Transport Statement

Factory Road

Chester Wool Company

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Basis of Report

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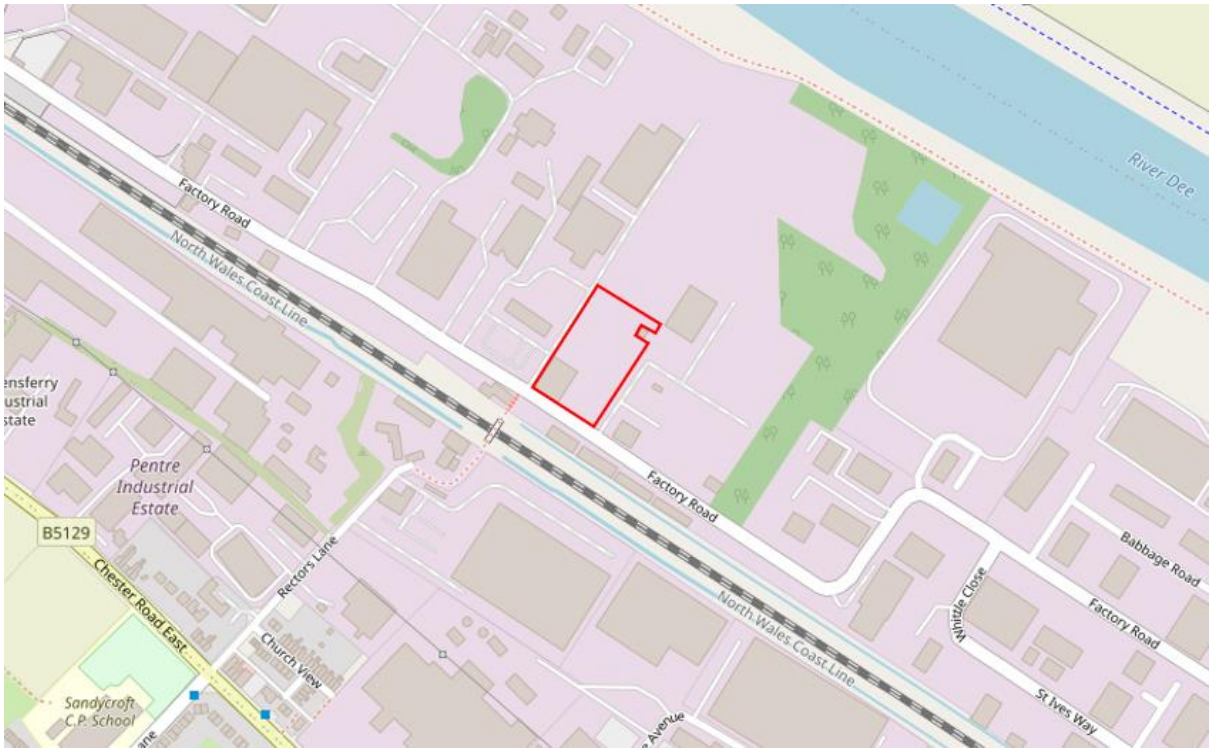
1.0 Introduction

1.1 SLR Consulting Limited (SLR) has been appointed by Chester Wool Company to produce a Transport Statement (TS) to support the planning application for a proposed relocation of Chester Wool Company to a new site on Factory Road, Sandycroft. The location of the site is shown in red with respect to the surrounding area **Figure 1.1.**

Figure 1.1 Site Location



Source: OpenStreetMap

Report Structure

1.2 Following this introductory chapter, the remainder of this TS is structured as follows:

- **Section 2: Policy Context** – describes the local and national planning policy pertinent to the proposed development;
- **Section 3: Baseline Conditions** – discusses the existing site location, the surrounding highway network and reviews the accident record on the immediate highway network;
- **Section 4: Accessibility Review** – describes the accessibility of the site by all transport modes;
- **Section 5: Existing Site Operations –** describes the operations of the current site of Chester Wool Company including staff travel and deliveries;
- **Section 6: Proposed Development** – sets out the development proposals including access and servicing and outlines the existing and proposed site operations;
- **Section 7: Trip Assessment** – assessment of the multi modal trip impact; and
- **Section 8: Summary and Conclusions** – summarises the findings of the Transport Statement and provides the report conclusions.

2.0 Policy Context

National Planning Policy Framework (December 2024)

2.1 The latest National Planning Policy Framework (NPPF) was published in December 2024 by the Ministry of Housing, Communities and Local Government, replacing the previous versions published in 2012, 2018, 2019, 2021 and December 2023. The NPPF sets out the government's planning policies for England and how these are expected to be applied. At the heart of the Framework is a presumption in favour of sustainable development.

2.2 The recent updates to the NPPF emphasize addressing transport issues early in the planning process using a **vision-led approach** to identify appropriate transport solutions.

2.3 Paragraph 110 highlights the importance of promoting sustainable locations by reducing the need for travel and providing diverse transport options. However, it acknowledges that opportunities for sustainable transport solutions differ between urban and rural settings, which should be considered during both planning and decision-making stages.

2.4 As part of promoting sustainable transport, paragraph 115 of the revised NPPF states that in assessing applications for development, it should be ensured that:

"

(a) sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;

(b) safe and suitable access to the site can be achieved for all users;

(c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and

(d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach."

2.5 Paragraph 116 goes on to state that:

"*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios."*

2.6 Finally, the NPPF (paragraph 118) notes that:

"*All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed."*

Vision-Led Approach

Traditionally, the planning and design of transport infrastructure to support developments was focussed on a model of '*Predict and Provide*'. This approach effectively predicts how people travel and provides the infrastructure to support it, which, ultimately focuses on providing infrastructure and space for cars.

Whereas the '*Vision-led'* approach (sometimes referred to as '*Decide and Provide'*) represents an active, deliberate, and policy-driven method of transport planning. Rather than simply forecasting demand and building infrastructure to meet it (as was the traditional method of transport planning), the *Vison-led* model focuses on making decisions about the transport system based on societal goals, values, and priorities and then providing infrastructure or services that support those decisions.

Instead of just increasing infrastructure to meet demand, the approach involves shaping demand, encouraging sustainable modes of transport, and optimising existing infrastructure.

The *Vision-led* model also better integrates land use and transport planning, considering how the two interact, and also is more responsive to changing transport trends (e.g., growth in working from home, shared mobility, electric vehicles).

PPG: Travel Plans, Transport Assessments and Statement in Decision-Taking

2.7 In March 2014, the Ministry of Housing Communities and Local Government in conjunction with the DfT, released advice on when transport assessments and transport statements are required, what they should contain (which is intended to assist stakeholders in determining whether an assessment may be required) and, if so, what the level and scope of that assessment should be.

2.8 The advice reflects current Government policy promoting a shift from the 'predict and provide' approach to transport planning to one more focused on sustainability.

2.9 The document focuses on encouraging environmental sustainability, managing the existing network, and mitigating the residual impacts of traffic from the development proposals.

2.10 The guidance sets out that Travel Plans, Transport Assessments and Statements can positively contribute to:

- Encouraging sustainable travel;
- Lessening traffic generation and its detrimental impacts;
- Reducing carbon emissions and climate impacts;
- Creating accessible, connected, inclusive communities;

- Improving health outcomes and quality of life;
- Improving road safety; and,
- Reducing the need for new development to increase existing road capacity or provide new roads

2.11 These documents support national planning policy which sets out that planning should actively manage patterns of growth in order to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.

Future Wales: The National Plan 2040

2.12 Published in February 2021, the plan seeks to provide a strategy for addressing key national priorities through the planning system.

2.13 The document sets out 11 Outcomes of where Wales should be in 20 years' time.

2.14 **Outcome 7** is centred on sustainable travel, focusing on methods of travel with low environmental impacts and low emissions. Future development will reduce reliance on private vehicles for accessing employment, tourism and leisure by improving active travel and public transport infrastructure.

2.15 **Outcome 11** is focused on decarbonisation and climate-resilience, which includes developing clean and efficient transport infrastructure.

2.16 **Policy 1** of the strategy: **Where Wales will grow**, identifies Wrexham and Deeside as a National Growth Area which includes growth in employment and housing opportunities, and investment in infrastructure.

2.17 **Policy 12** of the strategy: **Regional connectivity**, prioritises improving and integrating active travel and public transport. It states that: "*active travel must be an essential and integral component of all new developments, large and small."*

2.18 It goes on to state that *"planning authorities must act to reduce levels of car parking… Where car parking is provided for new non-residential development, planning authorities should seek a minimum of 10% of car parking spaces to have electric vehicle charging points*".

North Wales Joint Local Transport Plan 2015-2020

2.19 The Plan was prepared by six local authorities in North Wales including Conwy County Borough Council, Denbighshire County Council, Flintshire County Council, Gwynedd Council, Isle of Anglesey County Council and Wrexham County Borough Council.

2.20 The six councils are working together to "*seek economic prosperity, growth and well-being in North Wales*". The document sets out the Vision to "*remove barriers by delivering safe, sustainable, affordable and effective transport networks*"

2.21 The Plan addresses key issues for North Wales:

"

- *The ability of the strategic road and rail corridors to provide the necessary good connectivity, for people and freight, within North Wales, to the ports and to the rest of the UK to support the economy and jobs, including tourism;*
- *The lack of resilience of the road and rail networks to planned and unplanned events including extreme weather;*
- *The need for good access to and between the three Enterprise Zones in North Wales;*
- *The lack of viable and affordable alternatives to the car to access key employment sites and other services; and*
- *The need for good road links to / from the trunk road network into the rural areas to help retain the viability of local businesses and support the Welsh language and culture.*"

Flintshire Local Development Plan 2015-2030

2.22 The Flintshire LDP was adopted by the Council on the 24th January 2023 and covers the period 2015 to 2030. Plan is defined by a vision, strategic objectives and a growth and spatial strategy that embodies the issues and opportunities facing Flintshire.

2.23 The **vision** is described as follows:

> "*The LDP is about people and places. It seeks to achieve a sustainable and lasting balance between the economic, social, and environmental needs of Flintshire and its residents, through realising its unique position as a regional gateway and area for economic investment, whilst protecting its strong historic cultural heritage and natural environment*".

2.24 LDP **Objective 3** includes promoting a "*sustainable and safe transport system that reduces reliance on the car."*

2.25 LDP **Objective 4** includes facilitating *"the provision of necessary transport, utility and social / community infrastructure.*"

2.26 Strategic Policy **STR5** is centred on transport and accessibility and highlights the importance of "*an integrated, accessible, usable, safe and reliable transport network*". It states that, where appropriate, new developments should:

> "
>
> - *Facilitate accessibility to employment, homes, services, and facilities by locating development in places with access to integrated transport infrastructure, thereby reducing the need to travel;*
> - *Promote the implementation of an integrated transport solution in Flintshire, involving road, rail, bus, park and ride / share and active travel improvements;*

- *Promote road and rail improvements to support Flintshire's sub-regional role as a strategic gateway and hub;*
- *Ensure that the local highway network either has, or can be upgraded, to provide capacity to accommodate sustainable levels of development;*
- *Facilitate improvements to the quality, attractiveness and availability of public transport options;*
- *Provide walking and cycling routes, linking in with active travel networks and green infrastructure networks;*
- *Adopt a sustainable approach to the design, function and layout of new development, including providing appropriate levels of parking;*
- *Support the movement of freight by rail or water."*

2.27 The document refers to the Deeside Enterprise Zone (DEZ) as a vital component of the employment aspirations of the Plan, and has been designated to *"continue to develop as a major centre for advanced manufacturing on an international scale".*

Parking Standards Supplementary Planning Guidance Note 11

2.28 The Flintshire Parking Standards were adopted by Flintshire County Council on 17th January 2017. A summary of the standards for B8 development is summarised in **Table 2.1**.

Table 2.1 Flintshire Parking Standards

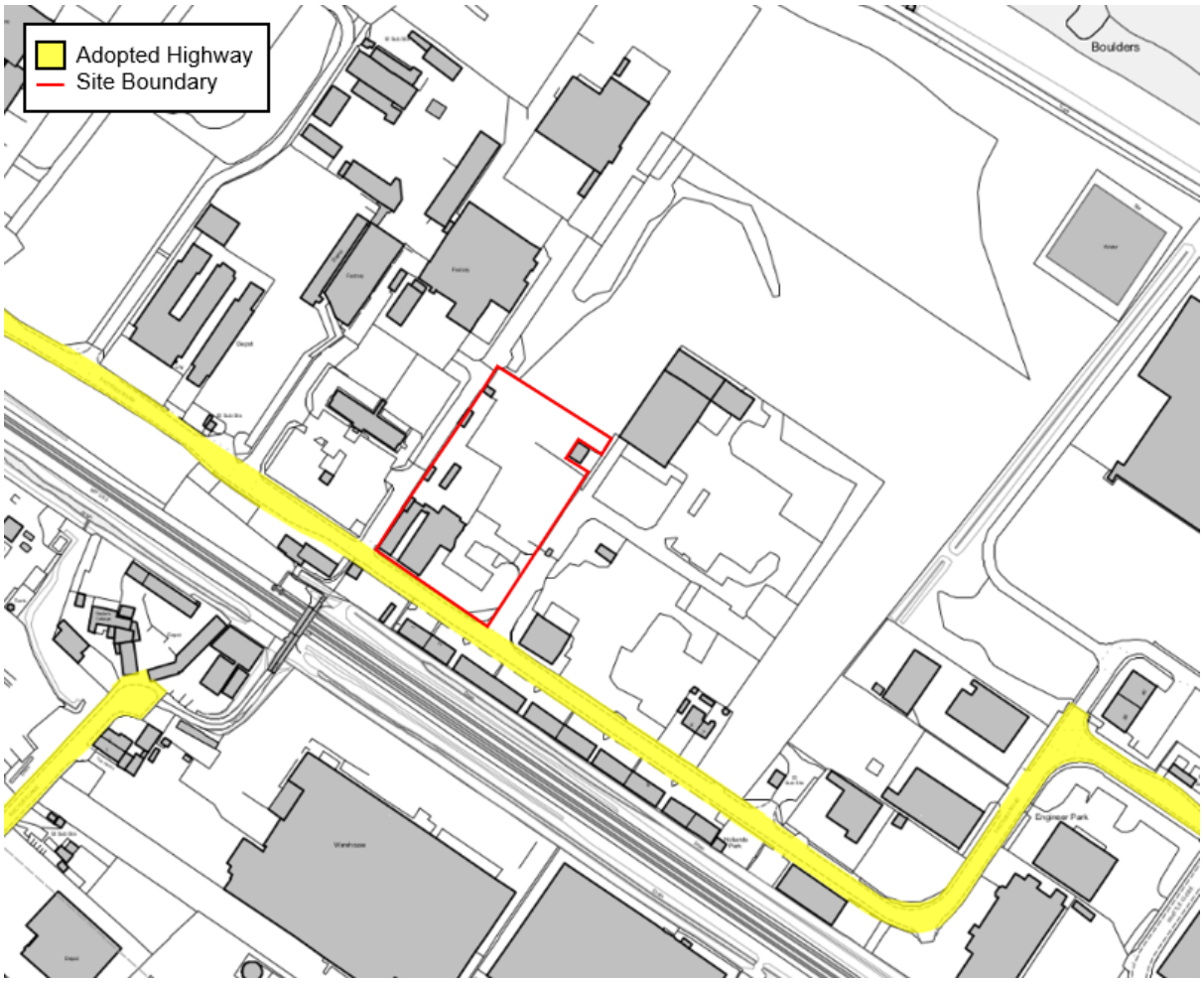
Space Type	Standard
Vehicles	B8 Storage: 1 car space per 100m^2 GFA.
Blue Badge	10% of all car spaces shall be provided to 'mobility standard' (minimum width 3.6 metres). No less than 60% of these spaces shall be signed as being for the exclusive use of disabled persons.
Bicycles	Storage and distribution uses 1 per 1000m^2 gross floor area (or part thereof)
Motorcycles	Should be provided at sites requiring a maximum parking provision of 25 or more car parking spaces, at the rate of 1 space per 25 car parking spaces.

3.0 Baseline Conditions

Site Location

3.1 The site is located 7.5km west of Chester on Factory Road, Sandycroft within the DEZ. The site boundary and adopted highway around the site are shown in **Figure 3.1**.

Figure 3.1 Adopted Highways



Source: Flintshire County Council

Local Highway Network

Factory Road

3.2 Factory Road is a single carriageway road which provides access to units in the northern section of the industrial park and has an average carriageway width of 6-7.5m. It connects with Chemistry Lane in the north west via a priority junction and merges with Station Road in the south. Lit footways with dropped kerbs are provided on Factory Road in the vicinity of the site. The road is subject to a 30 mph speed limit.

Chemistry Lane

3.3 Chemistry Lane primarily functions as the main access to the industrial site and is subject to a 30mph speed restriction. It runs in a north to south direction, connecting with Factory Road via a priority junction in the north and the B5129 Chester Road East in the south via a signalised 4-arm junction. Approaching the junction with Factory Road, the carriageway becomes a single lane under the railway bridge which has a 7'9" height restriction, as shown in **Figure 3.2,** making it unsuitable for large vehicles. A lit footpath is provided on the eastern side of the carriageway which extends for 200m north of the B5129 Chester Road East crossroads.

Figure 3.2 Height Restriction on Chemistry Lane

Source: GoogleMaps

Station Road

3.4 Station Road is a single carriageway road that ramps up from the B5129 Chester Road East and becoming Factory Road as it crosses the rail line at the overbridge. There is no weight restriction on the overbridge and this is the route HGVs would take to the proposed site. Station Road is subject to a 40mph speed limit. There are no footways along the main section of Station Road, however there is an access road separated by a grass verge on the western side. This access road has footways and a bus stop that serves the residential properties which sit below grade of the main section of road.

B5129 Chester Road East

The B5129 Chester Road East connects with the A494 and the A550 to the west. HGVs accessing the site would use this route as it provides access to Factory Road via Station Road. It is a single carriageway with a speed limit that varies from 30mph in urban areas to 60mph on the section between Sandycroft and Saltney Ferry. Lit footways with dropped kerbs and tactile pavements are provided in the urban areas with signalised crossings at key junctions.

A494

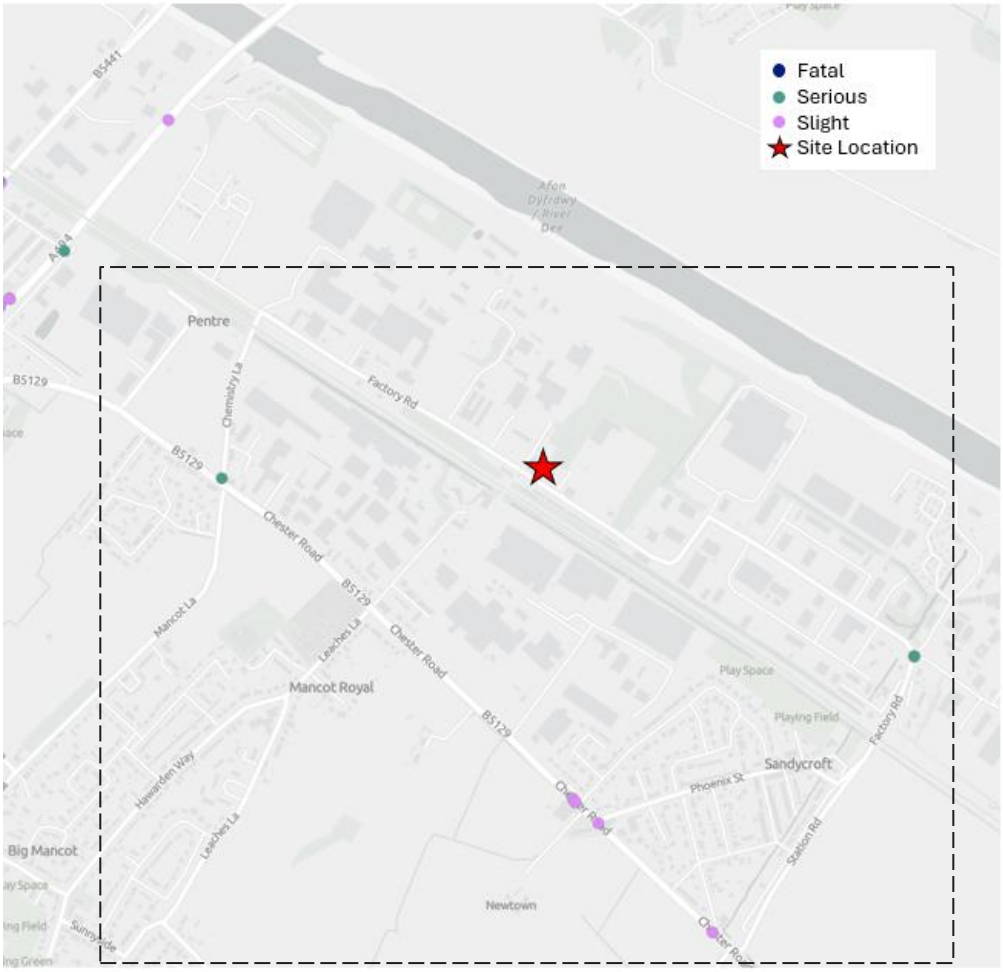
3.5 The A494 runs in a north-east to south-west direction, connecting the M56 with Dolgellau. The section of the A494 which passes through Deeside is dual carriageway.

Highway Safety Records Review

3.6 The Department for Transport's Mapping Application for Visualising Road Injury Casualties (MAVRIC) tool has been used to examine Personal Injury Collision (PIC) data for the latest available five-year period (January 2019 to December 2023).

3.7 The site area and PIC locations are shown in the extract from MAVRIC presented in **Figure 3.3**.

Figure 3.3 Accident Data 2019-2023



Source: MAVRIC Tool, Department for Transport

3.8 As seen in **Figure 3.3**, during the latest available five-year period, two PICs were recorded within the immediate vicinity of the site, both of which were classified as serious. The first occurred at the Factory Road / Prince William Avenue junction and involved one vehicle. The second occurred at the Chemistry Lane / B5129 Chester Road East / Mancoat Lane signalised crossroads and involved a vehicle and a pedestrian. There were 4 slight PICs south eastern section of the B5129 Chester Road East included in the analysis included 4 slight PICs involving either a car or motorbike which occurred between 2019-2020.

3.9 The above demonstrates a generally low PIC rate within the study area during the latest five-year period. Considering the evidence presented above, there are no prevailing road safety records to suggest concern for the proposed development with regards to road safety.

4.0 Sustainable Transport Accessibility Review

Introduction

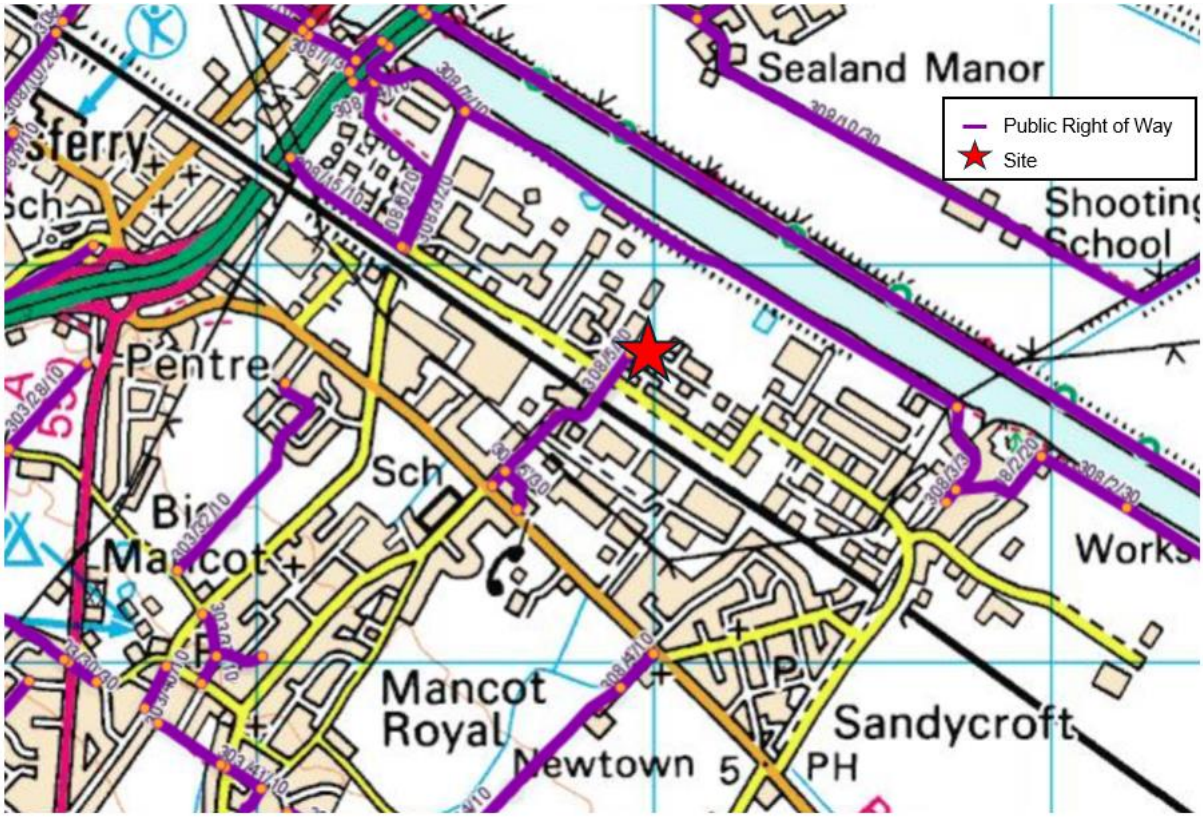
4.1 The National Planning Policy Framework states that opportunities to promote walking, cycling and public transport use should be identified and pursued. In this context the accessibility of the site by the following modes of travel has been considered:

- Accessibility on foot.
- Accessibility by cycle.
- Accessibility by public transport.

Accessibility on Foot

4.2 The site has a central location within the DEZ, with footways and a Public Right of Way (PRoW) in the vicinity of the site, which will help encourage employees to undertake journeys on foot. The location of PRoW near the site are shown in **Figure 4.1.**

Figure 4.1 Public Right of Ways



Source: Flintshire County Council

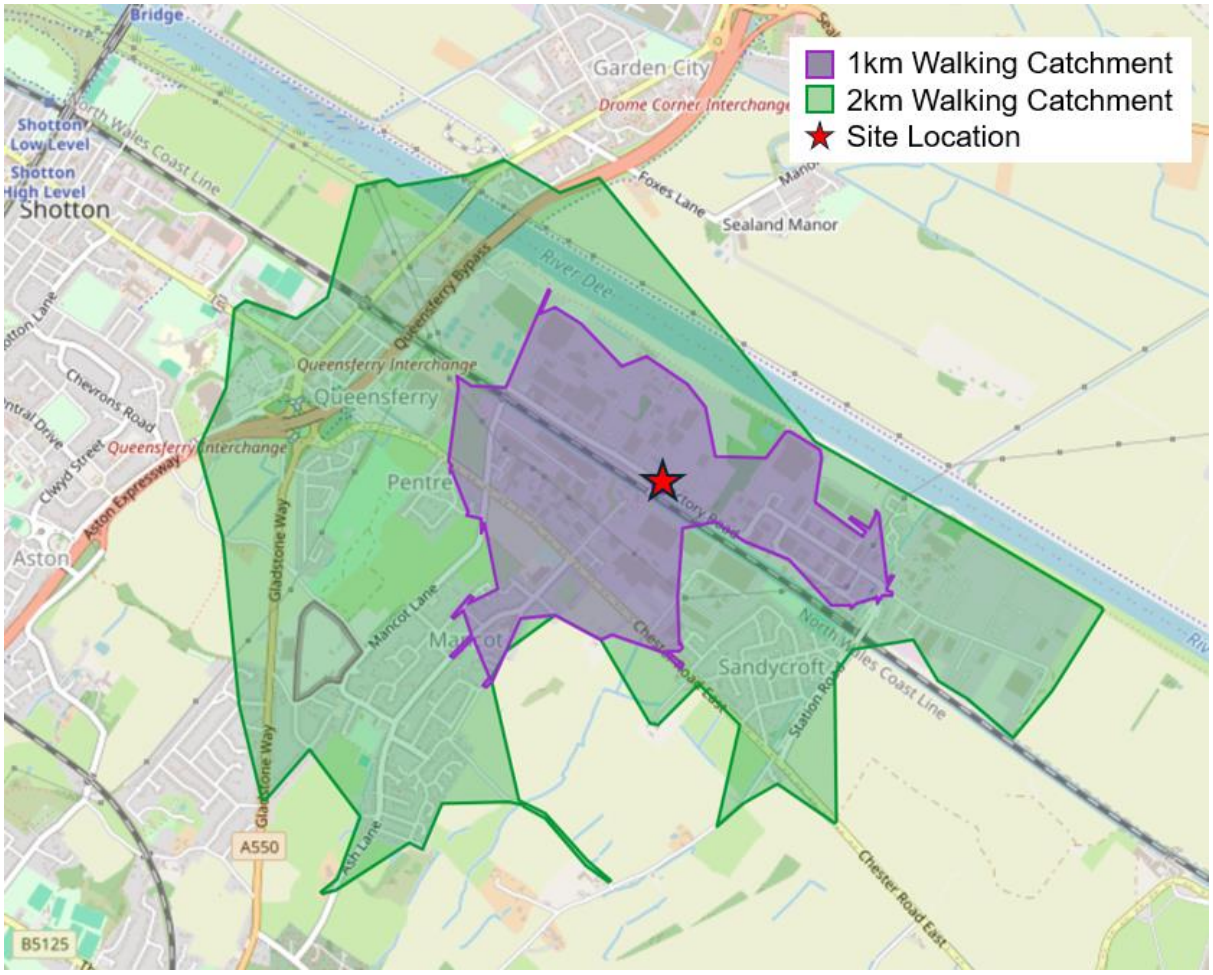
4.3 The Institution of Highways and Transportation (IHT) document 'Guidelines for Providing for Journeys on Foot' (2000) contains suggested acceptable walking distances for pedestrians without mobility impairment for some common facilities. The guidelines suggest that an acceptable walking distance for commuting purposes is 1km, with the preferred maximum

distance of 2km. Walking can also be promoted as part of a multi-modal journey, particularly with public transport.

4.4 The more recent CIHT document 'Planning for Walking' (2015) affirms this by stating that 80% of journeys shorter than a mile (approximately 1.6km) are made wholly on foot.

4.5 An analysis of the pedestrian routes in the area has been completed to identify areas situated within 1km and 2km catchments, **Figure 4.2**.

Figure 4.2 Pedestrian Catchment (1 & 2km)



Source: Iso4App API

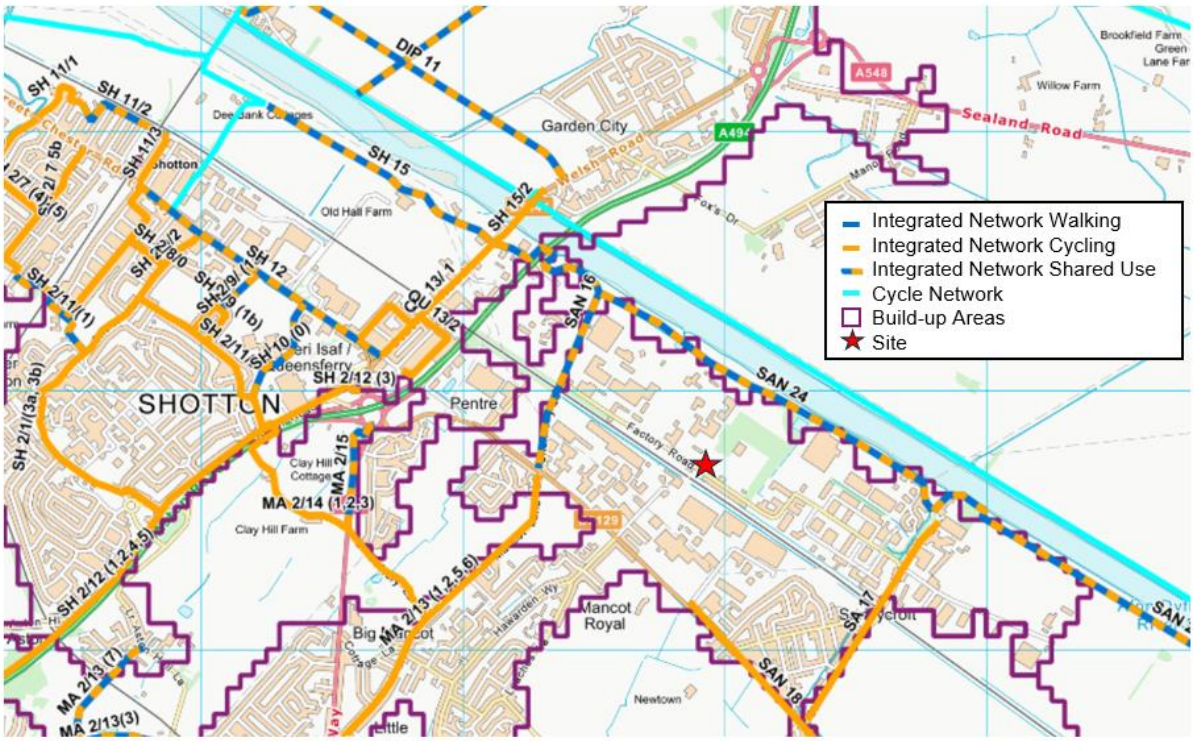
4.6 As demonstrated in **Figure 4.2**, the 1km pedestrian catchment includes some key residential areas such as Mancoat and the 2km includes Sandycroft, Pentree and Queensferry.

Accessibility by Cycle

4.7 An alternative mode of travel to the site could be achieved by bicycle. Cycling is increasingly being recognised as a viable alternative to the car and there has been sustained growth in cycling as both a mode of travel and leisure activity.

4.8 As **Figure 4.3** shows, the site is well positioned within the Flintshire active travel network to accommodate journeys by bicycle.

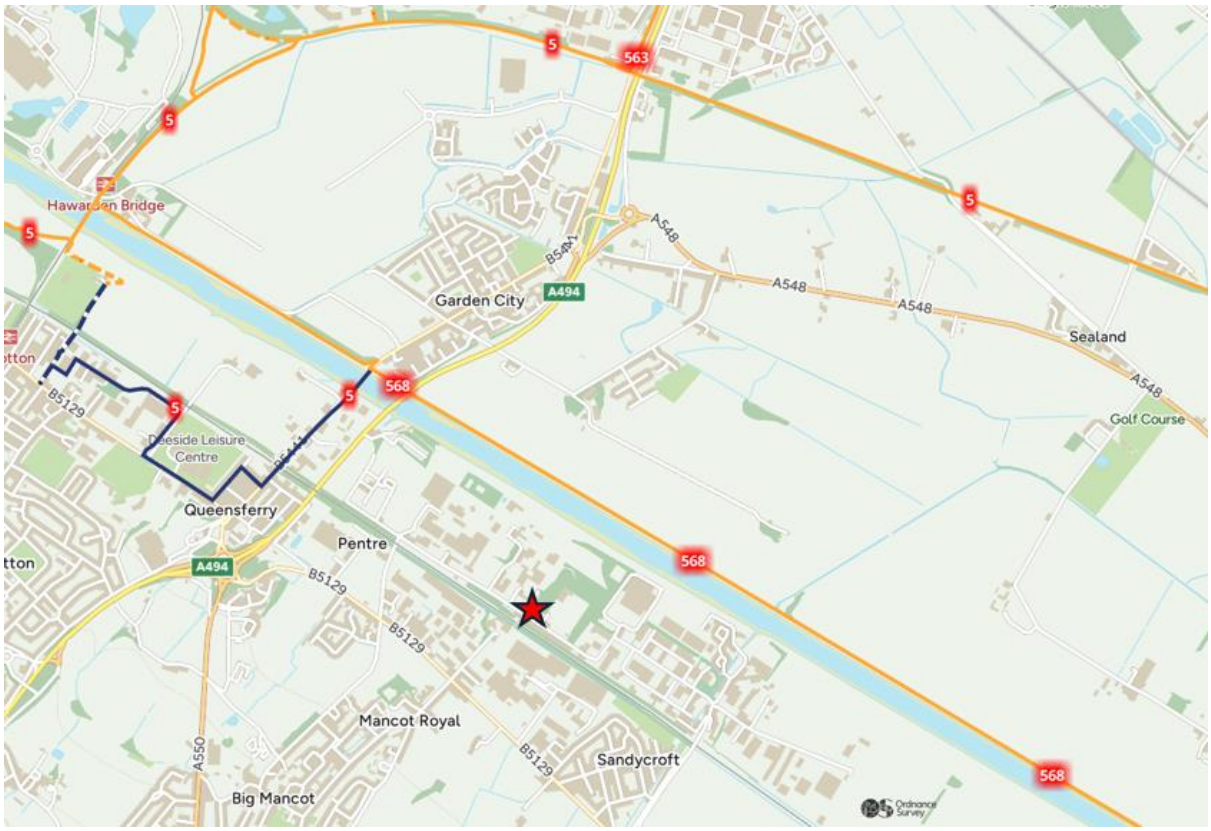
Figure 4.3 Flintshire Active Travel Network



Source: Flintshire County Council

4.9 **Figure 4.4** shows that the National Cycle Network (NCN) routes 5 and 568 are within a 5-minute cycle from the site (1.6km). NCN route 568 runs along the River Dee from Chester to where it merges into NCN route 5 which provides a route to Holyhead, Wales.

Figure 4.4 National Cycle Network (NCN) Routes Near Site

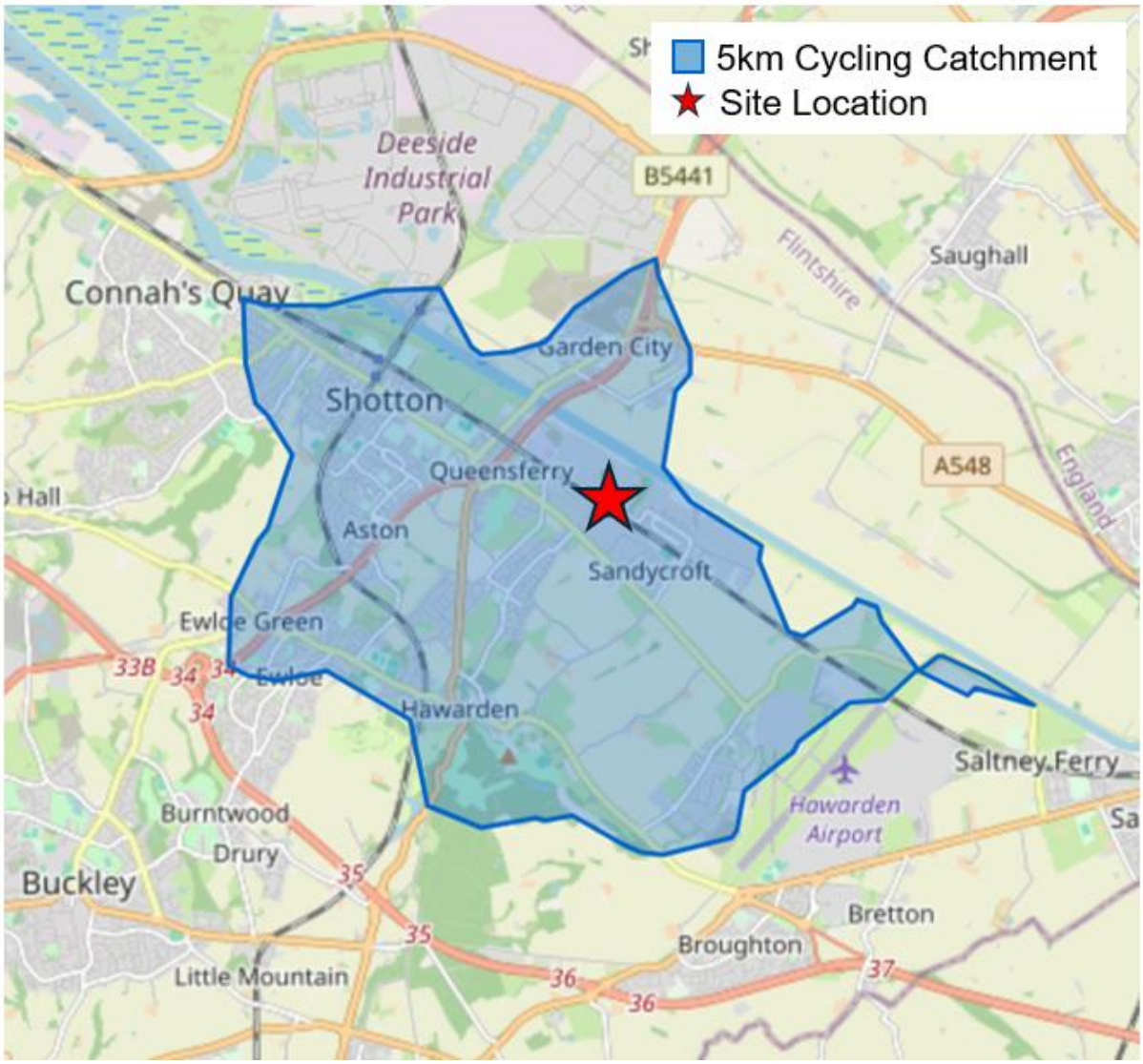


Source: Sustrans

4.10 The Department for Transport's (DfT) Local Transport Note 1/20 highlights that many utility cycle journeys are under 3 miles (5km) although for commuters a trip distance of over 5 miles (8km) is not uncommon.

4.11 With this in mind, **Figure 4.5** shows a 5km cycle catchment from the site, equating to a journey of approximately 25 minutes using a leisurely cycle speed of 12km per hour.

Figure 4.5 Cycling Catchment (5km)



Source: Iso4App API

4.12 As seen in **Figure 4.5**, the site is accessible by bicycle from key residential areas such as Aston, Ewloe Green, Ewloe, Hawarden, Shotton, Garden City and the eastern side of Connah's Quay.

Accessibility by Public Transport

4.13 The closest bus stops to the site are on the B5129 Chester Road East approximately 500m and 800m from the site via the PRoW, which provides access to the No. 9 service: Connahs Quay Shopping Centre - Shotton, Mancot - Broughton Retail Park, although services are limited to 3 services in the morning.

4.14 There are additional bus stops at the Expressway Business Park, approximately 1.7km (24 minutes) walk from the site. Services available from this stop include the No. 5 Ellesmere Port - Mold, the No.10/10A Chester - Connahs Quay or Flint and the No. F1 Connah's Quay – Shotton – Queensferry – Garden City – Deeside Ind Park.

4.15 The site is situated approximately 3.2km from Shotton Railway Station, which is within cycling distance of the site. A summary of direct services available from this station can be found in **Table 4.1**.

Table 4.1 Direct Services from Shotton Railway Station

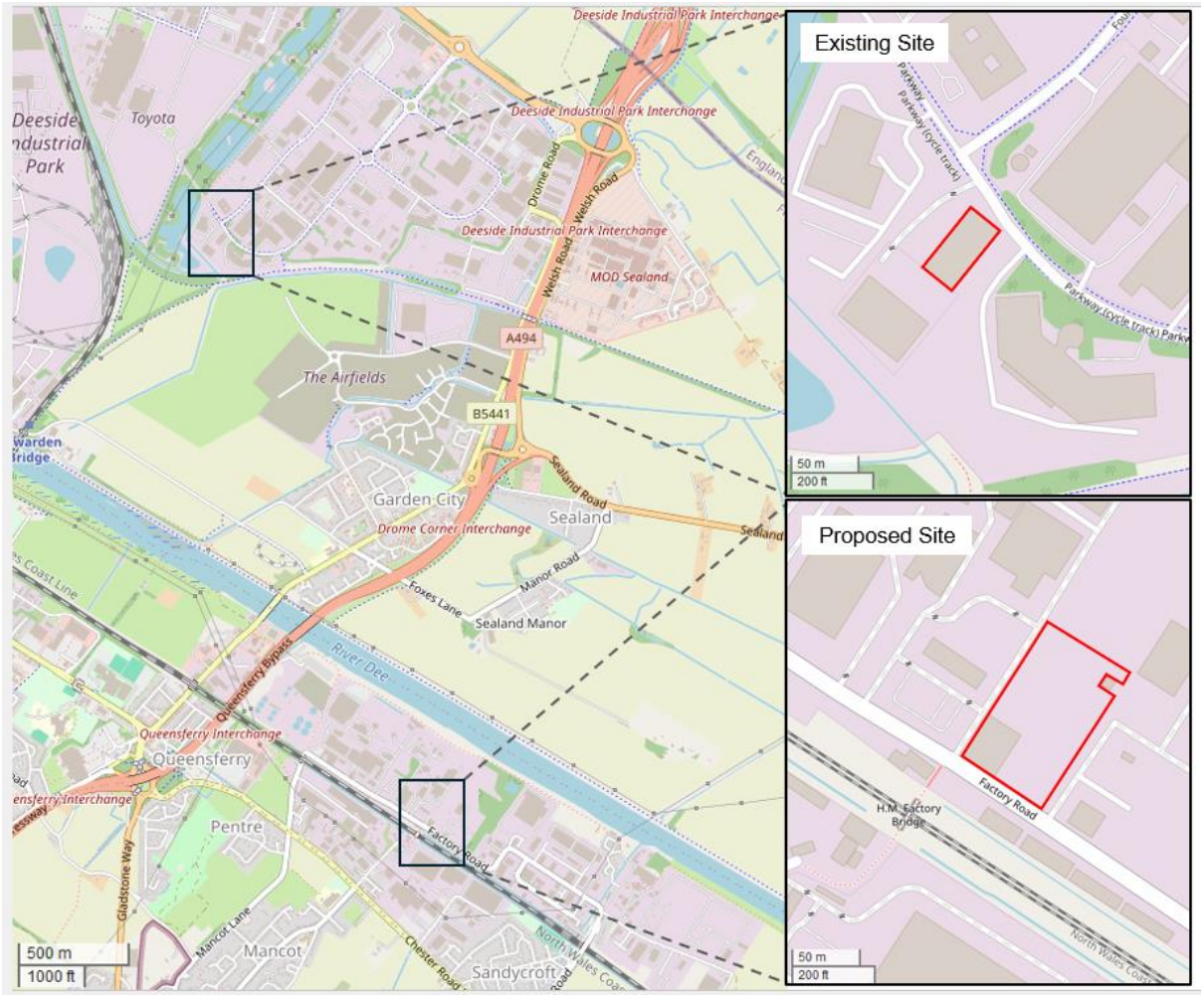
Direct Service	Journey Time (Mins)	Frequency
Llandudno	50	Hourly
Bidston	30	Hourly
Wrexham	40	1-2 per hour
Manchester Airport (via Chester)	95	1-2 per hour
Birmingham	160	Every 2 hours

5.0 Existing Site Operations

5.1 The Chester Wool Company current operations are based at the Deeside Industrial Estate in a unit of circa 1,115m^2 floor area with 12 parking spaces.

5.2 The location of the current site in comparison to the location of the proposed site is shown in **Figure 5.1**.

Figure 5.1 Existing and Proposed Site Location



Source: OpenStreetMap

Staff Travel Behaviour

5.3 Chester Wool Company currently employs eight full time members of staff, two of which work fully remote and the other six employees work on site with weekday shift patterns of 07:30 – 15:30.

5.4 A recent travel survey of those who work on site returned 5 responses, which showed the majority of existing staff travel by car.

Delivery and Distribution Vehicles

5.5 The current site also has deliveries and distribution vehicles. Deliveries and distribution are usually undertaken by courier vans, which collect the yarn from the site three times a day and distribute to retailers in the UK.

5.6 In addition, a 40ft trailer is received and dispatched once a month from the existing site to Europe.

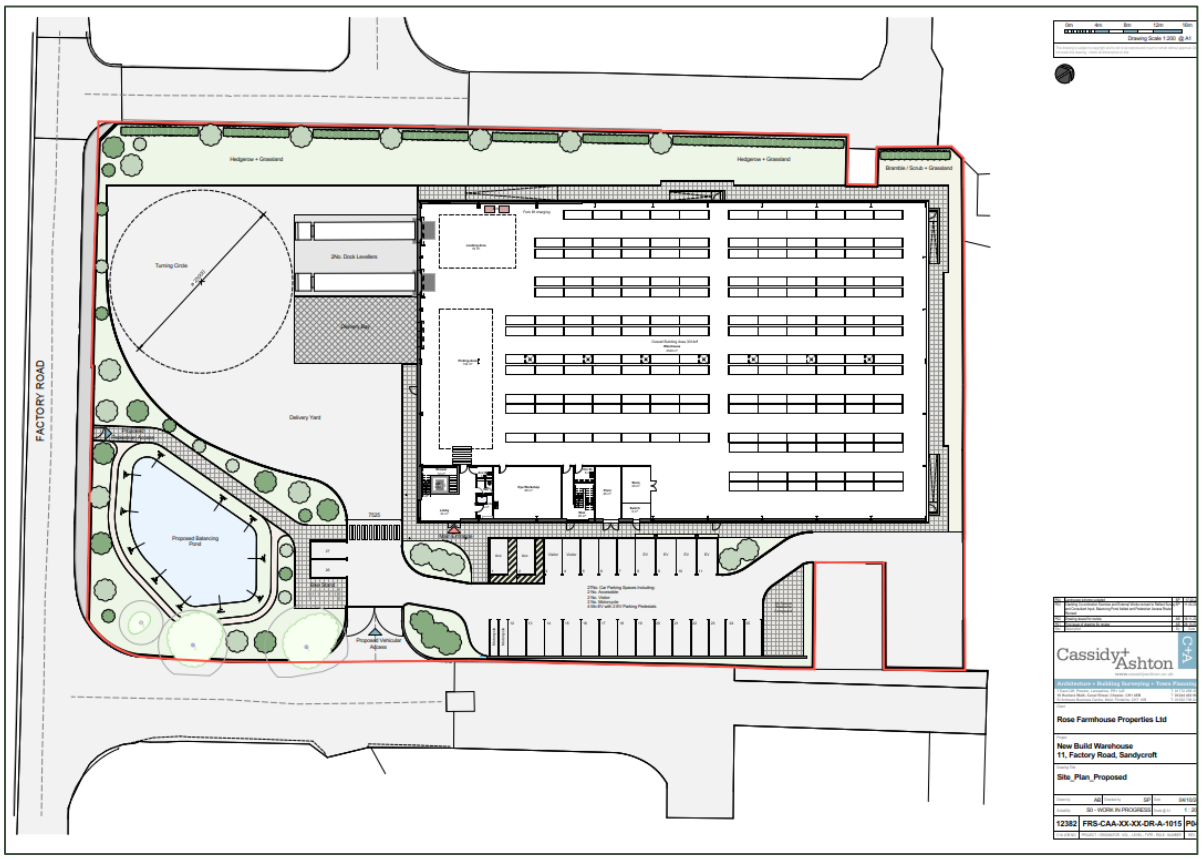
6.0 Proposed Development

Introduction

6.1 The proposed development is for the relocation of Chester Wool Company from their current site in the Deeside Industrial Estate to a new build industrial unit of circa 3,262m^2 gross floor area (including mezzanine) located off Factory Road in the DEZ.

6.2 The masterplan is shown in **Figure 6.1**.

Figure 6.1 Masterplan Layout



Access

6.3 Vehicular access to the site will be via the existing access to the east, accessed via a private road off Factory Road.

6.4 A new pedestrian access will be created into the site from the south to provide a direct route to the building entrance along a new pathway that runs alongside the proposed balancing pond.

Parking

6.5 The masterplan includes a total of 27 parking spaces, including 2 Blue Badge bays, and 4 EV spaces with 2 charging pedestals. In addition, there will be 2 motorcycle spaces and a bicycle stand.

6.6 The existing site has 12 spaces for the 6 staff who are based on-site and this allows some capacity for occasional visitors. The total 27 spaces proposed at the site are both sufficient for the level of operations, whilst also reflecting the larger building size (3,262m^2 gross floor area) compared to the existing site (1,115m^2).

6.7 A breakdown of the proposed parking provision in comparison to the relevant parking standards has been set out in **Table 6.1.**

Table 6.1 Parking Standards and Proposed Parking

Space Type	Parking Standards	Required Parking	Proposed Parking
Flintshire Parking Standards			
Total Spaces	B8 Storage: 1 per 100m^2 GFA	33	27
Blue Badge	6% of all car spaces	2	2
EV Charging	10% of parking spaces	3	4 spaces with 2 charging pedestals
Bicycles	Storage and distribution: 1 per 1000m^2	3	Bicycle stand (minimum of 3 spaces)
Motorcycles	1 per 25 car space	1	2

6.8 As seen in **Table 6.1**, the proposed parking provision for the site meets the relevant parking standards. It should be noted that the total spaces are considered to be a maximum standard so as not to over-provide and encourage people to travel by car. As set out previously, 27 total spaces is considered to be sufficient for the proposed site.

Staff Travel Behaviour

6.9 Travel behaviour of current employees will likely remain the same. The impact of current members of staff commuting to the proposed site location is minimal as the vehicles are effectively already on the network but are simply travelling to a different destination. The likely route for staff who travel by car will be from the A494 roundabout via the B5129 Chester Road East, Chemistry Lane, to Factory Road.

6.10 Shift patterns will remain the same of 7:30 – 15:30 on weekdays, with staff travelling outside of the traditional peak hours.

6.11 Whilst there is currently no intention to grow the workforce, the proposed unit has been designed to accommodate an increase in staff by providing car parking in line with the required standards.

Delivery and Distribution Vehicles

6.12 The proposed masterplan includes 2 dock levellers and a delivery bay at the western side of the warehouse. The layout of this and supporting vehicle tracking is included in **Appendix A**.

6.13 The operations of the site will remain the same with deliveries and distribution usually undertaken by courier vans, which collect the yarn from the site three times a day and distribute to retailers in the UK. In addition, a 40ft trailer is received and dispatched once a month from the existing site to Europe.

6.14 As set out previously in this report, the 7’9” height restriction on Chemistry Lane due to the low bridge will restrict HGV access from the west via Chemistry Lane and instead HGVs will be required to travel east on the B5129 Chester Road East to Factory Road. Delivery and distribution vehicles will be made aware of this routing arrangement in advance.

7.0 Trip Assessment

Forecast Development Traffic

7.1 As set out previously it is unlikely that there will be a change in the number of staff vehicles accessing the site and operations are expected to remain the same.

7.2 The current number of vehicles accessing the existing site is:

- Total of 12 staff car movements per day: 6 staff cars arriving in the AM (for a 07:30 start), and 6 staff cars leaving in the PM (after 15:30 finish)
- Total of 6 van movements per day: 3 vans arriving to collect yarn, and then leaving
- 2 HGV (40ft trailer) movements per month: 1 vehicle arriving and leaving
- Resulting in a maximum of 20 vehicle movements per day maximum.

7.3 However, to support the application and the future trip generating potential of the site, a robust assessment using the industry-standard TRICS software has been undertaken to present the forecast level of trips for an industrial unit using average trip rates for sites of a similar scale and nature.

7.4 The following criteria have been selected:

- 02 Employment;
- C – Industrial Unit;
- 690 - 10,000 m^2 GFA;
- Multi-modal surveys;
- Excluding Greater London and Republic of Ireland.

7.5 A summary of the vehicle trip rates derived and the resulting vehicle trip generation is set out in **Table 7.1** for total vehicles, and **Table 7.2** for heavy vehicles. The full TRICS output is included in **Appendix B**.

Table 7.1 Trip Rates and Forecast Trip Generation (total vehicles)

Peak	Trip Rate			Trip Gen		
	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way
AM 8:00-09:00	0.267	0.066	0.333	9	2	11
PM 17:00-18:00	0.044	0.066	0.110	1	2	3
Daily	1.749	1.673	3.422	57	55	112

Table 7.2 Trip Rates and Forecast Trip Generation (heavy vehicles)

Peak	Trip Rate			Trip Gen		
	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way
AM 8:00-09:00	0.039	0.034	0.073	1	1	2
PM 17:00-18:00	0.000	0.000	0.000	0	0	0
Daily	0.331	0.326	0.657	11	11	22

7.6 The site could generate 11 two-way vehicle trips in the morning peak and 3 two-way vehicle trips in the evening peak, and 112 two-way movements daily. Of these movements, there will be 2 two-way heavy goods vehicle movements in the AM peak, none in the PM peak, and 22 two-way heavy goods vehicle movements daily.

Traffic Flows

7.7 To understand the level of traffic on adjacent roads, two Automatic Traffic Counts (ATC) were undertaken on Chemistry Lane and Factory Road in the vicinity of the site, for a one-week period Tuesday 19th November to Monday 25th November. The traffic survey data is provided in **Appendix C**.

7.8 The average weekday peak period and daily traffic flows from the survey period are shown in **Table 7.3**.

Table 7.3 Surveyed Traffic Flows on Chemistry Lane and Factory Road (two-way)

Two Way	Chemistry Lane		Factory Road	
	All Veh	HGVs	All Veh	HGVs
AM 8:00-09:00	286	9	236	21
PM 17:00-18:00	217	2	194	7
Daily	3107	103	2681	248

7.9 The forecast increase in traffic have been added to the surveyed traffic flows in **Table 7.4** to forecast the future 'with development' traffic flows. As set out previously, heavy vehicles will not route via Chemistry Lane due to the low bridge and therefore have only been added to the Factory Road flows.

Table 7.4 Forecast 'With Development' Traffic Flows on Chemistry Lane and Factory Road (two-way)

Two Way	Chemistry Lane		Factory Road	
	All Veh	HGVs	All Veh	HGVs
AM 8:00-09:00	297	9	247	23
PM 17:00-18:00	220	2	197	7
Daily	3219	103	2793	270

7.10 As shown in **Table 7.4**, the forecast increase in traffic flows is negligible compared to the existing flows and therefore there will be no impact on the operation of the highway network.

7.11 It can therefore be concluded that there is no highway or transport reason why the planning application should be refused.

8.0 Summary & Conclusion

8.1 This Transport Statement has been prepared on behalf of Chester Wool Company to assess the relocation of its operations to a new industrial unit on Factory Road, Sandycroft, within the Deeside Enterprise Zone (DEZ). This report has examined the existing and proposed site conditions, accessibility by various transport modes, and the impact on the local transport network. The key findings are as follows:

8.2 The proposed development aligns with national and local policies promoting sustainable transport.

8.3 The local highway network, including Factory Road, Chemistry Lane, and B5129 Chester Road East, has sufficient capacity to accommodate the anticipated traffic from the proposed development. A review of highway safety records revealed no safety concerns in the vicinity of the site.

8.4 Pedestrian and cycling infrastructure within the DEZ and surrounding areas offers viable alternatives to private vehicle use. The site's proximity to public transport, including local bus services and Shotton Railway Station, enhances sustainable transport options.

8.5 Existing operations, including delivery patterns and staff commuting, will remain largely unchanged in the proposed development. Shift patterns ensure travel outside peak hours, minimising congestion impact. Adequate parking and charging provisions, including for bicycles and electric vehicles will be provided in line with parking standards.

8.6 Vehicle trip generation forecasts indicate a negligible increase in daily and peak-hour traffic volumes, with no adverse impact on the local highway network.

8.7 Paragraph 116 of the NPPF states that:

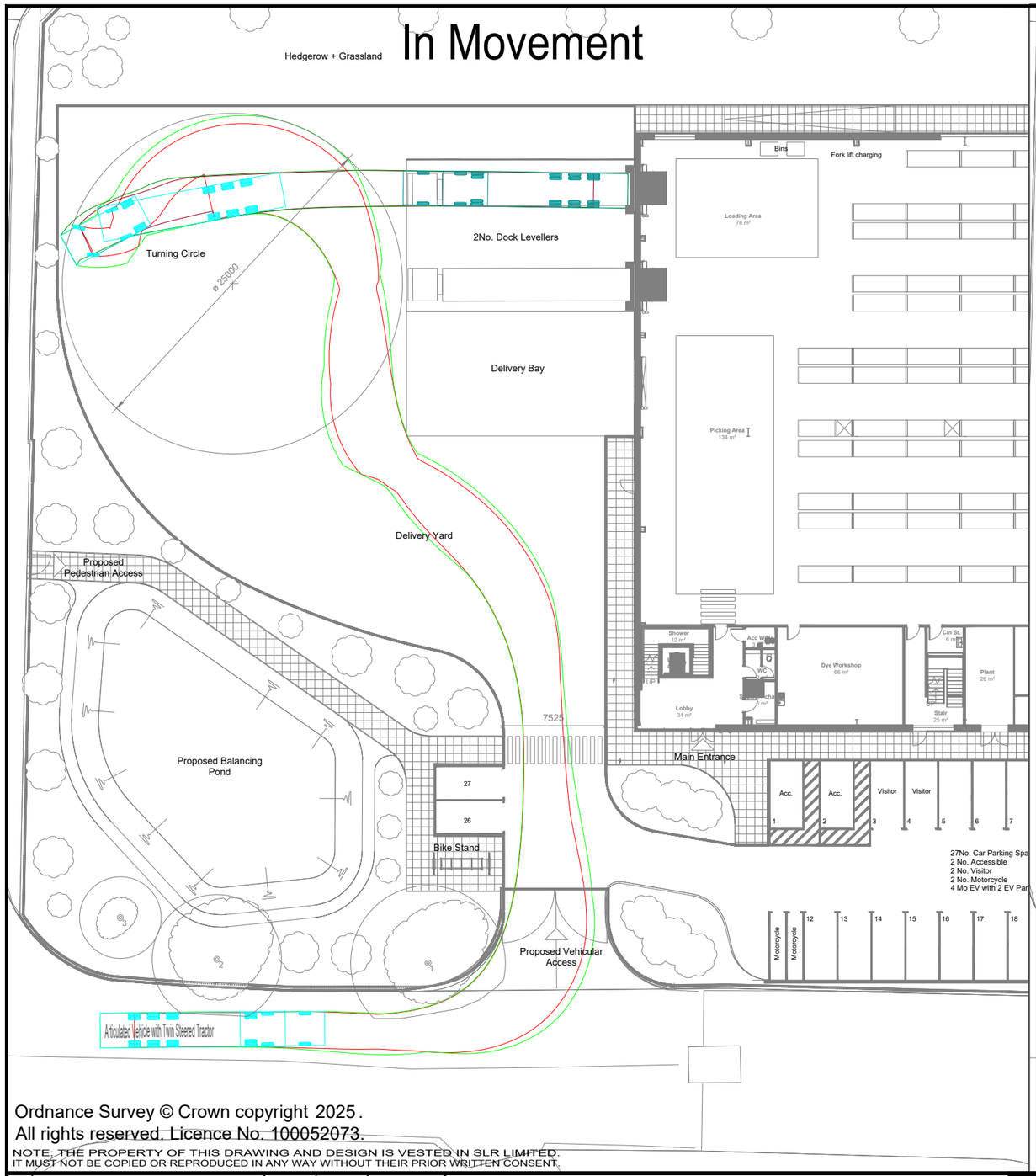
> "*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios.*"

8.8 This report has demonstrated that the development site would not have a severe impact upon either the operation or safety of the local highway network. It provides an appropriate level of car parking and can be safely serviced.

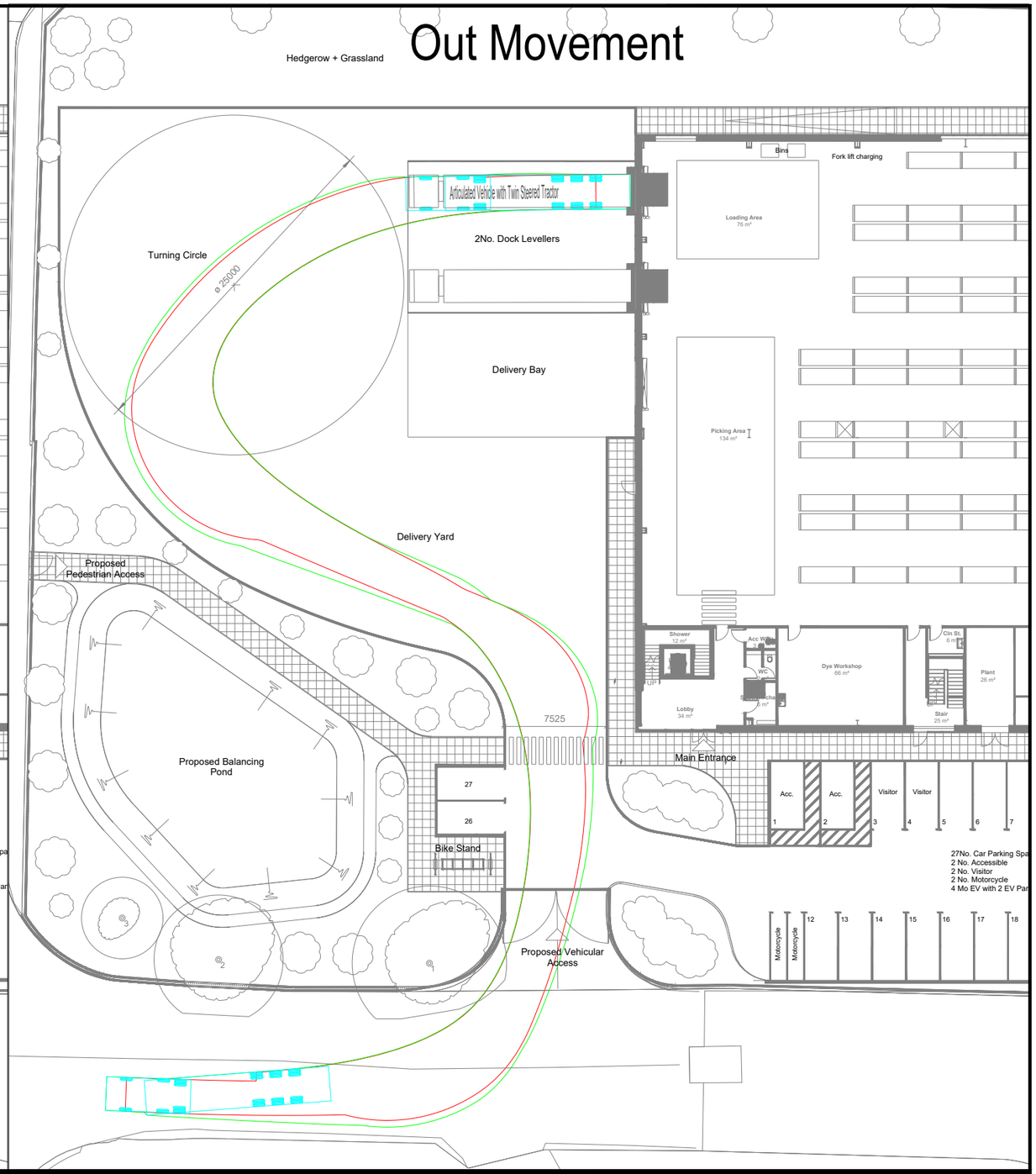
8.9 Therefore, it is considered that there are no reasons why the planning application should be refused on highway or transport grounds.

Appendix A Swept Path Analysis (Vehicle Tracking)

In Movement



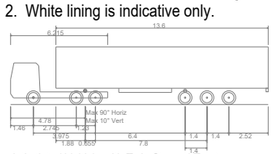
Out Movement



REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.



Articulated Vehicle with Twin Steered Tractor

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.692m
Min Body Ground Clearance	0.426m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.987m

Factory Road, Sandycroft

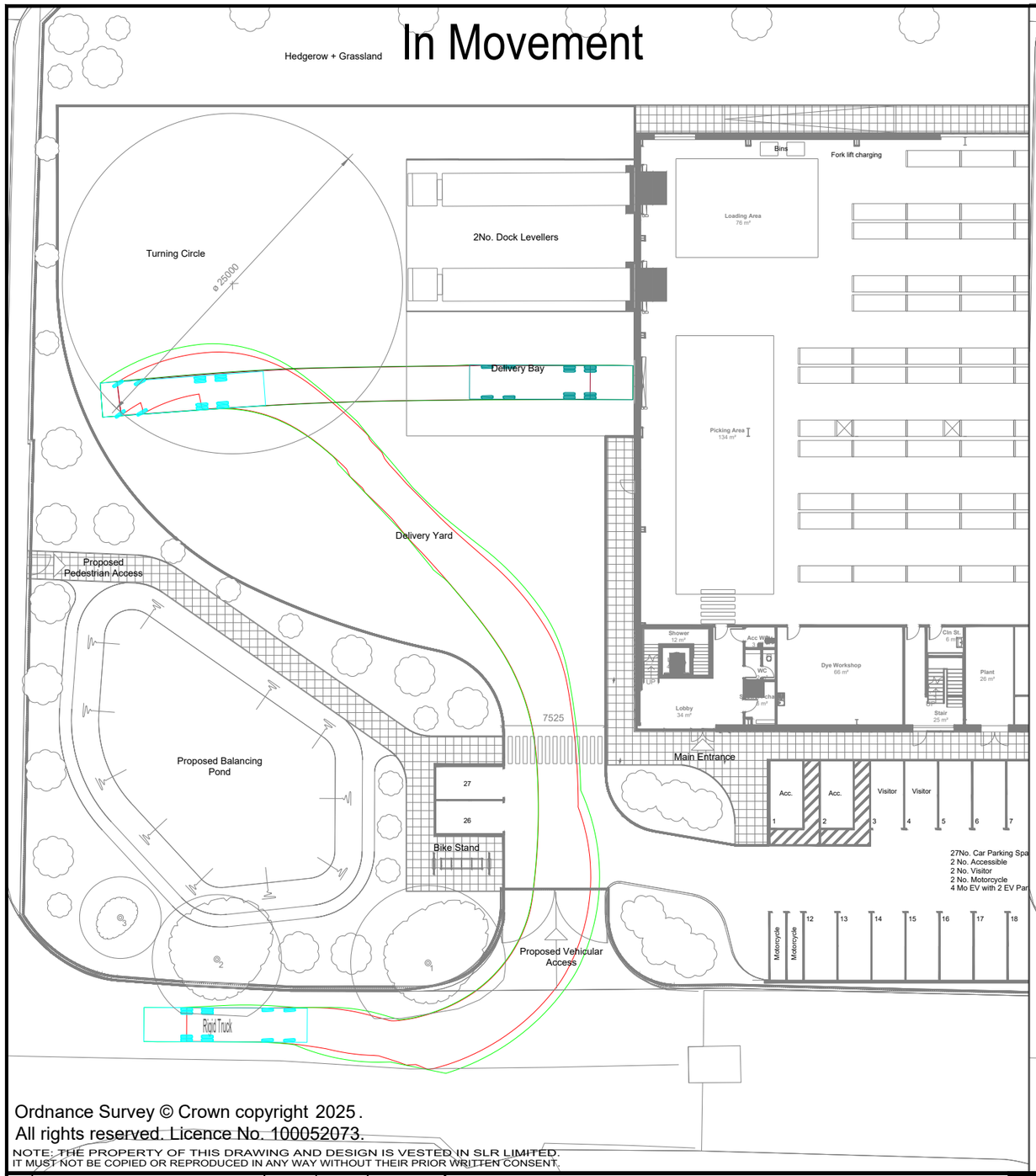
Swept Path Analysis : Max Length Articulated Vehicle

Chester Wool Company

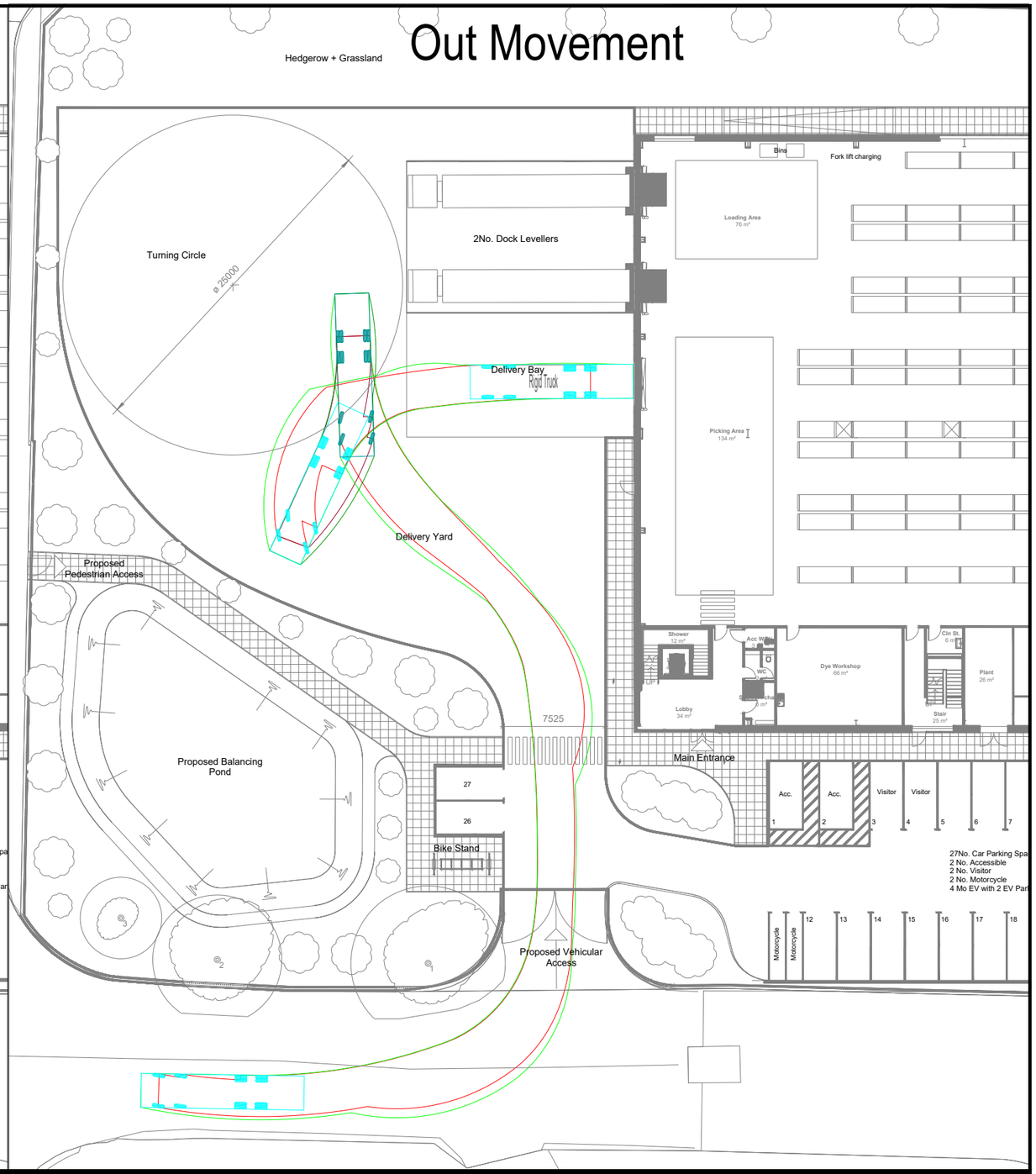
SLR

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
YF	AH	24.02.25	NTS	410.0666350.00001-TR100	·

In Movement



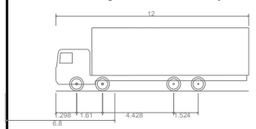
Out Movement



REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.



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

Factory Road, Sandycroft

Chester Wool Company

Swept Path Analysis : Rigid Truck

SLR

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
YF	AH	24.02.25	NTS	410.0666350.00001-TR101	·

Appendix B TRICS Trip Rates

Calculation Reference: AUDIT-529504-250122-0131

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
03	SOUTH WEST		
	DV	DEVON	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
06	WEST MIDLANDS		
	WK	WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	690 to 9216 (units: sqm)
Range Selected by User:	690 to 10000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 29/06/23

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	3 days

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

Selected survey types:

Manual count	5 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	2
Neighbourhood Centre (PPS6 Local Centre)	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:

Industrial Zone	4
Village	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	4 days - Selected
Servicing vehicles Excluded	1 days - Selected

Secondary Filtering selection:

Use Class:

Not Known	5 days

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

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
5,001 to 10,000	2 days
15,001 to 20,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	2 days
125,001 to 250,000	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	3 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	5 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	5 days

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

LIST OF SITES relevant to selection parameters

1 DV-02-C-02 ENERGY RECOVERY FACILITY DEVON
GRACE ROAD SOUTH
EXETER
MARSH BARTON TRAD. EST.
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3513 sqm
Survey date: THURSDAY 06/07/17 Survey Type: MANUAL

2 HC-02-C-02 GIN DISTILLERY HAMPSHIRE
LONDON ROAD
LAVERSTOKE

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 8000 sqm
Survey date: WEDNESDAY 09/05/18 Survey Type: MANUAL

3 NF-02-C-04 EXHIBITION DESIGN & MANUF. NORFOLK
FLETCHER WAY
NORWICH
UPPER HELLESDON
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 690 sqm
Survey date: THURSDAY 14/11/19 Survey Type: MANUAL

4 NY-02-C-03 WORKWEAR MANUFACTURER NORTH YORKSHIRE
WETHERBY ROAD
KNARESBOROUGH

Edge of Town
Industrial Zone
Total Gross floor area: 1500 sqm
Survey date: THURSDAY 29/06/23 Survey Type: MANUAL

5 WK-02-C-01 MACHINE ENGINEERING WARWICKSHIRE
CASTLE MOUND WAY
RUGBY

Edge of Town
Industrial Zone
Total Gross floor area: 9216 sqm
Survey date: WEDNESDAY 10/11/21 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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 2.61

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.011	1	9216	0.000	1	9216	0.011
05:30 - 06:00	1	9216	0.087	1	9216	0.000	1	9216	0.087
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.011	1	9216	0.000	1	9216	0.011
07:00 - 07:30	5	4584	0.227	5	4584	0.017	5	4584	0.244
07:30 - 08:00	5	4584	0.083	5	4584	0.013	5	4584	0.096
08:00 - 08:30	5	4584	0.175	5	4584	0.022	5	4584	0.197
08:30 - 09:00	5	4584	0.092	5	4584	0.044	5	4584	0.136
09:00 - 09:30	5	4584	0.074	5	4584	0.035	5	4584	0.109
09:30 - 10:00	5	4584	0.127	5	4584	0.070	5	4584	0.197
10:00 - 10:30	5	4584	0.079	5	4584	0.035	5	4584	0.114
10:30 - 11:00	5	4584	0.087	5	4584	0.035	5	4584	0.122
11:00 - 11:30	5	4584	0.044	5	4584	0.057	5	4584	0.101
11:30 - 12:00	5	4584	0.048	5	4584	0.039	5	4584	0.087
12:00 - 12:30	5	4584	0.083	5	4584	0.105	5	4584	0.188
12:30 - 13:00	5	4584	0.092	5	4584	0.140	5	4584	0.232
13:00 - 13:30	5	4584	0.065	5	4584	0.175	5	4584	0.240
13:30 - 14:00	5	4584	0.061	5	4584	0.100	5	4584	0.161
14:00 - 14:30	5	4584	0.048	5	4584	0.048	5	4584	0.096
14:30 - 15:00	5	4584	0.061	5	4584	0.044	5	4584	0.105
15:00 - 15:30	5	4584	0.048	5	4584	0.100	5	4584	0.148
15:30 - 16:00	5	4584	0.009	5	4584	0.061	5	4584	0.070
16:00 - 16:30	5	4584	0.031	5	4584	0.209	5	4584	0.240
16:30 - 17:00	5	4584	0.009	5	4584	0.144	5	4584	0.153
17:00 - 17:30	5	4584	0.009	5	4584	0.044	5	4584	0.053
17:30 - 18:00	5	4584	0.035	5	4584	0.022	5	4584	0.057
18:00 - 18:30	5	4584	0.022	5	4584	0.013	5	4584	0.035
18:30 - 19:00	5	4584	0.013	5	4584	0.013	5	4584	0.026
19:00 - 19:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
19:30 - 20:00	2	8608	0.012	2	8608	0.006	2	8608	0.018
20:00 - 20:30	2	8608	0.006	2	8608	0.070	2	8608	0.076
20:30 - 21:00	2	8608	0.000	2	8608	0.012	2	8608	0.012
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.749			1.673			3.422

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:	690 - 9216 (units: sqm)
Survey date date range:	01/01/16 - 29/06/23
Number of weekdays (Monday-Friday):	5
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 for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
05:30 - 06:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
07:00 - 07:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
07:30 - 08:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
08:00 - 08:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
08:30 - 09:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
09:00 - 09:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
09:30 - 10:00	5	4584	0.004	5	4584	0.004	5	4584	0.008
10:00 - 10:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
10:30 - 11:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
11:00 - 11:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
11:30 - 12:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
12:00 - 12:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
12:30 - 13:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
13:00 - 13:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
13:30 - 14:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
14:00 - 14:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
14:30 - 15:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
15:00 - 15:30	5	4584	0.017	5	4584	0.017	5	4584	0.034
15:30 - 16:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
16:00 - 16:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
16:30 - 17:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
17:00 - 17:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
17:30 - 18:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:00 - 18:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:30 - 19:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
19:00 - 19:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
19:30 - 20:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
20:00 - 20:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
20:30 - 21:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.021			0.021			0.042

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
05:30 - 06:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
07:00 - 07:30	5	4584	0.017	5	4584	0.009	5	4584	0.026
07:30 - 08:00	5	4584	0.022	5	4584	0.013	5	4584	0.035
08:00 - 08:30	5	4584	0.017	5	4584	0.017	5	4584	0.034
08:30 - 09:00	5	4584	0.022	5	4584	0.017	5	4584	0.039
09:00 - 09:30	5	4584	0.013	5	4584	0.017	5	4584	0.030
09:30 - 10:00	5	4584	0.026	5	4584	0.026	5	4584	0.052
10:00 - 10:30	5	4584	0.004	5	4584	0.004	5	4584	0.008
10:30 - 11:00	5	4584	0.004	5	4584	0.004	5	4584	0.008
11:00 - 11:30	5	4584	0.009	5	4584	0.009	5	4584	0.018
11:30 - 12:00	5	4584	0.026	5	4584	0.022	5	4584	0.048
12:00 - 12:30	5	4584	0.052	5	4584	0.052	5	4584	0.104
12:30 - 13:00	5	4584	0.026	5	4584	0.035	5	4584	0.061
13:00 - 13:30	5	4584	0.022	5	4584	0.017	5	4584	0.039
13:30 - 14:00	5	4584	0.026	5	4584	0.022	5	4584	0.048
14:00 - 14:30	5	4584	0.009	5	4584	0.009	5	4584	0.018
14:30 - 15:00	5	4584	0.004	5	4584	0.004	5	4584	0.008
15:00 - 15:30	5	4584	0.013	5	4584	0.017	5	4584	0.030
15:30 - 16:00	5	4584	0.004	5	4584	0.009	5	4584	0.013
16:00 - 16:30	5	4584	0.009	5	4584	0.013	5	4584	0.022
16:30 - 17:00	5	4584	0.000	5	4584	0.004	5	4584	0.004
17:00 - 17:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
17:30 - 18:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:00 - 18:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:30 - 19:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
19:00 - 19:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
19:30 - 20:00	2	8608	0.006	2	8608	0.000	2	8608	0.006
20:00 - 20:30	2	8608	0.000	2	8608	0.006	2	8608	0.006
20:30 - 21:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.331			0.326			0.657

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
05:30 - 06:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:00 - 06:30	1	9216	0.011	1	9216	0.000	1	9216	0.011
06:30 - 07:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
07:00 - 07:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
07:30 - 08:00	5	4584	0.004	5	4584	0.000	5	4584	0.004
08:00 - 08:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
08:30 - 09:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
09:00 - 09:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
09:30 - 10:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
10:00 - 10:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
10:30 - 11:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
11:00 - 11:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
11:30 - 12:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
12:00 - 12:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
12:30 - 13:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
13:00 - 13:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
13:30 - 14:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
14:00 - 14:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
14:30 - 15:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
15:00 - 15:30	5	4584	0.000	5	4584	0.004	5	4584	0.004
15:30 - 16:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
16:00 - 16:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
16:30 - 17:00	5	4584	0.000	5	4584	0.004	5	4584	0.004
17:00 - 17:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
17:30 - 18:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:00 - 18:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:30 - 19:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
19:00 - 19:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
19:30 - 20:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
20:00 - 20:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
20:30 - 21:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.015			0.008			0.023

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.011	1	9216	0.000	1	9216	0.011
05:30 - 06:00	1	9216	0.076	1	9216	0.000	1	9216	0.076
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.011	1	9216	0.000	1	9216	0.011
07:00 - 07:30	5	4584	0.231	5	4584	0.013	5	4584	0.244
07:30 - 08:00	5	4584	0.087	5	4584	0.013	5	4584	0.100
08:00 - 08:30	5	4584	0.205	5	4584	0.022	5	4584	0.227
08:30 - 09:00	5	4584	0.118	5	4584	0.044	5	4584	0.162
09:00 - 09:30	5	4584	0.083	5	4584	0.035	5	4584	0.118
09:30 - 10:00	5	4584	0.223	5	4584	0.100	5	4584	0.323
10:00 - 10:30	5	4584	0.161	5	4584	0.039	5	4584	0.200
10:30 - 11:00	5	4584	0.148	5	4584	0.035	5	4584	0.183
11:00 - 11:30	5	4584	0.074	5	4584	0.065	5	4584	0.139
11:30 - 12:00	5	4584	0.083	5	4584	0.061	5	4584	0.144
12:00 - 12:30	5	4584	0.153	5	4584	0.166	5	4584	0.319
12:30 - 13:00	5	4584	0.144	5	4584	0.223	5	4584	0.367
13:00 - 13:30	5	4584	0.079	5	4584	0.284	5	4584	0.363
13:30 - 14:00	5	4584	0.122	5	4584	0.175	5	4584	0.297
14:00 - 14:30	5	4584	0.070	5	4584	0.070	5	4584	0.140
14:30 - 15:00	5	4584	0.118	5	4584	0.074	5	4584	0.192
15:00 - 15:30	5	4584	0.074	5	4584	0.161	5	4584	0.235
15:30 - 16:00	5	4584	0.017	5	4584	0.096	5	4584	0.113
16:00 - 16:30	5	4584	0.044	5	4584	0.266	5	4584	0.310
16:30 - 17:00	5	4584	0.013	5	4584	0.196	5	4584	0.209
17:00 - 17:30	5	4584	0.009	5	4584	0.061	5	4584	0.070
17:30 - 18:00	5	4584	0.079	5	4584	0.022	5	4584	0.101
18:00 - 18:30	5	4584	0.035	5	4584	0.022	5	4584	0.057
18:30 - 19:00	5	4584	0.022	5	4584	0.017	5	4584	0.039
19:00 - 19:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
19:30 - 20:00	2	8608	0.017	2	8608	0.023	2	8608	0.040
20:00 - 20:30	2	8608	0.006	2	8608	0.134	2	8608	0.140
20:30 - 21:00	2	8608	0.000	2	8608	0.017	2	8608	0.017
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			2.513			2.434			4.947

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
05:30 - 06:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
07:00 - 07:30	5	4584	0.026	5	4584	0.000	5	4584	0.026
07:30 - 08:00	5	4584	0.004	5	4584	0.000	5	4584	0.004
08:00 - 08:30	5	4584	0.004	5	4584	0.000	5	4584	0.004
08:30 - 09:00	5	4584	0.004	5	4584	0.000	5	4584	0.004
09:00 - 09:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
09:30 - 10:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
10:00 - 10:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
10:30 - 11:00	5	4584	0.004	5	4584	0.004	5	4584	0.008
11:00 - 11:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
11:30 - 12:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
12:00 - 12:30	5	4584	0.000	5	4584	0.013	5	4584	0.013
12:30 - 13:00	5	4584	0.009	5	4584	0.000	5	4584	0.009
13:00 - 13:30	5	4584	0.000	5	4584	0.004	5	4584	0.004
13:30 - 14:00	5	4584	0.009	5	4584	0.009	5	4584	0.018
14:00 - 14:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
14:30 - 15:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
15:00 - 15:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
15:30 - 16:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
16:00 - 16:30	5	4584	0.000	5	4584	0.013	5	4584	0.013
16:30 - 17:00	5	4584	0.000	5	4584	0.009	5	4584	0.009
17:00 - 17:30	5	4584	0.000	5	4584	0.009	5	4584	0.009
17:30 - 18:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:00 - 18:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:30 - 19:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
19:00 - 19:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
19:30 - 20:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
20:00 - 20:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
20:30 - 21:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.060			0.061			0.121

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
05:30 - 06:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
07:00 - 07:30	5	4584	0.004	5	4584	0.000	5	4584	0.004
07:30 - 08:00	5	4584	0.022	5	4584	0.009	5	4584	0.031
08:00 - 08:30	5	4584	0.009	5	4584	0.000	5	4584	0.009
08:30 - 09:00	5	4584	0.052	5	4584	0.000	5	4584	0.052
09:00 - 09:30	5	4584	0.017	5	4584	0.004	5	4584	0.021
09:30 - 10:00	5	4584	0.004	5	4584	0.000	5	4584	0.004
10:00 - 10:30	5	4584	0.022	5	4584	0.017	5	4584	0.039
10:30 - 11:00	5	4584	0.031	5	4584	0.017	5	4584	0.048
11:00 - 11:30	5	4584	0.009	5	4584	0.004	5	4584	0.013
11:30 - 12:00	5	4584	0.017	5	4584	0.017	5	4584	0.034
12:00 - 12:30	5	4584	0.017	5	4584	0.022	5	4584	0.039
12:30 - 13:00	5	4584	0.035	5	4584	0.035	5	4584	0.070
13:00 - 13:30	5	4584	0.004	5	4584	0.004	5	4584	0.008
13:30 - 14:00	5	4584	0.026	5	4584	0.022	5	4584	0.048
14:00 - 14:30	5	4584	0.009	5	4584	0.022	5	4584	0.031
14:30 - 15:00	5	4584	0.013	5	4584	0.004	5	4584	0.017
15:00 - 15:30	5	4584	0.009	5	4584	0.009	5	4584	0.018
15:30 - 16:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
16:00 - 16:30	5	4584	0.009	5	4584	0.000	5	4584	0.009
16:30 - 17:00	5	4584	0.022	5	4584	0.048	5	4584	0.070
17:00 - 17:30	5	4584	0.004	5	4584	0.017	5	4584	0.021
17:30 - 18:00	5	4584	0.044	5	4584	0.009	5	4584	0.053
18:00 - 18:30	5	4584	0.004	5	4584	0.017	5	4584	0.021
18:30 - 19:00	5	4584	0.017	5	4584	0.017	5	4584	0.034
19:00 - 19:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
19:30 - 20:00	2	8608	0.000	2	8608	0.006	2	8608	0.006
20:00 - 20:30	2	8608	0.006	2	8608	0.128	2	8608	0.134
20:30 - 21:00	2	8608	0.006	2	8608	0.017	2	8608	0.023
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.013	1	8000	0.000	1	8000	0.013
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.425			0.445			0.870

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL COACH PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
05:30 - 06:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
07:00 - 07:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
07:30 - 08:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
08:00 - 08:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
08:30 - 09:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
09:00 - 09:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
09:30 - 10:00	5	4584	0.113	5	4584	0.000	5	4584	0.113
10:00 - 10:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
10:30 - 11:00	5	4584	0.122	5	4584	0.113	5	4584	0.235
11:00 - 11:30	5	4584	0.096	5	4584	0.004	5	4584	0.100
11:30 - 12:00	5	4584	0.122	5	4584	0.000	5	4584	0.122
12:00 - 12:30	5	4584	0.000	5	4584	0.122	5	4584	0.122
12:30 - 13:00	5	4584	0.144	5	4584	0.000	5	4584	0.144
13:00 - 13:30	5	4584	0.000	5	4584	0.096	5	4584	0.096
13:30 - 14:00	5	4584	0.100	5	4584	0.000	5	4584	0.100
14:00 - 14:30	5	4584	0.000	5	4584	0.262	5	4584	0.262
14:30 - 15:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
15:00 - 15:30	5	4584	0.140	5	4584	0.100	5	4584	0.240
15:30 - 16:00	5	4584	0.148	5	4584	0.000	5	4584	0.148
16:00 - 16:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
16:30 - 17:00	5	4584	0.000	5	4584	0.140	5	4584	0.140
17:00 - 17:30	5	4584	0.244	5	4584	0.148	5	4584	0.392
17:30 - 18:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:00 - 18:30	5	4584	0.000	5	4584	0.113	5	4584	0.113
18:30 - 19:00	5	4584	0.105	5	4584	0.000	5	4584	0.105
19:00 - 19:30	2	8608	0.122	2	8608	0.174	2	8608	0.296
19:30 - 20:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
20:00 - 20:30	2	8608	0.000	2	8608	0.145	2	8608	0.145
20:30 - 21:00	2	8608	0.006	2	8608	0.122	2	8608	0.128
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.462			1.539			3.001

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
05:30 - 06:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
07:00 - 07:30	5	4584	0.004	5	4584	0.000	5	4584	0.004
07:30 - 08:00	5	4584	0.022	5	4584	0.009	5	4584	0.031
08:00 - 08:30	5	4584	0.009	5	4584	0.000	5	4584	0.009
08:30 - 09:00	5	4584	0.052	5	4584	0.000	5	4584	0.052
09:00 - 09:30	5	4584	0.017	5	4584	0.004	5	4584	0.021
09:30 - 10:00	5	4584	0.118	5	4584	0.000	5	4584	0.118
10:00 - 10:30	5	4584	0.022	5	4584	0.017	5	4584	0.039
10:30 - 11:00	5	4584	0.153	5	4584	0.131	5	4584	0.284
11:00 - 11:30	5	4584	0.105	5	4584	0.009	5	4584	0.114
11:30 - 12:00	5	4584	0.140	5	4584	0.017	5	4584	0.157
12:00 - 12:30	5	4584	0.017	5	4584	0.144	5	4584	0.161
12:30 - 13:00	5	4584	0.179	5	4584	0.035	5	4584	0.214
13:00 - 13:30	5	4584	0.004	5	4584	0.100	5	4584	0.104
13:30 - 14:00	5	4584	0.127	5	4584	0.022	5	4584	0.149
14:00 - 14:30	5	4584	0.009	5	4584	0.284	5	4584	0.293
14:30 - 15:00	5	4584	0.013	5	4584	0.004	5	4584	0.017
15:00 - 15:30	5	4584	0.148	5	4584	0.109	5	4584	0.257
15:30 - 16:00	5	4584	0.148	5	4584	0.000	5	4584	0.148
16:00 - 16:30	5	4584	0.009	5	4584	0.000	5	4584	0.009
16:30 - 17:00	5	4584	0.022	5	4584	0.188	5	4584	0.210
17:00 - 17:30	5	4584	0.249	5	4584	0.166	5	4584	0.415
17:30 - 18:00	5	4584	0.044	5	4584	0.009	5	4584	0.053
18:00 - 18:30	5	4584	0.004	5	4584	0.131	5	4584	0.135
18:30 - 19:00	5	4584	0.122	5	4584	0.017	5	4584	0.139
19:00 - 19:30	2	8608	0.122	2	8608	0.174	2	8608	0.296
19:30 - 20:00	2	8608	0.000	2	8608	0.006	2	8608	0.006
20:00 - 20:30	2	8608	0.006	2	8608	0.273	2	8608	0.279
20:30 - 21:00	2	8608	0.012	2	8608	0.139	2	8608	0.151
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.013	1	8000	0.000	1	8000	0.013
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.890			1.988			3.878

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 2.61

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.011	1	9216	0.000	1	9216	0.011
05:30 - 06:00	1	9216	0.076	1	9216	0.000	1	9216	0.076
06:00 - 06:30	1	9216	0.011	1	9216	0.000	1	9216	0.011
06:30 - 07:00	1	9216	0.011	1	9216	0.000	1	9216	0.011
07:00 - 07:30	5	4584	0.262	5	4584	0.013	5	4584	0.275
07:30 - 08:00	5	4584	0.118	5	4584	0.022	5	4584	0.140
08:00 - 08:30	5	4584	0.218	5	4584	0.022	5	4584	0.240
08:30 - 09:00	5	4584	0.175	5	4584	0.044	5	4584	0.219
09:00 - 09:30	5	4584	0.100	5	4584	0.039	5	4584	0.139
09:30 - 10:00	5	4584	0.340	5	4584	0.100	5	4584	0.440
10:00 - 10:30	5	4584	0.183	5	4584	0.057	5	4584	0.240
10:30 - 11:00	5	4584	0.305	5	4584	0.170	5	4584	0.475
11:00 - 11:30	5	4584	0.179	5	4584	0.074	5	4584	0.253
11:30 - 12:00	5	4584	0.223	5	4584	0.079	5	4584	0.302
12:00 - 12:30	5	4584	0.170	5	4584	0.323	5	4584	0.493
12:30 - 13:00	5	4584	0.332	5	4584	0.257	5	4584	0.589
13:00 - 13:30	5	4584	0.083	5	4584	0.388	5	4584	0.471
13:30 - 14:00	5	4584	0.257	5	4584	0.205	5	4584	0.462
14:00 - 14:30	5	4584	0.079	5	4584	0.353	5	4584	0.432
14:30 - 15:00	5	4584	0.131	5	4584	0.079	5	4584	0.210
15:00 - 15:30	5	4584	0.223	5	4584	0.275	5	4584	0.498
15:30 - 16:00	5	4584	0.166	5	4584	0.096	5	4584	0.262
16:00 - 16:30	5	4584	0.052	5	4584	0.279	5	4584	0.331
16:30 - 17:00	5	4584	0.035	5	4584	0.397	5	4584	0.432
17:00 - 17:30	5	4584	0.257	5	4584	0.236	5	4584	0.493
17:30 - 18:00	5	4584	0.122	5	4584	0.031	5	4584	0.153
18:00 - 18:30	5	4584	0.039	5	4584	0.153	5	4584	0.192
18:30 - 19:00	5	4584	0.144	5	4584	0.035	5	4584	0.179
19:00 - 19:30	2	8608	0.122	2	8608	0.174	2	8608	0.296
19:30 - 20:00	2	8608	0.017	2	8608	0.029	2	8608	0.046
20:00 - 20:30	2	8608	0.012	2	8608	0.407	2	8608	0.419
20:30 - 21:00	2	8608	0.012	2	8608	0.157	2	8608	0.169
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.013	1	8000	0.000	1	8000	0.013
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			4.478			4.494			8.972

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.011	1	9216	0.000	1	9216	0.011
05:30 - 06:00	1	9216	0.076	1	9216	0.000	1	9216	0.076
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.011	1	9216	0.000	1	9216	0.011
07:00 - 07:30	5	4584	0.201	5	4584	0.004	5	4584	0.205
07:30 - 08:00	5	4584	0.052	5	4584	0.000	5	4584	0.052
08:00 - 08:30	5	4584	0.135	5	4584	0.004	5	4584	0.139
08:30 - 09:00	5	4584	0.039	5	4584	0.004	5	4584	0.043
09:00 - 09:30	5	4584	0.044	5	4584	0.009	5	4584	0.053
09:30 - 10:00	5	4584	0.074	5	4584	0.022	5	4584	0.096
10:00 - 10:30	5	4584	0.061	5	4584	0.013	5	4584	0.074
10:30 - 11:00	5	4584	0.057	5	4584	0.017	5	4584	0.074
11:00 - 11:30	5	4584	0.031	5	4584	0.035	5	4584	0.066
11:30 - 12:00	5	4584	0.013	5	4584	0.013	5	4584	0.026
12:00 - 12:30	5	4584	0.022	5	4584	0.044	5	4584	0.066
12:30 - 13:00	5	4584	0.044	5	4584	0.087	5	4584	0.131
13:00 - 13:30	5	4584	0.039	5	4584	0.140	5	4584	0.179
13:30 - 14:00	5	4584	0.026	5	4584	0.065	5	4584	0.091
14:00 - 14:30	5	4584	0.022	5	4584	0.022	5	4584	0.044
14:30 - 15:00	5	4584	0.044	5	4584	0.022	5	4584	0.066
15:00 - 15:30	5	4584	0.013	5	4584	0.061	5	4584	0.074
15:30 - 16:00	5	4584	0.000	5	4584	0.044	5	4584	0.044
16:00 - 16:30	5	4584	0.013	5	4584	0.166	5	4584	0.179
16:30 - 17:00	5	4584	0.009	5	4584	0.131	5	4584	0.140
17:00 - 17:30	5	4584	0.009	5	4584	0.044	5	4584	0.053
17:30 - 18:00	5	4584	0.035	5	4584	0.022	5	4584	0.057
18:00 - 18:30	5	4584	0.022	5	4584	0.013	5	4584	0.035
18:30 - 19:00	5	4584	0.009	5	4584	0.009	5	4584	0.018
19:00 - 19:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
19:30 - 20:00	2	8608	0.006	2	8608	0.006	2	8608	0.012
20:00 - 20:30	2	8608	0.000	2	8608	0.058	2	8608	0.058
20:30 - 21:00	2	8608	0.000	2	8608	0.012	2	8608	0.012
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.118			1.067			2.185

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
05:30 - 06:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
07:00 - 07:30	5	4584	0.009	5	4584	0.004	5	4584	0.013
07:30 - 08:00	5	4584	0.009	5	4584	0.000	5	4584	0.009
08:00 - 08:30	5	4584	0.022	5	4584	0.000	5	4584	0.022
08:30 - 09:00	5	4584	0.031	5	4584	0.022	5	4584	0.053
09:00 - 09:30	5	4584	0.017	5	4584	0.009	5	4584	0.026
09:30 - 10:00	5	4584	0.022	5	4584	0.017	5	4584	0.039
10:00 - 10:30	5	4584	0.013	5	4584	0.017	5	4584	0.030
10:30 - 11:00	5	4584	0.026	5	4584	0.013	5	4584	0.039
11:00 - 11:30	5	4584	0.004	5	4584	0.013	5	4584	0.017
11:30 - 12:00	5	4584	0.009	5	4584	0.004	5	4584	0.013
12:00 - 12:30	5	4584	0.009	5	4584	0.009	5	4584	0.018
12:30 - 13:00	5	4584	0.022	5	4584	0.017	5	4584	0.039
13:00 - 13:30	5	4584	0.004	5	4584	0.017	5	4584	0.021
13:30 - 14:00	5	4584	0.009	5	4584	0.013	5	4584	0.022
14:00 - 14:30	5	4584	0.017	5	4584	0.017	5	4584	0.034
14:30 - 15:00	5	4584	0.013	5	4584	0.017	5	4584	0.030
15:00 - 15:30	5	4584	0.004	5	4584	0.000	5	4584	0.004
15:30 - 16:00	5	4584	0.004	5	4584	0.009	5	4584	0.013
16:00 - 16:30	5	4584	0.009	5	4584	0.031	5	4584	0.040
16:30 - 17:00	5	4584	0.000	5	4584	0.009	5	4584	0.009
17:00 - 17:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
17:30 - 18:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:00 - 18:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:30 - 19:00	5	4584	0.004	5	4584	0.004	5	4584	0.008
19:00 - 19:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
19:30 - 20:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
20:00 - 20:30	2	8608	0.006	2	8608	0.006	2	8608	0.012
20:30 - 21:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.263			0.248			0.511

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL MOTOR CYCLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
05:30 - 06:00	1	9216	0.011	1	9216	0.000	1	9216	0.011
06:00 - 06:30	1	9216	0.000	1	9216	0.000	1	9216	0.000
06:30 - 07:00	1	9216	0.000	1	9216	0.000	1	9216	0.000
07:00 - 07:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
07:30 - 08:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
08:00 - 08:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
08:30 - 09:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
09:00 - 09:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
09:30 - 10:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
10:00 - 10:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
10:30 - 11:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
11:00 - 11:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
11:30 - 12:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
12:00 - 12:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
12:30 - 13:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
13:00 - 13:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
13:30 - 14:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
14:00 - 14:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
14:30 - 15:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
15:00 - 15:30	5	4584	0.000	5	4584	0.004	5	4584	0.004
15:30 - 16:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
16:00 - 16:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
16:30 - 17:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
17:00 - 17:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
17:30 - 18:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:00 - 18:30	5	4584	0.000	5	4584	0.000	5	4584	0.000
18:30 - 19:00	5	4584	0.000	5	4584	0.000	5	4584	0.000
19:00 - 19:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
19:30 - 20:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
20:00 - 20:30	2	8608	0.000	2	8608	0.000	2	8608	0.000
20:30 - 21:00	2	8608	0.000	2	8608	0.000	2	8608	0.000
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.011			0.004			0.015

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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Appendix C Traffic Survey Data

PROJECT	41637 Factory Road, Chemistry Lane, Deeside
SITE CODE	41637-001
LOCATION	Chemistry Lane
START DATE	Tue 19 Nov, 2024
END DATE	Mon 25 Nov, 2024 (inc.)
SPEED LIMIT	30mph
SURVEY TYPE	7-day ATC, 15min periods, 6 veh. classes

ATC SUMMARY REPORT

7-DAY AUTOMATIC TRAFFIC COUNT

A 7-day automatic traffic count on Chemistry Lane, commencing Tue 19 Nov 2024, recorded a total of 17,343 vehicles. The posted speed limit of 30mph was exceeded by 4.7% of vehicles, and the seasonally adjusted, combined AADT value is 2,800 (see 'Equipment & methodology' below).

SUMMARY

COMBINED NORTH & SOUTHBOUND

Total recorded volume	**17,343**
Total recorded HGVs	533
% of vehicles that are HGVs	3.1%
Avg daily volume (based on 7 days)	2,477.6
Average daily speed (7 days)	20.3mph
Average daily 85%ile (7 days)	25.8mph
AADT (annual average daily traffic)	**2,800.3**
AAWT (annual average weekday traffic)	**3,510.1**
Avg weekday volume (Mon-Fri, 24hrs)	3,106.6
Avg weekday speed (Mon-Fri, 24hrs)	20.4mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	2,694.6
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	20.4mph

The combined summary on the left shows the total volumes, average speeds, AADT and 85%iles recorded in both directions from all the recorded data, plus the Mon-Fri peak periods. Speeding vehicles are defined as those travelling 31mph and above.

The summaries below provide directionalised details including speeding percentages and weekday daytime details.

NORTHBOUND ↑

Total recorded volume	**8,705**
Total recorded HGVs	327
% of vehicles that are HGVs	3.8%
Avg daily volume (based on 7 days)	1,243.6
Average daily speed (7 days)	21.4mph
Average daily 85%ile (7 days)	26.5mph
% of vehicles exceeding 30mph	6.2%
AADT (annual average daily traffic)	**1,359.8**
AAWT (annual average weekday traffic)	**1,704.7**
Avg weekday volume (Mon-Fri, 24hrs)	1,563.6
Avg weekday speed (Mon-Fri, 24hrs)	22.0mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	1,269.0
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	22.2mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	27.3mph
AM avg peak vol period (Mon-Fri)	07:45 to 08:00
PM avg peak vol period (Mon-Fri)	12:30 to 12:45

SOUTHBOUND ↓

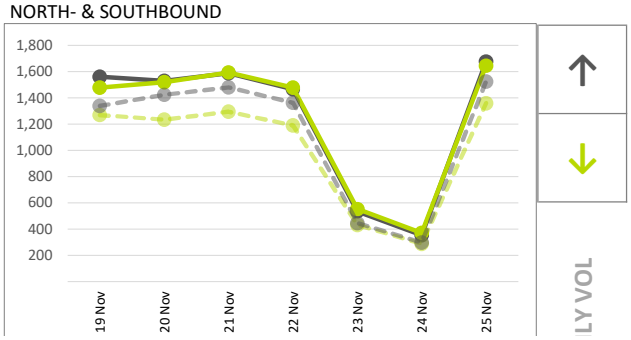
Total recorded volume	**8,638**
Total recorded HGVs	206
% of vehicles that are HGVs	2.4%
Avg daily volume (based on 7 days)	1,234.0
Average daily speed (7 days)	19.2mph
Average daily 85%ile (7 days)	25.0mph
% of vehicles exceeding 30mph	3.2%
AADT (annual average daily traffic)	**1,440.4**
AAWT (annual average weekday traffic)	**1,805.4**
Avg weekday volume (Mon-Fri, 24hrs)	1,543.0
Avg weekday speed (Mon-Fri, 24hrs)	18.8mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	1,425.6
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	18.6mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	24.4mph
AM avg peak vol period (Mon-Fri)	12:00 to 12:15
PM avg peak vol period (Mon-Fri)	17:00 to 17:15

SITE LOCATION

LOCATION	Chemistry Lane
DATES	Tue 19 Nov to Mon 25 Nov inc.
LAT / LNG	53°12'10.08"N, 3° 0'53.61"W
PSL	30mph
DIRECTION 1	↑ Northbound
DIRECTION 2	Southbound ↓

DAILY VOLUMES

NORTH- & SOUTHBOUND

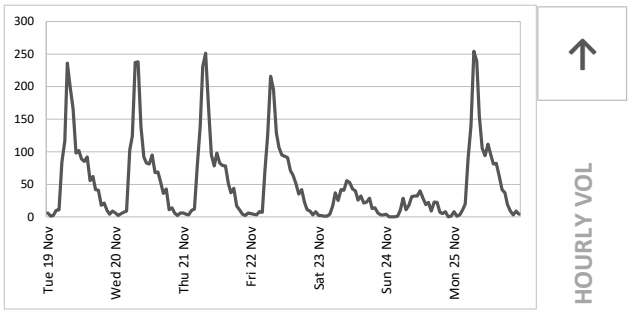


Total 24hr northbound (solid, dark grey) and southbound (solid, dark green) traffic volumes, with light dashed grey and green representing 12hr volumes (0700-1900), over 7 consecutive days from all available data.

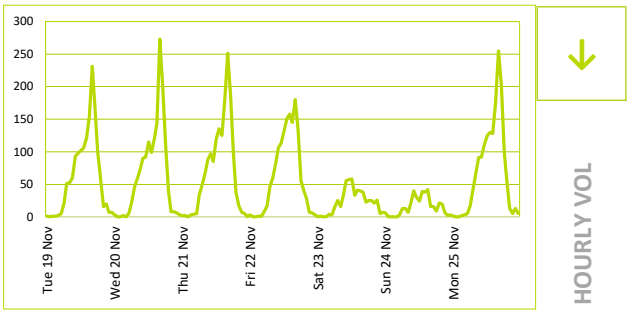
As can be expected, the lowest 24hr volumes were recorded on the Sunday, whilst the highest was on the Monday.

DAI

HOURLY VOLUMES

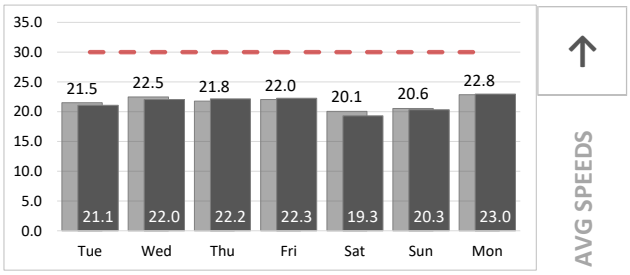


Hourly northbound traffic volumes over each 24hr period for 7 days from all available data

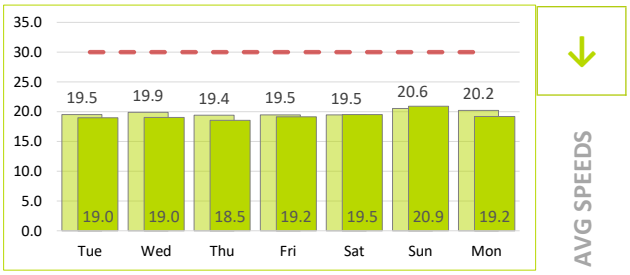


Hourly southbound traffic volumes over each 24hr period for 7 days from all available data

24hr & 12hr AVG SPEEDS

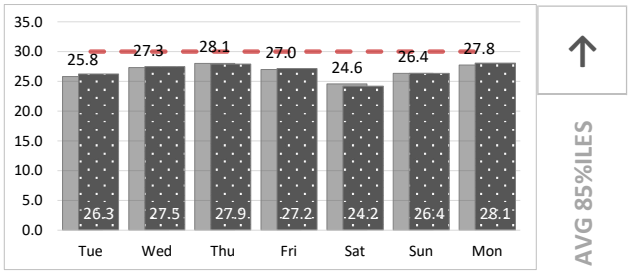


24hr (light) & 12hr daytime (dark grey, 0700-1900) average northbound speeds compared against the posted speed limit of Mon 25 Nov, 2024 (inc.)

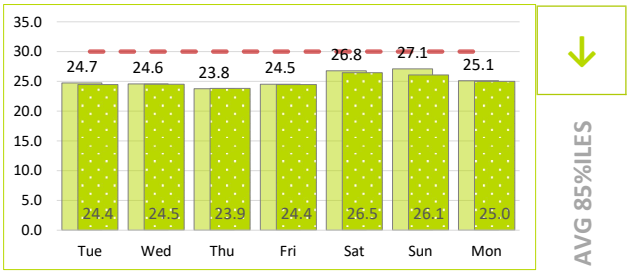


24hr (light) & 12hr daytime (dark green) average southbound speeds compared against the posted speed limit of Mon 25 Nov, 2024 (inc.)

24hr & 12hr 85%ile SPEEDS

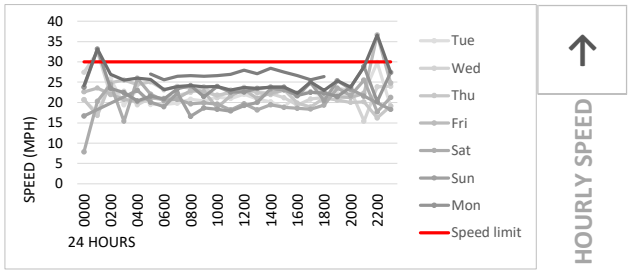


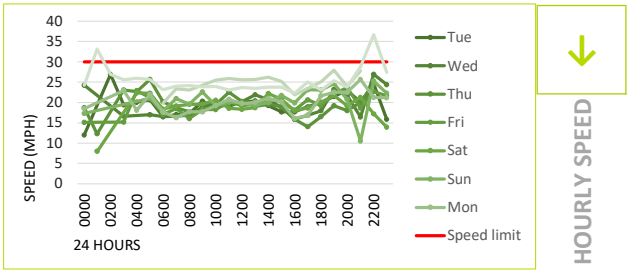
24hr (light) & 12hr daytime (dark grey, 0700-1900) average northbound 85%ile speeds compared against the posted speed limit of Mon 25 Nov, 2024 (inc.)



24hr (light) & 12hr daytime (dark green, 0700-1900) average southbound 85%ile speeds compared against the posted speed limit of Mon 25 Nov, 2024 (inc.)

HOURLY SPEEDS

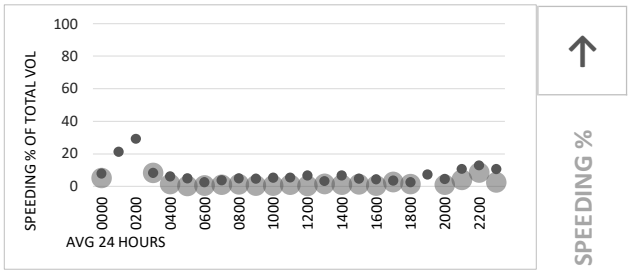


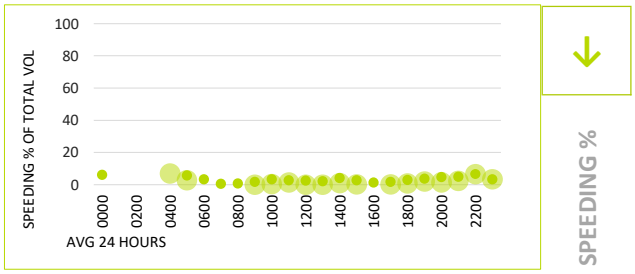


Average hourly speeds (solid thin colours) and 85%ile (dashed black) compared against 30mph posted speed limit (dashed red). The 85%ile is the speed at which 85% of all vehicles are observed to travel under free flowing conditions. A minimum of ten vehicles per speed bin are required for this calculation, hence the overnight low-volume 85%ile values may be zero.

The peak northbound daytime speed was 30.2mph at 17:15 on Fri 22 Nov, whilst the peak southbound speed was 30.1mph at 17:15 on Sun 24 Nov (based on 15min averages between 0700 & 1900).

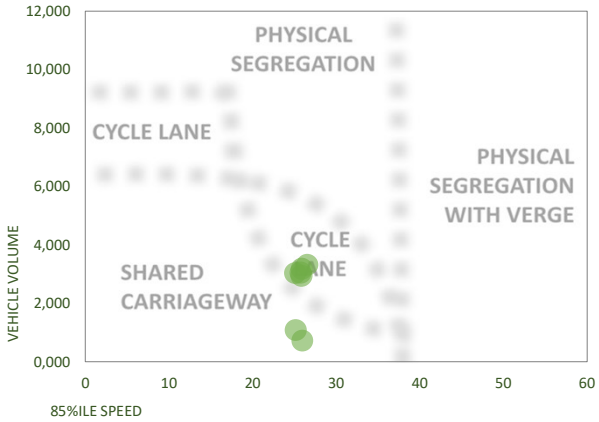
SPEEDING % EXCEEDING 30mph





7-day average percentages of vehicles exceeding the posted speed limit each hour. The small, darker dots represent the percentage travelling between 30 and 35mph, whilst the larger markers represent those at 36mph and above. A high proportion of larger dots may indicate a potential speeding issue.

CYCLE PROVISION



The cycle provision diagram compares total daily traffic flow (vertical axis) against the average daily 85%ile speed (horizontal axis) to demonstrate cyclist and vulnerable user considerations.

The guidelines are based on the Sustrans Design Manual (Apr 2014); Understanding User Needs, part 2.

Valid 85%iles are required to plot the graph.

5-DAY AVERAGE CLASSES

NORTHBOUND WEEKDAY AVG

TIME	MOTOR CYCLES	CAR	LGV	OGV1	OGV2	TOTAL
0000	0.0	5.8	0.4	0.0	0.0	6.2
0100	0.0	2.4	0.0	0.0	0.0	2.4
0200	0.0	3.2	0.0	0.0	0.0	3.2
0300	1.8	7.0	0.4	0.0	0.0	9.2
0400	0.4	10.4	1.0	0.0	0.0	11.8
0500	4.6	75.2	3.6	0.2	1.4	85.0
0600	2.0	108.2	15.8	0.8	2.4	129.2
0700	4.0	196.2	30.8	1.6	2.2	234.8
0800	3.8	187.8	27.2	1.4	4.4	224.6
0900	1.2	121.2	22.4	1.8	4.6	151.2
1000	0.6	75.2	16.8	1.8	4.8	99.2
1100	0.4	69.6	14.4	2.4	3.6	90.4
1200	0.8	71.8	15.8	1.6	4.6	94.6
1300	0.6	71.2	12.4	2.2	3.4	89.8
1400	0.6	55.8	14.4	2.0	5.4	78.2
1500	2.4	51.6	10.8	1.8	3.0	69.6
1600	0.0	43.6	10.2	1.0	1.4	56.2
1700	0.2	31.4	6.2	0.2	0.4	38.4
1800	0.4	36.8	4.0	0.2	0.0	41.4
1900	0.0	14.2	2.6	0.2	0.4	17.4
2000	0.0	11.6	1.0	0.0	0.6	13.2
2100	0.0	5.6	0.4	0.0	0.4	6.4
2200	0.0	3.4	0.4	0.0	0.2	4.0
2300	1.0	4.8	0.6	0.2	0.0	6.6
12hr TTL	**15.0**	**1012.2**	**185.4**	**18.0**	**37.8**	**1268.4**
24hr TTL	**24.8**	**1264.0**	**211.6**	**19.4**	**43.2**	**1563.0**
	2%	81%	14%	1%	3%	

SOUTHBOUND WEEKDAY AVG

TIME	MOTOR CYCLES	CAR	LGV	OGV1	OGV2	TOTAL
0000	0.0	2.0	0.0	0.0	0.0	2.0
0100	0.0	0.4	0.0	0.0	0.0	0.4
0200	0.0	0.0	0.2	0.0	0.0	0.2
0300	0.0	1.4	0.4	0.0	0.0	1.8
0400	0.0	1.2	0.8	0.0	0.0	2.0
0500	0.0	5.0	0.4	0.2	0.0	5.6
0600	0.4	19.2	2.6	0.0	0.0	22.2
0700	1.2	38.8	5.2	1.2	1.0	47.4
0800	0.6	47.2	10.0	2.0	1.4	61.2
0900	0.8	59.8	15.0	1.8	1.6	79.0
1000	1.8	76.6	13.6	2.0	1.6	95.6
1100	1.0	78.4	15.6	2.6	2.2	99.8
1200	1.0	103.8	11.4	1.0	1.4	118.6
1300	1.6	101.8	17.2	0.8	2.8	124.2
1400	1.4	106.6	17.8	1.8	2.6	130.2
1500	2.6	135.6	16.8	2.0	3.0	160.0
1600	5.2	209.2	19.8	1.8	2.0	238.0
1700	3.2	163.8	10.4	0.4	0.8	178.6
1800	3.4	82.8	6.2	0.0	0.2	92.6
1900	1.8	39.6	4.4	0.2	0.2	46.2
2000	0.2	13.6	2.2	0.6	0.0	16.6
2100	0.8	7.2	1.4	0.0	0.0	9.4
2200	0.0	6.6	0.6	0.2	0.0	7.4
2300	0.2	2.0	1.2	0.0	0.2	3.6
12hr TTL	**23.8**	**1204.4**	**159.0**	**17.4**	**20.6**	**1425.2**
24hr TTL	**27.2**	**1302.6**	**173.2**	**18.6**	**21.0**	**1542.6**
	2%	84%	11%	1%	1%	

Average weekday northbound and southbound volumes by class, including 12hr totals for 0700-1900 and overall average percentages. Figaures are calculated from all available data over 5 weekdays. See 'Equipment & Methodology' below for accuracy details.

METHODOLOGY

Equipment & methodology

Automatic traffic counts are undertaken using a pair of pneumatic tubes installed securely across the carriageway, one metre apart, recording air pulses to determine vehicle speed, class and volume. The ATC equipment generally remains in place for a consecutive seven day period, and the data analysed post-survey.

In queuing conditions, the accuracy of ATC recording equipment may reduce as follows;

- 20 – 30mph: potential reduction of 9% accuracy in volume values
- 10 – 20mph: potential reduction of 26% accuracy in volume values
- 00 – 10mph: potential reduction of 39% accuracy in volume values

These figures are based on multiple ATC results compared against accepted reference values from resilient manual counts.

Weather & environmental

Inclement conditions during winter months or outbreaks of unseasonable weather may affect survey data collection. This can result in distorted traffic flows or unusable data and should be considered prior to survey approval. Although forecast checks are made prior to the survey commencing, Advanced Transport Research cannot be held responsible for the forecast accuracy.

CLASS	ABBREV.	DESCRIPTION	AXLES	LENGTH
1	MC	Motorcycle	2	Up to 1.7m
2	Cars	Cars, taxis, 4WD	2	1.7 to 3.2m
3	LGV	Light goods vehicles	2 or 3	2.1 to 3.2m
4	OGV1	Other goods vehicles class 1	2 or 3	2.1 to 3.2m
5	OGV2	Other goods vehicles class 2	4	2.1 to 3.2m
6	PSV	Public service vehicles	2 or 3	2.1 to 3.2m

Equipment damage, failure & calculations

Although checked intermittently the equipment remains unmanned for much of the duration of the survey. Therefore, equipment can potentially be interfered with, vandalised, damaged or stolen and Advanced Transport Research cannot be held responsible for any periods where data has not been captured.

16hr AADTs are calculated using the seasonal COBA methodology; DMRB Vol. 13, Pt 4: Traffic Flow Input To COBA.

Roadworks & events

Where possible, roadworks checks are made 7 days before the survey commences. Additionally, influencing major local events are also monitored, covering the immediate vicinity of the surveys and any routes likely to affect the outcome of the survey.

Vehicle classifications

Vehicles recorded by the ATC are placed into one of six classes (bins) based on axle spacing and pattern. This scheme is based on the COBA Chapter 8 (Vol 13, Sec 1) classifications.

Under adverse conditions the accuracy of ATC classifications will deteriorate and an appropriate link count should be used for validation.

Disclaimer

Although every attempt is made to achieve accuracy, Advanced Transport Research may not be held liable for errors of fact or interpretation.

Advanced Transport Research_COBA

Average Weekday (vehicles)

Chemistry Lane Northbound

Time [--	**Total**	Cls 1 Mcycles	Cls 2 Cars, taxi	Cls 3 LGV	Cls 4 OGV1	Cls 5 OGV2	Cls 6 PSV
0000	**1**	0	1	0	0	0	0
0015	**0**	0	0	0	0	0	0
0030	**2**	0	2	0	0	0	0
0045	**3**	0	3	0	0	0	0
0100	**1**	0	1	0	0	0	0
0115	**1**	0	1	0	0	0	0
0130	**1**	0	1	0	0	0	0
0145	**0**	0	0	0	0	0	0
0200	**0**	0	0	0	0	0	0
0215	**0**	0	0	0	0	0	0
0230	**2**	0	2	0	0	0	0
0245	**1**	0	1	0	0	0	0
0300	**0**	0	0	0	0	0	0
0315	**2**	1	1	0	0	0	0
0330	**3**	0	3	0	0	0	0
0345	**4**	1	3	0	0	0	0
0400	**1**	0	1	0	0	0	0
0415	**2**	0	2	0	0	0	0
0430	**4**	0	3	1	0	0	0
0445	**5**	0	4	0	0	0	0
0500	**7**	2	5	0	0	0	0
0515	**13**	1	12	0	0	0	0
0530	**22**	1	20	0	0	0	0
0545	**43**	1	38	3	0	1	0
0600	**28**	1	24	3	0	0	0
0615	**24**	0	21	2	0	0	0
0630	**29**	0	24	3	0	1	0
0645	**49**	1	39	7	0	1	0
0700	**34**	1	26	6	0	0	0
0715	**51**	2	39	9	1	1	0
0730	**63**	1	56	5	0	1	0
0745	**87**	1	75	11	1	0	0
0800	**61**	1	50	8	1	1	0
0815	**57**	1	49	6	0	2	0
0830	**51**	1	44	5	0	1	0
0845	**55**	1	45	8	0	1	0
0900	**48**	0	38	8	1	1	0
0915	**38**	0	32	4	0	2	0
0930	**35**	0	28	6	0	1	0
0945	**30**	0	23	5	0	1	0
1000	**26**	0	21	3	0	2	0
1015	**26**	0	19	4	0	2	0
1030	**23**	0	17	4	0	1	0
1045	**25**	0	17	6	1	0	0
1100	**25**	0	18	6	1	0	0
1115	**18**	0	14	3	0	0	0
1130	**22**	0	18	3	1	1	0

	Vehs	**HGVs**
08:00-09:00	**225**	**6**

1145	**25**	0	19	3	0	2	0
1200	**23**	0	19	3	1	1	0
1215	**19**	0	15	3	0	1	0
1230	**28**	0	21	5	0	1	0
1245	**24**	0	17	5	0	2	0
1300	**22**	0	18	3	0	1	0
1315	**28**	0	23	3	1	0	0
1330	**21**	0	17	2	0	1	0
1345	**19**	0	14	3	1	1	0
1400	**21**	0	14	5	0	1	0
1415	**19**	0	13	3	1	2	0
1430	**19**	0	14	3	1	1	0
1445	**19**	0	14	3	0	1	0
1500	**16**	0	11	4	0	1	0
1515	**21**	1	16	3	1	1	0
1530	**16**	0	12	3	1	1	0
1545	**16**	0	13	1	0	1	0
1600	**12**	0	10	2	0	0	0
1615	**16**	0	12	3	0	1	0
1630	**12**	0	9	2	0	0	0
1645	**16**	0	13	3	0	0	0
1700	**12**	0	10	2	0	0	0
1715	**9**	0	7	2	0	0	0
1730	**8**	0	7	1	0	0	0
1745	**10**	0	8	2	0	0	0
1800	**12**	0	11	1	0	0	0
1815	**10**	0	9	1	0	0	0
1830	**11**	0	9	1	0	0	0
1845	**9**	0	7	1	0	0	0
1900	**8**	0	6	1	0	0	0
1915	**4**	0	3	1	0	0	0
1930	**3**	0	3	0	0	0	0
1945	**3**	0	2	0	0	0	0
2000	**4**	0	3	0	0	0	0
2015	**4**	0	4	0	0	0	0
2030	**3**	0	3	1	0	0	0
2045	**2**	0	2	0	0	0	0
2100	**2**	0	1	0	0	0	0
2115	**2**	0	2	0	0	0	0
2130	**1**	0	1	0	0	0	0
2145	**2**	0	2	0	0	0	0
2200	**1**	0	1	0	0	0	0
2215	**0**	0	0	0	0	0	0
2230	**1**	0	1	0	0	0	0
2245	**1**	0	1	0	0	0	0
2300	**1**	0	1	0	0	0	0
2315	**1**	0	1	0	0	0	0
2330	**2**	0	1	0	0	0	0
2345	**3**	0	3	0	0	0	0
07-19	**1269**	15	1012	185	18	38	1
06-22	**1435**	17	1152	205	19	42	1
06-00	**1446**	18	1160	206	19	42	1
00-00	**1564**	25	1264	212	19	43	1

	Vehs	HGVs
17:00-18:00	**38**	**1**

	Vehs	HGVs
Daily	**1564**	**63**

Advanced Transport Research_COBA

Average Weekday (vehicles)

Chemistry Lane Southbound

Time [--	**Total**	Cls 1 Mcycles	Cls 2 Cars, taxi	Cls 3 LGV	Cls 4 OGV1	Cls 5 OGV2	Cls 6 PSV
0000	1	0	1	0	0	0	0
0015	0	0	0	0	0	0	0
0030	1	0	1	0	0	0	0
0045	1	0	1	0	0	0	0
0100	0	0	0	0	0	0	0
0115	0	0	0	0	0	0	0
0130	0	0	0	0	0	0	0
0145	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0
0215	0	0	0	0	0	0	0
0230	0	0	0	0	0	0	0
0245	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0
0315	0	0	0	0	0	0	0
0330	0	0	0	0	0	0	0
0345	1	0	1	0	0	0	0
0400	1	0	1	0	0	0	0
0415	0	0	0	0	0	0	0
0430	0	0	0	0	0	0	0
0445	1	0	0	0	0	0	0
0500	2	0	1	0	0	0	0
0515	1	0	1	0	0	0	0
0530	1	0	1	0	0	0	0
0545	2	0	2	0	0	0	0
0600	3	0	2	1	0	0	0
0615	6	0	5	1	0	0	0
0630	5	0	5	0	0	0	0
0645	9	0	8	1	0	0	0
0700	17	0	15	1	1	0	0
0715	10	0	8	1	0	0	0
0730	11	0	8	2	0	0	0
0745	10	0	8	2	0	0	0
0800	12	0	9	2	0	0	0
0815	17	0	13	3	1	0	0
0830	16	0	12	2	1	0	0
0845	17	0	13	3	0	0	0
0900	21	0	17	3	0	0	0
0915	19	0	13	5	1	1	0
0930	18	0	13	4	0	0	0
0945	21	0	17	3	1	0	0
1000	24	0	19	4	1	1	0
1015	28	1	23	4	0	0	0
1030	22	0	17	3	1	0	0
1045	22	0	17	3	0	1	0
1100	24	0	18	4	1	0	0
1115	27	0	21	5	1	1	0
1130	23	0	18	3	1	1	0
1145	26	1	21	4	0	0	0
1200	31	0	28	3	0	0	0

	Vehs	HGVs
08:00-09:00	**61**	**3**

1215	25	0	22	3	1	0	0			
1230	32	0	28	3	0	1	0			
1245	30	0	26	3	0	0	0			
1300	32	0	26	5	0	1	0			
1315	30	0	27	3	0	1	0			
1330	32	1	27	3	1	1	0			
1345	30	1	22	7	0	1	0			
1400	34	0	31	3	0	0	0			
1415	33	0	27	5	0	1	0			
1430	29	0	22	5	1	1	0			
1445	33	0	27	5	1	1	0			
1500	37	0	30	6	0	1	0			
1515	27	1	22	3	0	1	0			
1530	46	0	40	4	1	0	0			
1545	50	2	43	3	1	1	0			
1600	74	2	65	6	1	1	0			
1615	41	2	35	4	0	1	0			
1630	68	1	62	4	0	1	0			
1645	55	1	48	6	0	0	0			
1700	84	2	78	4	0	0	0			
1715	42	1	37	3	0	0	0			
1730	32	0	30	2	0	0	0		**Vehs**	**HGVs**
1745	21	0	19	2	0	0	0	**17:00-18:00**	**179**	**1**
1800	45	3	41	1	0	0	0			
1815	16	0	14	2	0	0	0			
1830	17	0	15	2	0	0	0			
1845	15	0	13	1	0	0	0			
1900	21	1	19	1	0	0	0			
1915	8	0	7	1	0	0	0			
1930	10	1	8	1	0	0	0			
1945	7	0	6	1	0	0	0			
2000	7	0	5	2	0	0	0			
2015	4	0	4	1	0	0	0			
2030	2	0	2	0	0	0	0			
2045	3	0	2	0	0	0	0			
2100	2	0	2	0	0	0	0			
2115	4	0	3	1	0	0	0			
2130	2	0	1	0	0	0	0			
2145	2	0	1	0	0	0	0			
2200	2	0	1	0	0	0	0			
2215	2	0	2	0	0	0	0			
2230	2	0	2	0	0	0	0			
2245	1	0	1	0	0	0	0			
2300	1	0	1	0	0	0	0			
2315	1	0	1	1	0	0	0			
2330	1	0	0	0	0	0	0			
2345	0	0	0	0	0	0	0			
07-19	1426	24	1204	159	17	21	0			
06-22	1520	27	1284	170	18	21	0			
06-00	1531	27	1293	171	18	21	0		**Vehs**	**HGVs**
00-00	1543	27	1303	173	19	21	0	**Daily**	**1543**	**40**

PROJECT	41637 Factory Road, Chemistry Lane, Deeside
SITE CODE	41637-002
LOCATION	Factory Rd
START DATE	Tue 19 Nov, 2024
END DATE	Mon 25 Nov, 2024 (inc.)
SPEED LIMIT	30mph
SURVEY TYPE	7-day ATC, 15min periods, 6 veh. classes

ATC SUMMARY REPORT

7-DAY AUTOMATIC TRAFFIC COUNT

A 7-day automatic traffic count on Factory Rd, commencing Tue 19 Nov 2024, recorded a total of 14,896 vehicles. The posted speed limit of 30mph was exceeded by 47.3% of vehicles, and the seasonally adjusted, combined AADT value is 2,415 (see 'Equipment & methodology' below).

The combined summary on the left shows the total volumes, average speeds, AADT and 85%iles recorded in both directions from all the recorded data, plus the Mon-Fri peak periods. Speeding vehicles are defined as those travelling 31mph and above.

The summaries below provide directionalised details including speeding percentages and weekday daytime details.

SUMMARY

COMBINED EAST & WESTBOUND

Total recorded volume	**14,896**
Total recorded HGVs	1,220
% of vehicles that are HGVs	8.2%
Avg daily volume (based on 7 days)	2,128.0
Average daily speed (7 days)	30.2mph
Average daily 85%ile (7 days)	38.2mph
AADT (annual average daily traffic)	**2,414.8**
AAWT (annual average weekday traffic)	**3,039.5**
Avg weekday volume (Mon-Fri, 24hrs)	2,680.8
Avg weekday speed (Mon-Fri, 24hrs)	29.7mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	2,349.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	29.2mph

EASTBOUND →

Total recorded volume	**7,367**
Total recorded HGVs	574
% of vehicles that are HGVs	7.8%
Avg daily volume (based on 7 days)	1,052.4
Average daily speed (7 days)	30.2mph
Average daily 85%ile (7 days)	38.2mph
% of vehicles exceeding 30mph	47.5%
AADT (annual average daily traffic)	**1,168.4**
AAWT (annual average weekday traffic)	**1,471.4**
Avg weekday volume (Mon-Fri, 24hrs)	1,329.4
Avg weekday speed (Mon-Fri, 24hrs)	29.8mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	1,119.0
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	29.1mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	36.3mph
AM avg peak vol period (Mon-Fri)	07:45 to 08:00
PM avg peak vol period (Mon-Fri)	16:00 to 16:15

WESTBOUND ←

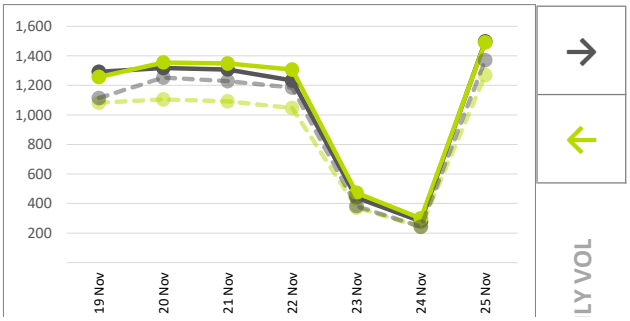
Total recorded volume	**7,529**
Total recorded HGVs	646
% of vehicles that are HGVs	8.6%
Avg daily volume (based on 7 days)	1,075.6
Average daily speed (7 days)	30.3mph
Average daily 85%ile (7 days)	38.2mph
% of vehicles exceeding 30mph	47.1%
AADT (annual average daily traffic)	**1,246.3**
AAWT (annual average weekday traffic)	**1,568.1**
Avg weekday volume (Mon-Fri, 24hrs)	1,351.4
Avg weekday speed (Mon-Fri, 24hrs)	29.5mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	1,230.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	29.3mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	36.7mph
AM avg peak vol period (Mon-Fri)	12:00 to 12:15
PM avg peak vol period (Mon-Fri)	17:00 to 17:15

SITE LOCATION

LOCATION	Factory Rd
DATES	Tue 19 Nov to Mon 25 Nov inc.
LAT / LNG	53°12'5.31"N, 3° 0'16.06"W
PSL	30mph
DIRECTION 1	→ Eastbound
DIRECTION 2	Westbound ←

DAILY VOLUMES

EAST- & WESTBOUND



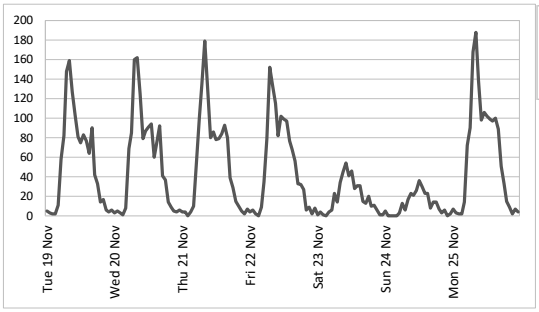
Total 24hr eastbound (solid, dark grey) and westbound (solid, dark green) traffic volumes, with light dashed grey and green representing 12hr volumes (0700-1900), over 7 consecutive days from all available data.

As can be expected, the lowest 24hr volumes were recorded on the Sunday, whilst the highest was on the Monday.

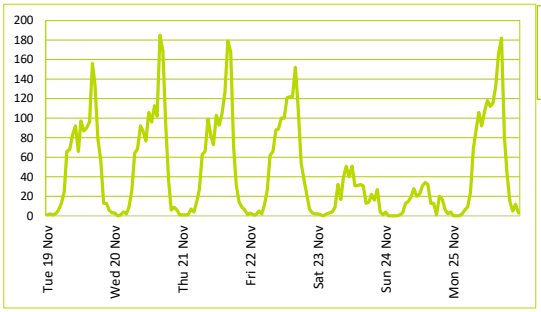
Tue Wed Thu Fri Sat Sun Mon

DAI

HOURLY VOLUMES

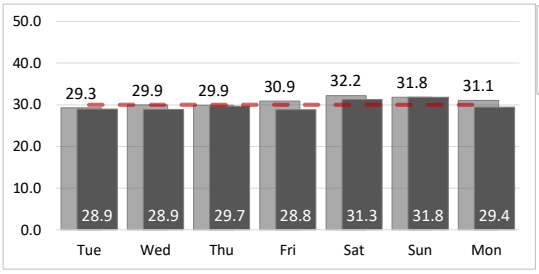


Hourly eastbound traffic volumes over each 24hr period for 7 days from all available data

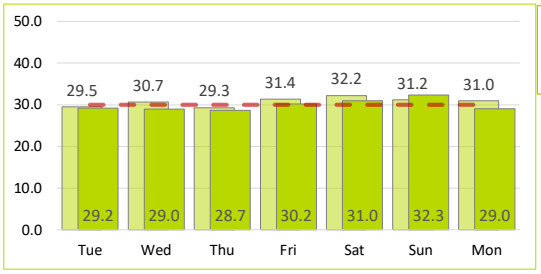


Hourly westbound traffic volumes over each 24hr period for 7 days from all available data

24hr & 12hr AVG SPEEDS

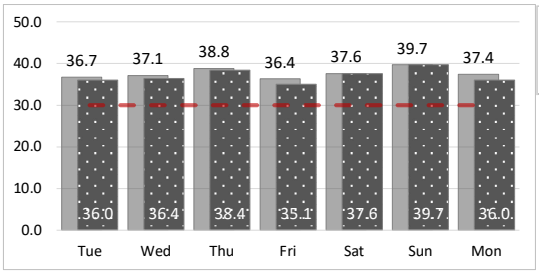


24hr (light) & 12hr daytime (dark grey, 0700-1900) average eastbound speeds compared against the posted speed limit of Mon 25 Nov, 2024 (inc.)

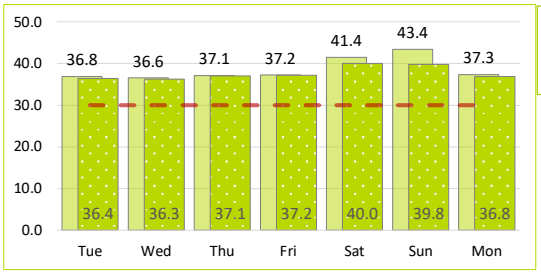


24hr (light) & 12hr daytime (dark green) average westbound speeds compared against the posted speed limit of Mon 25 Nov, 2024 (inc.)

24hr & 12hr 85%ile SPEEDS

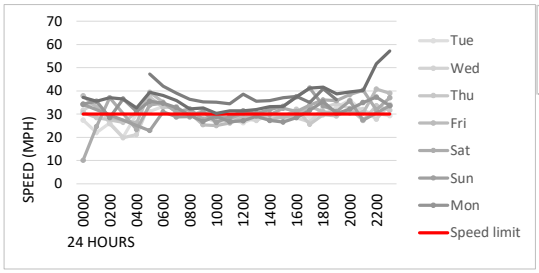


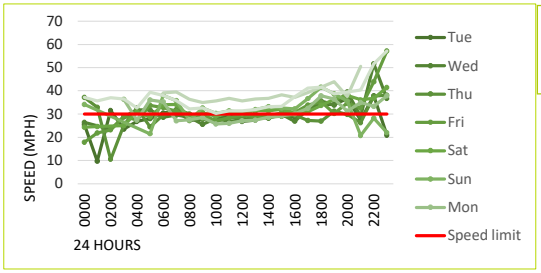
24hr (light) & 12hr daytime (dark grey, 0700-1900) average eastbound 85%ile speeds compared against the posted speed limit of Mon 25 Nov, 2024 (inc.)



24hr (light) & 12hr daytime (dark green, 0700-1900) average westbound 85%ile speeds compared against the posted speed limit of Mon 25 Nov, 2024 (inc.)

HOURLY SPEEDS

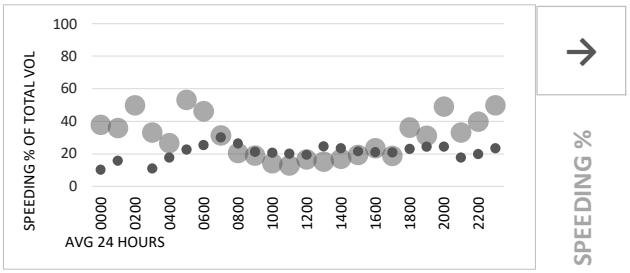


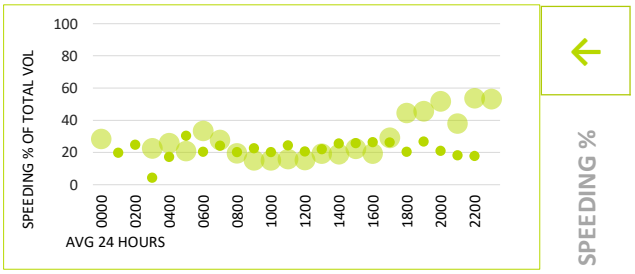


Average hourly speeds (solid thin colours) and 85%ile (dashed black) compared against 30mph posted speed limit (dashed red). The 85%ile is the speed at which 85% of all vehicles are observed to travel under free flowing conditions. A minimum of ten vehicles per speed bin are required for this calculation, hence the overnight low-volume 85%ile values may be zero.

The peak eastbound daytime speed was 46mph at 17:45 on Fri 22 Nov, whilst the peak westbound speed was 42.8mph at 14:00 on Sun 24 Nov (based on 15min averages between 0700 & 1900).

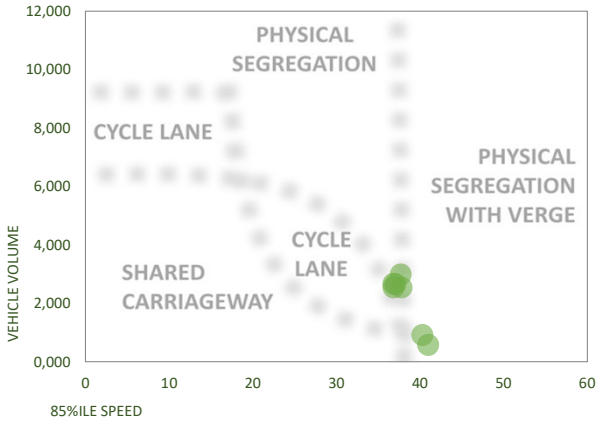
SPEEDING % EXCEEDING 30mph





7-day average percentages of vehicles exceeding the posted speed limit each hour. The small, darker dots represent the percentage travelling between 30 and 35mph, whilst the larger markers represent those at 36mph and above. A high proportion of larger dots may indicate a potential speeding issue.

CYCLE PROVISION



The cycle provision diagram compares total daily traffic flow (vertical axis) against the average daily 85%ile speed (horizontal axis) to demonstrate cyclist and vulnerable user considerations.

The guidelines are based on the Sustrans Design Manual (Apr 2014); Understanding User Needs, part 2.

Valid 85%iles are required to plot the graph.

5-DAY AVERAGE CLASSES

EASTBOUND WEEKDAY AVG

TIME	MOTOR CYCLES	CAR	LGV	OGV1	OGV2	TOTAL
0000	0.2	3.8	0.2	0.2	0.2	4.6
0100	0.2	2.4	0.2	0.0	1.4	4.2
0200	0.0	1.0	0.4	0.0	0.4	1.8
0300	0.0	0.6	0.6	0.2	0.2	1.6
0400	0.4	6.0	1.6	0.6	1.8	10.4
0500	3.4	48.4	2.0	1.2	2.8	57.8
0600	1.2	69.6	12.2	0.6	3.4	87.0
0700	2.4	133.8	11.6	1.4	3.4	152.6
0800	2.8	132.6	17.8	7.6	3.0	163.8
0900	1.8	89.8	23.8	4.8	5.4	125.6
1000	0.4	60.4	16.6	6.2	3.6	87.2
1100	0.4	61.2	17.6	6.2	5.8	91.2
1200	0.2	60.6	17.4	4.6	5.2	88.0
1300	0.8	63.4	15.4	4.8	4.6	89.0
1400	0.8	49.8	19.2	3.4	5.4	78.6
1500	2.4	49.0	19.0	4.0	4.6	79.0
1600	1.2	61.4	14.4	2.2	2.0	81.2
1700	0.2	30.2	8.6	0.6	1.4	41.0
1800	0.2	27.4	3.8	1.0	0.4	32.8
1900	0.0	13.6	2.0	0.8	0.6	17.0
2000	0.0	8.0	1.8	0.2	0.0	10.0
2100	0.0	4.8	0.2	0.0	0.4	5.4
2200	0.0	2.6	0.8	0.2	0.2	3.8
2300	1.2	4.4	0.2	0.2	0.2	6.2
12hr TTL	**13.6**	**819.6**	**185.2**	**46.8**	**44.8**	**1110.0**
24hr TTL	**20.2**	**984.8**	**207.4**	**51.0**	**56.4**	**1319.8**
	2%	75%	16%	4%	4%	

WESTBOUND WEEKDAY AVG

TIME	MOTOR CYCLES	CAR	LGV	OGV1	OGV2	TOTAL
0000	0.0	0.6	0.2	0.4	0.4	1.6
0100	0.2	0.2	0.2	0.0	0.2	0.8
0200	0.0	0.0	0.6	0.0	0.0	0.6
0300	0.2	2.2	1.4	0.2	0.0	4.0
0400	0.0	2.6	1.2	0.0	0.2	4.0
0500	0.0	5.6	4.0	0.6	1.0	11.2
0600	1.2	15.6	6.8	1.2	0.8	25.6
0700	2.2	41.2	16.6	1.8	2.8	64.6
0800	0.2	39.6	21.6	5.6	4.0	71.0
0900	0.2	53.8	28.2	6.2	3.8	92.2
1000	0.2	52.8	21.2	7.8	5.2	87.2
1100	0.8	49.2	22.6	7.2	3.4	83.2
1200	0.6	70.0	20.2	6.6	6.2	103.6
1300	0.6	68.6	21.6	4.0	5.8	100.6
1400	1.2	70.2	23.6	7.8	5.2	108.0
1500	1.4	85.4	18.6	4.4	5.4	115.2
1600	2.8	127.0	27.6	4.6	5.4	167.4
1700	1.2	129.2	17.0	1.6	3.4	152.4
1800	2.6	59.0	10.2	1.2	2.6	75.6
1900	2.0	32.2	5.0	1.0	1.0	41.2
2000	0.6	10.4	2.6	0.4	0.2	14.2
2100	1.0	6.0	1.0	0.2	0.4	8.6
2200	0.0	6.2	0.2	0.2	0.0	6.6
2300	0.0	1.2	0.6	0.0	0.2	2.0
12hr TTL	**14.0**	**846.0**	**249.0**	**58.8**	**53.2**	**1221.0**
24hr TTL	**19.2**	**928.8**	**272.8**	**63.0**	**57.6**	**1341.4**
	1%	69%	20%	5%	4%	

Average weekday eastbound and westbound volumes by class, including 12hr totals for 0700-1900 and overall average percentages. Figaures are calculated from all available data over 5 weekdays. See 'Equipment & Methodology' below for accuracy details.

METHODOLOGY

Equipment & methodology

Automatic traffic counts are undertaken using a pair of pneumatic tubes installed securely across the carriageway, one metre apart, recording air pulses to determine vehicle speed, class and volume. The ATC equipment generally remains in place for a consecutive seven day period, and the data analysed post-survey.

In queuing conditions, the accuracy of ATC recording equipment may reduce as follows;

- 20 – 30mph: potential reduction of 9% accuracy in volume values
- 10 – 20mph: potential reduction of 26% accuracy in volume values
- 00 – 10mph: potential reduction of 39% accuracy in volume values

These figures are based on multiple ATC results compared against accepted reference values from resilient manual counts.

Weather & environmental

Inclement conditions during winter months or outbreaks of unseasonable weather may affect survey data collection. This can result in distorted traffic flows or unusable data and should be considered prior to survey approval. Although forecast checks are made prior to the survey commencing, Advanced Transport Research cannot be held responsible for the forecast accuracy.

CLASS	ABBREV.	DESCRIPTION	AXLES	LENGTH
1	MC	Motorcycle	2	Up to 1.7m
2	Cars	Cars, taxis, 4WD	2	1.7 to 3.2m
3	LGV	Light goods vehicles	2 or 3	2.1 to 3.2m
4	OGV1	Other goods vehicles class 1	2 or 3	2.1 to 3.2m
5	OGV2	Other goods vehicles class 2	4	2.1 to 3.2m
6	PSV	Public service vehicles	2 or 3	2.1 to 3.2m

Equipment damage, failure & calculations

Although checked intermittently the equipment remains unmanned for much of the duration of the survey. Therefore, equipment can potentially be interfered with, vandalised, damaged or stolen and Advanced Transport Research cannot be held responsible for any periods where data has not been captured.

16hr AADTs are calculated using the seasonal COBA methodology; DMRB Vol. 13, Pt 4: Traffic Flow Input To COBA.

Roadworks & events

Where possible, roadworks checks are made 7 days before the survey commences. Additionally, influencing major local events are also monitored, covering the immediate vicinity of the surveys and any routes likely to affect the outcome of the survey.

Vehicle classifications

Vehicles recorded by the ATC are placed into one of six classes (bins) based on axle spacing and pattern. This scheme is based on the COBA Chapter 8 (Vol 13, Sec 1) classifications.

Under adverse conditions the accuracy of ATC classifications will deteriorate and an appropriate link count should be used for validation.

Disclaimer

Advanced Transport Research_COBA

Average Weekday (vehicles)

Factory Road Eastbound

Time [--	**Total**	Cls 1 Mcycles	Cls 2 Cars, taxi	Cls 3 LGV	Cls 4 OGV1	Cls 5 OGV2	Cls 6 PSV
0000	0	0	0	0	0	0	0
0015	0	0	0	0	0	0	0
0030	1	0	1	0	0	0	0
0045	3	0	2	0	0	0	0
0100	1	0	1	0	0	0	0
0115	2	0	1	0	0	1	0
0130	1	0	0	0	0	0	0
0145	1	0	1	0	0	0	0
0200	0	0	0	0	0	0	0
0215	0	0	0	0	0	0	0
0230	0	0	0	0	0	0	0
0245	1	0	1	0	0	0	0
0300	1	0	0	0	0	0	0
0315	0	0	0	0	0	0	0
0330	0	0	0	0	0	0	0
0345	1	0	0	0	0	0	0
0400	2	0	1	1	0	1	0
0415	2	0	1	1	0	1	0
0430	3	0	2	0	0	1	0
0445	3	0	3	0	0	0	0
0500	4	0	3	0	0	1	0
0515	8	1	5	1	0	1	0
0530	16	1	15	0	0	1	0
0545	29	1	26	1	0	1	0
0600	18	0	14	3	0	1	0
0615	18	0	14	2	0	1	0
0630	19	0	16	2	0	1	0
0645	31	1	25	4	0	1	0
0700	21	0	16	3	0	1	0
0715	31	1	26	2	0	1	0
0730	41	1	37	2	1	1	0
0745	60	0	54	4	0	1	0
0800	42	1	34	4	2	1	0
0815	41	0	34	5	2	1	0
0830	39	1	31	4	2	1	0
0845	42	1	34	5	2	0	0
0900	40	1	28	8	1	2	0
0915	32	0	24	5	2	1	0
0930	31	0	21	6	2	1	0
0945	25	0	17	5	1	1	1
1000	20	0	16	3	1	0	0
1015	22	0	15	4	2	2	0
1030	20	0	13	4	1	1	0
1045	26	0	17	6	2	1	0
1100	20	0	12	5	2	1	0
1115	23	0	14	5	2	2	0
1130	23	0	17	3	1	2	1
1145	26	0	18	5	2	1	0
1200	23	0	15	5	1	1	0

	Vehs	**HGVs**
08:00-09:00	**164**	**11**

1215	19	0	13	3	0	1	0
1230	24	0	16	5	2	1	0
1245	23	0	16	5	1	1	0
1300	22	0	17	3	1	1	0
1315	23	0	17	3	2	1	0
1330	22	0	16	3	1	1	0
1345	24	0	14	6	1	2	0
1400	21	0	13	6	1	2	0
1415	22	0	14	5	1	1	0
1430	16	0	10	4	1	2	0
1445	20	0	13	5	1	1	0
1500	21	0	12	5	1	2	0
1515	23	2	12	6	1	2	1
1530	19	0	12	5	1	1	0
1545	18	0	13	3	0	1	0
1600	26	1	20	3	0	1	0
1615	20	0	14	5	1	0	0
1630	16	0	12	4	1	0	0
1645	19	0	15	3	0	0	0
1700	18	0	13	3	0	1	0
1715	9	0	6	2	0	0	0
1730	7	0	5	2	0	0	0
1745	7	0	5	2	0	0	0
1800	8	0	6	1	0	0	0
1815	9	0	7	1	0	0	0
1830	9	0	8	1	0	0	0
1845	7	0	6	1	0	0	0
1900	7	0	5	1	0	0	0
1915	5	0	4	0	1	0	0
1930	4	0	3	0	0	0	0
1945	1	0	1	0	0	0	0
2000	3	0	2	0	0	0	0
2015	3	0	2	0	0	0	0
2030	3	0	2	1	0	0	0
2045	1	0	1	0	0	0	0
2100	1	0	1	0	0	0	0
2115	1	0	1	0	0	0	0
2130	1	0	1	0	0	0	0
2145	2	0	2	0	0	0	0
2200	2	0	1	1	0	0	0
2215	0	0	0	0	0	0	0
2230	1	0	1	0	0	0	0
2245	1	0	1	0	0	0	0
2300	0	0	0	0	0	0	0
2315	1	0	0	0	0	0	0
2330	1	0	1	0	0	0	0
2345	4	1	3	0	0	0	0
07-19	1119	14	820	185	47	45	9
06-22	1239	15	916	201	48	49	9
06-00	1249	16	923	202	49	50	9
00-00	1329	20	985	207	51	56	10

	Vehs	HGVs
17:00-18:00	41	2

	Vehs	HGVs
Daily	1329	117

Advanced Transport Research_COBA

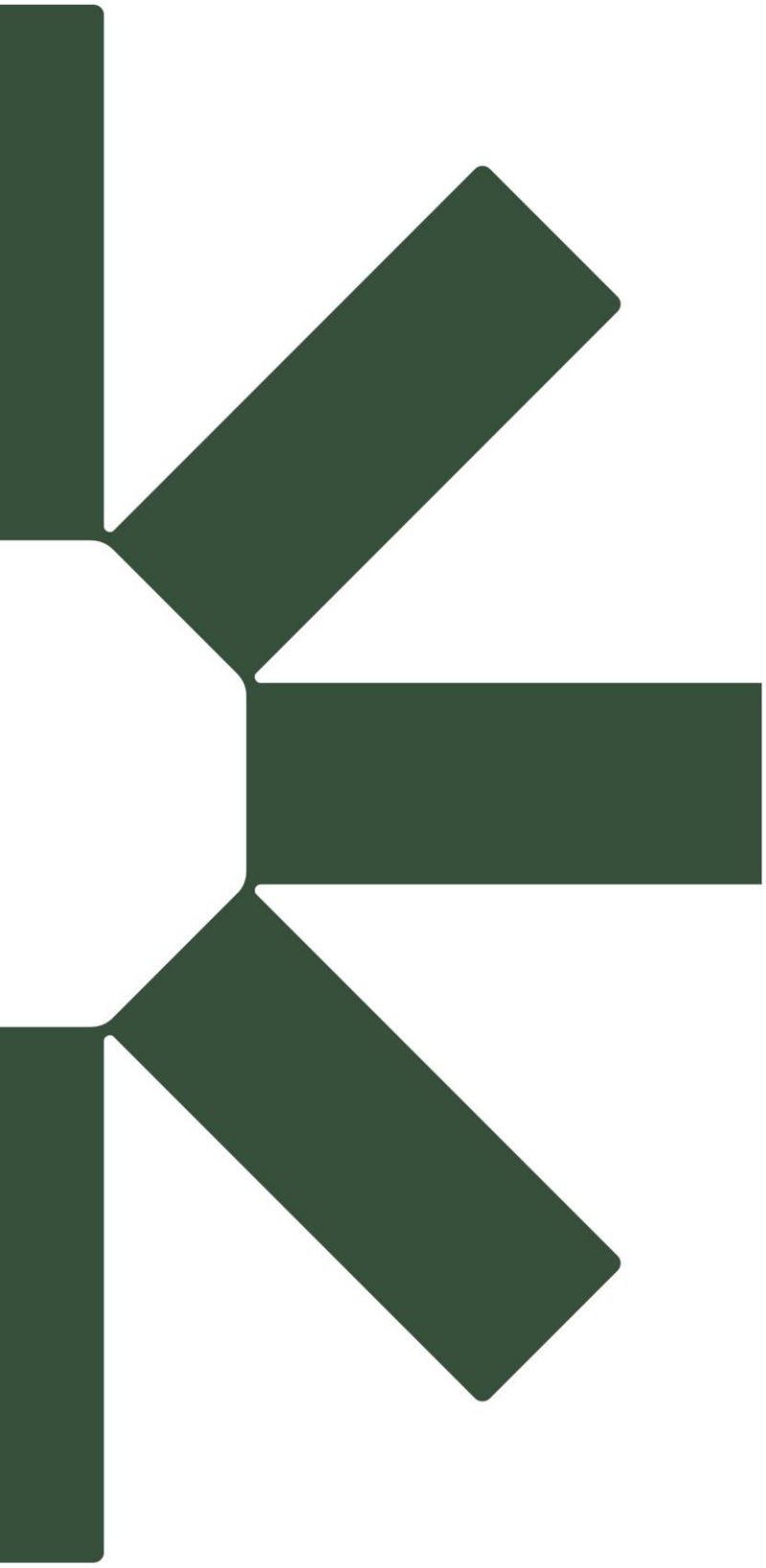
Average Weekday (vehicles)

Factory Road Westbound

Time [--	**Total**	Cls 1 Mcycles	Cls 2 Cars, taxi	Cls 3 LGV	Cls 4 OGV1	Cls 5 OGV2	Cls 6 PSV
0000	0	0	0	0	0	0	0
0015	1	0	0	0	0	0	0
0030	0	0	0	0	0	0	0
0045	1	0	0	0	0	0	0
0100	0	0	0	0	0	0	0
0115	0	0	0	0	0	0	0
0130	0	0	0	0	0	0	0
0145	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0
0215	0	0	0	0	0	0	0
0230	0	0	0	0	0	0	0
0245	0	0	0	0	0	0	0
0300	1	0	0	0	0	0	0
0315	0	0	0	0	0	0	0
0330	2	0	1	1	0	0	0
0345	1	0	1	0	0	0	0
0400	1	0	1	0	0	0	0
0415	1	0	0	0	0	0	0
0430	2	0	2	0	0	0	0
0445	0	0	0	0	0	0	0
0500	2	0	1	1	0	0	0
0515	2	0	1	1	0	0	0
0530	3	0	2	1	0	0	0
0545	4	0	2	1	0	1	0
0600	6	0	3	2	0	0	0
0615	5	1	2	1	0	0	0
0630	3	0	2	1	0	0	0
0645	12	1	8	3	0	0	0
0700	20	2	13	3	1	1	0
0715	18	1	12	5	0	0	0
0730	11	0	7	3	0	1	0
0745	16	0	9	5	1	1	0
0800	13	0	5	5	2	1	0
0815	20	0	11	7	1	1	0
0830	20	0	14	4	1	1	0
0845	18	0	9	5	2	1	0
0900	24	0	15	7	1	1	0
0915	25	0	13	8	2	1	1
0930	21	0	13	6	1	1	0
0945	24	0	13	8	2	1	0
1000	20	0	13	5	1	1	0
1015	24	0	15	5	2	2	0
1030	22	0	13	5	2	2	0
1045	23	0	12	7	3	1	0
1100	21	0	11	7	3	0	1
1115	18	0	12	4	0	1	0
1130	23	0	13	6	2	1	1
1145	23	0	14	6	2	1	0
1200	26	0	17	7	1	1	0

	Vehs	**HGVs**
08:00-09:00	**72**	**10**

1215	23	0	15	3	2	2	1			
1230	26	0	19	4	2	2	0			
1245	29	0	19	6	2	1	0			
1300	24	0	17	5	1	1	0			
1315	26	0	17	5	1	1	1			
1330	27	0	19	5	1	2	0			
1345	25	1	15	6	1	1	0			
1400	28	0	20	6	1	1	0			
1415	29	1	19	5	3	2	0			
1430	26	0	16	6	2	1	0			
1445	27	0	16	7	1	2	0			
1500	28	0	19	5	1	2	0			
1515	23	0	17	4	0	1	0			
1530	28	0	20	5	2	1	0			
1545	37	1	30	4	1	1	0			
1600	51	1	38	8	2	2	0			
1615	26	0	18	5	1	1	0			
1630	53	1	44	6	1	2	0			
1645	38	0	27	9	1	1	0			
1700	74	1	63	8	1	1	0			
1715	31	0	26	3	0	1	0			
1730	30	0	26	3	0	1	0		**Vehs**	**HGVs**
1745	18	0	13	3	1	1	0	**17:00-18:00**	**152**	**5**
1800	43	2	36	4	0	1	0			
1815	10	0	6	3	0	0	0			
1830	12	0	9	2	0	1	0			
1845	11	0	8	2	0	0	0			
1900	19	1	14	2	1	1	0			
1915	8	0	7	0	0	0	0			
1930	9	1	7	1	0	0	0			
1945	6	0	4	1	0	0	0			
2000	6	0	4	1	0	0	0			
2015	4	0	3	1	0	0	0			
2030	3	0	2	1	0	0	0			
2045	2	0	1	0	0	0	0			
2100	1	0	1	0	0	0	0			
2115	3	0	3	0	0	0	0			
2130	2	0	1	0	0	0	0			
2145	2	1	1	0	0	0	0			
2200	2	0	2	0	0	0	0			
2215	1	0	1	0	0	0	0			
2230	2	0	2	0	0	0	0			
2245	1	0	1	0	0	0	0			
2300	1	0	0	0	0	0	0			
2315	0	0	0	0	0	0	0			
2330	0	0	0	0	0	0	0			
2345	1	0	0	0	0	0	0			
07-19	1230	14	846	249	59	53	9			
06-22	1320	19	910	264	62	56	10			
06-00	1329	19	918	265	62	56	10		**Vehs**	**HGVs**
00-00	1351	19	929	273	63	58	10	**Daily**	**1351**	**131**



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