

TRANSPORT STATEMENT

Aspris Children's Services

Ellice Way, Wrexham

May 2023

Transport Statement

Report control

Document: Transport Statement

Project: Ellice Way, Wrexham

Client: Aspris Children's Services

Job number: 237392

File origin: Y:\Projects\230000\237392 - Yale Business Village, Ellice Way, Wrexham\Technical\A - Deliverable\Documents\237392-Transport Statement-V1.docx

Document checking

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Issue	Date	Status	Checked for issue
1	10.05.23	Issue	JM

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1 Introduction

- 1.1 Vectos has been commissioned by Aspris Children's Services to provide transport and highways advice in relation to the proposed change of use of Unit G, Ellice Way, Yale Business Park, Wrexham. The proposal relates to a change of use from offices (Class B1) to education use (Class D1), including an ancillary student training kitchen/café. The school will accommodate Special Educational Needs (SEN) students. The site layout is attached at **Appendix A**.
- 1.2 The application site comprises Unit G at the Yale Business Village (also known as the Wrexham Technology Park) and its associated land and parking located on the northern side of Ellice Way, Wrexham. The property itself is a large detached two storey building, being one of a number of similarly designed buildings on the Yale Business Village.
- 1.3 The building provides approximately 818 sqm of office floorspace but is only partly occupied by a skeleton staff, as the existing tenant is in the process of relocating to new space elsewhere in Wrexham.
- 1.4 The application site is located on a landscaped office and employment park located off the A483, approximately 1km to the west of Wrexham Town Centre. The employment park, by its nature, is commercial in character and includes a variety of office occupiers, but also includes a hotel, training facilities and a day nursery.
- 1.5 This Transport Statement (TS) has been prepared in accordance with the Planning Policy Wales 11 (PPW11) and the local transport planning policy documents as outlined in Section 2 of this report.
- 1.6 Also acknowledged are the comments received from Wrexham County Borough Council, acting as the local highway authority received on 14th April 2023. These comments are attached at **Appendix B** and key points include:
- The applicant is required to produce a Transport Statement to demonstrate how staff and pupils will travel to the school, an active travel assessment, and a review of public transport opportunities;
 - Additional information regarding arrangements for dropping off and picking up is required;
 - The applicant is required to demonstrate how parking will be managed for all staff / students and how travel via car will be minimised.;
 - It is recommended that the applicant produces a Travel Plan.
- 1.7 These comments are addressed within the TS, and a Travel Plan is provided under separate cover.

Report Structure

- 1.8 This report details the potential impact of the proposed development on the surrounding transport network. It is divided into the following sections:
- **Section 2: Policy Context** – reviews the relevant local and national transport planning policies and local planning policies;
 - **Section 3: Baseline Conditions** – describes the existing conditions at the proposed development site, and the surrounding transport network;
 - **Section 4: Development Proposals** – describes the proposed development, access arrangements and parking;
 - **Section 5: Trip Generation and Development Impact** – assessment of the number of trips that are likely to be generated by the proposed development, and its likely net impact; and
 - **Section 6: Summary and Conclusion** – summary of the findings of the Transport Statement.

2 Policy Context

2.1 This section summarises the relevant transport planning policy documents with respect to transport against which the development will be considered at a national, regional, and local level. The most relevant policy documents are as follows:

- Planning Policy Wales (Edition 11) (February 2021);
- Llwybr Newydd – The Wales Transport Strategy (May 2021);
- Future Wales – The National Plan 2040 (February 2021);
- Wrexham Unitary Development Plan (1996-2011) (adopted February 2005);
- Wrexham Local Development Plan (2013-2028) (Undergoing adoption 2023)

National Policy

Planning Policy Wales (Edition 11) (February 2021)

2.2 Planning Policy Wales Edition 11 (PPW11) sets out the land use planning policies of the Welsh Government. The primary objective of PPW11 is to:

“Ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales.”

2.3 Section 4 of PPW11 concerns Active and Social places. It asserts that Active and Social Places are those which provide well-connected cohesive communities and further state that a ‘Resilient Wales’ is supported by protecting existing communities and natural environments whilst well-connected infrastructure and facilities closer to where people live.

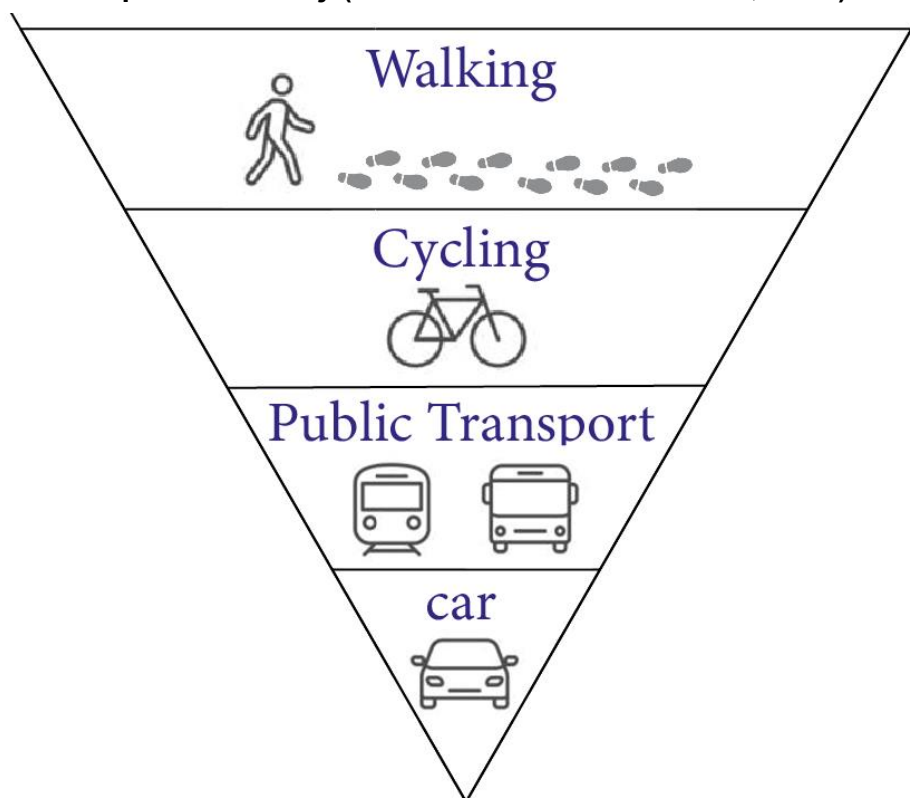
2.4 Furthermore, with regards to sustainable transport, PPW11 advises that, in the context of active and social places, developments should encourage modal shift and be easily accessible by walking, cycling and public transport, by virtue of their location, design and provision of on and off-site sustainable transport infrastructure.

2.5 A key theme throughout PPW is the aim of reducing reliance on travel by private car, and the adverse impacts of motorised transport on the environment and people’s health, by prioritising and increasing active travel and public transport. Additionally, it states that development proposals must seek to maximise accessibility by walking, cycling and public transport, by prioritising the provision of appropriate on-site infrastructure and, where necessary, mitigating transport impacts through the provision of off-site measures, such as the development of active travel routes, bus priority infrastructure and financial support for public transport services.

2.6 It is Welsh Government policy to require the use of a sustainable transport hierarchy in relation to new development, which is; walking, cycling, ultra-low emission vehicles and public transport. To this extent, paragraph 4.19 relates specifically to sustainable transport and states:

“The Welsh Government is committed to reducing reliance on the private car and supporting a modal shift to walking, cycling and public transport. Delivering this objective will make an important contribution to decarbonisation, improving air quality, increasing physical activity, improving the health of the nation and realising the goals of the Well-being of Future Generations Act.”

Figure 2.1: Transport Hierarchy (Active Travel Act Guidance, 2021)



Llwybr Newydd – The Wales Transport Strategy (May 2021)

- 2.7 The Transport Strategy for Wales sets out its new strategy that will shape the transport system over the next 20 years. It is a “new way of thinking that places people and climate change at the front and centre of our transport system”. This document crucially defines the climate emergency as one of the biggest defining issues of our time, and the need to achieve net zero by 2050.
- 2.8 Llwybr Newydd seeks to improve the social, economic, environmental, and cultural well-being of Wales. It contains seven well-being goals which local authorities as well as other public bodies must seek to achieve in order to improve well-being both now and in the future.
- 2.9 The strategy sets out three urgent priorities which are illustrated in **Figure 2.2**.

Figure 2.2 – Wales Transport Strategy Priorities

Priority 1	Prioirty 2	Priority 3
Bring services to people in order to reduce the need to travel.	Allow people and goods to move easily from door to door by accessible, sustianable transport.	Encourage people to make the change to more sustainable transport.

- 2.10 Priority 1 seeks to reduce the need for people to use their cars on a daily basis by ensuring that planning applicants:
- Design new developments to be walk and cycle friendly from the outset;
 - Maximise the use of land close to transport hubs;
- 2.11 Priority 2 aims to achieve a shift away from private car use to more sustainable transport modes, enabling more people to walk, cycle, and use public transport, as well as low-emission vehicles.
- 2.12 Infrastructure will be future-proofed where possible to adapt to climate change and facilitate more sustainable transport choices. In addition, new infrastructure will give priority to interventions that support walking and cycling, public transport and ultra-low emission vehicles over other private motor vehicles.
- 2.13 Priority 3 seeks to encourage people to change their travel behaviour to use low carbon, sustainable transport. This will be done through (but not limited to):
- Developing a range of behaviour-change projects;
 - Move from individual vehicle ownership to shared solutions;
 - Reduce the cost of sustainable travel; and
 - Support digital innovation.
- 2.14 Through the location of the development and promotion of active travel, the development will meet these priorities with the overall aim being to encourage accessible, sustainable and efficient transport and travel to and from the site.

Future Wales – The National Plan 2040

- 2.15 ‘Future Wales – the National Plan 2040’ (Future Wales) is the national development framework, setting the direction for development in Wales to 2040. Future Wales strongly considers the Well-Being of Future Generations (Wales) Act 2015, which gives a legally-binding common purpose – the seven well-being goals – for national government, local government, local health boards and other specified public bodies. It details the ways in which these bodies must work, and work together, to improve the well-being of Wales.

- 2.16 Future Wales recognises that placemaking is at the heart of the planning system in Wales, and that this policy establishes a strategic placemaking approach and principles to support planning authorities to shape urban growth and regeneration.
- 2.17 Within its Strategic Placemaking Principles, Future Wales considers mix of uses, variety of housing, walkable scale, density, street network, plot-based development, and green infrastructure.
- 2.18 Of vital importance to new developments such as the proposed site is the concept of the 'walkable scale'. This strategic placemaking principle states that to enable active and healthy lives, people should be able to easily walk to local facilities and public transport.

Local Policy

Wrexham Unitary Development Plan 1996-2011 (Adopted 2005)

- 2.19 The Wrexham Unitary Development Plan (UDP) was adopted in 2005, and it is noted that the national guidance has since been brought forward. Policies of note in the adopted UDP include:
 - Policy PS1 – seeks to encourage new development within defined settlement limits.
 - Policy GDP1 – requires all developments to be of high quality and take account of location and accessibility and contribute to securing sustainable development
 - Policy GDP2 – seeks to ensure that there is sufficient capacity in community facilities, including schools, to meet needs.
 - Policy E1 – which allocates land for employment purposes, including 5.3 ha at Wrexham Technology Park.
 - Policy E2 – promotes high quality employment development including prestige offices in specific locations including the 5.3ha at Wrexham Technology Park. The policy confirms that development would be restricted to business use only.
 - Policy T8 – parking will be required to be provided on or near the site commensurate with the standards set out in the Council's parking standards.
- 2.20 The local plan proposals map confirms that the site is located within the settlement boundary of Wrexham and is designated for high quality employment development in accord with Policies E1 and E2.

Wrexham Local Development Plan (Undergoing adoption 2023)

- 2.21 The emerging Wrexham Local Development Plan (ELP) has been through examination and is subject to further updates. It is being prepared to replace the current adopted Wrexham Unitary Development Plan. It is likely to be adopted in 2023. Given the well progressed nature of the emerging plan and that it holds regard to more recent national guidance, the plan is considered to hold reasonable weight in consideration of the current proposal.

2.22 The policies of relevance from the ELP include:

- **Policy SP8 Wrexham Town** – confirms that Wrexham should be the focus for new development including education to strengthen the town regional function.
- **Policy SP9 Economic Growth, Employment and Enterprise** – seeks to develop and diversify the local economy including safeguarding important industrial sites.
- **Policy EM3 Alternative Use of Employment Land and Premises** – development of employment land or buildings for other purposes will only be permitted where specified criteria are met:
 - i. The land or premises are no longer well located for business, industrial and warehousing use; or
 - ii. There is no realistic prospect of employment use on the site and/or the property is physically unsuitable for employment use, even after adaption/refurbishment or redevelopment; or
 - iii. There is no need to retain the land or premises for business, industrial or warehousing use, having regard to the demand for such land and premises and the requirement to provide for a range and choice of sites available for such use; and
 - iv. There will be no unacceptable impact on the operating conditions of existing businesses.
- **Policy T1 Managing Transport Impacts** – supports proposals for new development subject to a number of criteria, including that appropriate levels of parking are provided and access arrangements allow for safe manoeuvring.
- **Policy T2 Active Travel** – is supportive of new development, including education, subject to listed criteria, including where walking and cycling infrastructure is an integral part of the overall design of the scheme, facilities and promotes Active Travel including convenient cycle parking.

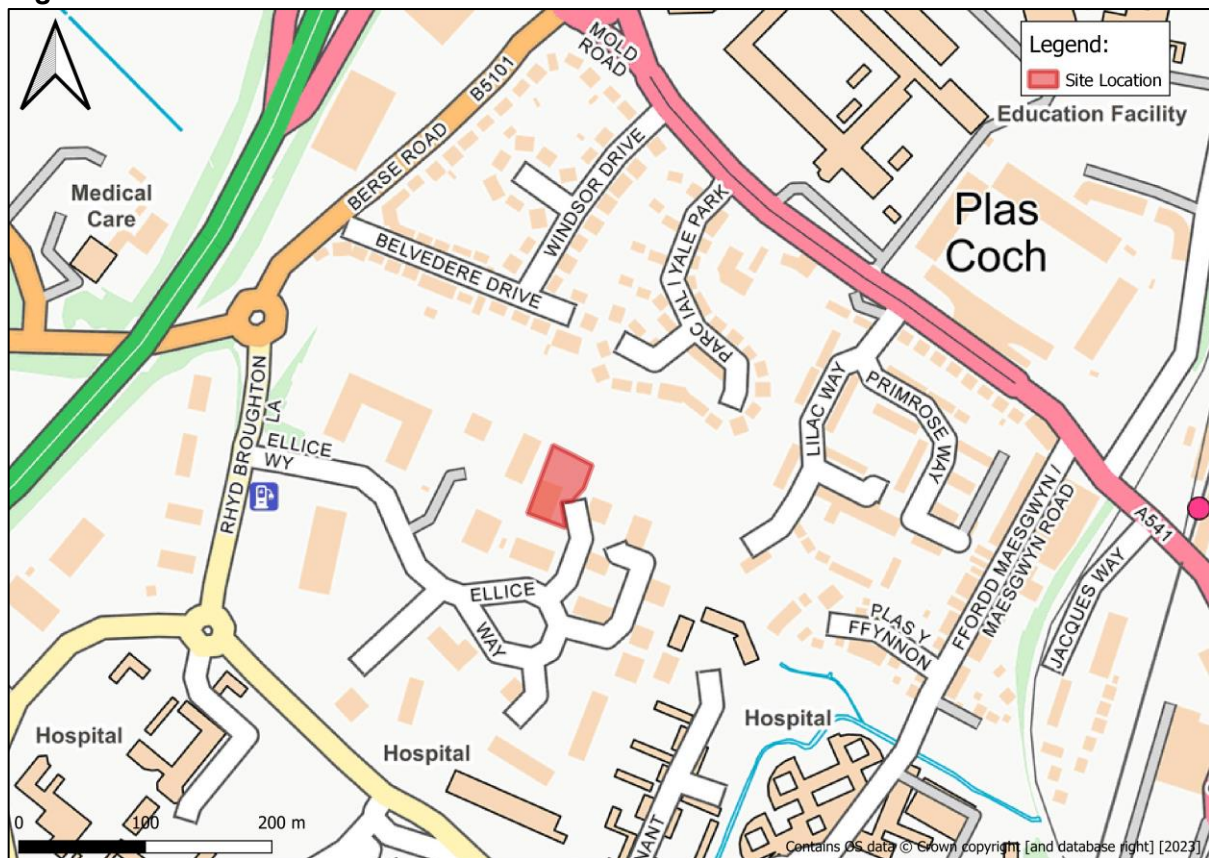
3 Baseline Conditions

3.1 This section considers the existing conditions at the site, and the surrounding transport network.

Site Location

3.2 The site is located at the Yale Business Village (also referred to as the Wrexham Technology Park), approximately 1km west of Wrexham Town Centre. The nearest bus stops are located on Rhyd Broughton Lane approximately 400m west of the site. **Figure 3.1** shows the site location.

Figure 3.1: Site Location Plan



3.3 The application site, located to the north of Ellice Way, comprises Unit G and its associated land and parking. The site is located within an employment park located off the A483. The site can be accessed via a single-lane road off Ellice Way, offering both vehicular and pedestrian access to the building and carpark. The site application is bounded by green space to the north, and to the east, south and west by Wrexham Technology Park.

Local Highway Network

Access Road (off Ellice Way)

3.4 The site is accessed via an approximately 100m long road that forms a priority junction with the northern side of Ellice Way. The road has footways along both the east and west sides of the road, and there is streetlighting present. The road features dropped kerbs and uncontrolled crossings with

tactile paving at various intervals. This road provides the sole vehicular access to the site and the adjoining carpark.

Ellice Way

- 3.5 Ellice Way is accessed via a priority junction with Rhyd Broughton Lane and serves Wrexham Technology Park. It is a two-way single-carriageway with a circular centre island in the eastern part of the Technology Park. It features continuous footways and streetlighting along the northern side of the road. Ellice Way connects to Rhyd Broughton Lane, Berse Road and then to the A483 to the north-west of the site.

Rhyd Broughton Lane

- 3.6 Rhyd Broughton Lane is a two-way carriageway with onward links to the north, providing access to the A483. To the southern extent of the road is a roundabout which provides access to Wrexham Maelor Hospital. Rhyd Broughton Lane features footways and continuous streetlighting along the entirety of the east and west sides of the road. To the immediate north of its junction with Ellice Way, there is an uncontrolled pedestrian crossing which benefits from dropped kerbs, tactile paving, and a pedestrian refuge island.

A483

- 3.7 The A483 is a two-way carriageway trunk road located approximately 1.5km west of the site. It provides a link to the Strategic Highway Network (A5). The road is subject to a 50mph speed limit between Junction 5 (Mold Road Interchange) and Junction 6 (Gresford Interchange). The A438 enables direct access to nearby locations including Chester, Oswestry and Newtown.

Accessibility by Foot and Cycle

- 3.8 There is a wide range of opportunities for active travel with pedestrian and cycle links to Wrexham Town Centre and to the surrounding residential areas to the north. Approximately 30m north of the site is a shared walking and cycling route that provides a direct off-road access route towards the residential properties to the north, and to Wrexham Town Centre to the northeast.
- 3.9 The site is in a highly accessible location, with bus stops located within an approximately 400m walking distance to the west and approximately 700m to the south, both of which provide frequent services to Wrexham Town Centre and residential areas.
- 3.10 The closest bus stop, Old Wrexham Tax Office, is located along the eastern side of Rhyd Broughton, approximately 400m west of the site. The northbound stop is located opposite on the western side of the road. Both bus stops can be easily reached via footways, that feature uncontrolled crossings with tactile paving. At the priority junction between Ellice Way and Rhyd Broughton Lane, there is a pedestrian crossing with a central refuge and tactile paving.

Public Transport

Bus

- 3.11 As noted, the closest bus stop to the site is located approximately 400m west. It benefits from a shelter, bench seating, timetable information and raised kerbs to provide safe access when boarding or alighting the bus. The adjacent bus stop on the opposite side of the road also has a shelter and raised kerbs. It offers access to nine services, with the most regular being Service 11 and Service 12. A summary of the services accessible from the bus stops on Rhyd Broughton Lane is provided in **Table 3.1**.

Table 3.1: Local Bus Services and Frequencies

Operator	No	Route	Average Weekday Number of Services (buses/hour)		
			AM Peak	Inter-Peak	PM Peak
Arriva	11	Wrexham –New Broughton–Coedpoeth–Minera	2 per Hour	2 per Hour	3 Services
		Minera–Coedpoeth–New Broughton– Wrexham	2 per Hour	2 per Hour	2 per Hour
	12	Wrexham –New Broughton–Pentre Broughton–Brymbo	2 per Hour	2 per Hour	1 per Hour
		Brymbo–Pentre Broughton–New Broughton– Wrexham	2 per Hour	2 per Hour	1 per Hour
	14	Wrexham –New Broughton–Tanyfron–Brymbo	1 per Hour	1 per Hour	2 Services
		Brymbo–Tanyfron–New Broughton– Wrexham	1 per Hour	1 per Hour	2 Services
	21H	Wrexham –Gwersyllt–Summer Hill–Gwersyllt– Wrexham	2 per Hour	2 per Hour	2 per Hour
ACYM	27	Wrexham –Sydallt–Pontblyddyn–Leeswood–Mold	1 per Hour	1 per Hour	2 Services
		Mold–Leeswood–Caergwrle–Sydallt– Wrexham	1 per Hour	1 per Hour	1 per Hour
M&H Coaches	29	Wrexham –Caergwrle–Buckley–Mold	1 Service	3 Services	1 Service
		Mold–Buckley–Caergwrle– Wrexham	1 Service	3 Services	1 Service
Arriva Cymru	X51	Wrexham –Minera–Llandegla–Ruthin–Denbigh	1 Service	1 every two Hours	2 Services
		Denbigh–Ruthin–Llandegla–Minera– Wrexham	1 Service	1 every two Hours	2 Services

- 3.12 **Table 3.1** shows that the site has access to frequent bus services, including half-hourly services between Wrexham Town Centre and Mold Town Centre. The journey is approximately seven minutes from the Wrexham Old Tax Office bus stop to Wrexham Central Railway Station, providing a realistic possibility for multimodal travel. Nearby residential areas located west of the A483 are served by several routes including New Broughton and Brymbo by Services 12 and 14, and Minera by Services 11 and X51.

Rail

- 3.13 The site is located close to two railway stations. Wrexham General Railway Station is the closest to the site, being approximately 900m away, which equates to an 11-minute walk or a three-minute cycle. Wrexham General Railway Station is accessible via bus route 21 from Wrexham Old Tax Office. Wrexham Central Railway Station is approximately 1.2km from the site and can be reached via bus service 11. Wrexham General Railway Station has more frequent services than Wrexham Central Railway Station.
- 3.14 Wrexham General Railway Station is classed as a Category B under the Step Free Access guidelines. Access to Platforms 1, 2, 3, and 4 are step free, with footbridges and lifts available. There is a ramp for train access and a seating area. Wrexham General Railway Station also has 20 covered cycle parking spaces. **Table 3.2** illustrates the services available from Wrexham General Railway Station, which is served by Transport for Wales.

Table 3.2: Local Train Services and Frequencies

Operator	Route	Average Number of Services (Both Directions)		
		AM Peak (weekday)	Inter-Peak (weekday)	PM Peak (weekday)
Transport for Wales	Chester– Wrexham –Ruabon–Shrewsbury–Wolverhampton–Birmingham	2 per Hour	6 Services	3 Services
	Bidston–Shotton–Penyffordd–Hope– Wrexham	2 Services	1 per Hour	3 Services
	Holyhead–Bangor–Chester–Crewe– Wrexham –Shrewsbury–Hereford–Newport–Cardiff	3 Services	3 Services	2 Services

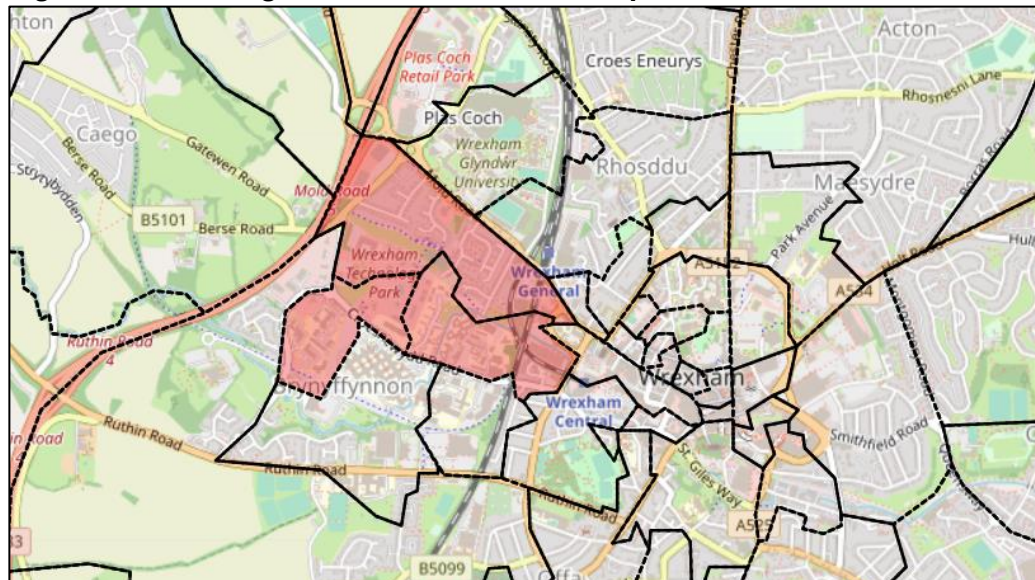
- 3.15 As shown in **Table 3.2**, destinations accessible from Wrexham General Railway Station include established settlements like Chester, Cardiff, Shrewsbury, and Birmingham. The frequency of services during commuting peak hours offers a realistic alternative to the private car, particularly as the railway station is located less than a 15-minute walk from the site.
- 3.16 Destinations accessible from Wrexham General Railway Station include locations such as Chester and Shrewsbury, being accessible within 15-minute and 40-minute rail journeys respectively.

Existing Travel Patterns

- 3.17 To understand the current modal transport choice by existing employees in the vicinity of the site, reference has been made to the 2011 Census Journey to Work dataset. Using the census data, a percentage breakdown of the modes used to travel to work in the selected area can be determined. The areas selected for assessing travel behaviour by mode are shown in **Figure 3.2**.

3.18 **Figure 3.2** indicates the locations selected for the Journey to Work dataset. These locations were selected due to their vicinity to the site therefore providing an accurate representation of the modes of travel to the site for the workplace population.

Figure 3.2: Strategic Locations for Modal Split



3.19 The following criteria were used in order to obtain a modal split:

- **Query:** WP703EW - Method of travel to work (2001 specification) (Workplace population);
- **Population:** All usual residents aged 16 to 74 in employment in the area the week before the census;
- **Category of Travel:** All categories;
- **Location:** W35000737, W35000738, W35001248

3.20 Detail of the data extracted is summarised in **Table 3.3**.

Table 3.3 – Method of Travel to work (Wrexham)

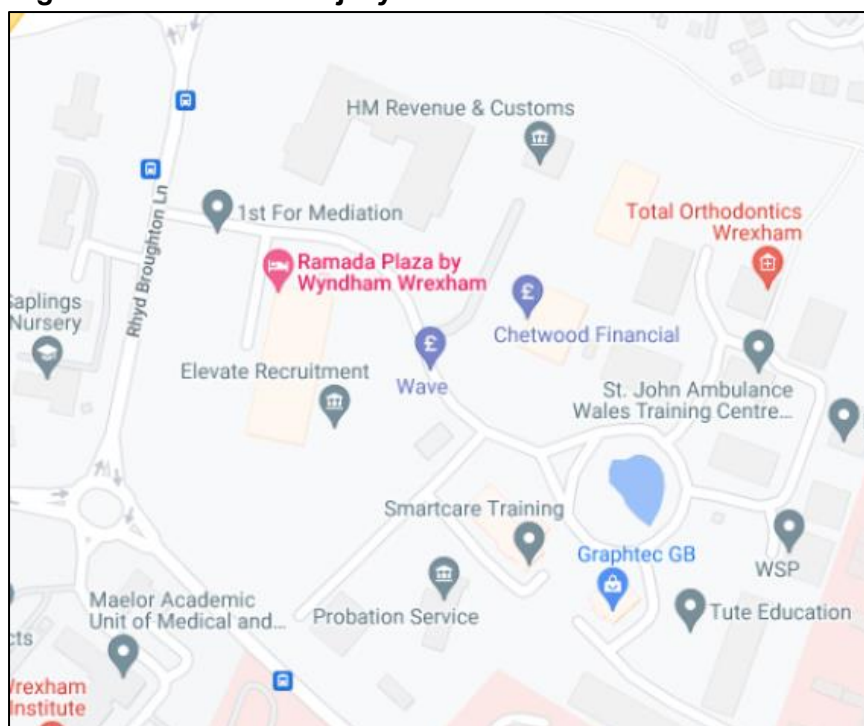
Method of travel to work	Total	Percentage
Train	29	1%
Bus, minibus or coach	142	7%
Taxi	13	1%
Motorcycle, scooter or moped	12	1%
Driving a car or van	1,659	76%
Passenger in a car or van	169	8%
Bicycle	17	1%
On foot	131	6%
Total	2,172	100%

- 3.21 The 2011 census data shown in **Table 3.3** demonstrates that the primary mode of transport for the workplace population in the area is driving a car, representing 76%. 8% of trips are car passengers and 7% travel to work by bus.

Personal Injury Collision Data

- 3.22 To determine the likely safety of the local highway network, collision data has been obtained for the most recent five-year period for which data is available. The study area includes the highway network within the vicinity of the site as shown in **Figure 3.3**.

Figure 3.3: Personal Injury Collision Data



Source: Crashmap.co.uk

- 3.23 **Figure 3.3** indicates that there have been no recorded collisions in the immediate vicinity of the site or along Ellice Way between 1st January 2017 – 31st December 2021. Therefore, there is no identifiable pattern of recorded collisions which indicates that there is not an existing road safety deficit that the proposal would exacerbate.

Summary

- 3.24 This section of the Transport Statement demonstrates that the site is well located to encourage trips to be undertaken via sustainable modes of transport including local bus and rail networks. In particular, the site is within an approximately 400m walking distance to the nearest bus stop which provides access to Wrexham Town Centre and Wrexham General Station. Additionally, the site benefits from a shared use cycle and pedestrian path located approximately 30m from the point of

site entry, providing safe and convenient off-road access to the residential areas to the north of the site, and to the Town Centre.

- 3.25 A collision review of the surrounding highway network has concluded that there are no existing road safety concerns within the vicinity of the site.

4 Development Proposals

Previous Use

- 4.1 The proposals concern the reuse of an office building off Ellice Way, Wrexham, as a SEN education facility. The application site is located within an employment park located off the A483, approximately 1km to the west of Wrexham Town Centre.
- 4.2 The site currently comprises office space with a GFA of approximately 818 sqm. Whilst the majority of staff are understood to have left the office building as of April 2023 due to the current occupier moving offices, planning consent for office use persists.
- 4.3 The application site benefits from car parking and manoeuvring space for 32 cars, including three disabled spaces. Cycle parking is also provided to the north of the building.

Proposed Use

- 4.4 The application seeks planning permission for the change of use of the site from an office (Class B1) to education use (Class D1), including an ancillary student training kitchen/café. Planning permission is also sought for a new entrance door and canopy to the southeast elevation and the erection of a covered cycle shelter.
- 4.5 The proposed school's operator currently provides its education for students with special educational learning needs from two buildings located in Wrexham, one at King Street and the other at Ty Dewi Sant. There has been a desire to bring the students together in one building to better meet the needs of the young people and provide sufficient space and improved facilities. There is a need for multiple rooms to provide the education required, completed by therapy, sensory and quiet rooms, and an ancillary student training kitchen/café, which the new location provides. The students attending the school will be between the ages of 16-25.
- 4.6 The two existing buildings do not have the space to meet the needs of their students, thus, in seeking to relocate to a single building, it is important to the applicant and its students to remain within the town to ensure a continuity of education for the students.
- 4.7 While the site will be registered for up to 50 students, in practice it would be unlikely to have all students on the site at any one time, as students would also engage in off-site activities and learning and some would not attend on a five-day-a-week basis.
- 4.8 It is anticipated that the number of staff on site at any one time would be no more than 32, and generally fewer.
- 4.9 The site layout is attached at **Appendix A**.

Access Arrangements

- 4.10 The site is accessible via an existing private drive off Ellice Way, which is approximately 100m in length. This provides vehicular and pedestrian access to the building and secure car park.

Swept Path Analysis

- 4.11 A Swept Path Analysis (SPA) for the car park has been undertaken using a Standard Design Vehicle (SDV) to demonstrate private vehicle and taxi movements, using a minibus in order to demonstrate the pickup / drop off patterns of students travelling by this mode. Students are not proposed to travel by minibus but this is an accurate reflection of the largest vehicle that may need to access the car park.
- 4.12 **Drawing 237392_AT_A04** in **Appendix C** illustrates that a minibus can turn within the site and exit in forward gear. **Drawing 237392_AT_A05** demonstrates that a car can also turn on site, and pass any cars waiting along the access road.
- 4.13 The drawings are included within **Appendix C** along with a Fire Tender, demonstrating that a Fire Engine can enter and turn around within the site..

Parking

- 4.14 The building is served by an existing 32-space car park, including 3 disabled spaces and cycle parking in the form of 5 Sheffield hoops (providing space for up-to 10 cycles). There are no alterations proposed to the level or nature of the vehicle car parking provision. All existing spaces are retained to serve the proposed education use. The level of car parking is sufficient to accommodate all staff as set out in **Section 5**.
- 4.15 The car park arrangement is shown in **Photograph 4.1**.

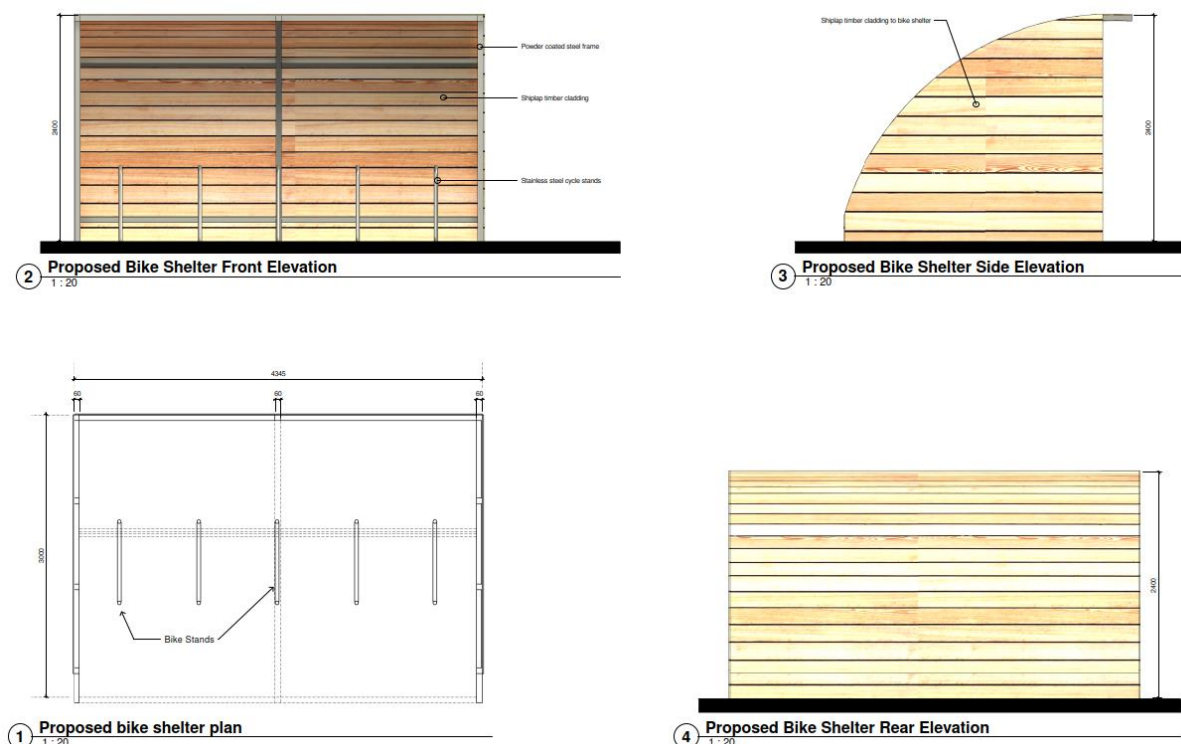
Photograph 4.1 – Car Park Arrangement



(Source: Google Maps)

- 4.16 Cycle parking provision is to be improved through the construction of a covered cycle shelter. This will maintain cycle storage for up-to 10 bikes, but being covered will provide better protection and security. This is shown at **Figure 4.2**.

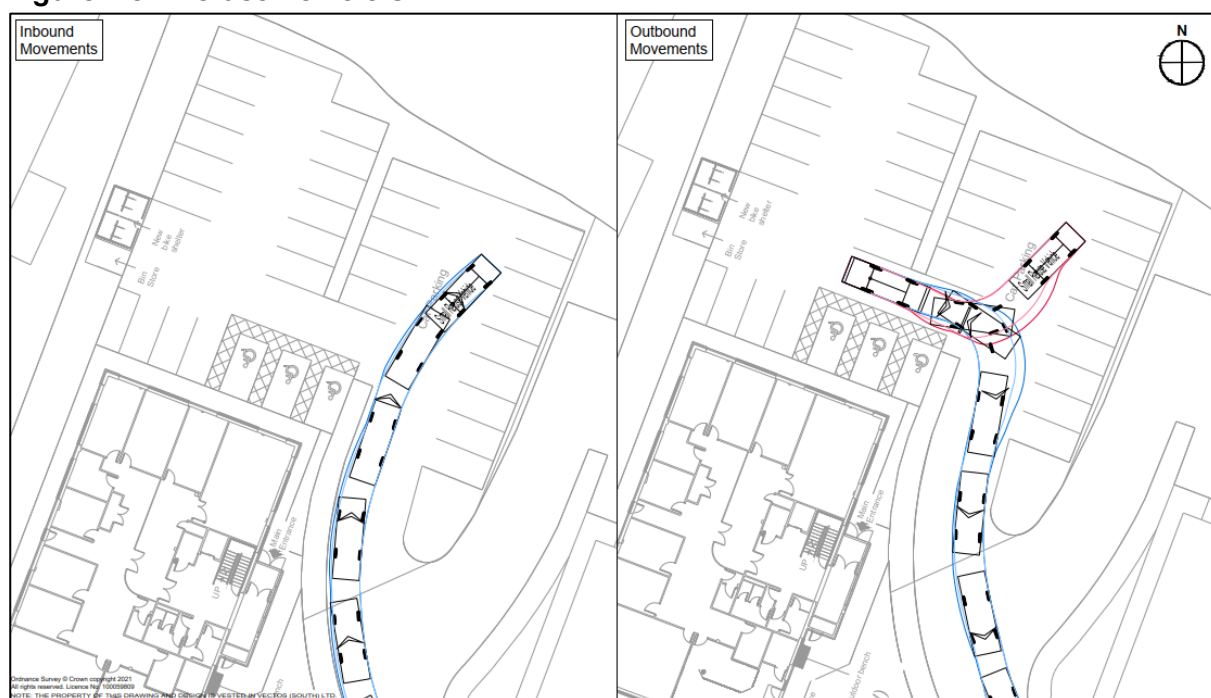
Figure 4.2 – Proposed Bike Shelter



Servicing and Delivery

- 4.17 Existing refuse and recycling arrangements will be retained. As shown on the site layout, a bin store is provided to the north of the car park. **Drawing 237392_AT_A06** demonstrates that a refuse vehicle can enter and turn within the site, existing safely. This would be managed as to not conflict with drop off and pick up periods. An extract of this drawing is contained within **Figure 4.3**.

Figure 4.3 – Refuse Vehicle SPA



Car Park Management

- 4.18 The existing car park benefits from 32 spaces, including three disabled bays. As demonstrated within Section 5, the number of staff parking on site is not expected to exceed 24 at any stage. This also provides adequate capacity for visitors and cars associated with other site users.
- 4.19 The operation of the car park has been assessed using vehicle tracking software, and the subsequent Swept Path Analysis (SPA) is demonstrated at **Figure 4.4 – Figure 4.6**. This considers the movements of a minibus and Standard Design Vehicles (SDVs). It is understood from the client that minibuses of this nature will not be used at the site – smaller vans and people-carrier type vehicles are utilised, so this is very much a worst-case assessment.

Figure 4.4 – Stationary Minibus and a passing SDV

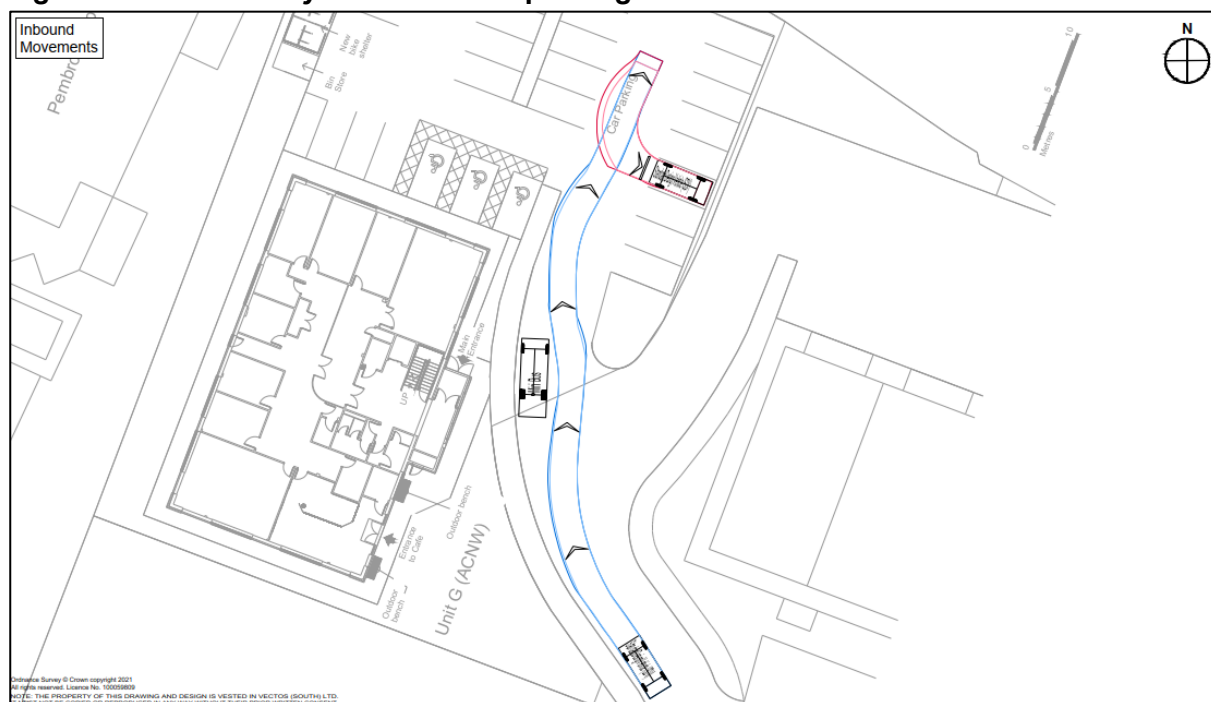


Figure 4.5 – SDVs Queueing and an SDV exiting the site

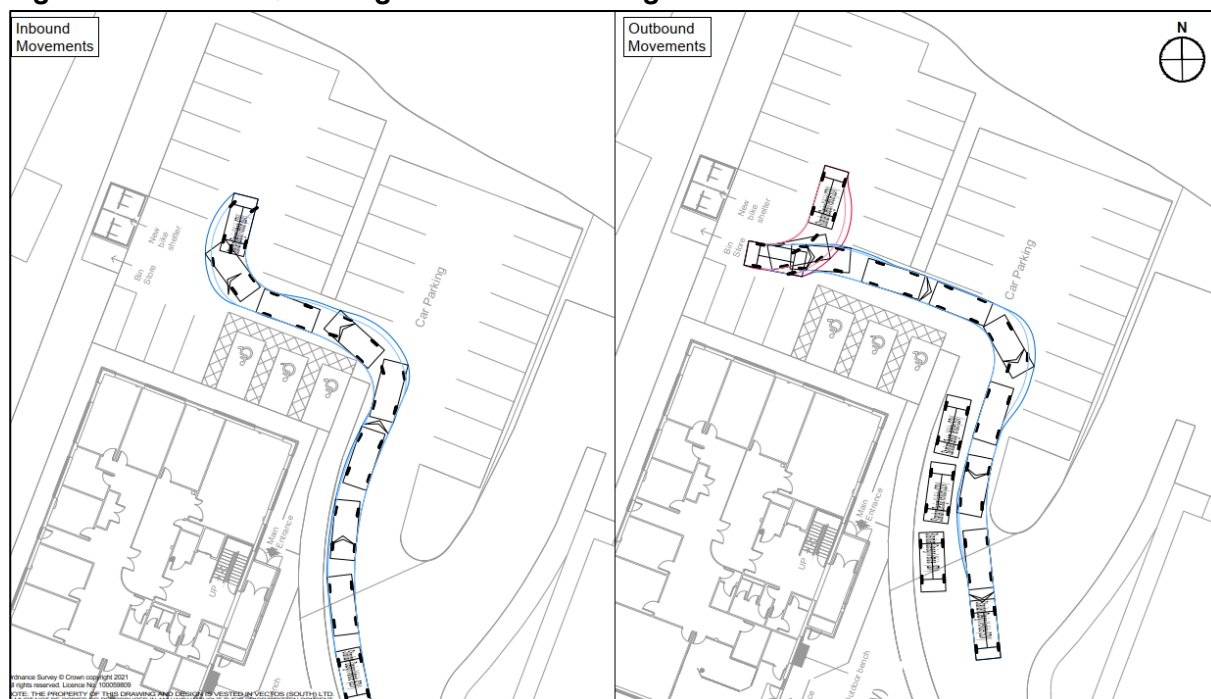
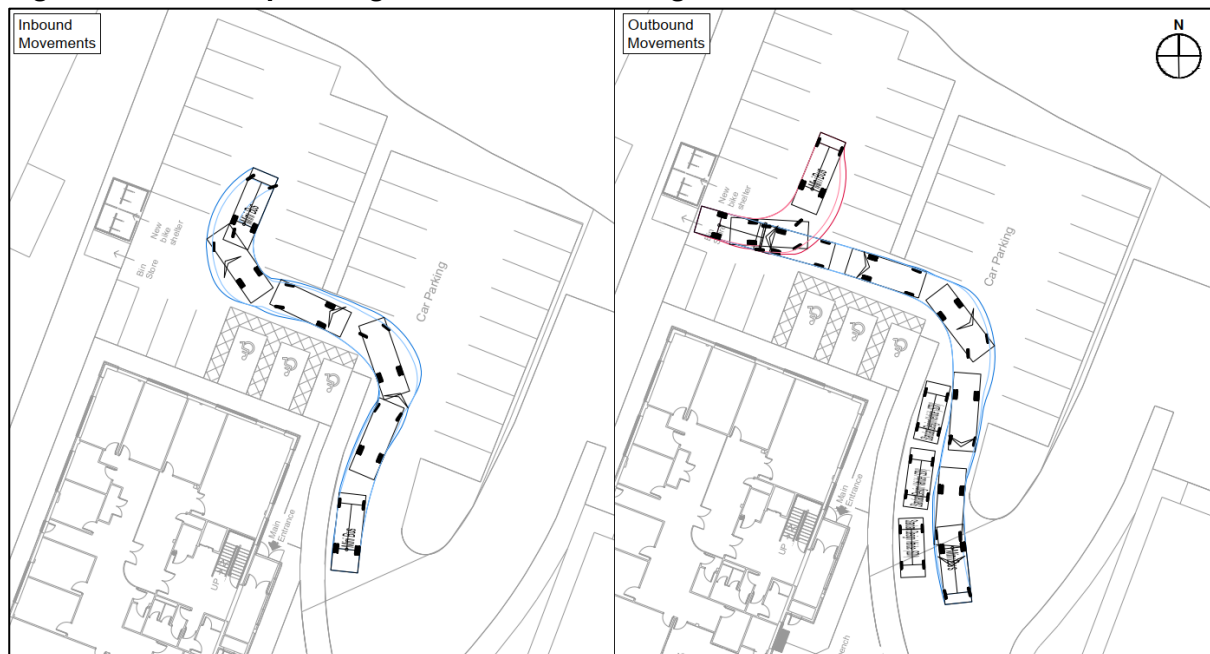


Figure 4.6 – SDVs queueing and a minibus exiting



- 4.20 As demonstrated, there are no constraints within the car park which will be exacerbated by the change of use to an SEN school. All vehicle movements are shown to be able to be accommodated within the existing layout, with sufficient aisle / road widths and clear visibility reducing the likelihood of conflict between vehicles.

5 Trip Generation and Development Impact

Overview

- 5.1 This chapter sets out the trip generation and distribution associated with the proposed development. This assessment has been calculated by using a ‘first principles approach’ by utilising trip data based on known staff and pupil numbers provided by the operator, alongside Census 2011 modal split data for this area of Wrexham.

First Principles Approach

- 5.2 The site currently comprises office space, and the vehicular trip generation for this use can be obtained via the online TRICS database. However, the TRICS database does not provide sufficient data for the proposed use of a SEN school. Therefore a ‘First Principles’ approach must be used to demonstrate the trip generation forecasted to be associated with the SEN school.
- 5.3 The first principles approach relies on an understanding of the number of staff and pupils proposed to be accommodated within the school, and the frequency and type of travel associated with these users. This information has been supplied by the school operator, Aspris Children’s Services, and is based upon their extensive experience of similar operational sites, including the two existing SEN sites within Wrexham.

Previous Use Trip Generation

- 5.4 The site currently comprises office space with a GFA of approximately 818 sqm. The majority of staff have left the office building as of April 2023 due to the current occupier moving offices. However, the trip generation exercise accounts for the office space being fully utilised as it can be used for within its current consent.
- 5.5 The following criteria from the TRICS database has been used in order to obtain the trip rates for office use in this area of Wrexham:
- Land Use: 02 – Employment
 - Sub Land Use: A – Office
 - Type: Multi-Modal
 - Regions: UK (excluding Greater London and NI)
 - Locations: Suburban Area, Edge of Town
 - Survey days: Weekdays
- 5.6 The above criteria have been selected based on the current consented land use. Surveys were taken from weekdays reflecting school operational days. The resultant total people trip rates for a 12 hour period are shown in **Table 5.1**, with the full TRICS output available at **Appendix D**.

Table 5.1 – Total People Trip Rates per 100sqm (Office Use)

Time Period	Arrivals	Departures	Two-Way
07:00-08:00	0.72	0.10	0.82
08:00-09:00	3.88	0.15	4.03
09:00-10:00	2.36	0.53	2.89
10:00-11:00	1.13	0.55	1.68
11:00-12:00	0.67	0.54	1.21
12:00-13:00	1.06	1.58	2.64
13:00-14:00	1.53	1.10	2.63
14:00-15:00	0.65	0.72	1.37
15:00-16:00	0.41	0.75	1.17
16:00-17:00	0.55	1.78	2.34
17:00-18:00	0.27	3.68	3.95
18:00-19:00	0.09	1.21	1.30
12 hr (07:00-19:00)	13	13	26

- 5.7 When considering the total GFA of the office building, 818sqm, the resulting total people trips for the existing use are set out in **Table 5.2**.

Table 5.2 – Total People Trip Rates (818sqm of Office Use)

Time Period	Arrivals	Departures	Two-Way
07:00-08:00	6	1	7
08:00-09:00	32	1	33
09:00-10:00	19	4	24
10:00-11:00	9	4	14
11:00-12:00	5	4	10
12:00-13:00	9	13	22
13:00-14:00	13	9	21
14:00-15:00	5	6	11
15:00-16:00	3	6	10
16:00-17:00	5	15	19
17:00-18:00	2	30	32
18:00-19:00	1	10	11
12 hr (07:00-19:00)	109	104	213

- 5.8 The 2011 census provides information about the method of travel to work for employees who work within the area of the site. This provides a percentage breakdown of the modes used to travel to work, and therefore a factor which can be applied to the total people trip rates.
- 5.9 The 2021 Census has not been used due to uncertainties surrounding the validity of the data, as the census was undertaken during the Covid-19 Pandemic when a large proportion of the country were working from home.
- 5.10 The modal split is set out in **Table 3.3**, in **Section 3**.

- 5.11 When applying the modal split (**Table 3.3**) to the total people trip generation for the office use, a total people trip generation by mode is achieved as set out in **Table 5.4**.

Table 5.4 – Total two-way People Trips by mode (Existing office use, 818sqm)

Mode	08:00-09:00	17:00-18:00	Daily
Train	0	0	3
Bus, minibus or coach	2	2	14
Taxi	0	0	1
Motorcycle, scooter or moped	0	0	1
Driving a car or van	25	25	162
Passenger in a car or van	3	3	17
Bicycle	0	0	2
On foot	2	2	13
Total	33	32	213

- 5.12 As shown in **Table 5.4**, the previous office use would have generated in the region of 25 two-way vehicle movements in the AM and PM peak hour periods on a typical weekday.

Proposed Trip Generation

- 5.13 The proposals comprise the change of use from office space to a SEN school. The site will provide capacity for up to 50 pupils aged between 16-25 years old and up to 32 staff.

Staff Trip Generation

- 5.14 To determine the number of staff vehicles generated, the 2011 Census Journey to Work modal split has been reviewed. As shown in **Table 3.3**, the 2011 Census indicates that of those working in the area, 76% choose to travel by private car.
- 5.15 The operator has noted that staff will be encouraged to reach the development through a combination of private car, car share, cycle to work scheme, walking and public transport. Therefore, the figures in **Table 3.3**, which are based upon historic Census data, is likely to an overestimate of the number of staff likely to travel by private car, particularly given recent changes in active travel trends following the Covid-19 Pandemic.
- 5.16 The operator has confirmed that staff will arrive between 07:45-08:30 and will leave between 15:30-18:00. The staff arrival and departure periods do not overlap with pupil pick up and drop off.
- 5.17 The figures in **Table 5.5** are based on Census data within **Table 3.3**, which indicates 76% of the 35 staff may use a private car to arrive and depart from the site. This demonstrates that staff would generate 24 vehicle movements in both departures and arrivals from the site.

Table 5.5 - Proposed Staff Vehicular Trip Generation

Mode	AM (07:45-08:30)	PM (15:30-18:00)	Two-Way (Daily)
Train	0	0	1
Bus, minibus or coach	2	2	4
Taxi	0	0	0

Motorcycle, scooter or moped	0	0	0
Driving a car or van	24	24	49
Passenger in a car or van	2	2	5
Bicycle	0	0	1
On foot	2	2	4
Total	32	32	64

- 5.18 **Table 5.6** presents the total vehicle trip generation associated with staff arrivals and departures. All staff are expected to arrive between 07:45-08:30, before pupils arrive. As staff will leave anytime between 15:30-18:00, the number of trips has been split evenly to reflect this within an approximate one-hour period in the AM and an approximate two-hour period in the PM (15:30-17:30 as a worst-case).

Table 5.6 - Proposed Staff Vehicular Trip Generation Assignment

Time Period	Trip Generation		
	Arrive	Depart	Total
07:30-08:30	24	0	24
15:30-16:30	0	12	12
16:30-17:30	0	12	12

- 5.19 It should be noted that staff trips will only occur within term time, in contrast to the former office, which was staffed throughout the year. The proposed use operations on weekdays during term time equates to approximately 190 days, which is approximately 50% of operational days compared to the previous use.

Pupil Trip Generation

- 5.20 The development will provide capacity for up to 50 pupils, with the school day beginning at 09:30 and ending at 15:00. The operator has confirmed the following information regarding the likely travel of pupils to / from the proposed school. Of the 50 pupils:
- Approximately 12 students will travel via two nine-seater van type vehicles (6 students in each);
 - Three students will travel in a wheelchair accessible van;
 - Five students will travel in a five-seater people carrier;
 - The remaining students are likely to travel by taxi (approximately 2 students per vehicle)
- 5.21 Although the site will provide capacity for 50 enrolled pupils, the likely maximum number on site would be approximately 45 pupils (10% reduction). This is due to pupil absences, which would be generally higher due to the specialist nature of the school.
- 5.22 Further to the information provided, it is reasonable to conclude that there will be an average of two pupils per taxi. It is anticipated that 30 pupils would arrive by taxi (resulting in 15 taxis), with a further 20 arriving by other school transport (resulting in no more than four vehicles). The resultant total

vehicular trip generation is shown in **Table 5.7**, accounting for the 10% daily reduction in pupils as a result of absences.

Table 5.7 - Proposed Pupil Vehicular Trip Generation

Time Period	Trip Generation		
	Arrive	Depart	Total
Drop off (08:30-09:30)	17	17	34
Pick Up (14:30-15:30)	17	17	34

- 5.23 As shown in **Table 5.7** there would be a maximum of 34 two-way trips in the AM and PM peak hours relating to vehicles carrying pupils arriving at and departing from the school. This is again a worst-case, as it may be that some of the vehicles stay on-site e.g., the specialist vehicles which might get used during the day.
- 5.24 Due to the nature of the school, taxi trips will be higher than a typical education use, with private travel not anticipated to be a material mode choice based on the operation of the client's existing establishments.
- 5.25 The Wrexham County Borough Council School Transport Policy states that suitable transport arrangements will be made for a child with ALN/SEN with the provision of free transport to the school or other educational establishment on referral from the Council's Education ALN/Inclusion Section.

Total Proposed Trip Generation

- 5.26 The combined trip generation related to the staff and pupils of the proposed development is shown in **Table 5.8**. The trip generation for pupils and staff has been split into whole hour periods to aid the assessment, being split equally between hours.

Table 5.8 - Total Proposed Trip Generation

Time Period	Trip Generation		
	Arrive	Depart	Total
AM Period			
07:00-08:00	12	0	12
08:00-09:00	21	9	29
09:00-10:00	9	9	17
PM Period			
14:00-15:00	9	9	17
15:00-16:00	9	17	25
16:00-17:00	0	8	8
17:00-18:00	0	8	8

*Table subject to rounding discrepancies

Net Change Trip Generation

- 5.27 The net vehicular impact of the development has been calculated utilising the consented trip generation shown in **Table 5.6**. and the proposed shown in **Table 5.8**. The resultant net trip generation is shown in **Table 5.9**.

Table 5.9 – Net Trip Generation

Time Period	Trip Generation		
	Arrive	Depart	Total
AM Period			
07:00-08:00	+6	-1	+6
08:00-09:00	-11	+7	-4
09:00-10:00	-11	+4	-7
PM Period			
14:00-15:00	+3	+3	+6
15:00-16:00	+5	+11	+16
16:00-17:00	-5	-6	-11
17:00-18:00	-2	-22	-24

- 5.28 **Table 5.9** demonstrates that the site would reduce vehicular trips by four in the traditional network AM peak hour period (08:00-09:00). The greatest increase in AM trips from the consented use to the proposed use is from 07:00-08:00, with six additional vehicle trips.
- 5.29 Within the afternoon period, the site would generate an additional 16 two-way vehicle trips between 15:00 -16:00, which correlates with pupil pick-up. In the hour 16:00 -17:00, the site would generate a potential reduction of 11 two-way vehicular trips, with a further reduction of 24 two-way vehicle trips forecast during the traditional network PM peak hour period of 17:00-18:00.
- 5.30 The traffic generation exercise has also been conducted using the average number of pupils likely to be on site once the school is fully occupied. This scenario will not be realised immediately, as the admissions to the school will increase gradually, and may indeed never reach the consented maximum. Therefore, the traffic impact should be considered as a worst case.
- 5.31 The change in vehicular movements would only be experienced on weekdays during term time, as the site would not be operational during weekends and holiday periods. The proposed development would be operational for around 190 days per year (term time), whereas the previous site would have been operational throughout the year.
- 5.32 It should be noted that the proposals would not constitute ‘new’ vehicle trips to the wider highway network, as the vehicular trips to the two educational facilities for students with special educational learning needs located in Wrexham, one at King Street and the other at Ty Dewi Sant, will be replaced by the vehicular trips to the development site.

- 5.33 **Table 5.9** demonstrates that the evening development peak will reduce by 35 cars between 16:00-18:00. This means that the PM Peak traffic will not overlap with traditional commuting peak hours therefore, the site will not have a considerable impact on the traffic movement of the business park.

Summary

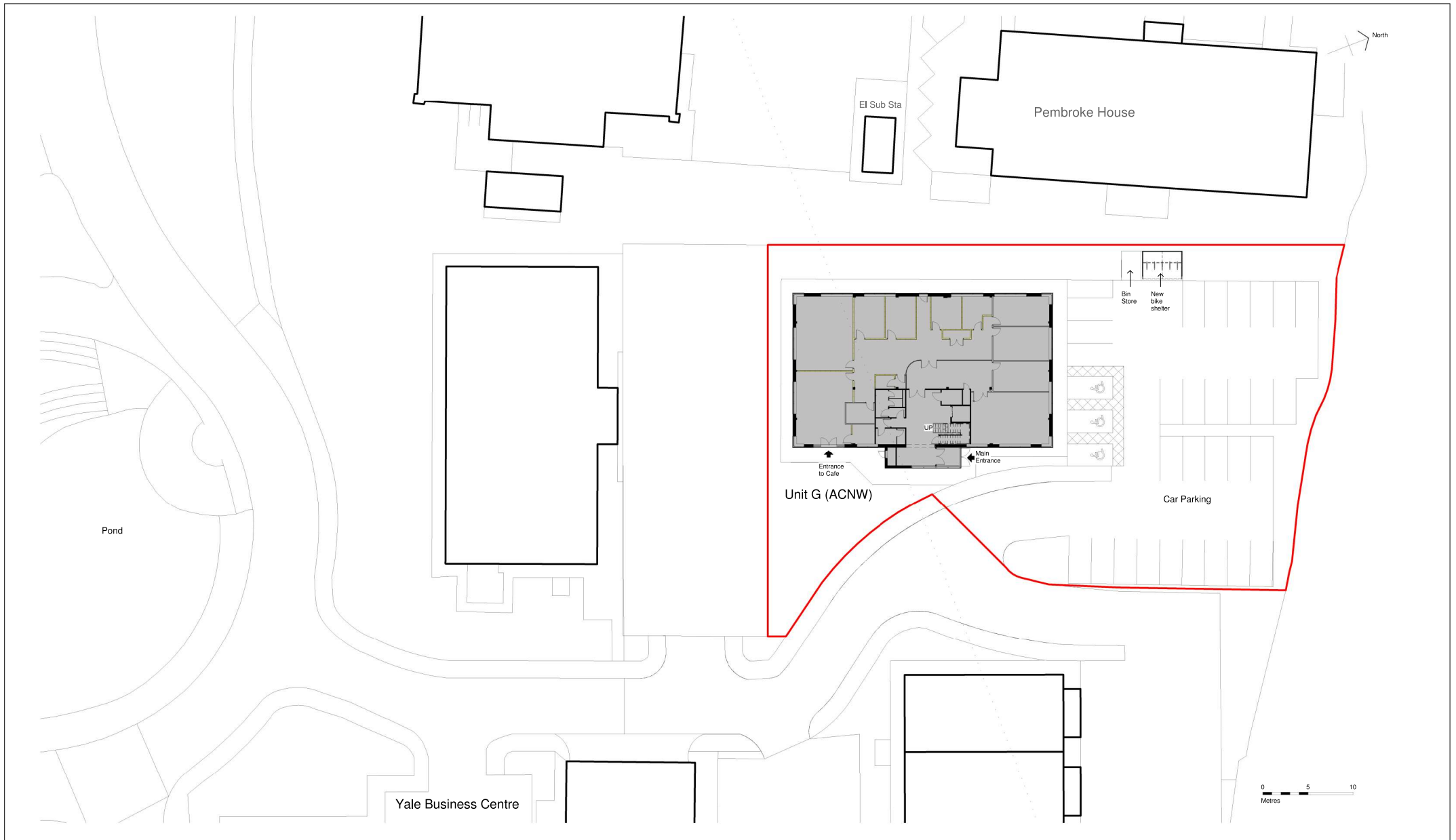
- 5.34 The trip generation exercise demonstrates that there is a negligible impact between the vehicle trip generation of the existing site's use as office space and the proposed use of a SEN school. The proposals will therefore have a minimal impact surrounding traffic network.
- 5.35 Given the development proposals consider an education use which consolidates nearby education provision, these trips are already on the wider highway network, with the proposed use likely to reduce travel distances for a proportion of pupils. Therefore, it is considered that the proposals would not create an unacceptable impact upon road safety or a severe impact upon the operation of the local highway network.

6 Summary and Conclusion

- 6.1 The proposals concern the change of use of an office building off Ellice Way, Wrexham, to a SEN education facility. The application site is located on an employment park located off the A483, approximately 1km to the west of Wrexham Town Centre.
- 6.2 The site is well located to encourage trips to be undertaken via sustainable modes of transport including local bus and rail networks. In particular, the site is within a 400m walking distance to the nearest bus stop which provides access to Wrexham Town Centre and the residential areas of New Broughton, Brymbo and Minera. The site is also within a 15-minute walking distance of Wrexham General Railway Station. Additionally, the site benefits from a shared use cycle and pedestrian path located only 30m from the site, which provides safe and convenient off-road access to the residential areas to the north of the site, and to the Town Centre.
- 6.3 A collision review of the surrounding highway network concludes that there are no existing road safety concerns within the vicinity of the site. There are no identifiable patterns of recorded personal injury collisions on the surrounding highway network that the proposals would exacerbate. The development will provide safe and suitable access for all users to the site, with direct access from the site access to wider footway network available.
- 6.4 The building is served by a 32-space car park, including 3 disabled spaces and cycle parking in the form of 5 Sheffield hoops (providing space for up-to 10 cycles). There are no alterations proposed to the level or nature of the vehicle car parking provision. All existing spaces are retained to serve the proposed education use. The level of car parking is sufficient to accommodate all staff.
- 6.5 Cycle parking provision is to be improved through the construction of a covered cycle shelter. This will maintain cycle storage for up-to 10 bikes, but being covered will provide better protection and security.
- 6.6 The trip generation exercise demonstrates that there is negligible difference between the vehicle trip generation of the existing site's use as office space and the proposed use of a SEN school, with a betterment forecast during the afternoon peak periods. The proposals will therefore have a minimal impact surrounding traffic network.
- 6.7 Given the development proposals consider a rationalisation of existing education facilities within Wrexham, these trips are already on the local highway network. Therefore, it is considered that the proposals would not create a perceptible impact upon the wider highway network.
- 6.8 In summary, this Transport Statement demonstrates that:
 - The location of the site accords with the relevant national and local transport planning policies;
 - The surrounding road network operates satisfactorily, with no identifiable collisions within the site vicinity; and
 - The proposals will result in an overall increase in vehicular trips associated with the site, but with minimal impact from a transportation capacity and safety perspective.

- This Transport Statement complies with National Policies, including Paragraph 4.19 of Planning Policy Wales (Edition 11) as it is encouraging a modal shift to walking, cycling and public transport.

Appendix A



© Mistral Building Solutions Ltd. APPROVAL MISTRAL ARCHITECTS & SURVEYORS ☐ Architecture ☐ Surveying ☐ Project Management The Old Telephone Exchange, Brassknocker Street, Magor NP26 3EG T: 01633 880666 F: 01633 881004 e.mail: info@mistralbuilding.co.uk web: www.mistralbuilding.co.uk	No.	Description	Date	Aspris College North Wales, Unit G, Yale Business Village, Ellice Way, Wrexham LL13 7YL	Project number	1441	
					Date	January 2023	
					Drawn by	TF	
					Checked by	AQ	
				Proposed Site Plan	006		
					Scale		1 : 200

Appendix B

MEMORANDUM



From:	Chief Officer, Environment & Technical	To:	Chief Officer Planning & Regulatory
		FAO:	Amy Brittain
Our Ref:	ET/DC/MM/P/2023/0094	Your Ref:	P/2023/0094
Date:	14 th April 2023		

Unit G, Yale Business Village, Ellice Way, Wrexham Change of Use of Building from Class E (Business) to Class D1 (Education Use)

Further to your email / consultation dated 05/04/2023 in respect of the above, I comment as follows-

The application submitted is for the change of use of Unit G, Ellice Way, Yale Business Park, Wrexham from Offices (Class E) to Education use (Class D1), including an ancillary student training kitchen/café. Planning permission is also sought for a new entrance door and canopy to the southeast elevation and the erection of a covered cycle shelter.

Transport Assessment

Since the application is for a change of use to an educational premises a Transport Assessment is required, however a Transport Statement (TS) will be accepted, since a TS is proportionate to the scale of the proposed development. The Planning Policy Wales, Technical Advice Note 18 Transport (TAN 18) details what should be included in the TS. It is noted that the planning application is not for a typical school however, the applicant is required to demonstrate improvements for safe cycling and walking routes, restricting car access near to pedestrian routes, and a framework for travel planning activity.

Site Access and Layout

The development site is located off Ellice Way on Wrexham Technology Park which is an unadopted road. I understand that WCBC – Asset Management Section are responsible for / maintain Ellice Way. I would recommend that you consult with the Asset Management Section to discuss the suitability of the proposed development.

The applicant suggests that students will travel by shared taxi, public transport or, some, by parents dropping them off. The proposal shows no change to the existing access for vehicles and pedestrians. However, since the change of use will result in a change in travel patterns to the site there is a highways concern regarding arrangements for dropping off and picking up.

The applicant is required to provide evidence of arrangements within the site for a designated safe drop off / pick area for the types of vehicles likely to be used. This should include space for larger vehicles such as minibuses to turn. A vehicle swept path of a larger vehicle is required. Clarification with regards to servicing needs for the proposed development (Education) land use should also be provided.

Parking

Wrexham County Borough Council's (WCBC's) parking standards (Local Planning Guidance note No. 16) states that for the land use category D1, 2 car spaces plus 1 car space per 25sqm gross floor space is required, as well as 1 cycle space per 250sqm gross floor space.

The floor area for the existing building is 815sqm. Applying these parking standards to the proposed floor area of 815sqm results in a maximum parking requirement for 35 car parking spaces and 4 cycle spaces. It is stated that the development will use the existing parking provision, which is currently 32 parking spaces (including 3 mobility spaces), and 10 cycle parking spaces which is within the parking requirements. It is noted that the existing cycle parking will benefit from a new shelter.

The applicant states that the site can accommodate up to 50 students and that the maximum staff on site will be 35, although this figure doesn't seem to include other staff such as cleaners. Clarification is required from the applicant regarding total staffing numbers and whether any students will drive to the development.

There is a highway safety concern that if the parking provision for staff / students is not sufficient that there will be a displacement of vehicles onto the surrounding highway and possibly at unsuitable locations such as part on the footways. The applicant is required to demonstrate how parking will be managed for all staff / students and how travel via car will be minimised. It is recommended that a Car Park Management Strategy is included in the TS.

Accessibility and Active Travel

The applicant states that all staff and students are encouraged to travel by bus, walk or cycle. The applicant is required to demonstrate in the TS how accessible the site is for staff / students by non-private car mode of travel.

Travel Plan

It is recommended that the applicant produces a Travel Plan for this site to reduce the number of staff / students accessing the site by single occupancy car trips. This Travel Plan should include measures which promote sustainable travel. This Travel Plan should follow TAN18 guidance.

Conclusion

Additional information is required for this planning application, particularly relating to student and staff travel to and from the site. Therefore, a Transport Statement and Travel Plan is requested in line with TAN18 guidance.

- The Transport Statement should include evidence of the following:
 - Establish travel to the site by mode for staff and students;
 - Outline a strategy for accommodating mini-bus vehicles within the development, as well as detailing an access management plan;
 - A management plan for pick-up/drop off arrangements, particularly for taxis, mini-buses, and private vehicles;
 - Car Park Management Strategy;
 - Active travel assessment, including walking and cycling links; and
 - Public transport assessment, showing whether the development site is accessible by bus, particularly when comparing the proposed land use start and end times to bus service frequency at those times.

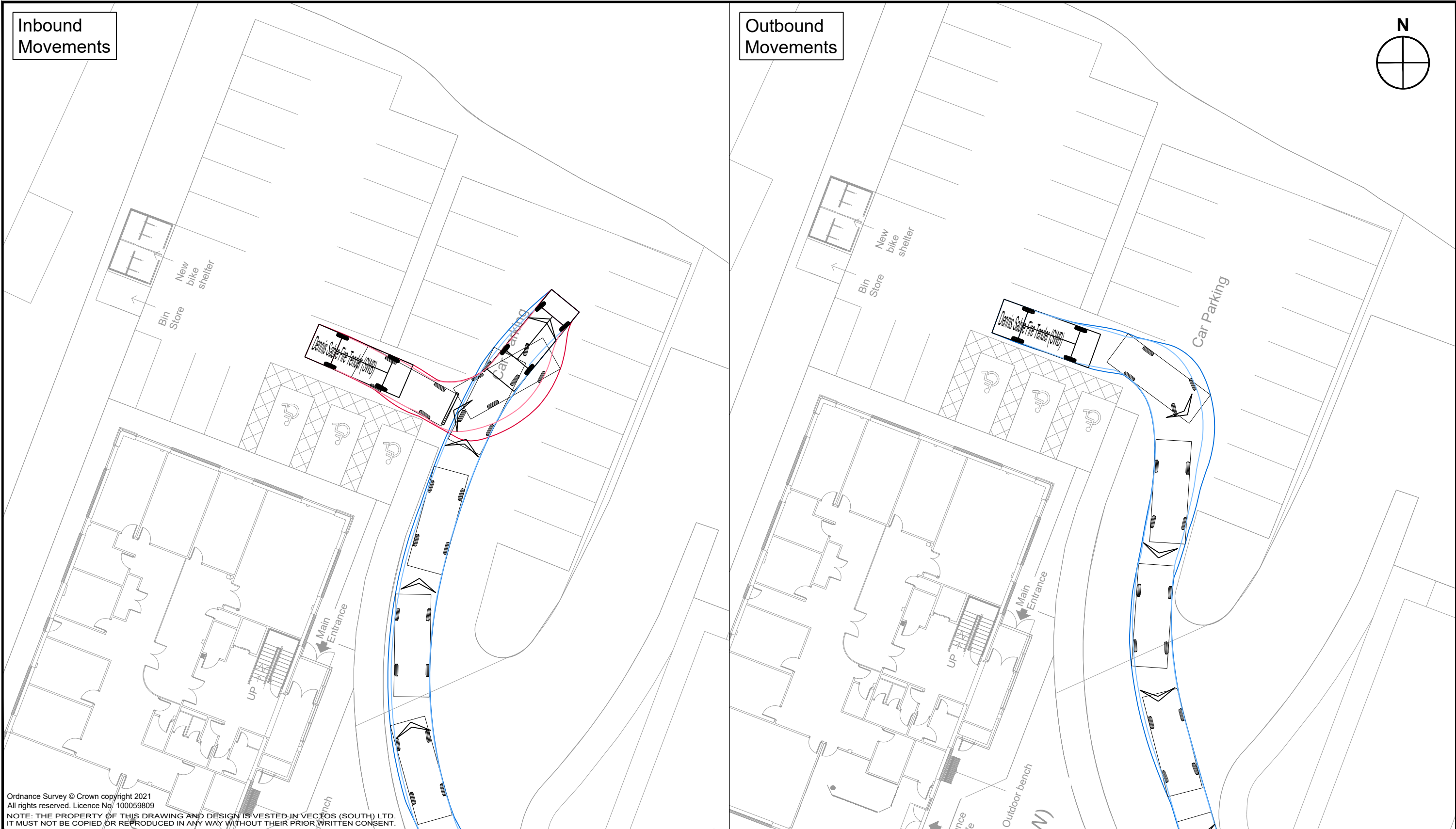
- A Travel Plan:
 - This should provide a long-term strategy which aims to encourage people to use alternative means of travel to single occupancy car trips. It should include a range of measures which encourage people to walk, cycle, use public transport and share car journeys.

It is recommended that the applicant has scoping discussions with the Highway Authority to agree the scope for the Transport Statement and Travel Plan. Subject to review and approval by Highways, these supporting documents will be required for Highways to approve the planning application for the site.



Chief Officer, Environment & Technical

Appendix C



REV.	DETAILS	DRAWN	CHECKED	DATE
1				

INFORMATION ONLY

Notes:

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

Yale Business Village, Ellice Way, Wrexham

Aspris Children's Services

Swept Path Analysis
Fire Tender Movements

DRAWN: RJ

CHECKED: JH

DATE: 09.05.23

SCALES: 1:250 at A3

vectos.

PART OF SLR

Ground Floor, Helmont House, Churchill Way, Cardiff CF10 2HE
t: 02920 720 860 e: vectos@vectos.co.uk

DRAWING NUMBER: 237392_AT_A07

REVISION: .



REV.	DETAILS	DRAWN	CHECKED	DATE
1				

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Yale Business Village, Ellice Way, Wrexham

Aspris Children's Services

Swept Path Analysis

Small Refuse Movement

vectoros. | PART OF SLR

Ground Floor, Helmont House, Churchill Way, Cardiff CF10 2HE
t: 02920 720 860 e: vectos@vectos.co.uk

DRAWN: RJ

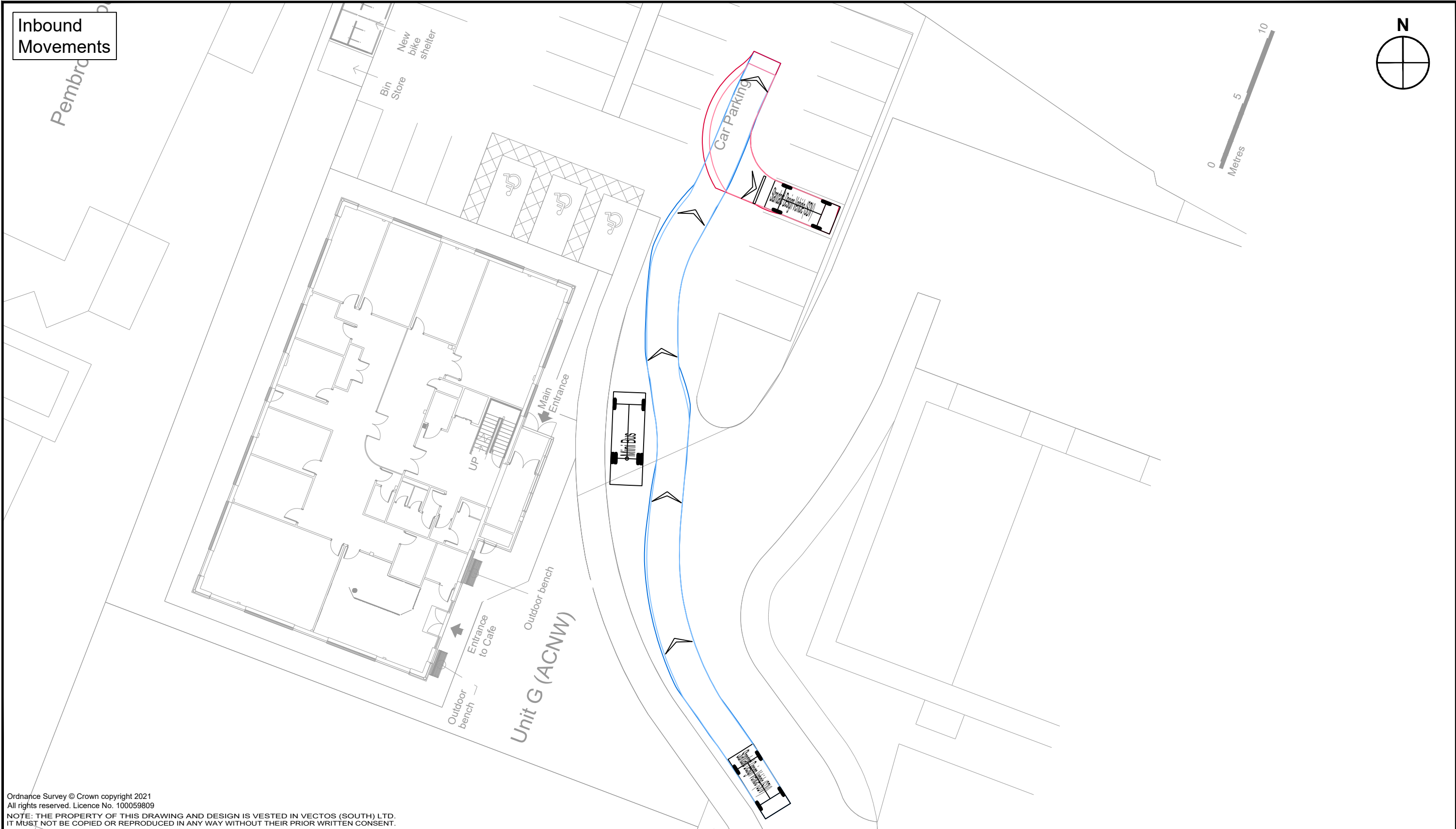
CHECKED: JH

DATE: 09.05.23

SCALES: 1:250 at A3

DRAWING NUMBER: 237392_AT_A06

REVISION: .



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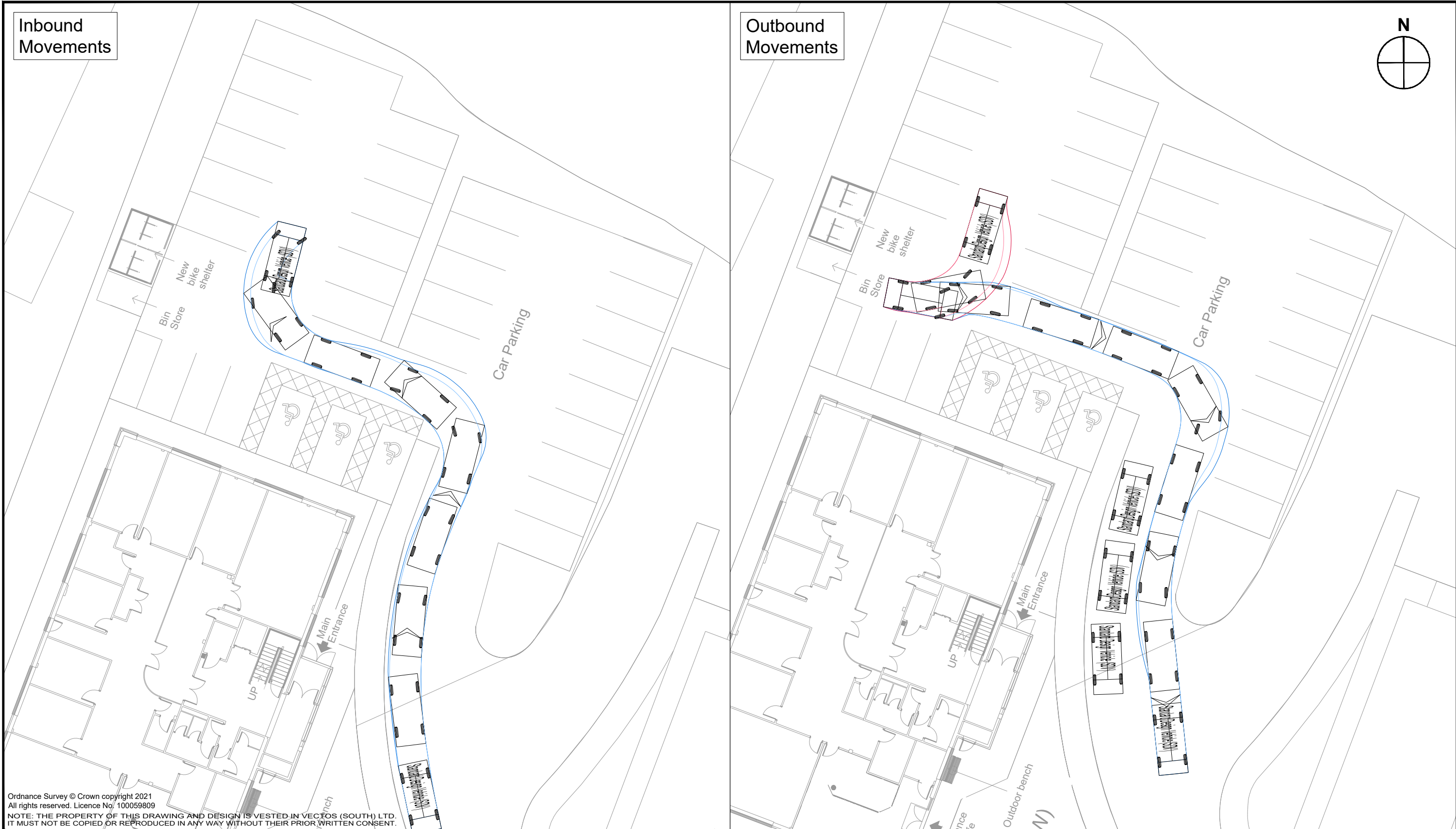
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Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
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INFORMATION ONLY

Yale Business Village, Ellice Way, Wrexham		Aspris Children's Services	
Swept Path Analysis Minibus drop off passing SDV		 	
Ground Floor, Helmont House, Churchill Way, Cardiff CF10 2HE t: 02920 720 860 e: vectos@vectos.co.uk			
DRAWN: RJ	CHECKED: JH	DATE: 27.04.23	SCALES: 1:250 at A3
DRAWING NUMBER: 237392_AT_A03		REVISION: .	



REV.	DETAILS	DRAWN	CHECKED	DATE
INFORMATION ONLY				

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Yale Business Village, Ellice Way, Wrexham

Aspris Children's Services

Swept Path Analysis
SDV Movements with SDVs Queuing

DRAWN:
RJ

CHECKED:
JH

DATE:
27.04.23

SCALES:
1:250 at A3

DRAWING NUMBER:
237392_AT_A05

REVISION:
.

vectos.

PART OF
SLR

Ground Floor, Helmont House, Churchill Way, Cardiff CF10 2HE
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e: vectos@vectos.co.uk

Appendix D

Calculation Reference: AUDIT-152302-230425-0447

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	BB BLACKBURN WITH DARWEN	1 days
09	NORTH	
	DH DURHAM	1 days
	TW TYNE & WEAR	1 days
10	WALES	
	CO CONWY	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: 186 to 6186 (units: sqm)
 Range Selected by User: 178 to 70291 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 01/03/20

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

Selected survey days:

Tuesday	4 days
Wednesday	2 days
Friday	1 days

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

Selected survey types:

Manual count	7 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	4

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

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	2
Residential Zone	2
Built-Up Zone	1
No Sub Category	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.

Secondary Filtering selection:

Use Class:

Not Known 7 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

Population within 1 mile:

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

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

Population within 5 miles:

50,001 to 75,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	2 days

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

Travel Plan:

Yes	1 days
No	6 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	7 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BB-02-A-02 FURTHERGATE BLACKBURN	OFFICES	BLACKBURN WITH DARWEN
	Suburban Area (PPS6 Out of Centre) Built-Up Zone Total Gross floor area: 2600 sqm Survey date: TUESDAY 04/06/13 Survey Type: MANUAL		
2	CO-02-A-01 NARROW LANE LLANDUDNO JUNCTION	GOVERNMENT OFFICES	CONWY
	Edge of Town Commercial Zone Total Gross floor area: 6186 sqm Survey date: WEDNESDAY 28/03/18 Survey Type: MANUAL		
3	DH-02-A-02 DURHAM ROAD NEAR DURHAM BOWBURN	CONSTRUCTION COMPANY	DURHAM
	Edge of Town Industrial Zone Total Gross floor area: 2000 sqm Survey date: TUESDAY 27/11/12 Survey Type: MANUAL		
4	ES-02-A-11 THE SIDINGS HASTINGS ORE VALLEY	HOUSING COMPANY	EAST SUSSEX
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: 186 sqm Survey date: TUESDAY 17/11/15 Survey Type: MANUAL		
5	NF-02-A-04 WHITING ROAD NORWICH	BUILDING CONSULTANT	NORFOLK
	Edge of Town Commercial Zone Total Gross floor area: 500 sqm Survey date: WEDNESDAY 13/11/19 Survey Type: MANUAL		
6	TW-02-A-08 BENTON PARK ROAD NEWCASTLE UPON TYNE LONGBENTON	HOUSING ASSOCIATION OFFICE	TYNE & WEAR
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: 4800 sqm Survey date: FRIDAY 19/10/18 Survey Type: MANUAL		
7	WY-02-A-05 PIONEER WAY CASTLEFORD WHITWOOD	OFFICES	WEST YORKSHIRE
	Edge of Town No Sub Category Total Gross floor area: 1230 sqm Survey date: TUESDAY 23/05/17 Survey Type: MANUAL		

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

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): 1.97

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.434	7	2500	0.086	7	2500	0.520
08:00 - 09:00	7	2500	1.874	7	2500	0.137	7	2500	2.011
09:00 - 10:00	7	2500	1.063	7	2500	0.297	7	2500	1.360
10:00 - 11:00	7	2500	0.491	7	2500	0.269	7	2500	0.760
11:00 - 12:00	7	2500	0.309	7	2500	0.309	7	2500	0.618
12:00 - 13:00	7	2500	0.628	7	2500	0.628	7	2500	1.256
13:00 - 14:00	7	2500	0.640	7	2500	0.429	7	2500	1.069
14:00 - 15:00	7	2500	0.343	7	2500	0.383	7	2500	0.726
15:00 - 16:00	7	2500	0.257	7	2500	0.451	7	2500	0.708
16:00 - 17:00	7	2500	0.331	7	2500	1.011	7	2500	1.342
17:00 - 18:00	7	2500	0.171	7	2500	1.925	7	2500	2.096
18:00 - 19:00	6	2712	0.043	6	2712	0.694	6	2712	0.737
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.584			6.619			13.203

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.

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Parameter summary

Trip rate parameter range selected:	186 - 6186 (units: sqm)
Survey date range:	01/01/12 - 01/03/20
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
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 shown. 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/A - OFFICE

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
08:00 - 09:00	7	2500	0.023	7	2500	0.017	7	2500	0.040
09:00 - 10:00	7	2500	0.029	7	2500	0.034	7	2500	0.063
10:00 - 11:00	7	2500	0.006	7	2500	0.011	7	2500	0.017
11:00 - 12:00	7	2500	0.011	7	2500	0.011	7	2500	0.022
12:00 - 13:00	7	2500	0.011	7	2500	0.006	7	2500	0.017
13:00 - 14:00	7	2500	0.006	7	2500	0.011	7	2500	0.017
14:00 - 15:00	7	2500	0.011	7	2500	0.011	7	2500	0.022
15:00 - 16:00	7	2500	0.006	7	2500	0.006	7	2500	0.012
16:00 - 17:00	7	2500	0.023	7	2500	0.017	7	2500	0.040
17:00 - 18:00	7	2500	0.046	7	2500	0.051	7	2500	0.097
18:00 - 19:00	6	2712	0.012	6	2712	0.012	6	2712	0.024
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.184			0.187			0.371

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/A - OFFICE
 MULTI-MODAL OGVS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
08:00 - 09:00	7	2500	0.006	7	2500	0.000	7	2500	0.006
09:00 - 10:00	7	2500	0.017	7	2500	0.017	7	2500	0.034
10:00 - 11:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
11:00 - 12:00	7	2500	0.017	7	2500	0.017	7	2500	0.034
12:00 - 13:00	7	2500	0.006	7	2500	0.006	7	2500	0.012
13:00 - 14:00	7	2500	0.000	7	2500	0.006	7	2500	0.006
14:00 - 15:00	7	2500	0.006	7	2500	0.006	7	2500	0.012
15:00 - 16:00	7	2500	0.006	7	2500	0.000	7	2500	0.006
16:00 - 17:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
17:00 - 18:00	7	2500	0.000	7	2500	0.006	7	2500	0.006
18:00 - 19:00	6	2712	0.000	6	2712	0.000	6	2712	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.058			0.058			0.116

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/A - OFFICE
 MULTI-MODAL PSVS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
08:00 - 09:00	7	2500	0.017	7	2500	0.000	7	2500	0.017
09:00 - 10:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
10:00 - 11:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
11:00 - 12:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
12:00 - 13:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
13:00 - 14:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
14:00 - 15:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
15:00 - 16:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
16:00 - 17:00	7	2500	0.000	7	2500	0.000	7	2500	0.000
17:00 - 18:00	7	2500	0.000	7	2500	0.006	7	2500	0.006
18:00 - 19:00	6	2712	0.000	6	2712	0.000	6	2712	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.017			0.006			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/A - OFFICE
 MULTI-MODAL CYCLISTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.011	7	2500	0.000	7	2500	0.011
08:00 - 09:00	7	2500	0.120	7	2500	0.000	7	2500	0.120
09:00 - 10:00	7	2500	0.040	7	2500	0.000	7	2500	0.040
10:00 - 11:00	7	2500	0.023	7	2500	0.011	7	2500	0.034
11:00 - 12:00	7	2500	0.006	7	2500	0.000	7	2500	0.006
12:00 - 13:00	7	2500	0.000	7	2500	0.017	7	2500	0.017
13:00 - 14:00	7	2500	0.023	7	2500	0.017	7	2500	0.040
14:00 - 15:00	7	2500	0.023	7	2500	0.040	7	2500	0.063
15:00 - 16:00	7	2500	0.011	7	2500	0.023	7	2500	0.034
16:00 - 17:00	7	2500	0.011	7	2500	0.063	7	2500	0.074
17:00 - 18:00	7	2500	0.000	7	2500	0.074	7	2500	0.074
18:00 - 19:00	6	2712	0.006	6	2712	0.031	6	2712	0.037
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.274			0.276			0.550

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/A - OFFICE
 MULTI-MODAL VEHICLE OCCUPANTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.469	7	2500	0.086	7	2500	0.555
08:00 - 09:00	7	2500	2.143	7	2500	0.137	7	2500	2.280
09:00 - 10:00	7	2500	1.206	7	2500	0.343	7	2500	1.549
10:00 - 11:00	7	2500	0.554	7	2500	0.314	7	2500	0.868
11:00 - 12:00	7	2500	0.389	7	2500	0.343	7	2500	0.732
12:00 - 13:00	7	2500	0.737	7	2500	0.771	7	2500	1.508
13:00 - 14:00	7	2500	0.783	7	2500	0.520	7	2500	1.303
14:00 - 15:00	7	2500	0.446	7	2500	0.463	7	2500	0.909
15:00 - 16:00	7	2500	0.286	7	2500	0.537	7	2500	0.823
16:00 - 17:00	7	2500	0.417	7	2500	1.137	7	2500	1.554
17:00 - 18:00	7	2500	0.240	7	2500	2.285	7	2500	2.525
18:00 - 19:00	6	2712	0.074	6	2712	0.824	6	2712	0.898
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			7.744			7.760			15.504

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/A - OFFICE

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.086	7	2500	0.011	7	2500	0.097
08:00 - 09:00	7	2500	0.469	7	2500	0.011	7	2500	0.480
09:00 - 10:00	7	2500	0.349	7	2500	0.120	7	2500	0.469
10:00 - 11:00	7	2500	0.234	7	2500	0.109	7	2500	0.343
11:00 - 12:00	7	2500	0.154	7	2500	0.120	7	2500	0.274
12:00 - 13:00	7	2500	0.223	7	2500	0.469	7	2500	0.692
13:00 - 14:00	7	2500	0.406	7	2500	0.297	7	2500	0.703
14:00 - 15:00	7	2500	0.166	7	2500	0.154	7	2500	0.320
15:00 - 16:00	7	2500	0.074	7	2500	0.091	7	2500	0.165
16:00 - 17:00	7	2500	0.091	7	2500	0.166	7	2500	0.257
17:00 - 18:00	7	2500	0.029	7	2500	0.531	7	2500	0.560
18:00 - 19:00	6	2712	0.006	6	2712	0.154	6	2712	0.160
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.287			2.233			4.520

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/A - OFFICE
 MULTI-MODAL BUS/TRAM PASSENGERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.097	7	2500	0.000	7	2500	0.097
08:00 - 09:00	7	2500	0.783	7	2500	0.000	7	2500	0.783
09:00 - 10:00	7	2500	0.549	7	2500	0.069	7	2500	0.618
10:00 - 11:00	7	2500	0.234	7	2500	0.086	7	2500	0.320
11:00 - 12:00	7	2500	0.103	7	2500	0.063	7	2500	0.166
12:00 - 13:00	7	2500	0.097	7	2500	0.263	7	2500	0.360
13:00 - 14:00	7	2500	0.269	7	2500	0.171	7	2500	0.440
14:00 - 15:00	7	2500	0.017	7	2500	0.051	7	2500	0.068
15:00 - 16:00	7	2500	0.034	7	2500	0.063	7	2500	0.097
16:00 - 17:00	7	2500	0.023	7	2500	0.240	7	2500	0.263
17:00 - 18:00	7	2500	0.000	7	2500	0.480	7	2500	0.480
18:00 - 19:00	6	2712	0.006	6	2712	0.129	6	2712	0.135
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.212			1.615			3.827

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/A - OFFICE
 MULTI-MODAL TOTAL RAIL PASSENGERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.057	7	2500	0.000	7	2500	0.057
08:00 - 09:00	7	2500	0.366	7	2500	0.000	7	2500	0.366
09:00 - 10:00	7	2500	0.217	7	2500	0.000	7	2500	0.217
10:00 - 11:00	7	2500	0.086	7	2500	0.029	7	2500	0.115
11:00 - 12:00	7	2500	0.017	7	2500	0.011	7	2500	0.028
12:00 - 13:00	7	2500	0.006	7	2500	0.057	7	2500	0.063
13:00 - 14:00	7	2500	0.051	7	2500	0.091	7	2500	0.142
14:00 - 15:00	7	2500	0.000	7	2500	0.011	7	2500	0.011
15:00 - 16:00	7	2500	0.006	7	2500	0.040	7	2500	0.046
16:00 - 17:00	7	2500	0.011	7	2500	0.177	7	2500	0.188
17:00 - 18:00	7	2500	0.000	7	2500	0.309	7	2500	0.309
18:00 - 19:00	6	2712	0.000	6	2712	0.074	6	2712	0.074
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.817			0.799			1.616

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/A - OFFICE
 MULTI-MODAL PUBLIC TRANSPORT USERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.154	7	2500	0.000	7	2500	0.154
08:00 - 09:00	7	2500	1.148	7	2500	0.000	7	2500	1.148
09:00 - 10:00	7	2500	0.766	7	2500	0.069	7	2500	0.835
10:00 - 11:00	7	2500	0.320	7	2500	0.114	7	2500	0.434
11:00 - 12:00	7	2500	0.120	7	2500	0.074	7	2500	0.194
12:00 - 13:00	7	2500	0.103	7	2500	0.320	7	2500	0.423
13:00 - 14:00	7	2500	0.320	7	2500	0.263	7	2500	0.583
14:00 - 15:00	7	2500	0.017	7	2500	0.063	7	2500	0.080
15:00 - 16:00	7	2500	0.040	7	2500	0.103	7	2500	0.143
16:00 - 17:00	7	2500	0.034	7	2500	0.417	7	2500	0.451
17:00 - 18:00	7	2500	0.000	7	2500	0.788	7	2500	0.788
18:00 - 19:00	6	2712	0.006	6	2712	0.203	6	2712	0.209
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.028			2.414			5.442

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/A - OFFICE

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): 1.97

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2500	0.720	7	2500	0.097	7	2500	0.817
08:00 - 09:00	7	2500	3.880	7	2500	0.149	7	2500	4.029
09:00 - 10:00	7	2500	2.360	7	2500	0.531	7	2500	2.891
10:00 - 11:00	7	2500	1.131	7	2500	0.549	7	2500	1.680
11:00 - 12:00	7	2500	0.668	7	2500	0.537	7	2500	1.205
12:00 - 13:00	7	2500	1.063	7	2500	1.577	7	2500	2.640
13:00 - 14:00	7	2500	1.531	7	2500	1.097	7	2500	2.628
14:00 - 15:00	7	2500	0.651	7	2500	0.720	7	2500	1.371
15:00 - 16:00	7	2500	0.411	7	2500	0.754	7	2500	1.165
16:00 - 17:00	7	2500	0.554	7	2500	1.783	7	2500	2.337
17:00 - 18:00	7	2500	0.269	7	2500	3.680	7	2500	3.949
18:00 - 19:00	6	2712	0.092	6	2712	1.211	6	2712	1.303
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			13.330			12.685			26.015

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.

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.

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