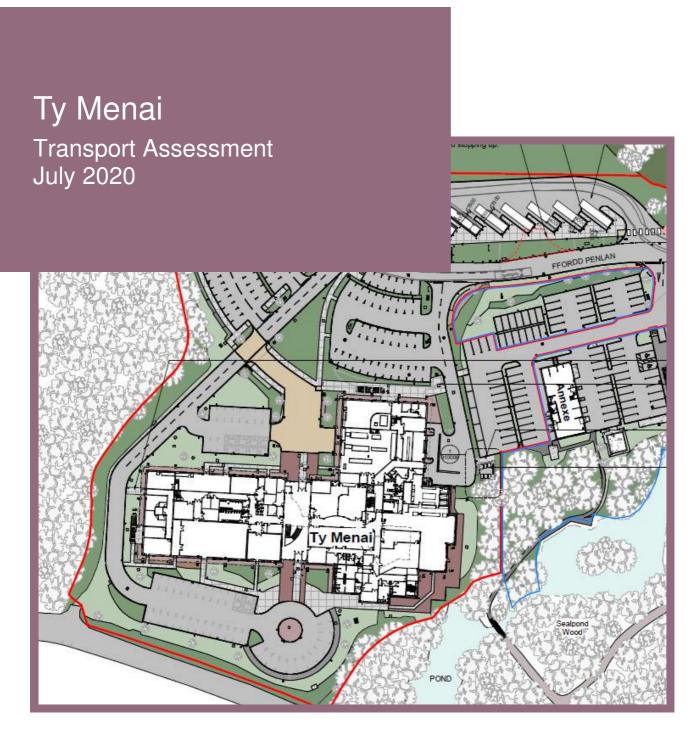
CAPITA





Quality Management

Job No	CS090557			
Project	Ty Menai			
Location	Manchester			
Title	Transport Assessment Addendu	ım		
Document Ref	CS090557-20 TA	CS090557-20 TA		
File reference	\\CSLPRBFS01\Data\Symonds\Transport_Planning\Transport Planning Jobs\Ready for Archive\CS090557-20 - Bangor Campus Ty Menai\05 Record\04 Reports\TA Update\Ty Menai Change of Use TA Update 01.docx			
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Revision Status / History

Rev	Date	Issue / Purpose/ Comment	Prepared	Checked	Authorised
01	March 2019	Draft for Comments	KK	WA	WA
02	March 2019	Final for Issue	KK	WA	WA
03	May 2019	Pre-application comments addressed	KK	WA	WA
04	July 2020	September 2019 Highways Comments addressed	RL / KK	WA	WA



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1. Introduction

1.1 Background

Capita Real Estate & Infrastructure (Capita) were appointed to prepare a Transport Assessment (TA) to accompany an application by Grwp Llandrillo-Menai, for full planning permission for change of use of building from Use Class B1 (office) to Use Class D1 (non-residential institution), together with formation of access road, coach parking, pedestrian link paths and associated landscaping at Ty Menai.

A previous application which comprised both Ty Menai and adjoining Llwyn Brain buildings was withdrawn following the grant of a Certificate of Lawful Use for the proposed use of Llwyn Brain for business use associated with GLIM's 'Busnes@LlandrilloMenai' function for GLIM's Corporate Services Department.

Following a meeting with Gwynedd Councils Highways Officer on 18th September 2019 a number of issues were raised regarding the Transport Assessment submitted in support of the previous application and the proposed site layout. This updated Transport Assessment takes account of changes made to the development proposals and provides additional information to address the concerns raised to assist in the determination of this planning application.

This TA has been prepared in line with the current practice, which includes the Planning Policy Wales (December 2018), Planning Policy Wales Technical Advice Note 18: TRANSPORT (TAN 18) and local transportation related policies and guidance.

1.2 Scope of Report

The following scope of works has been carried out within this TA:

- A review of Transport Policy;
- An overview of the existing site and description of surrounding highway network, including a review of Personal Injury Collision data using Crashmap database;
- An assessment of accessibility of the site by sustainable modes of travel;
- A description of the proposed development, including the access strategy and car parking provision;
- An assessment of the trip generation associated with the existing use on site and the proposed development, including a trip generation comparison exercise; and



A Framework Travel Plan

This TA has been prepared to assist Gwynedd Council in their determination of the planning application for the proposal.



2. Policy Considerations

2.1 Background

Legislation and policy play an important role in shaping and guiding a new development. As such, the purpose of this chapter is to outline the relevant transport related policies which influence the proposed development from a national and local level. Furthermore, this chapter of the report identifies how the development proposals are aligned with the appropriate policies.

2.2 National Planning Policy Context

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters, which together with PPW provide the national planning policy framework for Wales.

The primary objective of PPW 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.

PPW promotes action at all levels of the planning process which is conducive to maximising its contribution to the well-being of Wales and its communities. It encourages a wider, sustainable and problem-solving outlook which focuses on integrating and addressing multiple issues rather than on an approach which is fragmented, un-coordinated and deals with issues in isolation. It provides an opportunity to remove any actual or perceived problems in current approaches and stimulate and support innovative and creative ideas as well as high standards of evidence and assessment to underpin the preparation of development plans and strategies and individual proposals.

TAN 18: TRANSPORT describes the link between planning and transport policy. A sustainable development approach is an overarching framework within which strategies and policies are developed. PPW and the Wales Transport Strategy both aim to secure the provision of transport infrastructure and services, which improve accessibility, build a stronger economy, improve road safety and foster more sustainable communities. This includes (see paragraph 2.2 of TAN 18):

- integration of transport and land use planning;
- integration between different types of transport;
- integration of transport policy with policies for the environment, education, social justice, health, economic development and wealth creation.



Integration can help the Welsh Government achieve these environmental outcomes, together with its wider sustainable development policy objectives by (see paragraph 2.3):

- promoting resource and travel efficient settlement patterns;
- ensuring new development is located where there is, or will be, good access by public transport, walking and cycling thereby minimising the need for travel and fostering social inclusion;
- managing parking provision;
- ensuring that new development and major alterations to existing developments include appropriate provision for pedestrians (including those with special access and mobility requirements), cycling, public transport, and traffic management and parking/servicing;
 encouraging the location of development near other related uses to encourage multipurpose trips;
- promoting cycling and walking;
- supporting the provision of high quality, inclusive public transport;
- supporting provision of a reliable and efficient freight network;
- promoting the location of warehousing and manufacturing developments to facilitate the use of rail and sea transport for freight;
- encouraging good quality design of streets that provide a safe public realm and a distinct sense of place; and
- ensuring that transport infrastructure or service improvements necessary to serve new development allow existing transport networks to continue to perform their identified functions.

2.3 Anglesey and Gwynedd Joint Development Plan

The current adopted Development Plan for the Gwynedd Local Planning Authority Area is the Anglesey and Gwynedd joint Local Development Plan, which was adopted on 31st July 2017. The joint Local Development Plan supersedes the Gwynedd Unitary Development Plan.

The Single Integrated Plan for Anglesey and Gwynedd is the key local strategy for the Plan area. Its vision is (see paragraph 4.2):

"Strengthen communities in Gwynedd and Anglesey"

In order to realise the vision, the Anglesey and Gwynedd Partnership aims to put plans and projects in place that will promote prosperous, healthy and safe communities.



The Plan will realise its vision through a series of strategic objectives that provide the context for Strategic Policies and Detailed Policies, which are either overarching ones, relevant to specific land uses or are relevant to specific areas or sites.

<u>Policy ISA 3: Further and Higher Education Development</u> (of the Joint Local Development Plan) states that proposals for new facilities or extensions to existing buildings for academic and support purposes or for ancillary social, cultural or leisure activities at a further or higher education site will be granted subject to considerations of scale, location, design, amenity and transportation being acceptable:

"Priority should be given to re-using existing sites or buildings. The sequential test should be adopted when determining the location of proposals for further and higher education with priority given to sites which are located:

- 1. Firstly, on existing further or higher education sites; or
- 2. Secondly, on sites which have a close association with an existing campus."

Strategic Policy PS 4: Sustainable Transport, Development and Accessibility states:

"Development will be located so as to minimise the need to travel. The Councils will support improvements that maximise accessibility for all modes of transport, but particularly by foot, cycle and public transport. This will be achieved by securing convenient access via footways, cycle infrastructure and public transport where appropriate, thereby encouraging the use of these modes of travel for local journeys and reducing the need to travel by private car."

Importantly, Policy TRA 1: Transport Network Developments states:

"Proposals for large-scale development or developments in sensitive areas that substantially increase the number of journeys made by private vehicles will be refused unless they include measures as part of a Transport Assessment and/or a Travel Plan. Where the Transport Assessment reveals the need for a Transport Implementation Strategy this will need to be secured through a planning obligation."

The Welsh Government expects that all applications for developments (including changes of use) falling into the following categories will be accompanied by a TA:



Table 6: Scale of development requiring transport assessment

Use Threshold		
Food retail	>1,000m2 gross floor area	
Non-food retail	>1,000m2 gross floor area	
Cinemas and conference facilities	>1,000m2 gross floor area	
Leisure facilities	>1,000m2 gross floor area	
Business	>2,500m2 gross floor area	
Industry	>5,000m2 gross floor area	
Distribution and warehousing	>10,000m2 gross floor area	
Hospitals	>2,500m2 gross floor area	
Higher and further education	>2,500m2 gross floor area	
Schools	All new schools	
Stadia	>1,500 seats	
Housing	>100 dwellings	
Hotels	>1,000m2 gross floor area	

As can be seen from Table 6 of the Anglesey and Gwynedd joint Local Development Plan, as the proposed development falls under a 'Higher and further education' category and exceeds the use threshold, it is supported by a TA.

With regards to parking provision, <u>Policy TRA 2: Parking Standards</u> states that parking provision for all modes of transport should be in accordance with the Council's Parking Standards. The provision of appropriate coach parking facilities to encourage bus and coach visitation the plan area's Service Centre is encouraged.

Where appropriate, proposals should be planned and designed in a manner that promotes the most sustainable modes of transport having regard to a hierarchy of users (see <u>Policy TRA 4: Managing Transport Impacts</u>):

- 1. Pedestrians, including people with prams and/or young children;
- 2. Disabled people with mobility impairments and particular access needs;
- 3. Cyclists;
- 4. Powered two-wheelers;
- 5. Public transport;
- 6. Vehicular access and traffic management within the site and its vicinity;
- 7. Car parking and servicing;
- 8. Coach parking; and
- 9. Horse-riders.



Proposals that would cause unacceptable harm to the safe and efficient operation of the highway, public transport and other movement networks including pedestrian and cycle routes, public rights of way and bridle routes, will be refused. The degree of unacceptable harm will be determined by the local authority on a case by case basis.

<u>Strategic Policy PS 5: Sustainable Development</u> states that development will be supported where it is demonstrated that they are consistent with the principles of sustainable development.

2.4 Supplementary Planning Guidance, Planning for Sustainable Development

Following adoption of the Anglesey and Gwynedd joint Local Development Plan, the Council is in the process of preparing a suite of topic based Supplementary Planning Guidance (SPG). SPGs expand on the policy principles contained within the joint Local Development Plan and offers guidance to applicants and Officers when assessing planning applications.

Together with the Council's decision to adopt the joint Local Development Plan it was decided that the Supplementary Planning Guidance which had been adopted to support the previous Unitary Development Plan should remain, where appropriate, as a material planning consideration in determining planning applications, until they are replaced by a new SPG or withdrawn.

<u>SPG Planning for Sustainable Development (saved)</u> seeks to raise awareness of all the factors that can help improve the sustainability of a proposal, secure greater environmental sustainability in all new development, refurbishments and alterations to existing buildings, and encourage developments and applicants to consider sustainable development from the earliest stage of the design process and go beyond minimum standards.

With regards to transport and movement, paragraph 29 of the document states:

"Developments which minimise the need for car travel and promote cycling, walking and public transport use can provide health, financial and environmental benefits and can lead to significant energy savings."

The document also states that a developer should demonstrate how the overall design layout promotes sustainable modes of transport and movement and provides in paragraph 30 a list of principles that can contribute to encouraging sustainable transport and movement, which should be considered.



2.5 Parking Standards

'Wales Parking Standards 2014' provides all the parking requirements according to land use and type of development. It has been prepared by CSS Wales on behalf of all 22 Welsh Unitary Authorities and the four regional transport consortia, Sewta, SWWITCH, Taith and TraCC. Its aim is:

- (a) to assist developers, designers and builders in the preparation and submission of planning applications.
- (b) to achieve a common approach to the provision of vehicle parking facilities associated with new development and change of use.

This document defines six zones, each with its own level of parking requirement for development control purposes. The Parc Menai business park belongs to Zone 4 – 'Suburban or Near Urban' as it provides a few basic amenities within the locality.

It is also pertinent to include the following definitions:

Operational parking space – Sufficient space to allow the maximum number and size of vehicles likely to serve the development at any one time and to manoeuvre with ease and stand for loading and unloading without inconvenience to vehicles and pedestrians on the public highway or to other users of the site.

Non-operational parking space – the space occupied by vehicles not necessarily used for the operation of the premises and it is divided into two classes:

- (a) Long term (i.e. commuter parking) mainly occupied by vehicles of staff/clients/customers whose attendance at the premises are of long single durations,
- (b) Short term parking space required by staff / clients / customers whose attendances at the premises are of short single durations.

The parking standards applicable to colleges of higher /further education are shown in Table 2.1.

Table 2.1. Car Parking Standards

Land Use	Operational	Non-Operational
Colleges of Higher/Further Education	1 commercial vehicle space	1 space for each member of teaching staff, 1 space per two ancillary staff, 1 space per three students and 5 visitor spaces

With regards to cycle parking, the following standards apply shown in Table 2.2.



Table 2.2. Cycle Parking Standards

Land Use	Long Stay	Short Stay
Secondary Schools & Colleges of Further Education	1 stand per 5 staff and 1 stand per 6 students of age	1 stand per 100 students

With regards to motorcycle parking provision, 5% of provision for car parking should be ensured.



3. Existing Site and Surrounding Highway Network

3.1 Overview

This section of the TA describes the location of the site in a general context and provides an overview of the local highway network surrounding the site.

3.2 Existing Site

The site is located off Ffordd Penlan in Parc Menai, Wales, as shown in Figure 3.1.

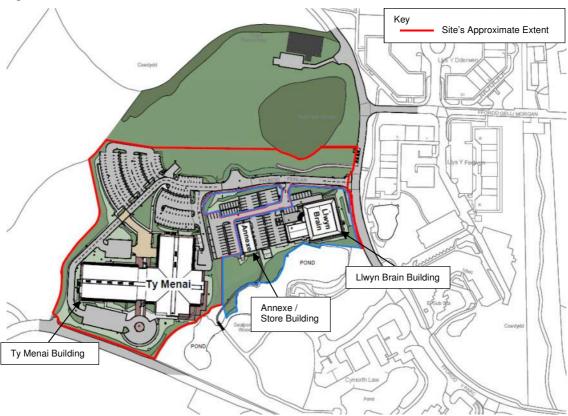


Figure 3.1. Site Location in General Context

The site is irregular in shape and is bounded by Ysgol Glanaethwy school to the north, an unnamed road to the south running from Ffordd Y Parc leading to Vaynol country estate, a home care service to the east and a green open space to the west.

The site is currently occupied by:

• Ty Menai Building c. 7,160sqm;



 The associated access roads, pathways, landscaped areas and car parking spaces comprising a total of 200 normal spaces and 8 disabled spaces.

The Ty Menai building is currently owned by the Welsh Government but is currently empty.

3.3 Site Access

An access to the site is currently gained via Ffordd Penlan by all modes, although there are no footways or cycle provision along the road.

An access to the Ty Menai building and the Store building is gained via a priority junction off Ffordd Penlan. The main entrance to the building is located on the northern side of the building through the car park.

Two pedestrian entrances are currently provided into the Ty Menai building. The main entrance is located on the northern side of the building and can be assessed from the main car parking area. The second entrance is located on the southern side of the building, accessed from the turning facility in the car park.

3.4 Local Highway Network

Ffordd Penlan is a single carriageway road, approximately 6m wide and subject to a 30mph speed limit. Ffordd Penlan is a non-through road, which commences at a priority junction with Ffordd Y Parc and runs into the site. A short section of segregated footway runs along the northern side of Ffordd Penlan for approximately 50m, which does not connect to the site.

Ffordd Y Parc is a 6m wide two-way single carriageway road subject to a 30mph speed limit. Ffordd Y Parc connects Parc Menai with the strategic road network at the A55/A487/Ffordd Y Parc roundabout. It forms several junctions with other roads and developments within the business park. A footway is provided on the eastern side of Fordd Y Parc along its entire length.

The A487, officially also known as the Fishguard to Bangor trunk road, is a trunk road running up from Haverfordwest, Pembrokeshire in the south to Bangor, Gwynedd in the north. In the vicinity of the site it forms a four-arm roundabout with Ffordd Y Parc and the A55 off/on slip roads. The road is subject to a national speed limit. Annual Average Daily Traffic (AADT) counts were obtained from the Department for Transport¹ (DfT) for the A487, with a count point located immediately south of the four-arm roundabout. The count data demonstrates a total of 15,737 motor vehicles recorded in 2017.

¹ https://www.dft.gov.uk/traffic-counts/cp.php?la=Gwynedd



The A55 is easily accessible from the proposed development site via the A55/A487/Ffordd Y Parc roundabout. The A55 is known as the North Wales Expressway and forms the primary east-west route across North Wales. The DfT count data demonstrates a total of 27,992 motor vehicles as AADT recorded in 2017.

3.5 Road Safety

Accident data history in the vicinity of the site has been obtained from the Crashmap² database for the most recently available five-year period between 2014 and 2018. The study area which is illustrated in Figure 3.2 includes the following links and junctions in the vicinity of the site:

- Links: Ffordd Penlan, Ffordd Y Parc;
- Junctions: A55 off/on slip / A487 / Ffordd Y Parc four-arm roundabout, A487/Penrhos Road priority junction, A487 Treborth Road/Penrhos Road/A487/A55 off/on slip roundabout junction

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Figure 3.2. Road Safety Data

A total of ten accidents have been recorded within the study area, one along Ffordd Y Parc, five at the A487/Penrhos Road priority junction, two at the A55 off/on slip/A487/Ffordd Y Parc four-arm roundabout and two at the A487 Treborth Road/ Penrhos Road/A487/A55 off/on slip four-arm roundabout junction. By the incident severity type, nine of the accidents recorded have been

² http://www.crashmap.co.uk



classified as slight, whilst only one as serious. No fatal accidents have been recorded within the study area.

Only one accident has been recorded along Ffordd Y Parc, approximately 120m to the west of the priority junction with Ffordd Y Llyn. The accident involved two vehicles and one casualty and was recorded in January 2014. By the casualty type, the accident has been classified as a pedal cycle casualty, which involved a car and a pedal cycle.

A total of five accidents have been recorded at the A487/Penrhos Road priority junction, detailed below:

- 25/04/2014 slight, 2 vehicles and 1 casualty
- 06/08/2014 slight, 2 vehicles and 1 casualty
- 11/02/2015 slight, 3 vehicles and 1 casualty, goods vehicle
- 17/01/2016 serious, 2 vehicles, 3 casualties
- 28/02/2018 slight, 2 vehicles, 1 casualty

Whilst all of the accidents recorded at the A487/Penrhos Road priority junction involved a car, the 2015 accident also involved a good vehicle.

Two accidents have been recorded at the A55 off/on slip/A487/Ffordd Y Parc four-arm roundabout. One of the accidents occurred in August 2014, involved two vehicles and resulted in one slight pedal cycle casualty. Another accident occurred in October 2015, involved two vehicles and resulted in one slight casualty involving a young driver.

Two accidents have been recorded at the A487 Treborth Road/ Penrhos Road/A487/A55 off/on slip four-arm roundabout junction. One of the accidents occurred in May 2015, involved two vehicles and resulted in one slight casualty. Another accident occurred in September 2016, involved two vehicles and resulted in two slight casualties, involving a young driver.

A review of the local road safety data for the most recent five-year period available demonstrates that the surrounding area close to the site does not experience any unusual accident patterns. Most accidents are concentrated on or around the main junctions, but this is not uncommon for junctions of this size and the weight of traffic. As such, the analysis of the accident data does not give any cause for concern.



4. Accessibility by Sustainable Travel Modes

4.1 Overview

Current national and local policy on transportation states that new developments should promote more sustainable transport choices for people, particularly accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling, so as to reduce the dependence on private cars.

Investigation into existing forms of transport in relation to the proposed site can provide important insights into the possible travel patterns in the area. This section of the TA therefore considers the accessibility of the site via sustainable modes.

The Ty Menai building sits within a primary safeguarded employment site within the Joint Local Development Plan. Within the Regional Employment Land Strategy, Parc Menai is recognised as a sub-regional strategic site.

4.2 Accessibility on Foot

Walking is generally accepted as the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2km. Any development located within an acceptable walking distance of local amenities, transport links and residential dwellings can potentially reduce the number of vehicular trips on the highway network.

Journeys on foot are well provided for within Parc Menai Business Park. The majority of footpaths within the business park are over 1.8m wide, benefit from dropped kerbs and are free of trip hazards. As stated in Section 3.3 of this TA, a footway is provided on the eastern side of Ffordd Y Parc along its entire length. The footway is segregated from the carriageway by a grass verge along the majority of its length, is well lit and has loose or hard standing surfacing, which is well maintained (see Figure 4.1).

Figure 4.1. Ffordd Y Park Footway Provision







There is a continuous footway provision along the A487 from Ffordd Y Parc to Penrhos-garnedd residential area to the northeast of the site, albeit beyond the 2km walking catchment area. In the vicinity of the A55/A487/Ffordd Y Parc four-arm roundabout, pedestrian crossing facilities are provided across the A487, through a traffic island, with dropped kerbs and tactile paving, as shown in Figure 4.2.

Figure 4.2. Pedestrian Crossing Facilities at the A55/A487/Ffordd Y Parc Roundabout





A footway then continues along the eastern side of the A487 leading to the A487 Treborth Road/ Penrhos Road/A487/A55 off/on slip four-arm roundabout junction and further to the north to Penrhos Road.

Despite the excellent pedestrian links within the wider area, the site does not benefit from any formal pedestrian access points. Pedestrians are required to access the site using the vehicular access. A short section of segregated footway runs along the northern side of Ffordd Penlan for approximately 50m, which does not connect to the site, as shown in Figure 4.3.

Figure 4.3. Pedestrian Provision along Ffordd Y Penlan





The Chartered Institution of Highways and Transportation (CIHT) document entitled "Guidelines for Providing for Journeys on Foot" suggests a preferred maximum walking distance of 2km for commuters, with 1km being the acceptable distance. The above document also states that an



average walking speed of approximately 1.4 metres per second can be assumed, meaning an average time of 5 minutes to walk 400m and 10 minutes to walk 800m.

Figure 4.4 has been prepared to illustrate the 1km and 2km walking catchments from the centre of the site.

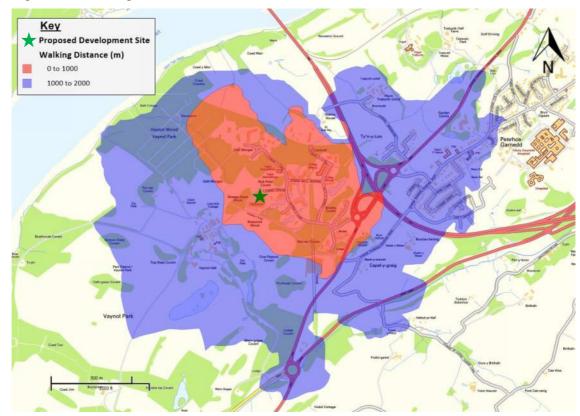


Figure 4.4. Walking Catchment Area

As can be seen from Figure 4.4, the 1km walking catchment area covers the whole of the Parc Menai Business Park. The 2km walking catchment area extends further to include residential area of Treborth and some parts of the residential area of Penrhos-Garnedd to the northeast, residential areas of Capel-y-graig to the east, the A4087 Caernarfon Road/A487/B4547 roundabout to the south, and Vaynol Park to the southwest and west.

It has therefore been demonstrated that the site is accessible on foot.

4.3 Accessibility on Cycle

A review of the Sustrans³ website has demonstrated that the site is located in the vicinity of the National Cycle Routes 5 and 8, see Figure 4.5.

³ https://www.sustrans.org.uk/map-ncn



Figure 4.5. National Cycle Routes in the Vicinity of the Site

National Cycle Route 5 is an on-road long distance route, which connects Reading and Holyhead via Oxford, Stratford-upon-Avon, Bromsgrove, Birmingham, Stoke-on-Trent, Chester, Colwyn Bay and Bangor. National Cycle Route 8, also known as Lôn Las Cymru, runs from Cardiff to Holyhead. Some of this route follows the track of former railway lines, such as Lôn Las Menai, Lôn Eifion, the Mawddach Trail and the Taff Trail; in other places, the route is on public highways. In the vicinity of the site, National Cycle Route 8 runs off-road.

It is generally accepted that cycling has the potential to replace short car journeys, particularly those under 5km. Furthermore, cycling can provide increased benefits over walking as higher speeds of travel allow a greater distance to be travelled in the same time.

Figure 4.6 has been prepared to demonstrate the 3km and 5km cycling catchment areas from the centre of the site.

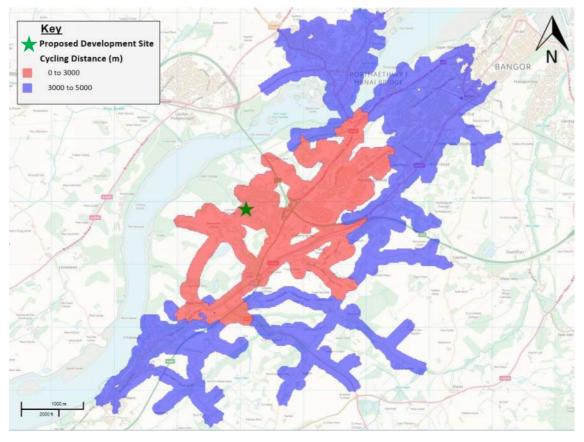


Figure 4.6. Cycling Catchment Area

As can be seen from Figure 4.6, the 3km cycling catchment area covers the whole of Ty Menai Business Park and extends to the northeast up to Menai Bridge, covers the majority of Penrhosgarnedd to the northeast, residential areas off Aber Pwll the south, and Vaynol Park to the southwest and west. The 5km cycling catchment area extends further to the Island of Anglesey and reaches Bangor to the northeast, Y Felinheli to the south and Caerhun to the east.

It has therefore been demonstrated that the site is accessible on cycle.

4.4 Accessibility by Bus

The Institution of Highways and Transportation document 'Guidelines for Planning for Public Transport in Developments' (1999) recommends that new developments should be located so that public transport trips involve a walking distance of less than 400m from the nearest bus stop.

The nearest bus stop is located approximately 150m walking distance from the centre of the site, to the north of the Ffordd Y Parc/Fford Penlan priority junction. The bus stops is located on the western side of the road, has a bus stop pole with a flag, a timetable and the bus stop broken line



road markings delineating the stopping area. The Ffordd Y Parc bus stops serves 12 bus services, including 5C, 43, 46, 47, 53, 67L, 75, 79, 541, 544, 545 and X43.

There are a total of four bus stops within Ty Menai Business Park, however 12 out of 13 bus services running through the business park stop at the Ffordd Y Parc bus stop. The location of the bus stops within the business park are shown in Figure 4.7.

Figure 4.7. Bus Stops



The frequency of the bus services, which currently run through Ty Menai Business Park in the vicinity of the site is summarised in Table 4.1.

As can be seen from Table 4.1, the site is well served by buses during a weekday morning and evening peak hour. Destinations include both Bangor, Caernarfon and across into Anglesey showing the site is accessible by bus from surrounding areas. Bus services 43 and 541 operate throughout the day.

There is intent as part of the development proposals to create a Bus Stop pull-in near the entrance to the site, to allow service buses to pull-in and pick-up / drop-off in addition to the internal bus loop and stops for dedicated College bus services.



Table 4.1. Frequency of Bus Services (Monday to Friday)

Service Number	Route	Time of Service	Provider
5C	Bangor - Caernarfon Caernarfon - Bangor	0800 1653	Arriva
43	Llanfairpwll - Bangor	0729, 0722, 0826, 1051, 1457, 1602, 1722	Eifion's Coaches
	Bangor - Llanfairpwll	0759, 0953, 1348, 1553, 1639, 1759	Ellion's Coaches
X43	Holyhead - Bangor	0834	Arriva
46	Bangor - Caernarfon Caernarfon - Bangor	1730 0823	Eifion's Coaches
47	Llanfairpwll - Bangor	0850 (Saturday Only)	Eifion's Coaches
53	Llangoed - Bangor	0837	Arriva
62C	Cemaes - Bangor	0834	Arriva
67L	Bangor - Gerlan	0711	Arriva
75	Maesgeirchen – Parc Menai	0827	Arriva
79	Bangor - Bangor	0723	Arriva
541	Bangor - Holyhead	1304	Arriva
	Holyhead - Bangor	1220, 1305, 1610	AIIIVa
544	Holyhead - Bangor	0836 (Monday only)	Arriva
545	Holyhead - Bangor	0830 (Monday only)	Arriva

4.5 College Bus Service Provision

College Bus Services

It is pertinent to mention that Grwp Llandrillo-Menai is the legal body encompassing the operation of three member College units – Coleg Llandrillo, Coleg Menai and Coleg Meirion-Dwyfor. The college currently runs a total of 7 dedicated contract buses to haul students to the existing Coleg Menai Campus from :- (1) A5025 Llanfachraeth-Cemaes-Amlwch- Benllech; (2) Holyhead, Rhosneigr, Bodedern & A5 Villages; (3) Llangefni Aberffraw & South Western Villages; (4) Llanddona, Llangoed, Beaumaris, Llandegfan & Menai Bridge; (5) Llanystumdwy, Criccieth, Porthmadog, A487 Villages & Caernarfon; (6) Pwllheli, A499 Villages, Llanwnda, Bontnewydd; (7) Bethesda, Rachub, Tregarth, Llandegai. Please see Appendix A for a plan of existing dedicated Coleg Menai bus services.

These services will be maintained and will additionally serve the Ty Menai site with an additional loop added to the existing route of these services to incorporate both the existing and proposed college sites. As such, those students who currently use these services are more than likely to continue to use them as the routes are being maintained.



Bangor Railway Station Shuttle Bus

In addition to these college bus services, a shuttle bus service also operated by Grwp Llandrillo Menai will run between the proposed Parc Menai site and Bangor Railway Station regularly throughout the day. At the Bangor city end of the route, the terminus will be moved from its existing location at the Ffriddoedd Road Campus to the Railway Station Main Bus Stop. The shuttle bus will operate throughout the day, during mornings, around lunchtime and in evenings and will be co-ordinated with local train times to provide effective and reliable access to the Parc Menai site by bus from Bangor City Centre. The shuttle bus routes are shown in Appendix A.

On-site Bus Facilities

Towards the north of the site, development proposals also include provision of a bus turning loop and parking area, as shown in the site layout contained in Appendix B. Access to the turning area will be gained from Ffordd Penlan. A one-way route will be formed around the bus parking bays. Vehicles to park in a forward direction and reverse on exit, with egress from the turning loop back onto Ffordd Penlan. An existing vehicle turning area located on the north side of Ffordd Penlan is within the existing highway boundary. This is superseded by current proposals for the bus turning loop and will be stopped-up.

It has therefore been demonstrated that the site is accessible by bus.

4.6 Accessibility by Rail

Bangor Railway Station is the closest railway station to the site, which is located approximately 4.7km to the northeast in Bangor. It is also the last mainland station on the London Euston to Holyhead North Wales Coastline and is the busiest railway station in North Wales in terms of passenger numbers.

There is a basic hourly service eastbound towards Wrexham General and Shrewsbury via Llandudno Junction, Colwyn Bay, Rhyl, Prestatyn, Flint and Chester, with alternate services extended to Birmingham International and Cardiff Central during the daytime, as well as westbound across Anglesey to Holyhead.

This hourly service is complemented by several through services to and from London Euston (six per day Monday-Friday to and from Holyhead, four on Saturdays, all of which run to/from Holyhead) operated by Virgin Trains West Coast. Virgin also provide one service each way to/from Birmingham New Street via Crewe on weekdays. In addition, there are several early morning and late night trains run by Transport for Wales running to/from Crewe and two trains to



and from Manchester Piccadilly on weekdays, and one on Saturdays to/from Manchester Airport in the current (December 2018-May 2019) timetable.

On Sundays the service is hourly each way from mid-morning, but running mainly between Holyhead and Crewe, with select services extended to Cardiff Central, Birmingham International and Manchester Piccadilly. Virgin Trains provide four up-direction trains to London Euston on a Sunday, and four down-direction services to Holyhead (three originating in London Euston, the fourth originating in Crewe).

The PlusBus scheme operates from this station, where for a small additional fee, an add-on bus ticket can be purchased alongside a rail ticket allowing journeys to be made using the services of most of the major bus operators in and around the wider area. This allows easy access by public transport to Ysbyty Gwynedd as well as many of the popular local attractions, such as Bangor Pier, Penrhyn Castle, Aber Falls and Zip World in Penrhyn Quarry, Bethesda, all of which are inside the Bangor PlusBus area. Easy interchange with all local bus services is possible, with many services departing from the bus stops a very short walk away on Holyhead Road.

As the railway station is located outside the acceptable walking and cycling distances from the site, it may not form part of an everyday commute to the site. However, as part of a multimodal business trip regionally or nationally it could form a viable alternative to the private car.

In addition, as noted in Section 4.4, the shuttle bus run by Grwp Llandrillo Menai will act as a direct rail access link between the railway station and the Parc Menai site, with shuttle services operating throughout the day. Services will be co-ordinated with local train times to ensure effective access to the Parc Menai site by rail.

It has therefore been demonstrated that the site is accessible by rail.

4.7 Summary

In summary, it can be stated that the site is accessible to a range of facilities and destinations by walking, cycling and public transport in accordance with the national and local transport policies.



5. Development Proposals

5.1 Development Proposals

The proposed site is currently occupied by:

- Centre of Advanced Science and Technology building (Ty Menai) c. 7,160sqm;
- The associated access roads, pathways, landscaped areas and car parking spaces comprising a total of 200 normal spaces and 8 disabled spaces.

The original development proposals for the site involve the change of use for all three buildings located on site (i.e. Ty Menai, Llwyn Brain and Store buildings) from a B1 Office Use to a D1 Further Education Use. However, the Llwyn Brain building has a proposed business use associated with GLIM's "Busnes@LlandrilloMenai" function and GLIM's Corporate Services Department, therefore does not require planning permission. As such, the revised development proposal for the site involves the change of use of only the Ty Menai from B1 Office Use to a D1 Further Education Use.

It is proposed that the existing GLIM's provision on the Bangor site is to be relocated to the Ty Menai site, excluding the sports and A-Level faculties which will be relocated to Llangefni campus 10miles away.

The college would run both full and part time courses as well as day release and evening courses. Based on the courses which will be provided in the college, its capacity is estimated to be 1,180 students. However, when considering the timetables and management of the facilities, the number of learners on site at one time falls to 521. It is worth noting that full operation of the site as a college would only be realised during term time, approximately 35 weeks of the year, with significantly reduced site use outside of term times and during summer months. The college opening hours are shown in Table 5.1, and it is noted that the site will not be occupied by learners for 192days per year, approximately 53% of the year. For the remained of the year only staff will be present on site, with the exception of a few short course which may take place.



Table 5.1. College Opening Hours

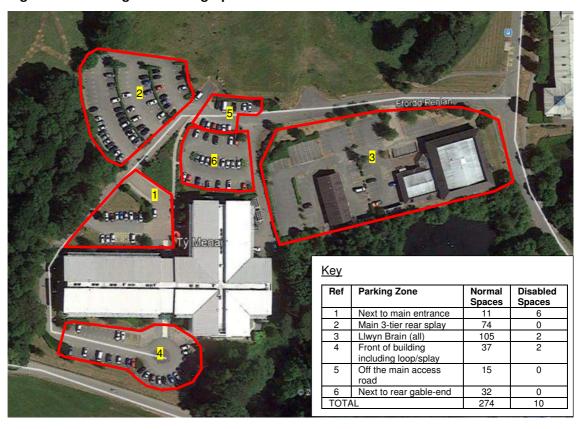
	OPENING HOURS OF NEW CAMPUS		
	Normal Teaching Hours	Evening Classes	Site Open to Staff & Caretakers
Monday	09:15 to 16:15	17:30 to 21:00	07:30 to 21:00
Tuesday	09:15 to 16:15	17:30 to 21:00	07:30 to 21:00
Wednesday	09:15 to 16:15	17:30 to 21:00	07:30 to 21:00
Thursday	09:15 to 16:15	17:30 to 21:00	07:30 to 21:00
Friday	09:15 to 16:15	17:30 to 20:00	07:30 to 20:00
Saturday		09:00 to 17:00	08:00 to 18:00

There will be a total of 41 staff at the college, 36 academic and 5 support staff.

5.2 Car Parking Provision

The existing park provision across the site of Ty Menai and Llwyn Brain is shown in Figure 5.1 below.

Figure 5.1. Existing Car Parking Space





The Ty Menai and Llwyn Brain site currently has a total of 274 normal parking spaces and 10 disabled spaces, which are split across six areas within the site, as shown in Figure 5.1. Excluding the Llwyn Brain building parking, the parking available for the Ty Menai building comprises 169 normal parking spaces and 8 disabled spaces.

The number of required car parking spaces has been calculated based on the standards set out in the 'Wales Parking Standards 2014' and is shown in Table 5.2.

Table 5.2. Vehicular Parking Requirement

Land Use	Operational	Non-Operational
Colleges of Higher/Further Education	1 commercial vehicle space	36 spaces for teaching staff, 5 spaces for supporting staff, 174 spaces for 521 students and 5 visitor spaces

Schedule 6 of the 'Wales Parking Standards 2014' makes allowances for reductions to the maximum parking standards based on the site's sustainability. The site has been assessed against the criteria and found to have a score of 7 which permits a reduction of 20% on the overall parking provision. Table 5.3 provides a summary of the spaces required with the sustainability reduction.

Table 5.3. Parking Provision with Sustainability Reduction

Reduction %	No. Spaces Required
0%	220
10%	198
20%	176

On this basis the 'Wales Parking Standards 2014', the proposed development should provide a total of 176 parking spaces taking account of the sustainability reduction. 9 of those spaces should accommodate disabled people needs based on the recommended proportion of spaces for Blue Badge holders, which is 5%. Details of the site's sustainability appraisal are included in Appendix C.

It should be noted that previous proposals included for the Ffriddoedd Road Campus (all faculties) to be moved to the Parc Menai site. The amended proposal has reduced the number of learners by excluding the Sports and A-Level faculties, these will now be relocated to Llangefni campus 10 miles away. The maximum number of learners on site at one time has therefore been reduced to 521, rather than the originally proposed 770. Once again, this amendment will have a significant impact on the parking levels required at the Parc Menai site.



Existing Parking Demand

To provide an indication of the potential car parking demand at the proposed site, a number of car parking surveys have been carried out at the Ffriars and Ffriddoedd sites of Coleg Menai. The detailed car parking survey data is provided in Appendix D.

A total of 218 normal car parking spaces, 22 disabled spaces and 3 mini-bus spaces are currently provided at Ffriars and Ffriddoedd sites. The total demand for car spaces only (excluding disabled and mini-bus spaces) has been recorded. Total demand including and excluding those using the sports/A-level facilities are shown in Table 5.4, along with a percentage of occupancy based on the normal spaces only.

Table 5.4. Average Day Car Parking Survey Results (From 75 Term Time Days in 2019/20)

Date	Total Demand at Ffriddoedd/Friars Campus	Total demand (excluding A- Levels & Sports)	% Occupancy (Based on 200 Spaces)
Monday	202	137	68%
Tuesday	200	135	68%
Wednesday	201	136	68%
Thursday	196	132	66%
Friday	156	106	53%
Overall Average	191	129	65%

As can be seen from Table 5.4, the typical levels of parking demand associated with the faculties to be transferred to the Ty Menai site is currently below 140 on average each weekday during term time.

The number of available spaces at the Ty Menai site would be 169 normal spaces and 8 disabled spaces which is well above the current levels of demand surveyed at the Ffriars and Ffriddoedd sites.

Llwyn Brain Building

The proposed parking of 169 normal spaces plus 8 disabled spaces provides one more space than required with a 20% sustainability reduction applied. It is however acknowledged that the Highway Authority have questioned the sites accessibility and have raised concerns over the levels of parking provision on site. The proposed parking provision falls 21 spaces short of the requirement if a 10% sustainability reduction is applied.

As such, it is proposed that a proportion of the parking spaces within the Llwyn Brain building parking area be allocated for use by teaching staff at Ty Menai with a convenient pedestrian link to the Ty Menai building being provided.



The Llwyn Brain building has an existing provision of 105 normal parking spaces and 2 disabled parking spaces. The number of car parking spaces required to support the B1 land use housed within the Llwyn Brain and Annexe buildings has been calculated based on the standards set out in the 'Wales Parking Standards 2014' and is shown in Table 5.5.

Table 5.5 - Vehicular Parking Requirement (Employment)

Land Use	Spaces	Land Use	Spaces
Business Use	1 space per 25m ²	Business Use	1 space per 40m ²
(<1000m)		(>1000m)	·

The gross floor area of the Llwyn Brain building (plus the annex building) is 2,069sqm. As such, the number of parking spaces required is 52 (without applying any sustainability reduction). As there are 107 spaces available, this leaves 55 spaces over the maximum requirements.

It is therefore proposed that 31 spaces from the Llwyn Brain car park be designated as spaces for the Further Education Facilities as shown in Figure 5.2. The cars which will be using these spaces would access the Llwyn Brain carpark using the existing route, and a new footpath link would be created to provide a convenient pedestrian link between the carpark and the Ty Menai site.

Figure 5.2. Proposed Additional Parking Spaces for College Use





The provision of 31 additional parking spaces to the Ty Menai College site would cover the spaces required for a 10% sustainability reduction. While the Llwyn Brain site would still have 76 parking spaces available, which as stated before is above the maximum requirement without consideration of any sustainability reduction.

It is pertinent to mention that the proposed business use of the Llwyn Brain site is such that those employed there spend a large amount of their day away from site, as they will be at clients or assigned home based workers. As such, the number of workers present at one time in the Llwyn Brain building is unlikely to be as high as other B1 employment sites of a similar size. It is also pertinent to mention that the total parking provision across the Ty Menai and Llwyn Brain sites would be sufficient to meet the combined parking requirements prescribed by the parking standards without any sustainability reduction applied.

5.3 Cycling Provision

The site currently has 14 internal cycle racks. These are proposed to be replaced with external cycle shelters for students and staff.

Based on the cycling parking standards set out in 'Wales Parking Standards 2014', the number of long stay and short stay cycle stands required has been calculated and is shown in Table 5.6.

Table 5.6. Cycle Parking Requirement

Land Use	Long Stay	Short Stay
Secondary schools and	7 stands for 41 staff	
Colleges of Further	87 stands for 521 students	6 stands
Education	on site at any one time	

Sheltered secure cycle parking is to be provided in the area shown in Figure 5.3 below.





Figure 5.3. Proposed Location of Cycle Parking



6. Trip Generation

6.1 Introduction

This chapter of the TA provides trip generation exercise for the proposed development, as well as providing a trip comparison exercise with the current use on site.

The industry-standard Trip Rate Information Computer System (TRICS) database has been interrogated to establish an average trip rate for the existing and proposed developments, based on surveys conducted at similar sites. The TRICS sites have been selected in line with the best practice guidelines from the TRICS Good Practice Guide 2013. The full TRICS output is included as Appendix E.

6.2 Existing Trip Generation

With reference to Section 3.2, Ffordd Penlan serves three office buildings (Ty Menai c. 7,160sqm, Llwyn Brain building c. 1,830sqm and Store building c. 230sqm). Trip rates have been derived for the 'Employment/A-Office' land use in relation to the Ty Menai building. The derived trips rates and the corresponding trip generation are shown in Table 6.1.

Table 6.1 - Existing Development Vehicle Trip Generation (Office) - Total

Time Period	Arrivals		Departures		Total	
	Trip Rate	Trip Gen.	Trip Rate	Trip Gen.	Trip Rate	Trip Gen.
07:00-08:00	0.893	64	0.155	11	1.048	75
08:00-09:00	2.114	151	0.36	26	2.474	177
09:00-10:00	0.931	67	0.372	27	1.303	93
10:00-11:00	0.405	29	0.322	23	0.727	52
11:00-12:00	0.381	27	0.33	24	0.711	51
12:00-13:00	0.456	33	0.561	40	1.017	73
13:00-14:00	0.48	34	0.478	34	0.958	69
14:00-15:00	0.349	25	0.413	30	0.762	55
15:00-16:00	0.256	18	0.41	29	0.666	48
16:00-17:00	0.318	23	1.161	83	1.479	106
17:00-18:00	0.204	15	1.481	106	1.685	121
18:00-19:00	0.038	3	0.545	39	0.583	42
Daily Trips	6.825	489	6.588	472	13.413	960



As can be seen from Table 6.1, the existing Ty Menai building currently generates a total of 177 two-way vehicle trips during a typical weekday morning peak hour 8am to 9am and a total of 121 two-way vehicle trips during a typical weekday evening peak hour 5pm to 6pm. The Llwyn Brain and Annexe buildings will remain as B1 Office Use, and therefore would still have the same calculated existing trip generation.

6.3 Proposed Development Trip Generation

The development proposals for the site involve the change of use of the Ty Menai building from a B1 Office Use to a D1 Further Education Use to cater for a total of 521 students.

The TRICS database has been interrogated to establish an average trip rate for the 'Education – College/University' category, based on the total number of students attending the Ty Menai building over the course of a typical day. The resultant trip rates and trip generation are shown in Table 6.2.

Table 6.2. Proposed Development Vehicle Trip Generation (521 Students)

	Arrivals		Departures		Two-Way	
Time Period	Trip Rate	Trip Generation	Trip Rate	Trip Generation	Trip Rate	Trip Generation
07:00-08:00	0.024	13	0.003	2	0.027	14
08:00-09:00	0.102	53	0.027	14	0.129	67
09:00-10:00	0.059	31	0.017	9	0.076	40
10:00-11:00	0.021	11	0.011	6	0.032	17
11:00-12:00	0.037	19	0.032	17	0.069	36
12:00-13:00	0.025	13	0.024	13	0.049	26
13:00-14:00	0.031	16	0.029	15	0.06	31
14:00-15:00	0.029	15	0.042	22	0.071	37
15:00-16:00	0.023	12	0.048	25	0.071	37
16:00-17:00	0.026	14	0.085	44	0.111	58
17:00-18:00	0.019	10	0.041	21	0.06	31
18:00-19:00	0.008	4	0.025	13	0.033	17
19:00-20:00	0.009	5	0.03	16	0.039	20
20:00-21:00	0.002	1	0.005	3	0.007	4
21:00-22:00	0.001	1	0.007	4	0.008	4
Daily Trips	0.416	217	0.426	222	0.842	439

As can be seen from Table 6.2, once the change of use is implemented, the Ty Menai building would generate 67 two-way vehicle trips during a typical weekday morning peak hour 8am to 9am and 31 two-way vehicle trips during a typical weekday evening peak hour 5pm to 6pm, which is



equivalent to around 1 vehicle trips every minute in the morning peak hour and about 1 vehicle trip every two minutes during the evening peak hour.

It is pertinent to mention that the proposed development would have an earlier evening peak hour than the existing employment use. However, it can be seen that the proposed development would generate fewer trips between 16:00 and 17:00 (58) than the existing office use (106).

6.4 Trip Generation Comparison

A trip generation comparison exercise has been undertaken to determine the level of increased/decreased vehicle trips generated by the proposed development, in comparison to the existing use. The trip generation comparison is therefore provided in Table 6.3.

Table 6.3 - Trip Generation Comparison

	Arrivals	Departures	Two-Way
07:00-08:00	-53	-10	-63
08:00-09:00	-103	-13	-116
09:00-10:00	-38	-19	-57
10:00-11:00	-19	-18	-37
11:00-12:00	-9	-8	-17
12:00-13:00	-21	-29	-50
13:00-14:00	-19	-20	-40
14:00-15:00	-11	-9	-19
15:00-16:00	-7	-5	-12
16:00-17:00	-10	-42	-51
17:00-18:00	-5	-88	-93
18:00-19:00	1	-27	-26
19:00-20:00	5	16	20
20:00-21:00	1	3	4
21:00-22:00	1	4	4
Daily	-288	-265	-553

It can be seen from Table 6.3 that the proposed development would result in a reduction of vehicle trips, generating 116 two-way vehicle trips less during a typical weekday morning peak hour and 93 two-way vehicle trips less during a typical weekday evening peak hour (17:00-18:00). In terms of daily vehicle trip generation, the proposed D1 further education land use would generate 553 two-way vehicle trips less than the B1 office use.

Although it can be seen from Table 6.3, that the proposed development would generate some additional trips compared to the existing use on site associated with evening classes, these would occur outside the typical highway network peak hours. It is pertinent to mention that highest number of the additional trips would occur between 7pm and 8pm and would be 31 two-way additional vehicle trips, which is approximately one vehicle trip every two minutes.



CAPITA

The proposed development would generate 553 two-way trips less per day than the current B1 office use on site. As any increase in trips occurs outside of peak hours, no further junction capacity assessments have been considered necessary.



7. Framework Travel Plan

7.1 Introduction

Travel plans are an important tool for promoting sustainable travel, for example, walking, cycling and public transport and helping to reduce single occupancy car use. They also encourage effective use of current transport networks and support their enhancement.

The planning process provides the key opportunity to ensure that new and existing developments can be effectively accessed by everyone that needs to get to a site, minimise the impact of developments on the transport infrastructure and help reduce the impact on the environment.

The Grwp Llandrillo Menai has an existing Travel Plan which has been designed to cover all its sites. The Travel Plan was last updated in January 2013 and highlights the need for sustainability in relation to travel and the environmental impact of transportation modes.

The main objectives in the current Grwp Llandrillo Menai Travel Plan are set out below:

- To improve awareness of transport issues and the impact of traffic on the local environment for staff, students and visitors
- To show a commitment to improving traffic conditions within the local area
- To reduce the proportion of private car journeys to and from the college and hence to reduce air pollution, local traffic congestion, the consumption of fossil fuels
- To increase the proportion of journeys to and from the college by sustainable modes of transport such as walking, cycling and public transport
- · To promote walking and cycling leading to healthier staff and students
- To reduce the number of single occupancy staff and student car trips to and from the colleges
- To promote greater participation in transport related projects within the college
- To promote the feasibility of alternatively fuelled vehicles, for example electric and liquid petroleum gas (LPG)
- To promote the use of video conferencing.

These Travel Plan objectives are unlikely to change when the Travel Plan is updated although it is anticipated that Travel Plan targets and the measures proposed to achieve them will be



provided based on the findings of a new travel survey. The new staff / student travel survey should be undertaken following the occupation of the buildings.

7.2 Existing Travel Patterns

A comprehensive travel survey is conducted every year in order to establish the travel patterns of Grwp Llandrillo Menai staff. The travel survey forms the basis for setting targets on travel patterns and seeks to reduce the reliance on the private car.

The most recent travel survey available was carried out in 2012 and investigated the current travel patterns and behaviour. This section of the TA summarises the results of the survey.

The survey had a few separate questions and attempted to assess not only travel behaviour but also how staff could be encouraged to use other modes of transport such as walking, cycling and car. A total of 315 staff participated in the travel survey.

Figure 7.1 illustrates how far staff usually travels to work. A significant percentage of staff (48%) usually travel more than 10 miles to reach the college. A lower percentage of 19% of staff lives between 5 and 10 miles whilst 17% of staff lives between 2 to 5 miles to reach the college. In total, 16% of staff lives within 2 miles from the college.

Figure 7.1. Distance Travelled by Staff to Work

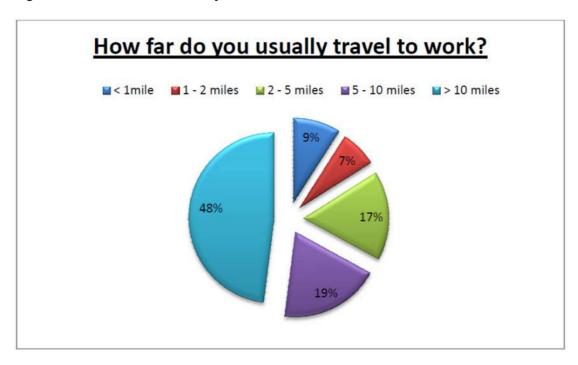
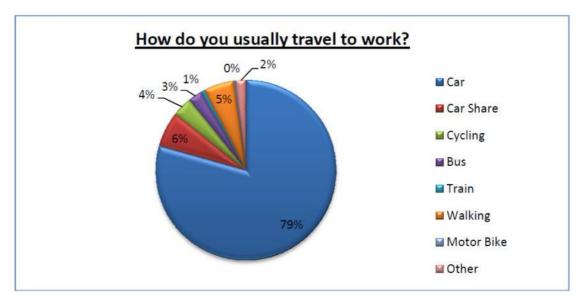




Figure 7.2 illustrates that the most popular model of travel to the college by staff is car, accounting for 79% of staff trips. Car share and walking currently account for approximately 6% and 5% respectively. There is currently a very low percentage of staff walking or using public transport for their journeys.

Figure 7.2. Summary of Staff Modes of Travel to the College



When asked "What would encourage you to walk / cycle to work?", 38% of staff answered that walking or cycling to work is not practical, whilst 15% answered showers and changing rooms. 12% of staff stated that secure cycle parking would encourage them to cycle. Figure 7.3 below summarises their answers in that particular question.



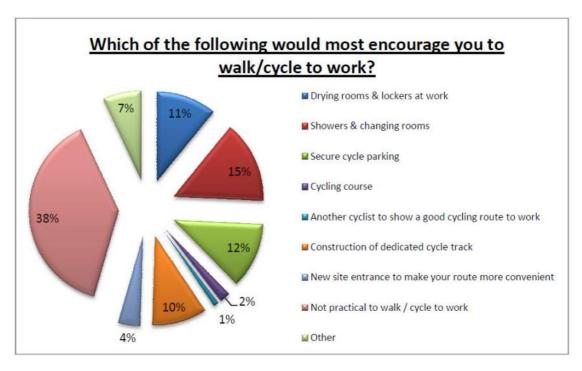


Figure 7.3. Ways that Would Encourage Staff to Walk and Cycle to Work

When asked "Which of the following changes would most encourage you to car share to and from work", 51% of staff which corresponds to 161 people, responded that help finding car share partners with similar work patterns through a car share database would encourage them to car share. A lower percentage of 18% (which equates to 57 staff) who responded to this section stated that a reserved car parking space in a prime spot for car sharers would be very encouraging whilst 31% stated other, less obvious reasons.

7.3 Conclusions

When assessing travel patterns and behaviours, the measures identified within a Travel Plan can be tailored to target specific problem areas and realistic targets can be set within the Travel Plan. As such a new travel survey is expected to be carried out after the land use is changed and the buildings on site are occupied. Its results should form the basis for updating targets on travel patterns.



8. Summary and Conclusions

This Transport Assessment has reviewed the likely transport impact of the change of use of the existing three buildings located off Ffordd Penlan in Parc Menai, from B1 office use to provide an all-purpose further education (D1) facility as part of the plans for Coleg Menai to transfer its existing facilities to Ty Menai.

Site accessibility by different modes of transport has been examined in line with the development proposals with respect to the potential for impact on the local highway network and highway safety. An examination at national, regional and local transport policy has demonstrated the development complies with current planning objectives.

The examination of sustainable transport modes and facilities has shown that sustainable modes of travel could form viable alternatives to car travel to the development. The existing provision of local public transport, pedestrian and cycling facilities create conditions which are well suited to promote sustainable travel. All existing college bus services will serve the site with an additional shuttle bus service between the site and Bangor station also to be introduced to significantly improve the sites accessibility by public transport.

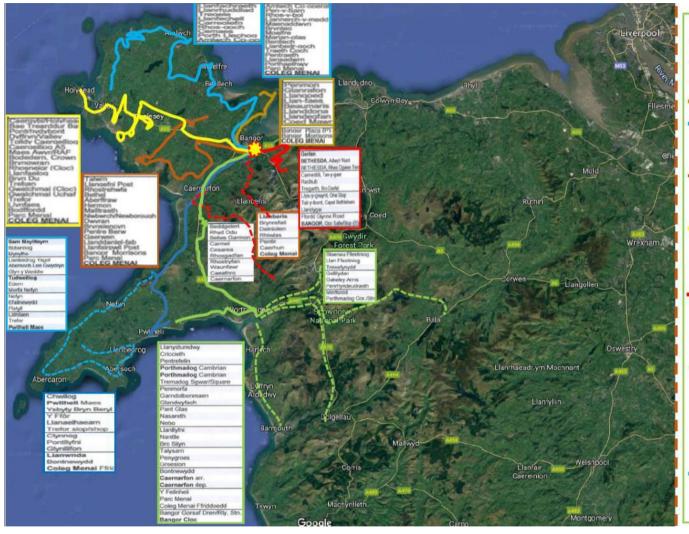
The updated Grwp Llandrillo Menai Travel Plan will help to improve accessibility to the proposed development by all modes of transport and widen choice of travel mode for all those travelling to and from the proposed development. The updated Travel Plan will have an impact on the traffic generation by the proposed development, since a number of both car journeys to the site will be replaced by sustainable transport modes.

A review of the local accident data for the previous five years demonstrates that the surrounding area close to the proposed development does not experience any unusual accident patterns.

A trip generation exercise has been carried out to calculate the number of vehicle trips currently generated by the existing B1 office use on site and the proposed D1 further education use. A trip generation comparison exercise has then been carried out demonstrating that the proposal would result in reduction of vehicle trips, particularly 116 two-way vehicle trips less during a typical weekday morning peak hour and 93 two-way vehicle trips less during a typical weekday evening peak hour. In terms of daily vehicle trip generation, the proposed D1 further education land use would generate 553 two-way vehicle trips less than the existing B1 office use. As such, no further junction capacity assessments have been carried out.

In view of the above positive findings, it is considered that the proposed development is acceptable in highway, traffic and transportation terms.

Appendix A – Coleg Menai Bus Service



GLLM dedicated service bus routes to Bangor Campus

Anglesey

- Llanddona-Penmon-Beaumaris
- A5025 Llanfachraeth Cemaes Amlwch – Rhosybol – Llanerchymedd Moelfre – Benllech - Llansadwrn
- Talwrn Llangefni Aberffraw Niwbwrch - Brynsiencyn Gaerwen – Llanfairpwll
- Holyhead Town, A5 & B5109 Villages & Llangefni

Arfon (east) & snowdonia valleys feeds

Bethesda – Rachub – Talybont – Llandygai

(& Service Buses feed from Snowdinia Valleys)

Arfon (west) & feeds from Meirionnydd

Llanystumdwy – Porthmadog – A487 Villages – Caernarfon – Felinheli

(& Service Buses & Taxis feed from outlying south Meirionnydd Towns - Blaenau Ffestiniog, Bala, Dolgellau, Barmouth, Harlech, Penrhyndeudraeth)

Dwyfor

Pwllheli – Llanaelhaearn – Trefor – A499 Villages – Llanwnda - Bontnewydd

(& Service Buses & Taxis feed from outlying Dwyfor Villages)



Appendix B - Proposed Site Layout



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08/07/2020

03/07/2020

(Chk'd / App'd) Date

Checked Approved

03/07/20

Appendix C - Sustainability Appraisal



Supplementary Planning Guidance

LDP5 - Car Parking Standards

SCHEDULE 6 SUSTAINABILITY

Other than for Zone 1 City Centre locations, the reductions in parking requirement for residential units shall not result in less than one parking space remaining and for all other developments the reduction shall not be applied unless an acceptable travel plan is also submitted.

Sustainability points will be awarded to developments that meet the criteria below for their proximity, in terms of walking distance to local facilities, public transport, cycle routes and the frequency of local public transport. The maximum walking distance is defined as the distance along the most appropriate route from the point of origin (or centre of development) to the facility and back to the point of origin. Award of these sustainability points will result in a reduction in parking requirement as detailed below:

Sustainability Criteria	Maximum Walking Distance	Single Sustainability Points
Local Facilities Local facilities include a foodstore over 1000m², post office, community medical practice, primary/secondary school etc. Access to two of these within the same walking distance will score single points, whereas access to more than two of these will double the points score.	200m 400m 800m	3 pts 2 pts 1 pt
Public Transport Access to bus stop or railway station	300m 400m 800m	3 pts 2 pts 1 pt
Cycle Route A cycle route needs to be segregated from vehicular traffic and must provide links to local facilities and employment areas	200m	1 pt
Frequency of Public Transport Bus or rail service within 800m walking distance which operates consistently between 7am and 7 pm. Deduct one point for service which does not extend to these times.	Frequency 10 minutes 20 minutes 30 minutes	3 pts 2 pts 1 pt

Thus the sustainability points score for a dwelling within 400m of a school and a post office (1 X 2pts = 2pts), within 300m of a bus stop (3pts) and having a service frequency of every 15 minutes but only between 8am and 6 pm (2 pts – 1pt = 1 pt) would score a total of 6 pts.



Supplementary Planning Guidance

LDP5 - Car Parking Standards

Reductions in Parking Requirement

Sustainability Points	Parking Reduction (Per dwelling)	Sustainability Points	Parking Reduction
Residential Developments		All Other Developments (other than shops and retail warehouses)	
10 pts 7 pts	2 spaces 1 space	10 pts 7 pts 5 pts	30% 20% 10%

Local Facilities - 2 Pts

Menai Nursery - 380m

Parc Menai, 4 Ffordd Gelli Morgan, Bangor LL57 4BL

Neis Coffee Shop – 320m

Parc Menai, 4 Ffordd Gelli Morgan, Bangor LL57 4BL

Brewers Fayre and Premier Hotel - 680m

Menai Business Park, Parc Menai, Ffordd Y Parc, Bangor LL57 4FA

Ysgol Glanaethwy, Primary School (evening only music, drama school) -350 m

9 Ffordd Y Parc, Bangor LL57 4FH

Bus Stops - 3 Pts

Ffordd Penlan – 250m Stop ID: gwnpmdp Ffordd Gelli Morgan Stop ID: gwndgpt Nant y mount Stop ID: gwndgta

Stop ID: gwndgpm

Cycle Lanes – 1 Pt

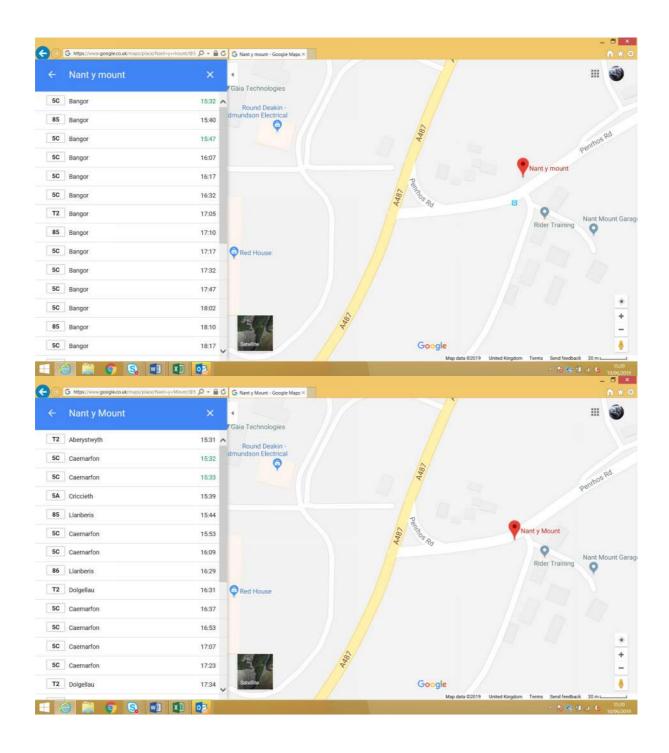
There are segregated cycle lanes throughout the Parc Menai business park linking to the National Network Route 5 which runs adjacent to the A487

Frequency of Bus Service within 800m - 2 Pts

Services from Nant y mount bus stops (Stop ID: gwndgta and gwndgpm) operate at a service frequency of every 15 minutes.

TOTAL - 8 Points = 20% Reduction





Appendix D – Parking Data

Bangor Ffriddoedd & Friars - ALL Car Parks +Disabled slots	Car Park >	Α .	В	С	D	E	F	G	н	J	К	L	Notes	TOTAL ACTUAL Ffriddoedd/ /Friars	TOTAL CAPACITY Ty Menai+ +Llwyn Brain		Actual Data ADJUSTED Deducting Sports + A-Level which Relocate to Llangefni REMAINDER to transfer to Ty Menai	TOTAL CAPACITY Ty Menai ONLY	PLUS Ty.Menai. Disabled Capacity	TY MENAI HEADROOM V. THE TRANSFERRING FACULTIES	Headroom in %
21/01/2019 22/01/2019 23/01/2019	M T W	Jan'19 Jan'19 Jan'19	Jan'19 Jan'19 Jan'19	Jan'19 Jan'19 Jan'19	Jan'19 Jan'19 Jan'19	Jan'19 Jan'19 Jan'19	Jan'19 Jan'19 Jan'19	Jan'19 Jan'19 Jan'19	Jan'19 Jan'19 Jan'19	Jan'19 Jan'19 Jan'19	Jan'19 Jan'19 Jan'19	Jan'19 Jan'19 Jan'19	All Staff & Learners Present	178 182 207	257 257 257		120 123 140	200 200 200	6	80 77 60	40% 39% 30%
24/01/2019 25/01/2019	Th F	Jan'19 Jan'19	Jan'19 Jan'19	Jan'19 Jan'19	Jan'19 Jan'19	Jan'19 Jan'19	Jan'19 Jan'19	Jan'19 Jan'19	Jan'19 Jan'19	Jan'19 Jan'19	Jan'19 Jan'19	Jan'19 Jan'19		212 159	257 257		143 107	200	6	57 93	28% 46%
10/09/2019 11/09/2019 12/09/2019 13/09/2019	T W Th	30 34 31 28	25 27 21 10	9 14 20 13	0 3 1	7 4 8 6	18 18 17 12	31 32 32 13	19 19 19 17	38 39 40 23	24 26 18 14	0 0 2 0	All Staff & Learners Present as from Tues 10th (Yr.1 fully enrolled, and Yr.2 also returned) after Summer Break	201 216 209 137	257 257 257 257	_	136 146 141 93	200 200 200 200	6 6 6	64 54 59 107	32% 27% 29% 54%
16/09/2019 17/09/2019	M T	31 29	26 29	34 21	3	7	7 18	29 30	17 16	34 35	20	3	All Staff & Learners Present	211 217	257 257		143 147	200	6	57 53	29%
18/09/2019 19/09/2019	W	30 30	25 16	60	18	6 8	20 18	26 26	19 20	37 38	20	2	18/09/19 Special One-Off parking arrangement with BANGOR UNIVERSITY - GLIM handed over North.East Car Parks to Bang, Uni to use for B.U. School of Health Sciences (Nursing Open Day All Staff & Learners Present	263 207	257 257		178 140	200	6	60	11% 30%
23/09/2019	F M	24	24	17 37	2	5	17	23	19 35	32 22	22	3		163 222	257		110	200	6	50	45% 25%
24/09/2019 25/09/2019 26/09/2019	T W	25 31 28	19 27 16	27 16 36	2 2 2	5 2 7	19 22 18	27 36 34	20 17 20	20 34 40	19 16 16	3	All Staff & Learners Present	185 206 218	257 257 257		125 139 147	200 200 200	6 6	75 61 53	37% 30% 26%
27/09/2019 30/09/2019	F M	20	21	18	9	7	20	16 35	16 20	31	17	3		152 222	257		103	200	6	50	49% 25%
01/10/2019 02/10/2019 03/10/2019	T W Th	29 27 27	22 18 21	32 22 32	4 7 5	8 3 6	21 20 32	32 36 22	19 21 30	34 32 24	18 17 23	0 3	All Staff & Learners Present	220 203 225	257 257 257		149 137 152	200 200 200	6 6	51 63 48	26% 31% 24%
04/10/2019	M	NO DATA			0	15	26	17	31	30	12	0		NO DATA	257		NO DATA COLLECTED	200	6	NO DATA	39%
08/10/2019 09/10/2019 10/10/2019 11/10/2019		NO DATA NO DATA NO DATA	COLLECTE	D D										NO DATA NO DATA NO DATA NO DATA			NO DATA COLLECTED NO DATA COLLECTED NO DATA COLLECTED NO DATA COLLECTED			NO DATA NO DATA NO DATA NO DATA	
14/10/2019 15/10/2019 16/10/2019	M T W	28 23 23	18 21 24	28 36 20	1 5 5	7 7 5	17 25 24	27 25 34	19 21 19	28 31 34	22 22 21	3 7 2	All Staff & Learners Present	198 223 211	257 257 257		134 151 143	200 200 200	6	66 49 57	33% 25% 29%
17/10/2019 18/10/2019	Th F	26 19	15 8	28 10	5 4	8	20	35 24	20	35 26	19	2		213 152	257 257 257		144 103	200	6	56 97	28%
21/10/2019 22/10/2019	M T	27 29	9 18	38 39	6 4	8 6	23 22 22	27 28	16 17	30 35	18 19	3 3	All Craff 8. Lancon Brown	205 220	257 257		139 149	200	6	61 51	31% 26%
23/10/2019 24/10/2019 25/10/2019	W Th	25 28 29	23 13 16	12 33 22	9 4 3	4 8 7	22 16 15	36 33 32	19 20 20	37 38 38	19 17 15	1 3 1	All Staff & Learners Present	207 213 198	257 257 257		140 144 134	200 200 200	6 6	60 56 66	30% 28% 33%
28/10/2019 29/10/2019	M T	2	0	0 2	1 0	1 2	3	5 12	12 9	2 10	8 9	0		34	257 257	_	23	200	6	177 167	89% 83%
30/10/2019 31/10/2019 01/11/2019	Th	3 3 1	0 0 0	0 0 2	2 0 0	5 3 2	10 6 3	10 9 8	9 11 11	8 4 4	10 10 9	0 0 0	HALF TERM	57 46 40	257 257 257		39 31 27	200 200 200	6 6	161 169 173	81% 84% 86%
04/11/2019 05/11/2019	м	24 25	17 25	28 19	7	11 6	20	27	18 17	35 39	10	4 2		201 208	257 257		136 141	200	6	64 59	32% 30%
06/11/2019 07/11/2019 08/11/2019	Th	26 20 20	15 10 10	19 10 11	7 3 3	11 6 3	20 23 10	30 20 22	17 16 18	37 30 22	17 20 20	3 1 1	All Staff & Learners Present	202 159 140	257 257 257		137 107 95	200 200 200	6	63 93 105	32% 46% 53%
11/11/2019 12/11/2019	м	28 25	18 14	5	9	18	27 18	28	18 20	36 34	10 15	2 2		199 180	257 257		134 122	200	6	66 78	33%
13/11/2019 14/11/2019 15/11/2019	W Th	28 28 20	23 17 10	16 11 10	10 12 0	12 26 7	23 32 21	33 17 16	18 17 16	35 38 27	22 20 10	2 2 3	All Staff & Learners Present	222 220 140	257 257 257		150 149 95	200 200 200	6	50 51 105	25% 26% 53%
18/11/2019 18/11/2019 19/11/2019	M T	30	19	30 36	8 2	13	22 26	32	18	32 37	14	1 4		219	257 257		148	200	6	52 49	26%
20/11/2019 21/11/2019	W Th	25 28 15	22 15 6	13 8 2	13 8 6	10 24 19	20 33 27	31 20 19	13 35 18	36 33 28	19 15 16	4 2 4	All Staff & Learners Present	206 221 160	257 257 257 257		139 149 108	200 200 200 200	6	61 51	30% 25% 46%
22/11/2019 25/11/2019 26/11/2019	M	26 27	18	25 12	9	8	21 24	26 26	16 17	36 32	17	5		207	257 257 257		140	200	6	60 77	30%
27/11/2019 28/11/2019	W Th	29 26 17	23 13	6 7 4	9 5	9 8 20	24 26 29	34 28 27	17 18 17	34 31 32	20 17 17	4 3	All Staff & Learners Present	209 182	257 257		141 123	200 200	6	59 77	29% 39%
29/11/2019 02/12/2019 03/12/2019	M T	33	17	12	2	9	18	24	20	30	19	8		192 201	257 257 257		122 130 136	200	6	78	39% 35% 32%
04/12/2019 05/12/2019	W	22 25 23	19 23 14	11 7 5	8 5	14 9	25 26	29 30 28	20 17	35 38 31	21 20 19	11 2 4	All Staff & Learners Present	212 181	257 257		143 122	200 200	6	64 57 78	28%
06/12/2019	F M	29	15	2 23	7	6	16	29	17	24	12	2		190	257		128	200	6	72	36%
10/12/2019 11/12/2019 12/12/2019	T W	30 31 26	17 14 15	16 12 3	7 5 3	10 13 9	7 12 11	24 24 26	20 20 19	36 37 23	11 20 13	4 3 4	All Staff & Learners Present	182 191 152	257 257 257		123 129 103	200 200 200	6 6	77 71 97	39% 35% 49%
13/12/2019	F M	29	13	17	6	7	21	18	21	24	20	7		164	257		111	200	6	89	34%
17/12/2019 18/12/2019 19/12/2019	T W Th	26 22 20	16 19 9	7 7 4	3 5 8	6 11 22	24 18 33	36 27 20	20 20 20	34 27 35	19 15 18	3 1 1	All Staff & Learners Present	194 172 190	257 257 257		131 116 128	200 200 200	6	69 84 72	34% 42% 36%
20/12/2019	F M	12 CLOSED	5	1	0	5	19	16	9	10	13	0		90 CLOSED	257		61	200	6	139	70%
24/12/2019 25/12/2019 26/12/2019	T W Th	CLOSED CLOSED CLOSED											TERM END	CLOSED CLOSED CLOSED							
27/12/2019	F M	CLOSED												CLOSED							
31/12/2019 01/01/2020 02/01/2020	T W	CLOSED CLOSED											TERM END	CLOSED CLOSED CLOSED							
03/01/2020	F M	CLOSED CLOSED	19	14	5	13	28	31	21	37	19	1		CLOSED CLOSED	257		148	200	6	52	26%
06/01/2020 07/01/2020 08/01/2020	T W	31 26	11 11	12 9	8 5	10 7	27 25	35 33	18 18	38 36	22 20	2	All Staff & Learners Present	214 192	257 257		145 130	200 200	6	52 55 70	28% 35%
09/01/2020 10/01/2020	Th F	20	10	6	4	4	18	33	19	30 28	18	3		171	257 257		116 103	200	6	97	42%
13/01/2020 14/01/2020 15/01/2020	M T W	22 24 25	22 11 9	9 10 18	11 6 7	11 8 10	20 18 20	27 26 27	18 16 15	28 29 30	21 18 16	5 4 6	All Staff & Learners Present	194 170 183	257 257 257		131 115 124	200 200 200	6 6	69 85 76	34% 43% 38%
16/01/2020 17/01/2020	Th F	22 25	10 16	11	8 14	10 24	20 19	24 22	16 19	30 22	16 10	9		173 181	257 257		117 122	200	6	83 78	42% 39%
20/01/2020 21/01/2020 22/01/2020	M T W	31 31 26	25 30 14	11 13 10	11 8 8	10 9 10	20 24 23	32 23 24	20 18 18	35 35 36	20 23 20	8 3 2	All Staff & Learners Present	223 217 191	257 257 257		151 147 129	200 200 200	6	49 53 71	25% 27% 35%
23/01/2020 24/01/2020	Th F	32 17	18 15	15 5	12 10	10 10 13	27 20	26 18	19 23	33 20	17 20	1 8		210 169	257 257		142 114	200	6	58 86	29%
														TOTAL ACTUAL Ffriddoedd/ /Friars	TOTAL CAPACITY Ty Menai+ +Llwyn Brain		Actual Data ADJUSTED Deducting Sports + A-Level which Relocate to Llangefni REMAINDER to transfer to Ty Menai	TOTAL CAPACITY Ty Menai ONLY	PLUS Ty.Menai. Disabled Capacity	TY MENAI HEADROOM V. THE TRANSFERRING FACULTIES	Headroom in %
													Averages over 89 Data recorded Days of Operation	16,384 184	22,873 257		11,071 124	17,800 200	6	76	38%
															TOTAL CAPACITY		Actual Data ADJUSTED	TOTAL		TY MENAI	

Typical Term Time Average	TOTAL ACTUAL Ffriddoedd/ /Friars	TOTAL CAPACITY Ty Menai+ +Llwyn Brain	Actual Data ADJUSTED Deducting Sports + A-Level which Relocate to Llangefni REMAINDER to transfer to Ty Menai	TOTAL CAPACITY Ty Menai ONLY	PLUS Ty.Menai. Disabled Capacity	TY MENAI HEADROOM V. THE TRANSFERRING FACULTIES	Headroom in %
Monday	202	257	137	200	6	63	32%
Tuesday	200	257	135	200	6	65	32%
Wednesday	201	257	136	200	6	64	32%
Thursday	196	257	132	200	6	68	34%
Friday	156	257	106	200	6	94	47%
Overall Average	191	257	129	200	6	71	35%

Appendix E – TRICS Output

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Capita Symonds Scott Drive Altrincham Licence No: 504504

Calculation Reference: AUDIT-504504-190227-0223

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION

Category : C - COLLEGE/UNIVERSITY

VEHICLES

Selected regions and areas:

2 SOUTH EAST

ES EAST SUSSEX 1 days WS WEST SUSSEX 1 days

09 NORTH

TW TYNE & WEAR 1 days

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

Secondary Filtering selection:

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

Parameter: Number of students
Actual Range: 1456 to 1500 (units:)
Range Selected by User: 150 to 2000 (units:)

Parking Spaces Range: Selected: 200 to 500 Actual: 24 to 2857

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 25/04/18

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

Selected survey days:

Wednesday 1 days Thursday 2 days

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

Selected survey types:

Manual count 3 days
Directional ATC Count 0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Residential Zone 3

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

Secondary Filtering selection:

Use Class:

D1 3 days

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

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Altrincham Capita Symonds Scott Drive Licence No: 504504

Secondary Filtering selection (Cont.):

Population within 1 mile: 10,001 to 15,000 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:

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

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

Car ownership within 5 miles:

0.6 to 1.0 1 days 1.1 to 1.5 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 2 days No 1 days

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

PTAL Rating:

No PTAL Present 3 days

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

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Capita Symonds Scott Drive Altrincham Licence No: 504504

LIST OF SITES relevant to selection parameters

1 ES-04-C-05 COLLEGE EAST SUSSEX

PENLAND ROAD BEXHILL ON SEA

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of students: 1500

Survey date: THURSDAY 03/11/11 Survey Type: MANUAL

TW-04-C-01 COLLEGE TYNE & WEAR

HAWKEY'S LANE NORTH SHIELDS

CHIRTON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of students: 1495

Survey date: THURSDAY 04/11/10 Survey Type: MANUAL

3 WS-04-C-06 UNIVERSITY OF CHICHESTER WEST SÜSSEX

UPPER BOGNOR ROAD BOGNOR REGIS

Edge of Town Centre Residential Zone

Total Number of students: 1456

Survey date: WEDNESDAY 25/04/18 Survey Type: MANUAL

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

TRIP RATE for Land Use 04 - EDUCATION/C - COLLEGE/UNIVERSITY VEHICLES

Calculation factor: 1 STUDEN BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	,	TOTALS			
	No. Ave.		Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	STUDEN	Rate	Days	STUDEN	Rate	Days	STUDEN	Rate	
00:00 - 01:00										
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	3	1484	0.024	3	1484	0.003	3	1484	0.027	
08:00 - 09:00	3	1484	0.102	3	1484	0.027	3	1484	0.129	
09:00 - 10:00	3	1484	0.059	3	1484	0.017	3	1484	0.076	
10:00 - 11:00	3	1484	0.021	3	1484	0.011	3	1484	0.032	
11:00 - 12:00	3	1484	0.037	3	1484	0.032	3	1484	0.069	
12:00 - 13:00	3	1484	0.025	3	1484	0.024	3	1484	0.049	
13:00 - 14:00	3	1484	0.031	3	1484	0.029	3	1484	0.060	
14:00 - 15:00	3	1484	0.029	3	1484	0.042	3	1484	0.071	
15:00 - 16:00	3	1484	0.023	3	1484	0.048	3	1484	0.071	
16:00 - 17:00	3	1484	0.026	3	1484	0.085	3	1484	0.111	
17:00 - 18:00	3	1484	0.019	3	1484	0.041	3	1484	0.060	
18:00 - 19:00	3	1484	0.008	3	1484	0.025	3	1484	0.033	
19:00 - 20:00	2	1476	0.009	2	1476	0.030	2	1476	0.039	
20:00 - 21:00	2	1476	0.002	2	1476	0.005	2	1476	0.007	
21:00 - 22:00	2	1476	0.001	2	1476	0.007	2	1476	0.008	
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.416			0.426			0.842	

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: 1456 - 1500 (units:)
Survey date date range: 01/01/10 - 25/04/18
Number of weekdays (Monday-Friday): 3
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Capita Symonds Scott Drive Altrincham Licence No: 504504

Calculation Reference: AUDIT-504504-190227-0253

TRIP RATE CALCULATION SELECTION PARAMETERS:

: 02 - EMPLOYMENT : A - OFFICE Category

VEHICLES

Selected regions and areas:

04 EAST ANGLIA **NORFOLK** 3 days SF SUFFOLK 1 days 05 EAST MIDLANDS LE LEICESTERSHIRE 1 days 06 WEST MIDLANDS WM WEST MIDLANDS 1 days WORCESTERSHIRE WO 1 days 07 YORKSHIRE & NORTH LINCOLNSHIRE WY WEST YORKSHIRE 2 days NORTH WEST 80 GM GREATER MANCHESTER 1 days LC LANCASHIRE 1 days 09 NORTH CB **CUMBRIA** 1 days DURHAM DH 2 days 10 **WALES** MT MERTHYR TYDFIL 1 days PS **POWYS** 1 days **SWANSEA** SW 2 days 11 **SCOTLAND** DU **DUNDEE CITY** 1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area

Actual Range: 894 to 6630 (units: sqm) 442 to 10000 (units: sqm) Range Selected by User:

Parking Spaces Range: Selected: 0 to 300 Actual: 0 to 2923

Public Transport Provision:

Include all surveys Selection by:

Date Range: 01/01/10 to 28/03/18

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:

3 days Monday Tuesday 6 days 1 days Wednesday Thursday 5 days Friday 4 days

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

<u>Selected survey types:</u>

Manual count 19 days 0 days Directional ATC Count

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

Selected Locations:

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

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

3

Selected Location Sub Categories:

2 Industrial Zone Commercial Zone

Licence No: 504504

Capita Symonds Scott Drive Altrincham

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

Secondary Filtering selection:

Use Class:

A1	1 days
B1	18 days

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

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	5 days
10,001 to 15,000	2 days
15,001 to 20,000	3 days
20,001 to 25,000	2 days
25,001 to 50,000	6 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	3 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	7 days
500,001 or More	3 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	9 days
1.1 to 1.5	9 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	3 days
No	16 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 19 days

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

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CUMBRIA

Survey Type: MANUAL

LIST OF SITES relevant to selection parameters

CB-02-A-02 PORT ROAD CARLISLE

Edge of Town Centre Industrial Zone

Total Gross floor area: 925 sqm

OFFICE

Survey date: FRIDAY 24/06/16

DH-02-A-01 RPMI OFFICES DURHAM

BRINKBURN ROAD **DARLINGTON**

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Gross floor area: 3372 sqm

Survey date: FRIDAY 05/11/10 Survey Type: MANUAL

CONSTRUCTION COMPANY DH-02-A-02 **DURHAM**

DURHAM ROAD NEAR DURHAM BOWBURN Edge of Town Industrial Zone

2000 sqm Total Gross floor area:

Survey date: TUESDAY 27/11/12 Survey Type: MANUAL

DU-02-A-01 OFFICES **DUNDEE CITY**

GREENMARKET DUNDEE

Edge of Town Centre Development Zone

Total Gross floor area: 3200 sqm

Survey date: THURSDAY 27/04/17 Survey Type: MANUAL GREATER MANCHESTER

GM-02-A-09 LEASED OFFICES

NEW MOUNT STREET MANCHESTER

Edge of Town Centre

Built-Up Zone

2500 sqm Total Gross floor area:

Survey date: MONDAY 26/09/16 Survey Type: MANUAL **LANCASHIRE**

LC-02-A-09 OFFICES

FURTHERGATE BLACKBURN

Suburban Area (PPS6 Out of Centre)

Built-Up Zone

Total Gross floor area: 2600 sqm

Survey date: TUESDAY 04/06/13 Survey Type: MANUAL

LE-02-A-04 LEICESTERSHIRE COUNCIL OFFICES

BURTON STREET MELTON MOWBRAY

Edge of Town Centre

Built-Up Zone

Total Gross floor area: 3981 sqm

Survey date: WEDNESDAY Survey Type: MANUAL 30/11/16

MT-02-A-02 MERTHYR TYDFIL COUNCIL OFFICES

CASTLE STREET MERTHYR TYDFIL

> Edge of Town Centre Built-Up Zone

Total Gross floor area: 5250 sqm

Survey date: THURSDAY 17/10/13 Survey Type: MANUAL TRICS 7.5.4 030219 B18.58 Database right of TRICS Consortium Limited, 2019. All rights reserved Wednesday 27/02/19 Employment Offices Page 4

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LIST OF SITES relevant to selection parameters (Cont.)

9 NF-02-A-01 COUNCIL OFFICE NORFOLK

CHAPEL STREET KING'S LYNN

Edge of Town Centre Built-Up Zone

Total Gross floor area: 5500 sqm

Survey date: THURSDAY 30/09/10 Survey Type: MANUAL

10 NF-02-A-02 FINANCIAL PLANNERS NORFOLK NORTH QUAY

GREAT YARMOUTH

Edge of Town Centre Commercial Zone Total Gross floor area

Total Gross floor area: 894 sqm

Survey date: MONDAY 11/09/17 Survey Type: MANUAL

11 NF-02-A-03 OFFICES NORFOLK

NORTH QUAY GREAT YARMOUTH

Edge of Town Centre Commercial Zone

Total Gross floor area: 5500 sqm

Survey date: TUESDAY 12/09/17 Survey Type: MANUAL

12 PS-02-A-01 COUNCIL OFFICES POWYS

SEVERN ROAD WELSHPOOL

> Edge of Town Centre No Sub Category

Total Gross floor area: 3920 sqm

Survey date: TUESDAY 12/05/15 Survey Type: MANUAL

13 SF-02-A-02 OFFICES SUFFOLK

BATH STREET IPSWICH

Edge of Town Centre Commercial Zone

Total Gross floor area: 6505 sqm

Survey date: FRIDAY 19/07/13 Survey Type: MANUAL

14 SW-02-A-01 OFFICES SWANSEA

LANGDON ROAD SWANSEA

Edge of Town Centre
Development Zone
Total Gross floor area

Total Gross floor area: 6630 sqm

Survey date: FRIDAY 25/10/13 Survey Type: MANUAL

15 SW-02-A-02 OFFICE SWANSEA

KINGS ROAD SWANSEA

> Edge of Town Centre Development Zone

Total Gross floor area: 2225 sqm

Survey date: THURSDAY 24/10/13 Survey Type: MANUAL

16 WM-02-A-04 OFFICE WEST MIDLANDS

BOURNVILLE LANE BIRMINGHAM

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Gross floor area: 1800 sqm

Survey date: TUESDAY 10/11/15 Survey Type: MANUAL

17 WO-02-A-02 OFFICE WORCESTERSHIRE

MOOR STREET

WORCESTER CITY COUNCIL

Edge of Town Centre Built-Up Zone

Total Gross floor area: 2000 sqm

Survey date: MONDAY 14/11/16 Survey Type: MANUAL

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Altrincham Licence No: 504504 Capita Symonds Scott Drive

LIST OF SITES relevant to selection parameters (Cont.)

WY-02-A-03 OFFICE WEST YORKSHIRE

VICTORIA ROAD **LEEDS**

HEADINGLEY

Suburban Area (PPS6 Out of Centre)

Residential Zone

2696 sqm Total Gross floor area:

Survey date: THURSDAY 17/06/10 Survey Type: MANUAL WEST YORKSHIRE

WY-02-A-05 OFFICES

PIONEER WAY CASTLEFORD WHITWOOD 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.

Scott Drive Capita Symonds Altrincham

Licence No: 504504

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

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		Г	DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			,					
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	19	3301	0.190	19	3301	0.024	19	3301	0.214
07:30 - 08:00	19	3301	0.703	19	3301	0.024	19	3301	0.834
08:00 - 08:30	19	3301	1.049	19	3301	0.131	19	3301	1.229
08:30 - 09:00	19	3301	1.049	19	3301	0.180	19	3301	1.229
09:00 - 09:30	19	3301	0.588	19	3301	0.174	19	3301	0.762
	19			19			19		0.782
09:30 - 10:00	19	3301	0.343	19	3301	0.198	19	3301	0.395
10:00 - 10:30		3301			3301	0.172		3301	
10:30 - 11:00	19	3301	0.182	19 19	3301	0.150	19	3301	0.332
11:00 - 11:30	19	3301	0.158		3301	0.155	19	3301	0.313
11:30 - 12:00	19	3301	0.223	19	3301	0.175	19	3301	0.398
12:00 - 12:30	19	3301	0.196	19 19	3301	0.293	19	3301	0.489
12:30 - 13:00	19	3301	0.260		3301	0.268	19	3301	0.528
13:00 - 13:30	19	3301	0.207	19	3301	0.234	19	3301	0.441
13:30 - 14:00	19	3301	0.273	19 19	3301	0.244	19	3301	0.517
14:00 - 14:30	19	3301	0.204		3301	0.191	19	3301	0.395
14:30 - 15:00	19	3301	0.145	19	3301	0.222	19	3301	0.367
15:00 - 15:30	19	3301	0.128	19	3301	0.188	19	3301	0.316
15:30 - 16:00	19	3301	0.128	19	3301	0.222	19	3301	0.350
16:00 - 16:30	19	3301	0.159	19	3301	0.531	19	3301	0.690
16:30 - 17:00	19	3301	0.159	19	3301	0.630	19	3301	0.789
17:00 - 17:30	19	3301	0.148	19	3301	1.035	19	3301	1.183
17:30 - 18:00	19	3301	0.056	19	3301	0.446	19	3301	0.502
18:00 - 18:30	18	3417	0.031	18	3417	0.397	18	3417	0.428
18:30 - 19:00	18	3417	0.007	18	3417	0.148	18	3417	0.155
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			6.825			6.588			13.413

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: 894 - 6630 (units: sqm) Survey date date range: 01/01/10 - 28/03/18

Number of weekdays (Monday-Friday): 19
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 0

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