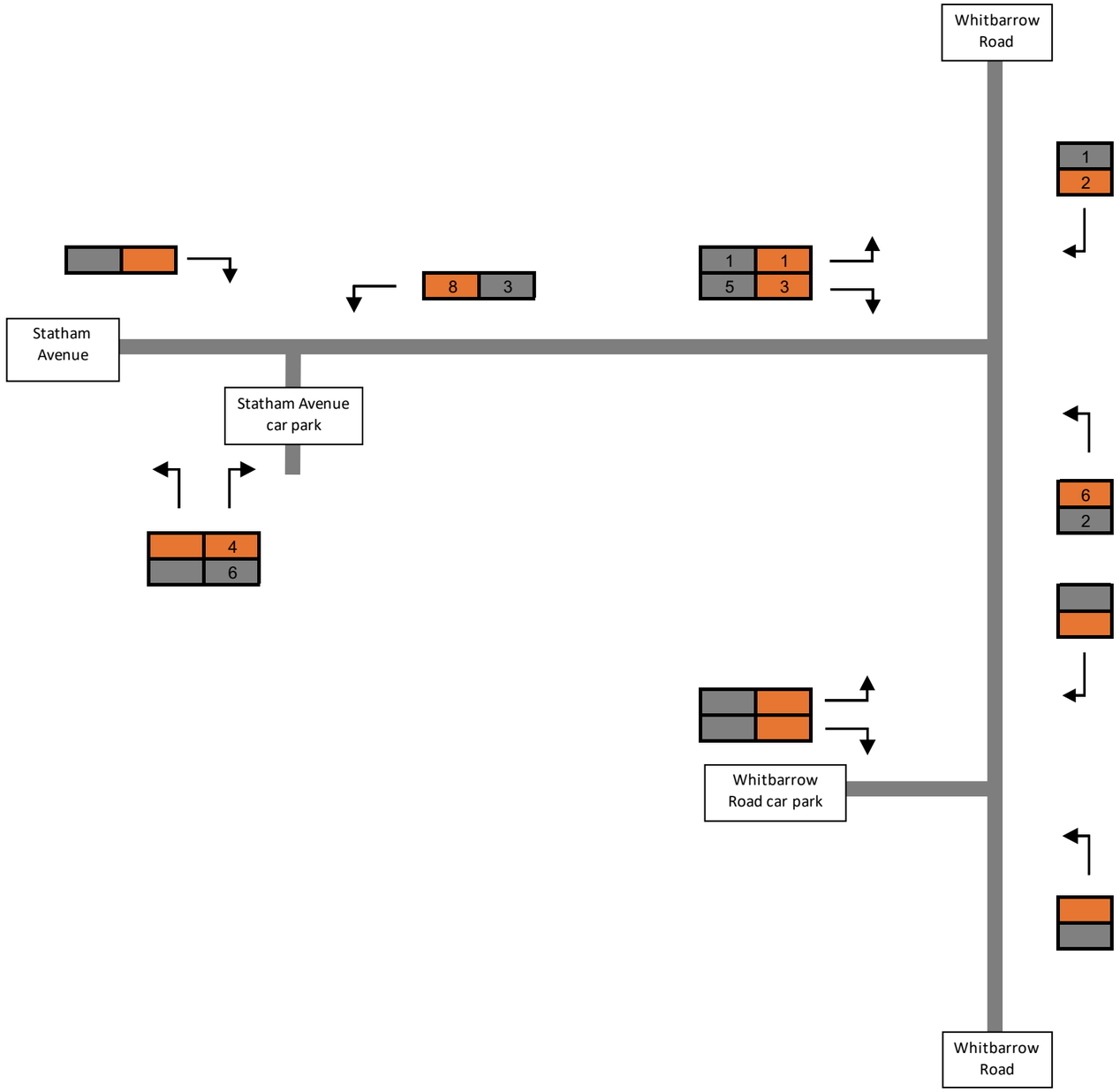
Legend

	AM Peak	PM Peak
Arrivals	19	11
Departures	17	13

Note: All Flows are in Vehs

Figure Title	Nursery Trips		
Job Title	Lymm Hotel, Lymm		
Job Number	J323138		
Date:	25/07/2018	Diagram:	7
Prepared:	MA	Checked:	ME

mode transport planning



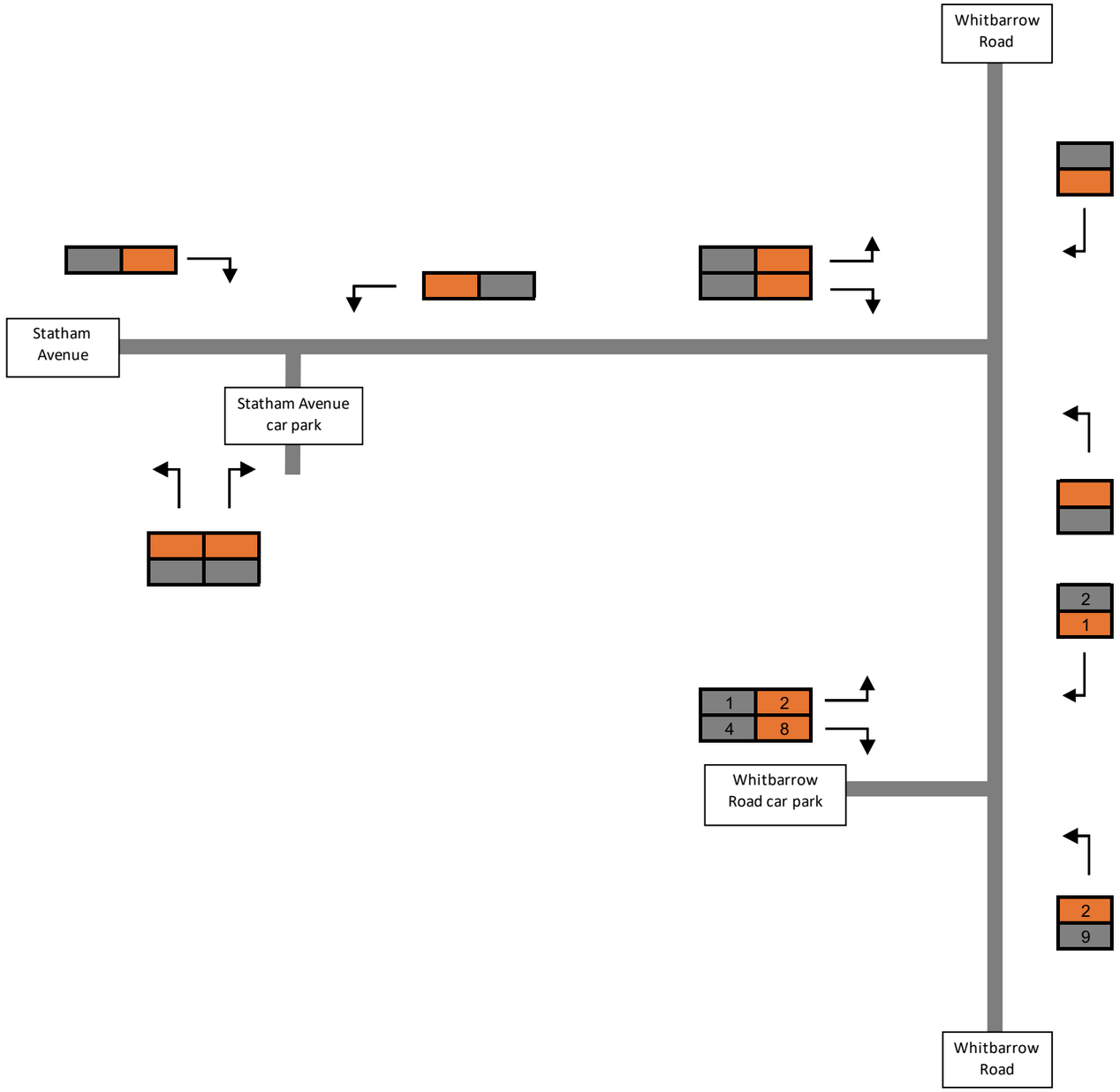
Legend

	Arrivals	Departures
AM Peak	8	4
PM Peak	3	6

Note: All Flows are in Vehs

Figure Title	Care Home Trips		
Job Title	Lymm Hotel, Lymm		
Job Number	J323138		
Date:	25/07/2018	Diagram:	8
Prepared:	MA	Checked:	ME

mode transport planning



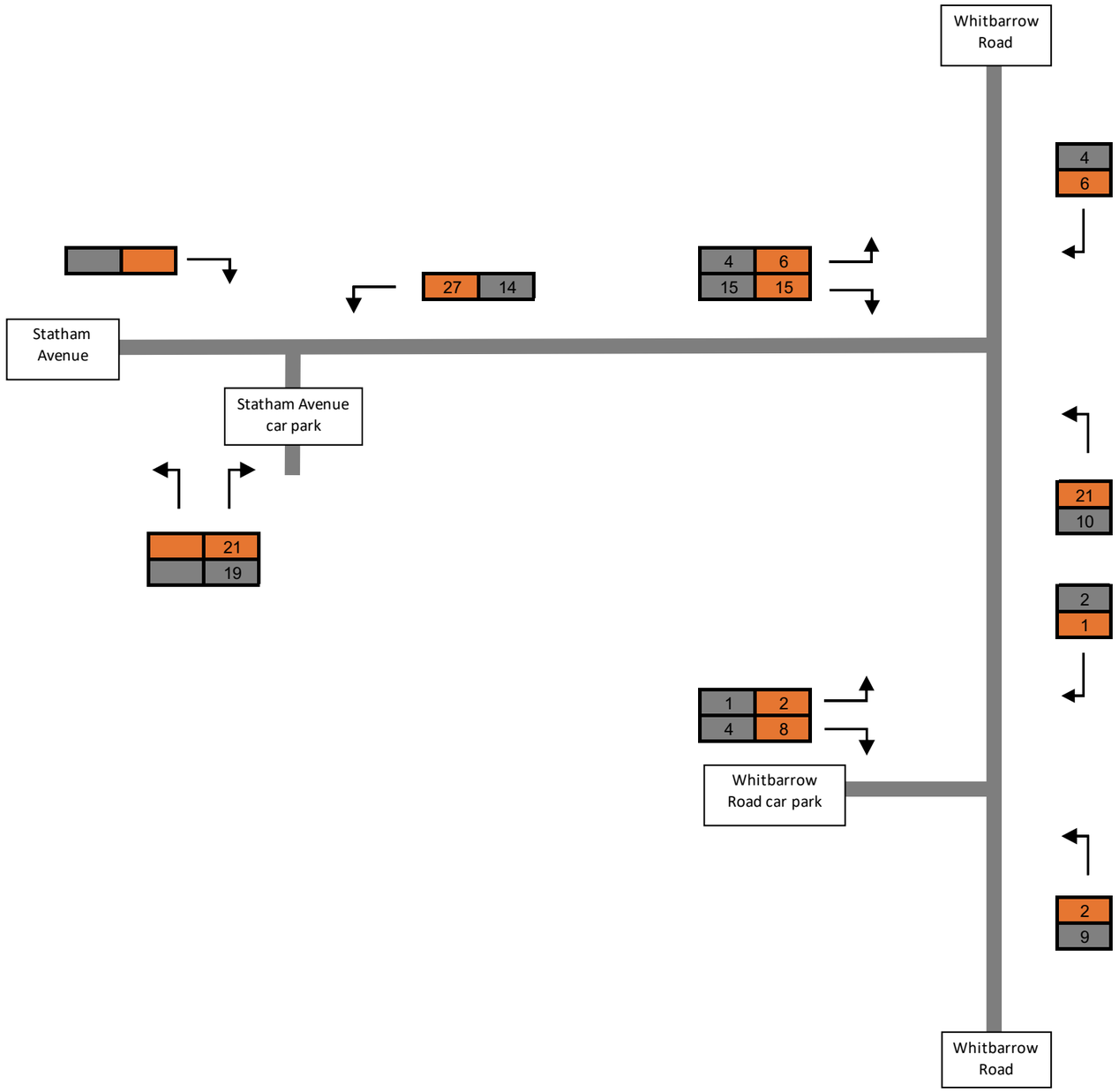
Legend

	Arrivals	Departures
AM Peak	3	10
PM Peak	11	5

Note: All Flows are in Vehs

Figure Title	Apartment Trips		
Job Title	Lymm Hotel, Lymm		
Job Number	J323138		
Date:	25/07/2018	Diagram:	9
Prepared:	MA	Checked:	ME

mode transport planning



Legend

		Arrivals	Departures
0	AM Peak	30	31
0	PM Peak	25	24

Note: All Flows are in Vehs

Figure Title	Total Development Trips		
Job Title	Lymm Hotel, Lymm		
Job Number	J323138		
Date:	25/07/2018	Diagram:	10
Prepared:	MA	Checked:	ME

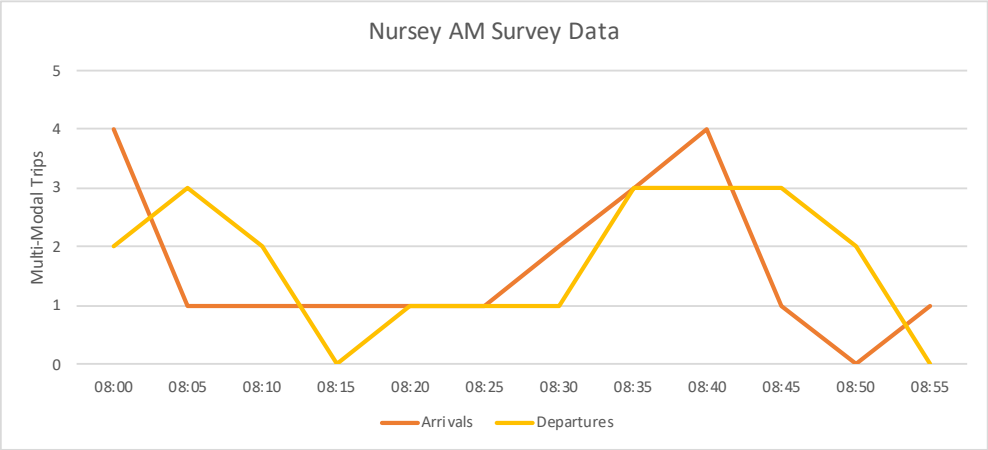
mode transport planning

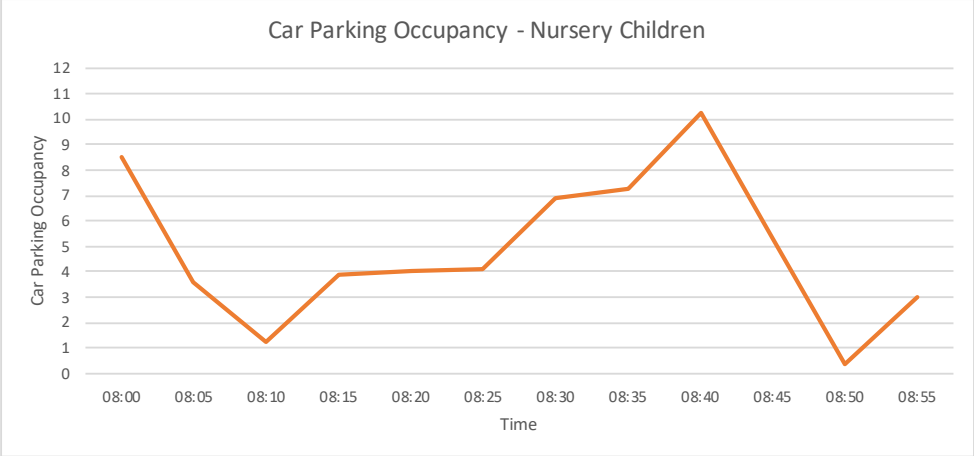
APPENDIX J – Car Park Occupancy

AM Arrival/Departure Multi-Modal Survey Data - Bright Horizons, Deansgate Lane, Timperley

Nursery Multi-Modal Surveyed Trips													
		Time											
		08:00	08:05	08:10	08:15	08:20	08:25	08:30	08:35	08:40	08:45	08:50	08:55
Arrivals	Number	4	1	1	1	1	1	2	3	4	1	0	1
	Percentage	20%	5%	5%	5%	5%	5%	10%	15%	20%	5%	0%	5%
Departures	Number	2	3	2	0	1	1	1	3	3	3	2	0
	Percentage	10%	14%	10%	0%	5%	5%	5%	14%	14%	14%	10%	0%

Nursery Proposed Trips (70% weighted majority)													
		Time											
		08:00	08:05	08:10	08:15	08:20	08:25	08:30	08:35	08:40	08:45	08:50	08:55
Arrivals	Total Trips	53											
	Number	10.5	2.6	2.6	2.6	2.6	2.6	5.3	7.9	10.5	2.6	0.0	2.6
Departures	Total Trips	53											
	Number	5.0	7.5	5.0	0.0	2.5	2.5	2.5	7.5	7.5	7.5	5.0	0.0
Parking Accumulation		9	4	1	4	4	4	7	7	10	5	0	3





Birmingham
0121 794 8390

London
020 7293 0217

Manchester
0161 974 3208

Oxford
01865 389 440

Reading
0118 206 2945

info@modetransport.co.uk modetransport.co.uk @mode_transport