

Coleg Sir Gar
Mixed Use Development
Pibwrlwyd, Carmarthen

Transport Assessment
May 2023

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# 1 INTRODUCTION

### 1.1 Background

- 1.1.1 Asbri Transport Limited have been appointed by Coleg Sir Gar to produce a Transport Assessment to accompany a candidate site submission to the Local Development Plan process for a mixed-use development.
- 1.1.2 The candidate site is located to the east of the A484 local distributor road on the southern periphery of Carmarthen.
- 1.1.3 For the purposes of this Transport Assessment the following mix of land uses has been assessed:
  - 4.9 hectares residential (c. 171 dwellings)
  - 3.8 hectares Reserved Land Residential (c. 135 dwellings)
  - 5.9 acres Incubator Retail Park (15 Units + Office)
- 1.1.4 The residential and employment elements of the proposed development will have separate access points:
  - Residential via a new priority junction on the A484 located to the south of the Morrisons Roundabout
  - Employment via extensions of the existing Llys Y Deri and accessed via the A484
     Morrisons roundabout

# 1.2 Structure of the Report

- 1.2.1 Following this introductory section, the report is structured as follows:
  - Section 2 reviews the development proposals in relation to national and local planning policies;
  - **Section 3** details the existing situation and outlines existing highway safety within the vicinity of the site;

- Section 4 of the report describes the accessibility of the site to sustainable and active travel modes.
- Section 5 details the development proposals;
- Section 6 considers the likely travel demand generated by the proposed development on the surrounding highway network;
- Section 7 assesses the impact of the development on the performance of the local road network and public transport services;
- Section 8 provides an assessment of the operational junction capacity within the study network; and
- **Section 9** provides the conclusions of the report.

# 2 POLICY REVIEW

# 2.1 Llwybr Newydd: The Wales Transport Strategy 2021

- 2.1.1 Llwybr Newydd, the Wales Transport Strategy sets out a vision for how our transport system can deliver priorities for Wales, helping to put us on a pathway to creating a more prosperous, green and equal society. The national Wales Transport Strategy was published in March 2021.
- 2.1.2 The Transport Strategy aims to bring services to people in order to reduce the need to travel and notes that 'if more people can walk and cycle for everyday trips, we will reduce our dependency on cars.'
- 2.1.3 It sets a long-term direction and three urgent and immediate priorities:
  - Priority 1: Bring services to people in order to reduce the need to travel;
  - Priority 2: Allow people and goods to move easily from door to door by accessible, sustainable and efficient transport services and infrastructure; and,
  - Priority 3: Encourage people to make the change to more sustainable transport
- 2.1.4 The thrust of Llwybr Newydd is to achieve a shift away from private car use to more sustainable transport modes for the majority of journeys. Investment will be promoted into low-carbon, accessible, efficient and sustainable transport services and infrastructure that enable more people to walk, cycle and use public transport, and low-emissions vehicles.
- 2.1.5 Where there is a need for new transport infrastructure, the sustainable transport hierarchy should be considered to give priority to meeting the demand for travel by walking, cycling and public transport ahead of private motor vehicles.
- 2.1.6 The transport planning recommendation detailed in this report have been informed by the content of Llwybr Newydd and in particular the three headline priorities of the Wales National Transport Strategy.

## 2.2 Future Wales: the national plan 2040

- 2.2.1 Future Wales is the national development framework for Wales which sets out the direction for development in Wales up to 2040. Future Wales will aim to promote development that enhances wellbeing and quality of life.
- 2.2.2 Future Wales pledges to shape growth around sustainable forms of transport and places that make people and the environment healthier. Development will focus on active travel and public transport, allied with a reduced reliance on private vehicles.
- 2.2.3 Policy 12: Regional Connectivity of Future Wales outlines the following with regard to car parking at future developments:
- 2.2.4 "Planning authorities must act to reduce levels of car parking in urban areas, including supporting car-free developments in accessible locations and developments with car parking spaces that allow them to be converted to other uses over time. Where car parking is provided for new non-residential development, planning authorities should seek a minimum of 10% of car parking spaces to have electric vehicle charging points."

## 2.3 Planning Policy Wales (edition 11, 2021)

- 2.3.1 Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Assembly Government (the Assembly Government). It is supplemented by a series of Technical Advice Notes (TANs). Procedural advice is given in circulars and policy clarification letters.
- 2.3.2 Edition 11 was published in February 2021. PPW states at Section 4.1 that:

The planning system should enable people to access jobs and services through shorter, more efficient and sustainable journeys, by walking, cycling and public transport. By influencing the location, scale, density, mix of uses and design of new development, the planning system can improve choice in transport and secure accessibility in a way which supports sustainable development, increases physical activity, improves health and helps to tackle the causes of climate change and airborne pollution by:

 Enabling More Sustainable Travel Choices – measures to increase walking, cycling and public transport, reduce dependency on the car for daily travel;  Network Management – measures to make best use of the available capacity, supported by targeted new infrastructure; and,

Demand Management – the application of strategies and policies to reduce travel

demand, specifically that of single-occupancy private vehicles.'

2.3.3 The overreaching goal of The Welsh Government is to reduce reliance on single

occupancy vehicles and support a modal shift to walking, cycling and public transport.

2.3.4 The Assembly Government aims to extend choice in transport and secure accessibility in

a way which supports sustainable development and helps to tackle the causes of climate

change by: enabling more sustainable travel choices, manage both the current and future

transport network effectively and minimising the need to travel via single-occupancy

private vehicles. This will be achieved through the integration:

Within and between different types of transport;

Between transport measures and land use planning;

• Between transport measures and policies to protect and improve the

environment; and,

• Between transport measures and policies for education, health, social inclusion

and wealth creation.

2.3.5 PPW states that:

'The planning system has a key role to play in reducing the need to travel and supporting

sustainable transport, by facilitating developments which:

• Are sited in the right locations, where they can be easily accessed by sustainable

modes of travel and without the need for a car;

Are designed in a way which integrates them with existing land uses and

neighbourhoods: and;

Make it possible for all short journeys within and beyond the development to be

easily made by walking and cycling.'

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# **Promoting Walking and Cycling**

- 2.3.6 PPW details the Welsh Government's objective of promoting active travel and references the Active Travel (Wales) Act 2013.
- 2.3.7 This Act is referenced at para, 4.1.27 where PPW 11 states:

'The Active Travel Act (Wales) 2013 makes walking and cycling the preferred option for shorter journeys, particularly everyday journeys, such as to and from a workplace or education establishment, or in order to access health, leisure or other services or facilities. The Active Travel Act requires local authorities to produce Integrated Network Maps, identifying the walking and cycling routes required to create fully integrated networks for walking and cycling to access work, education, services and facilities.'

#### 2.3.8 PPW also states that:

'The planning system has an important role to play in promoting and supporting the delivery of the Active Travel Act and creating the right environments and infrastructure to make it easier for people to walk and cycle, including new and improved routes and related facilities.'

2.3.9 PPW includes at Figure 9 the following Sustainable Transport Hierarchy for Planning:



2.3.10 In relation to the sustainable transport hierarchy, PPW states that:

'The sustainable transport hierarchy should be used to reduce the need to travel, prevent car-dependent developments in unsustainable locations, and support the delivery of schemes located, designed and supported by infrastructure which prioritises access and movement by active and sustainable transport. The sustainable transport hierarchy must be a key principle in the preparation of development plans, including site allocations, and when considering and determining planning applications.'

# **Parking**

2.3.11 In relation to parking, PPW details:

'Car parking provision is a major influence on how people choose to travel and the pattern of development...Planning authorities must support schemes which keep parking levels down, especially off-street parking, when well designed.'

2.3.12 Additionally, PPW states:

'Parking provision should be informed by the local context, including public transport accessibility, urban design principles and the objective of reducing reliance on the private car and supporting a modal shift to walking, cycling and public transport. Planning authorities must support schemes which keep parking levels down, especially off-street parking, when well designed. The needs of disabled people must be recognised and adequate parking provided for them.'

- 2.3.13 PPW notes that Local authorities are required to develop an integrated parking strategy which complies with the overall transport and locational policies of the development plan. Additionally, maximum levels of parking for broad classes of development should be established in conjunction with a threshold size of development above which such levels will apply.
- 2.3.14 Technical Advice Note 18 also details national planning policy on parking matters and this is described in sub-section 2.6.

# 2.4 One Wales: Connecting the Nation

2.4.1 National transport policy for Wales is specified within the Wales Transport Strategy, One Wales: Connecting the Nation, which is supplemented by a series of Technical Advice Notes (TANs).

2.4.2 The goal of One Wales: Connecting the Nation is to:

'Promote sustainable transport networks that safeguard the environment while strengthening our country's economic and social life. The transport strategy identifies a series of high-level outcomes and sets out the steps to their delivery. The One Wales programme is working to achieve a nation with access for all, where travelling between communities and accessing services, jobs and facilities in different parts of Wales is both easy and sustainable, and which support the growth of our economy.'

# 2.5 Technical Advice Note 18: Transport (TAN18)

- 2.5.1 TAN 18 identifies that Planning Policy Wales 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.
- 2.5.2 To achieve this and the core objectives, the following initiatives relevant to the proposed development are:
  - Reducing the need to travel;
  - Promoting walking and cycling;
  - Managing parking provision; and,
  - Encouraging the location of development near other related uses to encourage multi-purpose trips.
- 2.5.3 Section 3.4 to 3.6 of TAN 18 references 'Accessible Housing Development', which in summary, seeks to ensure that housing development is sustainable in transport and movement terms including maximising the opportunity for residents to walk and cycle to local facilities and public transport stops.

2.5.4 TAN 18 notes that where larger housing development applications require a Transport Assessment information on measures to encourage sustainable travel, (as detailed in TAN 18) shall be incorporated in the TA.

# 2.6 Active Travel Act 2013 (Wales)

- 2.6.1 The Active Travel Act places a requirement on local authorities to continuously improve facilities for those who walk and cycle and to prepare information, such as maps, that identify current and potential future routes for their use.
- 2.6.2 The Act also requires highway authorities to have regard in the construction and improvement of highways to enhance provision for cyclists and pedestrians. The Active Travel Act makes provision for:
  - Approved maps of existing active travel routes and related facilities in a local authority's area;
  - Approved integrated network maps of the new and improved active travel routes and related facilities needed to create integrated networks of active travel routes and related facilities in a local authority's area;
  - Requiring local authorities to have regard to integrated network maps in preparing transport policies and to make continuous improvements in the range and quality of active travel routes and related facilities; and,
  - Requiring the Welsh Ministers and local authorities, in constructing and improving highways, to have regard to the desirability of enhancing the provision made for walking and cycling.

### 2.7 Transport Implementation Strategy and conclusion to Policy Review

- 2.7.1 It is considered that the proposed development is fully in compliance with all relevant national and local planning and transport related planning policy guidance.
- 2.7.2 A Travel Plan will be prepared for the development which will detail measures and objectives to encourage and facilitate sustainable travel to and from the proposed development both by residents and their visitors. The Travel Plan encompasses the

principal objective and component of the Transport Implementation Strategy as required by guidance detailed in Planning Policy Wales Technical Advice Note 18: Transport.

2.7.3 Paragraph 9.7 of TAN 18 states:

'TIS resulting from the TA process are intended to incorporate all components of a Travel Plan and ensure these are integrated with design elements of new development.'

2.7.4 In conclusion, it is considered that in transport and planning policy terms the planning application proposes 'accessible housing development' as defined in paragraphs 3.4 to 3.6 in Planning Policy Wales Technical Advice Note 18: Transport.

# 3 EXISTING SITUATION

#### 3.1 Site Location

- 3.1.1 The application site is located to the east of the A484 local distributor road on the southern Periphery of Carmarthen.
- 3.1.2 The site is located within a triangular triangle of land, which is bound to the east and west by the A48 Trunk Road and the A484 respectively. The Parc Pensarn Retail Park is located immediately to the north of the proposed development site, with the Pibwrlwyd campus of Coleg Sir Gar and some residential properties along Pibwrlwyd Lane located immediately to the south.
- 3.1.3 The location of the proposed development in the context of the local highway network is shown in **Figure 3.1.**



Figure 3.1 Site Location & Local Highway Network

# 3.2 Existing Access via Llys Y Deri and the A484 Morrisons Roundabout

- 3.2.1 Llys Deri is an existing Industrial Estate access road which serves a number of existing commercial units and connects with the A484 via the four arm Morrison's roundabout to the west.
- 3.2.2 There are two access stubs have been maintained which would facilitate access to the proposed employment land, which are shown in **Figure 3.2.**

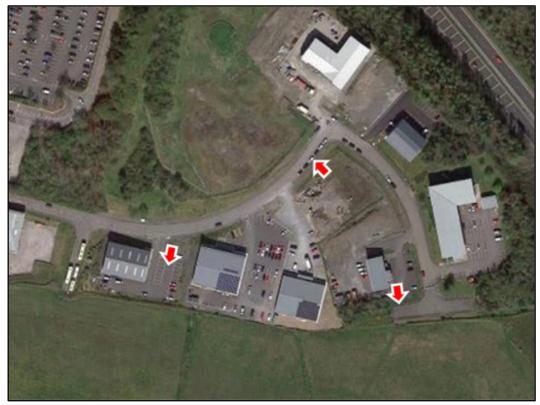


Figure 3.2 Existing Access Locations – Llys Y Deri

# 3.3 Local Highway Network

3.3.1 The local highway network surrounding the proposed development is shown in Figure3.3, below.



Figure 3.3 Local highway network

## A484

- 3.3.2 The A484 is a key regional distributor road within Carmarthenshire providing a direct connection between Carmarthen and the A40 / A48 to the north and Kidwelly, Pembrey and Llanelli to the south.
- 3.3.3 Within the immediate vicinity of the site the A484 is well lit with a carriageway width of around 7.5 metres. There is generally no direct frontage on either side of the carriageway.
- 3.3.4 On the western side of the carriageway there is a 3-metre-wide shared use walking and cycling path which is designated as National Cycle Network Route 4. This cycling route runs along the alignment of the A484 providing direct connections between the site, Carmarthen, Llanelli and beyond.

#### Llys Deri

- 3.3.5 Llys Deri is currently a minor industrial estate road serving limited commercial properties some of which form part of the Parc Pensarn Retail Park.
- 3.3.6 The carriageway is around 7 metres wide and well lit. There is limited frontage along the road with all businesses benefiting from dedicated parking provision.
- 3.3.7 Initially, on entry to Llys Deri from the A484, there is only a 2-metre-wide footway provided on the southern side of the carriageway. However, on entry to the site around 150 metres to the east of the A484, 2-metre-wide footways are provided on both sides of the carriageway.
- 3.3.8 Access spurs and priority junctions into the proposed employment development are already provided as has been set out in the previous section of this TA.

#### Pibwrlwyd Lane

- 3.3.9 Pibwrlwyd Lane is a rural lane providing access to the Pibwrlwyd campus of Coleg Sir Gar, some agricultural land uses and residential properties, which connects with the A484 at the 4-arm Pibrlwyd Roundabout.
- 3.3.10 Within the vicinity of the A484 and the access / egress arrangement to / from Coleg Sir Gar the lane is around 6 metres wide with double yellow line 'no parking or waiting at any time' restrictions in place. Along this stretch of carriageway, the lane is also well lit and surfaced to a high standard.
- 3.3.11 Following the egress arrangement to Coleg Sir Gar the lane narrows to a rural residential access lane around 4 metres in width.

## A48 / A40

- 3.3.12 The A48 / A40 are two of the major strategic routes within the region. They connect with the A484 via Pensarn Roundabout on the north-western periphery of the site.
- 3.3.13 The A48 trunk road provides a direct connection between Carmarthen and the M4 motorway around 19km to the south-east of the site.

3.3.14 The A40 trunk road provides direct connections between Carmarthen to West Wales including Haverfordwest and to the east to Brecon and Abergavenny and continues to until it reaches the M40 at High Wycombe.

3.3.15 Within the immediate vicinity of the site both roads are dual carriageways subject to the national speed limit.

3.3.16 As part of scoping discussions, the Welsh Government has raised concerns with regard to the capacity of the Pensarn Roundabout which connects the A40, A48 and the A484. This will be reviewed as part of section 6 of this TA.

## 3.4 Existing Traffic Flows

3.4.1 In order to obtain the most recent traffic flows on the local highway network, Automatic Traffic Counts (ATC) and classified Junction Turning Counts (JTC) were undertaken at the locations listed below and shown in **Figure 3.4:** 

Automatic Traffic Counts (ATC)

o Site 1: A484 north of Morrisons Roundabout; and

o Site 2: A484 north of Morrisons Roundabout.

Junction Turning Counts (JTC)

Site 1: Pensarn Roundabout;

o Site 2: Morrisons Roundabout

o Site 3: Pibwrlwyd Roundabout



Figure 3.4 Traffic Count Survey Locations

## **Automatic Traffic Counts**

- 3.4.2 The Automatic Traffic Counts were undertaken over a 7-day period covering Thursday 16 March 2023 to Wednesday 22 March 2023. The raw data collected is provided in full in Appendix A.
- 3.4.3 **Table 3.1** summarises the average weekday traffic flows at both sites, in terms of direction and time of day. The daily traffic flow profiles for each count site for the weekday average flows are shown in **Figure 3.4** and **Figure 3.5**, with a comparison of the 2-way daily profiles being shown in **Figure 3.6**.

3.4.4 This data shows as expected that the flows on the A484 decrease to the south of the Morrisons roundabout by 48%, which demonstrates the attraction of Morrisons in particular as well as the retail and business units along Llys Y Deri.

Have		Site 1		Site 2		
Hour	NB	SB	2 Way	NB	SB	2 Way
00:00	15	20	35	8	12	20
01:00	10	13	23	5	8	13
02:00	9	9	18	5	5	9
03:00	12	11	23	7	6	13
04:00	29	24	53	25	8	34
05:00	101	88	189	79	25	103
06:00	318	252	570	245	77	321
07:00	710	577	1287	585	251	836
08:00	1190	1058	2248	910	597	1506
09:00	808	773	1581	501	349	850
10:00	761	770	1531	408	315	723
11:00	861	865	1726	392	343	735
12:00	949	980	1929	405	417	822
13:00	884	931	1815	367	420	787
14:00	854	891	1745	394	449	843
15:00	982	1112	2094	516	643	1159
16:00	989	1211	2200	473	762	1235
17:00	942	1098	2040	416	675	1091
18:00	696	754	1450	306	368	675
19:00	461	498	958	190	234	424
20:00	313	344	657	129	161	290
21:00	200	231	431	87	113	200
22:00	116	139	255	46	66	112
23:00	48	65	112	23	37	59
AM Peak (8-9)	1190	1058	2248	910	597	1506
PM Peak (16-17)	989	1211	2200	473	762	1235
12 Hour Total (7-19)	10627	11020	21647	5674	5589	11264
24 Hour Total	12258	12712	24971	6522	6341	12863

Table 3.1 Observed Average Weekday Traffic Flows

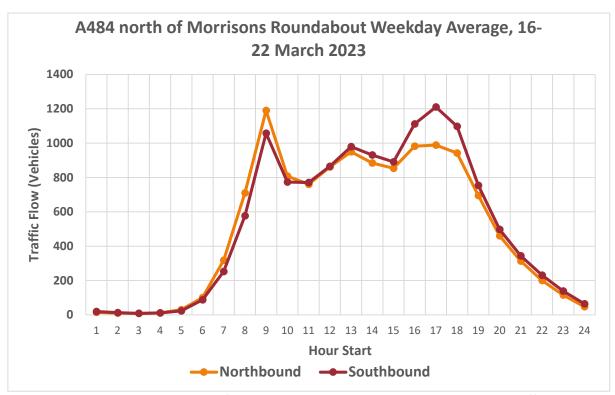


Figure 3.5 A484 north of the Morrisons Roundabout Weekday Average Traffic Flows (Vehicles)

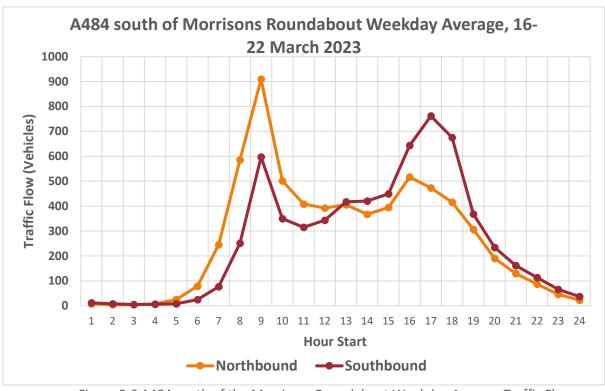


Figure 3.6 A484 south of the Morrisons Roundabout Weekday Average Traffic Flows (Vehicles)

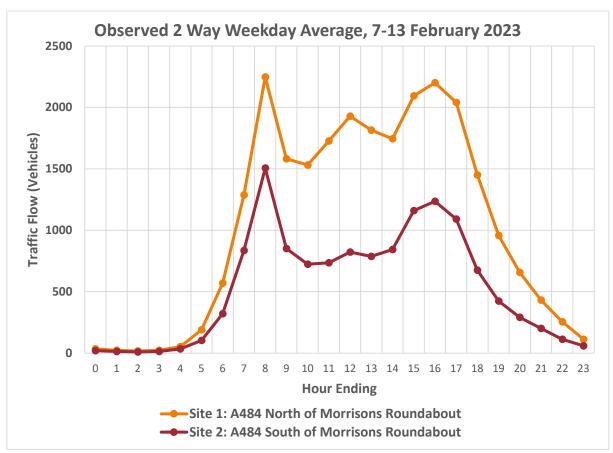


Figure 3.7 Observed 2 Way Weekday Average Traffic Flows (Vehicles)

# **Junction Turning Counts**

- 3.4.5 Classified junction turning counts were undertaken at the three locations shown on Thursday 16 March 2023 for the following periods:
  - AM: 07:00-10:00; and
  - PM: 15:00-19:00.
- 3.4.6 The data was analysed in 15-minute periods with the peak period hourly traffic flows in passenger car units (PCU's). The data demonstrated that the peak hours across the 2 junctions are shown below, which represent the start and end of the school day:
  - AM: 08:00-09:00; and
  - PM: 14:30-13:30.
- 3.4.7 The raw survey data is included in **Appendix B**, with the observed peak hour flows in passenger car units (PCU's) shown schematically in **Appendix C**.

# 3.5 Highway Safety

3.5.1 An assessment has been made of the highway surrounding the development site for the latest 5-year period available (2017-2021). Data has been obtained from the Stats Wales database and is summarised in **Table 3.2** and shown in **Figure 3.7**.

Voor	No. Personal Injury Collisions			Dodostvions	Cualista	Vahialas	Convolting	
Year	Fatal	Serious	Slight	Total	Pedestrians	Cyclists	Vehicles	Casualties
2017	0	0	4	4	0	0	11	6
2018	0	0	6	6	1	0	13	6
2019	0	0	1	1	0	0	4	1
2020	0	0	3	3	0	0	8	3
2021	0	1	2	3	0	0	7	7
Total	0	1	16	17	1	0	43	23

Table 3.2 Summary of personal injury accident data

- 3.5.2 As part of the analysis the collisions have been broken down to reflect their location at or on approach to specific junctions.
- 3.5.3 For the latest 5-year period, there has been a total of 17 collisions occurring within the study area. Of these collisions, all are slight with the exception of 1 serious collision occurring at A40 northern arm of the Pensarn roundabout.
- 3.5.4 The serious collision involved 0 pedestrians or cyclists and caused 4 casualties with the involvement of 3 vehicles.
- 3.5.5 Over the 5-year period, the 17 collisions have involved a total of 1 pedestrian, 0 cyclists and 43 vehicles. The collisions caused a total of 23 causalities.
- 3.5.6 There is a collision cluster evident at the A48 arm of the Pensarn roundabout.

3.5.7 Based on the analysis carried out there is therefore no obvious highway safety pattern or problem within the study area which it is considered could be exacerbated by the proposed development.

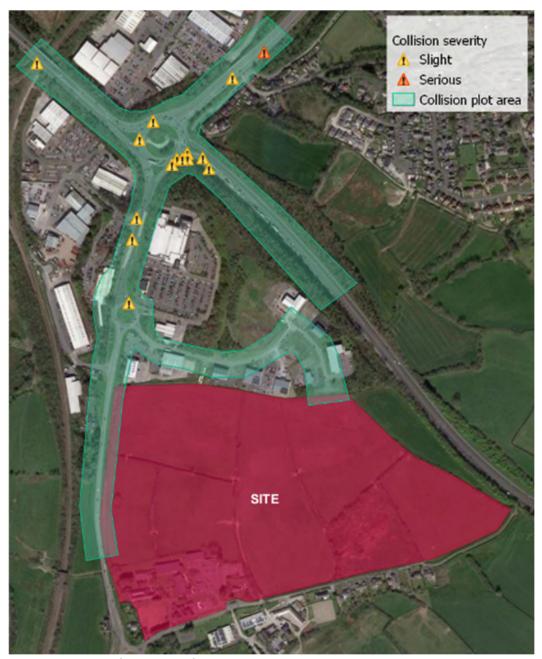


Figure 3.8 Personal Injury Accident Locations

# 4 SUSTAINABLE ACCESSIBILITY

#### 4.1 Local Facilities and Amenities

- 4.1.1 There are a number of publications which suggest guidance for appropriate walking and cycling distances to facilities. For reference, a number of quotes from relevant documents have been summarised as follows. While the TA 91/05 has been superceded by CD 143 and by National acidity Appendices, these statements are still valid.
  - walking as a mode of travel predominates for journeys of less than two miles whilst cycling is more convenient for longer journeys, typically of up to five miles for regular journeys. (Paragraph 4.1.4, Active Travel Design Act, Welsh Government)
  - Two miles is 'a distance that could easily be walked by the majority of people'

    (Paragraph 2.2, TA91/05 Provision for Non-motorised Users, DfT)
  - Walking is used to access a wide variety of destinations including places of work, normally within a range of up to 2 miles (Paragraph 2.3, TA91/05 Provision for Non-motorised Users, DfT)
  - Cycling is used for accessing a variety of different destinations, including places
    of work, up to a range of around 5 miles. Cycling is also undertaken as a leisure
    activity, often over much longer distances (Paragraph 2.11, TA91/05, DfT)
  - 80% of journeys shorter than 1 mile (1.6km) are made wholly on foot (Section 2.1, Planning for Walking, CIHT).
  - Five miles is a distance that could easily be cycled by the majority of people (Paragraph 2.9, TA91/05, DfT)
  - for commuter journeys, a trip distance of over five miles is not uncommon and Novice and occasional leisure cyclists will cycle longer distances where the cycle ride is the primary purpose of their journey. A round trip on a waymarked leisure route could easily involve distances of 20 to 30 miles. Experienced cyclists will

often be prepared to cycle longer distances for whatever journey purpose (Paragraph 1.5.1, LTN02/08, DfT)

- 4.1.2 Therefore, for the purposes of this TA, journeys of up to 3.2km have been considered as a reasonable and appropriate distance.
- 4.1.3 The local facilities and amenities as set out in **Table 3.1** have therefore been identified to be within appropriate walking and cycling distance from the site.
- 4.1.4 The walking and cycling times have been calculated based on 80 metres per minute (4.8kph) as set out in the CIHT guidance document 'Providing for Journeys on Foot' and the 320 (12mph) metres per minute based on DfT guidance set out in LTN2/08.

Facility / Amenity	Distance (m)	Walking Time (mins)	Cycling Time (mins)
Morrisons	250	3	2
Bus Stop	350	4	3
Coleg Sir Gar	350	4	3
Pensarn Retail Park (South of A40)	600	7	5
Pensarn Retail Park (North of A40)	900	11	7
Royal Mail Sorting Office	1,000	12	8
Llangunnor School	1,300	16	10
Carmarthen Rail Station	1,500	18	12
Morfa Lane Surgery	1,800	22	14
Tesco Extra	1,900	23	15
Dentist	2,100	25	17
Carmarthen Town Centre	2,100	25	17
Carmarthen Leisure Centre	2,800	34	22
Queen Elizabeth High School	2,800	34	22
University of Wales Trinity St Davids	3,100	37	25
St Davids Hospital	3,300	40	26
Glangwili Hospital	3,600	43	29

Table 4.1 Local Facilities and Amenities within walking distance

- 4.1.5 This data demonstrates that there are a large number of local facilities within the immediate vicinity of the site which are well within the 2-mile distance (3.2km) identified by the active travel act as a reasonable distance up to which walking predominates.
- 4.1.6 In addition, a large number of these local facilities and amenities including a retail park, educational establishments, rail station and a post office are within the 1-mile threshold

which is identified by planning for walking (CIHT) as a distance at which 80% of movements are solely made on foot.

4.1.7 There are also two bus stops located within 400 metres walking distance of the centre of the proposed development site. This is identified as the desirable walking distance within CIHT guidance set out in providing for journeys on foot.

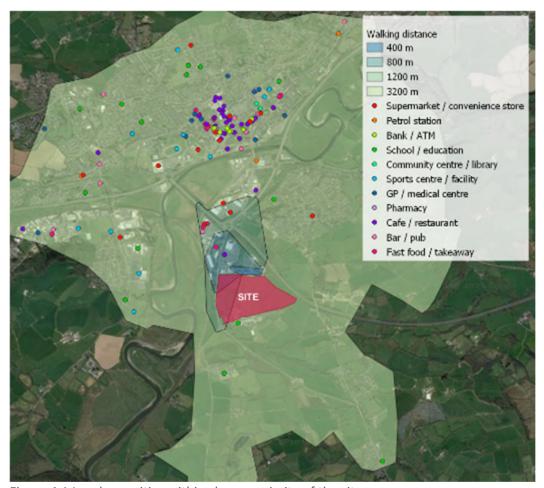


Figure 4.1 Local amenities within close proximity of the site

- 4.1.8 This data demonstrates that there are a large number of local facilities within the immediate vicinity of the site which are well within the 2-mile distance (3.2km) identified by the active travel act as a reasonable distance up to which walking predominates.
- 4.1.9 In addition, a large number of these local facilities and amenities including a retail park, educational establishments, rail station and a post office are within the 1-mile threshold which is identified by planning for walking (CIHT) as a distance at which 80% of movements are solely made on foot.

- 4.1.10 There are also two bus stops located within 400 metres walking distance of the centre of the proposed development site. This is identified as the desirable walking distance within CIHT guidance set out in providing for journeys on foot.
- 4.1.11 It should also be noted that as part of the Carmarthenshire Active Travel Integrated Network Map proposals that a walking and cycling route (ref: C15) is being sought to link infrastructure along the A484 with Johnstown.
- 4.1.12 This would reduce the distance required for future residents at the proposed development site to access local facilities and amenities including the Carmarthen Leisure Centre and the Queen Elizabeth High School.

## 4.2 Active Travel

### **Pedestrian Infrastructure and Routes**

- 4.2.1 There is a well-established network of pedestrian infrastructure within the immediate vicinity of the development site.
- 4.2.2 Along the A484 there is a continuous 3-metre-wide shared use walking and cycling route along the western side of the A484 on the site frontage. This forms part of the National Cycle Network Route 4 as set out in the next section of this report.
- 4.2.3 Although there is no infrastructure provision on the eastern side of the A484 at present there is a verge which can accommodate pedestrian movements should this be required to facilitate pedestrian movements associated with the proposed development.
- 4.2.4 The walking and cycling infrastructure and the adjacent verge along the A484 on the site frontage are both shown in **Photograph 4.1.** Pedestrian movements between the walking and cycling infrastructure along the A484 is also facilitated via a 2-metre-wide footway on the southern side of Llys Y Deri as shown in **Photograph 4.2.**



Photograph 4.1 A484 Pedestrian Infrastructure



Photograph 4.2 Llys Y Deri Pedestrian Infrastructure

4.2.5 This footway infrastructure will seamlessly connect with walking and cycling routes within the development to ensure that there is a high degree of sustainable accessibility for pedestrians accessing individual residential properties within the proposed development site.

4.2.6 Footway infrastructure along the A484 (NCN4) continues to the north connecting the development site with various local facilities and amenities located in and around Carmarthen. Between the development and the wider area of Carmarthen the alignment of the A48 and A40 trunk roads does however result in a severance effect. This severance is however reduced by the presence of an underpass bypassing the Pensarn Roundabout as well as a shared use walking and cycling route along the eastern side of the A484.

4.2.7 Likewise, the alignment of the rail line and river Towy also separate the proposed development from the Johnstown area of Carmarthen. However, as previously mentioned proposals are currently being investigated as part of the integrated network map to provide a dedicated walking and cycling between these two areas and this reducing the severance effect currently experienced by both the rail line and the river.

#### **Cycling Infrastructure and Routes**

4.2.8 National cycle network route 4 runs along the A484 directly adjacent to the site. NCN route 4 is a long-distance cycle route from London to Fishguard. Locally, the route provides connections to Llanelli and Swansea. At Carmarthen town centre in the north, NCN route 4 connects to NCN route 47.

4.2.9 On the western side the A484 carriageway there is a 3-metre-wide shared use walking and cycling route. To the north this provides a direct route to Carmarthen Town Centre and Rail Station and to the south it provides a connection to Kidwelly.

4.2.10 The route within the immediate vicinity of the site is shown in **Figure 4.2.** 



Figure 4.2 NCN routes within close proximity of the site

# **Active Travel Future Proposals**

- 4.2.11 The Welsh Government Active Travel Network Map shows future potential walking and cycling routes within proximity of the development site, as shown in **Figure 4.3.**
- 4.2.12 From 20<sup>th</sup> February, to 2<sup>nd</sup> April 2023, an 'Active Travel Carmarthen' public consultation will run for the community to view proposals and give feedback on the proposals.

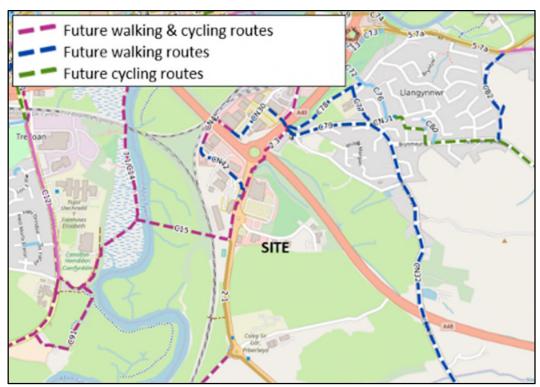


Figure 4.3 Welsh Government Active Travel Network Map

# 4.3 Public Transport

4.3.1 Public transport infrastructure within proximity of the development site is shown in **Figure 4.4.** 

#### Bus

- 4.3.2 There are two bus stops located along the A484 within close proximity of the site frontage. These are shown in **Figure 4.4** and are located adjacent to the Morrisons supermarket and Coleg Sir Gar and which bound the northern and southern periphery of the site respectively.
- 4.3.3 The Morrison's and Coleg Sir Gar bus stops both benefit from lay-bys on both sides of the carriageway, shelters, seating, timetable information and raised kerbs.

4.3.4 Both of these bus stops are linked to the proposed development via existing footway linkages adjacent to the surrounding local highway network. The services which operate from these stops are summarised in **Table 4.2.** 



Figure 4.4 Public Transport Infrastructure

Route No.	Destination	Frequency		
195	Carmarthen - Llanelli	Mon-Sat: ~ every 2 hours from 07:18-18:48		
195	Llanelli - Carmarthen	Mon-Sat: ~ every 2 hours from 07:02-18:32		
197	Carmarthen - Llanelli	Mon-Sat: Every 2 hrs from 08:23-18:13		
	Llanelli - Carmarthen	Mon-Sat: Every 2 hrs from 08:06-16:06		
400	Four Roads - Carmarthen	Mon-Sat: 08:38, 10:44, 14:58 & 17:51		
198	Carmarthen - Four Roads	Mon-Sat: 08:58, 13:13, 16:13 & 18:03		
215	Carmarthen - Llanpumpsaint circular	Mon-Sat: 09:48 & 13:10		
B13	Carmarthen - Tregynnwr - Carmarthen	Mon-Sat: 10:18 &13:03		
X11	Swansea - Carmarthen	Mon-Sat: ~ half hourly from 08:06-19:20		
XII	Carmarthen - Swansea	Mon-Sat: ~ half hourly from 06:48-17:48		

Table 4.2 Bus services within proximity

#### Rail

- 4.3.5 Carmarthen Rail Station is located within 2.6km walking and cycling distance of the site and is easily accessible by bus from the site as has previously been set out.
- 4.3.6 The following facilities are present at the station:
  - 8 cycle parking stands
  - 85 space Car Park
  - Plusbus
  - Taxi rank
  - Ticket Office/Shops/Toilets
- 4.3.7 A plan of the station environment is shown in **Figure 4.5.**

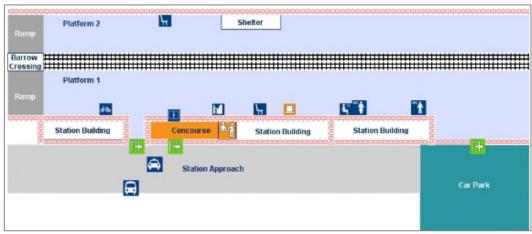


Figure 4.5 Carmarthen Station Layout Plan

- 4.3.8 Carmarthen Rail Station is Located along the West Wales Line with direct services to Manchester (Hourly), Milford Haven (2 Hourly), Pembroke Dock (2 Hourly), Swansea (Hourly) and Cardiff.
- 4.3.9 The location of the site therefore offers good connectivity to not only the local and regional environment but also the wider national area.

# 5 DEVELOPMENT PROPOSALS

#### 5.1 Overview

- 5.1.1 The latest development proposals for the site are listed below with the site layout shown in **Appendix D**:
  - 4.9 hectares residential: 171 dwellings at 35 per ha.
  - 3.8 hectares Reserved Land Residential: 135 dwellings at 35 per ha.
  - 5.9 acres Incubator Retail Park (15 Units + Office)
- 5.1.2 The site has previously been included in the Local Development Plan (site ref:GA1/MU2). This states the following:

'Due to the strategic location and the prominence of the site, any development on the site must be of high quality. Acceptable uses on the site include:

- B1 Business: Offices not within A2. Research and Development, studios, laboratories, high tech, light industry.
- B2 General Industrial: Appropriate uses that don't have an adverse impact on neighbouring uses.
- B8 Storage or Distribution: Wholesale warehouse, distribution centres, repositories.
- D1 Non-residential Institutions: non-residential education and training centres –
   relating to the extension of the Coleg Sir Gâr campus.
- Other suitable uses may include, subject to amenity considerations:
  - Car showrooms and sales (sui generis);
  - Hotel (C1);

Use Classes B1, B2 and B8 will be restricted to 15.5ha of the overall site. for the development of 15.5ha of B1 / B2 / B8 land uses.'

#### 5.2 Access

#### Vehicular

- 5.2.1 The residential and employment elements of the proposed development will have separate access points:
  - Residential via a new priority junction on the A484 located to the south of the Morrisons Roundabout, providing access to a new residential access road. Each of the 3 plots being accessed via dedicated priority junctions off this new access road.
  - Employment via extensions of the existing Llys Y Deri accessed via the A484
     Morrisons roundabout
- 5.2.2 If the reserved plots are to be developed as residential units the western plot would be accessed via the proposed new residential access road from the A484, with the eastern plot being accessed from the south via Pibwrlwyd Lane.
- 5.2.3 Swept Path analysis into the proposed residential and employment areas has been undertaken ad is shown in **Appendix E**.

# **Walking and Cycling**

5.2.4 Walking and Cycling access will be achieved from the shared use path along the A484 with internal infrastructure designed to allow for integration of the internal active travel network to the surrounding existing and proposed active travel network.

# **Public Transport**

- 5.2.5 As part of the development proposals the provision of bus services accessing the site will be investigated with the council and the local bus operators.
- 5.2.6 This would facilitate improved accessibility to the site by public transport.
- 5.2.7 This could be achieved through the provision of a dedicated bus route through the site running parallel to the A484 with bus gate provision access / egress to the wider development site from Pibwrlwyd Lane.

## 5.3 Internal Layout

5.3.1 The internal layout will be designed in accordance with guidance set out in the 2018 Carmarthenshire County Council Highways Design Guide and Manual for Streets.

## 5.4 Car Parking

- 5.4.1 Car parking on the site will be provided in line with CSS Wales car parking standards as adopted in 2014 and set out in the 2018 Carmarthenshire Highways Design Guide.
- 5.4.2 The exact level of parking provided on site will be subject to the accommodation schedule which will be confirmed as part of any forthcoming planning application.
- 5.4.3 The guidance suggests that for the individual site uses proposed on site the maximum car parking provision as set out in **Table 5.1** be provided.

Land Use	Car Parking Standard
C3 Residential	Residents: One space per bedroom (max 3)
C5 Residential	Visitors: one space per 5 units
Caro Villago	Residents: 1 space per 2 – 4 units
Care Village	Visitors: 1 space per 4 units
B1 Offices	One space per 20sqm
B2 / B8	One per 20 – 140 sqm and operational space as per requirements
Hotel	1 commercial space and 1 space per 3 non-resident staff and 1 space
notei	per bedroom
	1 commercial space and 1 space per each member of teaching staff,
College	1 space per 2 ancillary staff, 1 space per 3 students and 5 visitor
	spaces.

Table 5.1 Car Parking Standards by Land Use

## 5.5 Cycle Parking

- 5.5.1 Cycle parking at the proposed development will be provided in accordance with CSS Wales adopted parking standards.
- 5.5.2 The exact quantum will be dependent on the accommodation schedule associated with the development which will be confirmed as part of any forthcoming planning application for the site.
- 5.5.3 The guidance suggests that for the individual site uses proposed on site the minimum cycle parking provision as set out in **Table 5.2** be provided.

Land Use	Car Parking Standard
C3 Residential	Within curtilage of individual dwellings
C3 Residential	1 stand per 5 bedrooms for apartments
Care Village	Long Stay: 1 stand per 20 bed spaces
Care village	Short Stay: 1 stand per 20 bed spaces
B1 Offices	Long Stay: 1 stand per 200sqm
B1 Offices	Short Stay: 1 stand per 1000sqm
B2 / B8	Long Stay: 1 stand per 500sqm
DZ / DO	Short Stay: 1 stand per 1000sqm (excluding storage uses)
Hotel	Long Stay: 1 stand per 5 bedrooms
Hotel	Short Stay: 1 stand per 40sqm of public floor space
College	Long Stay: 1 stand per 5 staff and 1 stand per 6 students of age 17+
College	Short Stay: 1 stand per 100 students

Table 5.2 Cycle Parking Standards by Land Use

# 5.6 Construction Impact

- 5.6.1 It is considered that as part of any planning application being granted on the site that this would need to be accompanied by an appropriately worded condition to secure a Construction Traffic Management Plan (CTMP) prior to the commencement of the works on site.
- 5.6.2 The purpose of a CTMP is to ensure that the effect of construction traffic is mitigated against and any air quality issues and seeks to control, the timings, routing and volume of traffic entering / leaving the site during this period.
- 5.6.3 Measures would be adopted during the construction of the site to minimise the impact of construction traffic movements with potential measures set out as follows.
  - The production of a plan detailing measures to reduce the contract duration and the number of trips made
  - Techniques and measures will be implemented, where practical, to assist in minimising construction freight trips on the local highway network, particularly during peak network and school times (such as a vehicle booking system)
  - All construction worker vehicles would be accommodated on the site
  - Measures will be set out to encourage construction staff to reduce car use to the site, particularly through car sharing and also where feasible by public transport, walking and cycling

 Wheel washing and dust sheeting will be undertaken to reduce the impact of mud, dust and dirt on the local highway network

# **6** TRIP GENERATION

### 6.1 Introduction

- 6.1.1 In order to assess the impact of the site on the existing transport infrastructure, it is necessary to assess the likely level of vehicular trips generated by the proposed mixed-use development on the site.
- 6.1.2 This section of the report outlines the methodology used to predict traffic generation for the proposed development, and provides an estimate of future trips to/from the development site.
- 6.1.3 To ensure a robust assessment it has been assumed that there is no existing use on site at this time.

## 6.2 Existing Allocation

- 6.2.1 It is understood that based on the allocation within the LDP the site has previously been put forward to accommodate around 15.5 hectares of B1 / B2 / B8 land use.
- 6.2.2 The South Wales and Mid Wales Traffic and Transport Model takes into account that this allocation could generate 1,502 by 2027 (50% build out) and 3,004 jobs by 2043 (100% build out).
- 6.2.3 The level of trips which could have been generated by the proposed development taking into account the site area has been calculated based on the TRICS 7.7.4 database.
- 6.2.4 The following parameters have been applied to identify directly comparable sites within the database:
  - Sites within the TRICS category 02 Employment; D Industrial Estate
  - Sites in England and Wales (excluding London)
  - Surveys carried out on weekdays (Monday Friday)
  - Sites comprising of a site area of between 2 and 10 hectares
  - Surveys carried out from January 2000

- Sites in Edge of Town locations
- Sites with a population of up to 15,000 within 1 mile and 100,000 within 5 miles
- 6.2.5 The average of the total vehicle trip generation is summarised in **Table 6.1** and the full TRICS output is included in **Appendix F.**

Peak Period	Trip	Rate (per l	na)	Vehicular Trips			
Peak Periou	Arrive	Depart	Total	Arrive	Depart	Total	
AM Peak (0800-0900)	0.271	0.091	0.362	814	273	1087	
PM Peak (1700-1800)	0.066	0.25	0.316	198	751	949	

Table 6.1 Trip Generation Extant Allocation

- 6.2.6 This data demonstrates that the employment element of the site could generate a total of up to around 1,087 two-way vehicular movements during the network peak hours.
- 6.2.7 In addition, some of these vehicular movements are likely to be HGV's accessing the individual units which will be proposed on site. As per the trip rates this generally equates to around 13% of all vehicular movements.
- 6.2.8 It is therefore considered that this represents the extant position with regard to the allocation of the site.

# 6.3 Proposed Use

## Residential - Plots 1-3

- 6.3.1 To ensure a robust assessment it has been considered that all proposed 171 residential units proposed on site will be privately owned.
- 6.3.2 The total vehicular trip generation rates for the 171 privately owned dwellings have been obtained from the TRICS 7.9.2 trip generation database. Sites have been selected on the basis of the following parameters:
  - Sites within the TRICS category 03 Residential; A Houses Privately Owned
  - Sites in England, Scotland and Wales (excluding London)
  - Surveys carried out on weekdays (Monday Friday)
  - Sites containing between 50 and 500 dwellings

- Surveys carried out from January 1 2014
- Sites in Edge of Town and Suburban locations
- Sites with a population of up to 20,000 within 1 mile and 100,000 within 5 miles
- 6.3.3 The calculated vehicular trip generation rates and resultant trip generation for 171 dwelling is summarised in **Table 6.2** with the full TRICS output included in **Appendix H.**

Peak Period	Trip Rate (per dwelling)		elling)	Vehicular Trips (171 dwellings)			
	Arrive	Depart	Total	Arrive	Depart	Total	
AM Peak (0800-0900)	0.140	0.397	0.537	24	68	92	
PM Peak (1700-1800)	0.363	0.184	0.547	62	31	94	

Table 6.2 Total Vehicular Trip Generation – Houses Privately Owned

6.3.4 This data demonstrates that the dedicated residential element of the site could generate a total of up to around 94 two-way vehicular movements during the network peak hours.

### Residential - Reserved Land

6.3.5 Using the trip rates derived above, the forecast trip generation of the 2 plots of reserved land for a residential land use of 135 dwellings summarised in **Table 6.3**.

Peak Period	Trip Ra	ite (per dw	elling)	Vehicular Trips (135 dwellings)			
	Arrive	Depart	Total	Arrive	Depart	Total	
AM Peak (0800-0900)	0.140	0.397	0.537	19	54	72	
PM Peak (1700-1800)	0.363	0.184	0.547	49	25	74	

Table 6.3 Total Vehicular Trip Generation – Houses Privately Owned

6.3.6 This data demonstrates that the reserved land element of the site, if subject to residential land use could generate a total of up to around 74 two-way vehicular movements during the network peak hours.

## Office (B1)

- 6.3.7 Trip generation rates for the 2,412m² of Office use has been derived from the TRICS 7.9.2 trip generation database.
- 6.3.8 Sites have been selected on the basis of the following parameters:
  - Sites within the TRICS category 02/A Employment/Office

- Sites in England, Scotland and Wales (excluding London)
- Surveys carried out on weekdays (Monday Friday)
- Sites with a Gross Floor Area (GFA) of between 500 and 5,000 m<sup>2</sup>.
- Surveys carried out from January 1 2014
- Sites in Edge of Town locations
- Sites with a population of up to 15,000 within 1 mile and 100,000 within 5 miles
- 6.3.9 The application of these parameters identified two directly comparable sites.
- 6.3.10 The average of the trip generation rates is summarised in **Table 6.4** and the full TRICS output is included in **Appendix H.**

Peak Period	Trip	Rate (per r	n²)	Vehicular Trips (2,412m²)			
Peak Period	Arrive	Depart	Total	Arrive	Depart	Total	
AM Peak (0800-0900)	0.927	0.328	1.255	22	8	30	
PM Peak (1700-1800)	0.054	1.275	1.329	1	31	32	

Table 6.4 Vehicular Trip Generation - Office

6.3.11 This data demonstrates that the hotel proposed on site could generate around 30 vehicular movements during the AM and 32 two-way vehicular movements during the PM peak.

### **Incubator Units**

- 6.3.12 Trip generation rates for the 3285 m² of land allocated Employment Incubator Units have been derived from the TRICS 7.9.2 trip generation database.
- 6.3.13 Sites have been selected on the basis of the following parameters:
  - Sites within the TRICS category 02/C: Employment/Industrial Unit
  - Sites in England, Scotland and Wales (excluding London)
  - Surveys carried out on weekdays (Monday Friday)
  - Sites with a site area of between 2950-8000m<sup>2</sup>

- Surveys carried out from January 1 2014
- Sites in Edge of Town locations
- Sites with a population of up to 25,000 within 1 mile and 50,000 within 5 miles
- 6.3.14 The application of these parameters identified two directly comparable sites.
- 6.3.15 The average of the trip generation rates is summarised in **Table 6.5** and the full TRICS output is included in **Appendix I.**

Peak Period	Trip	Rate (per	Vehicular Trips			
Peak Periou	Arrive	Depart	Total	Arrive	Depart	Total
AM Peak (0800-0900)	0.155	0.073	0.228	5	2	7
PM Peak (1700-1800)	0.018	0.165	0.183	1	5	6

Table 6.5 Vehicular Trip Generation – Employment Incubator Units

6.3.16 This data demonstrates that the Employment Incubator Units proposed on site could generate around 7 two-way vehicular movements during the AM and 6 two-way vehicular movements during the PM peak.

## **Committed Development - Discount Food Store**

- 6.3.17 It is proposed to construct a Discount Food Store adjacent to the eastern side of the A484 and to the south of the existing Halfords Store, which would use the same new access road as the proposed residential development. The trip generation rates for the proposed 2,300m² ALDI store has again been derived from the TRICS 7.9.2 trip generation database.
- 6.3.18 Sites within the database have been selected on the basis of the following parameters:
  - Sites within the TRICS category 01/C: Retail/Discount Food Stores
  - Sites in England, Scotland and Wales (excluding London)
  - Surveys carried out on weekdays (Monday Friday)
    - Surveys carried out from January 1 2014
  - Sites in Edge of Town locations

- Sites with a population of up to 25,000 within 1 mile and 100,000 within 5 miles
- 6.3.19 The application of these parameters identified twelve directly comparable sites.
- 6.3.20 The average of the trip generation rates is summarised in **Table 6.6** and the full TRICS output is included in **Appendix J.**

Peak Period	Trip	Rate (per	ha)	Vehicular Trips			
Peak Period	Arrive	Depart	Total	Arrive	Depart	Total	
AM Peak (0800-0900)	2.37	1.61	3.99	55	37	92	
PM Peak (1700-1800)	4.31	4.39	8.70	99	101	200	

Table 6.6 Vehicular Trip Generation – Discount Food Store

6.3.21 This data demonstrates that a 2,300m<sup>2</sup> Discount Food Store could result in the generation of around 92 two-way vehicular movements during the AM and 200 two-way vehicular movements during the PM peak.

## 6.4 Trip Generation Scenarios

- 6.4.1 At this relatively early stage in the development process there are a number of potential future year scenarios that could be developed. For the purposes of this analysis a number of future year development scenarios have been defined:
  - 1. Residential, Plots 1-3 and employment (Incubator Units and Office)
  - Residential, Plots 1-3 & Reserve Land and employment (Incubator Units and Office)
  - 3. Committed Development with regards to the proposed Discount Foodstore adjacent to the proposed development site.
  - 4. Residential, Plots 1-3 and employment (Incubator Units and Office) and Discount Food Store
  - Residential, Plots 1-3 & Reserve Land and employment (Incubator Units and Office) and Discount Food Store

## 6.5 Total Trip Generation

- A summary of the total trip generation which could be associated with the site for the various development scenarios is set out in **Table 6.7.**
- 6.5.2 It should be noted that this does not account for any linked or diverted trips and is therefore considered a robust assessment.

Period	Pibrlwyd - Total Trip Generation							
	IN	OUT	TOTAL					
1	. Residential Plots 1-	3 & Employment						
AM (08:00)	51	78	130					
PM (16:30-17:30)	64	68	132					
2. Resi	2. Residential Plot 1-3 & Reserved & Employment							
AM (08:00)	70	132	202					
PM (16:30-17:30)	113	92	205					
	3. Committed/	Foodstore						
AM (08:00)	55	37	92					
PM (16:30-17:30)	99	101	200					
4. Residentia	al Plot 1-3 & Employ	ment & Discount	Food Store					
AM (08:00)	106	115	221					
PM (16:30-17:30)	163	169	332					
5. Residential Plots	1-3 & Reserved & E	mployment & Dis	scount Food Store					
AM (08:00)	125	169	294					
PM (16:30-17:30)	212	193	405					

Table 6.4 Total Vehicular Trip Generation

- As can be seen from this data there is a wide range of potential trip generation between approximately 130 2-way peak hour trips with development trip Scenario 1, which excludes the reserved land and the committed development, to 300-400 2-way trips for development scenario 4, including the reserved land as residential and the committed development of the Discount Food Store.
- 6.5.4 The highest level of forecast trip generation is provided by development scenario 5 (Residential, Plots1-3 & Reserved Alnd, Employment and Committed) is lower than the overall extant trip generation for the local plan development site.

# 7 IMPACT ANALYSIS

### 7.1 Future Year Base Traffic Flows

- 7.1.1 Future year assessments have been carried out at the anticipated year of opening 2027 and forecast future design year of 2037.
- 7.1.2 Growth rates to allow for background growth on the local highway network have been calculated using TEMPro v72 which extrapolates data from the National Trip End Model (NTEM) dataset.
- 7.1.3 TEMPro growth factors make allowances for growth forecasts included in the NTM and NTEM datasets. As such, this allows for all future development sites included in the Carmarthenshire Local Development Plan as adopted in December 2018.
- 7.1.4 These growth rates and the associated NTM/NTEM inputs include for allocated sites within the Carmarthen LDP. As such, these growth rates allow for the previously allocated site.
- 7.1.5 The factors to be applied to the 2023 baseline surveyed flows are shown in **Table 7.1.**
- 7.1.6 The relevant Traffic Flow Diagrams for the 2027 and 2037 Forecast Base Scenarios are included in **Appendix K.**

Carmarthenshire 008: W02000149 (Carmarthen South & Llangynnwr)							
TEMPro Flow Profiles 2023 - 2027							
AM Weekday Peak (0700-0959)	1.0353						
PM Weekday Peak (1600-1859)	1.0347						
TEMPro Flow Profiles 2023 - 2037							
AM Weekday Peak (1600-1859)	1.1236						
PM Weekday Peak (1600-1859)	1.1227						

Table 7.1 NTM Growth Factors

#### 7.2 Distribution

# 7.3 Proposed Development

#### Residential

- 7.3.1 Traffic distribution associated with the residential element of the proposed development has again been distributed using a mixture of observed turning proportions at the study area junctions and Census data. The census data used is from Table WU03EW of the 2011 Census 'Location of Usual Residence and Place of Work by Method of Travel to Work (MSOA Level)'.
- 7.3.2 However, to reflect the residential nature of the proposed development the location of usual residence has been set as MSOA Carmarthenshire 008. This allows for distribution to work from a residential location on site.
- 7.3.3 The traffic distribution and associated assignment is shown in the traffic flow diagrams included in **Appendix L.**

### **Employment – Office and Incubator Units**

- 7.3.4 Traffic distribution associated with the employment element on site has been carried out using the observed turning proportions initially for the Llys Y Deri arm of the Morrisons roundabout with the relevant turning proportions at subsequent junctions.
- 7.3.5 The associated assignment is included in the Traffic Flow Diagrams included in **Appendix**M.

#### **Discount Foodstore**

- 7.3.6 Traffic distribution associated with the employment element on site has been carried out using the observed turning proportions initially for the Morrisons arm of the Morrisons roundabout with the relevant turning proportions at subsequent junctions.
- 7.3.7 This distribution analysis and associated assignment is shown in the traffic flow diagrams included in **Appendix N.**

## **Total Development Trip Generation and Assignment**

7.3.8 The resultant total forecast trip generation as assigned to the survey network is shown for each of the 5 specified development scenarios in **Appendix O**.

### **Future Year Forecast Trip Generation and Assignment**

7.3.9 The Forecast trip generation assignment flows for each development scenario have been added to the future year 2027 and 2037 base traffic flows to provide the future year base resultant total forecast trip generation as assigned to the survey network are shown in **Appendix P.** 

## 7.4 Percentage Impact Assessments

- 7.4.1 For the purposes of this analysis the impact of development scenarios 1 to 5 have been calculated in order to provide the range of impact over all scenarios.
- 7.4.2 A percentage impact assessment has been undertaken at the individual junctions within the study area to establish the forecast change in traffic flows for the 2027 future year for each of the 5 defined development scenarios.
- 7.4.3 As the development flows will be the same in both 2027 and 2037 the 2037 percentage impact will necessarily be less than for 2027. Therefore, for the purposes of this analysis only the 2027 traffic flows have been used to assess the percentage impact at each junction.
- 7.4.4 With regards to the forecast impact of increased traffic flows at junctions with respect to development traffic the normally applied industry standard is that operational capacity analysis is required if the proposed development has over a 5% impact on a minimum of one arm of a junction.
- 7.4.5 The increase in overall junction traffic flows for each of the development scenarios are summarised in **Table 7.2**. This data shows that for the committed development the forecast increase in traffic flows for the existing junctions, ranges between 1% for the Pensarn and Pibwrlwyd roundabouts for the AM peak hour to 7% for the Morrison's roundabout during the AM peak hour.

- 7.4.6 This data shows that for the proposed new site access junction on the A484 that the forecast traffic flow increase ranges between 5% during the AM peak hour for development scenario 1 and 21% during the PM peak hour for development scenario 5.
- 7.4.7 The overall impact on the existing junctions ranges between 1% for the Pibwrlwyd roundabout for development scenarios 1 and 2 to 15% for the Morrisons roundabout for development scenario 5.

		Development Scenario									
Junction		1: Residential Plots 1-3 & Employment		2: Residential Plots 1-3, Reserved Land & Employment		3: Committed Discount Foodstore		4: Residential Plots 1-3 & Employment & Committed		5: Residential Plots 1-3, Reserved Land & Employment & Committed	
					AM						
1	A484/Site Access	100	6%	173	10%	92	5%	192	11%	265	15%
2	A40/A48 Pensarn Roundabout	102	2%	148	3%	45	1%	147	3%	204	4%
3	A484/Morrisons Roundabout	121	5%	187	8%	64	3%	185	8%	251	11%
4	A484/Pibrlwyd Roundabout	17	1%	23	1%	28	1%	44	2%	51	3%
					PM						
1	A484/Site Access	67	5%	114	9%	154	12%	222	17%	268	21%
2	A40/A48 Pensarn Roundabout	99	2%	124	2%	91	2%	190	4%	245	5%
3	A484/Morrisons Roundabout	123	6%	190	9%	148	7%	271	12%	339	15%
4	A484/Pibrlwyd Roundabout	17	1%	24	2%	52	4%	69	5%	75	6%

Table 7.2: 2027 Percentage Impact Assessment

- 7.4.8 The traffic impact of the proposed residential and employment developments without the committed foodstore development as defined in Scenario 1 and Scenario 2 (addition of reserved Land) is summarised in **Table 7.3** and **Table 7.4** respectively, for 2027 for the junctions as a whole and for individual arms.
- 7.4.9 The traffic impact of the proposed committed foodstore development as defined in Scenario 3 is summarised in **Table 7.5** for 2027 for the junctions as a whole and for individual arms.
- 7.4.10 The traffic impact of the proposed residential and employment developments with the committed foodstore development as defined in Scenario 4 and Scenario 5 (addition of reserved Land) is summarised in **Table 76** and **Table 7.7** respectively, for 2027 for the junctions as a whole and for individual arms.

- 7.4.11 With regards to development scenarios 1 and 2, without the committed development, the proposed site access junction as well as the Pensarn and Morrisons roundabouts exceed the 5% impact threshold for at least 1 arm, with the Pibwrlwyd roundabout impact ranging between 0.7% and 2.4%.
- 7.4.12 With regards to development scenarios 4 and 5, with the committed development, the proposed site access junction as well as the Pensarn and Morrisons roundabouts exceed the 5% impact threshold for at least 1 arm. For the Pibwrlwyd roundabout the impact exceeds the 5% impact threshold for the A484 arms of the roundabout.
- 7.4.13 For the purposes of this analysis each of the 4 junctions included in the study area network will be modelled for the traffic flows involved with development scenarios 1 and
  5. This will provide an appraisal of the range of forecast development trip generation and subsequent traffic impact.
- 7.4.14 The development proposals include mode shift targets away from the use of the private car, with Active Travel, Car Share, and Public Transport initiatives. The changing patterns of trip movements as a result of an increase in homeworking following the Covid pandemic have also not been taken into consideration.
- 7.4.15 In the trip generation and distribution calculations no account has been taken of the potential for pass-by and linked trips with regards the different existing and proposed land uses.
- 7.4.16 The forecast development flows as used in this analysis for development scenario 5 can be seen to represent the worst-case scenario in terms of forecast trip generation.

			2	027			
		Ba	se		Base + Dev	elopment	
	Junction	Junction Junction Arm			tion Total	Arr	n Total
		Total	Total	Flow	% Increase	Flow	% Increase
				AM			
			A484	/Site Acces	s		
	A484 North		684			708	3.5%
1	Site Access	1722	0	1822	5.8%	68	-
	A484 South		1037			1046	0.8%
		-	A40/A48 Pe	nsarn Roun	ndabout		
	A40 North		1378			1382	0.3%
2	A48	F102	831	F204	2.00/	850	2.2%
	A484	5102	1690	5204	2.0%	1707	1.0%
	A40 West		1203			1264	5.1%
			A484/Morr	isons Roun	dabout		
	A484 North		1055			1095	3.8%
3	Morrisons	2392	259	2513	5.1%	261	1.0%
	Llys Y Deri	2392	40	2515		51	26.1%
	A484 South		1037			1105	6.6%
			A484/Pibrl	wyd Round	labout		
	A484 North		672	1870		680	1.3%
4	Pibrlwyd Lane	1853	41		0.9%	42	0.5%
	A484 South	1855	850		0.570	858	0.9%
	Ysgol Bro Myrddin		290			290	0.1%
				PM			
			A484	/Site Acces	s		T
1	A484 North		817			847	3.7%
_	Site Access	1303	0	1370	5.2%	31	-
	A484 South		485			491	1.2%
			440/A48 Pe	nsarn Roun	dabout		T
	A40 North		1808			1813	0.3%
2	A48	5006	1065	5105	2.0%	1085	1.9%
	A484	3000	1143	3103	2.070	1165	1.9%
	A40 West		990			1042	5.2%
			A484/Morr	isons Roun	dabout		T
	A484 North		1202			1249	3.9%
3	Morrisons	2216	390	2340	5.6%	399	2.4%
	Llys Y Deri		139		2.0,0	176	27.2%
	A484 South		485			514	6.0%
				wyd Round	labout		Γ
	A484 North		797			808	1.4%
4	Pibrlwyd Lane	1289	66	1306	1.3%	67	0.8%
	A484 South	4	346	-		350	1.4%
	Ysgol Bro Myrddin		81			81	0.7%

Table 7.3: 2027 Percentage Impact Assessment - Development Scenario 1

				2027							
		Ва	ise		Base + Dev	elopment					
	Junction	Junction	Arm	Junct	tion Total		n Total				
		Total	Total	Flow	% Increase	Flow	% Increase				
		1		AM							
			A484	I/Site Acces	SS						
	A484 North		684			726	6.0%				
1	Site Access	1722	0	1895	10.0%	121	-				
	A484 South		1037			1047	1.0%				
			A40/A48 Pe	ensarn Roui	ndabout						
	A40 North		1378			1384	0.4%				
2	A48	1	831			856	3.0%				
	A484	5102	1690	5250	2.9%	1714	1.4%				
	A40 West		1203			1295	7.7%				
	A484/Morrisons Roundabout										
	A484 North		1055			1111	5.3%				
3	Morrisons		259	2570	7.8%	263	1.6%				
	Llys Y Deri	2392	40	2579		51	26.6%				
	A484 South		1037  A484/Pibrlwyd Roundabout  672		1154	11.3%					
			A484/Pibr	lwyd Roun	dabout						
	A484 North					685	2.0%				
4	Pibrlwyd Lane	1052	41	1077	1.20/	42	0.9%				
	A484 South	1853	850	1877	1.3%	859	1.1%				
	Ysgol Bro Myrddin		290			290	0.1%				
				PM							
			A484	/Site Acces	SS						
1	A484 North		817			865	5.8%				
1	Site Access	1303	0	1417	8.7%	56	-				
	A484 South		485			496	2.1%				
			A40/A48 Pe	ensarn Roui							
	A40 North		1808			1817	0.5%				
2	A48	5006	1065	5130	2.5%	1101	3.4%				
	A484		1143	3130	2.570	1181	3.3%				
	A40 West		990			1031	4.1%				
			A484/Mor	risons Roun	dabout						
	A484 North		1202			1285	6.9%				
3	Morrisons	2216	390	2407	8.6%	407	4.3%				
	Llys Y Deri	2210	139	240/	3.070	178	28.0%				
	A484 South		485			537	10.6%				
			A484/Pibr	lwyd Roun	dabout						
	A484 North		797			810	1.7%				
4	Pibrlwyd Lane	1289	66	1313	1.8%	67	1.5%				
	A484 South		346	1313	1.070	354	2.4%				
	Ysgol Bro Myrddin		81			82	1.2%				

Table 7.4 2027 Percentage Impact Assessment - Development Scenario 2

			2	2027			
		Ва	se		Base + Dev	/elopment	
	Junction	Junction	Arm	Junct	ion Total	Arı	m Total
		Total	Total	Flow	% Increase	Flow	% Increase
		•		AM			
			A484	/Site Acces	is s		
1	A484 North		684			721	5.3%
1	Site Access	1722	0	1813	5.3%	37	-
	A484 South	1	1037			1056	1.8%
		,	440/A48 Pe	nsarn Roui	ndabout		
	A40 North		1378			1393	1.1%
2	A48	F103	831	F1.47	0.00/	842	1.3%
	A484	5102	1690	5147	0.9%	1696	0.4%
	A40 West		1203			1215	1.0%
			A484/Morr	isons Roun	dabout		
	A484 North		1055			1087	3.1%
3	Morrisons	2392	259	2456	2.7%	262	1.3%
	Llys Y Deri	2392	40	2430	2.770	41	1.0%
	A484 South		1037			1065	2.7%
			A484/Pibr	lwyd Roun	dabout		
	A484 North		672			681	1.4%
4	Pibrlwyd Lane	1853	41	1881	1.5%	42	1.5%
	A484 South	1033	850	1001	1.5%	863	1.6%
	Ysgol Bro Myrddin		290			294	1.5%
				PM			
			A484	/Site Acces	s		
1	A484 North		817			854	4.4%
1	Site Access	1303	0	1457	11.8%	101	-
	A484 South		485			502	3.5%
			440/A48 Pe	nsarn Roui	ndabout		
	A40 North		1808			1844	2.0%
2	A48	5006	1065	5097	1.8%	1086	2.0%
	A484	3000	1143	3097	1.870	1152	0.7%
	A40 West		990			1015	2.5%
			A484/Morr	isons Roun	dabout		
	A484 North		1202			1269	5.5%
3	Morrisons	2216	390	2365	6.7%	404	3.5%
	Llys Y Deri	2210	139	2303	0.770	141	1.6%
	A484 South		485			551	13.6%
			A484/Pibr	lwyd Roun	dabout		
	A484 North		797			831	4.3%
4	Pibrlwyd Lane	1280	66	12/11	4.0%	68	3.0%
	A484 South	1289	346	<del></del>	4.070	358	3.6%
	Ysgol Bro Myrddin		81			83	3.4%

Table 7.5 2027 Percentage Impact Assessment - Development Scenario 3

		Ва	ise		Base + Dev	elopment/						
	Junction	Junction	Arm	Junct	tion Total	Arı	n Total					
		Total	Total	Flow	% Increase	Flow	% Increase					
				AM								
			A484	/Site Acces	SS							
1	A484 North		684			745	8.8%					
1	Site Access	1722	0	1914	11.2%	105	-					
	A484 South		1037			1064	2.6%					
			440/A48 Pe	nsarn Rou	ndabout							
	A40 North		1378	5249		1397	1.4%					
2	A48	5102	831		2.9%	861	3.5%					
	A484	3102	1690	3249	2.370	1714	1.4%					
	A40 West		1203			1277	6.1%					
			A484/Mori	isons Rour	dabout							
	A484 North		1055			1128	6.9%					
3	Morrisons	2392	259	2577	7.8%	265	2.4%					
	Llys Y Deri	2332	40	2377	7.070	51	27.1%					
	A484 South		1037			1133	9.2%					
			A484/Pibr	lwyd Roun	dabout	T	1					
	A484 North		672			690	2.6%					
4	Pibrlwyd Lane	1853	41	1898	2.4%	42	2.0%					
	A484 South		850		,0	871	2.5%					
	Ysgol Bro Myrddin		290			294	1.6%					
				PM								
	A484/Site Access											
1	A484 North	_	817			884	8.1%					
	Site Access	1303	0	1524	17.0%	132	-					
	A484 South		485			508	4.7%					
				nsarn Rou	ndabout		I/					
_	A40 North	1	1808			1849	2.3%					
2	A48	5006	1065	5196	3.8%	1107	3.9%					
	A484	1	1143			1173	2.6%					
	A40 West	Ĺ	990	<u> </u>		1066	7.7%					
	A 40 4 N; ;;			risons Rour	about	1216	0.40/					
2	A484 North	_	1202			1316	9.4%					
3	Morrisons	2216	390	2488	12.2%	413	5.9%					
	Llys Y Deri	-	139			179	28.8%					
	A484 South		485	hand D	dahat	580	19.6%					
	A 40 4 N ath		1	lwyd Roun	aapout	0/12	E 70/					
4	A484 North	1	797			842	5.7%					
4	Pibrlwyd Lane	1289	66	1358	5.3%	69	3.8% 5.0%					
	A484 South	1	346			363						
	Ysgol Bro Myrddin	<u> </u>	81			84	4.1%					

Table 7.6 2027 Percentage Impact Assessment - Development Scenario 4

			2	2027								
		Ва	ise		Base + Dev	elopment						
	Junction	Junction	Arm	Junct	tion Total		n Total					
		Total	Total	Flow	% Increase	Flow	% Increase					
				AM								
			A484	/Site Acces	ss							
1	A484 North		684			762	11.3%					
1	Site Access	1722	0	1986	15.4%	159	-					
	A484 South		1037			1066	2.7%					
		,	440/A48 Pe	nsarn Roui	ndabout							
	A40 North		1378			1399	1.5%					
2	A48	F102	831	F20C	4.00/	867	4.3%					
	A484	5102	1690	5306	4.0%	1721	1.8%					
	A40 West		1203			1319	9.7%					
			A484/Mori	risons Roun	dabout							
	A484 North		1055			1143	8.3%					
3	Morrisons	2392	259	2643	10.5%	267	3.0%					
	Llys Y Deri	2392	40	2043	10.5%	51	27.5%					
	A484 South		1037			1182	13.9%					
			A484/Pibr	lwyd Roun	dabout		T					
	A484 North		672			694	3.4%					
4	Pibrlwyd Lane	1853	41	1904	2.7%	42	2.4%					
	A484 South	1033	850	1304	2.770	873	2.7%					
	Ysgol Bro Myrddin		290			295	1.6%					
				PM								
	A484/Site Access											
1	A484 North		817			901	10.2%					
	Site Access	1303	0	1571	20.6%	157	-					
	A484 South		485			513	5.7%					
	A40/A48 Pensarn Roundabout											
	A40 North		1808			1853	2.5%					
2	A48	5006	1065	5251	4.9%	1122	5.4%					
	A484		1143			1190	4.0%					
	A40 West		990		11 .	1086	9.6%					
	A 40 4 N		A484/Mori	risons Roun	idabout	1252	12.40/					
_	A484 North		1202			1352	12.4%					
3	Morrisons	2216	390	2555	15.3%	420	7.8%					
	Llys Y Deri	-	139			180	29.6%					
	A484 South		485	hand D	daha+	603	24.3%					
	A 40 4 Nowth			lwyd Round	aapout	0/10	6.00/					
1	A484 North	1	797			845	6.0% 4.5%					
4	Pibrlwyd Lane	1289	66	1365	5.8%	69						
	A484 South	1	346	<u> </u>		366 84	6.0% 4.6%					
	Ysgol Bro Myrddin		81			04	4.0%					

Table 7.7 2027 Percentage Impact Assessment - Development Scenario 5

# 8 JUNCTION MODELLING

### 8.1 Overview

8.1.1 Modelling for all junctions has been undertaken using passenger car units (PCUs) with a value of two PCU's being applied to all bus and HGV movements. All other movements, including motorcycles have been assumed as one PCU.

### 8.2 Software

- 8.2.1 The capacity assessments of the three roundabout junctions have been carried out using TRL software package, Junctions 9. The modelling of the Pen Y Pound/Old Hereford Road/Avenue Road traffic signals junction has been undertaken using the industry standard LinSig software.
- 8.2.2 The modelling has been based on geometric measurements using OS map data supplemented with on-site measurements, where feasible.

## 8.3 Model Reporting Outputs

## **Junctions 9**

- 8.3.1 The outputs of Junctions 9 provide a number of measurements to ascertain information of a junction's operation. The key measurements which are considered in this assessment are:
  - 'Ratio of Flow to Capacity' (RFC),
  - Maximum queue length in PCUs,
  - Delay in seconds per vehicle
  - Level of Service indicated by a letter between A (well within capacity) and F (at or over capacity)
- 8.3.2 The main indication of the performance of a junction is given by the RFC for each lane.

  The peak capacity is realised when the demand flow at the entry is great enough to cause

a continuous queue of vehicles to wait on approach to the stop line. This is reached when the RFC attains a value of 1.

8.3.3 Queue lengths provide an indication of how the overall junction performance may affect adjacent junctions on the highway network. The queue lengths are presented as the maximum over an hourly period. Changes in queue lengths provide a useful indicator as to a development's impact on the operation of a junction.

# LinSig

- 8.3.4 The outputs of LinSig provide a number of measurements to ascertain information of a junction's operation. The key measurements which are considered in this assessment are:
  - 'Degree of Saturation' (DoS),
  - Mean Maximum queue length in PCUs,
  - Average Delay in seconds per PCU
  - Practical Reserve Capacity (PRC)
- 8.3.5 The main indicators of the performance of a junction are given by the DoS for each traffic movement at the junction as well as the PRC for a measure of the overall performance of the junction. The peak capacity is realised when the demand flow at the entry is great enough to cause a continuous queue of vehicles to wait on approach to the stop line. This is reached when the DoS attains a value of 1.
- 8.3.6 The PRC is a measure of the overall junction performance. The junction is modelled to achieve the best overall result balancing the opposing traffic flows to provide the optimal traffic signal timings and operation. A positive PRC shows there is reserve capacity at a junction while a negative PRC indicates a junction is over capacity.

## 8.4 Assessment Results Summary

8.4.1 All junction capacity modelling reports are included in the Appendices referenced below as with the results being discussed and summarised by junction as follows.

## 8.5 Junction 1: A484/Site Access

## 2027 & 2037 Future Years

- 8.5.1 Capacity assessments of the proposed A484/Site Access priority T-junction been undertaken using the Junctions 9 software in priority junction mode (PICADY), with the modelling report included in **Appendix Q**.
- 8.5.2 The results of the Base and the Base + Development scenarios for 2027 and 2037 are shown in **Table 8.1** for development scenario 1 and Table **8.2** for development scenario 5.

A484/Site Access Junction De	velopm	ent Scen	ario 1	Capacit	y Asse	ssment Re	sults	
				2	2027			
Movement		Bas	se		E	Base + Dev	elopmen	it
	Q	Delay	RFC	LOS	Q	Delay	RFC	LOS
	AM Pea	k (08:00-	09:00)					
Site access left	0	0	0	Α	0	8.83	0.02	Α
Site access right	0	0	0	Α	0.4	21.35	0.29	С
A484 south ahead & right	0	0	0	Α	0	3.37	0.01	Α
I	PM Pea	k (16:30-	17:30)					
Site access left	0	0	0	Α	0	8.9	0.01	Α
Site access right	0	0	0	Α	0.1	13.38	0.1	В
A484 south ahead & right	0	0	0	Α	0	4.83	0.02	Α
				2	2037			
Movement		Bas	e		Base + Development			
	Q	Delay	RFC	LOS	Q	Delay	RFC	LOS
	AM Pea	k (08:00-	09:00)					
Site access left	0	0	0	Α	0	9.37	0.02	Α
Site access right	0	0	0	Α	0.5	26.98	0.34	D
A484 south ahead & right	0	0	0	Α	0	3.25	0.02	Α
I	PM Pea	k (16:30-	17:30)					
Site access left	0	0	0	Α	0	9.32	0.01	Α
Site access right	0	0	0	Α	0.1	15.03	0.12	С
A484 south ahead & right	0	0	0	Α	0	4.75	0.02	Α

Table 8.1: A484/Site Access Junction Development Scenario 1 Capacity Assessment Results – 2027 & 2037

A484/Site Access Junction	n Developm	nent Scen	ario 5	Capacit	y Asses	ssment Re	sults		
				2	2027				
Movement		Bas	se		Base + Development				
	Q	Delay	RFC	LOS	ď	Delay	RFC	LOS	
	AM Pea	k (08:00-	09:00)						
Site access left	-	-	-	-	0.1	15.38	0.09	С	
Site access right	-	-	-	-	2.1	52.32	0.69	F	
A484 south ahead & right	-	-	-	-	0.4	3.58	0.15	Α	
	PM Pea	k (16:30-	17:30)						
Site access left	-	-	-	-	0.1	11.58	0.12	В	
Site access right	-	-	-	-	0.9	24.75	0.47	С	
A484 south ahead & right	-	-	-	-	0.2	5.10	0.10	Α	
				2	2037				
Movement		Bas	se		Е	Base + Dev	elopmen	ent	
	Q	Delay	RFC	LOS	ď	Delay	RFC	LOS	
	AM Pea	k (08:00-	09:00)						
Site access left	-	-	-	-	0.2	34.82	0.18	D	
Site access right	-	-	-	-	3.7	95.79	0.83	F	
A484 south ahead & right	-	-	-	-	0.6	3.47	0.19	Α	
	PM Pea	k (16:30-	17:30)						
Site access left	-	-	-	-	0.2	12.92	0.14	В	
Site access right	-	-	-	-	1.1	30.76	0.53	D	
A484 south ahead & right	-	-	-	-	0.3	5.02	0.11	Α	

Table 8.2: A484/Site Access Junction Development Scenario 5 Capacity Assessment Results – 2027 & 2037

- 8.5.3 It is evident from these results that a simple priority T-Junction to access the proposed residential and discount foodstore developments may not be sufficient to deal with the forecast trip generation.
- 8.5.4 Particularly during the AM peak right turning traffic out of the development onto the A484 northbound have difficulty making this movement, even with the 2027 development scenario 1.
- 8.5.5 While the modelled RFC for this movement is low the delay per vehicle is relatively high with a low Level of Service, C in 2027 during the AM peak for development scenario 1 and F in 2037 AM peak for development scenarios 1 and 5.
- 8.5.6 Such results would potentially provide a restriction upon the quantum development feasible for this site with a simple priority T-Junction. Consideration would need to be given to designing this proposed access junction as a roundabout or as traffic signals in

order to provide minor road priority, thereby releasing additional capacity and future proofing the junction with regards to potential future year unrestricted development of the site.

### 8.6 Junction 2: A40/A48/A484 Pensarn Roundabout

### 2023 Base

- 8.6.1 Capacity assessments of the A40/A48/A484 Pensarn roundabout have been undertaken using the LinSig software, with the modelling report included in **Appendix R**. The results for the 2023 base year scenario are summarised in **Table 8.3**.
- 8.6.2 The validation of the model has been sought through a comparison of the modelled and observed congestion and delay during the AM and PM peak hours from on-site observations, survey video footage and Google Maps average delay mapping. The average peak period network traffic delays as calculated by Google Maps for the study area are shown In **Figure 8.1** and **Figure 8.2** for the AM and PM peaks respectively.
- 8.6.3 For both the AM and PM peak periods it is evident that there are moderate levels of delay on each arm of the junction. During the AM peak hour, the highest Degrees of Saturation are modelled for the A48 and A484 arms at 77%. This reflects the highest inbound flows and associated capacity at the junction during the AM peak hour, which are westbound on the A48 and the A484 northbound towards Carmarthen.
- 8.6.4 During the PM peak the highest Degrees of Saturation are modelled for the A484 arm at 76%. This reflects the highest inbound flows and associated capacity at the junction during the PM peak hour, which are on the A484 northbound towards Carmarthen.
- 8.6.5 The highest circulatory movement degrees of saturation are 69% for the A48 westbound ahead only movement to the A40 west during the AM peak hour and 76% for the A40 eastbound right turn movement to the A484 southbound during the PM peak hour, which does experience a heavy demand.
- 8.6.6 For both peak periods there is spare capacity with practical reserved capacities of 16.6% and 18.6% for the AM and PM peak hours respectively. The validation exercise demonstrates that the observed and modelled delays are broadly similar. As such, it is

Asbri Transport <k:\t23\jobs\t23.107 pibwrlwyd\documents\t23.107.ta draft issue.docx> <April 2022 > considered that the baseline junction modelled has been validated as a realistic representation of the operation of the existing roundabout.

PRC
PRC
16.6%
18.6%

Table 8.3: A40/A48/A484 Pensarn Roundabout Capacity Assessment Results – 2023

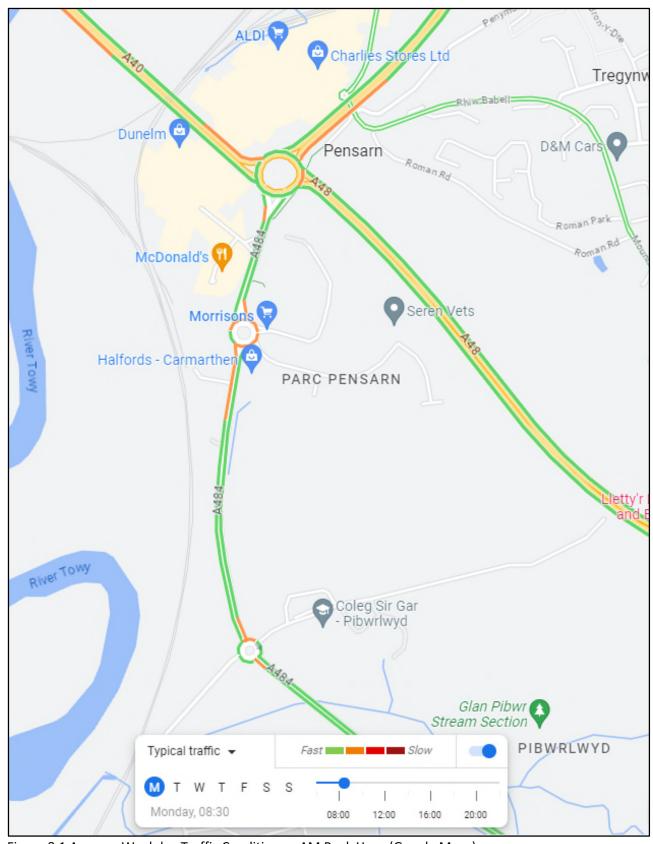


Figure 8.1 Average Weekday Traffic Conditions – AM Peak Hour (Google Maps)

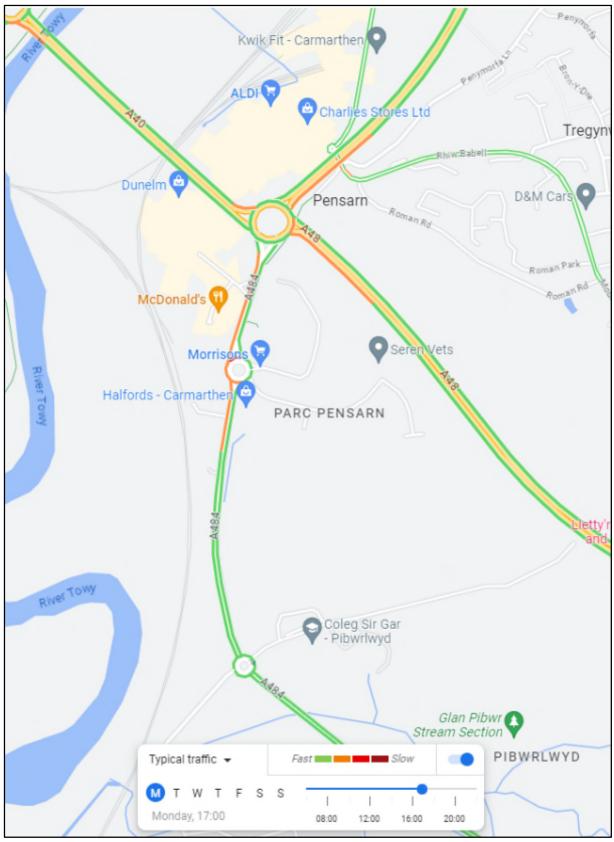


Figure 8.2 Average Weekday Traffic Conditions – PM Peak Hour (Google Maps)

#### 2027 & 2037 Future Years

- 8.6.7 The forecast background and development traffic flows have been added to the models for the future years with the results of the Base and the Base + Development scenarios for development scenarios 1 and 5 for 2027 and 2037. The summary of the Practical Reserve Capacity (PRC) is shown in **Table 8.4**.
- 8.6.8 These results show that for the 2027 and 2037 base year scenarios that there is still a degree of spare capacity at the junction.
- 8.6.9 With the addition of the development traffic there is still some spare capacity, even though the junction is modelled to be close to capacity for development scenario 5 in 2037, particularly for the AM peak hour.
- 8.6.10 It should be noted though that as the proposed development site is a Strategic Carmarthenshire Council LDP site that a certain amount of the forecast trip generation will be included within the TEMPRO background growth forecasts.
- Also, no account has bene taken of pass-by or joint trips on the local road network and in relation to the various existing and proposed land uses present. The encouragement of sustainable transport and mode shift away from the private car as detailed in the accompanying draft travel plan has not been taken into consideration, nor the related fundamental change in working practices with the significant increase in working from home as a result of the covid pandemic.
- 8.6.12 Therefore, there is a degree of double counting involved in the trip generation calculations reported upon here. The forecast trip generation derived for the purposes of this analysis should be taken as very much a worst-case scenario, particularly with regards to development scenario 5.
- 8.6.13 These results provide the maximum range of the forecasts with a degree of double counting involved, which in reality would lead to a lesser impact upon the junction.

		Practical Reserve Capacity (PRC)						
Perio	d	Paca	<b>Development Scenario</b>					
		Base	1	5				
2022	AM	16.6%	-	-				
2023	PM	18.6%	-	-				
2027	AM	12.7%	11.5%	9.9%				
2027	PM	16.2%	14.3%	10.3%				
2037	AM	2.9%	1.7%	0.6%				
2037	PM	8.9%	5.5%	1.8%				

Table 8.4: A484 Pensarn Roundabout Capacity Assessment Results

- 8.6.14 A more detailed summary of the model results for each movement represented in the model for the future year Base and the Base + Development scenarios for development scenario 1 for 2027 and 2037 are shown in **Table 8.5** and **Table 8.6** respectively and for development scenario 5 in **Table 8.7** and **Table 8.8** for 2027 and 2037 respectively.
- 8.6.15 For the 2027 base scenario the highest degree of saturation of 79.8% is experienced on the A484 left turn to the A40 westbound during the AM peak hour, increasing slightly to 80.7% for development scenario 1.
- 8.6.16 For the 2037 base scenario the highest degree of saturation of 86.4% is experienced on the A48 westbound ahead and left movement to the A40 westbound during the AM peak hour, increasing slightly to 89.5% for development scenario 5.
- 8.6.17 There are a number of other movements with a degree of saturation of over 80%. This indicates that while the junction is approaching capacity there is still a small amount of spare capacity. As mentioned above these 2037 development scenario 5 results are likely to represent the worst-case scenario in terms of forecast development flows for the average weekday operation of the junction.
- 8.6.18 The forecast future year capacity at the Pensarn Roundabout is deemed to be sufficient to accommodate the proposed maximum quantum of development at the site and not lead to any restrictions in number of dwelling and employment space in addition to background traffic and committed developments.

		evelopmer	nt Scenari	io 1				
		2027	Base		20	27 Base +	Develop	nent
Arm	Q (pcu)	Delay (s/pcu)	DoS	PRC	Q (pcu)	Delay (s/pcu)	DoS	PRC
		AM Peak (0	8:00-09:0	00)		•	•	
A484 Left	10.0	26.6	79.8%		10.2	27.0	80.7%	
A484 Ahead	5.9	20.9	55.8%		6.8	21.8	61.6%	
A40 West Left & Ahead	4.5	13.2	54.1%		4.5	13.3	54.6%	
A40 West Ahead	6.6	14.3	60.9%		6.8	14.3	61.1%	
A40 North Left & Ahead	4.2	19.6	52.3%		4.3	19.7	53.5%	
A40 North Ahead	5.3	20.9	47.3%		5.5	21.1	48.5%	
A48 Left & Ahead	12.9	20.5	79.8%		13.3	20.8	80.6%	
A48 Ahead	14.1	21.9	79.0%		14.2	22.0	79.3%	
Circulatory South Ahead	4.4	9.4	71.4%		4.4	9.3	70.9%	
Circulatory South Ahead & Right	7.4	11.9	68.3%		7.4	12.0	68.4%	
Circulatory South Right	0.7	4.8	29.8%	12.7%	0.7	4.9	30.2%	11.5%
Circulatory West Ahead	2.2	10.6	52.3%		2.2	10.6	54.5%	
Circulatory West Ahead & Right	6.5	22.1	48.0%		6.6	22.0	49.6%	
Circulatory West Right	0.2	5.8	14.1%		0.3	6.0	17.6%	
Circulatory North Ahead	0.8	5.1	34.4%		1.3	5.1	35.0%	
Circulatory North Ahead	2.4	8.1	32.8%		2.9	8.8	34.8%	
Circulatory North Right	0.4	4.6	17.4%		0.4	4.6	17.4%	
Circulatory North Right	0.8	5.1	27.5%		0.8	5.0	27.7%	
Circulatory East Ahead	4.7	16.4	60.0%		5.1	16.5	61.5%	
Circulatory East Ahead & Right	6.4	21.4	50.8%		6.5	21.4	52.1%	
Circulatory East Right	0.6	6.5	30.5%		0.6	6.5	30.7%	
		PM Peak (1	6:30-17:3	(0)				
A484 Left	4.3	23.3	53.2%		4.2	22.4	52.3%	
A484 Ahead	7.9	26.0	64.7%		8.8	25.9	67.8%	
A40 West Left & Ahead	11.4	16.6	71.6%		12.1	18.0	73.7%	
A40 West Ahead	13.8	18.3	76.8%		14.6	19.8	78.8%	
A40 North Left & Ahead	6.7	26.1	68.2%		6.7	25.1	67.6%	
A40 North Ahead	9.4	29.3	67.3%		9.3	27.8	65.5%	
A48 Left & Ahead	8.2	14.4	57.7%		8.8	15.4	60.7%	
A48 Ahead	6.3	13.3	42.4%		6.4	14.1	43.3%	
Circulatory South Ahead	3.8	6.9	54.8%		3.8	7.1	55.8%	
Circulatory South Ahead & Right	11.6	14.1	54.0%		11.8	14.9	55.5%	
Circulatory South Right	0.3	4.1	15.1%	16.2%	0.3	4.2	15.4%	14.3%
Circulatory West Ahead	2.0	12.2	42.3%		2.0	11.7	42.0%	
Circulatory West Ahead & Right	4.2	20.7	42.5%		4.2	19.5	43.4%	
Circulatory West Right	0.4	6.6	25.2%		0.5	6.5	27.0%	
Circulatory North Ahead	3.3	6.2	53.9%		3.4	6.5	55.9%	
Circulatory North Ahead	4.0	9.3	40.9%		5.1	10.2	43.2%	
Circulatory North Right	0.7	4.6	23.7%		0.7	4.7	23.9%	
Circulatory North Right	1.3	5.4	34.6%		1.3	5.6	36.2%	
Circulatory East Ahead	12.3	27.5	77.5%		12.4	25.7	76.2%	
Circulatory East Ahead & Right	11.4	31.1	72.6%		11.7	30.0	71.2%	
Circulatory East Right	0.9	7.8	44.2%		0.9	7.5	43.3%	

Table 8.5: A40/A48 Pensarn Roundabout Development Scenario 1 Capacity Assessment Results – 2027

		velopmen 2037			203	37 Base + [	Developm	ent
Arm	Q (pcu)	Delay (s/pcu)	DoS	PRC	Q (pcu)	Delay (s/pcu)	DoS	PRC
	Α	M Peak (0	8:00-09:0	0)				
A484 Left	13.1	32.7	87.5%		12.8	31.7	86.8%	
A484 Ahead	6.8	21.8	60.7%		7.9	23.1	66.6%	
A40 West Left & Ahead	5.2	13.9	60.0%		6.1	14.5	63.8%	
A40 West Ahead	7.8	15.1	65.4%		7.7	15.0	63.7%	
A40 North Left & Ahead	4.5	20.0	55.5%		4.3	19.8	54.5%	
A40 North Ahead	6.1	21.7	52.5%		6.6	22.3	55.3%	
A48 Left & Ahead	16.1	25.0	86.4%		17.5	27.7	88.5%	
A48 Ahead	17.1	26.5	86.1%		17.4	27.4	86.9%	
Circulatory South Ahead	4.4	11.1	77.2%		3.3	10.3	75.1%	
Circulatory South Ahead & Right	8.9	13.3	74.5%		8.3	12.8	70.3%	
Circulatory South Right	0.8	5.0	32.1%	2.9%	0.9	5.3	38.3%	1.7%
Circulatory West Ahead	2.4	11.0	56.3%		3.2	9.0	55.6%	
Circulatory West Ahead & Right	7.1	22.1	52.5%		8.2	24.8	57.4%	
Circulatory West Right	0.3	5.9	15.4%		0.3	6.0	18.4%	
Circulatory North Ahead	1.9	5.3	38.6%		3.1	5.6	42.8%	
Circulatory North Ahead	2.6	8.2	34.5%		2.9	9.0	33.1%	
Circulatory North Right	0.5	4.7	19.3%		0.6	4.8	21.5%	
Circulatory North Right	0.8	5.1	29.4%		0.7	4.9	27.6%	
Circulatory East Ahead	8.1	17.6	64.6%		9.2	19.2	67.4%	
Circulatory East Ahead & Right	7.2	21.6	56.0%		6.6	20.6	54.7%	
Circulatory East Right	0.6	6.6	32.8%		0.7	6.7	34.4%	
		M Peak (1		0)	1	1	1	
A484 Left	5.0	24.0	57.9%		4.9	23.0	56.7%	
A484 Ahead	9.0	27.5	70.1%		10.2	27.8	73.3%	
A40 West Left & Ahead	14.4	19.4	78.9%		16.7	22.9	83.4%	
A40 West Ahead	16.8	21.1	82.6%		17.5	22.9	84.1%	
A40 North Left & Ahead	8.3	28.1	74.4%		7.4	25.8	70.5%	
A40 North Ahead	10.7	31.3	72.8%		11.1	30.8	73.7%	
A48 Left & Ahead	9.9	15.6	63.7%		8.2	15.0	59.3%	
A48 Ahead	6.8	13.6	44.9%		8.5	15.5	53.3%	
Circulatory South Ahead	3.9	6.9	58.8%		3.9	8.0	58.0%	
Circulatory South Ahead & Right	12.9	15.4	58.3%		11.2	13.6	57.1%	
Circulatory South Right	0.4	4.1	17.1%	8.9%	0.5	4.4	22.2%	5.59
Circulatory West Ahead	2.1	11.8	46.2%		1.2	8.9	49.6%	
Circulatory West Ahead & Right	4.8	21.9	45.5%		5.8	25.1	43.6%	
Circulatory West Right	0.5	6.8	27.7%		0.5	6.6	28.5%	
Circulatory North Ahead	2.4	6.6	59.4%		2.3	7.3	63.3%	
Circulatory North Ahead	4.6	9.5	43.5%		6.2	10.3	44.2%	
Circulatory North Right	0.7	4.6	24.6%		1.0	5.1	29.7%	
Circulatory North Right	1.5	5.5	38.7%		1.2	5.4	35.6%	
Circulatory East Ahead	13.7	30.1	82.5%		15.2	33.9	85.3%	
Circulatory East Ahead & Right	12.9	34.0	77.7%		13.6	31.0	80.2%	

Table 8.6: A40/A48/A484 Pensarn Roundabout Development Scenario 1 Capacity Assessment Results – 2037

		Developmo	ent Scenar	io 5				
		2027	<sup>7</sup> Base		20	27 Base +	Developn	nent
Arm	Q (pcu)	Delay (s/pcu)	DoS	PRC	Q (pcu)	Delay (s/pcu)	DoS	PRC
	( 2007)	•	08:00-09:0	00)	(Post)	(0) [0 00.]		
A484 Left	10.0	26.6	79.8%		10.6	27.5	81.8%	
A484 Ahead	5.9	20.9	55.8%		7.9	23.0	66.8%	
A40 West Left & Ahead	4.5	13.2	54.1%		5.2	13.9	59.5%	
A40 West Ahead	6.6	14.3	60.9%		7.1	14.5	60.0%	
A40 North Left & Ahead	4.2	19.6	52.3%		4.1	19.4	51.7%	
A40 North Ahead	5.3	20.9	47.3%		6.0	21.6	52.0%	
A48 Left & Ahead	12.9	20.5	79.8%		13.8	21.7	81.9%	
A48 Ahead	14.1	21.9	79.0%		14.3	22.2	79.8%	
Circulatory South Ahead	4.4	9.4	71.4%		2.7	8.6	68.6%	
Circulatory South Ahead & Right	7.4	11.9	68.3%		7.5	12.0	66.0%	
Circulatory South Right	0.7	4.8	29.8%	12.7%	0.8	5.0	34.7%	9.9%
Circulatory West Ahead	2.2	10.6	52.3%		3.3	9.3	56.3%	
Circulatory West Ahead & Right	6.5	22.1	48.0%		7.3	24.3	51.5%	
Circulatory West Right	0.2	5.8	14.1%		0.4	6.1	20.2%	
Circulatory North Ahead	0.8	5.1	34.4%		2.6	5.4	40.0%	
Circulatory North Ahead	2.4	8.1	32.8%		3.2	9.6	32.1%	
Circulatory North Right	0.4	4.6	17.4%		0.5	4.7	20.5%	
Circulatory North Right	0.8	5.1	27.5%		0.7	5.0	26.3%	
Circulatory East Ahead	4.7	16.4	60.0%		8.5	18.4	64.6%	
Circulatory East Ahead & Right	6.4	21.4	50.8%		6.1	20.5	51.2%	
Circulatory East Right	0.6	6.5	30.5%		0.6	6.6	32.9%	
	I	PM Peak (	16:30-17:	:30)				
A484 Left	4.3	23.3	53.2%		4.4	21.8	53.9%	
A484 Ahead	7.9	26.0	64.7%		9.6	25.9	70.6%	
A40 West Left & Ahead	11.4	16.6	71.6%		15.3	22.2	81.1%	
A40 West Ahead	13.8	18.3	76.8%		16.1	22.4	81.6%	
A40 North Left & Ahead	6.7	26.1	68.2%		6.1	23.6	65.1%	
A40 North Ahead	9.4	29.3	67.3%		10.1	27.7	68.1%	
A48 Left & Ahead	8.2	14.4	57.7%		7.4	15.2	57.6%	
A48 Ahead	6.3	13.3	42.4%		7.8	15.7	50.5%	
Circulatory South Ahead	3.8	6.9	54.8%		3.8	8.1	54.8%	
Circulatory South Ahead & Right	11.6	14.1	54.0%		10.0	13.6	54.4%	
Circulatory South Right	0.3	4.1	15.1%	16.2%	0.5	4.5	20.5%	10.3%
Circulatory West Ahead	2.0	12.2	42.3%		1.2	8.4	44.8%	
Circulatory West Ahead & Right	4.2	20.7	42.5%		5.3	22.7	41.4%	
Circulatory West Right	0.4	6.6	25.2%		0.5	6.4	28.4%	
Circulatory North Ahead	3.3	6.2	53.9%		2.5	7.3	62.2%	
Circulatory North Ahead	4.0	9.3	40.9%		6.2	11.5	41.3%	
Circulatory North Right	0.7	4.6	23.7%		1.0	5.4	29.9%	
Circulatory North Right	1.3	5.4	34.6%		1.1	5.4	35.5%	
Circulatory East Ahead	12.3	27.5	77.5%		14.2	29.8	81.2%	
Circulatory East Ahead & Right	11.4	31.1	72.6%		13.2	28.1	76.7%	
Circulatory East Right	0.9	7.8	44.2%		0.7	6.8	36.5%	

Table 8.7: A40/A48 Pensarn Roundabout Development Scenario 5 Capacity Assessment Results – 2027

	D	evelopme		0 5				
		2037	Base		203	7 Base + D	evelopme	nt
Arm	Q (pcu)	Delay (s/pcu)	DoS	PRC	Q (pcu)	Delay (s/pcu)	DoS	PRC
	,	AM Peak (0	08:00-09:0	0)				
A484 Left	13.1	32.7	87.5%		13.9	34.1	88.9%	
A484 Ahead	6.8	21.8	60.7%		9.0	24.5	71.7%	
A40 West Left & Ahead	5.2	13.9	60.0%		6.8	14.9	65.7%	
A40 West Ahead	7.8	15.1	65.4%		8.0	15.3	64.6%	
A40 North Left & Ahead	4.5	20.0	55.5%		4.4	19.9	55.2%	
A40 North Ahead	6.1	21.7	52.5%		6.8	22.6	57.1%	
A48 Left & Ahead	16.1	25.0	86.4%		18.2	29.0	89.5%	
A48 Ahead	17.1	26.5	86.1%		18.0	28.1	87.6%	
Circulatory South Ahead	4.4	11.1	77.2%		3.4	10.4	74.9%	
Circulatory South Ahead & Right	8.9	13.3	74.5%		8.2	12.6	69.9%	
Circulatory South Right	0.8	5.0	32.1%	2.9%	1.0	5.4	38.8%	0.6%
Circulatory West Ahead	2.4	11.0	56.3%		2.2	9.2	57.6%	
Circulatory West Ahead & Right	7.1	22.1	52.5%	]	8.4	24.8	59.3%	
Circulatory West Right	0.3	5.9	15.4%		0.4	6.1	20.7%	
Circulatory North Ahead	1.9	5.3	38.6%		2.1	5.7	44.5%	
Circulatory North Ahead	2.6	8.2	34.5%		3.2	9.4	33.4%	
Circulatory North Right	0.5	4.7	19.3%	1	0.7	5.0	22.4%	
Circulatory North Right	0.8	5.1	29.4%	1	0.7	4.8	28.2%	
Circulatory East Ahead	8.1	17.6	64.6%		9.5	20.0	69.3%	
Circulatory East Ahead & Right	7.2	21.6	56.0%		7.1	20.5	57.8%	
Circulatory East Right	0.6	6.6	32.8%		0.6	6.7	33.7%	
, <u> </u>		PM Peak (1	6:30-17:3	0)		•		
A484 Left	5.0	24.0	57.9%		5.3	22.4	58.2%	
A484 Ahead	9.0	27.5	70.1%	1	10.9	27.4	75.2%	
A40 West Left & Ahead	14.4	19.4	78.9%		19.4	27.8	88.1%	
A40 West Ahead	16.8	21.1	82.6%		19.9	27.8	88.4%	
A40 North Left & Ahead	8.3	28.1	74.4%		7.4	24.7	69.4%	
A40 North Ahead	10.7	31.3	72.8%		11.7	30.3	74.7%	
A48 Left & Ahead	9.9	15.6	63.7%		8.7	16.1	62.3%	
A48 Ahead	6.8	13.6	44.9%		8.9	16.4	54.8%	
Circulatory South Ahead	3.9	6.9	58.8%		3.9	8.2	58.9%	
Circulatory South Ahead & Right	12.9	15.4	58.3%	1	11.3	14.3	58.7%	
Circulatory South Right	0.4	4.1	17.1%	8.9%	0.5	4.5	23.1%	1.8%
Circulatory West Ahead	2.1	11.8	46.2%	1	1.1	8.3	48.3%	
Circulatory West Ahead & Right	4.8	21.9	45.5%	1	5.9	24.2	43.4%	
Circulatory West Right	0.5	6.8	27.7%	1	0.6	6.6	31.6%	
Circulatory North Ahead	2.4	6.6	59.4%	1	2.2	7.7	66.2%	
Circulatory North Ahead	4.6	9.5	43.5%	1	7.0	12.0	45.7%	
Circulatory North Right	0.7	4.6	24.6%	1	0.9	5.1	32.6%	
Circulatory North Right	1.5	5.5	38.7%	1	1.4	5.9	38.1%	
Circulatory East Ahead	13.7	30.1	82.5%	1	16.2	34.7	86.8%	
Circulatory East Ahead & Right	12.9	34.0	77.7%	†	14.9	31.3	82.4%	
Circulatory East Right	1.1	8.5	50.6%	†	0.8	7.2	40.5%	

Table 8.8: A40/A48/A484 Pensarn Roundabout Development Scenario 5 Capacity Assessment Results – 2037

## 8.7 Junction 3: A484/Morrisons Roundabout

#### 2023 Base

8.7.1 Capacity assessments of the A484 Morrison's roundabout have been undertaken using the Junctions 9 software in roundabout mode (ARCADY), with the modelling report included in **Appendix S**. The results for the 2023 base year scenario are summarised in **Table 8.9.** 

Arm	2023			
	Q	Delay	RFC	LOS
AM Peak (08:00-09:00)				
A484 North	1.5	5.00	0.60	Α
Morrisons	0.3	3.95	0.23	Α
Llys Y Deri	0.1	6.09	0.07	А
A484 South	2.3	7.48	0.69	Α
PM Peak (16:30-17:30)				
A484 North	2.1	5.93	0.68	Α
Morrisons	0.6	4.88	0.36	Α
Llys Y Deri	0.4	9.58	0.28	Α
A484 South	0.6	3.90	0.36	А

Table 8.6: A484 Morrison's Roundabout Capacity Assessment Results – 2023

- 8.7.2 The validation of the model has been sought through a comparison of the modelled and observed congestion and delay during the AM and PM peak periods from on-site observations, survey video footage and Google Maps average delay mapping.
- 8.7.3 During both the peak hours it is evident that there is a moderate level of delay on the A484 arms with the maximum RFC experienced on the A484 northbound approach of 0.69 during the AM peak hour. This demonstrates that there is a degree of spare capacity at the junction in the base year weekday average scenario.
- 8.7.4 The validation exercise demonstrates that the observed and modelled delays are broadly similar. As such, it is considered that the baseline junction modelled has been validated as a realistic representation of the operation of the existing roundabout.

## 2027 & 2037 Future Years

- 8.7.5 The results for the future year Base and the Base + Development scenarios for 2027 and 2037 are shown in **Table 8.10** for development scenario 1 and **Table 8.11** for development scenario 5.
- 8.7.6 These results show that in both future years the base flow scenarios show a degree of spare capacity with a maximum RFC in 2027 of 0.72 on the A484 northbound approach during the AM peak hour, increasing to 0.79 for 2037.
- 8.7.7 Adding the traffic for development scenario 1 increases this maximum RFC to 0.77 in 2027 and 0.88 in 2037. For development scenario 5 the maximum RFC'S are again for the southern A484 arm of the roundabout with 0.82 and 0.90 for 2027 and 2037 respectively.

A484 Morrison's Roundabouts Development Scenario 1 Capacity Assessment Results 2027													
				20	) <b>27</b>								
Movement	_	Ba			_	Base + Dev							
	Q	Delay	RFC	LOS	Q	Delay	RFC	LOS					
	ı	AN	1 Peak (08	:00-09:0	0)	1							
A484 North	1.7	5.31	0.63	Α	1.9	5.76	0.65	Α					
Morrisons	0.3	4.07	0.24	Α	0.3	4.23	0.25	Α					
Llys Y Deri	0.1	6.28	0.07	Α	0.1	6.51	0.09	Α					
A484 South	2.6	8.27	0.72	Α	3.3	10.09	0.77	В					
		PN	1 Peak (16	:30-17:3	0)								
A484 North	2.3	6.42	0.7	Α	2.7	7.12	0.73	Α					
Morrisons	0.6	5.11	0.38	Α	0.7	5.43	0.4	Α					
Llys Y Deri	0.4	10.26	0.3	В	0.7	12.47	0.4	В					
A484 South	0.6	4.04	0.37	Α	0.7	4.28	0.4	Α					
				20	37								
Movement		Ba	se			Base + Dev	elopment						
	Q	Delay	RFC	LOS	Q	Delay	RFC	LOS					
		AN	1 Peak (08	3:00-09:0	0)								
A484 North	2.2	6.29	0.68	Α	2.5	6.93	0.71	Α					
Morrisons	0.4	4.42	0.27	Α	0.4	4.6	0.28	Α					
Llys Y Deri	0.1	6.79	0.08	Α	0.1	7.07	0.1	Α					
A484 South	3.8	11.23	0.79	В	5.2	14.78	0.84	В					
		PN	1 Peak (16	5:30-17:3	0)								
A484 North	3.2	8.1	0.76	Α	3.7	9.24	0.79	Α					
Morrisons	0.8	5.84	0.43	Α	0.8	6.25	0.45	Α					
Llys Y Deri	0.6	12.49	0.36	В	0.9	15.93	0.47	С					
A484 South	0.7	4.42	0.41	Α	0.8	4.72	0.44	Α					

Table 8.10: A484 Morrison's Roundabouts Development Scenario 1 Capacity Assessment Results – 2027 & 2037

- 8.7.8 While this would indicate that the roundabout is forecast to be close to or at capacity in 2037, as mentioned above the forecast trip generation used in this analysis is very much a worst-case scenario with the likely average weekday levels of congestion and delay to be less than those modelled.
- 8.7.9 The forecast future year capacity at the Pensarn Roundabout is deemed to be sufficient to accommodate the proposed maximum quantum of development at the site and not lead to any restrictions in number of dwelling and employment space in addition to background traffic and committed developments.

A484 Morrison's Roundabouts Development Scenario 5 Capacity Assessment													
				20	)27								
Movement		Ba	se			Base + Dev	elopmer	it					
	Q	Delay	RFC	LOS	Q	Delay	RFC	LOS					
		AM I	Peak (08	:00-09:0	0)								
A484 North	1.7	5.31	0.63	Α	2.2	6.36	0.69	Α					
Morrisons	0.3	4.07	0.24	Α	0.4	4.41	0.26	Α					
Llys Y Deri	0.1	6.28	0.07	Α	0.1	6.8	0.09	Α					
A484 South	2.6	8.27	0.72	Α	4.6	13.07	0.82	В					
PM Peak (16:30-17:30)													
A484 North	2.3	6.42	0.7	Α	3.8	9.33	0.79	Α					
Morrisons	0.6	5.11	0.38	Α	0.8	6.28	0.45	Α					
Llys Y Deri	0.4	10.26	0.3	В	0.8	15.23	0.45	С					
A484 South	0.6	4.04	0.37	Α	0.9	4.84	0.47	Α					
		2037											
Movement		Ba	se			Base + Dev	elopmer	it					
	Q	Delay	RFC	LOS	Q	Delay	RFC	LOS					
		AM I	Peak (08	:00-09:0	0)								
A484 North	2.2	6.29	0.68	Α	2.9	7.8	0.74	Α					
Morrisons	0.4	4.42	0.27	Α	0.4	4.82	0.29	Α					
Llys Y Deri	0.1	6.79	0.08	Α	0.1	7.4	0.11	Α					
A484 South	3.8	11.23	0.79	В	8	21.69	0.9	С					
		PM I	Peak (16	:30-17:3	(0)								
A484 North	3.2	8.1	0.76	Α	5.7	13.28	0.86	В					
Morrisons	0.8	5.84	0.43	Α	1	7.4	0.51	Α					
Llys Y Deri	0.6	12.49	0.36	В	1.2	20.68	0.54	С					
A484 South	0.7	4.42	0.41	Α	1.1	5.4	0.51	Α					

Table 8.11: A484 Morrison's Roundabouts Development Scenario 5 Capacity Assessment Results – 2027 & 2037

## 8.8 Junction 4: A484/Pibwrlwyd Roundabout

## 2023 Base

8.8.1 Capacity assessments of the A40/A48 Pensarn roundabout have been undertaken using the Junctions 9 software in roundabout mode (ARCADY), with the modelling report included in **Appendix T**. The results for the 2023 base year scenario are summarised in **Table 8.12.** 

Aven		20	)23	
Arm	Q	Delay	RFC	LOS
Α	M Peak (08:0	0-09:00)		
A484 north	0.9	4.59	0.47	Α
Pibwrlwyd Lane	0.0	2.86	0.03	А
A484 south	1.1	4.42	0.52	А
Ysgol Bro Myrddin	0.3	3.60	0.23	А
P	M Peak (16:3	0-17:30		
A484 north	1.2	5.27	0.55	А
Pibwrlwyd Lane	0.1	3.26	0.06	Α
A484 south	0.2 2.39		0.19	А
Ysgol Bro Myrddin	0.1	2.33	0.05	Α

Table 8.12: A484 Pibwrlwyd Roundabout Capacity Assessment Results – 2023

- 8.8.2 The validation of the model has been sought through a comparison of the modelled and observed congestion and delay during the AM and PM peak periods from on-site observations, survey video footage and Google Maps average delay mapping.
- 8.8.3 During both the peak hours it is evident that there is a low level of delay at the junctions with the maximum RFC experienced on the A484 southbound approach of 0.55 during the PM peak hour. This demonstrates that there is a degree of spare capacity at the junction in the base year weekday average scenario.
- 8.8.4 The validation exercise demonstrates that the observed and modelled delays are broadly similar. As such, it is considered that the baseline junction modelled has been validated as a realistic representation of the operation of the existing roundabout.

#### 2027 & 2037 Future Years

- 8.8.5 The results for the future year Base and the Base + Development scenarios for 2027 and 2037 are shown in **Table 8.13** for development scenario 1 and **Table 8.14** for development scenario 5.
- 8.8.6 These results show that in both future years the base flow scenarios show an ample degree of spare capacity with a maximum RFC in 2027 of 0.57 on the A484 southbound approach during the AM peak hour, increasing to 0.62 for 2037.
- 8.8.7 Adding the traffic for development scenario 1 increases this maximum RFC to 0.58 in 2027 and 0.63 in 2037. For development scenario 5 the maximum RFC'S are again for the southern A484 arm of the roundabout with 0.60 and 0.65 for 2027 and 2037 respectively.

A484 Pibwrlwyd Roundabout Development Scenario 1 Capacity Assessment Results													
_				20	)27								
Movement		Ва	se			Base + Dev	elopmer	nt					
	Q	Delay	RFC	LOS	Q	Delay	RFC	LOS					
		AM Peal	< (08:00-	09:00)									
A484 North	1	4.75	0.49	Α	1	4.81	0.5	Α					
Coleg Sirgar	0	2.9	0.04	Α	0	2.91	0.04	Α					
Llys Y Deri	1.2	4.64	0.54	Α	1.2	4.69	0.55	Α					
Ysgol Bro Myrddin	0.3	3.71	0.25	Α	0.3	3.74	0.25	Α					
		PM Peal	k (16:30-	17:30)									
A484 North	1.3	5.51	0.57	Α	1.4	5.61	0.58	Α					
Coleg Sirgar	0.1	3.32	0.06	Α	0.1	3.35	0.06	Α					
Llys Y Deri	0.3	2.41	0.2	Α	0.3	2.42	0.2	Α					
Ysgol Bro Myrddin	0.1	2.35	0.05	Α	0.1	2.35	0.06	Α					
		2037											
Movement		Ba	se			Base + Dev	elopmer	nt					
	Q	Delay	RFC	LOS	Q	Delay	RFC	LOS					
		AM Peal	<b>(08:00-</b>	09:00)									
A484 North	1.2	5.2	0.53	Α	1.2	5.27	0.54	Α					
Coleg Sirgar	0	3	0.04	Α	0	3.01	0.04	Α					
Llys Y Deri	1.5	5.3	0.59	Α	1.5	5.38	0.6	Α					
Ysgol Bro Myrddin	0.4	4.04	0.28	Α	0.4	4.07	0.28	Α					
		PM Peal	<b>(16:30</b> -	17:30)									
A484 North	1.6	6.22	0.62	Α	1.7	6.35	0.63	Α					
Coleg Sirgar	0.1	3.49	0.07	Α	0.1	3.51	0.07	Α					
Llys Y Deri	0.3	2.48	0.22	Α	0.3	2.49	0.22	Α					
Ysgol Bro Myrddin	0.1	2.4	0.06	Α	0.1	2.4	0.06	Α					

Table 8.13: A484 Pibwrlwyd Roundabout Development Scenario 1 Capacity Assessment Results – 2027 & 2037

8.8.8 This analysis indicates that the roundabout will have ample spare capacity even with the maximum quantum for forecast rip generation, with development scenario 5 in 2037. This will not lead to any restrictions in number of dwelling and employment space in addition to background traffic and committed developments.

A484 Pibwrlwyd Ro	undabou	t Developi	ment Sce	enario 5	Capaci	ty Assessm	nent Resi	ults					
				20	)27								
Movement		Ва	se			Base + Dev	elopmer	nt					
	Q	Delay	RFC	LOS	Q	Delay	RFC	LOS					
		AM Peal	c (08:00-	09:00)									
A484 North	1	4.75	0.49	Α	1	4.91	0.51	Α					
Coleg Sirgar	0	2.9	0.04	Α	0	2.93	0.04	Α					
Llys Y Deri	1.2	4.64	0.54	Α	1.3	4.82	0.56	Α					
Ysgol Bro Myrddin	0.3	3.71	0.25	Α	0.3	3.8	0.25	Α					
		PM Peal	(16:30-	17:30)									
A484 North	1.3	5.51	0.57	Α	1.5	5.99	0.6	Α					
Coleg Sirgar	0.1	3.32	0.06	Α	0.1	3.43	0.07	Α					
Llys Y Deri	0.3	2.41	0.2	Α	0.3	2.46	0.21	Α					
Ysgol Bro Myrddin	0.1	2.35	0.05	Α	0.1	2.38	0.06	Α					
		2037											
Movement		Ва	se			Base + Dev	elopmer	nt					
	Q	Delay	RFC	LOS	Q	Delay	RFC	LOS					
		AM Peal	c (08:00-	09:00)									
A484 North	1.2	5.2	0.53	Α	1.2	5.39	0.55	Α					
Coleg Sirgar	0	3	0.04	Α	0	3.04	0.04	Α					
Llys Y Deri	1.5	5.3	0.59	Α	1.6	5.54	0.61	Α					
Ysgol Bro Myrddin	0.4	4.04	0.28	Α	0.4	4.15	0.29	Α					
		PM Peal	(16:30-	17:30)									
A484 North	1.6	6.22	0.62	Α	1.9	6.83	0.65	Α					
Coleg Sirgar	0.1	3.49	0.07	Α	0.1	3.6	0.07	Α					
Llys Y Deri	0.3	2.48	0.22	Α	0.3	2.53	0.23	Α					
Ysgol Bro Myrddin	0.1	2.4	0.06	Α	0.1	2.43	0.06	Α					

Table 8.14: A484 Pibwrlwyd Roundabout Development Scenario 5 Capacity Assessment Results – 2027 & 2037

## 9 CONCLUSION

## 9.1 Summary

- 9.1.1 Asbri Transport has been appointed by Coleg Sir Gar to produce a Transport Assessment to accompany a submission to the Local Development Plan process for a mixed-use development located to the east of the A484 local distributor road on the southern periphery of Carmarthen.
- 9.1.2 The site is situated within close proximity to public transport infrastructure, including two bus stops located along the A484 within close proximity of the site frontage, with regular bus services providing access to Carmarthen Town centre, Llanelli and Swansea. In addition, the site is ideally located in terms of pedestrian and cycle infrastructure with NCN route 4 running along the A484 directly adjacent to the site.
- 9.1.3 On the western side of the A484 carriageway there is a three-metre-wide shared use walking and cycling route. To the north this provides a direct route to Carmarthen Town Centre and Rail Station and to the south it provides a connection to Kidwelly.
- 9.1.4 Vehicular access to the proposed development is intended via two main access points connecting with the local road network:
  - Residential: via proposed new priority T-junction between the Morrison's and Pibwrlwyd Roundabouts; and
  - Employment: via the existing Llys Y Deri arm of the Morrison's Roundabout.
- 9.1.5 Walking and Cycling access will be achieved from the shared use path along the A484 with internal infrastructure designed to allow for integration of the internal active travel network to the surrounding existing and proposed active travel network.
- 9.1.6 As part of the development proposals the provision of bus services accessing the site will be investigated with the council and the local bus operators.
- 9.1.7 Trip generation for the proposed development has been derived for the TRICS 7.9.2 trip generation database. It is predicted that the proposed development as a whole is likely to generate 130 vehicles two-way in the AM peak hour and 132 vehicles two-way in the

PM peak hour with the minimum quantum of development (Scenario 1 – Residential Plots 1-3 & employment).

- 9.1.8 The upper range of the forecast trip generation for the full possible development with the proposed committed development (Scenario 5 Residential Plots 1-3 & Reserved Land, Employment & Committed) 294 vehicles two-way in the AM peak period and 405 vehicles two-way in the PM peak period.
- 9.1.9 This higher level of forecast trip generation is lower than the overall extant trip generation for the local plan development site.
- 9.1.10 The proposed development traffic has been assigned to the local highway network from a hybrid methodology with the origin/destination information contained within the 2011 census data for Carmarthenshire 008 mid layer super output area in conjunction with existing turning proportions at the study area network junctions.
- 9.1.11 Junction capacity analysis has been undertaken at the proposed site access as well as the Pensarn, Morrison's and Pibwrlwyd Roundabouts. The analysis indicates that the existing junctions are forecast to operate within theoretical capacity with the additional development traffic.
- 9.1.12 The proposed site access though in its current indicative form as a simple priority T-junction is forecast to provide a restriction on the overall quantum of development to be serviced as the right turn movement out of the development site proves problematic in 2037, particularly with regards to development scenario 5.
- 9.1.13 It is suggested that at a later stage in the design and planning process that consideration is given to the provision of a roundabout or a traffic signals junction as the site access in or to provide sufficient priority to the minor arm right turners.
- 9.1.14 It should also be noted that the 2027 and 2037 future year base scenarios includes both committed development flows and a TEMPro growth factor and it is considered that this may result in overestimating the traffic growth in these future assessment years.
- 9.1.15 Also, no account has bene taken of pass-by or joint trips on the local road network and in relation to the various existing and proposed land uses present. The encouragement of sustainable transport and mode shift away from the private car as detailed in the

accompanying draft travel plan has not been taken into consideration, nor the related fundamental change in working practices with the significant increase in working from home as a result of the covid pandemic.

9.1.16 Therefore, there is a degree of double counting involved in the trip generation calculations reported upon here. The forecast trip generation derived for the purposes of this analysis should be taken as very much a worst-case scenario, particularly with regards to development scenario 5.

## 9.2 Conclusion

- 9.2.1 It is considered that the development is appropriate and acceptable in traffic and transport terms and that the traffic movements associated with the development proposals could be accommodated on the highway network.
- 9.2.2 The proposed development site is located with good access to public transport services operating on the A484, with frequent services running from bus stops within the site's vicinity. The site is also situated within walking distance of a number of amenities/facilities, reducing the need for private car-borne trips.

# **Appendices**

## Appendix A



Job Number & Title: SS

Site Location: SS1040 Parc Pensarn

**Survey Date: Site 1 A484** 

**Site Location Plan** 



	SS1040 Pard	Pensarn				Site	1	Location		o the south o		tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Northbound	l	(51.845865	5, -4.309092)				
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
16 March 20										_				_
0000	9	0	9	0	0	0	0	0	0	0	0	0	0	0
0100	6	0	5	1	0	0	0	0	0	0	0	0	0	0
0200	9	0	5	0	1	0	1	0	2	0	0	0	0	0
0300	10	0	6	0	0	0	2	0	1	0	0	0	0	1
0400	31	1	26	0	0	0	0	0	2	0	0	1	0	1
0500	95	0	74	1	0	0	7	2	8	0	0	1	0	2
0600	312	0	261	5	2	0	13	4	13	1	1	3	0	9
0700	721	18	603	13	1	2	40	1	10	0	1	4	2	26
0800	1263	40	1058	56	5	4	45	1	10	3	7	7	10	17
0900	827	41	689	22	3	4	27	0	10	1	5	8	3	14
1000	747	24	615	21	0	2	44	2	4	3	5	9	3	15
1100	809	40	666	40	2	1	22	0	4	2	12	7	1	12
1200	918	24	772	33	2	1	34	0	5	3	11	10	7	16
1300	889	56	727	28	1	3	37	0	7	0	7	6	4	13
1400	809	50	665	18	1	3	30	0	8	4	6	2	3	19
1500	952	58	798	27	1	3	26	0	8	0	5	7	5	14
1600	919	61	744	25	2	1	39	0	4	4	6	8	6	19
1700	879	57	717	17	2	2	45	2	2	1	3	5	6	20
1800	705	21	603	18	1	1	37 28	0	4	0	5	4	3	8
1900	440	13	380	10	0	1		0	1	0	2	1	•	3
2000	338	1	300	9	•	0	21 12	0	*	0	1	4	0	0
2100	192		169 107	5	0	1	12	0	3	0	•	0	0	0
2200 2300	112 39	0	36	1	0	0	0	0	1	0	0	0	0	0
07-19	10438	490	8657	318	21	<b>27</b>	426	6	76	21	<b>73</b>	<del>77</del>	<b>53</b>	1 <b>93</b>
06-22	11720	508	9767	318	24	28	500	10	94	21	73 78	83	53 54	205
06-22	11720	508	9910	350	24	29	501	11	96	22	78	83	54	205
00-00	12031	509	10035	352	25	29	511	13	109	22	78	85	54	209
00-00	12031	อบษ	10033	302	20	29	911	13	109	22	10	00	<b>04</b>	209

	SS1040 Pard	Pensarn				Site	1	Location		o the south o	f the bus s	tops adjacen	t to Morriso	ns
16 March 20	)23	to	22 March 2	023		Direction	Northbound		(51.845865	5, -4.309092)				
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
17 March 20		0.0220		722	20020	RIGID	141012	141015	711111	7111110	7111111	7111110	7.1.1.1	711111
0000	21	0	19	1	0	0	1	0	0	0	0	0	0	0
0100	11	0	9	0	0	0	2	0	0	0	0	0	0	0
0200	7	0	7	0	0	0	0	0	0	0	0	0	0	0
0300	17	0	14	0	1	0	0	0	2	0	0	0	0	0
0400	32	0	25	1	0	0	2	0	4	0	0	0	0	0
0500	105	1	84	6	0	2	6	0	3	0	0	1	0	2
0600	333	0	272	19	2	0	17	1	8	1	2	4	1	6
0700	680	35	530	34	1	1	38	1	8	0	2	7	2	21
0800	1122	56	921	35	4	4	50	1	5	1	6	13	4	22
0900	794	24	665	34	0	1	42	1	3	1	2	2	3	16
1000	853	51	693	25	1	2	48	1	2	1	4	10	1	14
1100	961	30	807	38	1	1	47	0	4	1	6	7	3	16
1200	1015	29	860	35	0	1	47	0	5	1	6	7	7	17
1300	1036	56	874	26	1	0	36	0	7	1	10	7	5	13
1400	960	31	812	29	1	4	46	1	8	0	1	17	3	7
1500	1065	50	909	38	1	3	26	2	12	2	2	7	4	9
1600	1105	62	925	33	1	1	44	0	7	3	8	3	5	13
1700	1010	62	851	31	2	0	27	0	6	3	6	6	5	11
1800	772	37	661	13	0	0	30	0	3	3	4	1	3	17
1900	568	19	485	15	1	0	32	1	2	0	1	1	4	7
2000	350	10	303	7	0	0	19	0	4	0	1	0	2	4
2100	246	0	213	3	0	0	21	1	0	0	2	1	0	5
2200	179	6	148	0	0	0	17	2	2	0	1	1	1	1
2300	77	5	66	0	0	0	5	0	1	0	0	0	0	0
07-19	11373	523	9508	371	13	18	481	7	70	17	57	87	45	176
06-22	12870	552	10781	415	16	18	570	10	84	18	63	93	52	198
06-00	13126	563	10995	415	16	18	592	12	87	18	64	94	53	199
00-00	13319	564	11153	423	17	20	603	12	96	18	64	95	53	201

	SS1040 Pard	Pensarn				Site 1 Location A484 just to the south of the bus stops adjacent to Morrisons						ns		
16 March 20	023	to	22 March 2	023		Direction	Northbound	l	(51.845865	5, -4.309092)				
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	FOUR OR MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	SIX AXLE MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
18 March 20														
0000	39	0	33	0	1	0	2	2	1	0	0	0	0	0
0100	14	0	13	1	0	0	0	0	0	0	0	0	0	0
0200	10	0	9	0	0	0	0	1	0	0	0	0	0	0
0300	10	0	9	0	0	1	0	0	0	0	0	0	0	0
0400	23	0	18	1	0	0	2	0	2	0	0	0	0	0
0500	47	0	40	0	1	2	2	0	0	0	0	0	0	2
0600	170	0	137	8	2	0	13	1	2	0	2	2	0	3
0700	254	2	217	13	1	1	11	1	5	0	0	0	1	2
0800	516	12	426	15	1	0	36	1	5	1	5	3	1	10
0900	737	29	609	18	1	1	58	0	5	0	4	2	2	8
1000	935	59	763	24	1	1	42	0	6	1	5	5	8	20
1100	1081	39	932	24	0	3	45	0	3	2	5	9	5	14
1200	1155	43	995	46	0	1	28	1	8	0	4	8	3	18
1300	1072	34	926	33	0	3	42	0	8	0	6	10	3	7
1400	985	38	815	30	1	1	55	1	9	4	7	4	4	16
1500	797	45	667	23	1	2	38	0	5	1	3	2	2	8
1600	714	46	586	18	0	0	42	0	4	0	4	5	2	7
1700	647	25	546	18	1	2	39	0	1	0	4	2	2	7
1800	507	18	427	16	0	2	36	0	1	0	2	0	0	5
1900	399	7	349	4	0	0	31	1	2	0	1	1	1	2
2000	282	2	247	5	0	0	25	0	1	0	1	0	1	0
2100	233	2	191	7	0	0	22	1	5	1	1	1	1	1
2200	153	0	133	7	0	0	11	1	0	0	1	0	0	0
2300	103	2	84	2	0	0 17	14 <b>472</b>	0	1	0	0 <b>49</b>	0	0	0
07-19	9400	390	7909	278	7			4	60	9		50	33	122
06-22	10484	401	8833	302 311	9	17	563 588	7	70 71	10	54 55	54	36	128 128
06-00	10740	403	9050		9	17		8	71	10	55 55	54	36	
00-00	10883	403	9172	313	11	20	594	11	74	10	ວວ	54	36	130

	SS1040 Parc	Pensarn				Site	1	Location	A484 just t	o the south o	f the bus s	tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Northbound		(51.845865	5, -4.309092)				
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID		FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
19 March 20	)23													
0000	47	0	44	1	0	0	1	0	0	0	1	0	0	0
0100	35	1	27	2	0	0	5	0	0	0	0	0	0	0
0200	26	0	23	1	0	0	2	0	0	0	0	0	0	0
0300	33	0	27	1	0	0	5	0	0	0	0	0	0	0
0400	21	0	19	1	0	0	0	0	0	0	1	0	0	0
0500	30	1	26	0	0	0	2	0	0	1	0	0	0	0
0600	93	0	80	2	0	0	5	1	1	0	0	0	0	4
0700	149	0	125	7	2	0	9	1	4	0	1	0	0	0
0800	247	4	214	8	0	0	14	0	4	0	2	0	0	1
0900	407	9	353	14	0	0	18	0	1	0	4	0	1	7
1000	758	44	628	18	0	1	41	0	1	1	6	3	6	9
1100	971	42	813	33	0	1	46	1	4	2	6	5	2	16
1200	1030	46	884	22	0	0	42	0	6	0	5	8	4	13
1300	929	54	764	30	1	0	49	0	1	0	4	5	2	19
1400	832	49	676	19	1	1	50	0	7	2	10	4	3	10
1500	750	37	630	15	0	0	40	2	8	0	4	2	2	10
1600	631	40	499	21	0	0	55	0	0	1	2	3	1	9
1700	504	13	436	14	0	1	33	0	1	0	2	1	0	3
1800	418	11	354	18	0	0	25	0	1	0	1	0	0	8
1900	299	6	248	12	0	0	24	1	1	0	1	2	0	4
2000	215	0	182	7	0	0	21	0	1	0	1	1	0	2
2100	122	0	109	1	1	0	9	0	0	0	1	1	0	0
2200	80	0	66	1	0	0	8	0	1	0	1	1	0	2
2300	27	0	19	1	0	0	6	0	1	0	0	0	0	0
07-19	7626	349	6376	219	4	4	422	4	38	6	47	31	21	105
06-22	8355	355	6995	241	5	4	481	6	41	6	50	35	21	115
06-00	8462	355	7080	243	5	4	495	6	43	6	51	36	21	117
00-00	8654	357	7246	249	5	4	510	6	43	7	53	36	21	117

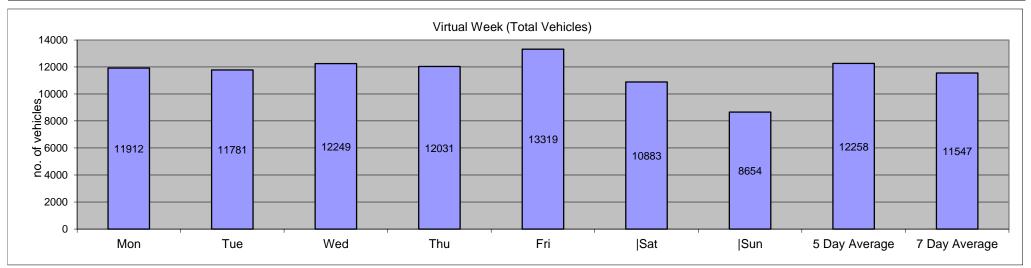
			Site	1	Location						ns			
16 March 20	023	to	22 March 2	023		Direction	Northbound	d	(51.84586	5, -4.309092)				
			CARS OR CAR-	LIGHT		TWO AXLE, SIX	THREE		FOUR OR LESS		SIX OR MORE	FIVE OR LESS AXLE MULTI-	SIX AXLE MULTI-	SEVEN OR MORE
TIME	TOTAL	MOTOR-	BASED	GOODS		TYRE,	AXLE	AXLE	AXLE	FIVE AXLE	AXLE	TRAILER	TRAILER	AXLE
PERIOD	<b>VEHICLES</b>	CYCLES	LGV	<b>VEHICLES</b>	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
20 March 20	)23													
0000	14	1	8	2	0	0	2	0	0	0	0	1	0	0
0100	9	0	8	0	0	0	0	0	1	0	0	0	0	0
0200	15	0	13	0	1	0	0	0	1	0	0	0	0	0
0300	6	0	5	1	0	0	0	0	0	0	0	0	0	0
0400	28	0	24	1	0	0	0	0	3	0	0	0	0	0
0500	95	1	72	3	0	1	12	1	3	0	1	1	0	0
0600	305	2	263	12	3	0	12	1	5	0	3	2	0	2
0700	723	23	582	36	1	2	50	3	6	0	2	3	1	14
0800	1134	46	962	40	3	4	44	1	3	0	6	6	6	13
0900	760	30	610	36	5	5	42	0	6	0	5	6	11	14
1000	738	29	604	32	0	4	37	0	1	2	4	3	7	15
1100	865	33	713	44	2	6	39	1	2	1	8	7	0	9
1200	918	24	774	40	2	5	35	0	8	0	9	7	2	12
1300	843	34	699	39	1	2	30	0	6	2	7	13	3	7
1400	821	32	680	38	1	3	35	0	8	1	7	2	0	14
1500	970	59	808	27	4	4	32	0	7	1	4	4	5	15
1600	956	63	794	25	1	1	30	1	9	0	5	8	5	14
1700	879	80	721	5	0	1	36	0	1	2	6	7	7	13
1800	659	44	535	13	0	0	36	1	6	4	4	6	2	8
1900	464	15	394	8	0	1	28	0	5	1	1	2	0	9
2000	345	14	291	2	0	0	27	0	4	0	1	1	1	4
2100	223	5	197	4	0	0	10	1	1	0	2	2	0	1
2200	103	2	84	6	0	1	8	1	0	0	0	0	0	1
2300	39	1	32	0	0	0	2	1	2	0	0	0	0	11
07-19	10266	497	8482	375	20	37	446	7	63	13	67	72	39	148
06-22	11603	533	9627	401	23	38	523	9	78	14	74	79	40	164
06-00	11745	536	9743	407	23	39	533	11	80	14	74	79	40	166
00-00	11912	538	9873	414	24	40	547	12	88	14	75	81	40	166

	SS1040 Pard	Pensarn				Site	1	Location		o the south o	f the bus s	tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Northbound		(51.845865	5, -4.309092)				
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
21 March 20		CICLLS	LGV	VEHICLES	DUJLJ	KIGID	KIGID	KIGID	ARTIC	ARIIC	ARIIC	AKIIC	ARTIC	ARTIC
0000	15	1	12	0	0	0	2	0	0	0	0	0	0	0
0100	10	0	8	0	0	0	1	0	1	0	0	0	0	0
0200	8	0	5	1	1	0	0	1	0	0	0	0	0	0
0300	8	0	7	1	0	0	0	0	0	0	0	0	0	0
0400	31	1	23	1	0	0	0	0	6	0	0	0	0	0
0500	109	2	91	2	0	0	5	0	6	0	0	1	0	2
0600	322	6	260	14	1	1	18	2	6	0	1	6	0	7
0700	707	19	570	31	0	1	34	0	5	0	10	8	3	26
0800	1162	38	967	33	7	5	55	1	15	1	7	2	5	26
0900	803	22	667	35	3	1	38	0	5	2	5	3	3	19
1000	728	30	564	41	1	4	50	0	2	2	4	9	1	20
1100	799	21	662	45	1	2	35	0	3	0	10	6	2	12
1200	931	24	797	36	0	6	33	0	6	2	2	5	3	17
1300	818	28	691	39	0	3	30	0	3	1	7	7	2	7
1400	843	34	697	42	0	2	39	0	3	3	5	3	4	11
1500	914	50	767	23	3	5	30	0	5	1	5	7	3	15
1600	1006	72	814	25	2	0	44	0	8	2	4	8	9	18
1700	950	60	795	18	0	3	39	0	4	1	4	5	3	18
1800	671	39	567	14	0	1	32	1	2	1	3	3	1	7
1900	389	17	342	1	0	0	10	1	5	2	3	2	2	4
2000	261	10	216	4	1	0	9	2	12	2	2	0	0	3
2100	173	2	157	2	0	0	9	1	1	0	0	1	0	0
2200	98	2	86	2	0	0	3	0	3	0	1	0	0	1
2300	25	0	22	0	0	0	0	1	2	0	0	0	0	0
07-19	10332	437	8558	382	17	33	459	2	61	16	66	66	39	196
06-22	11477	472	9533	403	19	34	505	8	85	20	72	75	41	210
06-00	11600	474	9641	405	19	34	508	9	90	20	73	75	41	211
00-00	11781	478	9787	410	20	34	516	10	103	20	73	76	41	213

	SS1040 Pard	Pensarn				Site	1	Location	_	o the south o		tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Northbound		(51.845865	5, -4.309092)				
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
22 March 20		•					•		•					
0000	15	0	13	0	0	0	1	0	1	0	0	0	0	0
0100	14	0	11	0	0	1	1	0	0	0	0	'	0	0
0200	18	0	2 11	0	0	0	2	<u>0</u>	3	0	0	0	0	1
0300	25	0	19	1	0	0	1	1	2	0	0	0	0	1
0400 0500	101	0	84	1	1	0	0	1	7	0	0	2	0	5
0600	317	6	261	16	2	1	15	1	4	0	0	2	0	9
0700	721	15	589	38	0	0	42	1	5	2	5	8	1	15
0800	1271	50	1053	59	8	5	47	2	9	2	6	7	4	19
0900	856	33	695	49	2	4	40	1	6	1	1	6	4	14
1000	738	22	628	22	1	3	30	1	4	0	8	3	2	14
1100	871	32	725	39	2	1	43	0	3	2	10	4	0	10
1200	965	37	800	29	1	3	58	0	8	1	5	4	2	17
1300	834	28	688	48	1	2	40	0	5	1	5	7	2	7
1400	836	28	687	41	4	2	44	2	7	0	3	2	6	10
1500	1010	49	862	17	5	4	37	1	10	1	0	14	5	5
1600	960	46	803	36	2	1	21	0	5	2	7	9	9	19
1700	993	83	807	21	1	0	35	1	2	3	6	6	12	16
1800	671	41	558	15	0	0	37	0	1	1	2	4	3	9
1900	442	16	381	8	1	0	25	1	2	0	0	2	0	6
2000	272	9	236	3	0	0	20	0	2	1	1	0	0	0
2100	168	6	147	3	0	0	8	1	2	0	0	0	0	1
2200	88	4	72	1	0	0	5	2	3	0	0	0	0	1
2300	59	2	49	2	0	0	5	0	1	0	0	0	0	0
07-19	10726	464	8895	414	27	25	474	9	65	16	58	74	50	155
06-22	11925	501	9920	444	30	26	542	12	75	17	59	78	50	171
06-00	12072	507	10041	447	30	26	552	14	79	17	59	78	50	172
00-00	12249	507	10181	449	31	27	558	17	92	17	59	81	50	180

	SS1040 Pard	: Pensarn				Site	1	Location	A484 just t	o the south o	f the bus s	tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Northbound	d	(51.84586	5, -4.309092)				
To March 20	,23			025			rioi ensoun		FOUR OR		CIV OR	FIVE OR LESS	CTV AVI E	CEVEN OR
			CARS OR CAR-	LIGHT		TWO AXLE, SIX	THREE	FOUR OR MORE	FOUR OR LESS		SIX OR MORE	AXLE MULTI-	MULTI-	SEVEN OR MORE
TIME	TOTAL	MOTOR-	BASED	GOODS		TYRE,	AXLE	AXLE	AXLE	FIVE AXLE	AXLE	TRAILER	TRAILER	AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
Average Da														
0000	23	0	20	1	0	0	1	0	0	0	0	0	0	0
0100	14	0	12	1	0	0	1	0	0	0	0	0	0	0
0200	11	0	9	0	0	0	1	0	0	0	0	0	0	0
0300	15	0	11	0	0	0	1	0	1	0	0	0	0	0
0400	27	0	22	1	0	0	1	0	3	0	0	0	0	0
0500	83	1	67	2	0	1	5	1	4	0	0	1	0	2
0600	265	2	219	11	2	0	13	2	6	0	1	3	0	6
0700	565	16	459	25	1	1	32	1	6	0	3	4	1	15
0800	959	35	800	35	4	3	42	1	7	1	6	5	4	15
0900	741	27	613	30	2	2	38	0	5	1	4	4	2	13
1000	785	37	642	26	1	2	42	1	3	1	5	6	4	15
1100	908	34	760	38	1	2	40	0	3	1	8	6	2	13
1200	990	32	840	34	1	2	40	0	7	1	6	7	4	16
1300	917	41	767	35	1	2	38	0	5	1	7	8	3	10
1400	869	37	719	31	1	2	43	1	7	2	6	5	3	12
1500	923	50	777	24	2	3	33	1	8	1	3	6	4	11
1600	899	56	738	26	1	1	39	0	5	2	5	6	5	14
1700	837	54	696	18	1	1	36	0	2	1	4	5	5	13
1800	629	30	529	15	0	1	33	0	3	1	3	3	2	9
1900	429	13	368	8	0	0	25	1	3	0	1	2	1	5
2000	295	7	254	5	0	0	20	0	4	0	1	0	1	2
2100	194	2	169	4	0	0	13	1	2	0	1	1	0	1
2200	116	2	99	3	0	0	8	1	1	0	1	0	0	1
2300	53	1	44	1	0	0	5	0	1	0	0	0	0	0
07-19	10023	450	8341	337	16	23	454	6	62	14	60	65	40	156
06-22	11205	475	9351	365	18	24	526	9	75	15	64	71	42	170
06-00	11374	478	9494	368	18	24	538	10	78	15	65	71	42	171
00-00	11547	479	9635	373	19	25	548	12	86	15	65	73	42	174

	SS1040 Parc	Pensarn				Site	1	Location	A484 just t	o the south o	f the bus s	tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Northbound		(51.84586	5, -4.309092)				
												FIVE OR LESS		
			CARS OR			TWO		FOUR OR			SIX OR	AXLE		SEVEN OR
TT145	TOTAL	MOTOR	CAR-	LIGHT		AXLE, SIX	THREE	MORE	LESS	ETVE AVIE	MORE	MULTI-	MULTI-	MORE
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	BASED LGV	GOODS VEHICLES	BUSES	TYRE, RIGID	AXLE RIGID	AXLE RIGID	AXLE ARTIC	FIVE AXLE ARTIC	AXLE ARTIC	TRAILER ARTIC	TRAILER ARTIC	AXLE ARTIC
Virtual Wee		<u> </u>		721110220	20010	REGIE	141012	REGIE	7.1.2.5	7.11.11	7111111	Autilo	7.1.1.20	711(120
Mon	11912	538	9873	414	24	40	547	12	88	14	75	81	40	166
Tue	11781	478	9787	410	20	34	516	10	103	20	73	76	41	213
Wed	12249	507	10181	449	31	27	558	17	92	17	59	81	50	180
Thu	12031	509	10035	352	25	29	511	13	109	22	78	85	54	209
Fri	13319	564	11153	423	17	20	603	12	96	18	64	95	53	201
Sat	10883	403	9172	313	11	20	594	11	74	10	55	54	36	130
Sun	8654	357	7246	249	5	4	510	6	43	7	53	36	21	117
5 Day Avera	ige													
[]	12258	519	10206	410	23	30	547	13	98	18	70	84	48	194
7 Day Avera	ige													
[]	11547	479	9635	373	19	25	548	12	86	15	65	73	42	174
<b>Total Vehicl</b>	les			·	·	·				·		·		
[]	80829	3356	67447	2610	133	174	3839	81	605	108	457	508	295	1216



	SS1040 Parc	Pensarn				Site	1	Location		o the south o		tops adjacen	t to Morriso	ns
16 March 20	)23	to	22 March 20	023		Direction	Southbound		(51.845865	5, -4.309092)				
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	FOUR OR MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	SIX AXLE MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
16 March 20														
0000	19	0	19	0	0	0	0	0	0	0	0	0	0	0
0100	12	0	9	3	0	0	0	0	0	0	0	0	0	0
0200	6	0	4	0	1	0	0	0	0	0	0	1	0	0
0300	10	0	7	1	0	0	0	0	0	0	1	1	0	0
0400	23	1	18	3	0	0	0	0	0	1	0	0	0	0
0500	88	0	70	10	0	2	4	0	2	0	0	0	0	0
0600	242	0	195	32	3	5	2	1	4	0	0	0	0	0
0700	578	1	503	50	3	7	4	0	5	0	2	3	0	0
0800	1057	2	964	53	9	4	5	5	8	1	3	2	0	1
0900	783	4	697	54	4	3	9	1	7	0	1	2	0	1
1000	725	3	637	60	2	3	7	2	8	0	1	0	1	1
1100	807	2	720	63	2	5	2	5	4	0	1	3	0	0
1200	952	1	859	67	2	5	8	2	5	1	2	0	0	0
1300	906	1	810	71	4	1	7	2	6	1	2	1	0	0
1400	851	2	750	71	3	6	4	1	10	0	0	2	1	1
1500	1111	5	1012	58	3	7	7	5	8	0	3	3	0	0
1600	1193	2	1081	79	3	3	5	6	10	0	1	1	0	2
1700	1086	0	985	53	0	4	9	14	13	0	4	4	0	0
1800	726	3	672	30	0	1	4	1	8	0	1	1	0	5
1900	509	1	466	31	0	0	4	2	3	0	0	1	0	1
2000	359	2	334	19	1	0	1	1	0	0	1	0	0	0
2100	244	2	221	14	0	1	2	2	2	0	0	0	0	0
2200	149	0	136	11	1	1	0	0	0	0	0	0	0	0
2300	64	0	60	4	0	0	0	0	0	0	0	0	0	0
07-19	10775	26	9690	709	35	49	71	44	92	3	21	22	2	11
06-22	12129	31	10906	805	39	55	80	50	101	3	22	23	2	12
06-00	12342	31	11102	820	40	56	80	50	101	3	22	23	2	12
00-00	12500	32	11229	837	41	58	84	50	103	4	23	25	2	12

	SS1040 Parc	Pensarn				Site	1	Location		o the south o		tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 20	023		Direction	Southbound		(51.845865	, -4.309092)				
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
17 March 20		CICLES	LGV	VEHICLES	DUSES	KIGID	KIGID	KIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
0000	25	0	24	0	0	0	1	0	0	0	0	0	0	0
0100	11	0	9	1	0	1	0	0	0	0	0	0	0	0
0200	13	0	11	1	0	0	0	0	0	0	0	1	0	0
0300	15	0	14	0	1	0	0	0	0	0	0	0	0	0
0400	30	0	26	1	1	0	1	0	1	0	0	0	0	0
0500	89	2	70	9	1	2	2	0	2	0	1	0	0	0
0600	277	1	227	34	0	5	5	0	4	0	1	0	0	0
0700	561	1	489	52	1	6	4	2	5	0	1	0	0	0
0800	1070	3	973	54	6	3	9	4	10	1	3	2	1	1
0900	790	2	695	64	3	8	4	2	9	0	1	2	0	0
1000	863	3	767	61	2	5	5	4	11	0	2	2	1	0
1100	912	2	841	45	0	1	3	1	7	1	6	3	0	2
1200	1065	3	961	69	0	3	8	4	8	0	7	1	0	1
1300	1036	3	938	72	2	0	6	3	5	0	4	2	0	1
1400	979	5	883	62	1	2	3	5	9	0	3	4	0	2
1500	1158	2	1067	62	2	2	5	4	6	1	2	3	0	2
1600	1264	5	1152	71	2	1	12	7	8	0	3	0	0	3
1700	1075	2	995	59	0	0	3	3	6	0	4	1	1	1
1800	823	0	765	39	0	1	5	3	4	0	3	2	0	1
1900	632	1	598	29	0	0	0	0	3	0	0	0	0	1
2000	446	1	428	16	0	0	0	0	1	0	0	0	0	0
2100	300	0	279	15	0	1	2	0	1	0	1	0	0	1
2200 2300	198 122	0	190 117	<u>6</u> 5	0	0	0	0	0	0	0	0	0	0
07-19	11596	31	10526	710	1 <b>9</b>	32	67	42	88	3	39	<b>22</b>	3	14
06-22	13251	34	12058	804	19	38	74	42	97	3	41	22	3	16
06-22	13571	35	12365	815	19	38	75	42	97	3	41	22	3	16
00-00	13754	37	12519	827	22	41	79	42	100	3	42	23	3	16

	SS1040 Pard	Pensarn				Site	1	Location	_	o the south o		tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Southbound		(51.845865	5, -4.309092)				
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	FOUR OR MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	SIX AXLE MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
18 March 20														
0000	38	1	34	3	0	0	0	0	0	0	0	0	0	0
0100	22	0	21	1	0	0	0	0	0	0	0	0	0	0
0200	15	0	14	0	0	1	0	0	0	0	0	0	0	0
0300	12	1	8	1	0	1	0	0	0	0	0	1	0	0
0400	24	0	21	1	0	0	2	0	0	0	0	0	0	0
0500	35	0	28	4	1	2	0	0	0	0	0	0	0	0
0600	157	1	134	14	3	2	2	0	1	0	0	0	0	0
0700	260	0	220	34	0	5	0	0	0	0	0	0	0	1
0800	467	0	425	29	1	3	1	2	3	1	0	1	0	1
0900	726	0	665	40	2	2	4	5	7	0	1	0	0	0
1000	938	1	841	69	0	0	9	3	4	2	5	3	0	1
1100	1092	2	1011	49	0	0	7	8	5	1	5	2	1	1
1200	1187	3	1128	37	0	0	5	1	7	0	3	3	0	0
1300	1067	3	998	38	2	2	7	1	11	1	2	1	1	0
1400	926	2	885	26	1	1	2	3	2	0	0	3	0	1
1500	818	2	768	39	0	0	2	1	6	0	0	0	0	0
1600	786	2	728	44	0	1	4	3	4	0	0	0	0	0
1700	757	1	716	30	0	1	1	2	4	0	2	0	0	0
1800	534	1	492	30	0	1	3	1	3	0	2	0	0	1
1900	457	0	441	12	0	0	4	0	0	0	0	0	0	0
2000	340	0	322	17	0	0	1	0	0	0	0	0	0	0
2100	267	1	259	5	1	0	1	0	0	0	0	0	0	0
2200	193	0	181	11	0	0	0	0	0	0	1	0	0	0
2300	127	11	118	8	0	0	0	0	0	0	0	0	0	0
07-19	9558	17	8877	465	6	16	45	30	56	5	20	13	2	6
06-22	10779	19	10033	513	10	18	53	30	57	5	20	13	2	6
06-00	11099	20	10332	532	10	18	53	30	57	5	21	13	2	6
00-00	11245	22	10458	542	11	22	55	30	57	5	21	14	2	6

	SS1040 Pard	Pensarn				Site	1	Location		o the south o		tops adjacen	t to Morriso	ns
16 March 20	)23	to	22 March 2	023		Direction	Southbound	l	(51.845865	5, -4.309092)				
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS	BUCEC	TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD 19 March 20	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
0000	65	0	61	4	0	0	0	0	0	0	0	0	0	0
0100	51	0	43	7	0	0	1	0	0	0	0	0	0	0
0200	33	0	31	2	0	0	0	0	0	0	0	0	0	0
0300	40	1	35	2	0	0	0	0	0	1	1	0	0	0
0400	37	1	29	6	0	0	0	1	0	0	0	0	0	0
0500	28	1	23	3	0	0	1	0	0	0	0	0	0	0
0600	66	0	58	5	0	0	2	0	0	1	0	0	0	0
0700	150	0	133	15	1	0	1	0	0	0	0	0	0	0
0800	284	5	256	21	0	0	0	0	1	0	0	1	0	0
0900	489	9	448	27	0	0	1	0	4	0	0	0	0	0
1000	803	4	747	38	0	2	3	1	5	0	2	1	0	0
1100	930	5	872	32	0	0	8	5	6	0	2	0	0	0
1200	985	8	909	38	0	0	8	2	14	0	3	2	0	1
1300	941	2	874	42	1	0	5	3	8	0	1	2	0	3
1400	900	6	837	39	0	0	1	4	10	0	0	1	0	2
1500	803	2	757	28	0	2	1	2	9	0	2	0	0	0
1600	659	2	632	17	1	0	1	2	3	0	0	1	0	0
1700	580	0	546	27	1	1	1	2	0	1	0	1	0	0
1800	441	2	416	15	1	1	2	0	1	0	1	2	0	0
1900	392	1	372	17	0	0	0	0	0	0	0	2	0	0
2000	302	0	287	10	1	1	1	0	2	0	0	0	0	0
2100	148	0	139	8	0	0	0	0	0	0	1	0	0	0
2200	93	1	84	7	0	0	0	0	1	0	0	0	0	0
2300	35	0	32	11	1	0	0	0	0	0	1	0	0	0
07-19	7965	45	7427	339	5	6	32	21	61	1	11	11	0	6
06-22	8873	46	8283	379	6	7	35	21	63	2	12	13	0	6
06-00	9001	47	8399	387	7	7	35	21	64	2	13	13	0	6
00-00	9255	50	8621	411	7	7	37	22	64	3	14	13	0	6

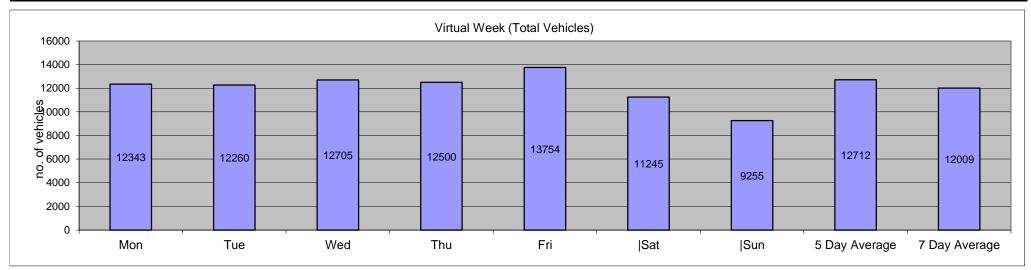
	SS1040 Parc	Pensarn				Site	1	Location		o the south o		tops adjacen	t to Morriso	ns
16 March 20	)23	to	22 March 2	023		Direction	Southbound	l	(51.845865	5, -4.309092)				
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	FOUR OR MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	SIX AXLE MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
20 March 20	)23													
0000	13	0	12	0	0	0	0	0	0	0	0	1	0	0
0100	13	0	10	2	0	1	0	0	0	0	0	0	0	0
0200	11	1	7	1	0	1	0	0	0	0	0	0	0	1
0300	12	1	10	0	0	0	0	0	0	1	0	0	0	0
0400	27	1	22	4	0	0	0	0	0	0	0	0	0	0
0500	78	1	61	8	2	2	1	0	0	0	3	0	0	0
0600	235	0	195	24	1	2	8	1	3	0	0	1	0	0
0700	583	1	498	62	4	4	7	2	3	1	1	0	0	0
0800	1045	10	942	55	2	5	13	4	5	1	6	2	0	0
0900	752	2	640	75	3	1	6	4	13	0	3	1	0	4
1000	783	1	690	62	4	4	6	2	8	1	2	3	0	0
1100	913	2	831	56	0	0	5	6	8	0	2	1	0	2
1200	914	1	823	59	2	2	7	3	10	1	2	3	0	1
1300	903	2	805	59	2	3	10	6	6	1	4	3	0	2
1400	804	3	714	67	0	2	8	0	2	0	3	2	0	3
1500	1113	7	1022	58	3	3	7	3	4	1	2	1	0	2
1600	1252	11	1126	66	1	1	15	5	15	0	2	7	1	2
1700	1120	1	1006	78	1	3	10	4	9	1	3	4	0	0
1800	686	0	627	36	0	2	2	7	6	1	3	2	0	0
1900	445	0	413	25	0	0	2	0	1	0	3	1	0	0
2000	297	0	281	10	1	0	1	1	2	0	0	1	0	0
2100	189	2	176	8	0	1	2	0	0	0	0	0	0	0
2200	106	0	94	10	0	1	0	1	0	0	0	0	0	0
2300	49	1	45	1	1	0	1	0	0	0	0	0	0	0
07-19	10868	41	9724	733	22	30	96	46	89	8	33	29	1	16
06-22	12034	43	10789	800	24	33	109	48	95	8	36	32	1	16
06-00	12189	44	10928	811	25	34	110	49	95	8	36	32	1	16
00-00	12343	48	11050	826	27	38	111	49	95	9	39	33	1	17

	SS1040 Pard	Pensarn				Site	1	Location	A484 just t	o the south o	f the bus st	tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Southbound	l	(51.845865	i, -4.309092)				
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
21 March 20														
0000	21	1	20	0	0	0	0	0	0	0	0	0	0	0
0100	13	0	12	0	0	1	0	0	0	0	0	0	0	0
0200	5	0	4	0	1	0	0	0	0	0	0	0	0	0
0300	9	0	5	3	0	0	0	0	0	0	0	1	0	0
0400	19	0	19	0	0	0	0	0	0	0	0	0	0	0
0500	98	0	80	9	2	3	0	1	1	0	1	1	0	0
0600	257	1	207	30	2	4	7	1	1	1	1	2	0	0
0700	589	0	508	63	3	5	2	0	7	0	0	1	0	0
0800	1033	3	916	70	10	2	7	6	11	0	3	3	0	2
0900	751	4	658	62	3	2	4	2	5	0	4	4	0	3
1000	690	3	599	69	2	2	6	4	1	0	1	2	0	1
1100	792	4	691	75	1	2	3	3	8	1	2	2	0	0
1200	946	2	864	55	3	3	4	3	8	0	3	1	0	0
1300	881	6	790	60	1	1	5	3	7	1	2	4	0	1
1400	919	2	824	68	3	2	7	1	4	1	3	3	0	1
1500	1066	7	944	81	2	4	6	4	10	1	1	3	0	3
1600	1175	7	1069	63	4	1	5	5	11	0	4	3	0	3
1700	1151	5	1050	61	1	1	7	7	9	1	7	2	0	0
1800	760	2	700	44	1	1	2	2	7	0	0	0	0	1
1900	423	0	393	19	2	0	1	3	2	0	2	0	0	1
2000	321	1	303	14	1	0	0	0	0	0	0	2	0	0
2100	211	1	202	6	0	0	0	0	1	0	0	1	0	0
2200	101	2	92	7	0	0	0	0	0	0	0	0	0	0
2300	29	0	28	1	0	0	0	0	0	0	0	0	0	0
07-19	10753	45	9613	771	34	26	58	40	88	5	30	28	0	15
06-22	11965	48	10718	840	39	30	66	44	92	6	33	33	0	16
06-00	12095	50	10838	848	39	30	66	44	92	6	33	33	0	16
00-00	12260	51	10978	860	42	34	66	45	93	6	34	35	0	16

	SS1040 Pard	Pensarn				Site	1	Location		o the south o	f the bus s	tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Southbound		(51.845865	5, -4.309092)				
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS	DUCES	TWO AXLE, SIX TYRE,	AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD 22 March 20	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
		0	17	3	0	0	1	0	0	0	0	0	0	0
0000	21 14	0	11	2	0	0 1	0	0	0	0	0	0	0	0
0100 0200	11	0	6	2	1		0	0	0	0	1	1	0	
0300	10	1	6	2	0	0	0	0	0	0	0	1	0	0
0400	19	0	17	1	0	0	0	0	0	1	0	0	0	0
0500	87	1	73	7	1	2	3	0	0	0	0	0	0	0
0600	251	0	217	22	1	4	3	0	4	0	0	0	0	0
0700	574	4	499	55	3	3	5	1	2	1	0	0	0	1
0800	1083	3	979	62	8	4	5	1	12	0	2	4	0	3
0900	791	3	695	61	1	5	10	1	8	1	0	5	0	1
1000	791	4	697	71	2	3	6	0	4	1	2	1	0	0
1100	902	3	785	86	1	3	3	4	9	1	2	5	0	0
1200	1021	5	933	54	2	3	6	0	11	0	2	4	0	1
1300	928	3	815	72	1	1	8	1	20	0	2	4	0	1
1400	901	1	808	61	1	2	11	3	12	0	2	0	0	0
1500	1112	3	1025	55	5	4	3	4	9	1	0	1	0	2
1600	1171	4	1060	70	2	2	10	6	11	0	3	2	0	1
1700	1057	4	966	62	2	2	1	6	5	0	6	2	0	1
1800	776	2	725	33	0	0	5	0	7	0	0	2	0	2
1900	479	1	440	27	0	0	2	1	3	1	2	1	0	1
2000	297	0	286	8	1	0	1	0	1	0	0	0	0	0
2100	210	1	198	9	0	0	1	0	1	0	0	0	0	0
2200	140	0	127	11	0	1	0	0	0	0	0	1	0	0
2300	59	0	56	2	1	0	0	0	0	0	0	0	0	0
07-19	11107	39	9987	742	28	32	73	27	110	5	21	30	0	13
06-22	12344	41	11128	808	30	36	80	28	119	6	23	31	0	14
06-00	12543	41	11311	821	31	37	80	28	119	6	23	32	0	14
00-00	12705	43	11441	838	33	40	84	28	119	7	24	34	0	14

	SS1040 Pard	Pensarn				Site	1	Location	A484 just t	o the south o	f the bus s	tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Southbound	d	(51.845865	5, -4.309092)				
			CARS OR			TWO		FOUR OR	FOUR OR		SIX OR	FIVE OR LESS AXLE		SEVEN OR
<b>T</b>	TOTAL	MOTOR	CAR-	LIGHT		AXLE, SIX	THREE	MORE	LESS		MORE	MULTI-	MULTI-	MORE
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	BASED LGV	GOODS VEHICLES	BUSES	TYRE, RIGID	AXLE RIGID	AXLE RIGID	AXLE ARTIC	FIVE AXLE ARTIC	AXLE ARTIC	TRAILER ARTIC	TRAILER ARTIC	AXLE ARTIC
Average Da		CICLLO	LOV	VEHICLES	DOSES	KIGID	KIGID	MIGID	ARTIC	ARTIC	ARTIC	AITIC	AITIT	ARIIC
0000	29	0	27	1	0	0	0	0	0	0	0	0	0	0
0100	19	0	16	2	0	1	0	0	0	0	0	0	0	0
0200	13	0	11	1	0	0	0	0	0	0	0	0	0	0
0300	15	1	12	1	0	0	0	0	0	0	0	1	0	0
0400	26	0	22	2	0	0	0	0	0	0	0	0	0	0
0500	72	1	58	7	1	2	2	0	1	0	1	0	0	0
0600	212	0	176	23	1	3	4	0	2	0	0	0	0	0
0700	471	1	407	47	2	4	3	1	3	0	1	1	0	0
0800	863	4	779	49	5	3	6	3	7	1	2	2	0	1
0900	726	3	643	55	2	3	5	2	8	0	1	2	0	1
1000	799	3	711	61	2	3	6	2	6	1	2	2	0	0
1100	907	3	822	58	1	2	4	5	7	1	3	2	0	1
1200	1010	3	925	54	1	2	7	2	9	0	3	2	0	1
1300	952	3	861	59	2	1	7	3	9	1	2	2	0	1
1400	897	3	814	56	1	2	5	2	7	0	2	2	0	1
1500	1026	4	942	54	2	3	4	3	7	1	1	2	0	1
1600	1071	5	978	59	2	1	7	5	9	0	2	2	0	2
1700	975	2	895	53	1	2	5	5	7	0	4	2	0	0
1800	678	1	628	32	0	1	3	2	5	0	1	1	0	1
1900	477	1	446	23	0	0	2	1	2	0	1	1	0	1
2000	337	1	320	13	1	0	1	0	1	0	0	0	0	0
2100	224	1	211	9	0	0	1	0	1	0	0	0	0	0
2200	140	1	129	9	0	0	0	0	0	0	0	0	0	0
2300	69	0	65	3	0	0	0	0	0	0	0	0	0	0
07-19	10375	35	9406	638	21	27	63	36	83	4	25	22	1	12
06-22	11625	37	10559	707	24	31	71	38	89	5	27	24	1	12
06-00	11834	38	10754	719	24	31	71	38	89	5	27	24	1	12
00-00	12009	40	10899	734	26	34	74	38	90	5	28	25	1	12

	SS1040 Parc	Pensarn				Site	1	Location	A484 just t	o the south o	f the bus s	tops adjacen	t to Morriso	ns
16 March 20	)23	to	22 March 2	023		Direction	Southbound		(51.84586	5, -4.309092)				
												FIVE OR LESS		
			CARS OR			TWO		FOUR OR			SIX OR	AXLE		SEVEN OR
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	MORE AXLE RIGID	LESS AXLE ARTIC	FIVE AXLE ARTIC	MORE AXLE ARTIC	MULTI- TRAILER ARTIC	MULTI- TRAILER ARTIC	MORE AXLE ARTIC
Virtual Wee	k													
Mon	12343	48	11050	826	27	38	111	49	95	9	39	33	1	17
Tue	12260	51	10978	860	42	34	66	45	93	6	34	35	0	16
Wed	12705	43	11441	838	33	40	84	28	119	7	24	34	0	14
Thu	12500	32	11229	837	41	58	84	50	103	4	23	25	2	12
Fri	13754	37	12519	827	22	41	79	42	100	3	42	23	3	16
Sat	11245	22	10458	542	11	22	55	30	57	5	21	14	2	6
Sun	9255	50	8621	411	7	7	37	22	64	3	14	13	0	6
5 Day Avera	ige													
[]	12712	42	11443	838	33	42	85	43	102	6	32	30	1	15
7 Day Avera	ige													
[]	12009	40	10899	734	26	34	74	38	90	5	28	25	1	12
<b>Total Vehicl</b>	les			·		·				·		·		
[]	84062	283	76296	5141	183	240	516	266	631	37	197	177	8	87



	SS1040 Pard	Pensarn				Site	1	Location	_	o the south o	f the bus s	tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	023		Direction	Two-Way		(51.84586	5, -4.309092)				
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
16 March 20		010220			20020	141012	14.012	112022	7	7	7111111	744120	7111110	7
0000	28	0	28	0	0	0	0	0	0	0	0	0	0	0
0100	18	0	14	4	0	0	0	0	0	0	0	0	0	0
0200	15	0	9	0	2	0	1	0	2	0	0	1	0	0
0300	20	0	13	1	0	0	2	0	1	0	1	1	0	1
0400	54	2	44	3	0	0	0	0	2	1	0	1	0	1
0500	183	0	144	11	0	2	11	2	10	0	0	1	0	2
0600	554	0	456	37	5	5	15	5	17	1	1	3	0	9
0700	1299	19	1106	63	4	9	44	1	15	0	3	7	2	26
0800	2320	42	2022	109	14	8	50	6	18	4	10	9	10	18
0900	1610	45	1386	76	7	7	36	1	17	1	6	10	3	15
1000	1472	27	1252	81	2	5	51	4	12	3	6	9	4	16
1100	1616	42	1386	103	4	6	24	5	8	2	13	10	1	12
1200	1870	25	1631	100	4	6	42	2	10	4	13	10	7	16
1300	1795	57	1537	99	5	4	44	2	13	1	9	7	4	13
1400	1660	52	1415	89	4	9	34	1	18	4	6	4	4	20
1500	2063	63	1810	85	4	10	33	5	16	0	8	10	5	14
1600	2112	63	1825	104	5	4	44	6	14	4	7	9	6	21
1700	1965	57	1702	70	2	6	54	16	15	1	7	9	6	20
1800	1431	24	1275	48	1	2	41	1	12	0	6	5	3	13
1900	949	14	846	41	0	1	32	2	4	0	2	2	1	4
2000	697	6	634	28	2	0	22	1	1	0	2	1	0	0
2100	436	3	390	19	0	1	14	2	5	0	1	1	0	0
2200	261	0	243	13	1	2	1	0	1	0	0	0	0	0
2300	103	0	96	5	0	0	0	1	1	0	0	0	0	0
07-19	21213	516	18347	1027	56	76	497	50	168	24	94	99	55	204
06-22	23849	539	20673	1152	63	83	580	60	195	25	100	106	56	217
06-00	24213	539	21012	1170	64	85	581	61	197	25	100	106	56	217
00-00	24531	541	21264	1189	66	87	595	63	212	26	101	110	56	221

	SS1040 Pard	Pensarn				Site	1	Location								
16 March 20	23	to	22 March 2	023		Direction	Two-Way		(51.84586	5, -4.309092)						
			CARS OR CAR-	LIGHT		TWO AXLE, SIX	THREE	MORE	FOUR OR LESS		SIX OR MORE	FIVE OR LESS AXLE MULTI-	MULTI-	SEVEN OR MORE		
TIME	TOTAL	MOTOR-	BASED	GOODS		TYRE,	AXLE	AXLE	AXLE	FIVE AXLE	AXLE	TRAILER	TRAILER	AXLE		
PERIOD 47 Marrals 00	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC		
17 March 20		0	40	4	0	0		0	0	0	0	0	0	0		
0000	46	0	43	1	0	0	2	0	0	0	0	0	0	0		
0100	22	0	18	<u> </u>	0	1	2	0	0	0	0	0	0	0		
0200	20	0	18	0	2	0	0	0	2	0	0	0	0	0		
0300	32	0	28 51	2	1	0	3	0	5	0	0	0	0	0		
0500	62 194	3	154	15	1	4	8	0	5	0	1	1	0	2		
0600	610	1	499	53	2	5	22	1	12	1	3	4	1	6		
0700	1241	36	1019	86	2	7	42	3	13	0	3	7	2	21		
0800	2192	59	1894	89	10	7	59	5	15	2	9	15	5	23		
0900	1584	26	1360	98	3	9	46	3	12	1	3	4	3	16		
1000	1716	54	1460	86	3	7	53	5	13	1	6	12	2	14		
1100	1873	32	1648	83	1	2	50	1	11	2	12	10	3	18		
1200	2080	32	1821	104	0	4	55	4	13	1	13	8	7	18		
1300	2072	59	1812	98	3	0	42	3	12	1	14	9	5	14		
1400	1939	36	1695	91	2	6	49	6	17	0	4	21	3	9		
1500	2223	52	1976	100	3	5	31	6	18	3	4	10	4	11		
1600	2369	67	2077	104	3	2	56	7	15	3	11	3	5	16		
1700	2085	64	1846	90	2	0	30	3	12	3	10	7	6	12		
1800	1595	37	1426	52	0	1	35	3	7	3	7	3	3	18		
1900	1200	20	1083	44	1	0	32	1	5	0	1	1	4	8		
2000	796	11	731	23	0	0	19	0	5	0	1	0	2	4		
2100	546	0	492	18	0	1	23	1	1	0	3	1	0	6		
2200	377	7	338	6	0	0	18	2	2	0	1	1	1	1		
2300	199	5	183	5	0	0	5	0	1	0	0	0	0	0		
07-19	22969	554	20034	1081	32	50	548	49	158	20	96	109	48	190		
06-22	26121	586	22839	1219	35	56	644	52	181	21	104	115	55	214		
06-00	26697	598	23360	1230	35	56	667	54	184	21	105	116	56	215		
00-00	27073	601	23672	1250	39	61	682	54	196	21	106	118	56	217		

	SS1040 Pard	Pensarn				Site	1	Location								
16 March 20	)23	to	22 March 2	023		Direction	Two-Way		(51.84586	5, -4.309092)						
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE		
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC		
18 March 20		1	67	2	1	0	2	2	1	0	0	0	0	0		
0000	77 36	0	67 34	2	0	0	0	0	0	0	0	0	0	0		
0100 0200	25	0	23	0	0	1	0	1	0	0	0	0	0	0		
0300	22	1	17	1	0	2	0	0	0	0	0	1	0	0		
0400	47	0	39	2	0	0	4	0	2	0	0	0	0	0		
0500	82	0	68	4	2	4	2	0	0	0	0	0	0	2		
0600	327	1	271	22	5	2	15	1	3	0	2	2	0	3		
0700	514	2	437	47	1	6	11	1	5	0	0	0	1	3		
0800	983	12	851	44	2	3	37	3	8	2	5	4	1	11		
0900	1463	29	1274	58	3	3	62	5	12	0	5	2	2	8		
1000	1873	60	1604	93	1	1	51	3	10	3	10	8	8	21		
1100	2173	41	1943	73	0	3	52	8	8	3	10	11	6	15		
1200	2342	46	2123	83	0	1	33	2	15	0	7	11	3	18		
1300	2139	37	1924	71	2	5	49	1	19	1	8	11	4	7		
1400	1911	40	1700	56	2	2	57	4	11	4	7	7	4	17		
1500	1615	47	1435	62	1	2	40	1	11	1	3	2	2	8		
1600	1500	48	1314	62	0	1	46	3	8	0	4	5	2	7		
1700	1404	26	1262	48	1	3	40	2	5	0	6	2	2	7		
1800	1041	19	919	46	0	3	39	1	4	0	4	0	0	6		
1900	856	7	790	16	0	0	35	1	2	0	1	1	1	2		
2000	622	2	569	22	0	0	26	0	1	0	1	0	1	0		
2100	500	3	450	12	1	0	23	1	5	1	1	1	1	1		
2200	346	0	314	18	0	0	11	1	0	0	2	0	0	0		
2300	230	3	202	10	0	0	14	0	1	0	0	0	0	0		
07-19	18958	407	16786	743	13	33	517	34	116	14	69	63	35	128		
06-22	21263	420	18866	815	19	35	616	37	127	15	74	67	38	134		
06-00	21839	423	19382	843	19	35	641	38	128	15	76	67	38	134		
00-00	22128	425	19630	855	22	42	649	41	131	15	76	68	38	136		

	Site	1	Location	A484 just to the south of the bus stops adjacent to Morrisons										
16 March 20	16 March 2023 to 22 Ma		22 March 2	023		Direction	Two-Way		(51.84586	5, -4.309092)				
			CARS OR CAR-	LIGHT		TWO AXLE, SIX	THREE	MORE	FOUR OR LESS		SIX OR MORE	FIVE OR LESS AXLE MULTI-	MULTI-	SEVEN OR MORE
TIME	TOTAL	MOTOR-	BASED	GOODS	DUCEC	TYRE,	AXLE	AXLE	AXLE	FIVE AXLE	AXLE	TRAILER	TRAILER	AXLE
PERIOD 19 March 20	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
0000	112	0	105	5	0	0	1	0	0	0	1	0	0	0
0100	86	1	70	9	0	0	6	0	0	0	0	0	0	0
0200	59	0	54	3	0	0	2	0	0	0	0	0	0	0
0300	73	1	62	3	0	0	5	0	0	1	1	0	0	0
0400	58	1	48	7	0	0	0	1	0	0	1	0	0	0
0500	58	2	49	3	0	0	3	0	0	1	0	0	0	0
0600	159	0	138	7	0	0	7	1	1	1	0	0	0	4
0700	299	0	258	22	3	0	10	1	4	0	1	0	0	0
0800	531	9	470	29	0	0	14	0	5	0	2	1	0	1
0900	896	18	801	41	0	0	19	0	5	0	4	0	1	7
1000	1561	48	1375	56	0	3	44	1	6	1	8	4	6	9
1100	1901	47	1685	65	0	1	54	6	10	2	8	5	2	16
1200	2015	54	1793	60	0	0	50	2	20	0	8	10	4	14
1300	1870	56	1638	72	2	0	54	3	9	0	5	7	2	22
1400	1732	55	1513	58	1	1	51	4	17	2	10	5	3	12
1500	1553	39	1387	43	0	2	41	4	17	0	6	2	2	10
1600	1290	42	1131	38	1	0	56	2	3	1	2	4	1	9
1700	1084	13	982	41	1	2	34	2	1	1	2	2	0	3
1800	859	13	770	33	1	1	27	0	2	0	2	2	0	8
1900	691	7	620	29	0	0	24	1	1	0	1	4	0	4
2000	517	0	469	17	1	1	22	0	3	0	1	1	0	2
2100	270	0	248	9	1	0	9	0	0	0	2	1	0	0
2200	173	1	150	8	0	0	8	0	2	0	1	1	0	2
2300	62	0	51	2	1	0	6	0	1	0	1	0	0	0
07-19	15591	394	13803	558	9	10	454	25	99	7	58	42	21	111
06-22	17228	401	15278	620	11	11	516	27	104	8	62	48	21	121
06-00	17463	402	15479	630	12	11	530	27	107	8	64	49	21	123
00-00	17909	407	15867	660	12	11	547	28	107	10	67	49	21	123

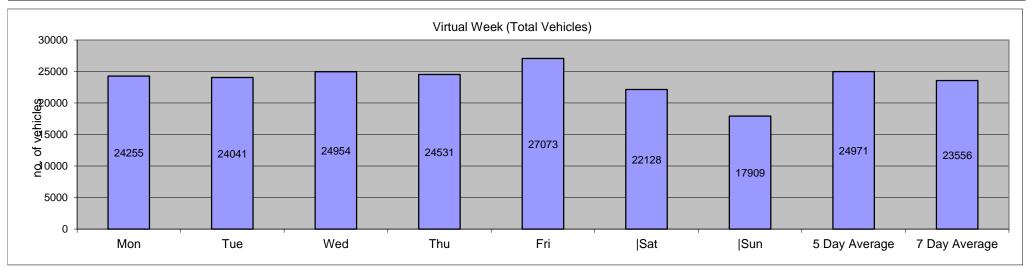
	SS1040 Parc	: Pensarn				0.10	1	Location	A484 just to the south of the bus stops adjacent to Morrisons (51.845865, -4.309092)						
16 March 20	023	to	22 March 2	023		Direction	Two-Way		(51.845865	, -4.309092)					
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE	
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	
20 March 20				_						_					
0000	27	1	20	2	0	0	2	0	0	0	0	2	0	0	
0100	22	0	18	2	0	1	0	0	1	0	0	0	0	0	
0200	26	1	20	1	1	1	0	0	1	0	0	0	0	1	
0300	18	1	15	1	0	0	0	0	0	1	0	0	0	0	
0400	55	1	46	5 11	0	0	0	1	3	0	0	0	0	0	
0500	173	2	133		2	3	13	•	3 8	0	4	1	0	0	
0600	540	2 24	458	36	4	2 6	20 57	2	9	1	3	3	1	2	
0700	1306	56	1080	98 95	5		57	5 5	8	1	12			14 13	
0800 0900	2179 1512	32	1904 1250	95 111	8	9 6	48	4	19	0	8	8 7	<u>6</u> 1	18	
1000	1512	30	1294	94	4	8	43	2	9	3	6	6	7	15	
1100	1778	35	1544	100	2	6	44	7	10	1	10	8	0	11	
1200	1832	25	1597	99	4	7	42	3	18	1	11	10	2	13	
1300	1746	36	1504	98	3	5	40	6	12	3	11	16	3	9	
1400	1625	35	1394	105	1	5	43	0	10	1	10	4	0	17	
1500	2083	66	1830	85	7	7	39	3	11	2	6	5	5	17	
1600	2208	74	1920	91	2	2	45	6	24	0	7	15	6	16	
1700	1999	81	1727	83	1	4	46	4	10	3	9	11	7	13	
1800	1345	44	1162	49	0	2	38	8	12	5	7	8	2	8	
1900	909	15	807	33	0	1	30	0	6	1	4	3	0	9	
2000	642	14	572	12	1	0	28	1	6	0	1	2	1	4	
2100	412	7	373	12	0	1	12	1	1	0	2	2	0	1	
2200	209	2	178	16	0	2	8	2	0	0	0	0	0	1	
2300	88	2	77	1	1	0	3	1	2	0	0	0	0	1	
07-19	21134	538	18206	1108	42	67	542	53	152	21	100	101	40	164	
06-22	23637	576	20416	1201	47	71	632	57	173	22	110	111	41	180	
06-00	23934	580	20671	1218	48	73	643	60	175	22	110	111	41	182	
00-00	24255	586	20923	1240	51	78	658	61	183	23	114	114	41	183	

	SS1040 Pard	Pensarn				Site	1	Location	A484 just to the south of the bus stops adjacent to Morrisons							
16 March 20	23	to	22 March 2	023		Direction	Two-Way		(51.84586	5, -4.309092)						
			CARS OR CAR-	LIGHT		TWO AXLE, SIX	THREE	MORE	FOUR OR LESS		SIX OR MORE	FIVE OR LESS AXLE MULTI-	MULTI-	SEVEN OR MORE		
TIME	TOTAL	MOTOR-	BASED	GOODS	DUCEC	TYRE,	AXLE	AXLE	AXLE	FIVE AXLE	AXLE	TRAILER	TRAILER	AXLE		
PERIOD 21 March 20	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC		
0000	36	2	32	0	0	0	2	0	0	0	0	0	0	0		
0100	23	0	20	0	0	1	1	0	1	0	0	0	0	0		
0200	13	0	9	1	2	0	0	1	0	0	0	0	0	0		
0300	17	0	12	4	0	0	0	0	0	0	0	1	0	0		
0400	50	1	42	1	0	0	0	0	6	0	0	0	0	0		
0500	207	2	171	11	2	3	5	1	7	0	1	2	0	2		
0600	579	7	467	44	3	5	25	3	7	1	2	8	0	7		
0700	1296	19	1078	94	3	6	36	0	12	0	10	9	3	26		
0800	2195	41	1883	103	17	7	62	7	26	1	10	5	5	28		
0900	1554	26	1325	97	6	3	42	2	10	2	9	7	3	22		
1000	1418	33	1163	110	3	6	56	4	3	2	5	11	1	21		
1100	1591	25	1353	120	2	4	38	3	11	1	12	8	2	12		
1200	1877	26	1661	91	3	9	37	3	14	2	5	6	3	17		
1300	1699	34	1481	99	1	4	35	3	10	2	9	11	2	8		
1400	1762	36	1521	110	3	4	46	1	7	4	8	6	4	12		
1500	1980	57	1711	104	5	9	36	4	15	2	6	10	3	18		
1600	2181	79	1883	88	6	1	49	5	19	2	8	11	9	21		
1700	2101	65	1845	79	1	4	46	7	13	2	11	7	3	18		
1800	1431	41	1267	58	1	2	34	3	9	1	3	3	1	8		
1900	812	17	735	20	2	0	11	4	7	2	5	2	2	5		
2000	582	11	519	18	2	0	9	2	12	2	2	2	0	3		
2100	384	3	359	8	0	0	9	1	2	0	0	2	0	0		
2200	199	4	178	9	0	0	3	0	3	0	1	0	0	1		
2300	54	0	50	1	0	0	0	1	2	0	0	0	0	0		
07-19	21085	482	18171	1153	51	59	517	42	149	21	96	94	39	211		
06-22	23442	520	20251	1243	58	64	571	52	177	26	105	108	41	226		
06-00	23695	524	20479	1253	58	64	574	53	182	26	106	108	41	227		
00-00	24041	529	20765	1270	62	68	582	55	196	26	107	111	41	229		

	SS1040 Parc Pensarn							Location	A484 just to the south of the bus stops adjacent to Morrisons (51.845865, -4.309092)						
16 March 20	)23	to	22 March 20	023		Direction	Two-Way		(51.84586	5, -4.309092)					
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	FOUR OR MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	SIX AXLE MULTI- TRAILER	SEVEN OR MORE AXLE	
PERIOD	VEHICLES	CYCLES	LGV	<b>VEHICLES</b>	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	
22 March 20	)23														
0000	36	0	30	3	0	0	2	0	1	0	0	0	0	0	
0100	28	0	22	2	0	2	1	0	0	0	0	1	0	0	
0200	15	0	8	2	1	0	1	0	0	0	1	1	0	1	
0300	28	1	17	2	0	0	2	1	3	0	0	1	0	1	
0400	44	0	36	2	0	0	1	1	2	1	0	0	0	1	
0500	188	1	157	8	2	2	3	1	7	0	0	2	0	5	
0600	568	6	478	38	3	5	18	1	8	0	0	2	0	9	
0700	1295	19	1088	93	3	3	47	2	7	3	5	8	1	16	
0800	2354	53	2032	121	16	9	52	3	21	2	8	11	4	22	
0900	1647	36	1390	110	3	9	50	2	14	2	1	11	4	15	
1000	1529	26	1325	93	3	6	36	1	8	1	10	4	2	14	
1100	1773	35	1510	125	3	4	46	4	12	3	12	9	0	10	
1200	1986	42	1733	83	3	6	64	0	19	1	7	8	2	18	
1300	1762	31	1503	120	2	3	48	1	25	1	7	11	2	8	
1400	1737	29	1495	102	5	4	55	5	19	0	5	2	6	10	
1500	2122	52	1887	72	10	8	40	5	19	2	0	15	5	7	
1600	2131	50	1863	106	4	3	31	6	16	2	10	11	9	20	
1700	2050	87	1773	83	3	2	36	7	7	3	12	8	12	17	
1800	1447	43	1283	48	0	0	42	0	8	1	2	6	3	11	
1900	921	17	821	35	1	0	27	2	5	1	2	3	0	7	
2000	569	9	522	11	1	0	21	0	3	1	1	0	0	0	
2100	378	7	345	12	0	0	9	1	3	0	0	0	0	1	
2200	228	4	199	12	0	1	5	2	3	0	0	1	0	1	
2300	118	2	105	4	1	0	5	0	1	0	0	0	0	0	
07-19	21833	503	18882	1156	55	57	547	36	175	21	79	104	50	168	
06-22	24269	542	21048	1252	60	62	622	40	194	23	82	109	50	185	
06-00	24615	548	21352	1268	61	63	632	42	198	23	82	110	50	186	
00-00	24954	550	21622	1287	64	67	642	45	211	24	83	115	50	194	

	SS1040 Parc	Pensarn				Site	1	Location		o the south o		tops adjacen	t to Morriso	ns
16 March 20	23	to	22 March 2	023		Direction	Two-Way		(51.84586	5, -4.309092)				
			CARS OR CAR-	LIGHT		TWO AXLE, SIX	THREE	MORE	FOUR OR LESS		SIX OR MORE	FIVE OR LESS AXLE MULTI-	MULTI-	SEVEN OR MORE
TIME	TOTAL	MOTOR-	BASED	GOODS	D. 1656	TYRE,	AXLE	AXLE	AXLE	FIVE AXLE	AXLE	TRAILER	TRAILER	AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
Average Day	<u>52</u>	1	46	2	0	0	2	0	0	0	0	0	0	0
0100	34	0	28	3	0	1	1	0	0	0	0	0	0	0
0200	25	0	20	1	1	0	1	0	0	0	0	0	0	0
0300	30	1	23	2	0	0	1	0	1	0	0	1	0	0
0400	53	1	44	3	0	0	1	0	3	0	0	0	0	0
0500	155	1	125	9	1	3	6	1	5	0	1	1	0	2
0600	477	2	395	34	3	3	17	2	8	1	2	3	0	6
0700	1036	17	867	72	3	5	35	2	9	1	4	5	1	15
0800	1822	39	1579	84	9	6	47	4	14	2	8	8	4	17
0900	1467	30	1255	84	4	5	43	2	13	1	5	6	2	14
1000	1584	40	1353	88	2	5	48	3	9	2	7	8	4	16
1100	1815	37	1581	96	2	4	44	5	10	2	11	9	2	13
1200	2000	36	1766	89	2	5	46	2	16	1	9	9	4	16
1300	1869	44	1628	94	3	3	45	3	14	1	9	10	3	12
1400	1767	40	1533	87	3	4	48	3	14	2	7	7	3	14
1500	1948	54	1719	79	4	6	37	4	15	1	5	8	4	12
1600	1970	60	1716	85	3	2	47	5	14	2	7	8	5	16
1700	1813	56	1591	71	2	3	41	6	9	2	8	7	5	13
1800	1307	32	1157	48	0	2	37	2	8	1	4	4	2	10
1900	905	14	815	31	1	0	27	2	4	1	2	2	1	6
2000	632	8	574	19	1	0	21	1	4	0	1	1	1	2
2100	418	3	380	13	0	0	14	1	2	0	1	1	0	1
2200	256	3	229	12	0	1	8	1	2	0	1	0	0	1
2300	122	2	109	4	0	0	5	0	1	0	0	0	0	0
07-19	20398	485	17747	975	37	50	517	41	145	18	85	87	41	168
06-22	22830	512	19910	1072	42	55	597	46	164	20	91	95	43	182
06-00	23208	516	20248	1087	42	55	610	48	167	20	92	95	43	183
00-00	23556	520	20535	1107	45	59	622	50	177	21	93	98	43	186

	SS1040 Parc	Pensarn				Site	1	Location	A484 just	to the south o	f the bus s	tops adjacen	t to Morriso	ns
16 March 20	023	to	22 March 2	.023		Direction	Two-Way		(51.84586	5, -4.309092)				
												FIVE OR LESS		
			CARS OR			TWO		FOUR OR	FOUR OR		SIX OR	AXLE		
			CAR-	LIGHT		AXLE, SIX	THREE	MORE	LESS		MORE	MULTI-	MULTI-	MORE
TIME PERIOD	TOTAL VEHICLES	MOTOR-	BASED LGV	GOODS	BUSES	TYRE, RIGID	AXLE	AXLE	AXLE	FIVE AXLE	AXLE	TRAILER	TRAILER	AXLE
Virtual Wee		CYCLES	LGV	VEHICLES	DUSES	KIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
Mon	24255	586	20923	1240	51	78	658	61	183	23	114	114	41	183
Tue	24041	529	20765	1270	62	68	582	55	196	26	107	111	41	229
Wed	24954	550	21622	1287	64	67	642	45	211	24	83	115	50	194
Thu	24531	541	21264	1189	66	87	595	63	212	26	101	110	56	221
Fri	27073	601	23672	1250	39	61	682	54	196	21	106	118	56	217
Sat	22128	425	19630	855	22	42	649	41	131	15	76	68	38	136
Sun	17909	407	15867	660	12	11	547	28	107	10	67	49	21	123
5 Day Avera	ige													
[]	24971	561	21649	1247	56	72	632	56	200	24	102	114	49	209
7 Day Avera														
[]	23556	520	20535	1107	45	59	622	50	177	21	93	98	43	186
Total Vehicl														
[]	164891	3639	143743	7751	316	414	4355	347	1236	145	654	685	303	1303



		SS1040 I	Parc Pensarn														
		MAR	CH 2023			Posted Speed					d Speed (PSL)		PSL) + 2 L1)		PSL+15 SL2)		
Site	Location	Lat / Long	Direction	Start Date	End Date	Limit (PSL)	Total Vehicles	5 Day Ave.	7 Day Ave.	>PSL	>PSL%	>SL1	>SL1%	>SL2	>SL2%		85%ile Speed
			Northbound	16 March 2023	22 March 2023		80829	12258	11547	813	1.0	355	0.4	205	0.3	26.8	31.1
1	A484 just to the south of the bus stops adjacent to Morrisons	51.845865, - 4.309092	Southbound	16 March 2023	22 March 2023	40	84062	12712	12009	102	0.1	81	0.1	60	0.1	23.1	26.6
			Two-Way	16 March 2023	22 March 2023		164891	24971	23556	915	1	436	0	265	0	25	29



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**Severnside** Traffic Management



Job Number & Title: SS1040 Parc Pensarn

**Site Location: Site 2 A484** 

**Survey Date: 16/03/2023** 

**Site Location Plan** 





	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabou	t (51.843691	, -4.309498	)
16 March 20	)23	to	22 March 2	023		Direction	Northbound	d						
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
16 March 20														
0000	4	0	3	1	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	5	0	4	1	0	0	0	0	0	0	0	0	0	0
0300	6	0	5	1	0	0	0	0	0	0	0	0	0	0
0400	24	1	20	3	0	0	0	0	0	0	0	0	0	0
0500	79	0	69	9	0	0	0	0	0	1	0	0	0	0
0600	244	0	199	38	1	1	1	0	2	1	0	1	0	0
0700	578	0	475	92	0	0	1	1	7	0	2	0	0	0
0800	950	0	823	73	10	10	4	1	27	0	1	1	0	0
0900	515	1	428	64	7	1	5	0	8	0	1	0	0	0
1000	404	0	329	56	0	8	4	0	5	0	1	0	0	1
1100	395	2	301	66	1	6	7	0	8	0	0	2	0	2
1200	395	1	320	51	3	4	3	1	9	0	1	2	0	0
1300	368	1	308	44	3	3	4	0	5	0	0	0	0	0
1400	391	2	316	55	1	5	4	0	5	0	2	0	0	1
1500	493	0	428	36	6	7	3	0	11	0	1	1	0	0
1600	408	0	359	38	5	2	1	0	2	0	0	0	0	1
1700	415	0	369	33	4	3	1	0	4	0	0	1	0	0
1800	345	0	308	27	1	2	1	0	6	0	0	0	0	0
1900	173	1	147	20	1	1	2	0	1	0	0	0	0	0
2000	142	0	128	13	0	0	0	0	1	0	0	0	0	0
2100	69	0	64	4	0	0	0	0	1	0	0	0	0	0
2200	46	0	44	2	0	0	0	0	0	0	0	0	0	0
2300	19	0	17	2	0	0	0	0	0	0	0	0	0	0
07-19	5657	7	4764	635	41	51	38	3	97	0	9	7	0	5
06-22	6285	8	5302	710	43	53	41	3	102	1	9	8	0	5
06-00	6350	8	5363	714	43	53	41	3	102	1	9	8	0	5
00-00	6468	9	5464	729	43	53	41	3	102	2	9	8	0	5

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabou	t (51.843691	, -4.309498	)
16 March 20	)23	to	22 March 2	023		Direction	Northbound	d						
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
17 March 20														
0000	10	0	7	2	0	0	0	0	0	1	0	0	0	0
0100	6	0	4	1	0	0	1	0	0	0	0	0	0	0
0200	3	0	2	1	0	0	0	0	0	0	0	0	0	0
0300	12	0	11	1	0	0	0	0	0	0	0	0	0	0
0400	31	0	26	4	0	0	0	0	1	0	0	0	0	0
0500	82	1	66	13	1	0	0	0	0	0	0	1	0	0
0600	245	0	206	35	0	0	0	0	1	1	1	1	0	0
0700	545	1	439	96	1	2	1	0	4	0	1	0	0	0
0800	825	2	712	67	12	8	5	0	14	0	2	3	0	0
0900	511	0	422	74	2	4	1	0	3	1	0	3	0	1
1000	422	0	352	53	0	6	2	0	7	0	2	0	0	0
1100	401	0	332	57	3	1	3	1	3	0	0	1	0	0
1200	427	1	362	53	1	3	1	1	4	0	0	1	0	0
1300	400	2	350	37	1	4	0	0	4	0	0	2	0	0
1400	429	2	372	42	0	4	2	0	4	2	0	1	0	0
1500	536	0	479	31	7	8	4	0	5	0	0	2	0	0
1600	471	1	400	52	5	4	4	0	4	0	1	0	0	0
1700	415	0	373	28	2	2	5	0	3	0	0	1	0	1
1800	304	0	271	23	1	4	2	0	3	0	0	0	0	0
1900	203	0	186	13	1	1	0	0	2	0	0	0	0	0
2000	90	0	84	6	0	0	0	0	0	0	0	0	0	0
2100	90	0	84	5	0	0	1	0	0	0	0	0	0	0
2200	77	0	73	4	0	0	0	0	0	0	0	0	0	0
2300	34	0	32	0	0	0	0	0	0	0	2	0	0	0
07-19	5686	9	4864	613	35	50	30	2	58	3	6	14	0	2
06-22	6314	9	5424	672	36	51	31	2	61	4	7	15	0	2
06-00	6425	9	5529	676	36	51	31	2	61	4	9	15	0	2
00-00	6569	10	5645	698	37	51	32	2	62	5	9	16	0	2

	SS1040 Pard	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	t (51.843691	, -4.309498	)
16 March 20	023	to	22 March 2	023		Direction	Northbound	d						
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
18 March 20		0	47	0	0		0	0	0	0	0		0	0
0000	19	0	17	2	0	0	0	0	0	0	0	0	0	0
0100	10	0	10	0	0	0	0	0	0	0	0	0	0	0
0200 0300	<u>8</u> 9	0	<u>6</u> 6	2	0	1	0	0	0	0	0	0	0	0
0400	19	0	17	2	0	0	0	0	0	0	0	0	0	0
0500	33	0	30	2	0	0	0	0	0	0	1	0	0	0
0600	121	0	100	17	1	1	0	1	0	0	1	0	0	0
0700	169	0	149	20	0	0	0	0	0	0	0	0	0	0
0800	349	1	299	34	1	5	3	1	5	0	0	0	0	0
0900	418	1	360	48	1	1	1	1	4	0	0	0	1	0
1000	401	0	358	31	1	4	4	0	3	0	0	0	0	0
1100	457	2	404	41	0	2	0	1	6	0	0	1	0	0
1200	391	2	344	36	1		1	1	3	0	1	1	0	0
1300	400	2	361	27	0	1	0	0	7	0	0	1	0	1
1400	400	4	346	31	1	3	4	0	10	0	1	0	0	0
1500	307	2	276	24	0	4	0	0	1	0	0	0	0	0
1600	273	0	240	25	2	1	2	0	3	0	0	0	0	0
1700	272	3	237	25	1	4	0	0	2	0	0	0	0	0
1800	193	0	169	19	1	3	1	0	0	0	0	0	0	0
1900	153	1	142	7	1	2	0	0	0	0	0	0	0	0
2000	111	0	100	11	0	0	0	0	0	0	0	0	0	0
2100	93	0	82	7	0	0	2	0	1	0	1	0	0	0
2200	60	0	56	3	0	0	1	0	0	0	0	0	0	0
2300	54	0	50	3	0	0	0	0	1	0	0	0	0	0
07-19	4030	17	3543	361	9	29	16	4	44	0	2	3	1	1
06-22	4508	18	3967	403	11	32	18	5	45	0	4	3	1	1
06-00	4622	18	4073	409	11	32	19	5	46	0	4	3	1	1
00-00	4720	18	4159	418	11	33	20	5	46	0	5	3	1	1

	SS1040 Pard	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	t (51.843691	, -4.309498	3)
16 March 20	)23	to	22 March 2	023		Direction	Northbound	d						
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID		FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
19 March 20														
0000	30	0	28	2	0	0	0	0	0	0	0	0	0	0
0100	24	1	17	5	0	1	0	0	0	0	0	0	0	0
0200	16	0	15	1	0	0	0	0	0	0	0	0	0	0
0300	22	0	20	2	0	0	0	0	0	0	0	0	0	0
0400	17	0	17	0	0	0	0	0	0	0	0	0	0	0
0500	21	1	20	0	0	0	0	0	0	0	0	0	0	0
0600	72	0	67	4	0	0	0	0	0	1	0	0	0	0
0700	107	0	98	6	0	1	1	0	0	0	0	1	0	0
0800	120	0	101	16	0	0	1	0	1	1	0	0	0	0
0900	263	5	231	24	0	0	0	0	2	0	0	1	0	0
1000	364	1	330	27	0	0	0	0	4	1	0	0	0	1
1100	445	4	400	34	1	1	3	0	2	0	0	0	0	0
1200	431	6	384	34	0	0	3	0	3	0	1	0	0	0
1300	408	6	359	36	1	0	2	0	3	0	1	0	0	0
1400	333	8	295	20	0	2	5	0	3	0	0	0	0	0
1500	303	1	265	28	0	1	2	0	5	0	1	0	0	0
1600	296	4	261	26	0	0	2	0	2	1	0	0	0	0
1700	247	1	223	21	1	0	0	0	1	0	0	0	0	0
1800	212	0	190	19	0	0	2	0	1	0	0	0	0	0
1900	127	0	112	13	0	0	1	0	0	0	0	1	0	0
2000	89	0	79	8	0	0	2	0	0	0	0	0	0	0
2100	58	0	51	4	1	0	2	0	0	0	0	0	0	0
2200	34	0	30	3	0	0	0	0	1	0	0	0	0	0
2300	15	0	14	1	0	0	0	0	0	0	0	0	0	0
07-19	3529	36	3137	291	3	5	21	0	27	3	3	2	0	1
06-22	3875	36	3446	320	4	5	26	0	27	4	3	3	0	1
06-00	3924	36	3490	324	4	5	26	0	28	4	3	3	0	1
00-00	4054	38	3607	334	4	6	26	0	28	4	3	3	0	1

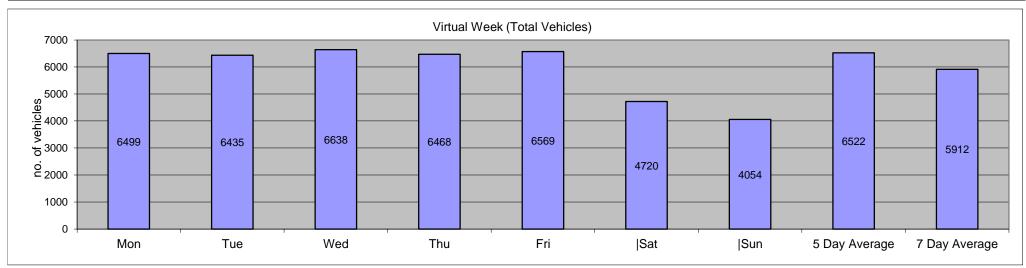
	SS1040 Pard	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	t (51.843691	, -4.309498	3)
16 March 20	023	to	22 March 2	023		Direction	Northbound	d						
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS	DUGEG	TWO AXLE, SIX TYRE,	THREE AXLE	FOUR OR MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD 20 March 20	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
0000	11	1	6	4	0	0	0	0	0	0	0	0	0	0
0100	6	0	5	1	0	0	0	0	0	0	0	0	0	0
0200	7	0	6	1	0	0	0	0	0	0	0	0	0	0
0300	3	0	2	1	0	0	0	0	0	0	0	0	0	0
0400	24	0	20	4	0	0	0	0	0	0	0	0	0	0
0500	70	0	59	10	0	0	0	0	1	0	0	0	0	0
0600	240	0	200	35	1	0	1	1	1	0	1	0	0	0
0700	600	3	480	108	0	1	4	0	3	0	1	0	0	0
0800	892	1	774	72	13	7	5	1	17	0	1	1	0	0
0900	465	0	391	56	4	6	2	0	3	1	1	1	0	0
1000	383	0	324	42	0	4	3	2	6	0	1	1	0	0
1100	375	1	311	52	4	3	0	0	2	0	2	0	0	0
1200	381	0	322	54	1	1	1	0	1	0	0	1	0	0
1300	345	0	284	46	2	1	5	0	3	1	0	3	0	0
1400	345	2	281	53	0	2	3	0	3	0	1	0	0	0
1500	527	0	453	45	8	6	2	0	10	0	1	1	0	1
1600	479	0	420	45	2	2	3	0	7	0	0	0	0	0
1700	408	1	364	31	2	3	2	0	5	0	0	0	0	0
1800	326	1	293	21	0	4	0	1	5	0	0	1	0	0
1900	226	1	203	19	1	2	0	0	0	0	0	0	0	0
2000	191	0	180	10	0	0	0	0	1	0	0	0	0	0
2100	145	0	131	11	0	0	2	0	0	0	0	1	0	0
2200	37	0	31	5	0	0	1	0	0	0	0	0	0	0
2300	13	0	12	1	0	0	0	0	0	0	0	0	0	0
07-19	5526	9	4697	625	36	40	30	4	65	2	8	9	0	1
06-22	6328	10	5411	700	38	42	33	5	67	2	9	10	0	1
06-00	6378	10	5454	706	38	42	34	5	67	2	9	10	0	1
00-00	6499	11	5552	727	38	42	34	5	68	2	9	10	0	1

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	t (51.843691	, -4.309498	)
16 March 20	023	to	22 March 2	023		Direction	Northbound	d						
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
21 March 20		CTCLES	LGV	AEUICLES	DUSES	KIGID	KIGID	KIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
0000	8	1	4	2	0	0	0	0	0	1	0	0	0	0
0100	4	0	3	0	0	0	0	0	1	0	0	0	0	0
0200	5	0	3	2	0	0	0	0	0	0	0	0	0	0
0300	2	0	1	1	0	0	0	0	0	0	0	0	0	0
0400	25	0	22	3	0	0	0	0	0	0	0	0	0	0
0500	85	0	73	12	0	0	0	0	0	0	0	0	0	0
0600	249	0	205	38	1	0	0	1	3	0	0	1	0	0
0700	594	4	481	100	0	0	4	1	3	0	1	0	0	0
0800	906	0	788	65	8	7	5	1	27	0	1	3	0	1
0900	504	0	429	63	1	3	1	0	6	1	0	0	0	0
1000	415	1	330	67	1	3	3	0	5	0	4	1	0	0
1100	394	0	326	57	2	3	1	0	1	0	2	2	0	0
1200	426	3	352	47	4	7	4	0	7	0	0	1	0	1
1300	361	2	304	45	2	2	0	0	2	1	1	2	0	0
1400	384	0	326	45	0	4	4	0	2	1	0	2	0	0
1500	495	2	422	51	7	5	2	0	5	0	1	0	0	0
1600	529	1	459	55	4	3	3	0	4	0	0	0	0	0
1700	395	2	349	32	2	3	2	0	5	0	0	0	0	0
1800	262	0	233	24	0	2	1	0	1	0	0	1	0	0
1900	160	0	145	13	1	1	0	0	0	0	0	0	0	0
2000	104	0	94	9	0	0	0	0	0	1	0	0	0	0
2100	72	0	69	3	0	0	0	0	0	0	0	0	0	0
2200	38	1	36	1	0	0	0	0	0	0	0	0	0	0
2300	18	0	13	5	0	0	0	0	0	0	0	0	0	0
07-19	5665	15	4799	651	31	42	30	2	68	3	10	12	0	2
06-22 06-00	6250 6306	15 16	5312 5361	714 720	33 33	43 43	30 30	3	71 71	4	10 10	13 13	0	2
00-00	6435	16	5361	740	33	43	30	3	71 72	5	10	13	0	2 2
00-00	0433	17	<b>340</b> 7	740	<b>აა</b>	43	JU	3	12	J	10	13	U	4

	SS1040 Pard	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	(51.843691	, -4.309498	)
16 March 20	023	to	22 March 2	023		Direction	Northbound	i						
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS	DUCEG	TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD 22 March 20	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
0000	6	0	6	0	0	0	0	0	0	0	0	0	0	0
0100	7	0	3	3	0	0	0	0	1	0	0	0	0	0
0200	3	0	0	3	0	0	0	0	0	0	0	0	0	0
0300	12	0	10	2	0	0	0	0	0	0	0	0	0	0
0400	23	0	20	2	0	0	0	0	0	0	0	1	0	0
0500	77	0	65	10	1	0	1	0	0	0	0	0	0	0
0600	245	2	199	38	0	2	1	0	1	1	0	1	0	0
0700	609	1	509	86	0	1	6	0	5	0	1	0	0	0
0800	975	1	854	74	9	3	6	0	25	0	0	1	0	2
0900	510	1	418	71	6	3	6	0	5	0	0	0	0	0
1000	416	0	356	44	1	5	4	0	6	0	0	0	0	0
1100	395	3	313	63	0	5	2	1	6	0	2	0	0	0
1200	397	2	331	49	2	4	2	0	6	0	1	0	0	0
1300	361	3	295	50	1	1	5	0	5	0	0	1	0	0
1400	423	0	350	56	0	4	3	0	7	0	2	1	0	0
1500	531	3	456	44	3	5	6	0	13	0	0	1	0	0
1600	478	0	421	42	0	2	4	0	8	0	1	0	0	0
1700	447	1	397	42	2	1	0	0	4	0	0	0	0	0
1800	295	1	263	26	0	2	1	0	1	0	1	0	0	0
1900	188	2	170	14	0	0	2	0	0	0	0	0	0	0
2000	118	0	109	8	0	0	1	0	0	0	0	0	0	0
2100	60	0	49	6	0	0	5	0	0	0	0	0	0	0
2200	32	1	30	0	0	0	1	0	0	0	0	0	0	0
2300	30	1	22	3	0	0	4	0	0	0	0	0	0	0
07-19	5837	16	4963	647	24	36	45	1	91	0	8	4	0	2
06-22 06-00	6448 6510	20 22	5490 5542	713 716	24 24	38 38	54 59	<u> </u>	92 92	1	8	5 5	0	2 2
00-00	6638	22	5646	716	25	38	60	1	92	1	8	ე 	0	2
00-00	0030	22	2040	130	20	30	OU	1	30	l l	0	O	U	4

	SS1040 Pard	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	t (51.843691	, -4.309498	)
16 March 20	23	to	22 March 2	023		Direction	Northbound	d						
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID		FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
Average Day														
0000	13	0	10	2	0	0	0	0	0	0	0	0	0	0
0100	8	0	6	1	0	0	0	0	0	0	0	0	0	0
0200	7	0	5	1	0	0	0	0	0	0	0	0	0	0
0300	9	0	8	1	0	0	0	0	0	0	0	0	0	0
0400	23	0	20	3	0	0	0	0	0	0	0	0	0	0
0500	64	0	55	8	0	0	0	0	0	0	0	0	0	0
0600	202	0	168	29	1	1	0	0	1	1	0	1	0	0
0700	457	1	376	73	0	1	2	0	3	0	1	0	0	0
0800	717	1	622	57	8	6	4	1	17	0	1	1	0	0
0900	455	1	383	57	3	3	2	0	4	0	0	1	0	0
1000	401	0	340	46	0	4	3	0	5	0	1	0	0	0
1100	409	2	341	53	2	3	2	0	4	0	1	1	0	0
1200	407	2	345	46	2	3	2	0	5	0	1	1	0	0
1300	378	2	323	41	1	2	2	0	4	0	0	1	0	0
1400	386	3	327	43	0	3	4	0	5	0	1	1	0	0
1500	456	1	397	37	4	5	3	0	7	0	1	1	0	0
1600	419	1	366	40	3	2	3	0	4	0	0	0	0	0
1700	371	1	330	30	2	2	1	0	3	0	0	0	0	0
1800	277	0	247	23	0	2	1	0	2	0	0	0	0	0
1900	176	1	158	14	1	1	1	0	0	0	0	0	0	0
2000	121	0	111	9	0	0	0	0	0	0	0	0	0	0
2100	84	0	76	6	0	0	2	0	0	0	0	0	0	0
2200	46	0	43	3	0	0	0	0	0	0	0	0	0	0
2300	26	0	23	2	0	0	1	0	0	0	0	0	0	0
07-19	5133	16	4395	546	26	36	30	2	64	2	7	7	0	2
06-22	5715	17	4907	605	27	38	33	3	66	2	7	8	0	2
06-00	5788	17	4973	609	27	38	34	3	67	2	7	8	0	2
00-00	5912	18	5077	626	27	38	35	3	67	3	8	8	0	2

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	t (51.843691	, -4.309498	3)
16 March 20	23	to	22 March 2	2023		Direction	Northbound	l				FIVE OR		
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
Virtual Weel	k													
Mon	6499	11	5552	727	38	42	34	5	68	2	9	10	0	1
Tue	6435	17	5467	740	33	43	30	3	72	5	10	13	0	2
Wed	6638	22	5646	736	25	38	60	1	93	1	8	6	0	2
Thu	6468	9	5464	729	43	53	41	3	102	2	9	8	0	5
Fri	6569	10	5645	698	37	51	32	2	62	5	9	16	0	2
Sat	4720	18	4159	418	11	33	20	5	46	0	5	3	1	1
Sun	4054	38	3607	334	4	6	26	0	28	4	3	3	0	1
5 Day Avera	ge													
[]	6522	14	5555	726	35	45	39	3	79	3	9	11	0	2
7 Day Avera	ge													
[]	5912	18	5077	626	27	38	35	3	67	3	8	8	0	2
<b>Total Vehicl</b>	es													
[]	41383	125	35540	4382	191	266	243	19	471	19	53	59	1	14



	SS1040 Pard	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	(51.843691	, -4.309498	3)
16 March 20	)23	to	22 March 2	023		Direction	Southboun	d						
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID		FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
16 March 20														
0000	14	0	14	0	0	0	0	0	0	0	0	0	0	0
0100	9	0	8	1	0	0	0	0	0	0	0	0	0	0
0200	2	0	2	0	0	0	0	0	0	0	0	0	0	0
0300	5	0	4	1	0	0	0	0	0	0	0	0	0	0
0400	7	1	4	1	0	0	0	0	1	0	0	0	0	0
0500	25	0	21	2	0	1	1	0	0	0	0	0	0	0
0600	72	0	57	9	0	1	2	0	1	1	1	0	0	0
0700	260	0	216	26	3	6	6	0	2	0	1	0	0	0
0800	592	1	535	33	3	12	3	0	1	0	0	3	0	1
0900	360	1	313	32	3	0	7	0	2	0	0	1	0	1
1000	322	0	276	28	1	6	5	0	3	0	0	3	0	0
1100	313	0	270	37	0	2	2	0	0	0	1	0	0	1
1200	406	1	360	31	1	3	8	0	2	0	0	0	0	0
1300	409	0	352	39	1	4	11	0	1	0	0	1	0	0
1400	433	0	387	31	0	1	9	0	1	0	2	1	0	1
1500	667	1	598	47	5	7	4	0	1	0	1	2	0	1
1600	747	3	686	44	1	3	7	0	3	0	0	0	0	0
1700	660	1	614	37	1	3	3	0	0	0	0	1	0	0
1800	373	2	339	25	0	2	5	0	0	0	0	0	0	0
1900	223	1	206	14	0	0	2	0	0	0	0	0	0	0
2000	172	1	163	6	0	0	2	0	0	0	0	0	0	0
2100	133	1	123	6	0	1	1	0	0	0	0	1	0	0
2200	68	0	59	7	0	0	2	0	0	0	0	0	0	0
2300	32	0	29	3	0	0	0	0	0	0	0	0	0	0
07-19	5542	10	4946	410	19	49	70	0	16	0	5	12	0	5
06-22	6142	13	5495	445	19	51	77	0	17	1	6	13	0	5
06-00	6242	13	5583	455	19	51	79	0	17	1	6	13	0	5
00-00	6304	14	5636	460	19	52	80	0	18	1	6	13	0	5

	SS1040 Pard	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabou	t (51.843691	, -4.309498	)
16 March 20	023	to	22 March 2	023		Direction	Southbound	d						
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	FOUR OR MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	SIX AXLE MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
17 March 20	023													
0000	13	0	12	0	0	0	1	0	0	0	0	0	0	0
0100	8	0	7	1	0	0	0	0	0	0	0	0	0	0
0200	9	0	8	1	0	0	0	0	0	0	0	0	0	0
0300	8	0	8	0	0	0	0	0	0	0	0	0	0	0
0400	10	0	8	0	1	0	0	0	1	0	0	0	0	0
0500	26	0	23	2	0	0	1	0	0	0	0	0	0	0
0600	78	1	59	10	0	3	3	0	2	0	0	0	0	0
0700	228	0	189	23	1	7	5	1	1	0	1	0	0	0
0800	593	1	532	34	6	13	4	0	2	0	1	0	0	0
0900	347	1	302	33	1	3	5	0	1	0	0	1	0	0
1000	313	2	268	36	0	3	0	0	3	0	0	1	0	0
1100	354	2	317	24	0	3	3	1	3	0	0	1	0	0
1200	457	2	404	39	0	3	4	1	3	1	0	0	0	0
1300	462	0	413	37	2	3	4	0	2	0	0	1	0	0
1400	506	3	442	49	1	5	2	0	1	1	1	0	0	1
1500	633	0	555	61	3	6	3	0	4	0	1	0	0	0
1600	694	2	635	44	1	4	6	1	0	0	0	0	0	1
1700	569	2	522	33	0	0	11	0	1	0	0	0	0	0
1800	389	0	367	17	1	1	3	0	0	0	0	0	0	0
1900	270	0	256	11	0	0	2	0	1	0	0	0	0	0
2000	157	0	152	4	0	0	1	0	0	0	0	0	0	0
2100	128	0	119	7	0	0	1	0	1	0	0	0	0	0
2200	89	0	87	2	0	0	0	0	0	0	0	0	0	0
2300	71	0	68	3	0	0	0	0	0	0	0	0	0	0
07-19	5545	15	4946	430	16	51	50	4	21	2	4	4	0	2
06-22	6178	16	5532	462	16	54	57	4	25	2	4	4	0	2
06-00	6338	16	5687	467	16	54	57	4	25	2	4	4	0	2
00-00	6412	16	5753	471	17	54	59	4	26	2	4	4	0	2

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	t (51.843691	, -4.309498	3)
16 March 20	023	to	22 March 2	023		Direction	Southbound	d						
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID		FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
18 March 20		CICLES	LGV	VEHICLES	DUSES	KIGID	KIGID	KIGID	ARTIC	ARIIC	AKIIC	ARTIC	ARTIC	ARTIC
0000	15	0	12	2	0	0	1	0	0	0	0	0	0	0
0100	18	0	18	0	0	0	0	0	0	0	0	0	0	0
0200	13	0	13	0	0	0	0	0	0	0	0	0	0	0
0300	8	1	4	1	0	1	0	0	0	0	0	1	0	0
0400	10	0	9	0	0	0	0	0	1	0	0	0	0	0
0500	11	0	10	0	0	1	0	0	0	0	0	0	0	0
0600	40	0	31	6	1	1	0	0	1	0	0	0	0	0
0700	93	1	69	17	0	4	2	0	0	0	0	0	0	0
0800	141	1	124	8	1	4	2	0	0	0	1	0	0	0
0900	257	0	244	10	1	2	0	0	0	0	0	0	0	0
1000	337	0	298	29	1	3	5	1	0	0	0	0	0	0
1100	393	2	365	19	0	1	3	0	2	0	1	0	0	0
1200	495	1	465	19	1	2	5	0	1	0	0	1	0	0
1300	423	4	393	22	1	1	1	0	0	0	1	0	0	0
1400	365	1	347	11	1	2	2	0	1	0	0	0	0	0
1500	337	1	320	15	0	1	0	0	0	0	0	0	0	0
1600	359	0	336	17	0	2	3	0	1	0	0	0	0	0
1700	337	0	320	13	0	3	0	0	0	0	1	0	0	0
1800	236	1	217	11	1	2	4	0	0	0	0	0	0	0
1900	164	1	156	5	0	0	1	0	0	0	0	1	0	0
2000	148	0	140	7	0	0	1	0	0	0	0	0	0	0
2100	115	0	112	0	0	0	3	0	0	0	0	0	0	0
2200	84	1	77	4	0	0	2	0	0	0	0	0	0	0
2300	70	0	66	3	0	0	0	0	1	0	0	0	0	0
07-19	3773	12	3498	191	7	27	27	1	5	0	4	1	0	0
06-22	4240	13	3937	209	8	28	32	1	6	0	4	2	0	0
06-00	4394	14	4080	216	8	28	34	1	7	0	4	2	0	0
00-00	4469	15	4146	219	8	30	35	1	8	0	4	3	0	0

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	(51.843691	, -4.309498	)
16 March 20	)23	to	22 March 2	023		Direction	Southbound	d						
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
19 March 20		0.0220		V2	20010	141012	INICID	141015	711(120	7111110	711111	7.1.(1.20	7.11.12.0	711(120
0000	44	0	44	0	0	0	0	0	0	0	0	0	0	0
0100	31	0	27	3	0	0	1	0	0	0	0	0	0	0
0200	26	0	23	2	0	0	1	0	0	0	0	0	0	0
0300	26	2	23	0	0	0	0	0	0	1	0	0	0	0
0400	25	1	20	1	0	0	2	1	0	0	0	0	0	0
0500	15	0	14	1	0	0	0	0	0	0	0	0	0	0
0600	25	0	22	2	0	0	1	0	0	0	0	0	0	0
0700	61	1	50	9	0	0	1	0	0	0	0	0	0	0
0800	115	4	104	6	0	0	0	0	1	0	0	0	0	0
0900	151	1	134	16	0	0	0	0	0	0	0	0	0	0
1000	295	2	272	15	0	2	2	0	1	0	0	1	0	0
1100	364	5	338	13	0	0	5	0	2	0	1	0	0	0
1200	400	8	363	24	0	0	4	0	0	0	1	0	0	0
1300	376	2	351	18	0	1	2	0	0	0	0	1	0	1
1400	386	6	363	13	0	0	2	0	2	0	0	0	0	0
1500	391	4	373	12	0	1	1	0	0	0	0	0	0	0
1600	347	4	330	9	1	0	0	0	3	0	0	0	0	0
1700	264	4	250	5	0	1	2	0	1	0	1	0	0	0
1800	224	2	210	8	0	1	3	0	0	0	0	0	0	0
1900	188	1	181	3	0	0	2	0	0	0	0	1	0	0
2000	136	0	129	6	0	0	1	0	0	0	0	0	0	0
2100	62	0	60	2	0	0	0	0	0	0	0	0	0	0
2200	43	0	40	3	0	0	0	0	0	0	0	0	0	0
2300	23	0	23	0	0	0	0	0	0	0	0	0	0	0
07-19	3374	43	3138	148	1	6	22	0	10	0	3	2	0	1
06-22	3785	44	3530	161	1	6	26	0	10	0	3	3	0	1
06-00	3851	44	3593	164	1	6	26	0	10	0	3	3	0	1
00-00	4018	47	3744	171	1	6	30	1	10	1	3	3	0	1

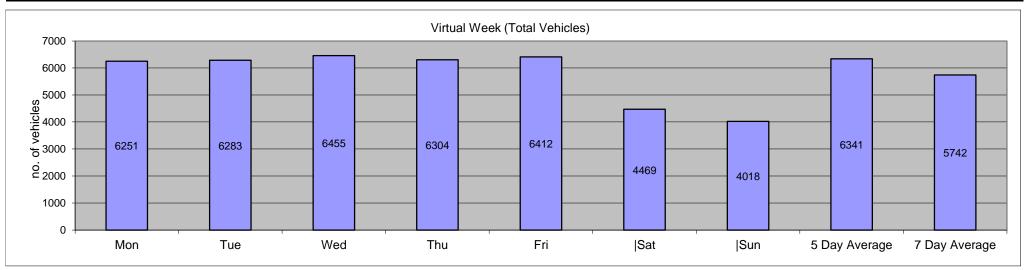
	SS1040 Pard	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabou	(51.843691	, -4.309498	)
16 March 20	023	to	22 March 2	023		Direction	Southbound	i						
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
20 March 20										_				_
0000	6	0	6	0	0	0	0	0	0	0	0	0	0	0
0100	12	0	10	2	0	0	0	0	0	0	0	0	0	0
0200	2	1	1	0	0	0	0	0	0	0	0	0	0	0
0300	7	2	4	0	0	0	0	0	1	0	0	0	0	0
0400	7	0	6	1	0	0	0	0	0	0	0	0	0	0
0500	26	0	21	2	0	0	2	0	0	0	1	0	0	0
0600	65	0	53	6	1	1	1	1	1	0	1	0	0	0
0700	238	0	195	29	2	6	2	1	0	1	2	0	0	0
0800	614	1	560	32	4	7	7	0	2	0	1	0	0	0
0900	330	0	279	35	1	3	5	1	4	1	0	1	0	0
1000	315	0	260	36	2	7	5	0	2	1	1	1	0	0
1100	348	3	304	33	0	0	2	0	3	0	1	1	0	1
1200	358	0	324	21	1	1	4	2	2	0	1	2	0	0
1300	389	0	338	41	0	2	4	1	2	1	0	0	0	0
1400	399	2	356	28	0	4	5	0	3	0	0	1	0	0
1500	611	1	555	34	3	5	8	1	3	0	1	0	0	0
1600	875	3	813	42	1	3	9	1	2	0	1	0	0	0
1700	753	0	683	50	0	3	12	1	3	0	1	0	0	0
1800	335	0	308	11	0	0	14	0	1	0	0	0	0	1
1900	218	0	206	8	0	0	2	0	1	0	0	1	0	0
2000	169	0	161	7	0	0	•	0	0	0	0	0	0	0
2100	96	0	89	5 1	0	0	2	0	0	0	0	0	0	0
2200	48 30	0	45 28	1	0	0	0	0	0	0	0	0	0	0
2300 <b>07-19</b>	5565	10	4975	392	14	41	<b>77</b>	<u>8</u>	27	4	9	<u> </u>	0	2
06-22	6113	10	5484	418	15	41	83	9	29	4	10	7	0	2
06-22	6191	10	5557	420	15	42	85	9	30	4	10	7	0	2
00-00	6251	13	5605	420	15	42	87	9	31	4	11	7	0	2
00-00	0201	13	อบบอ	420	10	42	01	9	31	4	11	1	U	

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	(51.843691	, -4.309498	)
16 March 20	)23	to	22 March 2	023		Direction	Southbound	d						
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
21 March 20	)23													
0000	14	1	11	0	0	0	2	0	0	0	0	0	0	0
0100	7	0	7	0	0	0	0	0	0	0	0	0	0	0
0200	4	0	4	0	0	0	0	0	0	0	0	0	0	0
0300	4	0	2	2	0	0	0	0	0	0	0	0	0	0
0400	7	0	6	0	0	0	0	0	1	0	0	0	0	0
0500	24	0	21	2	0	1	0	0	0	0	0	0	0	0
0600	87	0	70	9	1	1	3	0	1	1	1	0	0	0
0700	249	0	214	26	2	5	1	0	0	0	0	1	0	0
0800	587	3	525	40	3	8	6	0	2	0	0	0	0	0
0900	358	0	317	29	1	2	3	0	2	0	2	0	0	2
1000	288	1	235	35	0	5	6	1	4	0	1	0	0	0
1100	305	2	256	37	0	1	3	0	4	0	0	2	0	0
1200	411	7	360	30	0	5	6	0	3	0	0	0	0	0
1300	409	1	354	45	0	3	4	0	2	0	0	0	0	0
1400	468	1	410	38	1	5	7	0	5	0	0	1	0	0
1500	666	2	580	57	4	13	3	0	3	0	0	3	0	1
1600	733	6	668	46	3	3	4	0	3	0	0	0	0	0
1700	720	1	666	44	0	2	5	0	1	0	1	0	0	0
1800	372	0	341	27	1	0	3	0	0	0	0	0	0	0
1900	229	0	216	10	0	0	2	0	1	0	0	0	0	0
2000	166	0	157	8	0	0	1	0	0	0	0	0	0	0
2100	106	0	104	2	0	0	0	0	0	0	0	0	0	0
2200	50	0	49	1	0	0	0	0	0	0	0	0	0	0
2300	19	0	18	1	0	0	0	0	0	0	0	0	0	0
07-19	5566	24	4926	454	15	52	51	1	29	0	4	7	0	3
06-22	6154	24	5473	483	16	53	57	1	31	1	5	7	0	3
06-00	6223	24	5540	485	16	53	57	1	31	1	5	7	0	3
00-00	6283	25	5591	489	16	54	59	1	32	1	5	7	0	3

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabou	t (51.843691	, -4.309498	)
16 March 20	023	to	22 March 2	023		Direction	Southbound	d						
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
22 March 20														
0000	13	0	10	2	0	0	1	0	0	0	0	0	0	0
0100	5	0	3	2	0	0	0	0	0	0	0	0	0	0
0200	7	0	5	2	0	0	0	0	0	0	0	0	0	0
0300	7	2	3	2	0	0	0	0	0	0	0	0	0	0
0400	10	0	8	2	0	0		0	0	0	0	0	0	0
0500	22	0	20		0	0	0	0		0	0	0	0	0
0600	82	0	66	9 27		2	2	0	2 1	0	0	0	0	0
0700	278 597	5	241	38	2	3 14	3	0	•	0		0	0	0
<b>0800</b> 0900	352	0	532 309	29	2	3	7	0	3 2	0	0	0	0	0
1000	337	1	289	34	0	5	3	0	4	0	0	0	0	1
1100	396	2	337	42	0	5	3	0	5	0	0	2	0	0
1200	454	3	412	31	2	2	2	0	1	0	0	1	0	0
1300	433	1	381	39	1	2	3	0	4	0	0	1	0	1
1400	439	1	386	36	1	3	8	1	1	1	0	1	0	0
1500	638	3	572	36	3	14	2	0	5	0	2	0	0	1
1600	760	3	693	55	1	6	1	0	1	0	0	0	0	0
1700	673	2	616	31	0	0	23	0	1	0	0	0	0	0
1800	372	2	340	22	0	2	2	0	3	0	1	0	0	0
1900	229	0	205	11	0	0	11	0	1	0	0	0	0	1
2000	143	0	127	5	0	0	9	1	1	0	0	0	0	0
2100	103	0	102	1	0	0	0	0	0	0	0	0	0	0
2200	74	0	70	4	0	0	0	0	0	0	0	0	0	0
2300	31	0	29	1	0	0	1	0	0	0	0	0	0	0
07-19	5729	23	5108	420	13	59	59	1	31	2	4	6	0	3
06-22	6286	23	5608	446	14	61	81	2	35	2	4	6	0	4
06-00	6391	23	5707	451	14	61	82	2	35	2	4	6	0	4
00-00	6455	25	5756	461	14	61	84	2	36	2	4	6	0	4

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	t (51.843691	, -4.309498	3)
16 March 20	23	to	22 March 2	023		Direction	Southbound	d						
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID		FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
Average Day														
0000	17	0	16	1	0	0	1	0	0	0	0	0	0	0
0100	13	0	11	1	0	0	0	0	0	0	0	0	0	0
0200	9	0	8	1	0	0	0	0	0	0	0	0	0	0
0300	9	1	7	1	0	0	0	0	0	0	0	0	0	0
0400	11	0	9	0	0	0	0	0	1	0	0	0	0	0
0500	21	0	19	2	0	0	1	0	0	0	0	0	0	0
0600	64	0	51	7	1	1	2	0	1	0	0	0	0	0
0700	201	0	168	22	1	4	3	0	1	0	1	0	0	0
0800	463	2	416	27	3	8	3	0	2	0	0	0	0	0
0900	308	0	271	26	1	2	4	0	2	0	0	1	0	0
1000	315	1	271	30	1	4	4	0	2	0	0	1	0	0
1100	353	2	312	29	0	2	3	0	3	0	1	1	0	0
1200	426	3	384	28	1	2	5	0	2	0	0	1	0	0
1300	414	1	369	34	1	2	4	0	2	0	0	1	0	0
1400	428	2	384	29	1	3	5	0	2	0	0	1	0	0
1500	563	2	508	37	3	7	3	0	2	0	1	1	0	0
1600	645	3	594	37	1	3	4	0	2	0	0	0	0	0
1700	568	1	524	30	0	2	8	0	1	0	1	0	0	0
1800	329	1	303	17	0	1	5	0	1	0	0	0	0	0
1900	217	0	204	9	0	0	3	0	1	0	0	0	0	0
2000	156	0	147	6	0	0	2	0	0	0	0	0	0	0
2100	106	0	101	3	0	0	1	0	0	0	0	0	0	0
2200	65	0	61	3	0	0	1	0	0	0	0	0	0	0
2300	39	0	37	2	0	0	0	0	0	0	0	0	0	0
07-19	5013	20	4505	349	12	41	51	2	20	1	5	5	0	2
06-22	5557	20	5008	375	13	42	59	2	22	1	5	6	0	2
06-00	5661	21	5107	380	13	42	60	2	22	1	5	6	0	2
00-00	5742	22	5176	385	13	43	62	3	23	2	5	6	0	2

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	(51.843691	, -4.309498	3)
16 March 20	23	to	22 March 2	.023		Direction	Southbound	l				FIVE OR		
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
Virtual Weel	k													
Mon	6251	13	5605	425	15	42	87	9	31	4	11	7	0	2
Tue	6283	25	5591	489	16	54	59	1	32	1	5	7	0	3
Wed	6455	25	5756	461	14	61	84	2	36	2	4	6	0	4
Thu	6304	14	5636	460	19	52	80	0	18	1	6	13	0	5
Fri	6412	16	5753	471	17	54	59	4	26	2	4	4	0	2
Sat	4469	15	4146	219	8	30	35	1	8	0	4	3	0	0
Sun	4018	47	3744	171	1	6	30	1	10	1	3	3	0	1
5 Day Avera	ge													
[]	6341	19	5668	461	16	53	74	3	29	2	6	7	0	3
7 Day Avera	ge													
[]	5742	22	5176	385	13	43	62	3	23	2	5	6	0	2
Total Vehicl	es													
[]	40192	155	36231	2696	90	299	434	18	161	11	37	43	0	17



	SS1040 Pard	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabou	t (51.843691	, -4.309498	)
16 March 20	)23	to	22 March 2	023		Direction	Two-Way							
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
16 March 20														
0000	18	0	17	1	0	0	0	0	0	0	0	0	0	0
0100	9	0	8	1	0	0	0	0	0	0	0	0	0	0
0200	7	0	6	1	0	0	0	0	0	0	0	0	0	0
0300	11	0	9	2	0	0	0	0	0	0	0	0	0	0
0400	31	2	24	4	0	0	0	0	1	0	0	0	0	0
0500	104	0	90	11	0	1	1	0	0	1	0	0	0	0
0600	316	0	256	47	1	2	3	0	3	2	1	1	0	0
0700	838	0	691	118	3	6	7	1	9	0	3	0	0	0
0800	1542	1	1358	106	13	22	7	1	28	0	1	4	0	1
0900	875	2	741	96	10	1	12	0	10	0	1	1	0	1
1000	726	0	605	84	1	14	9	0	8	0	1	3	0	1
1100	708	2	571	103	1	8	9	0	8	0	1	2	0	3
1200	801	2	680	82	4	7	11	1	11	0	1	2	0	0
1300	777	1	660	83	4	7	15	0	6	0	0	1	0	0
1400	824	2	703	86	1	6	13	0	6	0	4	1	0	2
1500	1160	1	1026	83	11	14	7	0	12	0	2	3	0	1
1600	1155	3	1045	82	6	5	8	0	5	0	0	0	0	1
1700	1075	1	983	70	5	6	4	0	4	0	0	2	0	0
1800	718	2	647	52	1	4	6	0	6	0	0	0	0	0
1900	396	2	353	34	1	1	4	0	1	0	0	0	0	0
2000	314	1	291	19	0	0	2	0	1	0	0	0	0	0
2100	202	1	187	10	0	1	1	0	1	0	0	1	0	0
2200	114	0	103	9	0	0	2	0	0	0	0	0	0	0
2300	51	0	46	5	0	0	0	0	0	0	0	0	0	0
07-19	11199	17	9710	1045	60	100	108	3	113	0	14	19	0	10
06-22	12427	21	10797	1155	62	104	118	3	119	2	15	21	0	10
06-00	12592	21	10946	1169	62	104	120	3	119	2	15	21	0	10
00-00	12772	23	11100	1189	62	105	121	3	120	3	15	21	0	10

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	n of Morrisons	Rounabout	t (51.843691	, -4.309498	3)
16 March 20	023	to	22 March 2	023		Direction	Two-Way							
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	·	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
17 March 20		CICLLS	LGV	VLIIICELS	DUJEJ	KIGID	KIGID	KIGID	AITIC	ARTIC	AITIC	AKIIC	AITIC	ARTIC
0000	23	0	19	2	0	0	1	0	0	1	0	0	0	0
0100	14	0	11	2	0	0	1	0	0	0	0	0	0	0
0200	12	0	10	2	0	0	0	0	0	0	0	0	0	0
0300	20	0	19	1	0	0	0	0	0	0	0	0	0	0
0400	41	0	34	4	1	0	0	0	2	0	0	0	0	0
0500	108	1	89	15	1	0	1	0	0	0	0	1	0	0
0600	323	1	265	45	0	3	3	0	3	1	1	1	0	0
0700	773	1	628	119	2	9	6	1	5	0	2	0	0	0
0800	1418	3	1244	101	18	21	9	0	16	0	3	3	0	0
0900	858	1	724	107	3	7	6	0	4	1	0	4	0	1
1000	735	2	620	89	0	9	2	0	10	0	2	1	0	0
1100	755	2	649	81	3	4	6	2	6	0	0	2	0	0
1200	884	3	766	92	1	6	5	2	7	1	0	1	0	0
1300	862	2	763	74	3	7	4	0	6	0	0	3	0	0
1400	935	5	814	91	1	9	4	0	5	3	1	1	0	1
1500	1169	0	1034	92	10	14	7	0	9	0	1	2	0	0
1600	1165	3	1035	96	6	8	10	1	4	0	1	0	0	1
1700	984	2	895	61	2	2	16	0	4	0	0	1	0	1
1800	693	0	638	40	2	5	5	0	3	0	0	0	0	0
1900	473	0	442	24	1	1	2	0	3	0	0	0	0	0
2000	247	0	236	10	0	0	1	0	0	0	0	0	0	0
2100	218	0	203	12	0	0	2	0	1	0	0	0	0	0
2200	166	0	160	6	0	0	0	0	0	0	0	0	0	0
2300	105	0	100	3	0	0	0	0	0	0	2	0	0	0
07-19	11231	24	9810	1043	51	101	80	6	79	5	10	18	0	4
06-22	12492	25	10956	1134	52	105	88	6	86	6	11	19	0	4
06-00	12763	25	11216	1143	52	105	88	6	86	6	13	19	0	4
00-00	12981	26	11398	1169	54	105	91	6	88	7	13	20	0	4

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	n of Morrisons	Rounabout	t (51.843691	, -4.309498	3)
16 March 20	023	to	22 March 2	023		Direction	Two-Way							
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS		TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
18 March 20		0	00	4	0	0	4	0	0		0		0	0
0000	34	0	29	4	0	0	1	0	0	0	0	0	0	0
0100	28	0	28	0	0	0	0	0	0	0	0	0	0	0
0200	21 17	0	19 10	3	0	2	0	0	0	0	0	0	0	0
0300		1	26	2	0			0	0	0	0	<u> </u>	0	0
0400	29 44	0	40	2	0	<u>0</u> 1	0	0	0	0	0	0	0	0
0500	161	0	131	23	2	2	0	1	1	0	1	0		
0600	262	1	218	37	0		2	0	0	0	0	0	0	0
0700 0800	490	2	423	42	2	4	5	1	5	0	1	0		
0900	675	1	604	58	2	9 3	1	1	4	0	0	0	1	0
1000	738	0	656	60	2	7	9	1	3	0	0	0	0	0
1100	850	4	769	60	0	3	3	1	8	0	1	1	0	0
1200	886	3	809	55	2	3	6	1	4	0	1	2	0	0
1300	823	6	754	49	1	2	1	0	7	0	1	1	0	1
1400	765	5	693	42	2	5	6	0	11	0	1	0	0	0
1500	644	3	596	39	0	5	0	0	1	0	0	0	0	0
1600	632	0	576	42	2	3	5	0	4	0	0	0	0	0
1700	609	3	557	38	1	7	0	0	2	0	1	0	0	0
1800	429	1	386	30	2	5	5	0	0	0	0	0	0	0
1900	317	2	298	12	1	2	1	0	0	0	0	1	0	0
2000	259	0	240	18	0	0	1	0	0	0	0	0	0	0
2100	208	0	194	7	0	0	5	0	1	0	1	0	0	0
2200	144	1	133	7	0	0	3	0	0	0	0	0	0	0
2300	124	0	116	6	0	0	0	0	2	0	0	0	0	0
07-19	7803	29	7041	552	16	56	43	5	49	0	6	4	1	1
06-22	8748	31	7904	612	19	60	50	6	51	0	8	5	1	1
06-00	9016	32	8153	625	19	60	53	6	53	0	8	5	1	1
00-00	9189	33	8305	637	19	63	55	6	54	0	9	6	1	1

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	n of Morrisons	Rounabout	t (51.843691	, -4.309498	3)
16 March 20	023	to	22 March 2	023		Direction	Two-Way							
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	·	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
19 March 20		CICLLS	LGV	VEHICLES	DUJLJ	KIGID	KIGID	KIGID	ARTIC	ARTIC	ARTIC	ARIIC	ARTIC	ARIIC
0000	74	0	72	2	0	0	0	0	0	0	0	0	0	0
0100	55	1	44	8	0	1	1	0	0	0	0	0	0	0
0200	42	0	38	3	0	0	1	0	0	0	0	0	0	0
0300	48	2	43	2	0	0	0	0	0	1	0	0	0	0
0400	42	1	37	1	0	0	2	1	0	0	0	0	0	0
0500	36	1	34	1	0	0	0	0	0	0	0	0	0	0
0600	97	0	89	6	0	0	1	0	0	1	0	0	0	0
0700	168	1	148	15	0	1	2	0	0	0	0	1	0	0
0800	235	4	205	22	0	0	1	0	2	1	0	0	0	0
0900	414	6	365	40	0	0	0	0	2	0	0	1	0	0
1000	659	3	602	42	0	2	2	0	5	1	0	1	0	1
1100	809	9	738	47	1	1	8	0	4	0	1	0	0	0
1200	831	14	747	58	0	0	7	0	3	0	2	0	0	0
1300	784	8	710	54	1	1	4	0	3	0	1	1	0	1
1400	719	14	658	33	0	2	7	0	5	0	0	0	0	0
1500	694	5	638	40	0	2	3	0	5	0	1	0	0	0
1600	643	8	591	35	1	0	2	0	5	1	0	0	0	0
1700	511	5	473	26	1	1	2	0	2	0	1	0	0	0
1800	436	2	400	27	0	1	5	0	1	0	0	0	0	0
1900	315	1	293	16	0	0	3	0	0	0	0	2	0	0
2000	225	0	208	14	0	0	3	0	0	0	0	0	0	0
2100	120	0	111	6	1	0	2	0	0	0	0	0	0	0
2200	77	0	70	6	0	0	0	0	1	0	0	0	0	0
2300	38	0	37	1	0	0	0	0	0	0	0	0	0	0
07-19	6903	79	6275	439	4	11	43	0	37	3	6	4	0	2
06-22	7660	80	6976	481	5	11	52	0	37	4	6	6	0	2
06-00	7775	80	7083	488	5	11	52	0	38	4	6	6	0	2
00-00	8072	85	7351	505	5	12	56	1	38	5	6	6	0	2

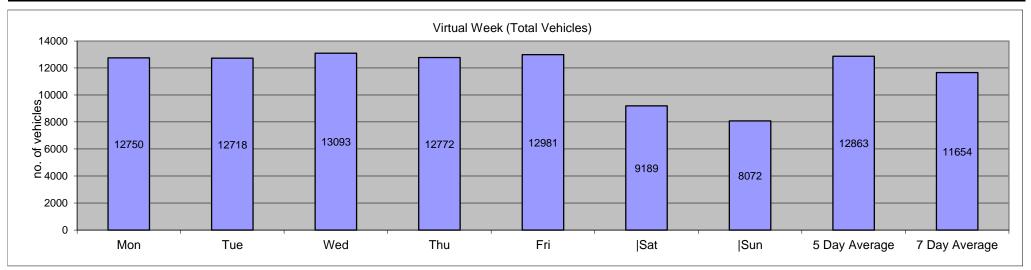
	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	t (51.843691	, -4.309498	3)
16 March 20	023	to	22 March 2	023		Direction	Two-Way							
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
20 March 20														
0000	17	1	12	4	0	0	0	0	0	0	0	0	0	0
0100	18	0	15	3	0	0	0	0	0	0	0	0	0	0
0200	9	1	7	1	0	0	0	0	0	0	0	0	0	0
0300	10	2	6	1	0	0	0	0	1	0	0	0	0	0
0400	31	0	26	5	0	0	0	0	0	0	0	0	0	0
0500	96	0	80	12	0	0	2	0	1	0	1	0	0	0
0600	305	0	253	41	2	1	2	2	2	0	2	0	0	0
0700	838	3	675	137	2	7	6	1	3	1	3	0	0	0
0800	1506	2	1334	104	17	14	12	1	19	0	2	1	0	0
0900	795	0	670	91	5	9	7	1	7	2	1	2	0	0
1000	698	0	584	78	2	11	8	2	8	1	2	2	0	0
1100	723	4	615	85	4	3	2	0	5	0	3	1	0	1
1200	739	0	646	75	2	2	5	2	3	0	1	3	0	0
1300	734	0	622	87	2	3	9	1	5	2	0	3	0	0
1400	744	4	637	81	0	6	8	0	6	0	1	1	0	0
1500	1138	1	1008	79	11	11	10	1	13	0	2	1	0	1
1600	1354	3	1233	87	3	5	12	1	9	0	1	0	0	0
1700	1161	1	1047	81	2	6	14	1	8	0	1	0	0	0
1800	661	1	601	32	0	4	14	1	6	0	0	1	0	1
1900	444	1	409	27	1	2	2	0	1	0	0	1	0	0
2000	360	0	341	17	0	0	1	0	1	0	0	0	0	0
2100	241	0	220	16	0	0	4	0	0	0	0	1	0	0
2200	85	0	76	6	0	0	3	0	0	0	0	0	0	0
2300	43	0	40	2	0	0	0	0	1	0	0	0	0	0
07-19	11091	19	9672	1017	50	81	107	12	92	6	17	15	0	3
06-22	12441	20	10895	1118	53	84	116	14	96	6	19	17	0	3
06-00	12569	20	11011	1126	53	84	119	14	97	6	19	17	0	3
00-00	12750	24	11157	1152	53	84	121	14	99	6	20	17	0	3

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabou	t (51.843691	, -4.309498	)
16 March 20	023	to	22 March 20	023		Direction	Two-Way							
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
21 March 20		CICLLO	EGV	VEHICLES	DOSES	KIGID	KICID	KIGID	ARTIC	AKIIC	AITIC	ARTIC	ARTIC	ARTIC
0000	22	2	15	2	0	0	2	0	0	1	0	0	0	0
0100	11	0	10	0	0	0	0	0	1	0	0	0	0	0
0200	9	0	7	2	0	0	0	0	0	0	0	0	0	0
0300	6	0	3	3	0	0	0	0	0	0	0	0	0	0
0400	32	0	28	3	0	0	0	0	1	0	0	0	0	0
0500	109	0	94	14	0	1	0	0	0	0	0	0	0	0
0600	336	0	275	47	2	1	3	1	4	1	1	1	0	0
0700	843	4	695	126	2	5	5	1	3	0	1	1	0	0
0800	1493	3	1313	105	11	15	11	1	29	0	1	3	0	1
0900	862	0	746	92	2	5	4	0	8	1	2	0	0	2
1000	703	2	565	102	1	8	9	1	9	0	5	1	0	0
1100	699	2	582	94	2	4	4	0	5	0	2	4	0	0
1200	837	10	712	77	4	12	10	0	10	0	0	1	0	1
1300	770	3	658	90	2	5	4	0	4	1	1	2	0	0
1400	852	1	736	83	1	9	11	0	7	1	0	3	0	0
1500	1161	4	1002	108	11	18	5	0	8	0	1	3	0	1
1600	1262	7	1127	101	7	6	7	0	7	0	0	0	0	0
1700	1115	3	1015	76	2	5	7	0	6	0	1	0	0	0
1800	634	0	574	51	1	2	4	0	1	0	0	1	0	0
1900	389	0	361	23	1	1	2	0	1	0	0	0	0	0
2000	270	0	251	17	0	0	1	0	0	1	0	0	0	0
2100	178	0	173	5	0	0	0	0	0	0	0	0	0	0
2200	88	1	85	2	0	0	0	0	0	0	0	0	0	0
2300	37	0	31	6	0	0	0	0	0	0	0	0	0	0
07-19	11231	39	9725	1105	46	94	81	3	97	3	14	19	0	5
06-22	12404	39	10785	1197	49	96	87	4	102	5	15	20	0	5
06-00	12529	40	10901	1205	49	96	87	4	102	5	15	20	0	5
00-00	12718	42	11058	1229	49	97	89	4	104	6	15	20	0	5

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	of Morrisons	Rounabout	t (51.843691	, -4.309498	)
16 March 20	)23	to	22 March 2	023		Direction	Two-Way							
TIME	TOTAL	MOTOR-	CARS OR CAR- BASED	LIGHT GOODS	BUCEC	TWO AXLE, SIX TYRE,	THREE AXLE	MORE AXLE	FOUR OR LESS AXLE	FIVE AXLE	SIX OR MORE AXLE	FIVE OR LESS AXLE MULTI- TRAILER	MULTI- TRAILER	SEVEN OR MORE AXLE
PERIOD 22 March 20	VEHICLES	CYCLES	LGV	VEHICLES	BUSES	RIGID	RIGID	RIGID	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC	ARTIC
0000	19	0	16	2	0	0	1	0	0	0	0	0	0	0
0100	12	0	6	5	0	0	0	0	1	0	0	0	0	0
0200	10	0	5	5	0	0	0	0	0	0	0	0	0	0
0300	19	2	13	4	0	0	0	0	0	0	0	0	0	0
0400	33	0	28	2	0	0	1	0	1	0	0	1	0	0
0500	99	0	85	12	1	0	1	0	0	0	0	0	0	0
0600	327	2	265	47	1	4	3	0	3	1	0	1	0	0
0700	887	1	750	113	2	4	9	0	6	0	2	0	0	0
0800	1572	6	1386	112	11	17	8	0	28	1	0	1	0	2
0900	862	1	727	100	7	6	13	0	7	0	0	1	0	0
1000	753	1	645	78	1	10	7	0	10	0	0	0	0	1
1100	791	5	650	105	0	10	5	1	11	0	2	2	0	0
1200	851	5	743	80	4	6	4	0	7	0	1	1	0	0
1300	794	4	676	89	2	3	8	0	9	0	0	2	0	1
1400	862	1	736	92	1	7	11	1	8	1	2	2	0	0
1500	1169	6	1028	80	6	19	8	0	18	0	2	1	0	1
1600	1238	3	1114	97	1	8	5	0	9	0	1	0	0	0
1700	1120	3	1013	73	2	1	23	0	5	0	0	0	0	0
1800	667	3	603	48	0	4	3	0	4	0	2	0	0	0
1900	417	2	375	25	0	0	13	0	1	0	0	0	0	1
2000	261	0	236	13	0	0	10	1	1	0	0	0	0	0
2100	163	0	151	7	0	0	5	0	0	0	0	0	0	0
2200	106	1	100	4	0	0	1	0	0	0	0	0	0	0
2300	61	1	51	4	0	0	5	0	0	0	0	0	0	0
07-19	11566	39	10071	1067	37	95	104	2	122	2	12	10	0	5
06-22	12734	43	11098	1159	38	99	135	3	127	3	12	11	0	6
06-00	12901	45	11249	1167	38	99	141	3	127	3	12	11	0	6
00-00	13093	47	11402	1197	39	99	144	3	129	3	12	12	0	6

	SS1040 Parc	Pensarn				Site	2	Location	A484 south	n of Morrisons	Rounabout	t (51.843691	, -4.309498	3)
16 March 20	123	to	22 March 2	023		Direction	Two-Way							
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CARS OR CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	TWO AXLE, SIX TYRE, RIGID		FOUR OR MORE AXLE RIGID	FOUR OR LESS AXLE ARTIC	FIVE AXLE ARTIC	SIX OR MORE AXLE ARTIC	FIVE OR LESS AXLE MULTI- TRAILER ARTIC	SIX AXLE MULTI- TRAILER ARTIC	SEVEN OR MORE AXLE ARTIC
Average Day	у													
0000	30	0	26	2	0	0	1	0	0	0	0	0	0	0
0100	21	0	17	3	0	0	0	0	0	0	0	0	0	0
0200	16	0	13	2	0	0	0	0	0	0	0	0	0	0
0300	19	1	15	2	0	0	0	0	0	0	0	0	0	0
0400	34	0	29	3	0	0	0	0	1	0	0	0	0	0
0500	85	0	73	10	0	0	1	0	0	0	0	0	0	0
0600	266	0	219	37	1	2	2	1	2	1	1	1	0	0
0700	658	2	544	95	2	5	5	1	4	0	2	0	0	0
0800	1179	3	1038	85	10	14	8	1	18	0	1	2	0	1
0900	763	2	654	83	4	4	6	0	6	1	1	1	0	1
1000	716	1	611	76	1	9	7	1	8	0	1	1	0	0
1100	762	4	653	82	2	5	5	1	7	0	1	2	0	1
1200	833	5	729	74	2	5	7	1	6	0	1	1	0	0
1300	792	3	692	75	2	4	6	0	6	0	0	2	0	0
1400	814	5	711	73	1	6	9	0	7	1	1	1	0	0
1500	1019	3	905	74	7	12	6	0	9	0	1	1	0	1
1600	1064	4	960	77	4	5	7	0	6	0	0	0	0	0
1700	939	3	855	61	2	4	9	0	4	0	1	0	0	0
1800	605	1	550	40	1	4	6	0	3	0	0	0	0	0
1900	393	1	362	23	1	1	4	0	1	0	0	1	0	0
2000	277	0	258	15	0	0	3	0	0	0	0	0	0	0
2100	190	0	177	9	0	0	3	0	0	0	0	0	0	0
2200	111	0	104	6	0	0	1	0	0	0	0	0	0	0
2300	66	0	60	4	0	0	1	0	0	0	0	0	0	0
07-19	10146	35	8901	895	38	77	81	4	84	3	11	13	0	4
06-22	11272	37	9916	979	40	80	92	5	88	4	12	14	0	4
06-00	11449	38	10080	989	40	80	94	5	89	4	13	14	0	4
00-00	11654	40	10253	1011	40	81	97	5	90	4	13	15	0	4

SS1040 Parc Pensarn						Site	2	Location	A484 south of Morrisons Rounabout (51.843691, -4.309498)					5)
16 March 20	)23	to	22 March 2	023		Direction	Two-Way							
												FIVE OR LESS		
			CARS OR	LICHT		TWO	TUDEE	FOUR OR	FOUR OR		SIX OR	AXLE MIII TT-		SEVEN OR
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	CAR- BASED LGV	LIGHT GOODS VEHICLES	BUSES	AXLE, SIX TYRE, RIGID	THREE AXLE RIGID	MORE AXLE RIGID	LESS AXLE ARTIC	FIVE AXLE ARTIC	MORE AXLE ARTIC	MULTI- TRAILER ARTIC	MULTI- TRAILER ARTIC	MORE AXLE ARTIC
Virtual Weel	k													
Mon	12750	24	11157	1152	53	84	121	14	99	6	20	17	0	3
Tue	12718	42	11058	1229	49	97	89	4	104	6	15	20	0	5
Wed	13093	47	11402	1197	39	99	144	3	129	3	12	12	0	6
Thu	12772	23	11100	1189	62	105	121	3	120	3	15	21	0	10
Fri	12981	26	11398	1169	54	105	91	6	88	7	13	20	0	4
Sat	9189	33	8305	637	19	63	55	6	54	0	9	6	1	1
Sun	8072	85	7351	505	5	12	56	1	38	5	6	6	0	2
5 Day Avera	ige													
[]	12863	32	11223	1187	51	98	113	6	108	5	15	18	0	6
7 Day Avera	ige													
[]	11654	40	10253	1011	40	81	97	5	90	4	13	15	0	4
<b>Total Vehicl</b>	es													
[]	81575	280	71771	7078	281	565	677	37	632	30	90	102	1	31



			SS1040 I	Parc Pensarn														
	Mar-23					Posted Speed				Posted Speed Limit (PSL)			(SL1)		SL+15 L2)			
Si	ite	Location	Lat / Long	Direction	Start Date	End Date	Limit (PSL)	Total Vehicles	5 Day Ave.	7 Day Ave.	>PSL	>PSL%	>SL1	>SL1%	>SL2	>SL2%	Mean Speed	85%ile Speed
				Northbound	16 March 2023	22 March 2023		41383	6522	5912	3706	9.0	655	1.6	79	0.2	33.4	38.4
2	2	A484 south of Morrisons Rounabout	51.843691, - 4.309498	Southbound	16 March 2023	22 March 2023	40	40192	6341	5742	7123	17.7	873	2.2	61	0.2	36.2	40.5
				Two-Way	16 March 2023	22 March 2023		81575	12863	11654	10829	13	1528	2	140	0	35	40



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**Severnside** Traffic Management

# **Classification Schemes**

#### **Scheme F Classification Scheme (Non-metric)**

Scheme F is an attempt to implement the FWHA's visual classification scheme as an axle-based classification scheme. This is one of several interpretations.

				Axle	spacing in	feet	
Class	Vehicle Type	No. of	Axle	Axle	Axle	Axle	Axle
		Axles	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6
1	motorcycle	2	<6.0				
	passenger car	2	6.0 - 10.0				
2	car + 1 axle trailer	3	<10.0	10.0 - 18.0			
	car + 2 axle trailer	4	<10.0		<3.5		
	pickup	2	10.0 - 15.0				
3	pickup + 1 axle trailer	3	10.0 - 15.0	10.0 - 18.0			
3	pickup + 2 axle trailer	4	10.0 -15.0		<3.5		
	pickup + 3 axle trailer	5	9.9 - 15.0			<3.5	
4	bus	2	>20.0				
4	bus	3	>19.0				
5	single unit truck - dual rear axle	2	14.9 - 20.0			<3.5	
6	3 axle truck	3		<18.0			
7	4 axle truck	4					
	2S1	3		>18.0			
8	2\$2	4		>5.0	>3.5		
	3S1	4		<5.0	>10.0		
9	3S2	5		<6.1		3.5 - 8.0	
9	5 axle combination	5					
10	6 axle combination	6			3.5 - 5.0		
10	3S3	6					
11	2\$1-2	5		>6.0			
12	3S1-2	6					>10.0
		7 or	_				
13	truck	more					

# Appendix B



Head Office: 73 Porth-Y-Castell, Barry, Vale of Glam CF62 6QE
Office: Unit 17, Atlantic Business Park, Hayes Lane, Barry, Vale of Glam

CF64 5XU

Severnside Transportation Data Collection is registered Ltd Company
Company Registration Number: 11503589

VAT Number: 306 4112 48

## **Survey Overview**

Job No'/Job Name	SS1040 Parc Pensarn
Date	Thursday 16th March 2023
Time	07:00 - 10:00 & 15:00-1900
Survey Type	Classified JTC and Queue Lengths

#### **Weather Conditions**



# **Comments**



SS1040 Parc Pensarn Thursday 16th March 2023 07:00 - 10:00 & 15:00-1900 Site 1

# **Site 1.1**

## Overview



## **Streetview**





# Site 1.2

## Overview







# Site 1.3

## Overview







# Site 1.4

# **Overview**







Fabrication

SS1040 Parc Pensarn Thursday 16th March 2023 07:00 - 10:00 & 15:00-1900 Site 1

# Site 1.5

## Overview







# Site 1.6

# **Overview**







# **Site 1.7**

# **Overview**







# Site 1.8

# Overview







# Site 1.9

# Overview

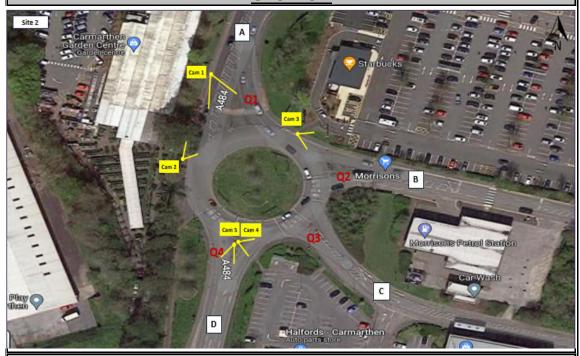






# Site 2.1

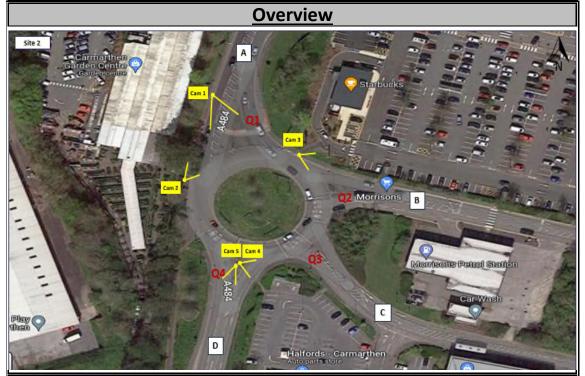
## Overview







# **Site 2.2**







## **Site 2.3**

## **Overview**

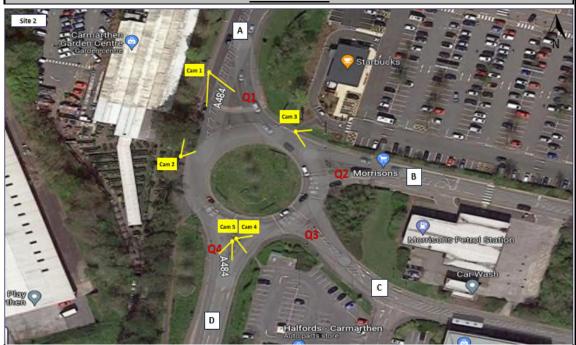






## Site 2.4

# **Overview**

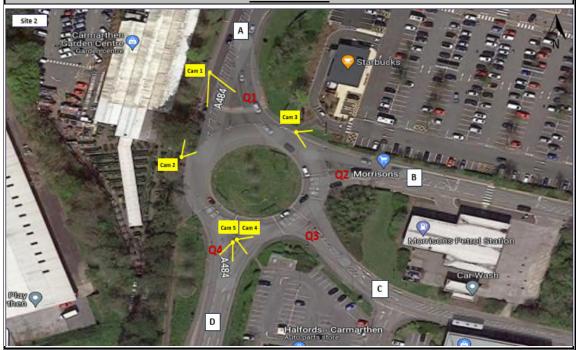






## **Site 2.5**

## **Overview**





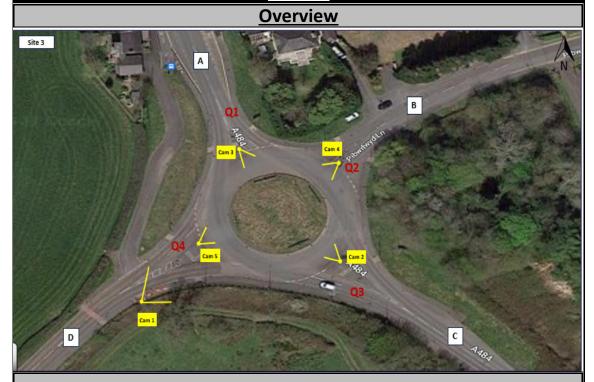


# Site 3.1 Overview Site 3.1 Overview Canal Cana





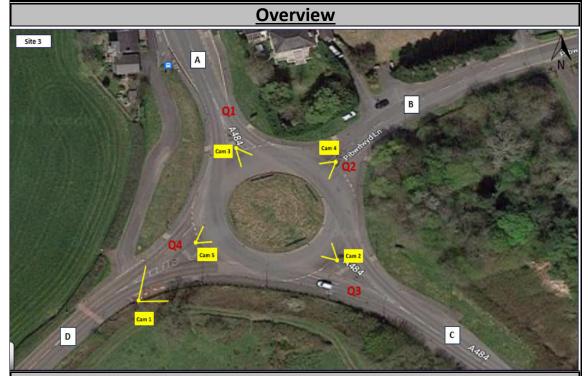
# **Site 3.2**







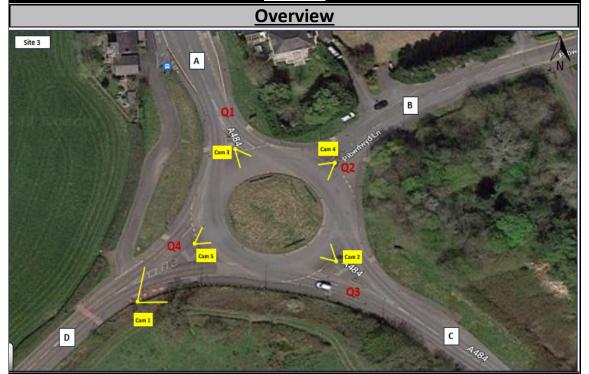
# <u>Site 3.3</u>







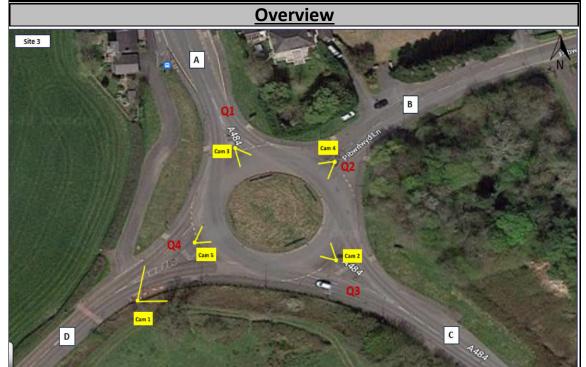
# Site 3.4







# **Site 3.5**







Arm A - Arm A	Arm A - Arm B	Arm A - Arm C	Arm A - Arm D
Car LGV OGV1 OGV2 PSV MC PC Total	Car LGV OGV1 OGV2 PSV MC PC Total	Car LGV OGV1 OGV2 PSV MC PC Total	Car LGV OGV1 OGV2 PSV MC PC Total Arm Tota
0700-0715	10 3 2 1 2 0 0 18	83 19 5 8 0 0 0 115	30 8 1 0 2 0 0 41 174
0715-0730 0 0 0 0 0 0 <b>0</b>	25 6 2 1 2 0 0 <b>36</b>	85 18 6 7 0 1 0 <b>117</b>	37 14 0 1 3 0 0 55 <b>208</b>
0730-0745 0 0 0 0 0 0 <b>0</b>	28 10 1 2 5 0 0 46	90 21 3 12 1 0 0 127	34 16 1 0 2 0 0 <b>53 226</b>
0745-0800 0 0 0 0 0 0 <b>0</b>	44 11 5 2 2 0 0 64	90 32 0 11 0 0 0 133	42 9 3 1 5 0 0 <b>60 257</b>
Hourly 0 0 0 0 0 0 0 0	77 11 3 2 2 0 0 0	30 32 0 11 0 0 0 133	72 3 1 3 0 0 0
	107   30   10   6   11   0   0   164	348 90 14 38 1 1 0 492	143   47   5   2   12   0   0   209   865
Total South Control of the Control o	50 12 7 2 2 2 0 0 0	07 22 0 12 1 0 144	75 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
0800-0815 0 0 0 0 0 0 <b>0</b>	58 13 7 2 2 0 0 82	97 22 9 12 1 0 0 141	75 9 2 2 0 0 0 88 311
0815-0830 0 0 0 0 0 0 <b>0</b>	53 14 0 2 0 0 0 69	86         22         4         7         0         1         0         120	95 10 0 0 5 0 0 <b>110 299</b>
0830-0845 0 0 0 0 0 0 <b>0</b>	48 9 4 2 0 0 0 <b>63</b>	112 13 5 11 0 0 0 <b>141</b>	81 8 1 0 9 0 0 <b>99 303</b>
0845-090d	50 8 3 2 0 0 6 <b>3</b>	77   19   6   11   3   0   0   <b>116</b>	97   18   2   1   3   0   0   <b>121</b>   <b>300</b>
Hourly 0 0 0 0 0 0 0 0	209 44 14 8 2 0 0 277	372 76 24 41 4 1 0 518	348 45 5 3 17 0 0 418 1213
Total 0 0 0 0 0 0 0 0 0	209   44   14   8   2   0   0   277	372 76 24 41 4 1 0 518	348 45 5 3 17 0 0 418 1213
0900-0915 0 0 0 0 0 0 0	44 6 3 3 0 0 0 56	93 25 6 11 1 0 0 136	67 9 6 1 1 1 0 85 277
0915-0930	42 12 2 3 0 0 0 59	96 27 7 14 0 0 0 144	73 11 0 1 3 0 0 88 291
0930-0945	32 7 0 2 0 0 0 41	75 23 7 20 2 0 0 127	62 10 4 0 0 0 76 244
0945-1000 0 1 0 0 0 0 1	27 4 0 5 0 0 0 36	80 24 10 16 2 0 0 <b>132</b>	65 11 2 0 2 0 0 <b>80 249</b>
	27   4   0   3   0   0   0   30	80   24   10   16   2   0   0   132	65 11 2 0 2 0 0 80 249
Hourly   0   1   0   0   0   0   1	145 29 5 13 0 0 0 192	344 99 30 61 5 0 0 539	267 41 12 2 6 1 0 329 1061
Total Total			
3 Hour			
<b>Totals</b> 0 1 0 0 0 0 <b>1</b>	461 103 29 27 13 0 0 <b>633</b>	1064 265 68 140 10 2 0 <b>1549</b>	758 133 22 7 35 1 0 <b>956 3139</b>
(am)			
1500-1515 0 0 0 0 0 0 <b>0</b>	36 6 0 2 0 0 0 44	84 23 6 12 1 0 0 126	84 16 2 4 4 1 0 111 281
1515-1530 0 0 0 0 0 0 0 <b>0</b>	45 4 4 1 0 0 0 54	126 41 11 11 0 0 1 189	94 13 2 0 4 1 0 114 357
1530-1545 0 0 0 0 0 0 0 <b>0</b>	35 7 3 4 0 0 0 <b>49</b>	119 49 9 13 0 0 0 <b>190</b>	119 8 3 0 0 0 0 130 369
	38 9 1 6 3 0 0 <b>57</b>	150 58 2 13 0 0 0 <b>223</b>	131 16 2 0 11 0 0 160 440
Hourly   0   0   0   0   0   0   0	154 26 8 13 3 0 0 204	479 171 28 49 1 0 0 728	428 53 9 4 19 2 0 515 1447
Total			
1600-1615 0 0 0 0 0 <b>0</b>	46 9 1 4 1 0 0 <b>61</b>	169         65         7         9         0         0         0         250	135 23 1 1 2 0 0 <b>162 473</b>
1615-1630 0 0 0 0 0 <b>0</b>	48   15   0   5   0   0   <b>68</b>	117   39   10   4   0   0   <b>170</b>	111   21   2   0   2   0   0   <b>136   374</b>
1630-1645 0 0 0 0 0 0 <b>0</b>	59 8 3 6 1 0 0 77	139 52 3 10 0 0 0 <b>204</b>	136 22 1 0 1 1 0 161 442
1645-1700 0 0 0 0 0 0 <b>0</b>	47 14 2 1 0 0 0 64	161 43 8 7 3 0 0 222	119 17 2 0 1 1 0 140 426
Hourly 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
	200   46   6   16   2   0   0   270	586 199 28 30 3 0 0 846	501 83 6 1 6 2 0 599 7715
		142   51   5   2   0   0   10   202	455
1700-1715 0 0 0 0 0 0 <b>0</b>	58 12 0 1 0 0 71	143 51 5 3 0 0 0 202	155 19 2 0 0 0 0 176 449
1715-1730 0 0 0 0 0 0 <b>0</b>	44 3 2 2 0 0 51	132 40 8 3 1 0 0 <b>184</b>	97 20 0 0 1 0 0 <b>118 353</b>
1730-1745 0 0 0 0 0 0 <b>0</b>	43 10 1 0 0 0 54	121 35 1 7 1 0 0 <b>165</b>	107 12 1 0 0 0 0 <b>120 339</b>
1745-1800 0 0 0 0 0 0 <b>0</b>	25 9 0 0 0 0 0 <b>34</b>	95   29   5   8   0   0   <b>137</b>	101 10 1 1 2 0 0 115 286
Hourly 0 0 0 0 0 0	170 24 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	404 455 40 24 2 0 0 0	450 51 4 4 2 0 50 500 4007
Total 0 0 0 0 0 0 0 0	170 34 3 3 0 0 0 210	491   155   19   21   2   0   0   688	460 61 4 1 3 0 0 529 1427
1800-1815 0 0 0 0 0 0 <b>0</b>	34 4 0 0 0 0 0 <b>38</b>	96 39 0 4 0 0 139	98 14 0 1 2 0 0 115 292
1815-1830 0 0 0 0 0 0 <b>0</b>	31 3 1 1 1 0 0 37	74 22 4 9 0 0 0 109	86 8 0 0 0 0 0 94 240
1830-1845 0 0 0 0 0 0 0 <b>0</b>	39 2 0 0 0 0 0 41	70 20 2 4 0 0 96	60 3 0 0 0 0 0 63 200
	23 1 0 1 0 0 0 <b>25</b>	78         10         1         2         0         0         91	77 3 1 0 1 0 0 82 198
Hourly   0   0   0   0   0   0   0	127 10 1 2 1 0 0 141	318 91 7 19 0 0 0 435	321 28 1 1 3 0 0 354 930
Total Total			
			322   20   2   2   3   0   0   33.
4 Hour			
<b>Totals</b> 0 0 0 0 0 0 <b>0</b>			
100013	651 116 18 34 6 0 0 <b>825</b>	1874 616 82 119 6 0 0 <b>2697</b>	1710 225 20 7 31 4 0 <b>1997 5519</b>
(pm)	651 116 18 34 6 0 0 <b>825</b>	1874 616 82 119 6 0 0 <b>2697</b>	
	651 116 18 34 6 0 0 <b>825</b>	1874 616 82 119 6 0 0 <b>2697</b>	
	651 116 18 34 6 0 0 <b>825</b>	1874 616 82 119 6 0 0 <b>2697</b>	
(pm)			1710 225 20 7 31 4 0 <b>1997 5519</b>
	651 116 18 34 6 0 0 <b>825</b> 1112 219 47 61 19 0 0 1458	1874     616     82     119     6     0     0     2697       2938     881     150     259     16     2     0     4246	
(pm)			1710 225 20 7 31 4 0 <b>1997 5519</b>
(pm)  Day Total 0 1 0 0 0 0 1	1112 219 47 61 19 0 0 1458	2938 881 150 259 16 2 0 4246	1710 225 20 7 31 4 0 <b>1997 5519</b> 2468 358 42 14 66 5 0 2953 8658
(pm)  Day Total 0 1 0 0 0 0 1  Arm B - Arm A	1112 219 47 61 19 0 0 1458  Arm B - Arm B	2938 881 150 259 16 2 0 4246  Arm B - Arm C	1710 225 20 7 31 4 0 <b>1997 5519</b> 2468 358 42 14 66 5 0 2953 8658  Arm B - Arm D
Day Total	1112         219         47         61         19         0         0         1458           Arm B - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total	2938 881 150 259 16 2 0 4246  Arm B - Arm C  Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	1710 225 20 7 31 4 0 <b>1997 5519</b> 2468 358 42 14 66 5 0 2953 8658  Arm B - Arm D  Car LGV OGV1 OGV2 PSV MC PC Total
Day Total	1112         219         47         61         19         0         0         1458           Arm B - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0         0         0         0         0         0         0	2938 881 150 259 16 2 0 4246    Arm B - Arm C	1710 225 20 7 31 4 0 1997 5519  2468 358 42 14 66 5 0 2953 8658  Arm B - Arm D  Car LGV OGV1 OGV2 PSV MC PC Total  18 2 0 1 0 0 0 0 21  93
Day Total   0   1   0   0   0   0   0   1	1112         219         47         61         19         0         0         1458           Arm B - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total	2938   881   150   259   16   2   0   4246	1710 225 20 7 31 4 0 1997 5519  2468 358 42 14 66 5 0 2953 8658    Arm B - Arm D   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total   T
Day Total	1112         219         47         61         19         0         0         1458           Arm B - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0         0         0         0         0         0         0	2938 881 150 259 16 2 0 4246    Arm B - Arm C	1710 225 20 7 31 4 0 1997 5519  2468 358 42 14 66 5 0 2953 8658  Arm B - Arm D  Car LGV OGV1 OGV2 PSV MC PC Total  18 2 0 1 0 0 0 0 21  93
Day Total   0   1   0   0   0   0   0   1	Arm B - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0	2938   881   150   259   16   2   0   4246	1710 225 20 7 31 4 0 1997 5519  2468 358 42 14 66 5 0 2953 8658    Arm B - Arm D   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total   T
Day Total   0	Arm B - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0           2         0         0         0         0         0         0         2           0         0         0         0         0         0         0         0	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	1710   225   20   7   31   4   0   1997   5519
Day Total   0	Arm B - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0         0         0         0         0         0         0           0         0         0         0         0         0         0           2         0         0         0         0         0         0         2	2938   881   150   259   16   2   0   4246	1710     225     20     7     31     4     0     1997     5519       2468     358     42     14     66     5     0     2953     8658       Car     LGV     OGV1     OGV2     PSV     MC     PC     Total       18     2     0     1     0     0     0     21       28     10     0     0     0     0     38       40     7     0     0     0     0     47
Day Total   0	Arm B - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0           2         0         0         0         0         0         0         0           2         0         0         0         0         0         0         0           2         0         0         0         0         0         0         0           2         0         0         0         0         0         0         2	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Trio   225   20   7   31   4   0   1997   5519
Day Total   0	Table   Tabl	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Total   Property   P
Day Total   O	Table   Tabl	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Total   Section   Se
Day Total   O	Arm B - Arm B   Arm B   Arm B   Arm B   Arm B   Arm B	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Total   Tota
Day Total   O	Table   Tabl	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Total   Section   Se
Day Total   O	Arm B - Arm B   Arm B - Arm B	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Total   Property   P
Day Total   O	Arm B - Arm B   Arm B   Arm B   Arm B   Arm B   Arm B	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Total   Tota
Day Total   O	Arm B - Arm B   Arm B - Arm B	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Total   Property   P
Day Total   O	Table   Tabl	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Total   Property   P
Day Total   O	Table   Tabl	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Total   Section   Sectio
Day Total   O	Table   Tabl	Arm B - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Total   Property   P

Hourly Total 137 4	42 12 7	3 0	0 201	0 0	0 0	0 0	0 0	134 43	12 9	4 0	0 202	213	22 8	2 1	0	0 246	649
3 Hour Totals 445 12 (am)	124 23 18	3 9 1	0 <b>620</b>	2 0	0 0	0 0	0 <b>2</b>	454 104	27 18	5 0	0 608	615	59 14	4 11	0	0 713	1943
1515-1530 39 1 1530-1545 55 5 1545-1600 34 4 1600-1615 48 1615-1630 41 461630-1645 64 1 1645-1700 72 1 1700-1715 85 66 1 1730-1745 52 1745-1800 46 5 1745-1800 46 5 1800-1815 47 1 1815-1830 31 33 1830-1845 36 5 1845-1900 41 24 1800-1815 1845-1900 41 24 1800-1815 1845-1900 41 24 1800-1815 1845-1900 41 24 1800-1815 1845-1900 41 24 1800-1815 1845-1900 41 24 1800-1815 1845-1900 41 24 1800-1815 1845-1900 41 24	5         2         0           15         3         1           5         1         3           4         4         2           29         10         6           7         0         2           4         1         2           11         1         0           13         0         1           35         2         5           6         1         2           13         2         0           7         1         0           5         2         2           31         6         4           10         1         0           3         2         0           5         1         3           2         1         2           20         5         5	5 0  12 0  2 0 1 0 0  1 0 0  4 0  0 0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0	0 61 0 60 0 65 0 45 0 231 0 58 0 51 0 79 0 91 0 279 0 96 0 82 0 60 0 56 0 294 0 58 0 37 0 46 0 46	0 0 0 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	45 16 43 10 40 11 57 20  185 57 71 26 51 13 58 20 48 17  228 76  77 8 51 8 37 6 32 6 197 28 48 9 31 0 17 4 24 5	2 0 2 1 2 1 6 1 12 3 3 1 0 1 4 1 1 1 8 4 0 1 1 1 1 2 3 0 1 3 6 3 1 1 1 2 1 0 1 6 4	0 2 0 1 0 0	0 65 0 56 0 54 0 84 0 259 0 101 0 65 0 83 0 67 0 316 0 48 0 39 0 234 0 61 0 33 0 149	80 83 74 316 81 96 55 88 320 96 75 81 60 312 58 54 38 32	3 1 7 1 13 4 8 1 31 7 9 0 9 1 10 0 7 0 35 1 5 0 8 3 5 1 2 0 4 4 0 3 0 0 4 1 2 0 13 1	1 1 1 3 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 85 0 91 0 101 0 83 0 360 0 90 0 106 0 66 0 95 0 357 0 102 0 87 0 62 0 338 0 62 0 57 0 43 0 34	211 207 222 216 856 249 222 228 253 952 284 230 195 157 866 181 127 114 111 533
4 Hour Totals 811 1: (pm)	115 23 20	) 22 0	0 <b>991</b>	6 1	0 0	0 0	0 7	730 179	29 17	1 2	0 <b>958</b>	1130	99 13	5 4	0	0 1251	3207
Day Total 1256 23	239 46 38	3 31 1	0 1611	8 1	0 0	0 0	0 9	1184 283	56 35	6 2	0 1566	1745 1	68 27	9 15	0	0 1964	5150
	LGV OGV1 OGV	m C - Arm A	PC Total	Car LGV	Arm C - Ar	m B PSV MC	PC Total	Car LGV	Arm C	- Arm C PSV MC	PC Total	Car L	GV OGV1	Arm C - Arm D OGV2 PSV	MC	PC Total	Arm Total
0715-0730 82 8 0730-0745 100 7 0745-0800 123 7 Hourly 379 28 0800-0815 131 5 0815-0830 187 6 0830-0845 179 7 0845-0900 122 5 Hourly 619 26 0900-0915 122 4 0915-0930 105 6 0930-0945 101 5 0945-1000 82 5	53         16         9           86         12         8           77         9         11           73         12         10           289         49         38           57         12         4           69         9         10           77         17         6           59         17         13           262         55         33           45         15         12           64         7         12           52         16         15           53         8         9           214         46         48	0	0 759 0 204 0 275 0 282 0 211 0 972 0 195 0 188 0 186 0 153	51 22 235 78 44 15 31 16 37 15 27 16	5 1 2 0 2 0 17 3 3 2 6 3 3 2 5 1 1 17 8 6 2 6 1 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 54 0 67 0 70 0 84  0 275 0 71 0 98 0 91 0 79 0 339 0 67 0 54 0 55 0 46 0 222	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15 14 58 33 46 26 33 138 29 15 9 18	7 0 5 1 8 1 9 1 29 3 7 3 8 3 9 2 16 0 8 6 0 10 1 8 1 5 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 20 0 22 0 24 0 24 0 90 0 45 0 57 0 38 0 51 0 191 0 35 0 27 0 18 0 23	229 278 291 326 1124 320 430 411 341 1502 297 269 259 222 1047
0715-0730 82 8 0730-0745 100 7 0745-0800 123 7 Hourly 379 28 0800-0815 131 5 0815-0830 187 6 0830-0845 179 7 0845-0900 122 5 Hourly 619 20 0900-0915 122 4 0915-0930 105 6 0930-0945 101 5 0945-1000 82 5 Hourly Total 23 Hourly Total 25 Hourly 10 5 0945-1000 82 5 Hourly Total 26 Hourly 10 5 0945-1000 82 5 Hourly Total 410 23 3 Hour Totals 1408 76 (am)	86         12         8           77         9         11           73         12         10           289         49         38           57         12         4           69         9         10           77         17         6           59         17         13           262         55         33           45         15         12           64         7         12           52         16         15           53         8         9           214         46         48	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 189 0 197 0 218 0 759 0 204 0 275 0 282 0 211 0 972 0 195 0 188 0 186 0 153 0 722	38 19 51 17 67 15  193 62  51 14 73 16 60 26 51 22  235 78  44 15 31 16 37 15 27 16	5 1 8 2 2 0 2 0 17 3 3 2 6 3 3 2 5 1 17 8 6 2 6 1 2 1 3 0 17 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 54 0 67 0 70 0 84 0 275 0 71 0 98 0 91 0 79 0 339 0 67 0 54 0 55 0 46 0 222	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	16 15 14 58 33 46 26 33 138 29 15 9 18 71	5 1 8 1 9 1 29 3 7 3 8 3 9 2 16 0 8 6 0 10 1 8 1 5 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 22 0 24 0 90 0 90 0 45 0 57 0 38 0 51 0 191 0 35 0 27 0 18 0 23	229 278 291 326 1124 320 430 411 341 1502 297 269 259 222

1800-181: 1815-183: 1830-184: 1845-190: Hourly Total	0 135 5 116	5 12 6 13 3 5 9 47	2 2 2 2 8	10 9 8 8 8	1 0 1 1 1 3 8	0 1 1 0 2	0 0 0 0 0	150 159 141 84 534	36 39 38 30 143	2 4 0 4 10	0 0 0 0 0	0 0 0 2 2	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	38 43 38 36 155	0 0 0 0	0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 (0 0 (0 0 (0		19 26 11 10 66	2 3 1 2 8	1 0 1 0	1 0 0 0 0 0 1 1 5	0 1 0 0 1	0 0 0 0 0	0 23 0 30 0 13 0 12 0 78	211 232 192 132 767
(pm) Day Tota		57 1058	203	230 Arm D -	19 - Arm A	5 MC	0 PC	4872 Total	1160 Car	283	66	30 Arm D - <i>A</i>	4	0 MC	0	1543	0 Car	0 LGV	0 OGV1	0 Arm D -	0 Arm C	0 (	O O	675 	138	24 OGV1	10 Arm D -	3	0	0 850	7265
0700-071 0715-073 0730-074 0745-080 Hourly Total 0800-081 0815-083 0830-084 0845-090 Hourly Total 0900-091 0915-093 0930-094 0945-100 Hourly Total	5 35 0 55 5 77 0 100 267 5 118 0 153 5 142 0 136 5 47 5 108 6 83 6 88	5 17 5 15 7 27 0 36 7 95 8 26 1 25 2 18 6 23 7 92 8 19 3 20 3 11	3 2 1 5 11 4 2 4 0 10 10	7	3 0 1 1 5 3 1 10 8 22 3 1 1 1	0 0 0 1 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	108 108 144 386 153 180 175 168 676 131 109 103 92 435	23 43 59 76 201 54 68 72 86 280 63 49 50 41	8 5 7 8 28 6 8 8 14 36 11 7 12 9	0 0 0 1 1 1 1 5 5 4 4 0 0 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31 48 67 86 232 61 81 82 330 78 58 64 51 251	21 15 16 23 75 17 13 22 16	21 2 2 5 1 10 4 4 1 2 11	2 0 0 3 5 0 1 2 0 0 3 3 0 4 4 2 0 0 6	0 0 1 1 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	S   S   C   C   C   C   C   C   C   C	0 1 2 2 5 0 3 1 4 8 8 4 2 1 4	1 1 0 0 0 0 0 0 0 1 1 1 2 2 0 0 0 0 3	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	Columbia   Columbia	100 143 202 253 698 238 284 286 298 1106 236 194 193 165 788
3 Hour Totals (am)	116	58 251	30	13	33	2	0	1497	684	103	17	5	4	0	0	813	188	42	14	5	2	0 (	251	24	5	1	0	1	0	0 31	2592
1500-151: 1515-153 1530-154 1545-160 Hourly Total 1600-161: 1615-163: 1630-164: 1645-170 Hourly Total 1700-171: 1715-173: 1730-174: 1745-180: Hourly Total 1800-181: 1815-183: 1830-184: 1845-190: Hourly Total	100 100 100 100 100 100 100 100 100 100	0 4 8 8 26 8 26 8 26 8 11 5 9 0 4 5 13 4 37 6 11 7 7 4 2 2 5 2 25 9 6 1 13 6 6 0	3 0 2 1 6 0 1 0 1 0 1 2 0 0 0 0 0 1 1 0 1 1 1 1	2 0 1 0 3 0 1 0 0 1 0 0 1 0 0 1 0 0 0 1 0 0 0 0	1 1 4 5 11 2 3 2 1 1 8 8 2 2 1 1 2 7 7 0 1 1 2 1 1 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 1 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	102 105 113 134 454 106 99 106 101 412 108 121 107 99 435 85 98 95 87 365	53 42 77 64 236 59 66 69 76 270 66 80 69 65 280 60 46 73 55	12 2 6 5 25 6 4 6 3 19 5 3 1 2 11 4 4 2 3 2	0 2 1 1 0 0 3 3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 1 1 0 0 1 1 0 0 1 1	0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	66 47 87 77 277 65 73 80 79 297 71 84 71 67 293 64 48 77 57	26 15 20 43 104 29 22 31 32 114 35 31 34 30 130 27 16 20 12 75	7 3 7 6 23 5 12 3 11 31 5 9 8 2 24 2 0 0 4	0 1 1 3 5 0 0 0 0 0 0 1 1 0 0 0 0 1 1 1 0 0 0 1	0	0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21	5 5 1 3 14 5 2 7 6 20 9 3 3 5 20 20 3 8 2 2	1 0 4 0 5 0 0 0 0 1 1 3 0 0 0 0 0 1 3 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0         6           0         6           0         5           0         20           0         5           0         2           0         7           0         7           0         21           0         3           0         3           0         3           0         23           0         3           0         3           0         3           0         2           0         16	207 179 233 266 885 210 209 227 232 878 232 248 224 203 907 182 172 195 158 707
4 Hour Totals (pm)	150	07 113	9	6	30	1	0	1666	1020	66	11	4	12	0	0	1113	423	82	7	4	2	0 0	518	69	10	0	0	0	1	0 80	3377
Day Tota			39 OGV1	19 Origin - OGV2		3 MC	O PC	3163 Total	1704 Car	169 LGV	28 OGV1	9 Origin - A		0 MC	O PC	1926 Total	611 Car	124 LGV	21 OGV1	9 Origin - OGV2		0 (	) 769 C   Total	93 Car	15	1 OGV1	Origin -			0 1111 PC Total	5969 Arm Total
0700-071	5 123	3 30	8	9	4	0	0	174	64	21	4	4	0	0	0	93	124	71	21	10	3	0 (	229	64	25	6	2	3	0	0 100	596
0715-073 0730-074	_		8 5	9 14	5 8	0	0	208 226	100 120	37 22	2 2	3	0	0	0	143 147	136 166	110 102	21 12	10 11	0	0 (	278 291	111 152	28 44	2	3	0		0 <b>143</b> 0 <b>202</b>	772 866
0745-080			8	14	7	0	0	257	108	24	8	5	1	0	0	146	204	97	15	10	0	0 (		191	48	9	4	1		0 253	982
Hourly	598	8 167	29	46	24	1	0	865	392	104	16	16	1	0	0	529	630	380	69	41	4	0 (	1124	518	145	18	11	5	1	0 698	3216
Total 0800-081			18	16	3	0	0	311	141	24	4	1	1	0	0	171	215	78	18	8	1	0 (		193	35	5	2	3		0 238	1040
0815-083			4	9	5	1	0	299	161	21	6	4	5	1	0	198	306	93	18	13	0		430	237	35	8	1	2		0 284	1211

0830-0845         241         30         10         13         9         0         0         303           0845-0900         224         45         11         14         6         0         0         300           Hourly Total         929         165         43         52         23         1         0         1213           0900-0915         204         40         15         15         2         1         0         277           0915-0930         211         50         9         18         3         0         0         291           0930-0945         169         40         11         22         2         0         0         244           0945-1000         172         40         12         21         4         0         0         249           Hourly Total         756         170         47         76         11         1         0         1061	173         19         3         0         7         0         0         202           165         22         3         1         3         0         0         194           640         86         16         6         16         1         0         765           135         29         4         4         1         0         0         173           107         25         14         6         3         0         0         155           123         30         6         4         2         0         0         165           119         23         8         4         2         0         0         156           484         107         32         18         8         0         0         649	265         112         22         9         3         0         0         411           206         97         22         15         1         0         0         341           992         380         80         45         5         0         0         1502           195         66         21         14         1         0         0         297           151         90         14         14         0         0         0         269           147         75         19         16         2         0         0         259           127         74         11         9         1         0         0         222           620         305         65         53         4         0         0         1047	231         31         10         1         13         0         0         286         1202           249         38         0         1         10         0         0         298         1133           910         139         23         5         28         1         0         1106         4586           192         35         4         1         4         0         0         236         983           147         33         9         4         1         0         0         194         909           161         24         5         2         1         0         0         193         861           136         25         3         0         1         0         0         165         792           636         117         21         7         7         0         0         788         3545
Totals   2283   502   119   174   58   3   0   3139   (am)	1516         297         64         40         25         1         0         1943           178         24         5         1         1         2         0         211           162         32         6         5         2         0         0         207           179         30         7         4         2         0         0         222           169         32         11         3         1         0         0         216           688         118         29         13         6         2         0         856           200         42         3         3         1         0         0         249           188         26         2         3         3         0         0         222           177         41         5         1         4         0         0         228           208         37         1         2         5         0         0         253           773         146         11         9         13         0         0         284           192         29         6         2	2242         1065         214         139         13         0         0         3673           142         24         7         7         0         0         0         180           184         26         11         12         0         1         0         234           155         22         8         8         1         0         0         194           186         33         4         6         0         0         0         229           667         105         30         33         1         1         0         837           196         32         5         10         1         1         0         245           147         28         3         6         0         0         0         184           226         42         7         5         1         0         0         281           189         29         3         9         2         1         0         233           758         131         18         30         4         2         0         943           223         28         6         7	2064         401         62         23         40         2         0         2592         11347           172         28         3         3         1         0         0         207         879         162         9         3         1         3         1         0         179         977         196         25         4         1         7         0         0         233         1018         1232         17         4         1         12         0         0         266         1151         108         125         4         1         12         0         0         266         1151         1177         175         25         4         2         3         0         0         210         1177         177         178         25         4         2         3         0         0         209         989         1177         178         200         22         0         0         227         1178         1200         228         1         1         2         0         0         232         1144         144         144         144         144         144         144         144         144         144
4 Hour Totals 4235 957 120 160 43 4 0 5519 (pm)  Day Total 6518 1459 239 334 101 7 0 8658	2677 394 65 42 27 2 0 <b>3207</b> 4193 691 129 82 52 3 0 5150	2950     414     79     131     13     5     0     3592       5192     1479     293     270     26     5     0     7265	3019     271     27     14     44     2     0     3377     15695       5083     672     89     37     84     4     0     5969     27042
Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Destination - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           70         22         7         2         2         0         0         103           106         30         10         3         2         0         0         151           140         34         3         3         5         0         0         185           187         34         8         3         2         0         0         234           503         120         28         11         11         0         0         673           163         33         11         4         3         0         0         214           194         38         11         5         0         0         0         248           180         43         11         4         2         0         0         240           187         44         8         3         2         0         0         244           724         158         41         16         7         0         0         946	Destination - Arm C           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           119         29         8         9         0         0         0         165           144         37         8         9         0         1         0         199           151         38         4         14         1         0         0         208           138         47         7         13         0         0         0         205           552         151         27         45         1         1         0         777           167         29         10         12         2         0         0         220           146         30         9         11         1         1         0         198           157         21         7         11         0         0         196           138         27         8         12         3         0         0         188           608         107         34         46         6         1         0         802           148	Destination - Arm D           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total         Arm Total           61         17         2         1         2         0         0         83         596           82         29         1         1         3         0         0         116         772           91         32         2         0         2         0         0         127         866           101         22         6         2         5         0         0         136         982           335         100         11         4         12         0         0         462         3216           142         20         6         4         0         0         0         172         1040           210         25         5         0         9         0         0         249         1211         199         25         4         1         15         0         0         244         1202         133         17         7         29         0         0         930         4586           162
3 Hour Totals 3021 1141 203 150 53 3 0 4571 (am)  1500-1515 233 29 12 9 1 00 0 284 1515-1530 265 39 10 10 3 1 0 328 1530-1545 240 27 7 12 6 0 0 292 1545-1600 276 36 9 5 6 0 0 332    Hourly 1014 131 38 36 16 1 0 1236 1600-1615 258 45 3 10 4 1 0 321 1615-1630 219 30 4 8 6 0 0 267 1630-1645 311 45 3 3 6 0 0 0 368 1645-1700 278 40 2 7 6 1 0 334	1714     408     97     47     18     0     0     2284       121     22     0     3     0     0     0     146       118     11     8     3     1     0     0     141       150     18     7     4     3     0     0     182       144     20     1     10     10     0     0     185       533     71     16     20     14     0     0     654       150     17     2     5     1     0     0     175       145     27     3     6     0     0     0     181       177     21     12     7     1     0     0     218       164     28     3     3     2     0     0     200	1706     411     109     163     17     2     0     2408       155     46     8     12     1     2     0     224       184     54     14     13     1     0     0     266       179     67     12     14     0     0     0     272       250     84     11     14     0     0     0     359       768     251     45     53     2     2     0     1121       269     96     10     10     0     0     0     385       190     64     10     6     0     0     0     270       228     75     7     11     0     0     0     321       241     71     9     9     4     0     0     334	1664     305     50     16     48     1     0     2084     11347       187     24     3     5     5     1     0     225     879       206     21     5     4     4     2     0     242     977       234     29     8     0     1     0     0     272     1018       236     25     3     0     11     0     0     275       863     99     19     9     21     3     0     1014     4025       255     35     2     2     2     0     0     296     1177       232     33     4     0     2     0     0     271     989       228     37     2     1     2     1     0     271     1178       241     29     3     1     1     1     0     276     1144

Hourly Total	1066	160	12	28	22	2	0	1290	636	93	20	21	4	0	0	774	928	306	36	36	4	0	0	1310	956	134	11	4	7	2	0	1114	4488
1700-1715	328	36	6	9	4	0	0	383	170	26	0	1	0	0	0	197	255	64	5	5	0	0	0	329	289	27	3	0	2	0	0	321	1230
1715-1730	328	44	9	9	5	0	0	395	162	8	2	2	2	0	0	176	214	57	9	4	1	0	0	285	207	30	3	1	1	0	0	242	1098
1730-1745	311	27	2	4	1	0	0	345	141	16	3	3	0	0	0	163	192	49	4	10	1	0	0	256	222	20	3	0	0	0	0	245	1009
1745-1800	293	31	4	10	3	0	0	341	123	19	2	1	0	0	0	145	157	37	5	9	0	0	0	208	196	14	1	1	2	0	0	214	908
Hourly Total	1260	138	21	32	13	0	0	1464	596	69	7	7	2	0	0	681	818	207	23	28	2	0	0	1078	914	91	10	2	5	0	0	1022	4245
1800-1815	246	33	3	10	1	0	0	293	130	10	0	0	0	0	0	140	171	50	4	5	0	0	0	230	178	20	1	2	2	0	0	203	866
1815-1830	250	28	4	9	2	1	0	294	116	9	1	1	1	0	0	128	121	24	5	10	0	0	0	160	174	14	0	0	1	0	0	189	771
1830-1845	237	24	4	11	4	2	0	282	151	5	0	1	0	0	0	157	107	24	4	5	0	0	0	140	111	9	2	0	0	0	0	122	701
1845-1900	194	7	3	11	2	0	0	217	108	7	0	3	0	0	0	118	114	15	1	3	1	0	0	134	121	7	1	0	1	0	0	130	599
Hourly Total	927	92	14	41	9	3	0	1086	505	31	1	5	1	0	0	543	513	113	14	23	1	0	0	664	584	50	4	2	4	0	0	644	2937
4 Hour Totals (pm)	4267	521	85	137	60	6	0	5076	2270	264	44	53	21	0	0	2652	3027	877	118	140	9	2	0	4173	3317	374	44	17	37	5	0	3794	15695
Day Total	7288	1662	288	287	113	9	0	9647	3984	672	141	100	39	0	0	4936	4733	1288	227	303	26	4	0	6581	4981	679	94	33	85	6	0	5878	27042



Transportation Data Collection			
Arm A - Arm A	Arm A - Arm B	Arm A - Arm C	Arm A - Arm D
Car LGV OGV1 OGV2 PSV MC PC Total	Car LGV OGV1 OGV2 PSV MC PC Total	Car LGV OGV1 OGV2 PSV MC PC Total	Car LGV OGV1 OGV2 PSV MC PC Total Arm Total
0700-0715 13 4 0 0 0 0 0 17	18 6 0 0 0 0 0 <b>24</b>	2 1 0 0 0 0 0 <b>3</b>	28         7         2         1         2         0         0         40         84
0715-0730 13 5 1 0 0 0 <b>19</b>	26 12 0 0 0 0 0 <b>38</b>	5 2 0 0 0 0 <b>7</b>	40 8 0 1 3 0 0 <b>52 116</b>
0730-0745 13 8 2 0 0 0 0 <b>23</b>	33 7 0 0 0 0 0 <b>40</b>	3 0 0 0 0 0 0 <b>3</b>	46         17         1         0         2         0         0         66         132
0745-0800 18 2 0 0 0 0 0 <b>20</b>	24 6 0 1 0 0 0 <b>31</b>	8 3 0 0 0 0 0 11	51         8         6         1         3         0         0         69         131
Hourly   57   19   3   0   0   0   79	101 31 0 1 0 0 0 133	18 6 0 0 0 0 0 24	165 40 9 3 10 0 0 227 463
Total 37 13 3 0 0 73	101   31   0   1   0   0   133	20 0 0 0 0 24	
0800-0815 18 7 1 0 0 0 0 <b>26</b>	30 8 0 2 0 0 <b>40</b>	13 2 1 0 0 0 16	86         9         3         2         0         0         100         182
0815-0830 34 3 2 0 0 0 0 <b>39</b>	49 8 3 0 0 0 <b>60</b>	17 3 0 0 0 0 0 <b>20</b>	107         13         1         0         9         0         0         130         249
0830-0845 21 3 0 1 0 0 0 <b>25</b>	39 14 0 0 0 0 0 <b>53</b>	16         0         1         0         0         0         17	137 10 3 0 14 0 0 <b>164 259</b>
0845-0900 27 8 0 0 0 0 0 <b>35</b>	43 15 0 0 0 0 <b>58</b>	19 5 0 0 2 0 0 <b>26</b>	139         12         2         2         3         0         0         158         277
Hourly   100   21   3   1   0   0   0   125	161 45 3 2 0 0 0 211	65 10 2 0 2 0 79	469 44 9 4 26 0 0 552 967
Total 100 21 3 1 0 0 123		03 10 2 0 2 0 79	403 44 9 4 20 0 0 332 307
0900-0915 29 1 1 0 0 0 0 31	48 7 1 0 0 0 56	14 2 0 0 0 0 0 <b>16</b>	76         13         6         1         1         1         0         98         201
0915-0930 26 6 1 1 0 0 0 <b>34</b>	47 8 0 0 0 0 0 55	15 3 1 0 0 0 0 <b>19</b>	59         13         1         1         3         0         0         77         185
0930-0945 26 4 0 0 0 0 0 <b>30</b>	49 3 1 0 0 0 0 53	6 7 1 0 1 0 0 15	50         16         5         2         0         0         0         73         171
0945-1000 29 3 0 0 1 0 0 <b>33</b>	54 6 0 0 0 0 0 <b>60</b>	13 2 1 0 0 0 0 <b>16</b>	<u>41 6 3 1 1 0 0 52 161</u>
Hourly 110 14 2 1 1 0 0 128	198 24 2 0 0 0 0 224	48 14 3 0 1 0 0 66	226   48   15   5   5   1   0   300   718
Total 110 14 2 1 1 0 0 125	150 24 2 0 0 0 0 224	40 14 3 0 1 0 0	220 40 13 3 3 1 0 300 710
			·
3 Hour			
<b>Totals</b> 267 54 8 2 1 0 0 <b>332</b>	460 100 5 3 0 0 0 <b>568</b>	131 30 5 0 3 0 0 <b>169</b>	860 132 33 12 41 1 0 <b>1079 2148</b>
(am)			
1500-1515 43 4 2 1 0 0 0 <b>50</b>	50 6 0 0 0 1 0 57	9 1 0 2 0 0 0 12	86         16         2         1         4         0         0         109         228
1515-1530 23 5 0 0 0 1 0 <b>29</b>	63 5 1 0 0 0 69	14 2 0 0 0 0 0 16	108         10         4         4         5         0         0         131         245
1530-1545 42 3 2 0 0 0 0 <b>47</b>	66 10 2 0 0 0 78	11 3 0 0 0 0 0 14	119         13         3         0         1         1         0         137         276
1545-1600 42 2 1 0 0 0 <b>45</b>	57 6 0 0 0 0 0 <b>63</b>	16 0 0 0 0 0 16	<u> 134   17   2   0   11   0   0   164   288  </u>
Hourly   150   14   5   1   0   1   0   171	236 27 3 0 0 1 0 267	50 6 0 2 0 0 58	447 56 11 5 21 1 0 541 1037
Total Total	250 27 3 0 0 1 0 257	30 0 0 2 0 30	
1600-1615 34 2 1 0 0 0 <b>37</b>	64 7 0 0 0 0 <b>71</b>	15 0 0 0 0 0 0 <b>15</b>	142         24         1         2         2         0         0         171         294
1615-1630 40 5 1 0 0 0 <b>46</b>	59 5 0 0 0 0 <b>64</b>	16 4 0 0 0 0 0 <b>20</b>	124         18         3         0         2         0         0         147         277
1630-1645 55 3 0 0 0 0 0 <b>58</b>	46 10 0 0 0 0 <b>56</b>	4 6 1 0 0 0 0 <b>11</b>	128         22         1         1         1         1         0         154         279
1645-1700 37 6 1 0 0 0 <b>44</b>	67 7 0 0 0 0 0 <b>74</b>	16         1         0         0         0         0         17	122         17         2         1         2         1         0         145         280
Hourly 166 16 3 0 0 0 185	236 29 0 0 0 0 0 265	51 11 1 0 0 0 0 63	516 81 7 4 7 2 0 617 1130
Total 166 16 3 0 0 0 0 163	230 23 0 0 0 0 0 203	51 11 1 0 0 0 0 0	310 81 7 4 7 2 0 017 1130
1700-1715 48 2 0 0 0 0 0 <b>50</b>	72 8 0 0 0 0 0 <b>80</b>	15 0 0 0 0 0 15	165         16         3         0         1         0         0         185         330
1715-1730 41 2 1 0 1 0 <b>45</b>	48 7 1 0 0 0 0 56	10 4 0 1 0 0 15	113 22 1 0 1 0 0 <b>137 253</b>
1730-1745 64 3 1 0 0 0 68	49 4 0 0 0 0 0 53	6 0 0 0 0 0 <b>6</b>	93 14 2 0 0 0 0 109 236
1745-1800 41 2 0 0 0 0 <b>43</b>	52 3 0 0 0 0 0 55	14 0 0 0 0 0 0 <b>14</b>	96 8 1 1 2 0 0 <b>108 220</b>
Hourly 104 0 2 0 1 0 0 206	221 22 1 0 0 0 0 244	45 4 0 1 0 0 50	467 60 7 1 4 0 0 539 1039
Total 194 9 2 0 1 0 0 206	221 22 1 0 0 0 0 244	45 4 0 1 0 0 50	467 60 7 1 4 0 0 539 1039
1800-1815 48 1 0 1 0 0 50	45 7 0 0 0 0 0 <b>52</b>	6 0 0 0 0 0 <b>6</b>	81 9 1 1 2 0 0 <b>94 202</b>
1815-1830 46 2 0 0 0 0 <b>48</b>	44 4 1 0 0 0 0 <b>49</b>	10 1 0 0 0 0 11	77 6 0 0 0 0 8 <b>3 191</b>
1830-1845 33 4 0 0 0 0 0 <b>37</b>	28 3 0 0 0 0 0 <b>31</b>	5 0 0 0 0 0 <b>5</b>	57 3 2 0 1 0 0 <b>63 136</b>
1845-1900 36 1 0 0 0 0 <b>37</b>	28 1 0 0 0 0 0 <b>29</b>	9 0 1 0 0 0 0 10	49 6 0 0 1 0 <b>56 132</b>
Hourly 163 8 0 1 0 0 0 172	145 15 1 0 0 0 0 161	30 1 1 0 0 0 32	264 24 3 1 4 0 0 296 661
Total 163 8 0 1 0 0 0 172	145 15 1 0 0 0 0 161	30 1 1 0 0 0 32	264 24 3 1 4 0 0 296 661
4 Hour			
<b>Totals</b> 673 47 10 2 1 1 0 <b>734</b>	838 93 5 0 0 1 0 <b>937</b>	176 22 2 3 0 0 0 <b>203</b>	1694 221 28 11 36 3 0 <b>1993 3867</b>
(pm)			
<b>Day Total</b> 940 101 18 4 2 1 0 1066	1298 193 10 3 0 1 0 1505	307 52 7 3 3 0 0 372	2554 353 61 23 77 4 0 3072 6015
Arm B - Arm A	Arm B - Arm B	Arm B - Arm C	Arm B - Arm D
Car LGV OGV1 OGV2 PSV MC PC Total	Car LGV OGV1 OGV2 PSV MC PC Total	Car LGV OGV1 OGV2 PSV MC PC Total	Car LGV OGV1 OGV2 PSV MC PC Total Arm Total
0700-0715 15 4 0 0 1 0 0 20	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	5 0 0 0 0 0 0 5 <b>25</b>
0715-0730 16 6 0 0 0 0 0 <b>22</b>	0 0 0 0 0 0 0		6 1 0 0 0 0 7 31
	0 0 0 0 0 0 0		
	""		
0730-0745 41 12 0 0 0 1 0 54 0745-0800 35 3 0 0 0 0 0 38	0 0 0 0 0 0 0 0 <b>0</b>	0 0 0 0 0 0 <b>0</b>	
0745-0800 35 3 0 0 0 0 0 <b>38</b>		0 0 0 0 0 0 0 0 0 4 0 0 0 0 0 0 4	9 3 0 1 0 0 0 13 55
0745-0800 35 3 0 0 0 0 0 <b>38</b> Hourly 107 25 0 0 1 1 0 134	0         0         0         0         0         0         0           0         0         0         0         0         0         0         0	0 0 0 0 0 0 <b>0</b>	
0745-0800         35         3         0         0         0         0         0         38           Hourly Total         107         25         0         0         1         1         0         134	0 0 0 0 0 0 0	0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         0         0         4         0         0         0         0         0         4         0         0         6         0         6         0         6         0         0         6         0	9     3     0     1     0     0     0     13       22     6     0     1     0     0     0     29
0745-0800         35         3         0         0         0         0         0         38           Hourly Total         107         25         0         0         1         1         0         134           0800-0815         25         5         0         0         0         0         0         30	0         0         0         0         0         0         0           0         0         0         0         0         0         0         0	0         0         0         0         0         0         0         0           4         0         0         0         0         0         0         4           5         1         0         0         0         0         0         6           1         0         0         0         0         0         1	9     3     0     1     0     0     0     13       22     6     0     1     0     0     0     29       7     3     0     0     0     0     0     10
0745-0800         35         3         0         0         0         0         0         38           Hourly Total         107         25         0         0         1         1         0         134           0800-0815         25         5         0         0         0         0         0         30           0815-0830         29         9         2         1         0         0         0         41	0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0	0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         0         0         4         0         0         0         0         0         4         0         0         0         0         0         0         6         0         0         0         0         0         0         0         1         0         0         0         0         0         0         0         0         0         0         2         0	9     3     0     1     0     0     0     13       22     6     0     1     0     0     0     29       7     3     0     0     0     0     0     10       14     0     0     0     0     0     14
0745-0800         35         3         0         0         0         0         0         38           Hourly Total         107         25         0         0         1         1         0         134           0800-0815         25         5         0         0         0         0         0         30           0815-0830         29         9         2         1         0         0         0         41           0830-0845         31         11         1         1         0         0         0         44	0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0	0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         0         0         0         0         0         4         0         0         0         0         0         0         4         0         3         0         0         0         0         0         0         0         0         3         0	9         3         0         1         0         0         0         13         55           22         6         0         1         0         0         0         29         169           7         3         0         0         0         0         0         10         41           14         0         0         0         0         0         14         57           23         2         0         0         0         0         25         72
0745-0800         35         3         0         0         0         0         0         38           Hourly Total         107         25         0         0         1         1         0         134           0800-0815         25         5         0         0         0         0         0         30           0815-0830         29         9         2         1         0         0         0         41           0830-0845         31         11         1         1         0         0         0         44           0845-0900         45         9         0         0         0         0         0         54	0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0	0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         0         0         0         0         0         4         0         0         0         0         0         0         4         0	9     3     0     1     0     0     0     13       22     6     0     1     0     0     0     29       7     3     0     0     0     0     0     10       14     0     0     0     0     0     14
Total   107   25   0   0   0   0   0   0   38	0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         0         0         0         0	0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         0         0         0         0         0         4         0         0         0         0         0         0         4         0         3         0         0         0         0         0         0         0         0         3         0	9     3     0     1     0     0     0     13       22     6     0     1     0     0     0     29       7     3     0     0     0     0     10       14     0     0     0     0     0     14       23     2     0     0     0     0     0     25
Total   107   25   0   0   0   0   0   0   38	0         0         0         0         0         0         0           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0         0         0           0	0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         1         0         13         0         0         0         0         0         0         0         0         0         0         13         0	9     3     0     1     0     0     0     13       22     6     0     1     0     0     0     29       7     3     0     0     0     0     0     10       14     0     0     0     0     0     14       23     2     0     0     0     0     25       12     2     0     0     0     0     14       56     7     0     0     0     0     0     63
0745-0800   35   3   0   0   0   0   0   0   38	0         0         0         0         0         0         0           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0         0         0           0	0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         0         0         0         0         0         0         4         0         13         0	9         3         0         1         0         0         0         13         55           22         6         0         1         0         0         0         29         169           7         3         0         0         0         0         0         10         41         41         57         23         2         0         0         0         0         0         25         72         72         72         72         72         72         72         75         75         75         76         72         76         76         76         76         76         76         76         76         76         76         76         76
0745-0800   35   3   0   0   0   0   0   0   38	0         0         0         0         0         0         0           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0         0         0           0	0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         3         0         13         0	9         3         0         1         0         0         0         13         55           22         6         0         1         0         0         0         29         169           7         3         0         0         0         0         0         10         41         57           14         0         0         0         0         0         0         25         72         72         72         72         72         72         75         76         75         76         76         76         76         73         76         73         76         73         76         73         76         73         76         76         73         76
0745-0800   35   3   0   0   0   0   0   0   38	0         0         0         0         0         0         0           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0         0         0           0	0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         0         0         0         0         0         0         4         0         13         0	9         3         0         1         0         0         0         13         55           22         6         0         1         0         0         0         29         169           7         3         0         0         0         0         0         10         41           14         0         0         0         0         0         0         14         57           23         2         0         0         0         0         0         25         72           12         2         0         0         0         0         0         14           56         7         0         0         0         0         0         63           15         0         0         0         0         0         0         15

Hourly 173 45	2 0 0 0 0 220	1 0 0 0 0 0 1	8 3 1 0 0 0 0 12	50 3 0 0 0 0 53
3 Hour Totals 410 104 (am)	5 2 <b>1 1 0 523</b>	1 0 0 0 0 0 1	25 5 1 0 0 0 <b>31</b>	128 16 0 1 0 0 0 <b>145 700</b>
1500-1515	2         0         0         0         0         55           1         0         0         0         0         48           0         0         0         0         0         52           0         0         0         0         0         52           0         0         0         0         0         56           1         0         0         0         0         52           1         0         0         0         0         55           1         0         0         0         0         61           0         0         0         0         0         56           2         0         0         0         0         0         56           2         0         0         0         0         0         56           2         0         0         0         0         48           0         0         0         0         0         48           0         0         0         0         0         46           0         0         0         0         0         46 </th <th>0         0</th> <th>2         1         1         0         0         0         0         4         4         0         0         0         0         0         0         4         4         0         0         0         0         0         0         4         3         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         1         1         0</th> <th>20         2         1         0         0         0         0         23           29         2         0         0         0         0         0         31           26         5         0         0         0         0         0         31           27         1         1         0         0         0         0         29           102         10         2         0         0         0         0         114           27         6         0         0         0         0         0         33           21         2         0         0         0         0         23         84           26         1         0         0         0         0         0         27         92           23         6         0         0         0         0         0         29         87           97         15         0         0         0         0         0         31         100         356           39         4         0         0         0         0         0         34         96         100         34</th>	0         0	2         1         1         0         0         0         0         4         4         0         0         0         0         0         0         4         4         0         0         0         0         0         0         4         3         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         1         1         0	20         2         1         0         0         0         0         23           29         2         0         0         0         0         0         31           26         5         0         0         0         0         0         31           27         1         1         0         0         0         0         29           102         10         2         0         0         0         0         114           27         6         0         0         0         0         0         33           21         2         0         0         0         0         23         84           26         1         0         0         0         0         0         27         92           23         6         0         0         0         0         0         29         87           97         15         0         0         0         0         0         31         100         356           39         4         0         0         0         0         0         34         96         100         34
4 Hour Totals 758 68 (pm)	5 0 1 0 0 <b>832</b>	3 0 0 0 0 0 0 <b>3</b>	46 5 2 0 0 0 0 <b>53</b>	384 38 2 0 0 0 0 <b>424 1312</b>
<b>Day Total</b> 1168 172	10 2 2 1 0 1355	4 0 0 0 0 0 0 4	71 10 3 0 0 0 0 84	512 54 2 1 0 0 0 569 2012
Car         LGV           0700-0715         0         0           0715-0730         0         1	0 0 0 0 0 <b>0</b>	Arm C - Arm B   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total   O   0   0   0   0   0   0   O   O   O	Arm C - Arm C   Car   LGV   OGV1   OGV2   PSV   MC   PC   Total   O   O   O   O   O   O   O   O   O	Arm C - Arm D           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           1         0         0         0         0         0         1
0730-0745         0         2           0745-0800         2         0           Hourly Total         2         3           0800-0815         3         1           0815-0830         3         1           0845-0900         6         2           Hourly Total         13         8           0900-0915         8         3           0915-0930         2         1           0930-0945         12         3           0945-1000         8         4           Hourly Total         30         11	0         0         2         0         0         10           1         0         3         0         0         25	0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         1         0         0         0         0         0         0         0         1         1         1         0         1         1         0         0         0         0         0         0         0         0         1         1         0         0         0         0         0         0         0         1         1         0         0         0         0         0         0         1         1         0	0         0	1       0       0       0       0       0       0       1       2         0       0       0       0       0       0       0       0       0       3       5         3       0       1       0       0       0       0       0       4       11         0       0       0       0       0       0       0       0       0       5       8       11       1       0       0       0       0       0       2       8       14       14       14       14       14       14       14       14       14       14       14       14       14       14       14       14       14       15       14       15       15       15       15       15       15       15       15       15       16       14       14       14       14       14       14       14       14       14       14       14       14

Column   C	1800-1815     14     0     0     0     0     0     0     14       1815-1830     5     1     0     0     0     0     0     0     6       1830-1845     9     0     0     0     0     1     0     10       1845-1900     4     1     0     0     0     0     0     5       Hourly Total     32     2     0     0     0     1     0     35       4 Hour Totals     215     28     3     3     1     1     0     251	3 0 0 0 0 0 0 3 0 0 0 0 0 0 0 0 0 2 0 0 0 0 0 0 0 2 0 0 0 0	0         0	3     0     0     0     0     0     3       1     0     0     0     0     0     1       2     0     0     0     0     0     2       3     0     0     0     0     0     3       9     0     0     0     0     0     9
The column   The	Day Total   260   50   9   3   4   1   0   327	49 5 0 0 0 0 0 54  Arm D - Arm B  Car LGV OGV1 OGV2 PSV MC PC Total	1 0 0 0 0 0 0 1  Arm D - Arm C  Car LGV OGV1 OGV2 PSV MC PC Total	75 17 1 0 5 0 0 98 480  Arm D - Arm D  Car   LGV   OGV1   OGV2   PSV   MC   PC   Total   Arm Total
Table 1999 147 247 247 247 247 247 247 247 247 247 2	0730-0745         110         24         0         3         1         0         0         138           0745-0800         138         36         6         4         1         0         0         185           Hourly Total         384         99         10         11         4         0         0         508           0800-0815         159         25         3         2         3         0         0         192           0815-0830         187         22         3         0         1         1         0         214           0830-0845         173         16         9         0         13         0         0         211           0845-0900         180         19         1         1         8         0         0         209	26     3     0     0     0     1     0     30       16     3     0     0     0     0     0     19       62     9     0     0     0     1     0     72       14     2     0     0     0     0     0     16       16     4     1     0     0     0     0     21       32     0     0     0     0     0     0     32	0         3         0         0         0         0         0         3           6         2         0         0         0         0         0         8           6         7         0         0         0         0         0         13           1         0         0         0         0         0         0         1           1         1         1         0         0         0         0         0         3           2         0         0         0         2         0         0         4	0         0         0         0         0         0         0         0         171           0         0         0         0         0         0         0         0         0         212           0         0         0         0         0         0         0         0         0         593           0         0         0         0         0         0         0         0         209           0         0         0         0         0         0         0         0         238           0         0         0         0         0         0         0         0         247
Total   Fine   March   March	Total         699         82         16         3         25         1         0         826           0900-0915         120         25         1         1         4         0         0         151           0915-0930         77         14         3         3         1         0         0         98           0930-0945         80         8         2         2         1         0         0         93           0945-1000         62         17         2         0         0         0         0         81           Hourly Total         339         64         8         6         6         0         0         423	25 1 0 0 0 0 0 26 23 1 0 0 0 0 0 24 9 6 0 0 0 0 0 15 13 4 0 0 0 0 0 17	2         0         0         0         0         0         2           2         0         0         0         0         0         0         2           2         0         0         0         0         0         0         2           2         0         0         0         0         0         0         2           3         0         0         0         0         0         0         3	0         0         0         0         0         0         0         179           0         0         0         0         0         0         0         0         124           0         0         0         0         0         0         0         0         110           0         0         0         0         0         0         0         0         101
	Totals 1422 245 34 20 35 1 0 1757 (am)  1500-1515 65 12 1 2 0 0 0 80 1515-1530 78 2 0 0 3 0 0 83 1530-1545 107 8 2 1 11 0 0 129 1545-1600 140 5 3 1 8 0 0 157 Hourly 390 27 6 4 22 0 0 449	11         0         0         0         0         0         11           7         1         0         0         0         0         0         8           16         0         0         0         0         0         0         16           14         0         0         0         0         0         0         14	1         0         0         0         1         0         0         2           1         0         0         0         0         0         0         1           4         0         0         0         1         0         0         5           3         0         0         0         0         0         0         3	0         0         0         0         0         0         0         93           0         0         0         0         0         0         0         0         92           0         0         0         0         0         0         0         0         150           2         0         0         0         0         0         0         2         176
	1600-1615         77         14         1         0         1         0         0         93           1615-1630         68         9         1         1         3         0         0         82           1630-1645         77         5         1         0         2         0         0         85           1645-1700         79         13         0         1         2         0         0         95           Hourly Total         301         41         3         2         8         0         0         355           1700-1715         82         13         0         1         2         0         0         98           1715-1730         98         10         0         0         2         0         0         110	17         1         1         0         0         0         19           13         1         0         0         0         0         14           14         0         0         0         0         0         14           52         3         1         0         0         0         0         56           13         1         0         0         0         0         0         14           14         2         0         0         0         0         0         16	2         0         0         0         0         0         2           1         1         0         0         0         0         0         2           1         0         1         0         0         0         0         2           4         2         1         0         0         0         0         7           1         0         0         0         0         0         0         1           2         0         0         0         0         0         0         2	0         0         0         0         0         0         0         0         0         0         0         0         0         103         101         101         114
A Hour Totals   1294   117   11   10   41   0   0   1473   207   10   1   0   0   0   0   218   24   2   1   0   2   0   0   29   7   0   0   0   1   0   0   8   1728	1745-1800   70   3   0   0   1   0   0   74	12         0         0         0         0         0         12           52         4         0         0         0         0         0         56           11         0         0         0         0         0         0         11           15         2         0         0         0         0         0         17           15         0         0         0         0         0         0         15           14         0         0         0         0         0         0         14	2         0         0         0         0         0         2           7         0         0         0         0         0         0         7           2         0         0         0         0         0         0         2           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0         0           2         0         0         0         0         0         0         0         2	0         0         0         0         0         0         0         0         88           0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         81         94         1         0         0         0         0         0         0         114         0
Car   LGV   OGV1   OGV2   PSV   MC   PC   Total   OGV2   PSV   MC   PC   Total   OGV3   PSV   MC   PC   OGV3   OGV3   OGV3   PSV   MC   PC   OGV3   OGV3   OGV3   PSV   MC   PC   OGV3   OG	4 Hour Totals 1294 117 11 10 41 0 0 1473 (pm)			
	Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0700-0715         61         18         2         1         2         0         0         84           0715-0730         84         27         1         1         3         0         0         116           0730-0745         95         32         3         0         2         0         0         132           0745-0800         101         19         6         2         3         0         0         131           Hourly         341         96         12         4         10         0         0         463	Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           20         4         0         0         1         0         0         25           23         8         0         0         0         0         0         31           43         14         0         0         0         1         0         58           48         6         0         1         0         0         55	Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           1         0         0         0         0         0         1           1         1         0         0         0         0         0         2           1         2         0         0         0         0         0         3           3         1         1         0         0         0         0         5	Car         LGV         OGV1         OGV2         PSV         MC         PC         Total         Arm Total           55         20         3         2         2         0         0         82         192           101         24         1         2         0         0         0         128         277           136         30         0         3         1         1         0         171         364           160         41         6         4         1         0         0         212         403

0830-0845         213         27         4         1         14         0         0         259           0845-0900         228         40         2         2         5         0         0         277           Hourly Total         795         120         17         7         28         0         0         967           0900-0915         167         23         8         1         1         1         0         201           0915-0930         147         30         3         2         3         0         0         185           0930-0945         131         30         7         2         1         0         0         171           0945-1000         137         17         4         1         2         0         0         161           Hourly Total         582         100         22         6         7         1         0         718	57         13         1         1         0         0         0         72           63         12         0         0         0         0         0         0         75           198         42         3         2         0         0         0         245           64         12         0         0         0         0         0         76           57         15         1         0         0         0         0         73           62         10         1         0         0         0         0         73           49         14         1         0         0         0         0         64           232         51         3         0         0         0         0         286	3         5         0         0         0         0         0         8           8         4         0         0         2         0         0         14           19         12         1         0         3         0         0         35           10         4         1         0         0         0         0         15           8         1         2         0         0         0         0         11           12         4         2         0         0         0         0         18           13         7         0         0         0         0         0         20           43         16         5         0         0         0         0         64	207         16         9         0         15         0         0         247         586           224         24         1         1         9         0         0         259         625           809         94         18         3         28         1         0         953         2200           147         26         1         1         4         0         0         179         471           102         15         3         3         1         0         0         124         393           91         14         2         2         1         0         0         110           78         21         2         0         0         0         0         101           418         76         8         6         6         0         0         514
Totals	564         125         6         3         1         1         0         700           70         8         4         0         0         0         0         82           79         3         1         0         0         0         0         0         83           74         13         0         0         0         0         0         87           81         7         1         0         0         0         0         89           304         31         6         0         0         0         0         0         89           304         31         6         0         0         0         0         341           84         9         0         0         0         0         0         93           70         13         1         0         0         0         0         92           76         11         0         0         0         0         87           316         38         2         0         0         0         0         96           92         8         0         0         0	68         32         7         0         3         0         0         110           19         3         0         0         5         0         0         27           15         4         1         1         1         0         0         22           12         0         0         0         0         0         0         12           17         6         0         0         0         0         0         0         23           63         13         1         1         6         0         0         0         23           63         13         1         1         6         0         0         0         31           26         5         0         0         0         0         0         31         22         4         0         1         0         0         0         33         34         26         5         1         1         0         0         0         33         34         26         5         1         1         0         0         0         33         33         105         17         1         2	1679         285         36         20         38         2         0         2060           77         12         1         2         1         0         0         93           86         3         0         0         3         0         0         92           127         8         2         1         12         0         0         150           159         5         3         1         8         0         0         176           449         28         6         4         24         0         0         176           449         28         6         4         24         0         0         176           449         28         6         4         24         0         0         103           85         16         1         0         1         0         0         103         491           91         7         1         0         2         0         0         101         506           96         13         1         1         3         0         0         114         2032           96         14 </td
4 Hour Totals 3381 383 45 16 37 5 0 3867 (pm)  Day Total 5099 699 96 33 82 6 0 6015	1191 111 9 0 1 0 0 <b>1312</b> 1755 236 15 3 2 1 0 2012	317 40 3 3 6 1 0 <b>370</b> 385 72 10 3 9 1 0 480	1532 129 13 10 44 0 0 <b>1728 7277</b> 3211 414 49 30 82 2 0 3788 12295
Destination - Arm A	Destination - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           26         7         0         0         0         0         0         0         33           38         14         0         0         0         0         0         0         52           60         10         0         0         0         1         0         71         0         71           40         10         0         1         0         0         0         55         1           164         41         0         1         0         1         0         207         0         0         0         56         66         12         4         0         0         0         0         82         72         14         0         0         0         0         86         79         20         0         0         0         0         99         99         261         56         4         2         0         0         0         323         75         9         0         0         0         0         0         83<	Destination - Arm C	Destination - Arm D           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total         192           34         7         2         1         2         0         0         46         192           47         9         0         1         3         0         0         60         277           48         19         1         0         2         0         0         70         364           61         11         7         2         3         0         0         84         403           190         46         10         4         10         0         0         260         1236           93         12         3         2         0         0         0         110         437           122         14         1         0         9         0         0         146         552           161         13         3         0         14         0         0         191         586           152         16         2         2         3         0         0         175         625
3 Hour Totals 2144 425 53 24 40 2 0 2688 (am)  1500-1515 170 22 5 3 1 0 0 201 1515-1530 156 12 2 1 3 1 0 175 1530-1545 201 19 4 1 11 0 0 236 1545-1600 244 13 4 1 8 0 0 270  Hourly 771 66 15 6 23 1 0 882 1600-1615 175 23 2 0 1 0 0 882 1600-1645 212 14 2 0 2 0 0 230 1645-1700 185 27 2 2 2 2 0 0 218	700         134         6         3         0         1         0         844           61         7         0         0         0         1         0         69           71         6         1         0         0         0         0         78           86         10         2         0         0         0         0         98           73         8         0         0         0         0         0         81           291         31         3         0         0         1         0         326           75         8         0         0         0         0         0         83           80         6         1         0         0         0         0         87           63         11         0         0         0         0         0         74           85         7         0         0         0         0         0         0         92	184     43     7     0     6     0     0     240       12     2     1     2     1     0     0     18       19     2     0     0     0     0     0     21       18     3     0     0     1     0     0     22       21     2     0     0     0     0     23       70     9     1     2     2     0     0     84       23     1     0     0     0     0     0     24       23     4     0     0     0     0     0     27       8     8     1     0     0     0     0     0     17       19     1     1     0     0     0     0     0     21	1001         156         34         13         41         1         0         1246         5018           111         19         3         1         8         0         0         142         430         442         142         12         4         4         6         0         0         168         442         525         168         20         3         0         1         1         0         169         525         576         567         69         13         5         26         1         0         681         1973         1973         177         31         1         2         2         0         0         213         521         491         158         23         1         1         1         1         0         185         506         151         25         2         1         3         1         0         183         514         514

Hourly Total	740	92	9	4	8	0	0	853	303	32	1	0	0	0	0	336	73	14	2	0	0	0	0	89	633	100	7	4	8	2	0	754	2032
1700-1715	193	22	1	1	3	0	0	220	90	9	0	0	0	0	0	99	19	1	0	0	0	0	0	20	208	20	3	0	1	0	0	232	571
1715-1730	221	19	1	0	3	0	0	244	64	9	1	0	0	0	0	74	15	4	0	1	0	0	0	20	149	24	1	0	1	0	0	175	513
1730-1745	207	9	2	1	2	0	0	221	67	5	0	0	0	0	0	72	9	0	0	0	0	0	0	9	122	17	2	0	0	0	0	141	443
1745-1800	170	9	0	0	1	0	0	180	67	3	0	0	0	0	0	70	20	0	1	0	0	0	0	21	118	10	1	1	2	0	0	132	403
Hourly Total	791	59	4	2	9	0	0	865	288	26	1	0	0	0	0	315	63	5	1	1	0	0	0	70	597	71	7	1	4	0	0	680	1930
1800-1815	173	13	0	1	0	0	0	187	59	7	0	0	0	0	0	66	10	0	0	0	0	0	0	10	98	10	1	1	2	0	0	112	375
1815-1830	157	16	0	1	1	0	0	175	59	6	1	0	0	0	0	66	11	1	0	0	0	0	0	12	104	7	0	0	0	0	0	111	364
1830-1845	173	9	1	0	2	1	0	186	45	3	0	0	0	0	0	48	7	0	0	0	0	0	0	7	78	4	2	0	1	0	0	85	326
1845-1900	135	5	0	1	1	0	0	142	42	1	0	0	0	0	0	43	13	0	1	0	0	0	0	14	70	7	0	0	1	0	0	78	277
Hourly Total	638	43	1	3	4	1	0	690	205	17	1	0	0	0	0	223	41	1	1	0	0	0	0	43	350	28	3	1	4	0	0	386	1342
4 Hour Totals (pm)	2940	260	29	15	44	2	0	3290	1087	106	6	0	0	1	0	1200	247	29	5	3	2	0	0	286	2147	268	30	11	42	3	0	2501	7277
Day Total	5084	685	82	39	84	4	0	5978	1787	240	12	3	0	2	0	2044	431	72	12	3	8	0	0	526	3148	424	64	24	83	4	0	3747	12295



				Δrm Δ	A - Arm A							Arm A - Arı	n R						Arm A	Arm C						Arm A -	Arm D			
	Car	LGV	OGV1		PSV	MC	PC	Total	Car	LGV				MC PC	Total	Car	LGV	OGV1	OGV2	PSV	MC	PC Total	Car	LGV	OGV1			MC	PC Total	Arm Total
0700-0715	0	0	0	0	0	0	0	0	1	1	0	0		0 0	2	31	7	2	1	2	0	0 43	0	0	0	0	0	0	0 0	45
0715-0730	1	0	0	0	0	0	0	1	2	0	0	0	0	0 0	2	38	7	0	1	3	0	0 49	5	1	0	0	0	0	0 <b>6</b>	58
0730-0745	0	0	0	0	0	0	0	0	1	0	0	0	0	0 0	1	45	17	1	0	2	0	0 65	1	1	0	0	0	0	0 2	68
0745-0800	0	0	0	0	0	0	0	0	6	0	0	0	0	0 0	6	49	10	6	2	3	0	0 <b>70</b>	4	2	1	0	0	0	0 7	83
Hourly	1	0	0	0	0	0	0	1	10	1	0	0	0	0 0	11	163	41	9	4	10	0	0 227	10	4	1	0	0	0	0 15	254
Total																			•					· ·						
0800-0815	0	0	0	0	0	0	0	0	7	0	0			0 0	7	59	10	3	1	0	0	0 73	22	1	0	0	0	0	0 23	103
0815-0830	0	0	0	0	0	0	0	0	11	0	0	0		0 0	11	57	11	1	1	5	0	0 75	46	3	0	0	4	0	0 53	139
0830-0845 0845-0900	2	0	0	0	0	0	0	3	16 32	0	0	0		0 0	19 32	55 55	11 16	2	2	2	0	0 <b>70</b> 0 <b>76</b>	91 65	0	0	0	11	0	0 <b>103</b> 0 <b>66</b>	192 177
Hourly			0		<del></del>	0				-	0	0	0	0 0			10				0			0	U	0	-	0		
Total	2	0	0	0	1	0	0	3	66	2	1	0	0	0 0	69	226	48	8	4	8	0	0 294	224	5	0	0	16	0	0 245	611
0900-0915	0	0	0	0	0	0	0	0	30	2	0	0	0	0 0	32	45	9	6	1	2	1	0 64	19	2	0	0	0	0	0 21	117
0915-0930	0	0	0	0	0	0	0	0	5	2	0	0	0	0 0	7	44	10	1	1	3	0	0 59	22	1	0	0	0	0	0 23	89
0930-0945	0	2	0	0	0	0	0	2	4	3	0	0	0	0 0	7	46	11	5	2	0	0	0 <b>64</b>	11	2	0	0	0	0	0 13	86
0945-1000	0	0	0	0	0	0	0	0	5	2	0	0	0	0 0	7	45	5	3	1	1	0	0 55	5	1	0	0	0	0	0 6	68
Hourly	0	2	0	0	0	0	0	2	44	9	0	0	0	0 0	53	180	35	15	5	6	1	0 242	57	6	0	0	0	0	0 63	360
Total																					-			Ů	Ů					
2.11																														
3 Hour	2	2	0	0	1	0	0	6	120	12	1	0	0	0 0	122	F.C0	124	22	12	24	1	0 703	201	15	1	0	16	0	0 222	1225
Totals (am)	3	2	0	U	1	0	U	ь	120	12	1	U	0	0 0	133	569	124	32	13	24	1	0 <b>763</b>	291	15	1	0	16	0	0 <b>323</b>	1225
(aiii)																														
1500-1515	0	0	0	0	0	0	0	0	9	1	0	0	0	0 0	10	89	16	3	1	3	0	0 112	24	2	0	0	5	0	0 31	153
1515-1530	0	0	0	0	0	0	0	0	5	0	0	0	0	0 0	5	78	10	4	4	2	0	0 98	45	2	0	0	4	0	0 51	154
1530-1545	2	0	0	0	0	0	0	2	5	0	0	0	0	0 0	5	83	18	3	0	0	1	0 <b>105</b>	55	0	0	0	1	0	0 <b>56</b>	168
1545-1600	0	0	0	0	0	0	0	0	2	0	0	0	0	0 0	2	104	16	2	0	3	0	0 <b>125</b>	55	2	0	0	8	0	0 65	192
Hourly	2	0	0	0	0	0	0	2	21	1	0	0	0	0 0	22	354	60	12	5	8	1	0 440	179	6	0	0	18	0	0 203	667
Total																<u> </u>				Ů				Ů	_					
1600-1615	0	0	0	0	0	0	0	0	11	0	0	0		0 0	11	140	25	2	1	2	0	0 170	31	2	0	0	0	0	0 33	214
1615-1630	1	0	0	0	0	0	0	1	8	0	0	0		0 0	8	109	22	3	1	2	0	0 137	23	2	0	0	0	0	0 25	171
1630-1645 1645-1700	0	0	0	0	0	0	0	0	8	0	0	1		0 0	8	137 134	22	1	0	2	1	0 <b>163</b> 0 <b>159</b>	15 16	1	0	0	0	0	0 <b>17</b> 0 <b>17</b>	188 181
Hourly	U	0	0	0	1	0	0	1	3	0	U	1	0	0 0	4	154	21	1	U	2	1	0 139	10	1	U	0	U	U	0 17	101
Total	1	0	0	0	1	0	0	2	30	0	0	1	0	0 0	31	520	90	7	3	7	2	0 629	85	7	0	0	0	0	0 92	754
1700-1715	1	0	0	0	0	0	0	1	8	0	1	0	0	0 0	9	184	20	3	0	1	0	0 208	7	1	0	0	0	0	0 8	226
1715-1730	1	0	0	0	0	0	0	1	2	0	0	0		0 0	2	123	23	1	0	1	0	0 148	8	1	0	0	0	0	0 9	160
1730-1745	2	0	0	0	0	0	0	2	2	0	0	0	0	0 0	2	111	17	2	0	0	0	0 130	9	1	0	0	0	0	0 10	144
1745-1800	1	0	0	0	0	0	0	1	6	0	0	0	0	0 0	6	107	9	1	1	2	0	0 <b>120</b>	3	0	0	0	0	0	0 3	130
Hourly	5	0	0	0	0	0	0	5	18	0	1	0	0	0 0	19	525	69	7	1	4	0	0 606	27	3	0	0	0	0	0 30	660
Total		U						,	10	,		U	0	0 0	19		03	,		-	U		21	3	U	U	Ü	U		
1800-1815	0	0	0	0	0	0	0	0	1	0	0	0		0 0	1	86	11	1	1	2	0	0 <b>101</b>	8	0	0	0	0	0	0 8	110
1815-1830	1	0	0	0	0	0	0	1	5	0	0	0		0 0	5	86	8	0	0	0	0	0 94	3	0	0	0	0	0	0 3	103
1830-1845 1845-1900	0	0	0	0	0	0	0	0	3	0	0	0		0 0	0	68	7	0	0	0	0	0 <b>74</b> 0 <b>68</b>	12	0	0	0	0	0	0 <b>13</b> 0 <b>7</b>	90 75
Hourly	U	1	0	0	- 0	0	1 0	- 0	U	0	U	U	0	0 0	U	60	/	0	U	1	U	0 68	<u> </u>	U	U	U	U	U	0 /	i <del>–                                    </del>
Total	1	0	0	0	0	0	0	1	9	0	0	0	0	0 0	9	300	30	3	1	3	0	0 337	30	0	0	0	1	0	0 31	378
Total		<u>l</u>		<u> </u>			<u> </u>				<u> </u>		<u> </u>				<u> </u>	<u>.                                    </u>	<u>l</u>	<u> </u>	l l			<u> </u>		<u> </u>		<u>l</u>	<u> </u>	J
4 Hour																														
Totals	9	0	0	0	1	0	0	10	78	1	1	1	0	0 0	81	1699	249	29	10	22	3	0 <b>2012</b>	321	16	0	0	19	0	0 356	2459
(pm)																														
Day Total	12	2	0	0	2	0	0	16	198	13	2	1	0	0 0	214	2268	373	61	23	46	4	0 2775	612	31	1	0	35	0	0 679	3684
Γ				Arm P	3 - Arm A							Arm B - Arr	n B						Arm B - A	Arm C						Arm B -	Arm D			
	Car	IGV	OGV1		PSV	MC	PC.	Total	Car	IGV	OGV1			MC PC	Total	Car	LGV	OGV1			MC	PC Total	Car	LGV	OGV1			MC	PC Total	Arm Total
0700-0715		0	0001	00002	0	0	0	0	0	0	0	0		0 0	0	0	0	0001	0	0	0	0 <b>0</b>	0 0	0	0	0	0	0	0 <b>0</b>	0
0700-0713	1	0	0	0	0	0	0	1	0	0	0	0		0 0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0 0	1
0730-0745	1	0	0	0	0	0	0	1	0	0	0	0		0 0	0	0	0	0	0	0	0	0 <b>0</b>	0	0	0	0	0	0	0 <b>0</b>	1
0745-0800	2	0	0	0	0	0	0	2	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 <b>0</b>	0	0	0	0	0	0	0 <b>0</b>	2
Hourly	4	0	0	0	0	0	0	4	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0 0	4
Total	4				<u> </u>					U						<u> </u>					•				-					
0800-0815	5	0	0	0	0	0	0	5	0	0				0 0	0	0	0	0	0	0	0	0 <b>0</b>	0	0	0	0	0	0	0 <b>0</b>	5
0815-0830	3	1	0	0	0	0	0	4	0	0	0	0		0 0	0	0	0	0	0	0	0	0 0	1	0	0	0	0	0	0 1	5
0830-0845		1	1	0	0	0	0	8	0	0				0 0	0	2	0	0	0	0	0	0 2	0	0	0	0	0	0	0 0	10
0845-0900	16	1	0	0	0	0	0	17	0	0	0	0	0	0 0	0	2	0	0	0	0	0	0 <b>2</b>	0	0	0	0	0	0	0 <b>0</b>	19
Hourly Total	30	3	1	0	0	0	0	34	0	0	0	0	0	0 0	0	4	0	0	0	0	0	0 4	1	0	0	0	0	0	0 1	39
0900-0915	11	3	0	0	0	0	0	14	0	0	0	0	0	0 0	0	3	0	0	0	0	0	0 3	0	0	0	0	1	0	0 1	18
0915-0930	3	0	0	0	0	0	0	3	0	0	0	0		0 0	0	0	0	0	0	0	0	0 0	0	1	0	0	0	0	0 1	4
0930-0945		0	0	0	0	0	0	2	0	0	0	0		0 0	0	0	0	0	0	0	0	0 <b>0</b>	0	1	0	0	0	0	0 1	3
0945-1000		1	0	0	0	0	0	2	0	0	0	0		0 0	0	0	1	0	0	0	0	0 1	0	1	0	0	0	0	0 1	4
•									•	_					_															•

Hourly   17   4   0   0   0   0   0   21	0 0 0 0 0 0 0	3 1 0 0 0 0 0 4	0 3 0 0 1 0 0 4
3 Hour  Totals 51 7 1 0 0 0 59  (am)	0 0 0 0 0 0 <b>0</b>	7 1 0 0 0 0 0 8	1 3 0 0 1 0 0 <b>5 72</b>
1500-1515   10	0         0	2         0         0         0         0         0         2           0         0         0         0         0         0         0         0           3         0         0         0         0         0         0         0         3         4         0         0         0         0         0         0         0         3         4         0	1         0         0         0         0         0         1         13         2         6         12         0
Total	0 0 0 0 0 0 <b>0</b>	37 2 1 0 0 1 0 41	3 0 0 0 0 0 0 <b>3 161</b>
<b>Day Total</b> 163 11 1 1 0 0 0 176	0 0 0 0 0 0 0	44 3 1 0 0 1 0 49	4 3 0 0 1 0 0 8 233
Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Car   LGV   OGV1   OGV2   PSV   MC   PC   Total   80
Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0700-0715         52         21         3         2         2         0         0         80           0715-0730         88         22         1         2         0         0         0         113           0730-0745         135         27         0         3         1         1         0         167           0745-0800         145         36         6         3         1         0         0         191           Hourly Total         420         106         10         10         4         1         0         551           0800-0815         148         25         2         2         3         0         0         180           0815-0830         162         23         5         0         0         1         0         191           0830-0845         157         14         7         0         5         0         0         183           0845-0900         139         23         1         2         1         0         0         166           Hour	Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0         1         0         0         0         0         0         0         0         0         0         0         4         1         0         0         0         0         0         0         0         0         0         4         1         0         0         0         0         0         0         0         0         4         1         0         0         0         0         0         0         0         1         1         0	Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0         0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0         0           0	Car         LGV         OGV1         OGV2         PSV         MC         PC         Total         Arm Total           0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         113         168         198         <

1800-1815     48     7     0     0     0     0     0     55       1815-1830     51     7     0     1     1     0     0     60       1830-1845     59     1     1     0     2     0     0     63       1845-1900     51     2     0     1     1     0     0     55       Hourly Total     209     17     1     2     4     0     0     233	0         0         0         0         0         0         0           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0         0	0         0         0         0         0         0         0           0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0         0           0         0         0         0         0         0         0         0         0	0         0
Totals 978 106 13 9 26 0 0 1132 (pm)  Day Total 2333 356 46 28 44 2 0 2809  Arm D - Arm A	21 0 0 0 0 0 0 <b>21</b> 54 3 0 0 0 0 57  Arm D - Arm B	0 0 0 0 0 1 0 1  0 0 0 0 0 1 0 1  Arm D - Arm C	39 0 0 0 0 0 0 39 1193  94 1 0 0 2 0 0 97 2964  Arm D - Arm D
Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0700-0715         2         0         0         0         0         0         0         0         2           0715-0730         8         1         0         0         0         0         0         9           0730-0745         4         2         0         1         0         0         0         7           0745-0800         8         5         0         0         0         0         0         7           0745-0800         8         5         0         0         0         0         0         13           Hourly Total         22         8         0         1         0         0         0         31           0800-0815         29         1         1         0         0         0         31           0815-0830         39         4         0         0         1         0         0         44           0830-0845         47         0         1         0         11         0         0         59           0845-0900	Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0	Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0	Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0
Totals   265   22   2   1   19   0   0   309	1         0         0         0         1         0         0         2           1         0         0         0         0         0         0         1         0	0         1         0         0         1         0         0         1         0         0         12         1         0         0         12         1         0         0         12         1         0         0         12         1         0         0         12         1         0         0         12         1         0         0         1         0         0         12         0<	1       0       0       0       0       0       1       13       14       14       14       14       13       14
4 Hour         Totals       391       17       0       0       17       0       0       425         (pm)    Day Total 656 39 2 1 36 0 0 734	2 0 0 0 0 0 0 <b>2</b> 3 0 0 0 1 0 0 4	52     1     0     0     2     0     0     55       94     2     0     0     2     0     0     98	1 0 0 0 0 0 0 1 483 2 0 0 0 0 0 0 2 838
Origin - Arm A           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0700-0713         32         8         2         1         2         0         0         45           0715-0730         46         8         0         1         3         0         0         58           0730-0745         47         18         1         0         2         0         0         68           0745-0800         59         12         7         2         3         0         0         83           Hourly Total         184         46         10         4         10         0         0         254           0800-0815         88         11         3         1         0         0         0         103           0815-0830         114         14         1         1         9         0         0         139	Origin - Arm B           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           0         0         0         0         0         0         0         0           1         0         0         0         0         0         0         1           1         0         0         0         0         0         0         1           2         0         0         0         0         0         0         2           4         0         0         0         0         0         0         4           5         0         0         0         0         0         5           4         1         0         0         0         0         0         5	Origin - Arm C           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           52         21         3         2         2         0         0         80           88         22         1         2         0         0         0         113           136         27         0         3         1         1         0         168           151         37         6         3         1         0         0         198           427         107         10         10         4         1         0         559           154         25         2         2         3         0         0         186           173         23         5         0         0         1         0         202	Origin - Arm D           Car         LGV         OGV1         OGV2         PSV         MC         PC         Total           2         0         0         0         0         0         2           8         1         0         0         0         0         9           4         2         0         1         0         0         0         7           9         5         0         0         0         0         14         297           23         8         0         1         0         0         0         32           29         1         1         0         0         0         31           44         5         0         0         1         0         0         36

0830-0845         162         14         3         0         13         0         0         192           0845-0900         154         16         2         2         3         0         0         177           Hourly Total         518         55         9         4         25         0         0         611           0900-0915         94         13         6         1         2         1         0         117           0915-0930         71         13         1         1         3         0         0         89           0930-0945         61         18         5         2         0         0         0         86           0945-1000         55         8         3         1         1         0         0         68           Hourly Total         281         52         15         5         6         1         0         360	8         1         1         0         0         0         0         10           18         1         0         0         0         0         0         19           35         3         1         0         0         0         0         39           14         3         0         0         1         0         0         18           3         1         0         0         0         0         0         4           2         1         0         0         0         0         0         3           1         3         0         0         0         0         0         4           20         8         0         0         1         0         0         29	184         15         7         0         6         0         0         212           163         23         1         2         2         0         0         191           674         86         15         4         11         1         0         791           107         21         1         1         3         0         0         133           95         13         3         2         1         0         0         114           76         9         2         2         1         0         0         90           64         18         2         0         0         0         0         84           342         61         8         5         5         0         0         421	65         0         1         0         11         0         0         77         491         488           230         8         2         0         19         0         0         259         1700           24         1         0         0         1         0         0         26         294           10         3         0         0         0         0         0         13         220           15         1         0         0         0         0         16         195           7         2         0         0         0         0         9         165           56         7         0         0         1         0         0         64
Totals   983   153   34   13   41   1   0   1225	13         0         0         0         0         0         13           2         0         0         0         0         0         0         2           6         0         0         0         0         0         0         0         2           6         0         0         0         0         0         0         0         0         6           10         1         0         0         0         0         0         0         6         0         0         0         0         12         12         13         1         0 </td <td>1443         254         33         19         20         2         0         1771           63         7         1         2         2         0         0         75           68         5         0         0         2         0         0         75           88         4         2         1         1         0         0         96           71         3         3         1         2         0         0         80           290         19         6         4         7         0         0         326           63         14         1         0         1         1         0         80           61         10         2         1         3         0         0         77           65         6         1         0         2         0         0         74           65         13         1         0         2         0         0         81           254         43         5         1         8         1         0         312           72         11         0         1         2         0<td>309         23         2         1         20         0         0         355         3423           9         4         0         0         0         0         0         13         254         280         0         0         0         1         0         0         29         260         260         353         353         353         353         353         353         373         188         7         0         0         19         0         0         214         1240&lt;</td></td>	1443         254         33         19         20         2         0         1771           63         7         1         2         2         0         0         75           68         5         0         0         2         0         0         75           88         4         2         1         1         0         0         96           71         3         3         1         2         0         0         80           290         19         6         4         7         0         0         326           63         14         1         0         1         1         0         80           61         10         2         1         3         0         0         77           65         6         1         0         2         0         0         74           65         13         1         0         2         0         0         81           254         43         5         1         8         1         0         312           72         11         0         1         2         0 <td>309         23         2         1         20         0         0         355         3423           9         4         0         0         0         0         0         13         254         280         0         0         0         1         0         0         29         260         260         353         353         353         353         353         353         373         188         7         0         0         19         0         0         214         1240&lt;</td>	309         23         2         1         20         0         0         355         3423           9         4         0         0         0         0         0         13         254         280         0         0         0         1         0         0         29         260         260         353         353         353         353         353         353         373         188         7         0         0         19         0         0         214         1240<
4 Hour  Totals 2107 266 30 11 42 3 0 2459 (pm)  Day Total 3090 419 64 24 83 4 0 3684	152 6 1 1 0 1 0 <b>161</b> 211 17 2 1 1 1 0 233	1038 106 13 9 26 1 0 <b>1193</b> 2481 360 46 28 46 3 0 2964	446     18     0     0     19     0     0     483     4296       755     41     2     1     39     0     0     838     7719
Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Car   LGV   OGV1   OGV2   PSV   MC   PC   Total     1	Car   LGV   OGV1   OGV2   PSV   MC   PC   Total	Car   LGV   OGV1   OGV2   PSV   MC   PC   Total   Total   O   O   O   O   O   O   O   O   O
Totals	154         15         1         0         1         0         0         171           10         1         0         0         0         0         0         11           5         0         0         0         0         0         0         0         5           5         0         0         0         0         0         0         5         2           2         0         0         0         0         0         0         2         2           22         1         0         0         0         0         0         23         12         0         0         0         0         0         12         11         0         0         0         0         12         11         0         0         0         0         0         11         10         0         0         0         0         10         10         10         0         0         0         0         0         0         10         10         0         0         0         0         0         0         0         0         0         0         0         0         0         0	91         16         3         1         3         0         0         114           79         10         4         4         2         0         0         99           97         18         3         0         1         1         0         120           123         16         2         0         4         1         0         146           390         60         12         5         10         2         0         479           150         25         2         1         2         1         0         181           118         23         3         1         2         0         0         147           140         23         1         1         1         1         0         167           139         21         1         0         2         1         0         164	348     19     1     0     19     0     0     387     3423       27     2     0     0     5     0     0     34       48     2     0     0     4     0     0     54       71     0     0     0     1     0     0     72       62     2     0     0     8     0     0     72       208     6     0     0     18     0     0     232       1240       34     2     0     0     0     0     36       23     2     0     0     0     0     25       286     20     2     0     0     0     0     22       17     1     0     0     0     0     0     18

Hourly Total	350	45	5	2	9	0	0	411	37	0	0	1	0	0	0	38	547	92	7	3	7	3	0	659	94	7	0	0	0	0	0	101	1209
1700-1715	102	14	0	1	2	0	0	119	9	0	1	0	0	0	0	10	188	20	4	0	1	0	0	213	8	1	0	0	0	0	0	9	351
1715-1730	100	12	0	0	2	0	0	114	2	0	0	0	0	0	0	2	127	24	1	0	1	0	0	153	9	1	0	0	0	0	0	10	279
1730-1745	91	5	1	1	2	0	0	100	8	0	0	0	0	0	0	8	113	17	2	0	0	0	0	132	10	1	0	0	0	0	0	11	251
1745-1800	79	4	0	0	1	0	0	84	13	0	0	0	0	0	0	13	111	9	1	1	2	0	0	124	3	0	0	0	0	0	0	3	224
Hourly Total	372	35	1	2	7	0	0	417	32	0	1	0	0	0	0	33	539	70	8	1	4	0	0	622	30	3	0	0	0	0	0	33	1105
1800-1815	67	8	0	0	0	0	0	75	1	0	0	0	0	0	0	1	88	11	1	1	2	0	0	103	8	0	0	0	0	0	0	8	187
1815-1830	78	9	0	1	1	0	0	89	5	0	0	0	0	0	0	5	90	8	0	0	0	0	0	98	5	0	0	0	0	0	0	5	197
1830-1845	110	1	1	0	2	0	0	114	4	0	0	0	0	0	0	4	72	4	2	0	0	0	0	78	12	0	0	0	1	0	0	13	209
1845-1900	68	2	0	1	1	0	0	72	0	0	0	0	0	0	0	0	62	7	0	0	1	0	0	70	7	0	0	0	0	0	0	7	149
Hourly Total	323	20	1	2	4	0	0	350	10	0	0	0	0	0	0	10	312	30	3	1	3	0	0	349	32	0	0	0	1	0	0	33	742
4 Hour Totals (pm)	1490	127	13	10	44	0	0	1684	101	1	1	1	0	0	0	104	1788	252	30	10	24	5	0	2109	364	16	0	0	19	0	0	399	4296
Day Total	3164	408	49	30	82	2	0	3735	255	16	2	1	1	0	0	275	2406	378	62	23	48	6	0	2923	712	35	1	0	38	0	0	786	7719



transportane	Transportation Data Collection												Site 1														
	Q1						Q3 Q4								Q	5			Q6			Q7					
	Lane 1	Lane 2	Lane 3	Lane 4	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 4	Lane 1	Lane 2	Lane 3	Lane 4	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3
0700-0705	1	4	2	2	1	1	2	3	6	7	2	1	2	1	0	0	0	0	3	0	0	0	1	0	0	1	0
0705-0710	1	5	4	3	5	4	3	1	7	7	4	2	5	1	1	1	0	0	2	4	0	1	0	0	4	1	0
0710-0715	2	5	5	5	1	1	2	2	7	7	2	3	3	1	0	0	0	0	2	0	0	1	1	0	1	1	0
0715-0720	2	8	9	3	7	1	6	2	8	8	4	1	4	0	2	1	1	0	3	0	1	1	1	1	3	1	1
0720-0725	3	4	3	6	3	6	3	3	10	15	2	4	4	1	2	0	1	0	3	1	0	1	1	0	0	2	0
0725-0730	3	5	1	5	4	5	2	2	12	12	4	5	6	3	0	1	0	0	5	2	0	1	1	0	2	5	0
0730-0735	3	9	5	9	5	2	2	2	11	11	5	4	6	1	1	2	1	0	4	1	0	1	1	0	3	1	0
0735-0740	2	4	3	3	4	5	2	2	7	12	6	5	3	5	1	1	1	0	3	2	0	1	1	0	6	1	0
0740-0745	3	9	6	5	4	3	4	1	6	11	5	4	8	3	1	2	0	0	3	4	0	1	3	0	1	2	1
0745-0750	3	12	4	4	4	3	2	1	7	10	5	4	6	4	1	1	0	0	2	0	0	3	1	0	3	2	0
0750-0755	9	15	4	7	4	5	9	2	9	17	7	11	17	1	1	1	1	0	5	3	0	2	3	0	4	5	0
0755-0800	8	8	5	7	7	4	3	1	9	14	5	5	9	0	0	0	0	0	5	2	0	2	2	0	7	2	0
0000 0005		-	7			<del>-</del>	<del></del>			12		-				1 4			_		_						
0800-0805 0805-0810	4	5 13	6	4	5 3	5	5 6	3	9 7	13 13	5 7	5 5	8 11	0 1	0	0	0	0	6	3 5	0	5	2	0	5 7	7	0 1
0810-0815	6 5	8	7	7 5	7	3	4	3	11	8	5	10	6	3	1	2	1	0	5	4	0	2	3	0	2	2	1
0815-0820	6	9	6	7	7	5	7	4	11	18	6	7	10	1	1	0	1	0	4	1	0	6	2	0	3	2	1
0820-0825	4	6	4	7	4	14	7	2	14	14	7	8	9	1	0	0	1	0	7	5	0	2	6	0	3	2	0
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0830-0835	3	10	5	6	4	9	11	3	18	22	5	7	13	4	1	3	3	0	6	3	0	2	5	0	5	1	0
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0850-0855	5	7	5	12	4	9	3	5	10	7	7	15	19	0	0	0	0	0	5	4	0	3	2	0	2	2	0
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0900-0905	4	6	4	6	4	10	9	2	16	18	7	16	10	2	0	1	1	0	6	5	0	4	2	0	4	4	0
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0910-0915	4	9	5	5	4	4	3	2	12	9	3	6	5	2	1	1	1	0	3	4	1	1	0	1	2	3	0
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0925-0930	5	13	4	13	5	4	5	2	10	9	4	2	11	4	0	2	2	0	3	4	0	3	2	1	4	2	0
0930-0935	3	7	7	3	6	3	2	1	17	17	2	7	5	1	2	2	0	0	2	3	0	2	1	0	3	1	0
0935-0940	3	14	7	5	4	8	5	2	17	12	7	2	6	2	1	1	1	1	4	3	0	2	1	0	1	3	0
0940-0945	4	16	4	6	7	4	5	2	14	9	3	4	5	1	0	1	1	0	4	2	0	1	2	0	2	3	0
0945-0950	4	9	3	7	5	8	5	3	9	6	4	4	8	2	1	0	2	1	6	3	0	1	3	0	2	2	0
0950-0955	3	6	5	4	4	5	2	1	7	4	5	4	5	2	1	2	0	0	4	3	0	1	0	0	3	1	0
0955-1000	3	8	6	7	4	5	4	3	12	9	4	2	4	1	1	0	0	0	3	2	0	0	1	0	2	3	0

j		Q2 Q3 Q4											(5			Q6			Q7								
	Lane 1	Lane 2	Lane 3	Lane 4	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2 Lar	ne 3	Lane 1	Lane 2	Lane 3	Lane 4	Lane 1	Lane 2	Lane 3	Lane 4	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3
1500-1505	2	8	5	7	8	12	4	1	6	4	4	5	5	3	1	1	1	2	6	4	0	0	1	0	1	1	0
1505-1510	2	8	3	5	4	10	5	2		5	3	3	4	2	1	1	4	1	4	3	0	0	3	0	1	3	0
1510-1515	3	4	3	8	7	5	4	2		5	4	3	10	4	2	1	4	0	6	4	0	0	1	0	2	2	0
1515-1520	5	8	5	16	6	10	4	2		3	3	5	7	2	0	2	2	1	6	4	0	1	2	0	1	2	0
1520-1525	3	11	6	6	6	7	6	2		7	3	4	3	3	1	3	1	0	4	3	0	0	2	0	2	1	0
1525-1530	5	15	7	6	4	16	7	2		9	3	4	8	1	0	0	2	0	6	3	0	2	2	0	2	2	0
1530-1535	3	13	8	5	6	10	3	3	7	7	3	4	10	1	0	1	1	1	7	2	0	0	0	0	4	1	0
1535-1540	6	10	5	7	6	8	7	4	7	6	4	4	6	2	1	2	1	0	6	3	0	0	0	0	2	2	0
1540-1545	1	9	6	16	7	10	8	5	9	5	6	8	12	1	1	1	0	0	6	1	0	1	2	0	3	3	0
1545-1550	6	10	13	22	8	13	9	2	7 1	.0	6	17	15	3	2	1	1	0	6	4	0	1	1	0	4	3	0
1550-1555	4	15	9	15	8	11	5	3	8	7	5	12	19	4	3	2	2	0	6	4	0	0	1	0	4	1	0
1555-1600	6	10	8	17	8	12	4	2	11 1	.3	7	3	13	1	2	3	11	1	7	3	0	0	0	0	5	2	0
			<u> </u>																								
1600-1605	2	19+	7	21	8	11	6	5		.1	5	3	6	3	1	2	3	0	7	4	1	0	0	0	4	3	0
1605-1610	5	10	6	11	8	21	18	4		.2	6	6	5	3	0	2	1	1	5	3	0	1	1	0	4	3	0
1610-1615	4	12	16	5	8	20	10	1		.0	6	8	9	3	1	4	1	1	5	1	1	3	0	0	4	1	1
1615-1620	6	16	7	8	8	16	7	3		7	7	6	12	4	1	3	1	0	7	3	0	0	0	0	2	3	0
1620-1625	4	12	7	15	3	6	7	3		4	4	4	11	3	0	4	1	1	6	1	0	0	2	1	4	0	1
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1635-1640	2	16	8	12	8	10	6	4		23	3	4	11	2	2	3	3	0	7	6	0	0	0	0	5 4	2	0
1640-1645 1645-1650	5 5	17 11	<u>6</u> 8	15 9	8	14 11	7	2		.9 .2	5 6	5 8	10 4	2	0	3	1	1	6 7	5	0	0	1	0	6	3	0
1650-1655	3	12	3	9	6	12	9	2		7	4	5	22	1	1	2	3	0	6	2	0	0	0	0	4	2	0
1655-1700	4	15	4	14	8	12	6	3		.0	4	8	24	5	2	6	2	2	6	4	0	0	0	0	4	3	0
1033 1700		1.5											2-7				-			-							
1700-1705	4	6	3	16	8	14	9	2	17 1	.4	2	6	19	4	1	1	3	1	6	5	0	0	0	0	2	4	0
1705-1710	4	7	4	25	8	19	16	1		.0	6	11	12	2	1	4	1	2	8	6	0	1	2	0	3	3	0
1710-1715	4	12	9	19	8	20	15	3		.2	5	4	8	2	1	2	2	1	7	5	0	0	0	0	5	2	0
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1730-1735	5	18+	14	8	7	8	8	2	8	9	4	4	6	3	1	2	2	0	5	5	0	0	0	0	1	2	0
1735-1740	5	6	5	7	4	5	6	4	7 1	.0	3	6	10	2	1	3	0	0	7	4	0	1	5	0	2	0	0
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1745-1750	4	12	8	8	6	7	6	2	9	9	4	5	9	3	1	1	1	1	4	6	0	2	2	0	4	2	1
1750-1755	3	7	6	14	3	4	8	4		6	4	2	8	1	1	0	1	0	7	4	0	1	0	0	2	2	0
1755-1800	2	5	2	6	4	4	4	4	6 1	.4	3	4	11	2	0	2	3	2	6	3	0	2	1	0	2	1	0
						1		-				1	T			1	· · ·								-		
1800-1805	3	7	6	8	7	4	3	2		.3	7	3	5	2	1	1	0	0	4	4	0	2	4	0	1	1	0
1805-1810	3	5	3	5	3	2	3	2		5	3	3	6	2	0	0	0	0	4	1	0	0	1	0	3	1	0
1810-1815	4	6	4	8	9	5	2	2		8	4	5	4	3	1	1	2	1	4	4	0	1	1	0	2	1	0
1815-1820	4	10	3	5	3	4	2	2		6	5	2	3	1	0	1	1	0	4	3	0	3	2	0	1	0	0
1820-1825	2	7	5	4	4	4	3	2		.3	3	4	5	1	1	1	2	0	5	2	0	1	0	0	5	2	0
1825-1830	4	7	5	7	3	6	2	5		5	4	3	5	1	0	0	1	0	3	3	0	0	1	0	2	1	0
1830-1835 1835-1840	2 4	4	2	4	3	2	5 2	2		.1 B	4	6 3	6 9	1	1	1	0	1	3	3	0	0	2	0	2	0	0
1835-1840	4	5	3	4	2	4	3	1		.1	5	3	7	1	0	2	0	0	1	2	0	0	3	0	2	1	0
1840-1845	2	4	1	9	3	4	2	1		8	4	2	7	0	0	0	0	0	1	1	0	1	1	0	2	1	0
1850-1855	2	6	4	5	1	4	2	1		2	3	3	5	1	0	0	0	0	2	1	0	0	4	0	1	1	0
1855-1900	1	3	3	6	3	2	6	0		7	3	2	4	1	0	0	0	0	2	2	0	1	0	0	1	2	0
1000 1000	-					<u> </u>			-			<u> </u>				, <u> </u>				-			, ·		<u> </u>	-	



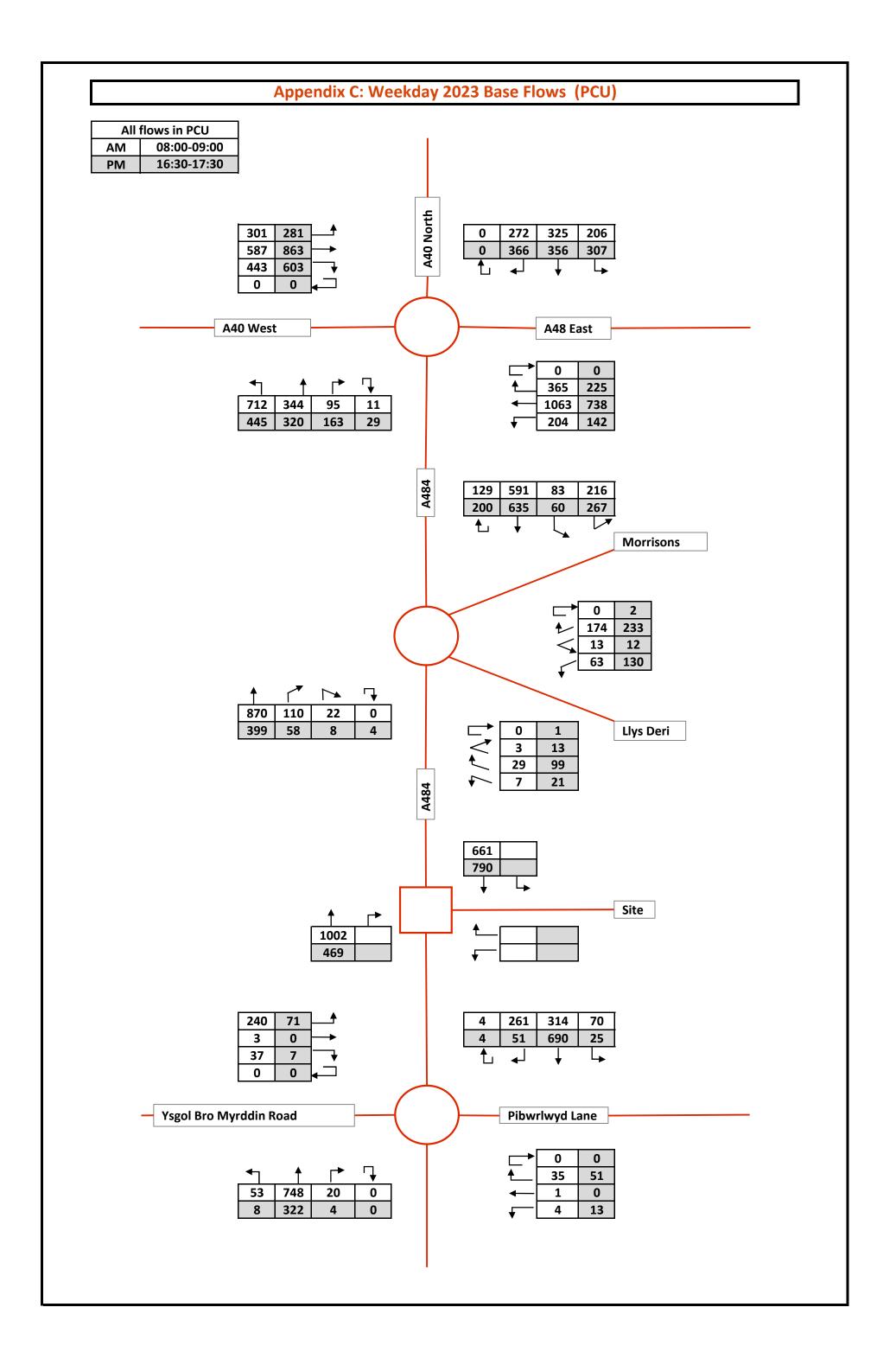
Q1 Q2				22		23		Q4	Q1				22		23	Q4		
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2		Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	
0700-0705	0	0	0	2	0	0	1	0	1500-1505	0	0	1	2	5	0	6	1	
0705-0710	0	0	0	0	0	0	3	0	1505-1510	0	1	2	7	3	0	3	0	
0710-0715	0	0	0	1	0	0	0	0	1510-1515	0	1	2	2	1	0	4	0	
0715-0720	0	0	0	0	0	0	3	0	1515-1520	1	1	2	3	1	0	3	0	
0720-0725	0	0	1	0	0	0	3	0	1520-1525	0	0	3	3	2	0	1	0	
0725-0730	1	1	0	0	0	0	2	0	1525-1530	0	0	4	4	1	0	2	0	
0730-0735	1	3	1	2	1	0	3	0	1530-1535	1	0	2	1	1	0	4	0	
0735-0740	0	0	0	3	0	0	3	0	1535-1540	0	1	2	3	3	0	5	1	
0740-0745	0	0	1	3	0	0	3	2	1540-1545	0	4	2	3	0	0	11	0	
0745-0750	0	0	1	1	0	0	1	1	1545-1550	0	13	3	4	1	1	9	0	
0750-0755	0	0	1	2	0	0	3	1	1550-1555	0	1	4	7	1	1	12	1	
0755-0800	0	0	1	1	1	0	4	0	1555-1600	0	0	2	3	0	0	2	0	
0800-0805	0	0	0	1	0	0	3	1	1600-1605	0	0	1	2	4	0	2	2	
0805-0803	0	3	1	2	1	0	4	0	1605-1610	1	0	2	2	1	0	2	1	
0810-0815	0	3	1	2	0	0	4	0	1610-1615	0	0	4	3	2	0	2	2	
0815-0820	0	0	1	3	0	0	17	1	1615-1620	0	0	1	3	2	0	5	2	
0820-0825	2	0	1	3	1	0	9	1	1620-1625	1	0	1	3	1	0	9	1	
0825-0830	0	0	1	4	0	0	10	1	1625-1630	0	3	3	3	4	0	4	3	
0830-0835	0	0	3	3	1	0	3	2	1630-1635	0	2	2	4	2	0	5	2	
0835-0840	0	4	3	2	1	0	5	2	1635-1640	0	4	3	3	2	0	5	3	
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0845-0850	2	2	2	3	2	0	15	2	1645-1650	1	1	1	4	2	0	6	2	
0850-0855	1	1	2	3	1	0	4	2	1650-1655	3	0	3	4	3	1	1	2	
0855-0900	1	2	3	2	1	0	7	2	1655-1700	1	2	2	2	1	0	3	1	
0000 0005		1		1 1			10		1700 1705	1 o			-				1	
0900-0905 0905-0910	0 1	0	1	3	0	0	18 5	1	1700-1705 1705-1710	0	0	3 4	3 7	2	0	3 10	1	
0910-0915	2	1	1	3	0	0	5	3	1710-1715	0	0	5	3	5	0	6	2	
0915-0920	0	3	1	2	1	0	5	2	1715-1720	1	0	2	3	6	0	4	2	
0920-0925	1	0	1	3	1	0	7	2	1720-1725	0	2	2	4	3	0	7	1	
0925-0930	0	0	0	2	2	0	6	1	1725-1730	0	0	2	3	1	1	5	1	
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0935-0940	0	0	1	2	3	0	2	1	1735-1740	0	2	0	2	2	1	2	2	
0940-0945	1	0	1	2	1	0	3	1	1740-1745	0	0	3	3	5	0	6	2	
0945-0950	1	0	1	4	1	0	3	1	1745-1750	0	0	1	2	1	0	2	1	
0950-0955	0	0	1	2	2	0	2	2	1750-1755	0	0	1	3	2	0	2	0	
0955-1000	0	0	1	3	1	0	4	1	1755-1800	1	0	2	3	2	0	6	0	
									1900 1905			1					1	
									1800-1805 1805-1810	0	1	1	3	1	0	2	2	
									1810-1815	0	0	1	2	2	0	4	1	
									1815-1820	0	0	3	3	2	0	3	1	
									1820-1825	0	0	0	2	0	0	0	0	
									1825-1830	0	1	1	3	1	0	1	1	
									1830-1835	1	3	1	1	1	0	1	1	
									1835-1840	1	0	0	1	2	0	6	1	
									1840-1845	0	0	0	1	1	0	1	0	
									1845-1850	0	0	1	1	1	0	0	0	
									1850-1855	1	0	1	1	0	0	2	1	
									1855-1900	1	0	0	1	0	0	0	0	
														L				



## SS1040 Parc Pensarn Thursday 16th March 2023 07:00 - 10:00 & 15:00-1900 Site 3

<u>Transportation Data Collection</u>								Site 3									
Q1				Q2 Q3			Q4 Q1				Q2		Q3			Q4	
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2		Lane 1	Lane 2						
0700-0705	0	0	0	0	0	0	0	0	1500-1505	0	0	0	1	3	0	0	0
0705-0710	0	0	0	0	0	0	0	0	1505-1510	0	0	0	1	0	0	1	0
0710-0715	0	0	0	0	0	0	0	0	1510-1515	0	0	0	1	0	0	0	0
0715-0720	0	0	0	0	0	0	1	0	1515-1520	0	0	0	1	0	0	1	0
0720-0725	0	0	0	0	0	0	0	0	1520-1525	0	0	0	0	0	0	1	0
0725-0730	0	0	0	0	0	0	1	0	1525-1530	0	0	0	0	1	0	1	0
0730-0735	0	0	0	0	0	0	0	0	1530-1535	0	0	0	0	0	1	0	0
0735-0740	0	0	0	0	0	0	1	0	1535-1540	0	2	1	0	2	0	4	0
0740-0745	0	0	0	0	0	0	0	0	1540-1545	0	1	0	1	3	0	2	0
0745-0750	0	0	0	0	1	0	0	0	1545-1550	1	1	1	2	2	0	3	1
0750-0755	0	0	0	0	0	0	1	0	1550-1555	1	3	0	1	0	0	1	1
0755-0800	0	0	0	0	0	0	0	0	1555-1600	0	0	0	1	0	0	1	0
	1	•								1				•			
0800-0805	0	0	0	0	0	0	1	0	1600-1605	0	0	1	1	1	0	0	0
0805-0810	1	0	0	0	2	0	0	0	1605-1610	0	0	1	1	0	0	1	0
0810-0815	0	0	0	0	2	0	1	0	1610-1615	0	0	1	2	1	1	1	0
0815-0820	0	0	0	0	5	0	3	0	1615-1620	0	0	1	2	1	0	0	0
0820-0825	0	0	0	0	9	1	1	0	1620-1625	3	0	0	0	0	0	0	0
0825-0830	0	0	0	1	5	1	1	0	1625-1630	0	0	0	1	2	0	1	0
0830-0835	0	3	0	1	11	0	2	1	1630-1635	0	0	1	2	1	0	0	0
0835-0840	1	6	0	1	10	0	3	1	1635-1640	0	0	0	1	0	1	1	0
0840-0845	0	3	0	2	8	1	3	2	1640-1645	0	0	0	1	1	1	0	0
0845-0850	2	4	0	0	5	3	6	2	1645-1650	0	0	1	2	0	0	0	0
0850-0855	0	0	0	0	5	2	5	1	1650-1655	0	0	0	1	3	1	1	0
0855-0900	0	0	0	2	11	0	4	1	1655-1700	0	0	1	0	0	0	0	0
0033 0300									1033 1700								
0900-0905	1	0	1	0	1	0	1	0	1700-1705	0	0	1	1	0	0	1	0
0905-0910	0	0	0	1	0	1	1	0	1700-1703	0	0	0	1	0	0	0	0
0910-0915	0	0	0	1	1	0	1	0	1710-1715	0	0	0	1	0	0	1	0
0910-0913	0	0	0	0	0	0	0	1	1715-1720	0	0	1	1	2	0	1	0
0913-0920	0	0	0	0	2	0	0	1	1713-1720	0	0	0	0	0	0	0	0
0925-0930	0	0	0	0	0	0	1	0	1725-1730	0	0	0	0	0	0	0	0
0930-0935		0	0	1	0	0	1	0	1730-1735	0	0	0	0	0	0	1	0
0930-0933	0	0	0		0	0	0	0	1735-1740		0		0	0	0	0	0
0933-0940	0	0	0	0	0	0	0	0	1740-1745	1	0	0	0	0	0		0
0940-0945	0	0	0		0	0	_	0		0	0	0	0	-	0	1	
0943-0950	0	0	0	0	0	0	0	0	1745-1750 1750-1755	0	0	0	0	0	0	1	0
0950-0955	0	0	0	<u> </u>	0	0	0	0	1755-1800	0	0	0	0	0	0	1	0
0955-1000	U			0		U		U	1/33-1600	U	U		U		U	1	U
									1000 1005								
									1800-1805	0	0	0	0	0	0	0	0
									1805-1810	0	0	0	0	0	0	1	0
									1810-1815	0	0	0	0	0	0	0	0
									1815-1820	0	0	0	0	0	0	1	0
									1820-1825	0	0	0	1	0	0	0	0
									1825-1830	3	0	0	0	0	0	0	0
									1830-1835	0	0	0	0	0	0	2	0
									1835-1840	0	0	0	0	0	0	0	0
									1840-1845	0	0	0	0	0	0	1	0
									1845-1850	0	0	0	0	0	0	0	0
									1850-1855	0	0	0	0	0	0	0	0
									1855-1900	0	0	0	0	0	0	0	0

# Appendix C



## Appendix D

## Appendix E

## Appendix F

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

Calculation Reference: AUDIT-317901-210301-0346

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

: 02 - EMPLOYMENT Category : D - INITOTAL VEHICLES D - INDUSTRIAL ESTATE

06

Selected regions and areas: WEST MIDLANDS

> STAFFORDSHIRE ST 1 days WK WARWICKSHIRE 1 days WO WORCESTERSHIRE 1 days

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

#### Primary Filtering selection:

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

Parameter: No of Employees Actual Range: 1124 to 1665 (units: ) Range Selected by User: 1000 to 4000 (units: )

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Include all surveys Selection by:

Date Range: 01/01/00 to 04/09/20

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

Selected survey days:

Tuesday 1 days Wednesday 1 days 1 days Friday

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 3

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

Selected Location Sub Categories:

Industrial Zone 2 Out of Town 1

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

Secondary Filtering selection:

Use Class.

1 days Not Known R1 1 days **B8** 1 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®.

## Filter by Use Class Breakdown:

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Mulberry Drive Cardiff Asbri Transport Licence No: 317901

Secondary Filtering selection (Cont.):

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000 1 days 10,001 to 15,000 2 days

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

<u>Population within 5 miles:</u> 25,001 to 50,000 1 days 50,001 to 75,000 1 days 75,001 to 100,000 1 days

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

Car ownership within 5 miles:

1.1 to 1.5 3 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:

Not Known 1 days 2 days No

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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LIST OF SITES relevant to selection parameters

1 ST-02-D-04 INDUSTRIAL ESTATE STAFFORDSHIRE

BURTON OLD ROAD

LICHFIELD BOLEY PARK Edge of Town Industrial Zone

Total No of Employees: 1124

Survey date: FRIDAY 08/09/00 Survey Type: MANUAL

2 WK-02-D-02 INDUSTRIAL ESTATE WARWICKSHIRE

OVERVIEW WAY

**RUGBY** 

Edge of Town Industrial Zone

Total No of Employees: 1665

Survey date: WEDNESDAY 27/06/18 Survey Type: MANUAL WO-02-D-03 INDUSTRIAL ESTATE WORCESTERSHIRE

MILLENNIUM WAY

**EVESHAM** 

Edge of Town Out of Town

Total No of Employees: 1499

Survey date: TUESDAY 26/06/18 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.

Asbri Transport Mulberry Drive

Cardiff

Licence No: 317901

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

TOTAL VEHICLES

Calculation factor: 1 EMPLOY

BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	EMPLOY	Rate	Days	EMPLOY	Rate	Days	EMPLOY	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	1429	0.190	3	1429	0.060	3	1429	0.250	
08:00 - 09:00	3	1429	0.271	3	1429	0.091	3	1429	0.362	
09:00 - 10:00	3	1429	0.184	3	1429	0.109	3	1429	0.293	
10:00 - 11:00	3	1429	0.142	3	1429	0.112	3	1429	0.254	
11:00 - 12:00	3	1429	0.134	3	1429	0.117	3	1429	0.251	
12:00 - 13:00	3	1429	0.148	3	1429	0.164	3	1429	0.312	
13:00 - 14:00	3	1429	0.182	3	1429	0.161	3	1429	0.343	
14:00 - 15:00	3	1429	0.117	3	1429	0.172	3	1429	0.289	
15:00 - 16:00	3	1429	0.107	3	1429	0.183	3	1429	0.290	
16:00 - 17:00	3	1429	0.091	3	1429	0.185	3	1429	0.276	
17:00 - 18:00	3	1429	0.066	3	1429	0.250	3	1429	0.316	
18:00 - 19:00	3	1429	0.047	3	1429	0.089	3	1429	0.136	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			1.679			1.693			3.372	

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: 1124 - 1665 (units: ) Survey date date range: 01/01/00 - 04/09/20

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

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

# Appendix G

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

Filtering Summary

03/A RESIDENTIAL/HOUSES PRIVATELY OWNED Land Use

Selected Trip Rate Calculation Parameter Range 50-500 DWELLS

50-456 DWELLS Actual Trip Rate Calculation Parameter Range

Date Range Minimum: 01/01/14 Maximum: 29/09/22

Parking Spaces Range All Surveys Included

Parking Spaces Per Dwelling Range: All Surveys Included

Bedrooms Per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Days of the week selected Monday 6 Tuesday 6 Wednesday 10

Thursday Friday 5

Main Location Types selected Suburban Area (PPS6 Out of Centre) 7 27

Edge of Town

Inclusion of Servicing Vehicles Counts Servicing vehicles Included 21 - Selected Servicing vehicles Excluded 59 - Selected

Population within 500m All Surveys Included

9 Population <1 Mile ranges selected 1,001 to 5,000 5,001 to 10,000 9

> 13 10,001 to 15,000 15,001 to 20,000 3

Population <5 Mile ranges selected 5,001 to 25,000 17

25,001 to 50,000 5 50,001 to 75,000 6 75,001 to 100,000 6

Car Ownership <5 Mile ranges selected 0.6 to 1.0 6

1.1 to 1.5 26 1.6 to 2.0 2

PTAL Rating No PTAL Present 34

Calculation Reference: AUDIT-317901-230301-0335

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES

		nions and areas:	
02	ES	H EAST	1 dovo
	HC	EAST SUSSEX	1 days
	HC HF	HAMPSHIRE HERTFORDSHIRE	3 days
	KC	KENT	1 days 2 days
	WS	WEST SUSSEX	2 days
03		H WEST	2 uays
03	DC	DORSET	1 days
	DV	DEVON	2 days
04		ANGLIA	z uays
04	NF	NORFOLK	8 days
06		MIDLANDS	o days
00	ST	STAFFORDSHIRE	1 days
07	<b>.</b>	SHIRE & NORTH LINCOLNSHIRE	1 days
0,	NF	NORTH EAST LINCOLNSHIRE	1 days
09	NORT		. aajo
	DH	DURHAM	1 days
11	SCOT	LAND	
	AS	ABERDEENSHIRE	1 days
12	CONN	IAUGHT	
	LT	LEITRIM	1 days
13	MUNS	STER	
	WA	WATERFORD	1 days
14	LEINS		
	WC	WICKLOW	1 days
15		TER DUBLIN	
	DL	DUBLIN	1 days
16		ER (REPUBLIC OF IRELAND)	
	CV	CAVAN	1 days
	DN	DONEGAL	3 days
17		ER (NORTHERN I RELAND)	
	AN	ANTRIM	1 days
	DE	DERRY	1 days

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

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Asbri Transport Mulberry Drive Cardiff Licence No: 317901

#### Primary Filtering selection:

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

Parameter: No of Dwellings Actual Range: 50 to 456 (units: ) Range Selected by User: 50 to 500 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

### Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 29/09/22

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

#### Selected survey days:

Monday 6 days
Tuesday 6 days
Wednesday 10 days
Thursday 7 days
Friday 5 days

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

#### Selected survey types:

Manual count 29 days
Directional ATC Count 5 days

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

#### Selected Locations:

Suburban Area (PPS6 Out of Centre) 7 Edge of Town 27

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

### Selected Location Sub Categories:

Industrial Zone 1
Residential Zone 27
No Sub Category 6

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

### Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 21 days - Selected Servicing vehicles Excluded 59 days - Selected

Secondary Filtering selection:

#### Use Class:

C3 34 days

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

#### Population within 500m Range:

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Asbri Transport Mulberry Drive Cardiff

Secondary Filtering selection (Cont.):

#### Population within 1 mile:

1,001 to 5,000 9 days 5,001 to 10,000 9 days 10,001 to 15,000 13 days 15,001 to 20,000 3 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
 17 days

 25,001
 to 50,000
 5 days

 50,001
 to 75,000
 6 days

 75,001
 to 100,000
 6 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
 6 days

 1.1 to 1.5
 26 days

 1.6 to 2.0
 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 16 days No 18 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 34 days

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

Licence No: 317901 Asbri Transport Mulberry Drive Cardiff

#### LIST OF SITES relevant to selection parameters

Site(1): AN-03-A-09 Site area: 9.48 hect Development Name: **DETACHED & SEMI-DETACHED** No of Dwellings: 151 Location: **CARRICKFERGUS** Housing density: 18 Total Bedrooms: 459 Postcode: BT38 8FW Main Location Type: Edge of Town Survey Date: 12/10/16 Sub-Location Type: No Sub Category Survey Day: Wednesday PTAL: Parking Spaces: 457

Site(2): AS-03-A-02 Site area: 5.30 hect Development Name: MIXED HOUSES No of Dwellings: 131 Housing density: Location: STONEHAVEN 28 Postcode: AB39 2XZ Total Bedrooms: 363 20/04/22 Main Location Type: Edge of Town Survey Date: Sub-Location Type: Residential Zone Survey Day: Wednesday PTAL: n/a Parking Spaces: 232

CV-03-A-02 47.00 hect Site area: Site(3):

Development Name: **DETACHED & SEMI DETACHED** No of Dwellings: 80 Housing density: Location: **CAVAN** 2 Postcode: Total Bedrooms: 295 Edge of Town Survey Date: 22/05/17

Main Location Type: Sub-Location Type: No Sub Category Survey Day: Monday Parking Spaces: 278 PTAL:

DC-03-A-09 1.65 hect Site(4): Site area: Development Name: MIXED HOUSES No of Dwellings: 50 Location: **SHAFTESBURY** Housing density: 31 Postcode: SP7 8TU Total Bedrooms: 166 19/11/21 Main Location Type: Edge of Town Survey Date: Friday Sub-Location Type: No Sub Category Survey Day:

PTAL: Parking Spaces: 134

Site(5): DE-03-A-05 Site area: 1.93 hect Development Name: SEMI-DETACHED & TERRACED No of Dwellings: 51 Location: **COLERAINE** Housing density: 32 Total Bedrooms: Postcode: BT52 2RG 158 Main Location Type: Edge of Town Survey Date: 20/05/22

Industrial Zone Sub-Location Type: Survey Day: Friday Parking Spaces: PTAL: n/a 155

Site(6): DH-03-A-01 Site area: 0.90 hect Development Name: SEMI DETACHED No of Dwellings: 50 Location: **BISHOP AUCKLAND** Housing density: 94 Total Bedrooms: Postcode: DL14 6RH 150

Main Location Type: Suburban Area (PPS6 Out of Centre) Survey Date: 28/03/17 Sub-Location Type: Residential Zone Survey Day: Tuesday Parking Spaces: PTAL: 87

Site(7): DL-03-A-10 Site area: 2.90 hect

Development Name: SEMI DETACHED & DETACHED No of Dwellings: 65 Location: MALAHIDE Housing density: 28 Postcode: K36 P798 Total Bedrooms: 219 Main Location Type: Edge of Town Survey Date: 20/06/18

Residential Zone Sub-Location Type: Survey Day: Wednesday PTAL: n/a Parking Spaces:

213

3.20 hect Site(8): DN-03-A-03 Site area:

Development Name: DETACHED/SEMI-DETACHED No of Dwellings: 50 **LETTERKENNY** Location: Housing density: 17

Postcode: Total Bedrooms: 200 Main Location Type: Edge of Town Survey Date: 01/09/14 Residential Zone Survey Day: Sub-Location Type: Monday PTAL: Parking Spaces: 125

Site(9): DN-03-A-04 Site area: 4.15 hect

Development Name: SEMI-DETACHED No of Dwellings: 83 Location: **LETTERKENNY** Housing density: 22 Postcode: Total Bedrooms: 257 26/09/14 Main Location Type: Edge of Town Survey Date:

Sub-Location Type: Friday Residential Zone Survey Day: PTAL: Parking Spaces: 182

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LIST OF SITES relevant to selection parameters (Cont.) Site(10): DN-03-A-05 Site area: 7.24 hect Development Name: DETACHED/SEMI-DETACHED No of Dwellings: 146 Location: **LETTERKENNY** Housing density: 23 Total Bedrooms: 472 Postcode: Main Location Type: Suburban Area (PPS6 Out of Centre) Survey Date: 03/09/14 Survey Day: Sub-Location Type: Residential Zone Wednesday PTAL: Parking Spaces: 309 Site(11): DV-03-A-02 Site area: 4.04 hect Development Name: **HOUSES & BUNGALOWS** No of Dwellings: 116 Housing density: Location: **HONITON** 44 Postcode: EX14 1JB Total Bedrooms: 306 Suburban Area (PPS6 Out of Centre) 25/09/15 Main Location Type: Survey Date: Sub-Location Type: Residential Zone Survey Day: Friday PTAL: n/a Parking Spaces: 261 DV-03-A-03 2.02 hect Site(12): Site area: Development Name: TERRACED & SEMI DETACHED No of Dwellings: 70 Housing density: 50 Location: HONITON Postcode: **EX14 2DF** Total Bedrooms: 208 28/09/15 Main Location Type: Suburban Area (PPS6 Out of Centre) Survey Date: Sub-Location Type: Residential Zone Survey Day: Monday Parking Spaces: PTAL: 116 ES-03-A-07 3.49 hect Site(13): Site area: Development Name: MIXED HOUSES & FLATS No of Dwellings: 91 Location: **HAILSHAM** Housing density: 35 BN27 4FR Total Bedrooms: 256 Postcode: Main Location Type: Edge of Town Survey Date: 07/11/19 Sub-Location Type: Residential Zone Survey Day: Thursday PTAL: Parking Spaces: 246 Site(14): HC-03-A-23 Site area: 1.40 hect Development Name: **HOUSES & FLATS** No of Dwellings: 62 Location: LIPHOOK Housing density: 46 Total Bedrooms: Postcode: **GU30 7TG** 205 Main Location Type: Suburban Area (PPS6 Out of Centre) Survey Date: 19/11/19 Sub-Location Type: Residential Zone Survey Day: Tuesday Parking Spaces: PTAL: n/a 136 HC-03-A-27 Site(15): Site area: 2.50 hect Development Name: MIXED HOUSES No of Dwellings: 73 Location: **ANDOVER** Housing density: 30 SP11 6ZQ Total Bedrooms: Postcode: 205 Main Location Type: Edge of Town Survey Date: 16/11/21 Sub-Location Type: Residential Zone Survey Day: Tuesday Parking Spaces: PTAL: 170 Site(16): HC-03-A-29 Site area: 6.20 hect Development Name: MIXED HOUSES & FLATS No of Dwellings: 195 Location: RINGWOOD Housing density: 39 Postcode: BH24 3FJ Total Bedrooms: 514 Main Location Type: Edge of Town Survey Date: 30/06/22 Residential Zone Sub-Location Type: Survey Day: Thursday PTAL: n/a Parking Spaces: 493 Site(17): HF-03-A-03 Site area: 5.67 hect Development Name: MIXED HOUSES No of Dwellings: 160 **BUNTINGFORD** Location: Housing density: 32 Postcode: SG9 9FX Total Bedrooms: 510 Main Location Type: Edge of Town Survey Date: 08/07/19 Sub-Location Type: Survey Day: Monday Residential Zone PTAL: Parking Spaces: Site(18): KC-03-A-03 Site area: 1.38 hect MIXED HOUSES & FLATS Development Name: No of Dwellings: 51 Location: **ASHFORD** Housing density: 66 TN24 OFR Total Bedrooms: 157 Postcode: Suburban Area (PPS6 Out of Centre) 14/07/16 Survey Date: Main Location Type: Thursday Residential Zone Survey Day: Sub-Location Type: PTAL: n/a Parking Spaces: 110

Licence No: 317901 Asbri Transport Mulberry Drive Cardiff

#### LIST OF SITES relevant to selection parameters (Cont.)

Site(19): KC-03-A-07 Site area: Development Name: MIXED HOUSES Location: HERNE BAY Postcode: CT6 6HZ Main Location Type: Edge of Town Sub-Location Type: Residential Zone PTAL: Parking Spaces:

Site(20): LT-03-A-01 Development Name: SEMI-DETACHED & DETACHED

Location: CARRICK-ON-SHANNON Postcode:

Main Location Type: Suburban Area (PPS6 Out of Centre) Sub-Location Type: Residential Zone

PTAL: n/a

NE-03-A-02 Site(21):

Development Name: SEMI DETACHED & DETACHED

Location: **SCUNTHORPE** Postcode: **DN15 8GS** Main Location Type: Edge of Town Sub-Location Type: No Sub Category

PTAL:

NF-03-A-16 Site(22):

Development Name: MIXED HOUSES & FLATS WYMONDHAM Location:

NR18 OUE Postcode: Main Location Type: Edge of Town Sub-Location Type: Residential Zone

PTAL:

Site(23): NF-03-A-29 MIXED HOUSES Development Name: Location: **GREAT YARMOUTH** Postcode: NR31 9FT Main Location Type: Edge of Town

Residential Zone Sub-Location Type: PTAL:

NF-03-A-31 Site(24): MIXED HOUSES Development Name: Location: **SWAFFHAM** PE37 8JE Postcode:

Main Location Type: Edge of Town Sub-Location Type: Residential Zone

PTAL:

Site(25): NF-03-A-32 MIXED HOUSES & FLATS

Development Name: Location: HUNSTANTON Postcode: PE36 5PS Main Location Type: Edge of Town Sub-Location Type: Residential Zone

PTAL: n/a

NF-03-A-33 Site(26): Development Name: MIXED HOUSES Location: **ATTLEBOROUGH** Postcode: NR17 1FF Main Location Type: Edge of Town

Sub-Location Type: Residential Zone PTAL:

Site(27): NF-03-A-36 Development Name: MIXED HOUSES Location: WYMONDHAM NR18 9GH Postcode: Edge of Town Main Location Type:

No Sub Category Sub-Location Type: PTAL:

9.46 hect No of Dwellings: 288 Housing density: 40 Total Bedrooms: 934 Survey Date: 27/09/17 Survey Day: Wednesday

891

Site area: 4.48 hect No of Dwellings: 90 Housing density: 23 Total Bedrooms: 342 Survey Date: 24/04/15 Survey Day: Friday Parking Spaces: 186

12.00 hect Site area: No of Dwellings: 432 Housing density: 133 Total Bedrooms: 1174 Survey Date: 12/05/14 Survey Day: Monday Parking Spaces:

6.54 hect Site area: No of Dwellings: 138 Housing density: 31 Total Bedrooms: 392 20/10/15 Survey Date: Survey Day: Tuesday Parking Spaces: 278

Site area: 15.41 hect No of Dwellings: 456 Housing density: 37 Total Bedrooms: 1234 Survey Date: 22/09/21 Survey Day: Wednesday Parking Spaces: 1144

16.20 hect Site area: No of Dwellings: 321 Housing density: 24 **Total Bedrooms:** 883 Survey Date: 22/09/22 Survey Day: Thursday Parking Spaces: 919

Site area: 7.30 hect No of Dwellings: 164 Housing density: 28 Total Bedrooms: 461 Survey Date: 21/09/22 Wednesday Survey Day:

Parking Spaces: 396

4.78 hect Site area: No of Dwellings: 143 39 Housing density: Total Bedrooms: 358 Survey Date: 29/09/22 Survey Day: Thursday Parking Spaces: 326

Site area: 3.20 hect No of Dwellings: 75 Housing density: 23 Total Bedrooms: 216 29/09/22 Survey Date: Thursday Survey Day: Parking Spaces: 213

Licence No: 317901 Mulberry Drive Cardiff Asbri Transport

#### LIST OF SITES relevant to selection parameters (Cont.)

7.84 hect Site(28): NF-03-A-39 Site area: Development Name: MIXED HOUSES No of Dwellings: 212 Location: **HOLT** Housing density: 32 Total Bedrooms: 570 NR25 6GA Postcode: Main Location Type: Edge of Town Survey Date: 27/09/22 Survey Day: Sub-Location Type: Residential Zone Tuesday Parking Spaces: PTAL: 490

Site(29): NF-03-A-47 Site area: 13.05 hect Development Name: MIXED HOUSES & FLATS No of Dwellings: 300 Housing density: Location: **AYLSHAM** 28 Total Bedrooms: Postcode: NR11 6FN 956 21/09/22 Main Location Type: Edge of Town Survey Date: Residential Zone Sub-Location Type: Survey Day: Wednesday

Parking Spaces: PTAL: n/a 723

Site(30): ST-03-A-07 9.00 hect Site area: Development Name: **DETACHED & SEMI-DETACHED** No of Dwellings: 248 Location: **STAFFORD** Housing density: 173 Postcode: ST16 1GZ Total Bedrooms: 821 Main Location Type: Survey Date: Edge of Town 22/11/17

Sub-Location Type: Residential Zone Survey Day: Wednesday Parking Spaces: 881

Site(31): WA-03-A-04 28.59 hect Site area: No of Dwellings: Development Name: **DETACHED** 280

Location: WATERFORD Housing density: 12 Postcode: Total Bedrooms: 1130 Edge of Town Survey Date: 24/06/14

Main Location Type: Sub-Location Type: Residential Zone Survey Day: Tuesday PTAL: Parking Spaces: 982

Site(32): WC-03-A-01 Site area: 2.44 hect

Development Name: **DETACHED HOUSES** No of Dwellings: 50 Location: WICKLOW Housing density: 25 Total Bedrooms: Postcode: 182

Main Location Type: Edge of Town Survey Date: 28/05/18 No Sub Category Sub-Location Type: Survey Day: Monday Parking Spaces: PTAL: 180

WS-03-A-04 5.45 hect Site(33): Site area: Development Name: MIXED HOUSES No of Dwellings: 151

Location: **HORSHAM** Housing density: 46 RH12 1EP Total Bedrooms: Postcode: 465 Main Location Type: Edge of Town Survey Date: 11/12/14 Sub-Location Type: Residential Zone Survey Day: Thursday Parking Spaces: PTAL: 345

Site(34): WS-03-A-14 Site area: 2.83 hect Development Name: MIXED HOUSES No of Dwellings: 117 Housing density: Location: LITTLEHAMPTON 43 Postcode: BN17 7PL Total Bedrooms: 371 Main Location Type: Edge of Town Survey Date: 20/10/21

Sub-Location Type: Residential Zone Survey Day: Wednesday PTAL: n/a Parking Spaces: 284

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

Trip Rates for I	Key Periods	Trips per 1 dwells DWELLS			
Period	Inbound	Outbound	Total		
0800-0900	0.140	0.397	0.537		
1700-1800	0.363	0.184	0.547		

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			[	DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	34	151	0.064	34	151	0.255	34	151	0.319
08:00 - 09:00	34	151	0.140	34	151	0.397	34	151	0.537
09:00 - 10:00	34	151	0.152	34	151	0.180	34	151	0.332
10:00 - 11:00	34	151	0.135	34	151	0.163	34	151	0.298
11:00 - 12:00	34	151	0.137	34	151	0.154	34	151	0.291
12:00 - 13:00	34	151	0.180	34	151	0.160	34	151	0.340
13:00 - 14:00	34	151	0.170	34	151	0.176	34	151	0.346
14:00 - 15:00	34	151	0.200	34	151	0.209	34	151	0.409
15:00 - 16:00	34	151	0.283	34	151	0.185	34	151	0.468
16:00 - 17:00	34	151	0.285	34	151	0.182	34	151	0.467
17:00 - 18:00	34	151	0.363	34	151	0.184	34	151	0.547
18:00 - 19:00	34	151	0.279	34	151	0.191	34	151	0.470
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.388			2.436			4.824

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: 50 - 456 (units: )
Survey date date range: 01/01/14 - 29/09/22

Number of weekdays (Monday-Friday): 34
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 23
Surveys manually removed from selection: 0

Licence No: 317901

Asbri Transport Mulberry Drive Cardiff

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

## Appendix H

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Wednesday 01/03/23 Page 1

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

## Filtering Summary

Filter by Site Operations Breakdown

Land Use	02/A	EMPLOYMENT/OFFICE
Selected Trip Rate Calculation Parameter Rang	e 500-5000 sqm GFA	
Actual Trip Rate Calculation Parameter Range	2500-3000 sqm GFA	
Date Range	Minimum: 01/01/14	Maximum: 17/05/22
Parking Spaces Range	All Surveys Included	
Days of the week selected	Tuesday	2
Main Location Types selected	Edge of Town	2
Inclusion of Servicing Vehicles Counts	Servicing vehicles Included Servicing vehicles Excluded	3 - Selected 8 - Selected
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	10,001 to 15,000	2
Population <5 Mile ranges selected	25,001 to 50,000 50,001 to 75,000	1 1
Car Ownership <5 Mile ranges selected	0.6 to 1.0 1.1 to 1.5	1 1
PTAL Rating	No PTAL Present	2

All Surveys Included

Wednesday 01/03/23 Page 2

Calculation Reference: AUDIT-317901-230301-0307

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE TOTAL VEHICLES

Selected regions and areas:

03 SOUTH WEST

WL WILTSHIRE 1 days

08 NORTH WEST

EC CHESHIRE EAST 1 days

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

#### Primary Filtering selection:

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

Parameter: Gross floor area

Actual Range: 2500 to 3000 (units: sqm) Range Selected by User: 500 to 5000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 17/05/22

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

Selected survey days:

Tuesday 2 days

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

Selected survey types:

Manual count 2 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.

2

Selected Locations:

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.

Selected Location Sub Categories:

Commercial Zone 1
Development Zone 1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 3 days - Selected Servicing vehicles Excluded 8 days - Selected

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

Secondary Filtering selection:

Use Class:

Not Known 2 days

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

#### Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

10,001 to 15,000

2 days

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

Population within 5 miles:

25,001 to 50,000 1 days 50,001 to 75,000 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 1 days

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

2 days

Travel Plan:

No

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 2 days

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

Covid-19 Restrictions

Yes

At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

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Wednesday 01/03/23 Page 4

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

#### LIST OF SITES relevant to selection parameters

Site(1): EC-02-A-04
Development Name: OFFICES

Location: MACCLESFIELD

Postcode: SK11 OLP
Main Location Type: Edge of Town
Sub-Location Type: Commercial Zone

PTAL: n/a

Site(2): WL-02-A-01

Development Name: PET INSURANCE COMPANY

Location: AMESBURY

Postcode: SP4 7QA
Main Location Type: Edge of Town
Sub-Location Type: Development Zone

PTAL: n/a

Gross floor area:

3000 sqm

No of Employees: 79 Survey Date: 04/05/21

Survey Day: Tuesday Parking Spaces: 77

3 1

Gross floor area: 2500 sqm

No of Employees: 223

Survey Date: 18/09/18 Survey Day: Tuesday Parking Spaces: 121 Asbri Transport Mulberry Drive Cardiff

Licence No: 317901

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

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES						
	No.	Ave.	Trip	No.	Ave.	Trip	No.	TOTALS Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	Bayo	0.7.	raro	Dayo	0.71	riaro	Dayo	0.7.	rtato
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	2	2750	0.018	2	2750	0.000	2	2750	0.018
07:30 - 08:00	2	2750	0.073	2	2750	0.109	2	2750	0.182
08:00 - 08:30	2	2750	0.073	2	2750	0.055	2	2750	0.400
08:30 - 09:00	2	2750	0.582	2	2750	0.055	2	2750	0.400
09:00 - 09:30	2	2750	1.436	2	2750	0.036	2	2750	1.472
09:30 - 10:00	2	2750	0.345	2	2750	0.036	2	2750	0.381
		2750		2					
10:00 - 10:30 10:30 - 11:00	2 2	2750	0.418	2	2750 2750	0.091	2 2	2750 2750	0.509 0.127
11:00 - 11:30	2	2750	0.036	2	2750	0.036	2	2750	0.072
11:30 - 12:00	2	2750	0.055	2	2750	0.000	2	2750	0.055
12:00 - 12:30	2	2750	0.036	2	2750	0.055	2	2750	0.091
12:30 - 13:00	2	2750	0.036	2	2750	0.164	2	2750	0.200
13:00 - 13:30	2	2750	0.055	2	2750	0.255	2	2750	0.310
13:30 - 14:00	2	2750	0.273	2	2750	0.127	2	2750	0.400
14:00 - 14:30	2	2750	0.236	2	2750	0.200	2	2750	0.436
14:30 - 15:00	2	2750	0.200	2	2750	0.127	2	2750	0.327
15:00 - 15:30	2	2750	0.127	2	2750	0.055	2	2750	0.182
15:30 - 16:00	2	2750	0.073	2	2750	0.200	2	2750	0.273
16:00 - 16:30	2	2750	0.073	2	2750	0.164	2	2750	0.237
16:30 - 17:00	2	2750	0.036	2	2750	0.273	2	2750	0.309
17:00 - 17:30	2	2750	0.018	2	2750	1.473	2	2750	1.491
17:30 - 18:00	2	2750	0.073	2	2750	0.309	2	2750	0.382
18:00 - 18:30	2	2750	0.036	2	2750	0.709	2	2750	0.745
18:30 - 19:00	2	2750	0.036	2	2750	0.073	2	2750	0.109
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:			4.707			4.638			9.345

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: 2500 - 3000 (units: sqm) Survey date date range: 01/01/14 - 17/05/22

Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys automatically removed from selection:0Surveys manually removed from selection:0

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

# Appendix I

TRICS 7.9.4 010223 B21.17 Database right of TRICS Consortium Limited, 2023. All rights reserved Monday 13/03/23 Page 1

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

Filtering Summary

02/C EMPLOYMENT/INDUSTRIAL UNIT Land Use

Selected Trip Rate Calculation Parameter Range 775-10200 sqm GFA

Actual Trip Rate Calculation Parameter Range 2950-8000 sqm GFA

Date Range Minimum: 01/01/14 Maximum: 30/06/21

Parking Spaces Range All Surveys Included

Days of the week selected Tuesday 1 1

Wednesday

Main Location Types selected Edge of Town 1 Neighbourhood Centre (PPS6 Local Centre)

Servicing vehicles Included Inclusion of Servicing Vehicles Counts 1 - Selected

Servicing vehicles Excluded 3 - Selected

Population within 500m All Surveys Included

Population < 1 Mile ranges selected 1,000 or Less 1

5,001 to 10,000 1

Population <5 Mile ranges selected 5,001 to 25,000 1

25,001 to 50,000

Car Ownership <5 Mile ranges selected 1.1 to 1.5 1.6 to 2.0 1

PTAL Rating No PTAL Present 2

Filter by Site Operations Breakdown All Surveys Included

Monday 13/03/23 Page 2

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

Calculation Reference: AUDIT-317901-230313-0351

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT Category : C - INDUSTRIAL UNIT

TOTAL VEHICLES

Selected regions and areas:

02 SOUTH EAST

HAMPSHIRE 1 days

HC H

CB CUMBRIA 1 days

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

#### Primary Filtering selection:

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

Parameter: Gross floor area

Actual Range: 2950 to 8000 (units: sqm) Range Selected by User: 775 to 10200 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 30/06/21

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

Selected survey days:

Tuesday 1 days Wednesday 1 days

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

Selected survey types:

Manual count 2 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 1
Neighbourhood Centre (PPS6 Local Centre) 1

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

Selected Location Sub Categories:

Industrial Zone 1
Village 1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 1 days - Selected Servicing vehicles Excluded 3 days - Selected

Monday 13/03/23 Page 3 Licence No: 317901

Asbri Transport Mulberry Drive Cardiff

Secondary Filtering selection:

Use Class:

Not Known 2 days

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

#### Filter by Site Operations Breakdown:

All Surveys Included

#### Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less 1 days 5,001 to 10,000 1 days

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

Population within 5 miles:

5,001 to 25,000 1 days 25,001 to 50,000 1 days

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

Car ownership within 5 miles:

1.1 to 1.5 1 days 1.6 to 2.0 1 days

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

Travel Plan:

No 2 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 2 days

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

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Asbri Transport Mulberry Drive Cardiff

#### LIST OF SITES relevant to selection parameters

The 'browse and select' feature in TRICS was used to choose the sites to be included in this selected set. The TRICS user browsed the full list of sites for this land use category and selected directly from this list.

0.79 hect CB-02-C-01 Site area: Site(1): Development Name: DOMINO'S PIZZA Gross floor area: 2950 sqm Location: **PENRITH** Parking spaces: 48 No of Employees: 70 Postcode: CA11 9BN 10/06/14 Main Location Type: Edge of Town Survey Date: Survey Day: Sub-Location Type: Industrial Zone Tuesday

PTAL: n/a

Site(2): HC-02-C-02 Site area: 2.10 hect Development Name: **GIN DISTILLERY** Gross floor area: 8000 sqm Location: LAVERSTOKE Parking spaces: 126 Postcode: RG28 7NR No of Employees: 75 Main Location Type: Neighbourhood Centre (PPS6 Local Centre) Survey Date: 09/05/18 Survey Day: Sub-Location Type: Village Wednesday

PTAL: n/a

Licence No: 317901

Asbri Transport Mulberry Drive Cardiff

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS				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	Duyo	0.7.	riaro	Dayo	0.71	riaro	Jujo	0.77	riaro
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
05:30 - 06:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 06:30	1	2950	0.034	1	2950 2950	0.000	1	2950	0.034
06:30 - 07:00	1	2950	0.102	1		0.034	1	2950	0.136
07:00 - 07:30	2	5475	0.046	2	5475	0.009	2	5475	0.055
07:30 - 08:00	2	5475	0.073	2	5475	0.027	2	5475	0.100
08:00 - 08:30	2	5475	0.055	2	5475	0.046	2	5475	0.101
08:30 - 09:00	2	5475	0.100	2	5475	0.027	2	5475	0.127
09:00 - 09:30	2	5475	0.055	2	5475	0.037	2	5475	0.092
09:30 - 10:00	2	5475	0.192	2	5475	0.073	2	5475	0.265
10:00 - 10:30	2	5475	0.164	2	5475	0.064	2	5475	0.228
10:30 - 11:00	2	5475	0.137	2	5475	0.046	2	5475	0.183
11:00 - 11:30	2	5475	0.082	2	5475	0.055	2	5475	0.137
11:30 - 12:00	2	5475	0.027	2	5475	0.009	2	5475	0.036
12:00 - 12:30	2	5475	0.046	2	5475	0.037	2	5475	0.083
12:30 - 13:00	2	5475	0.055	2	5475	0.128	2	5475	0.183
13:00 - 13:30	2	5475	0.064	2	5475	0.210	2	5475	0.274
13:30 - 14:00	2	5475	0.064	2	5475	0.119	2	5475	0.183
14:00 - 14:30	2	5475	0.027	2	5475	0.037	2	5475	0.064
14:30 - 15:00	2	5475	0.082	2	5475	0.046	2	5475	0.128
15:00 - 15:30	2	5475	0.046	2	5475	0.082	2	5475	0.128
15:30 - 16:00	2	5475	0.000	2	5475	0.018	2	5475	0.018
16:00 - 16:30	2	5475	0.027	2	5475	0.046	2	5475	0.073
16:30 - 17:00	2	5475	0.009	2	5475	0.128	2	5475	0.137
17:00 - 17:30	2	5475	0.009	2	5475	0.037	2	5475	0.046
17:30 - 18:00	2	5475	0.064	2	5475	0.027	2	5475	0.091
18:00 - 18:30	2	5475	0.046	2	5475	0.055	2	5475	0.101
18:30 - 19:00	2	5475	0.046	2	5475	0.037	2	5475	0.083
19:00 - 19:30	2	5475	0.046	2	5475	0.027	2	5475	0.073
19:30 - 20:00	2	5475	0.027	2	5475	0.037	2	5475	0.064
20:00 - 20:30	2	5475	0.018	2	5475	0.119	2	5475	0.137
20:30 - 21:00	2	5475	0.018	2	5475	0.046	2	5475	0.064
21:00 - 21:30	1	8000	0.000	1	8000	0.000	1	8000	0.000
21:30 - 22:00	1	8000	0.000	1	8000	0.000	1	8000	0.000
22:00 - 22:30	'	5550	0.000		3330	3.000	•	5550	- 0.000
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.863			1.663			3.526
. Star Natos.			1.003			1.000			3.320

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: 2950 - 8000 (units: sqm) Survey date date range: 01/01/14 - 30/06/21

Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys automatically removed from selection:0Surveys manually removed from selection:0

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

## Appendix J

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Monday 13/03/23 Page 1

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

## Filtering Summary

Land Use	01/C	RETAIL/DISCOUNT FOOD STORES
Selected Trip Rate Calculation Parameter Range	e 570-2703 sqm GFA	
Actual Trip Rate Calculation Parameter Range	1023-2624 sqm GFA	
Date Range	Minimum: 01/01/14	Maximum: 22/09/22
Parking Spaces Range	All Surveys Included	
Days of the week selected	Tuesday Thursday Friday	5 4 3
Main Location Types selected	Edge of Town Centre Edge of Town	7 5
Inclusion of Servicing Vehicles Counts	Servicing vehicles Included Servicing vehicles Excluded	8 - Selected 11 - Selected
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	1,001 to 5,000 5,001 to 10,000 10,001 to 15,000 15,001 to 20,000 20,001 to 25,000	2 4 3 1 2
Population <5 Mile ranges selected	5,001 to 25,000 25,001 to 50,000 50,001 to 75,000 75,001 to 100,000	3 2 3 4
Car Ownership <5 Mile ranges selected	0.6 to 1.0 1.1 to 1.5	4 8
PTAL Rating	No PTAL Present	12

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

Calculation Reference: AUDIT-317901-230313-0327

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL

Category : C - DISCOUNT FOOD STORES

TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	SM SOMERSET	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NN NORTH NORTHAMPTONSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
09	NORTH	
	DH DURHAM	1 days
11	SCOTLAND	
	HI HIGHLAND	1 days
	PK PERTH & KINROSS	1 days
	SR STIRLING	1 days

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

#### Primary Filtering selection:

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

Parameter: Gross floor area

Actual Range: 1023 to 2624 (units: sqm) Range Selected by User: 570 to 2703 (units: sqm)

Parking Spaces Range: All Surveys Included

### Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 22/09/22

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

Selected survey days:

Tuesday 5 days Thursday 4 days Friday 3 days

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

Selected survey types:

Manual count 12 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 7
Edge of Town 5

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.

2

3

#### Selected Location Sub Categories:

Industrial Zone
Residential Zone

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

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

#### Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 8 days - Selected Servicing vehicles Excluded 11 days - Selected

Secondary Filtering selection:

#### Use Class:

E(a) 12 days

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

#### Population within 500m Range:

### All Surveys Included

### Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	4 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days
20,001 to 25,000	2 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	3 days
25,001	to 50,000	2 days
50,001	to 75,000	3 days
75,001	to 100,000	4 days

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

### Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	8 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.

#### Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	12 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

#### Travel Plan:

Not Known	1 days
Yes	2 days
No	9 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 12 days

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

Asbri Transport Mulberry Drive Cardiff

Licence No: 317901

### LIST OF SITES relevant to selection parameters

LIST OF SITES re	elevant to selection parameters		
Site(1): Development Name: Location: Postcode: Main Location Type: Sub-Location Type: PTAL:	CA-01-C-01 LIDL WISBECH PE14 ORG Edge of Town Retail Zone n/a	Gross floor area: Retail floor area: Parking spaces: No of Employees: Survey Date: Survey Day:	1466 sqm 913 sqm 96 19 21/10/16 Friday
Site(2): Development Name: Location: Postcode: Main Location Type: Sub-Location Type: PTAL:	DH-01-C-01 ALDI BISHOP AUCKLAND DL14 9AU Edge of Town Retail Zone n/a	Gross floor area: Retail floor area: Parking spaces: No of Employees: Survey Date: Survey Day:	1023 sqm 953 sqm 72 31 06/04/17 Thursday
Site(3): Development Name: Location: Postcode: Main Location Type: Sub-Location Type: PTAL:	HI-01-C-02 LIDL FORT WILLIAM PH33 6AN Edge of Town Centre Retail Zone n/a	Gross floor area: Retail floor area: Parking spaces: No of Employees: Survey Date: Survey Day:	1300 sqm 1075 sqm 89 13 17/06/14 Tuesday
Site(4): Development Name: Location: Postcode: Main Location Type: Sub-Location Type: PTAL:	LN-01-C-01 LIDL SKEGNESS PE25 3PQ Edge of Town Centre Built-Up Zone n/a	Gross floor area: Retail floor area: Parking spaces: No of Employees: Survey Date: Survey Day:	2398 sqm 1424 sqm 106 35 19/07/16 Tuesday
Site(5): Development Name: Location: Postcode: Main Location Type: Sub-Location Type: PTAL:	NN-01-C-04 LIDL RUSHDEN NN10 OHD Edge of Town Centre Residential Zone n/a	Gross floor area: Retail floor area: Parking spaces: No of Employees: Survey Date: Survey Day:	2624 sqm 1424 sqm 105 35 19/07/16 Tuesday
Site(6): Development Name: Location: Postcode: Main Location Type: Sub-Location Type: PTAL:	NT-01-C-01 LIDL BINGHAM NG13 8GF Edge of Town Industrial Zone n/a	Gross floor area: Retail floor area: Parking spaces: No of Employees: Survey Date: Survey Day:	2440 sqm 1424 sqm 164 23 15/07/16 Friday
Site(7): Development Name: Location: Postcode: Main Location Type: Sub-Location Type: PTAL:	NY-01-C-03 ALDI RIPON HG4 1LH Edge of Town Centre Residential Zone n/a	Gross floor area: Retail floor area: Parking spaces: No of Employees: Survey Date: Survey Day:	1551 sqm 1068 sqm 79 25 20/05/22 Friday
Site(8): Development Name: Location: Postcode: Main Location Type: Sub-Location Type: PTAL:	PK-01-C-02 ALDI PERTH PH2 ONZ Edge of Town Centre Built-Up Zone n/a	Gross floor area: Retail floor area: Parking spaces: No of Employees: Survey Date: Survey Day:	1450 sqm 1000 sqm 71 27 17/06/14 Tuesday
Site(9): Development Name: Location: Postcode: Main Location Type: Sub-Location Type: PTAL:	SM-01-C-01 LIDL MINEHEAD TA24 5BY Edge of Town No Sub Category n/a	Gross floor area: Retail floor area: Parking spaces: No of Employees: Survey Date: Survey Day:	2247 sqm 1407 sqm 101 22 22/06/17 Thursday

Monday 13/03/23 Page 5

Asbri Transport Mulberry Drive Cardiff Licence No: 317901

#### LIST OF SITES relevant to selection parameters (Cont.)

Site(10): SR-01-C-01 Gross floor area: 2442 sqm Development Name: LIDL Retail floor area: 1424 sqm Location: **STIRLING** Parking spaces: 128 FK7 7SH Postcode: No of Employees: 28 Main Location Type: Edge of Town Centre Survey Date: 01/06/17 Survey Day: Sub-Location Type: Built-Up Zone Thursday

PTAL: n/a

WO-01-C-02 Gross floor area: Site(11): 1471 sqm Development Name: LIDL Retail floor area: 900 sqm Location: MALVERN 53 Parking spaces: No of Employees: Postcode: WR14 1AG 30 26/06/18 Main Location Type: Edge of Town Centre Survey Date:

Sub-Location Type: Residential Zone Survey Day: Tuesday

PTAL: survey Day:

Site(12): WS-01-C-03 Gross floor area: 2125 sqm
Development Name: LIDL Retail floor area: 1410 sqm
Location: BOGNOR REGIS Parking spaces: 159

Postcode: PO22 9RP No of Employees: 32

Main Location Type: Edge of Town Survey Date: 23/09/21

Sub-Location Type: Industrial Zone Survey Date: Thursday

Sub-Location Type: Industrial Zone Survey Day: Thursday PTAL: Survey Day: Thursday

Asbri Transport Mulberry Drive Cardiff

 Trip Rates for Key Periods
 Trips per 100 sqm GFA

 Period
 Inbound
 Outbound
 Total

 0800-0900
 2.374
 1.611
 3.985

 1700-1800
 4.104
 4.340
 8.444

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES		TOTALS				
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	2511	0.159	2	2511	0.040	2	2511	0.199
07:00 - 08:00	12	1878	0.506	12	1878	0.186	12	1878	0.692
08:00 - 09:00	12	1878	2.374	12	1878	1.611	12	1878	3.985
09:00 - 10:00	12	1878	3.665	12	1878	3.013	12	1878	6.678
10:00 - 11:00	12	1878	4.291	12	1878	3.754	12	1878	8.045
11:00 - 12:00	12	1878	4.712	12	1878	4.699	12	1878	9.411
12:00 - 13:00	12	1878	4.482	12	1878	4.553	12	1878	9.035
13:00 - 14:00	12	1878	4.388	12	1878	4.663	12	1878	9.051
14:00 - 15:00	12	1878	4.610	12	1878	4.433	12	1878	9.043
15:00 - 16:00	12	1878	4.637	12	1878	4.721	12	1878	9.358
16:00 - 17:00	12	1878	4.517	12	1878	4.734	12	1878	9.251
17:00 - 18:00	12	1878	4.104	12	1878	4.340	12	1878	8.444
18:00 - 19:00	12	1878	3.155	12	1878	3.465	12	1878	6.620
19:00 - 20:00	12	1878	2.356	12	1878	2.711	12	1878	5.067
20:00 - 21:00	11	1931	1.427	11	1931	2.025	11	1931	3.452
21:00 - 22:00	11	1931	0.504	11	1931	0.899	11	1931	1.403
22:00 - 23:00	9	2035	0.044	9	2035	0.240	9	2035	0.284
23:00 - 24:00									
Total Rates:			49.931			50.087			100.018

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

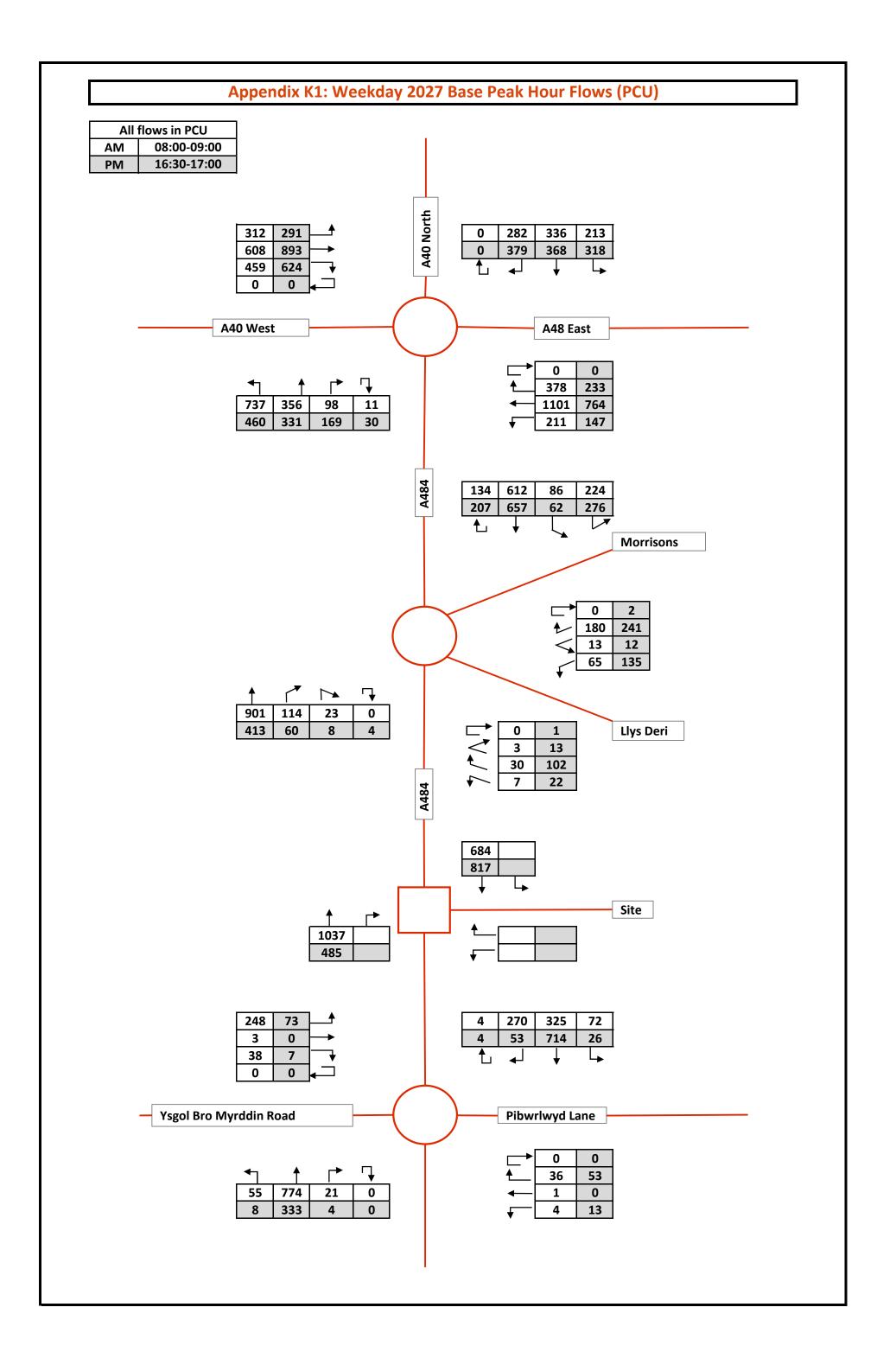
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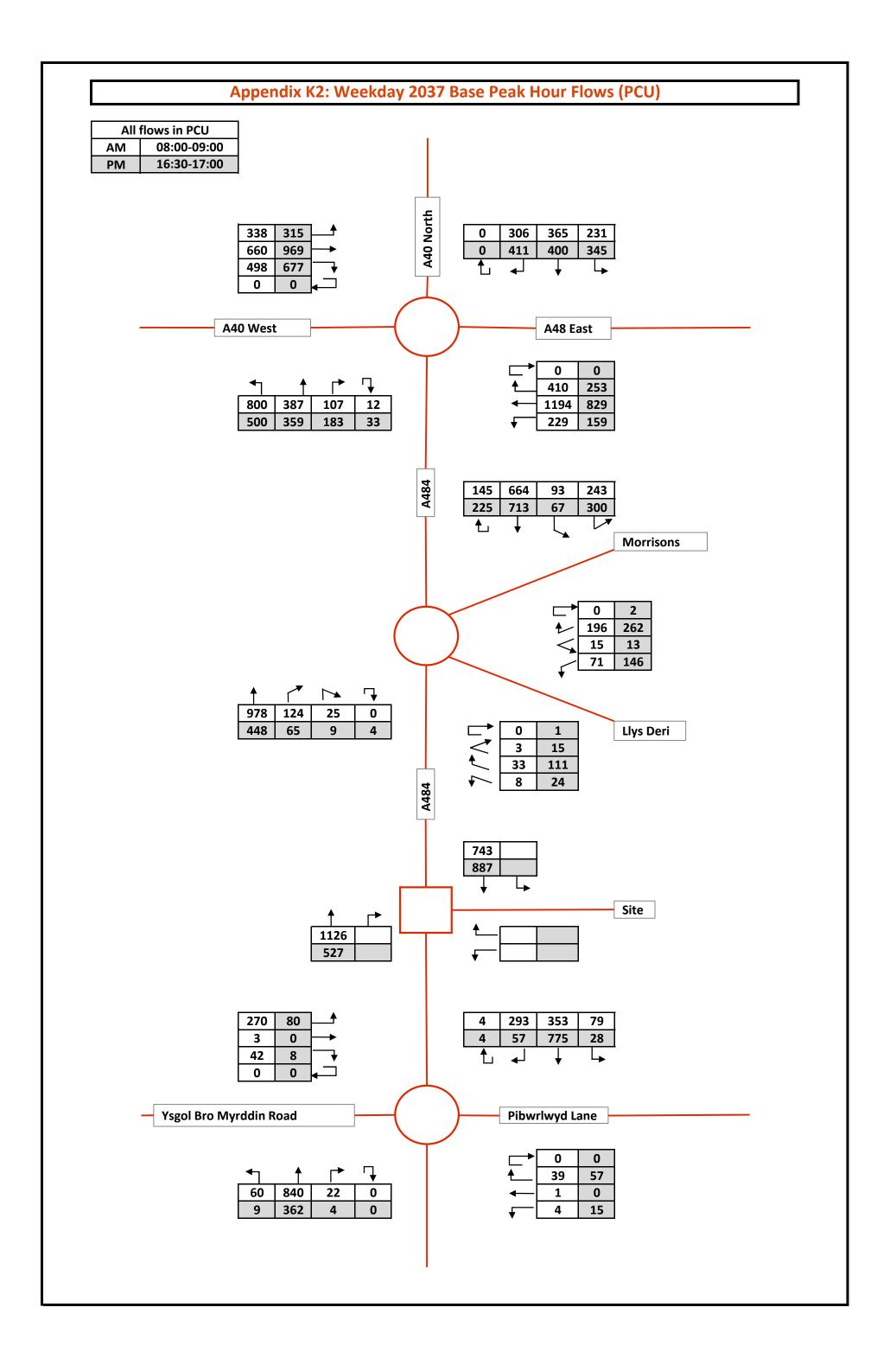
Number of weekdays (Monday-Friday): 12
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 0

Asbri Transport Mulberry Drive Cardiff

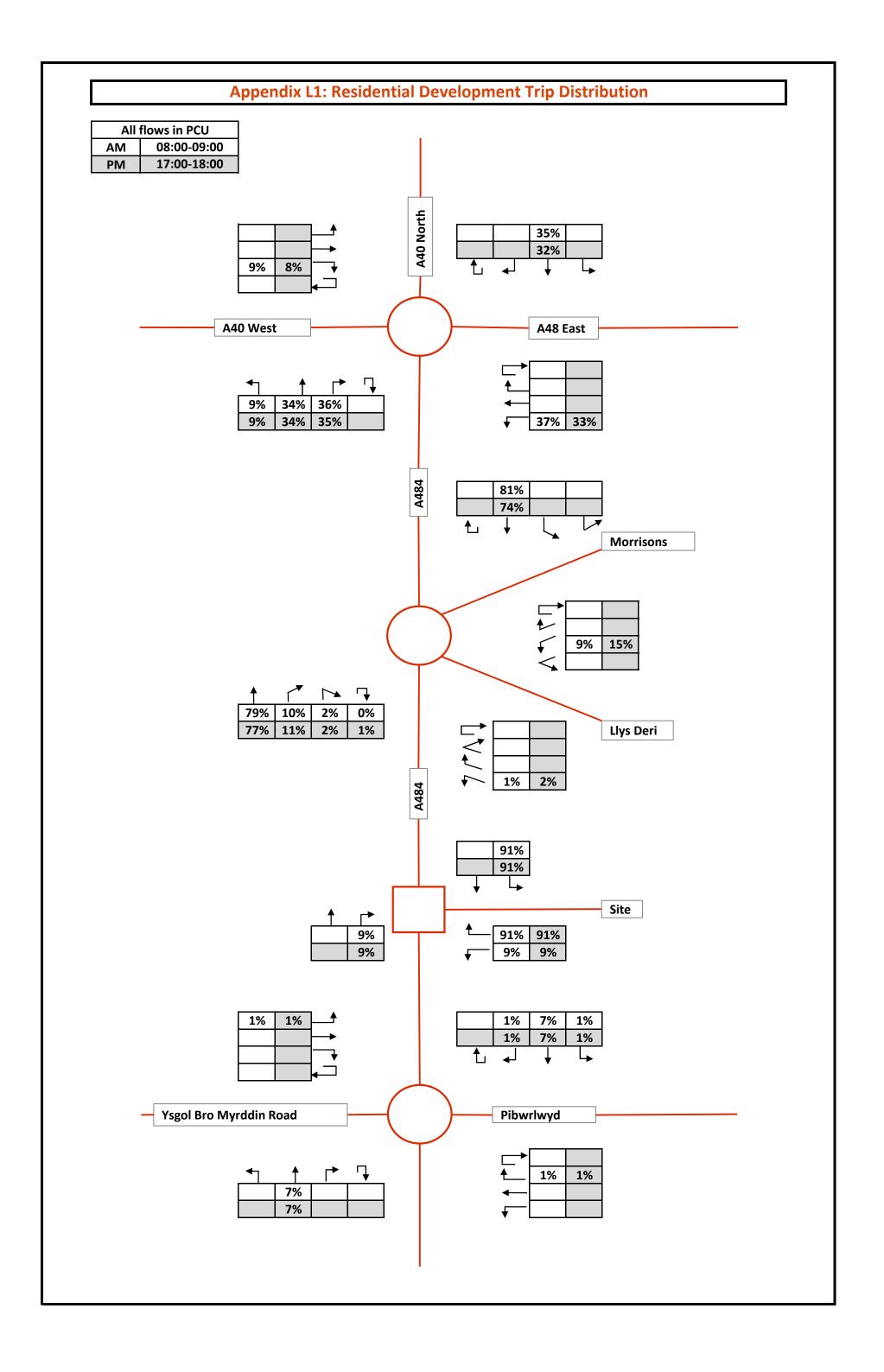
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

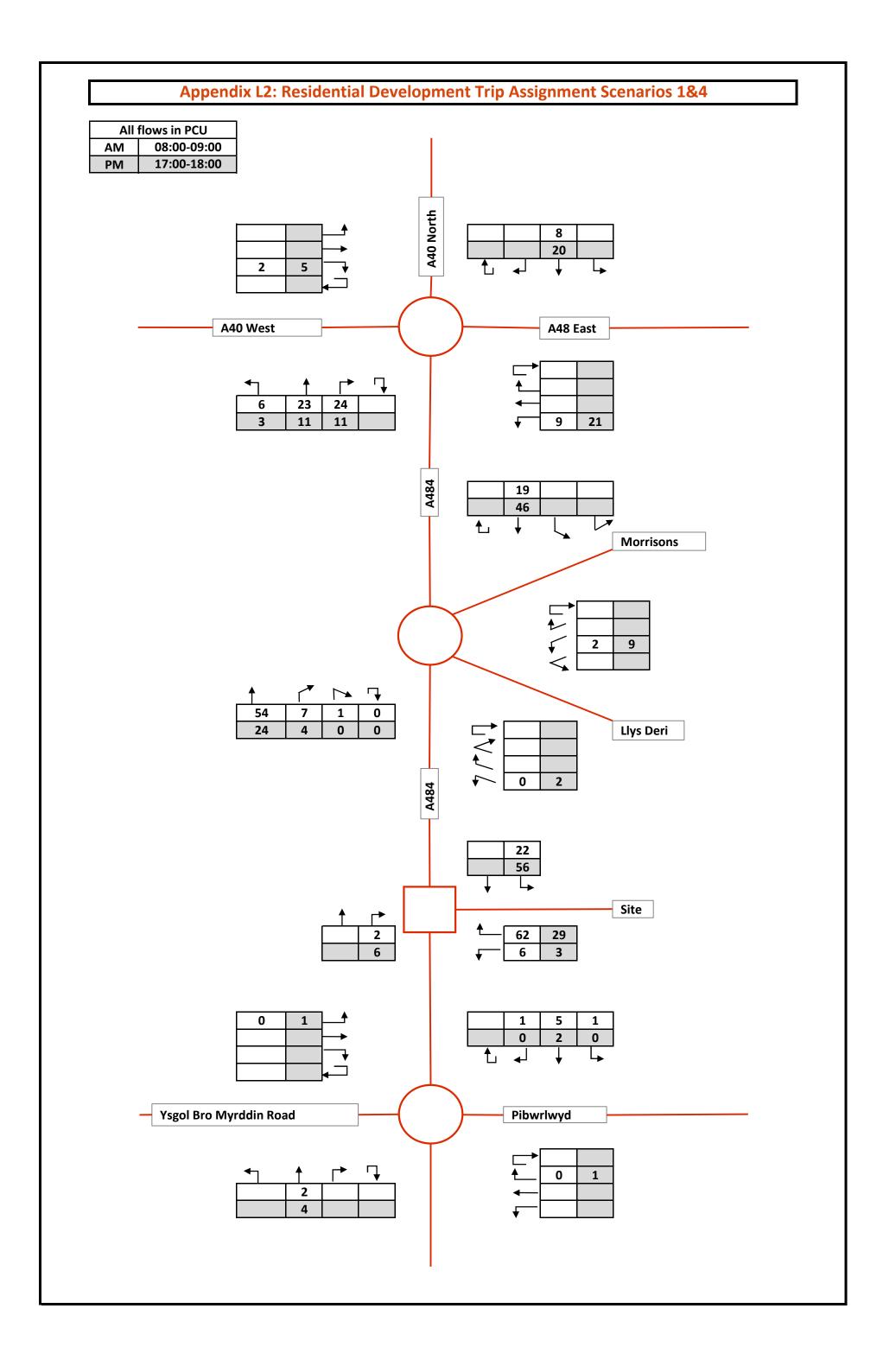
## Appendix K

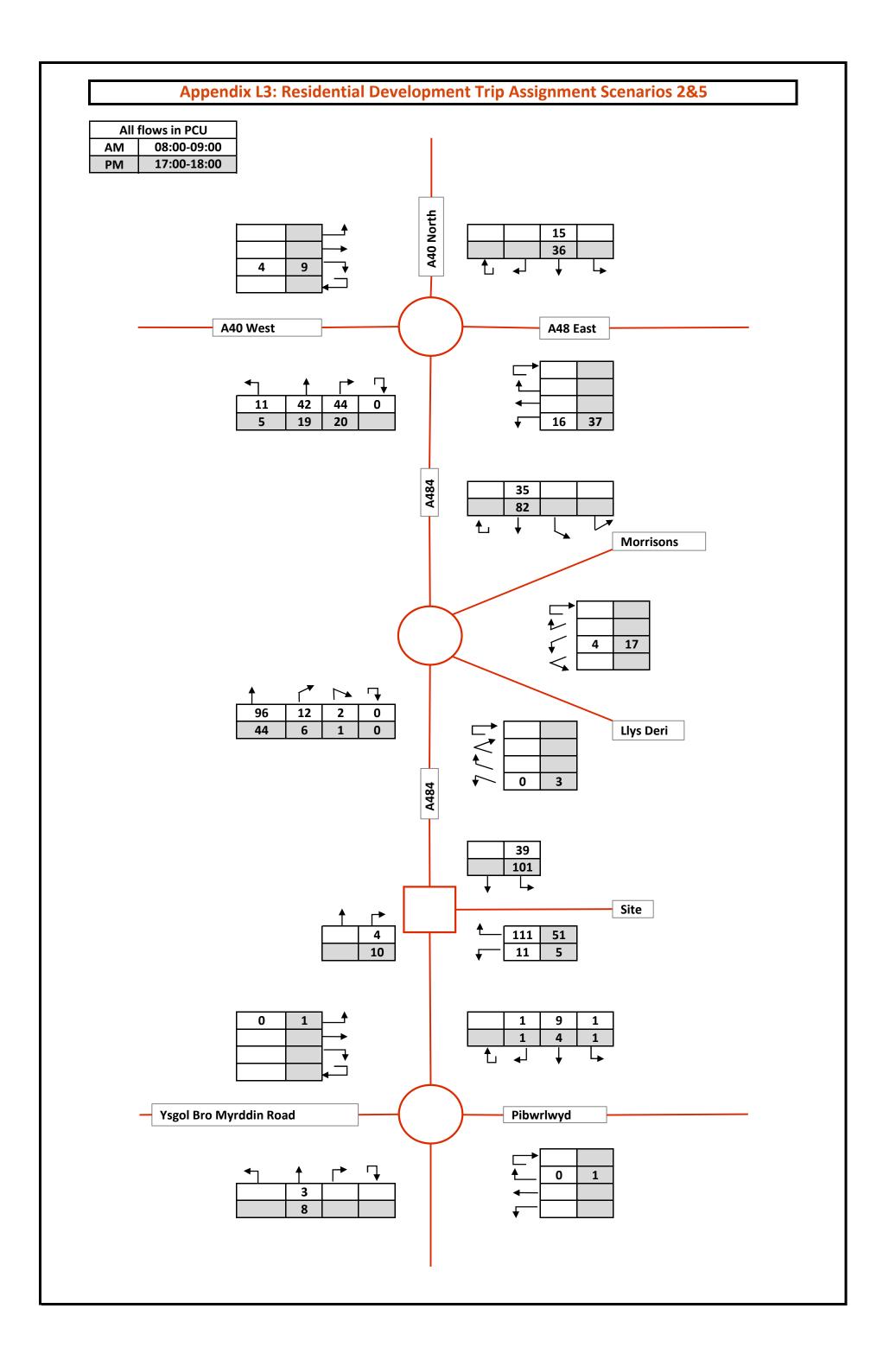




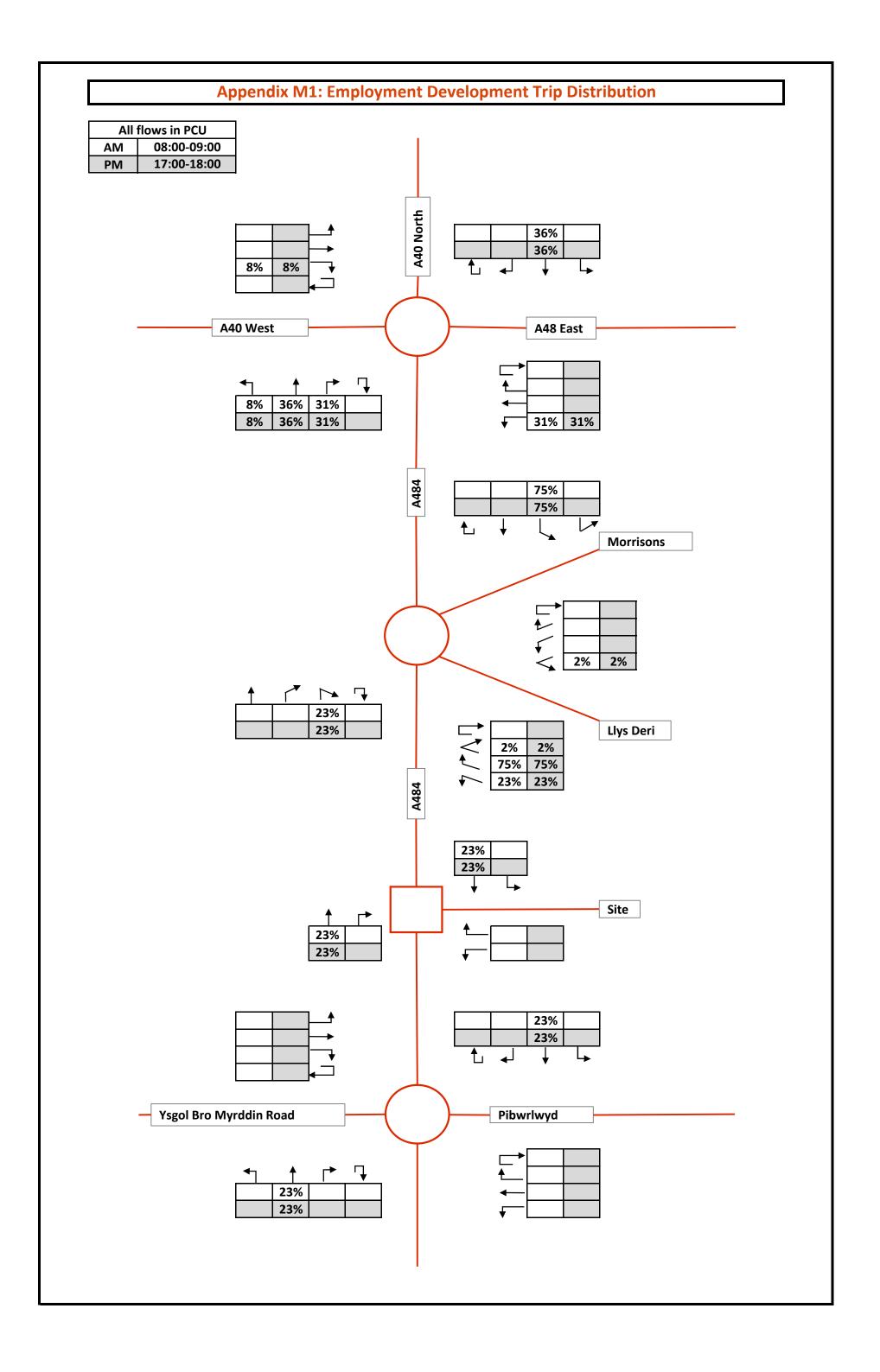
## Appendix L

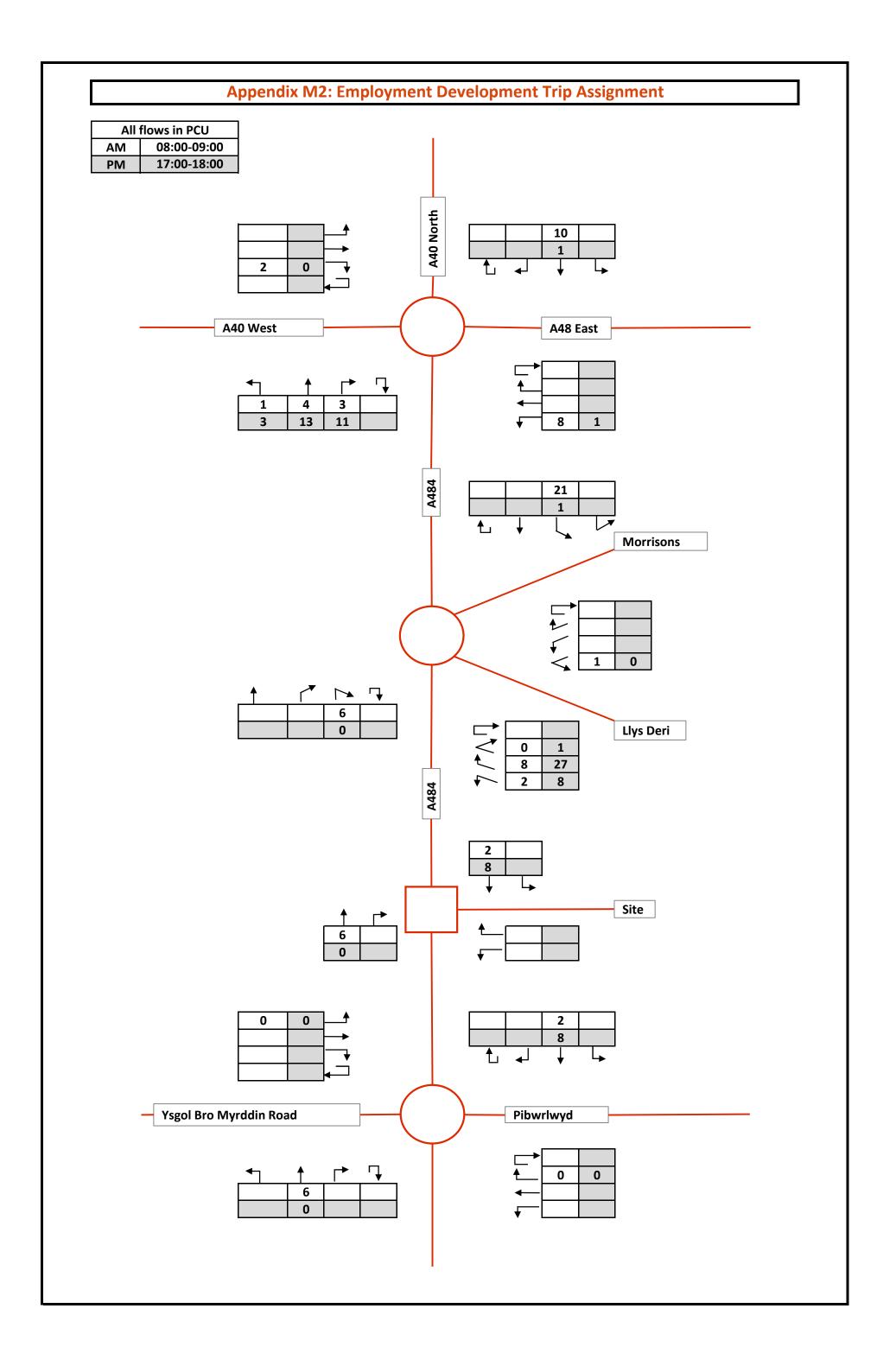




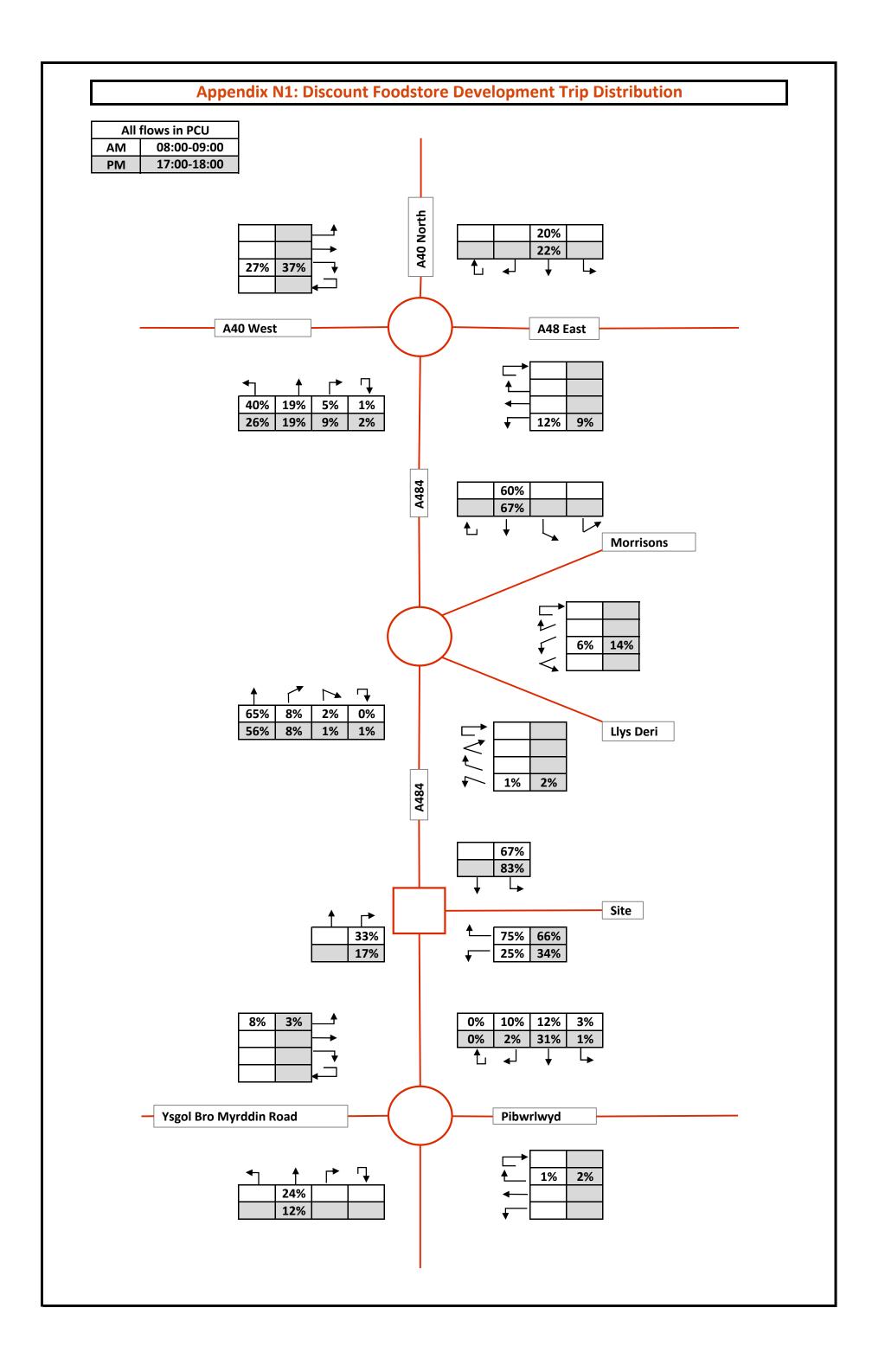


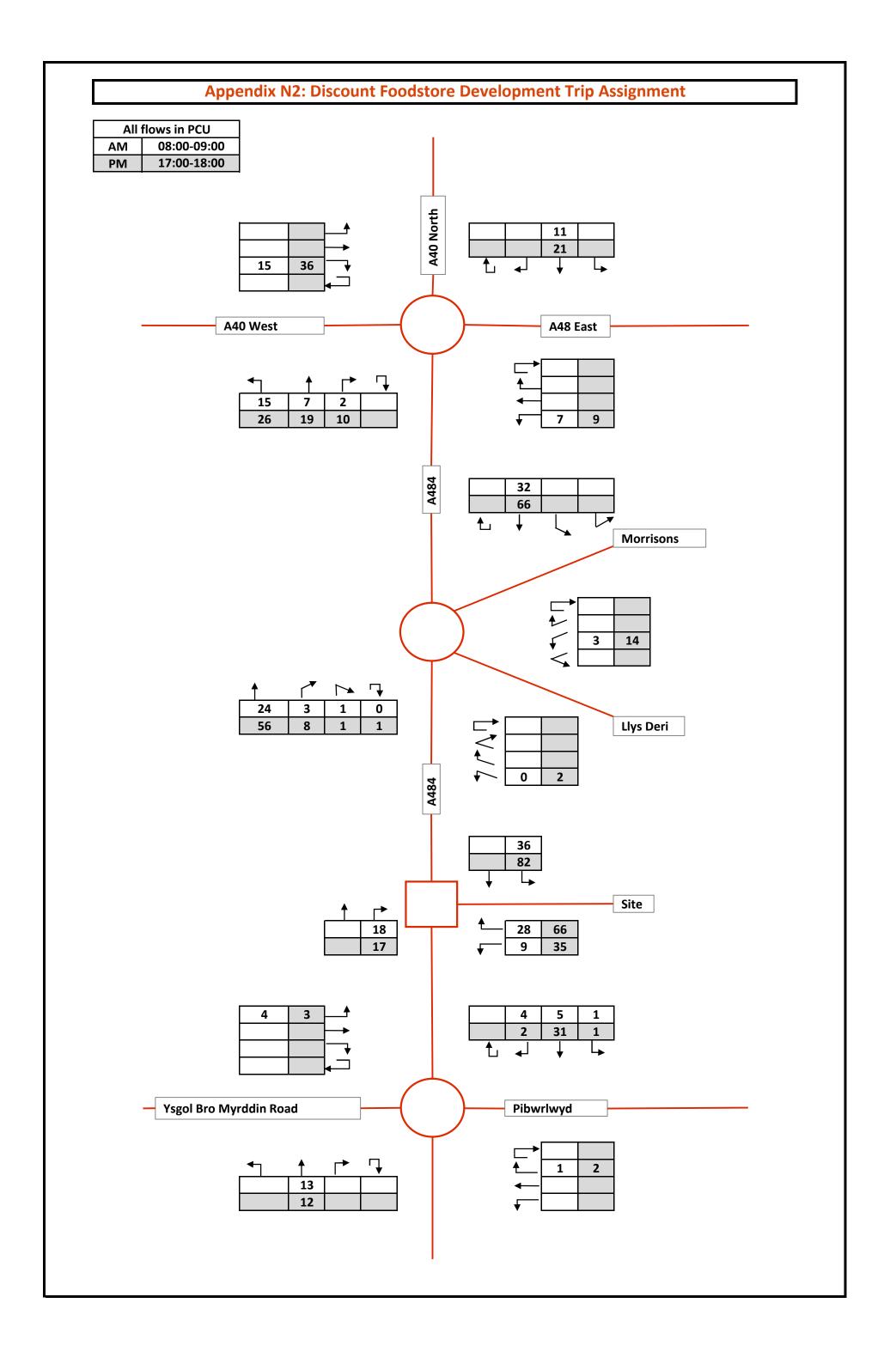
## Appendix M



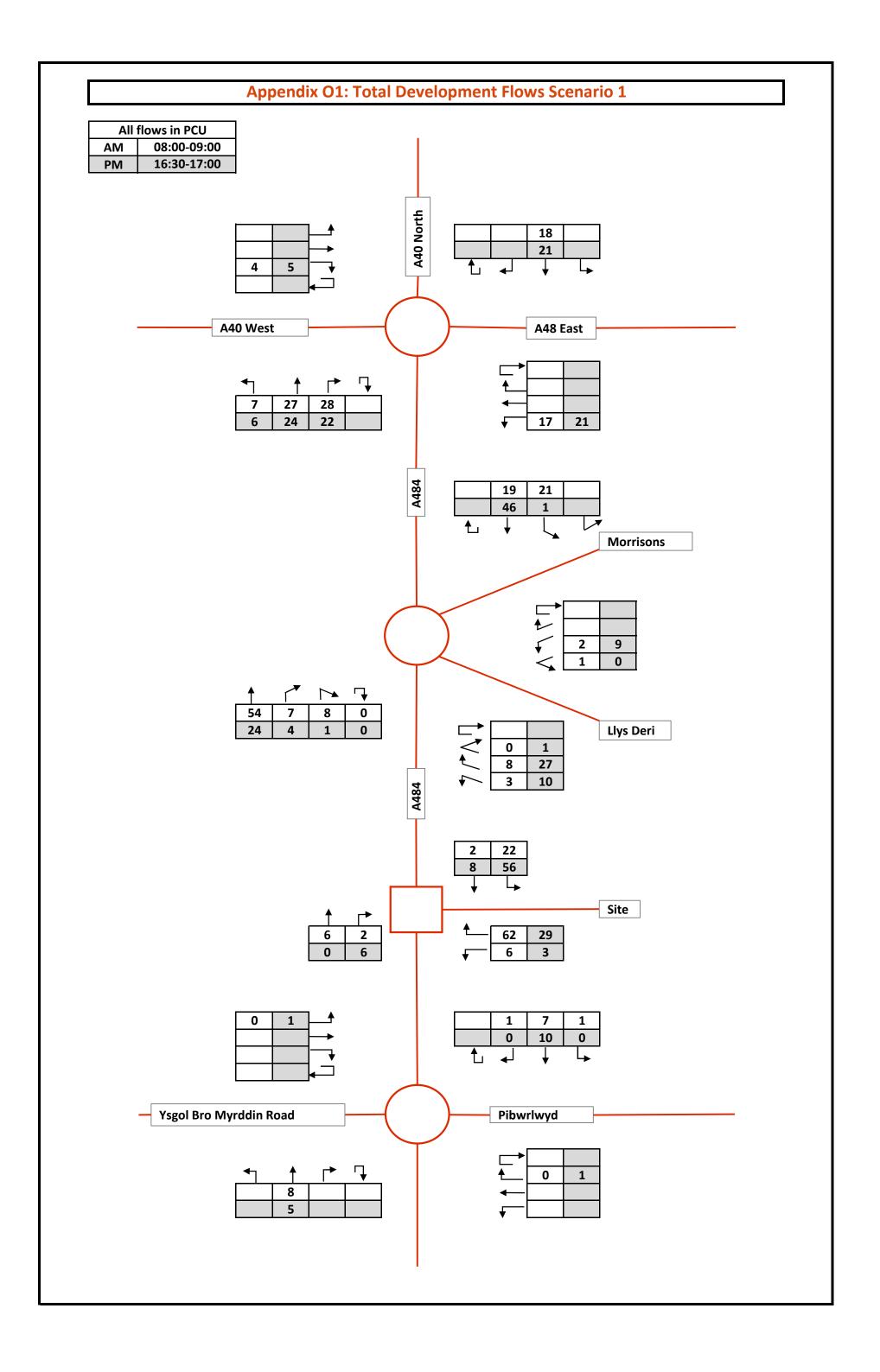


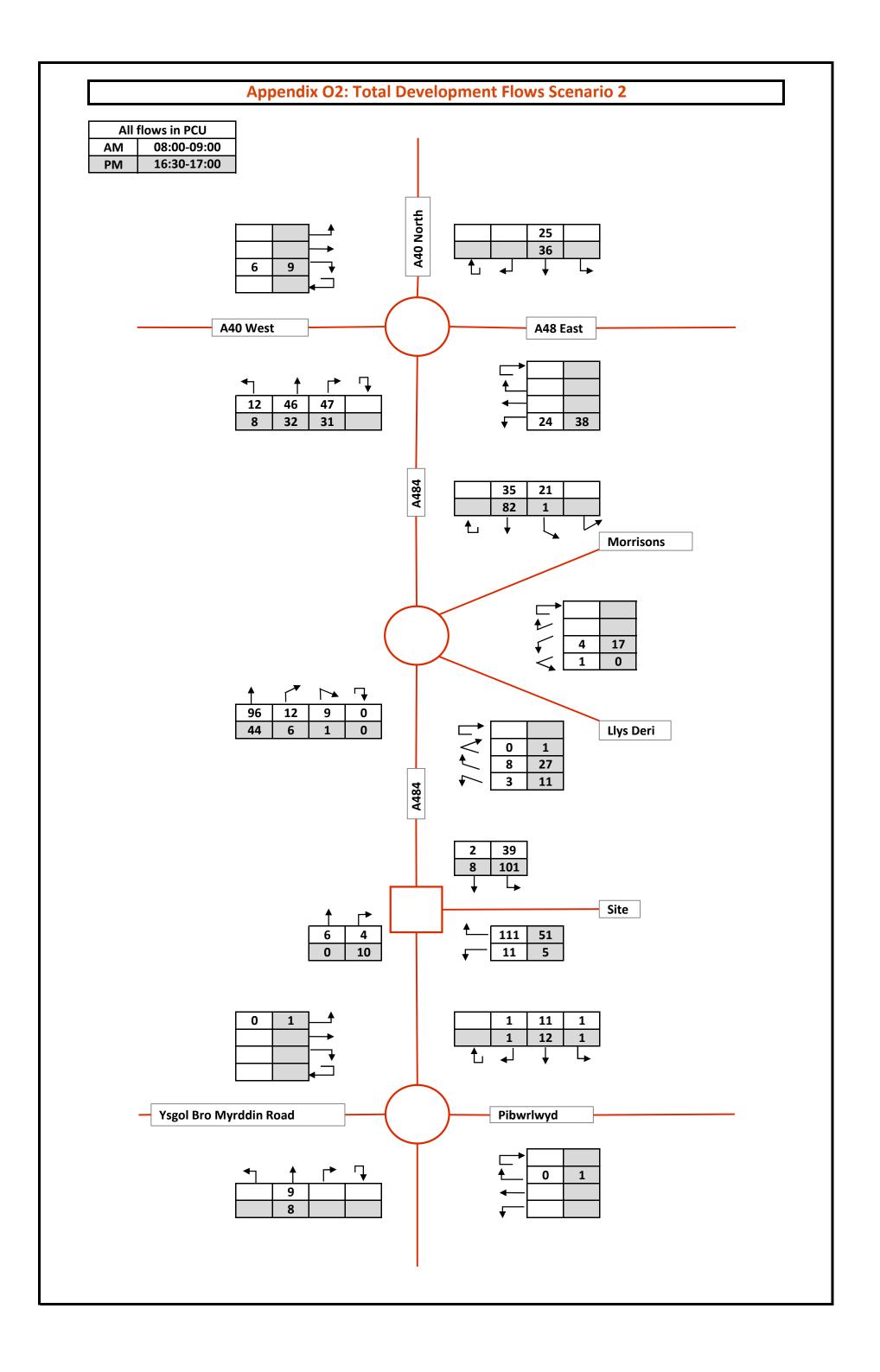
## Appendix N

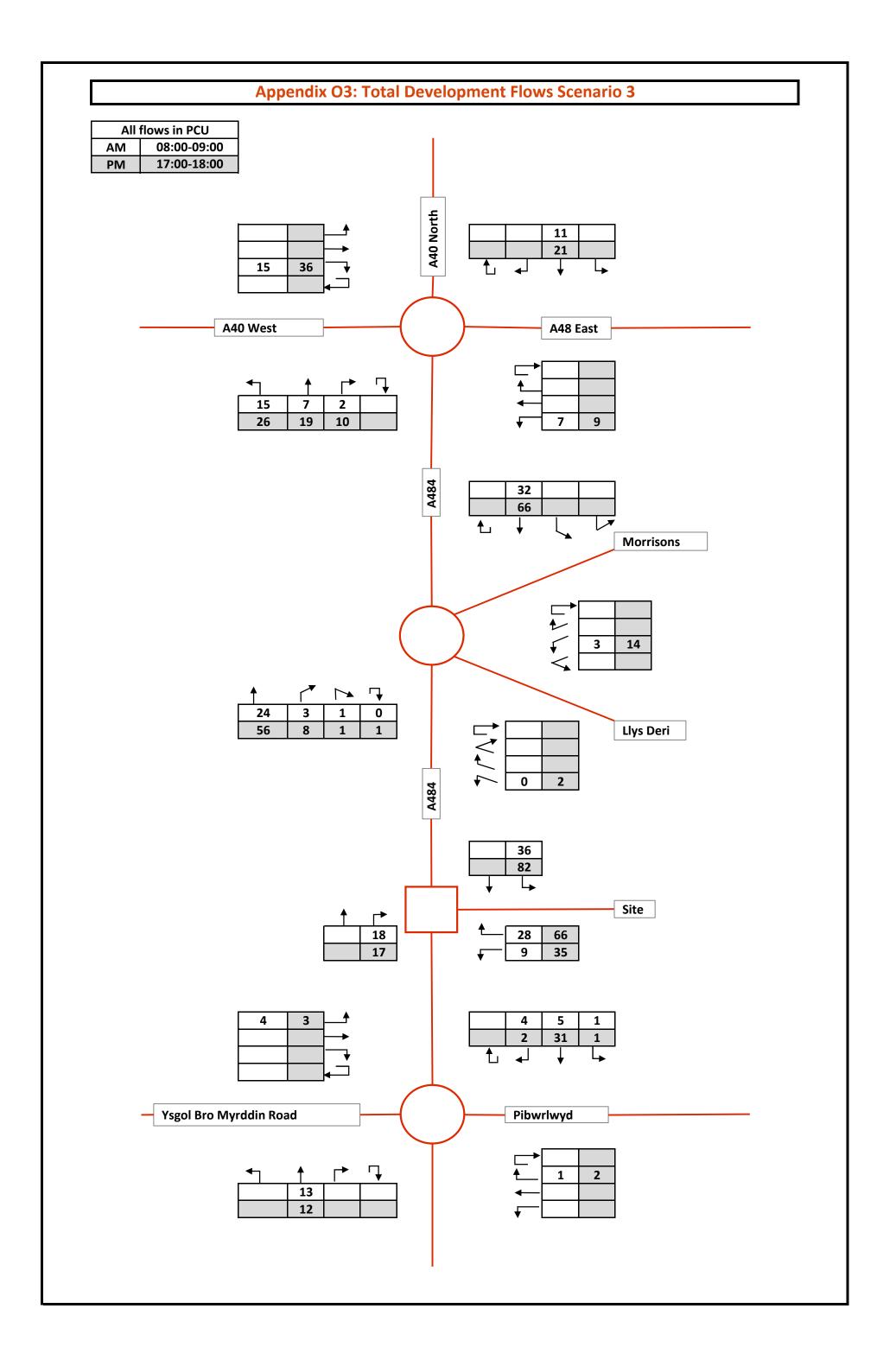


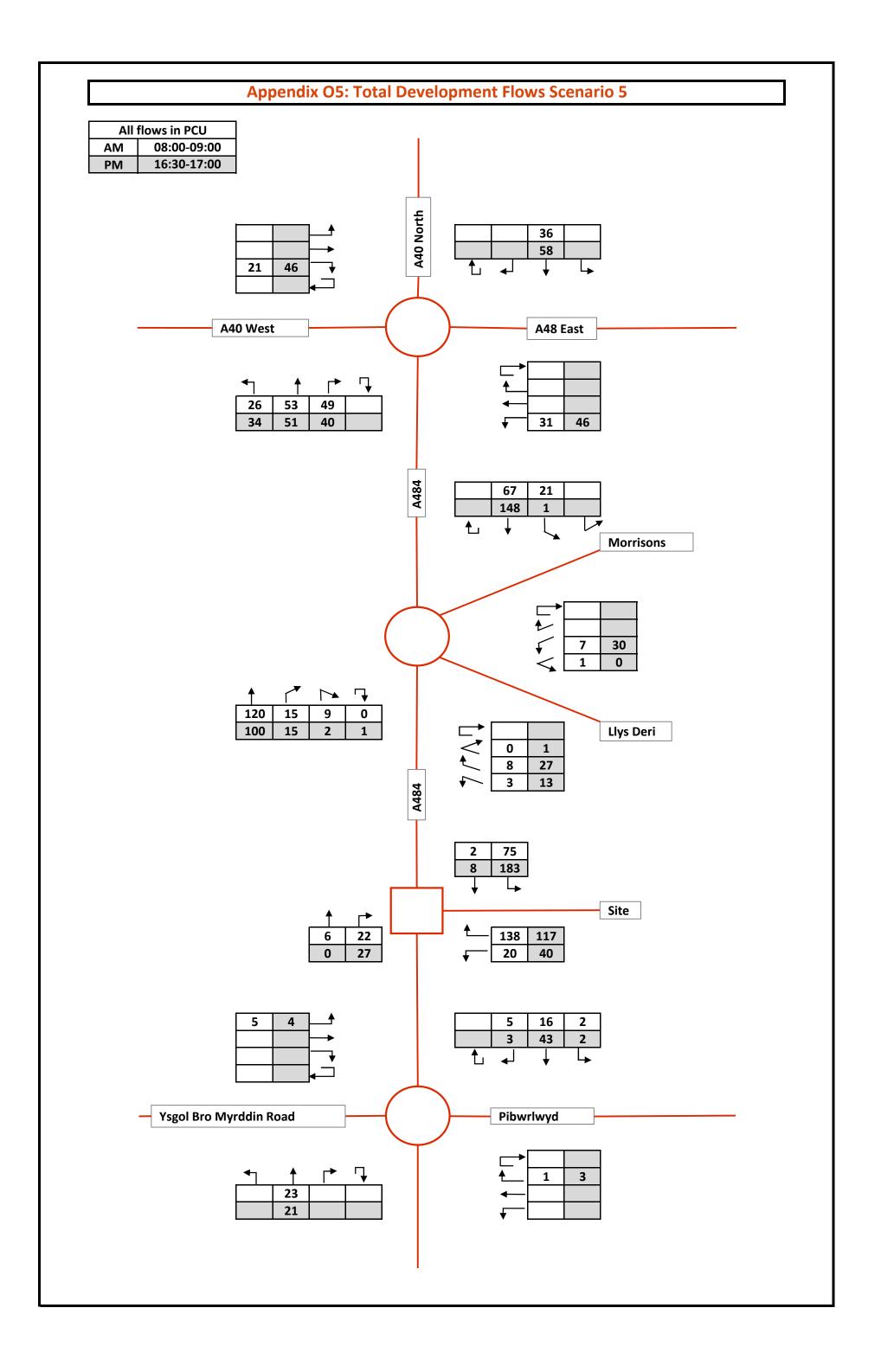


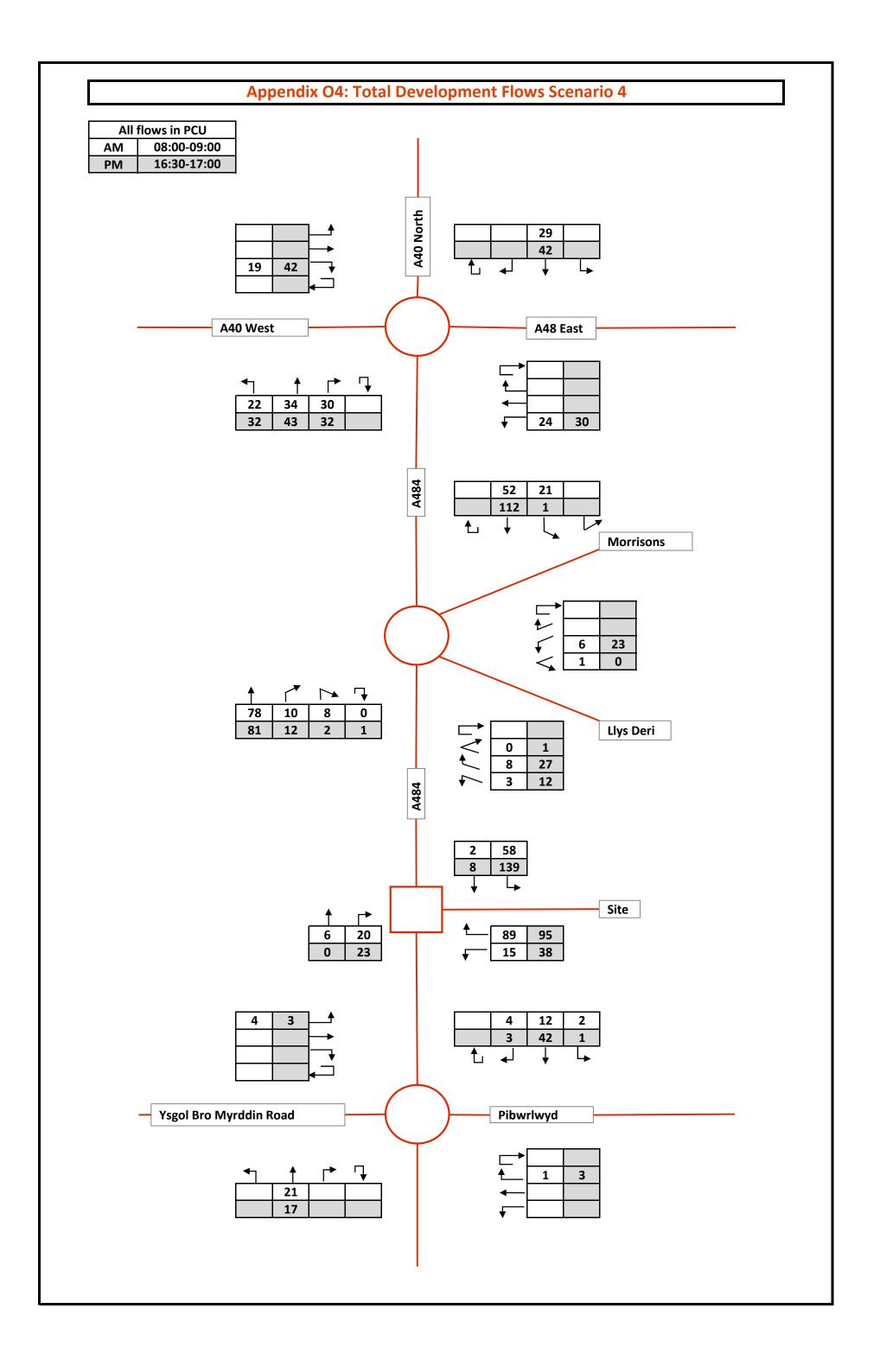
## Appendix O



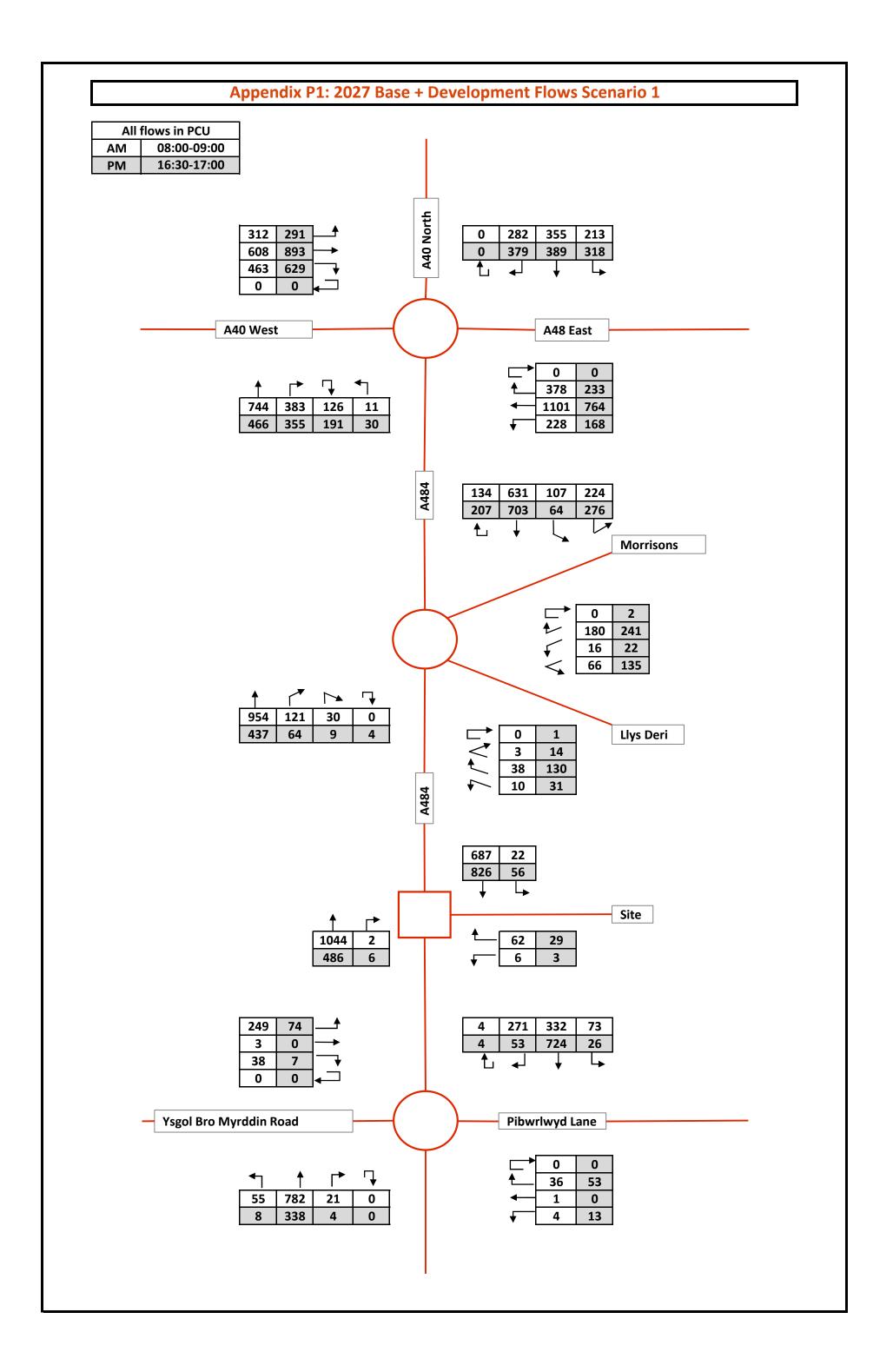


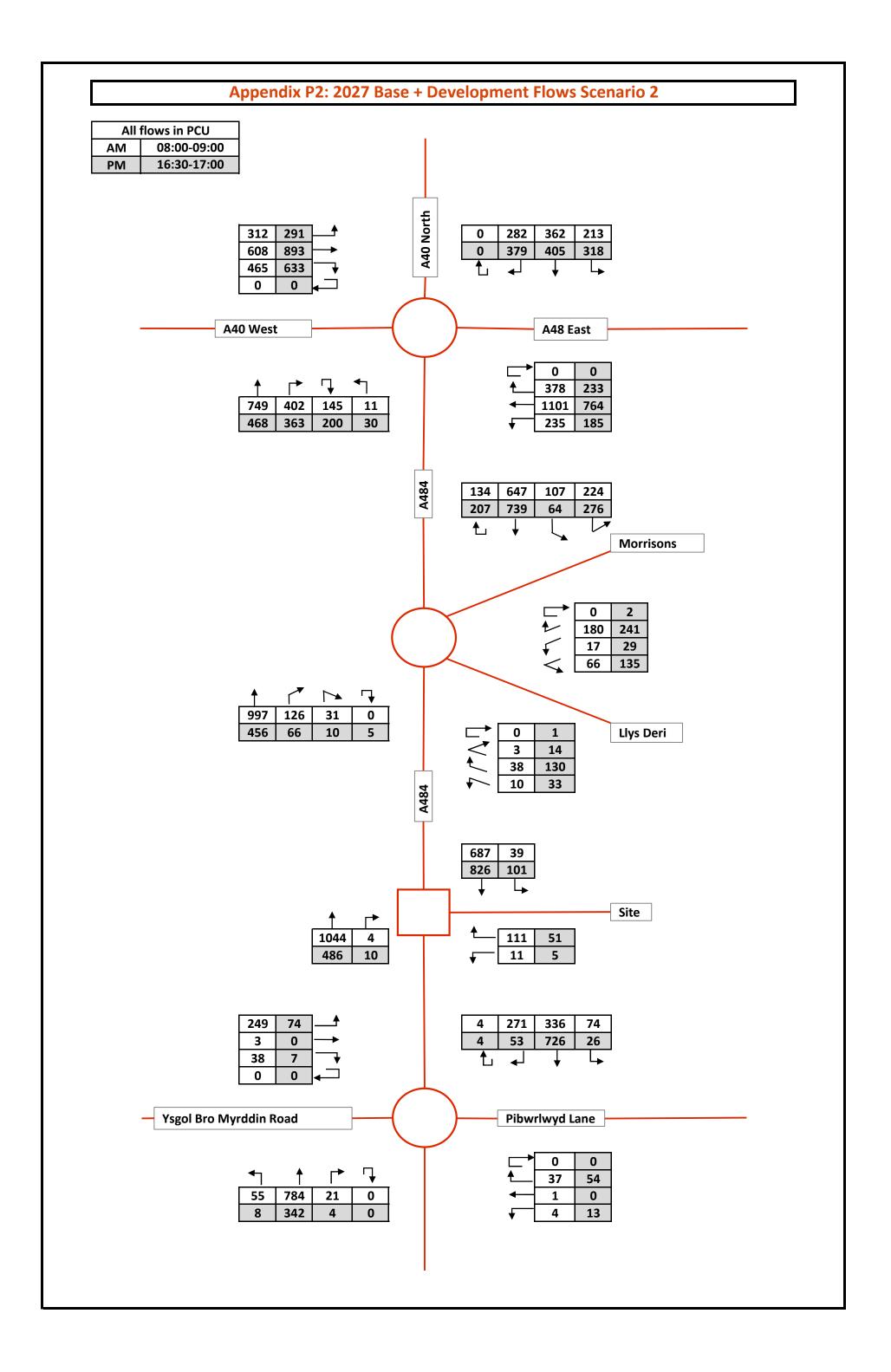


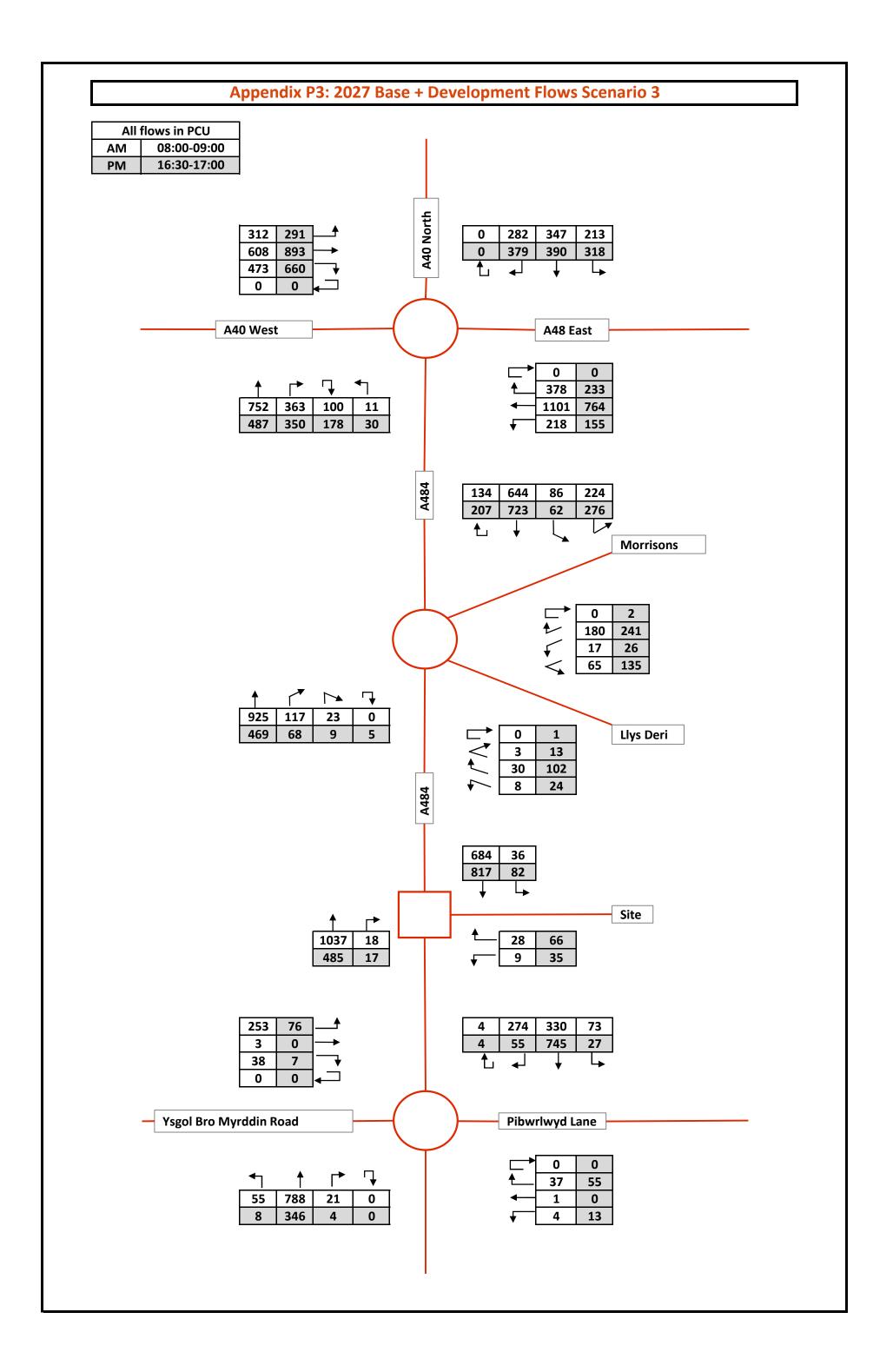


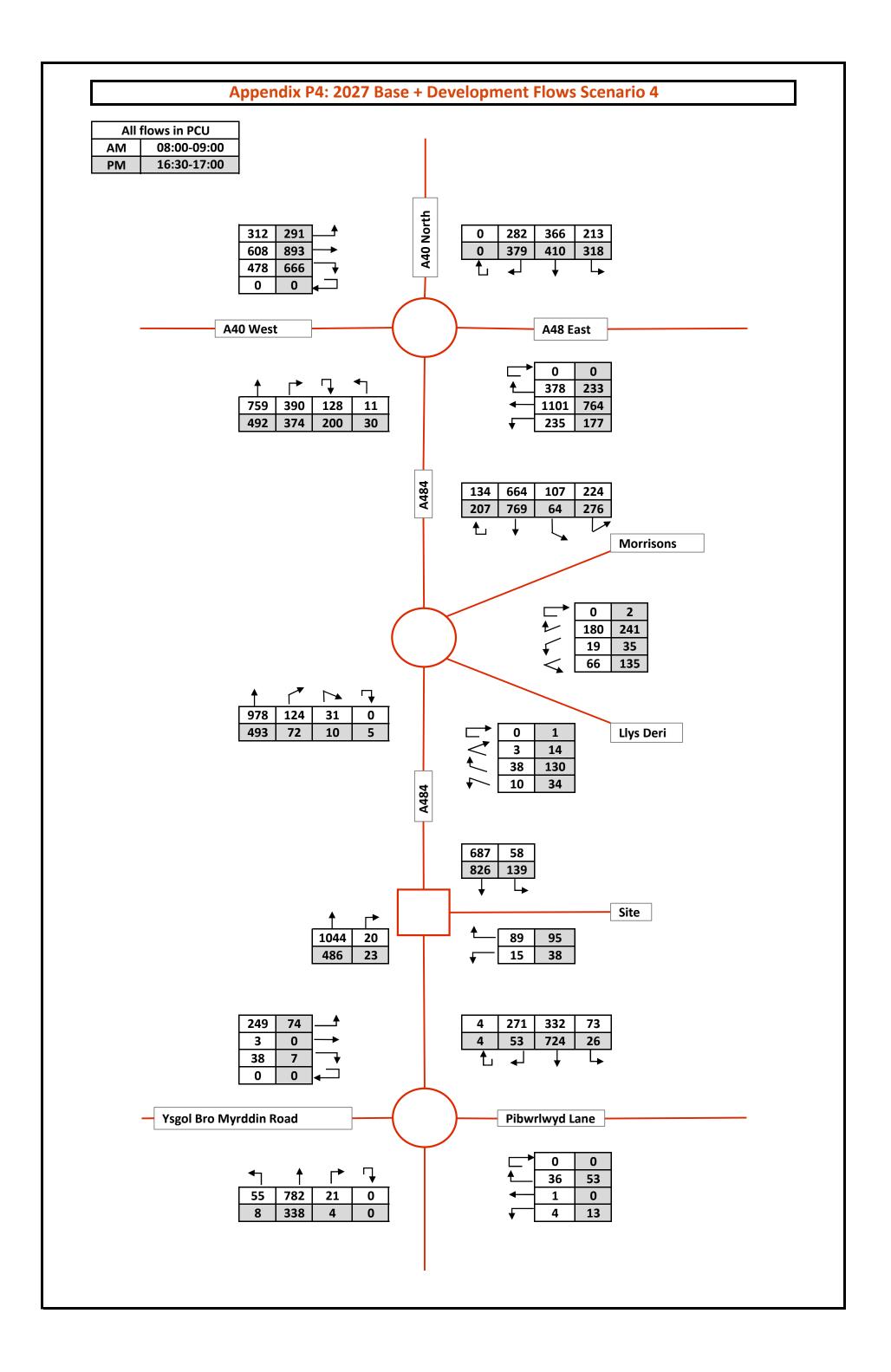


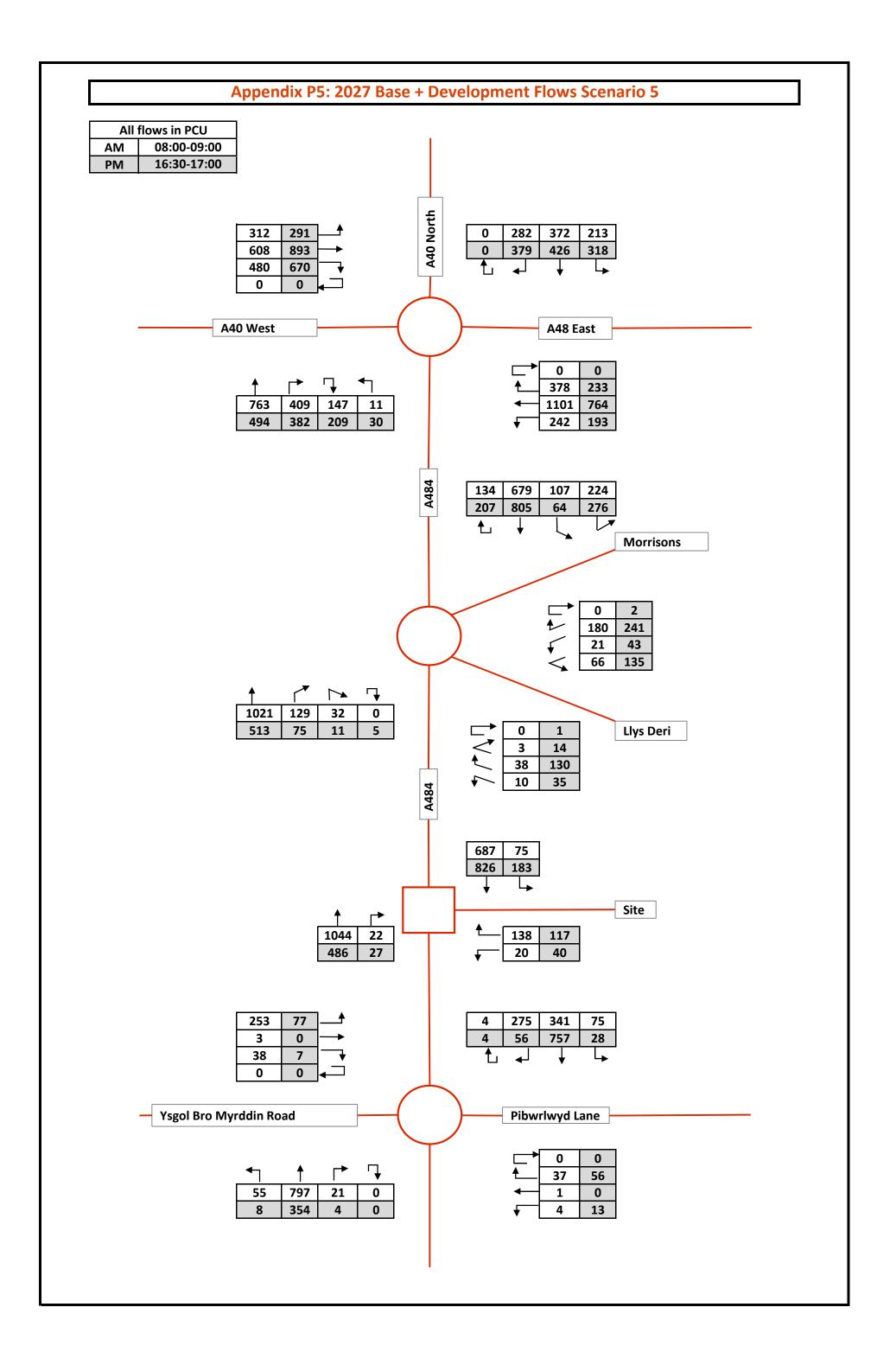
# Appendix P

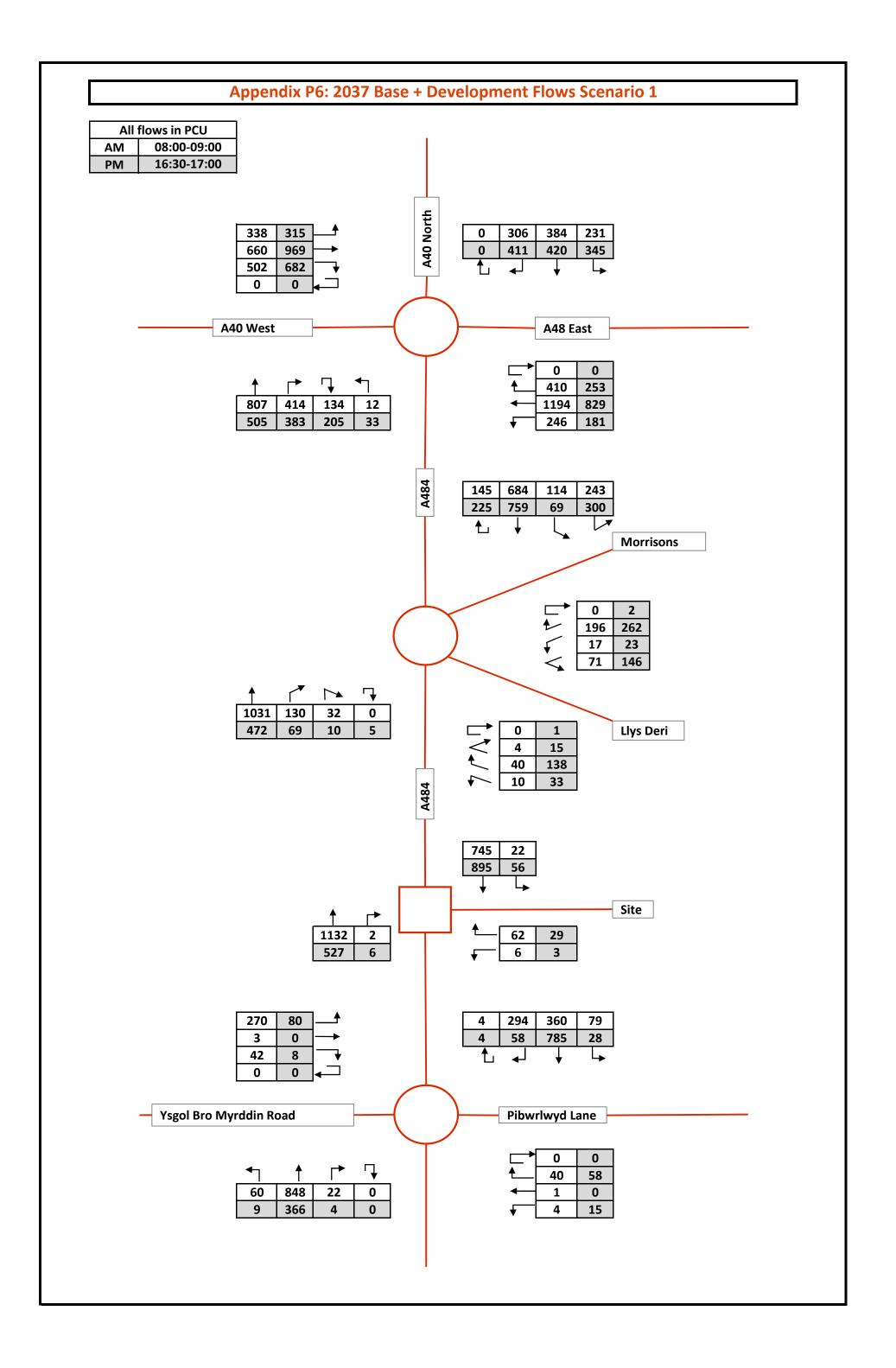


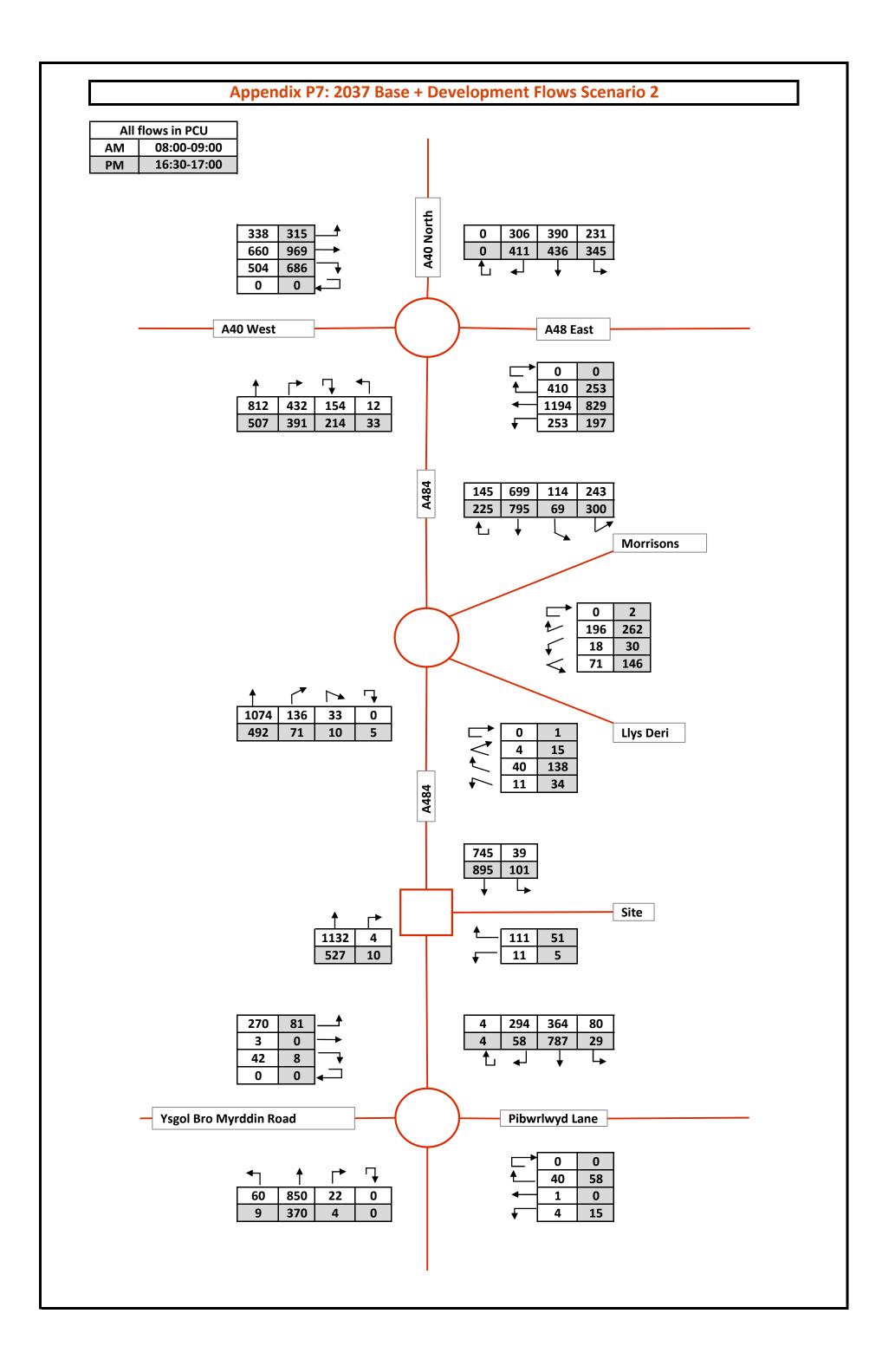


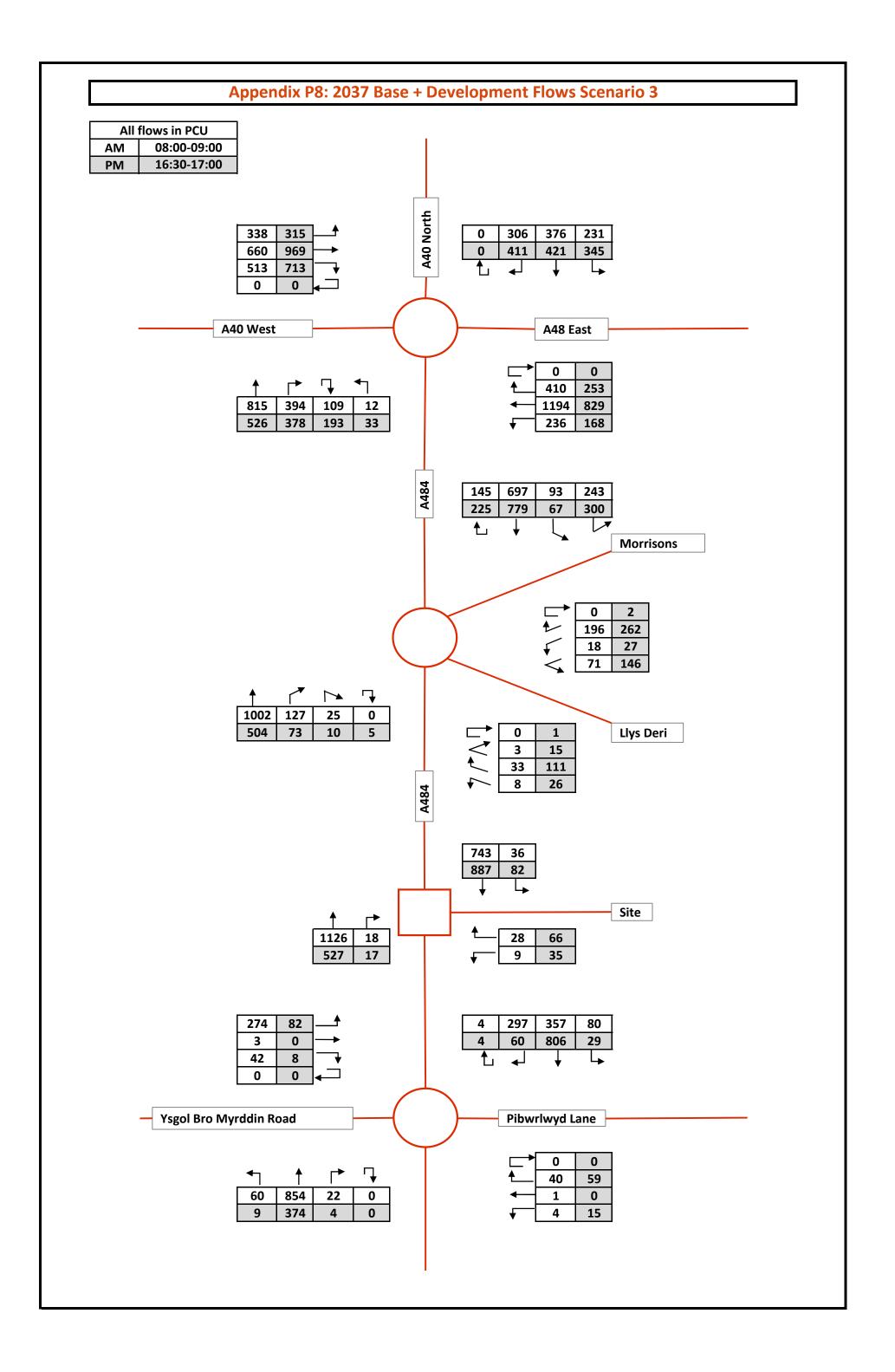


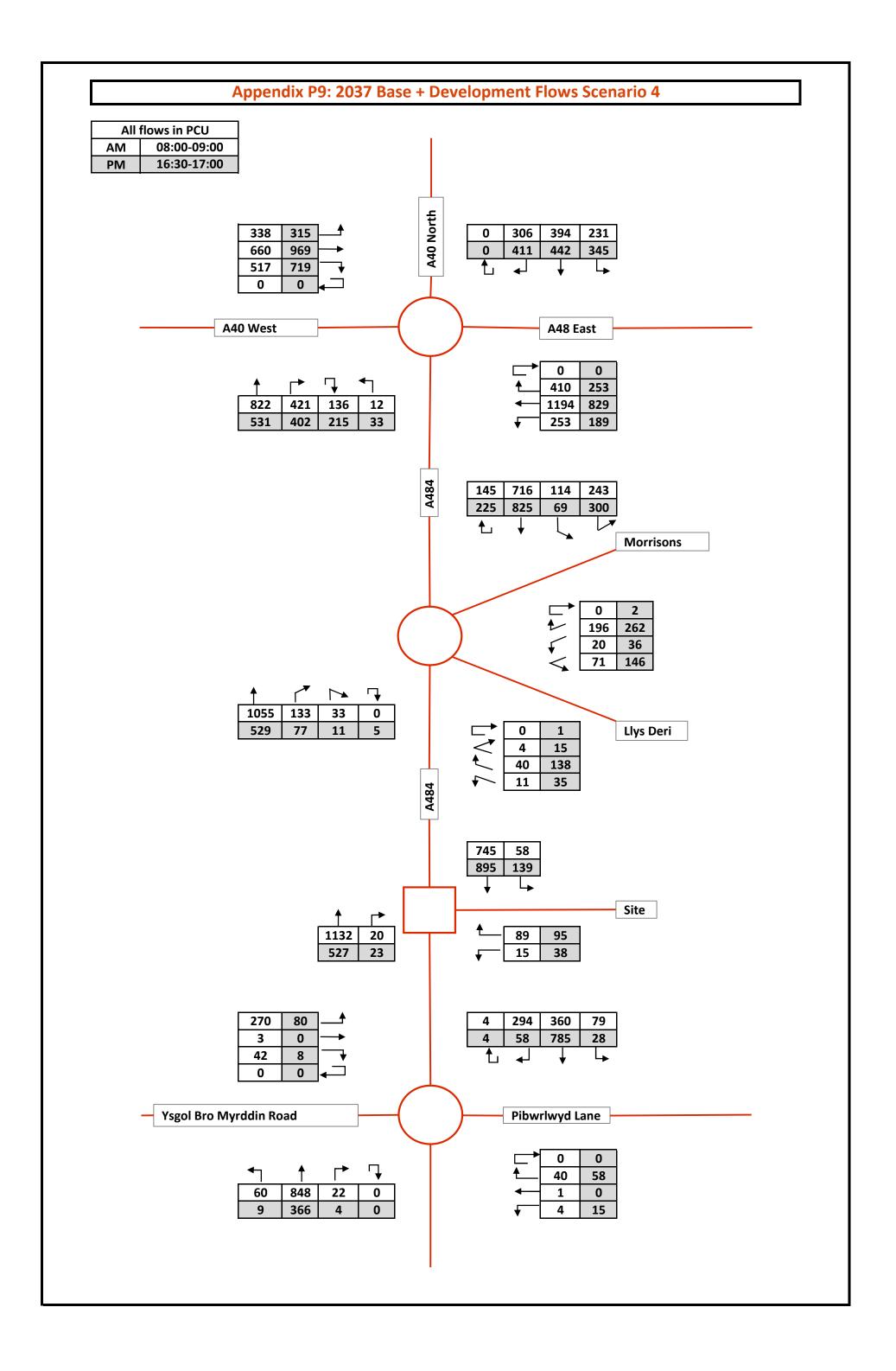


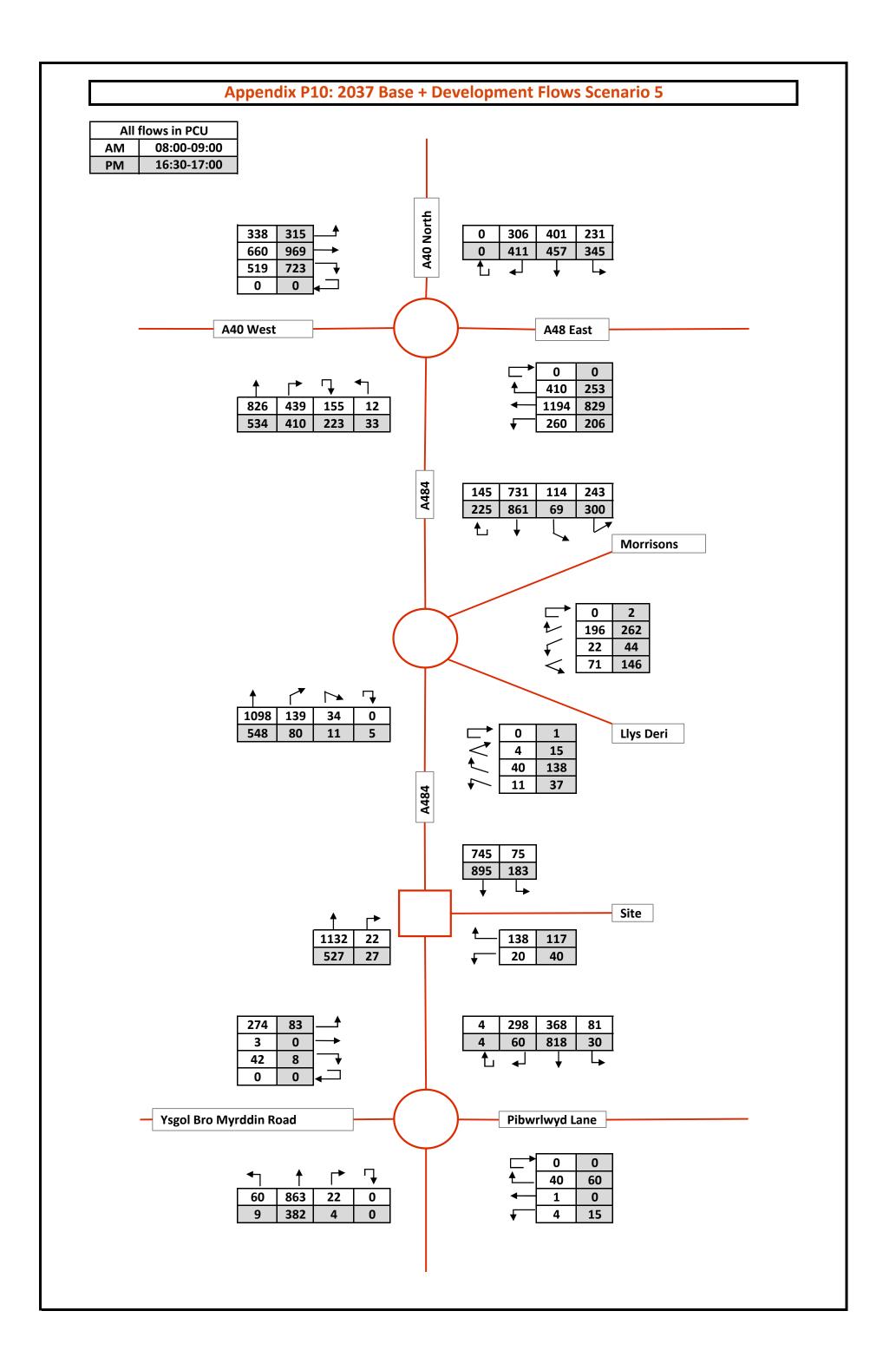












# Appendix Q



## **Junctions 9**

#### **PICADY 9 - Priority Intersection Module**

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Filename: Site access junction.j9

Path: K:\T23\Jobs\T23.107 Pibwrlwyd\Analysis\Modelling\JUNCTIONS9\PICADY

Report generation date: 27/04/2023 16:06:27

«2023, PM

**»Junction Network** 

»Arms

»Traffic Demand

»Origin-Destination Data

»Vehicle Mix

»Results



#### Summary of junction performance

		А	M				Р	М		
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					20	023				
Stream B-C		0.0	0.00	0.00	А		0.0	0.00	0.00	А
Stream B-A	D1	0.0	0.00	0.00	Α	D2	0.0	0.00	0.00	Α
Stream C-AB		0.0	0.00	0.00	Α		0.0	0.00	0.00	Α
					20	27				
Stream B-C		0.0	0.00	0.00	А		0.0	0.00	0.00	А
Stream B-A	D3	0.0	0.00	0.00	Α	D4	0.0	0.00	0.00	Α
Stream C-AB		0.0	0.00	0.00	Α		0.0	0.00	0.00	Α
					20	37				
Stream B-C		0.0	0.00	0.00	А		0.0	0.00	0.00	А
Stream B-A	D5	0.0	0.00	0.00	Α	D6	0.0	0.00	0.00	Α
Stream C-AB		0.0	0.00	0.00	Α		0.0	0.00	0.00	Α
				S	1 202	7 B+D				
Stream B-C		0.0	8.83	0.02	А	a	0.0	8.90	0.01	А
Stream B-A	D7	0.4	21.35	0.29	С	D8	0.1	13.38	0.10	В
Stream C-AB		0.0	3.37	0.01	Α		0.0	4.83	0.02	Α
				S	1 203	7 B+D				
Stream B-C		0.0	9.37	0.02	Α		0.0	9.32	0.01	А
Stream B-A	D9	0.5	26.98	0.34	D	D10	0.1	15.03	0.12	С
Stream C-AB		0.0	3.25	0.02	Α		0.0	4.75	0.02	Α
				S	5 202	7 B+D				
Stream B-C		0.1	15.38	0.09	С		0.1	11.58	0.12	В
Stream B-A	D11	2.1	52.32	0.69	F	D12	0.9	24.75	0.47	С
Stream C-AB		0.4	3.58	0.15	Α		0.2	5.10	0.10	Α
				S	5 203	7 B+D				
Stream B-C		0.2	34.82	0.18	D		0.2	12.92	0.14	В
Stream B-A	D13	3.7	95.79	0.83	F	D14	1.1	30.76	0.53	D
Stream C-AB		0.6	3.47	0.19	Α		0.3	5.02	0.11	А

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

#### File summary

#### **File Description**

Title	
Location	
Site number	
Date	12/04/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ATRANS\KatieWilliams
Description	

#### **Units**

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin





The junction diagram reflects the last run of Junctions.

#### **Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

#### **Analysis Set Details**

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)	
A1	✓	100.000	100.000	

#### **Demand Set Details**

10	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D	2023	PM	ONE HOUR	16:15	17:45	15	✓



## 2023, PM

#### **Data Errors and Warnings**

No errors or warnings

#### **Junction Network**

#### **Junctions**

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site access	T-Junction	Two-way		0.00	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

#### **Arms**

#### **Arms**

Arm	Name	Name Description	
Α	A484 North		Major
B Site access			Minor
С	A484 south		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A484 south	7.60			100.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

#### **Minor Arm Geometry**

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Site access	One lane plus flare	10.00	7.60	5.11	4.47	4.21		1.50	100	100

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	583	0.099	0.250	0.157	0.357
B-C	714	0.102	0.257	-	-
С-В	632	0.228	0.228	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## **Traffic Demand**

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00



#### **Demand overview (Traffic)**

Arm Linked arm		Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A484 North		ONE HOUR	✓	790	100.000
B - Site access		ONE HOUR	✓	0	100.000
C - A484 south		ONE HOUR	✓	469	100.000

### **Origin-Destination Data**

#### Demand (PCU/hr)

	То								
		A - A484 North	B - Site access	C - A484 south					
F	A - A484 North	0	0	790					
From	B - Site access	0	0	0					
	C - A484 south	469	0	0					

## Vehicle Mix

#### **Heavy Vehicle Percentages**

		То								
		A - A484 North	B - Site access	C - A484 south						
F	A - A484 North	0	0	2						
From	B - Site access	0	0	0						
	C - A484 south	2	0	0						

## Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.00	0.00	0.0	Α	0	0
B-A	0.00	0.00	0.0	А	0	0
C-AB	0.00	0.00	0.0	А	0	0
C-A					430	646
A-B					0	0
A-C					725	1087

#### Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	0	0	561	0.000	0	0.0	0.0	0.000	A
B-A	0	0	379	0.000	0	0.0	0.0	0.000	А
C-AB	0	0	496	0.000	0	0.0	0.0	0.000	A
C-A	353	88			353				
A-B	0	0			0				
A-C	595	149			595				



#### 16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	0	0	531	0.000	0	0.0	0.0	0.000	A
B-A	0	0	339	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	470	0.000	0	0.0	0.0	0.000	A
C-A	422	105			422				
A-B	0	0			0				
A-C	710	178			710				

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	0	0	490	0.000	0	0.0	0.0	0.000	А
B-A	0	0	285	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	434	0.000	0	0.0	0.0	0.000	A
C-A	516	129			516				
A-B	0	0			0				
A-C	870	217			870				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	0	0	490	0.000	0	0.0	0.0	0.000	А
B-A	0	0	285	0.000	0	0.0	0.0	0.000	А
C-AB	0	0	434	0.000	0	0.0	0.0	0.000	А
C-A	516	129			516				
A-B	0	0			0				
A-C	870	217			870				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	0	0	531	0.000	0	0.0	0.0	0.000	A
B-A	0	0	339	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	470	0.000	0	0.0	0.0	0.000	A
C-A	422	105			422				
A-B	0	0			0				
A-C	710	178			710				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	0	0	561	0.000	0	0.0	0.0	0.000	A
B-A	0	0	379	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	496	0.000	0	0.0	0.0	0.000	A
C-A	353	88			353				
A-B	0	0			0				
A-C	595	149			595				

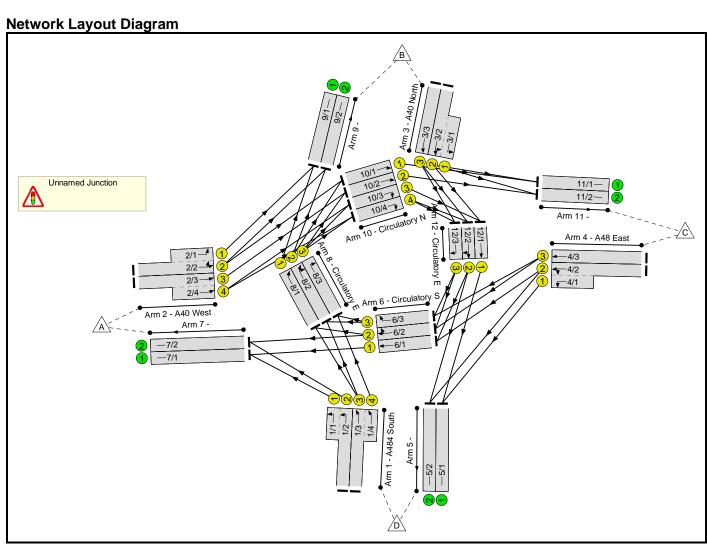
6

# Appendix R

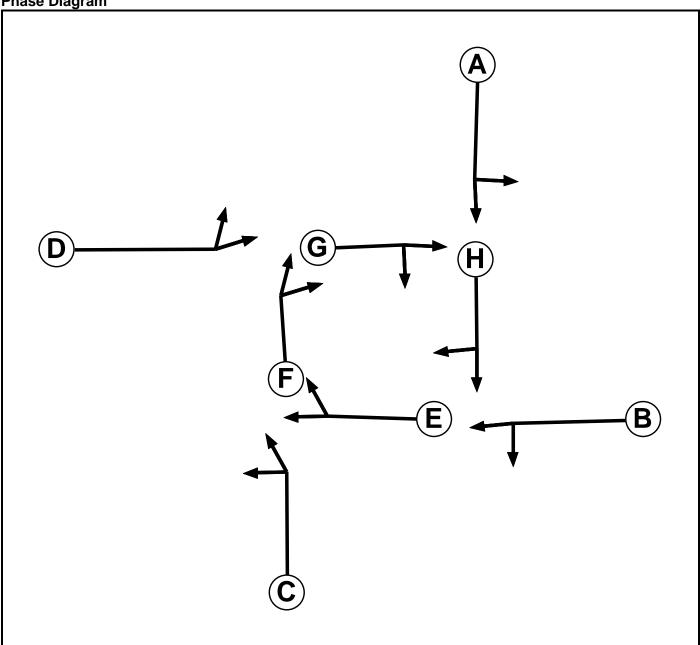
## Full Input Data And Results Full Input Data And Results

**User and Project Details** 

Project:	
Title:	
Location:	
Additional detail:	
File name:	Pensarn Linsig.lsg3x
Author:	
Company:	
Address:	



Phase Diagram



**Phase Input Data** 

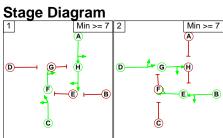
Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
А	Traffic		7	7
В	Traffic		7	7
С	Traffic		7	7
D	Traffic		7	7
Е	Traffic		7	7
F	Traffic		7	7
G	Traffic		7	7
Н	Traffic		7	7

**Phase Intergreens Matrix** 

riiase iiitei greens matrix									
	Starting Phase								
		Α	В	С	D	Е	F	G	Н
	Α		6	-	6	4	-	4	-
	В	6		6	-	-	4	-	4
	С	-	6		6	4	-	4	-
Terminating Phase	D	6	-	6		-	4	-	4
	Е	4	-	4	-		4	-	4
	F	-	4	-	4	4		-	1
	G	4	-	4	-	-	-		4
	Н	-	4	-	4	4	-	4	

Phases in Stage

<u> </u>	. Clage
Stage No.	Phases in Stage
1	ACFH
2	BDEG



**Phase Delays** 

Term. Stage	Start Stage	Phase	Туре	Value	Cont value
1	2	E	Gaining absolute	2	2
1	2	G	Gaining absolute	2	2
2	1	F	Gaining absolute	2	2
2	1	Н	Gaining absolute	2	2

**Prohibited Stage Change** 

	То	Sta	ge
From Stage		1	2
	1		6
	2	6	

#### Give-Way Lane Input Data

Junction: Unnamed Junction

There are no Opposed Lanes in this Junction

**Lane Input Data** 

Junction: Un		Junction	)									
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A484 South)	U	С	2	3	3.8	Geom	-	3.50	0.00	Υ	Arm 7 Left	90.00
1/2 (A484 South)	U	С	2	3	60.0	Geom	-	3.50	0.00	N	Arm 7 Left	90.00
1/3 (A484 South)	U	С	2	3	60.0	Geom	-	3.50	0.00	N	Arm 8 Ahead	Inf
1/4 (A484 South)	U	С	2	3	3.8	Geom	-	3.50	0.00	N	Arm 8 Ahead	Inf
2/1 (A40 West)	U	D	2	3	5.0	Geom	-	3.50	0.00	Y	Arm 9 Left	45.00
2/2 (A40 West)	U	D	2	3	60.0	Geom	-	3.50	0.00	N	Arm 9 Left Arm 10 Ahead	45.00 Inf
2/3 (A40 West)	U	D	2	3	60.0	Geom	-	3.50	0.00	N	Arm 10 Ahead	Inf
2/4 (A40 West)	U	D	2	3	5.0	Geom	-	3.50	0.00	N	Arm 10 Ahead	Inf
3/1 (A40 North)	U	Α	2	3	5.0	Geom	-	3.50	0.00	Υ	Arm 11 Left	35.00
3/2	U	Δ.	•	2	60.0	C		2.50	0.00	N	Arm 11 Left	40.00
(A40 North)	U	А	2	3	60.0	Geom	-	3.50	0.00	IN	Arm 12 Ahead	Inf
3/3 (A40 North)	U	Α	2	3	60.0	Geom	-	3.50	0.00	Ν	Arm 12 Ahead	Inf
4/1 (A48 East)	U	В	2	3	5.0	Geom	-	3.50	0.00	Y	Arm 5 Left	50.00
4/2	U	В	•	3	60.0	Geom		2.50	0.00	N	Arm 5 Left	55.00
(A48 East)		Б	2	3	60.0	Geom	-	3.50	0.00	N	Arm 6 Ahead	Inf
4/3 (A48 East)	U	В	2	3	60.0	Geom	-	3.50	0.00	N	Arm 6 Ahead	Inf
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Circulatory S)	U	E	2	3	5.0	Geom	-	3.50	0.00	Υ	Arm 7 Ahead	40.00
6/2 (Circulatory	U	E	2	3	6.0	Geom	-	3.25	0.00	Ν	Arm 7 Ahead	Inf
S)		_	_								Arm 8 Right	40.00

Full Input Dat	ta And	Results	ı		ı	ı				I.	İ	1
6/3 (Circulatory S)	U	E	2	3	6.0	Geom	-	3.25	0.00	N	Arm 8 Right	40.00
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Circulatory E)	U	F	2	3	5.0	Geom	-	3.25	0.00	Y	Arm 9 Ahead	40.00
8/2 (Circulatory	U	F	2	3	5.0	Geom		3.25	0.00	Y	Arm 9 Ahead	Inf
E)	U	Г	2	,	5.0	Geom	-	3.23	0.00	r	Arm 10 Right	40.00
8/3 (Circulatory E)	U	F	2	3	5.0	Geom	-	3.25	0.00	N	Arm 10 Right	40.00
9/1	C		2	3	60.0	Inf	-	-	-	-	-	-
9/2	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1 (Circulatory N)	υ	G	2	3	10.0	Geom	-	3.25	0.00	Y	Arm 11 Ahead	Inf
10/2 (Circulatory N)	U	G	2	3	9.0	Geom	-	3.25	0.00	N	Arm 11 Ahead	Inf
10/3 (Circulatory N)	U	G	2	3	7.0	Geom	-	3.25	0.00	N	Arm 12 Right	40.00
10/4 (Circulatory N)	U	G	2	3	7.0	Geom	-	3.25	0.00	N	Arm 12 Right	40.00
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (Circulatory E)	υ	Н	2	3	5.0	Geom	-	3.25	0.00	Y	Arm 5 Ahead	Inf
12/2 (Circulatory	U	Н	2	3	5.0	Geom	-	3.25	0.00	N	Arm 5 Ahead	Inf
E)											Arm 6 Right	40.00
12/3 (Circulatory E)	U	Н	2	3	5.0	Geom	-	3.25	0.00	N	Arm 6 Right	40.00

**Traffic Flow Groups** 

Flow Group	Start Time	End Time	Duration	Formula
1: '2023 AM'	08:00	09:00	01:00	
2: '2023 PM'	16:30	17:30	01:00	
3: '2027 AM'	08:00	09:00	01:00	
4: '2027 PM'	16:30	17:30	01:00	
5: '2037 AM'	08:00	09:00	01:00	
6: '2037 PM'	16:30	17:30	01:00	
7: 'S1 2027 AM + D'	08:00	09:00	01:00	
8: 'S1 2027 PM + D'	16:30	17:30	01:00	
9: 'S1 2037 AM + D'	08:00	09:00	01:00	
10: 'S1 2037 PM + D'	16:30	17:30	01:00	
11: 'S5 2027 AM + D'	08:00	09:00	01:00	
12: 'S5 2027 PM + D'	16:30	17:30	01:00	
13: 'S5 2037 AM + D'	08:00	09:00	01:00	
14: 'S5 2037 PM + D'	16:30	17:30	01:00	

Scenario 1: '2023 AM' (FG1: '2023 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired Desired Flow:

	Destination										
		A B C		D	Tot.						
	Α	0	301	587	443	1331					
Origin	В	272	0	206	325	803					
Oligili	С	1063	365	0	204	1632					
	D	712	344	95	11	1162					
	Tot.	2047	1010	888	983	4928					

Traffic Lan	Traffic Lane Flows							
Lane	Scenario 1: 2023 AM							
Junction: Un	named Junction							
1/1 (short)	329							
1/2 (with short)	712(In) 383(Out)							
1/3 (with short)	450(In) 344(Out)							
1/4 (short)	106							
2/1 (short)	289							
2/2 (with short)	632(In) 343(Out)							
2/3 (with short)	699(In) 256(Out)							
2/4 (short)	443							
3/1 (short)	199							
3/2 (with short)	463(In) 264(Out)							
3/3	340							
4/1 (short)	204							
4/2 (with short)	843(In) 639(Out)							
4/3	789							
5/1	638							
5/2	345							
6/1	687							
6/2	718							
6/3	295							
7/1	1016							
7/2	1031							
8/1	362							
8/2	347							
8/3	106							
9/1	651							
9/2	359							
10/1	331							
10/2	351							
10/3	177							
10/4	277							
11/1	530							
11/2	358							
12/1	434							
12/2	393							

Full Input	Data	And	Results
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#### **Lane Saturation Flows**

	Lane		Nooroida	Allewed	Turning	Turmina	Sot Flam	Flored Set Flore
Lane	Width (m)	Gradient	Nearside Lane	Allowed Turns	Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902
2/2	3.50	0.00	N	Arm 9 Left	45.00	3.5 %	2103	2103
(A40 West)	0.00	0.00	.,	Arm 10 Ahead	Inf	96.5 %	2100	2100
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
3/1 (A40 North)	3.50	0.00	Υ	Arm 11 Left	35.00	100.0 %	1884	1884
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	2.7 % 97.3 %	2103	2103
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left Arm 6 Ahead	55.00 Inf	0.0 %	2105	2105
4/3 (A48 East)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
5/1			Infinite S	Saturation Flow			Inf	Inf
5/2			Infinite S	Saturation Flow			Inf	Inf
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	90.3 %	2072	2072
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Circulatory E)	3.25	0.00	Υ	Arm 9 Ahead	40.00	100.0 %	1870	1870
8/2 (Circulatory E)	3.25	0.00	Υ	Arm 9 Ahead Arm 10 Right	Inf 40.00	100.0 %	1940	1940

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Υ	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1			Infinite S	Saturation Flow			Inf	Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	0.05	0.00	NI	Arm 5 Ahead	Inf	87.8 %		2074
(Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	12.2 %	2071	2071
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 2: '2023 PM' (FG2: '2023 PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

	Destination									
		Α	В	С	D	Tot.				
	Α	0	281	863	603	1747				
Origin	В	366	0	307	356	1029				
Origin	С	738	225	0	142	1105				
	D	445 320		163	29	957				
	Tot.	1549	826	1333	1130	4838				

Traffic Lane Flows								
Lane	Scenario 2: 2023 PM							
Junction: Un	named Junction							
1/1 (short)	215							
1/2 (with short)	445(In) 230(Out)							
1/3 (with short)	512(In) 336(Out)							
1/4 (short)	176							
2/1 (short)	280							
2/2 (with short)	827(In) 547(Out)							
2/3 (with short)	920(In) 317(Out)							
2/4 (short)	603							
3/1 (short)	269							
3/2 (with short)	576(In) 307(Out)							
3/3	453							
4/1 (short)	142							
4/2 (with short)	640(In) 498(Out)							
4/3	465							
5/1	672							
5/2	458							
6/1	563							
6/2	607							
6/3	159							
7/1	778							
7/2	771							
8/1	270							
8/2	291							
8/3	176							
9/1	550							
9/2	276							
10/1	562							
10/2	464							
10/3	261							
10/4	371							
11/1	831							
11/2	502							
12/1	530							
12/2	523							

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#### **Lane Saturation Flows**

Junction: Unnamed Junction										
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)		
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933		
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070		
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105		
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105		
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902		
2/2 (A40 West)	3.50	0.00	N	Arm 9 Left Arm 10 Ahead	45.00 Inf	0.2 % 99.8 %	2105	2105		
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105		
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105		
3/1 (A40 North)	3.50	0.00	Y	Arm 11 Left	35.00	100.0 %	1884	1884		
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	12.4 % 87.6 %	2095	2095		
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105		
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908		
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left	55.00	0.0 %	2105	2105		
4/3	0.50		N.	Arm 6 Ahead	Inf	100.0 %	0405	0405		
(A48 East)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105		
5/1				Saturation Flow			Inf	Inf		
5/2			Infinite S	Saturation Flow			Inf	Inf		
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894		
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	89.1 %	2072	2072		
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005		
7/1	Infinite Saturation Flow							Inf		
7/2			Infinite S	Saturation Flow			Inf	Inf		
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870		
8/2 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead Arm 10 Right	Inf 40.00	94.5 %	1936	1936		
				, will to ragilt	+0.00	0.0 /0				

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1			Infinite S	Saturation Flow			Inf	Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	0.05	0.00	N	Arm 5 Ahead	Inf	87.6 %	2070	
(Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	12.4 %		2070
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 3: '2027 AM' (FG3: '2027 AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

	Destination									
		АВ		С	D	Tot.				
	Α	0	312	608	459	1379				
Origin	В	282 0		213	336	831				
Oligili	С	1101	378	0	211	1690				
	D	737	737 356		11	1202				
	Tot.	2120	1046	919	1017	5102				

Traffic Lane Flows								
Lane	Scenario 3: 2027 AM							
Junction: Un	named Junction							
1/1 (short)	338							
1/2 (with short)	737(In) 399(Out)							
1/3 (with short)	465(In) 356(Out)							
1/4 (short)	109							
2/1 (short)	303							
2/2 (with short)	661(In) 358(Out)							
2/3 (with short)	718(In) 259(Out)							
2/4 (short)	459							
3/1 (short)	205							
3/2 (with short)	479(In) 274(Out)							
3/3	352							
4/1 (short)	211							
4/2 (with short)	871(In) 660(Out)							
4/3	819							
5/1	659							
5/2	358							
6/1	707							
6/2	741							
6/3	313							
7/1	1045							
7/2	1075							
8/1	376							
8/2	358							
8/3	109							
9/1	679							
9/2	367							
10/1	349							
10/2	357							
10/3	182							
10/4	288							
11/1	554							
11/2	365							
12/1	448							
12/2	405							

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#### **Lane Saturation Flows**

Junction: Unnamed Junction										
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)		
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933		
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070		
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105		
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105		
2/1 (A40 West)	3.50	0.00	Υ	Arm 9 Left	45.00	100.0 %	1902	1902		
2/2	0.50			Arm 9 Left	45.00	2.5 %	0400	0.400		
(A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	97.5 %	2103	2103		
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105		
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105		
3/1 (A40 North)	3.50	0.00	Υ	Arm 11 Left	35.00	100.0 %	1884	1884		
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	2.9 % 97.1 %	2103	2103		
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105		
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908		
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left Arm 6 Ahead	55.00 Inf	0.0 %	2105	2105		
4/3 (A48 East)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105		
5/1			Infinite S	Saturation Flow			Inf	Inf		
5/2			Infinite S	Saturation Flow			Inf	Inf		
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894		
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	91.2 %	2073	2073		
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005		
7/1	Infinite Saturation Flow							Inf		
7/2			Infinite S	Saturation Flow			Inf	Inf		
8/1 (Circulatory E)	3.25	0.00	Υ	Arm 9 Ahead	40.00	100.0 %	1870	1870		
8/2 (Circulatory E)	3.25	0.00	Υ	Arm 9 Ahead Arm 10 Right	Inf 40.00	100.0 %	1940	1940		

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1			Infinite S	Saturation Flow			Inf	Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	0.05	0.00	NI	Arm 5 Ahead	Inf	88.4 %	2071	
(Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	11.6 %		2071
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 4: '2027 PM' (FG4: '2027 PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

	Destination									
		АВ		С	D	Tot.				
	Α	0	291	893	624	1808				
Origin	В	379	0	318	368	1065				
Origin	С	764	233	0	147	1144				
	D	460 331		169	30	990				
	Tot.	1603	855	1380	1169	5007				

Traffic Lane Flows						
Lane	Scenario 4: 2027 PM					
Junction: Un	named Junction					
1/1 (short)	222					
1/2 (with short)	460(In) 238(Out)					
1/3 (with short)	530(In) 348(Out)					
1/4 (short)	182					
2/1 (short)	290					
2/2 (with short)	860(In) 570(Out)					
2/3 (with short)	948(In) 324(Out)					
2/4 (short)	624					
3/1 (short)	273					
3/2 (with short)	593(In) 320(Out)					
3/3	472					
4/1 (short)	147					
4/2 (with short)	668(In) 521(Out)					
4/3	476					
5/1	688					
5/2	481					
6/1	581					
6/2	626					
6/3	169					
7/1	803					
7/2	800					
8/1	285					
8/2	296					
8/3	182					
9/1	575					
9/2	280					
10/1	586					
10/2	476					
10/3	266					
10/4	388					
11/1	859					
11/2	521					
12/1	541					
12/2	541					

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#### **Lane Saturation Flows**

	Lane		Nooroida	Allowed	Turning	Turning	Sat Flan	Flored Set Flore
Lane	Width (m)	Gradient	Nearside Lane	Allowed Turns	Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A484 South)	3.50	0.00	Υ	Arm 7 Left	90.00	100.0 %	1933	1933
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902
2/2	3.50	0.00	N	Arm 9 Left	45.00	0.2 %	2105	2105
(A40 West)	3.30	0.00	IN	Arm 10 Ahead	Inf	99.8 %	2103	2103
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
3/1 (A40 North)	3.50	0.00	Υ	Arm 11 Left	35.00	100.0 %	1884	1884
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	14.1 % 85.9 %	2094	2094
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left Arm 6 Ahead	55.00 Inf	0.0 %	2105	2105
4/3 (A48 East)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
5/1			Infinite S	Saturation Flow			Inf	Inf
5/2			Infinite S	Saturation Flow			Inf	Inf
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	89.8 %	2072	2072
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow					Inf	Inf	
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870
8/2 (Circulatory E)	3.25	0.00	Υ	Arm 9 Ahead Arm 10 Right	Inf 40.00	94.3 %	1936	1936

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1	Infinite Saturation Flow						Inf	Inf
9/2	Infinite Saturation Flow					Inf	Inf	
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1	Infinite Saturation Flow					Inf	Inf	
11/2	Infinite Saturation Flow					Inf	Inf	
12/1 (Circulatory E)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	2.25	0.00	NI	Arm 5 Ahead	Inf	88.9 %	2071	2071
(Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	11.1 %	2071	2071
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 5: '2037 AM' (FG5: '2037 AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

	Destination							
		Α	В	С	D	Tot.		
	Α	0	338	660	498	1496		
Origin	В	306	0	231	365	902		
Origin	С	1194	410	0	229	1833		
	D	800	387	107	12	1306		
	Tot.	2300	1135	998	1104	5537		

Traffic Lane Flows						
Lane	Scenario 5: 2037 AM					
Junction: Un	named Junction					
1/1 (short)	357					
1/2 (with short)	800(In) 443(Out)					
1/3 (with short)	506(In) 387(Out)					
1/4 (short)	119					
2/1 (short)	331					
2/2 (with short)	730(In) 399(Out)					
2/3 (with short)	766(In) 268(Out)					
2/4 (short)	498					
3/1 (short)	222					
3/2 (with short)	511(In) 289(Out)					
3/3	391					
4/1 (short)	222					
4/2 (with short)	941(In) 719(Out)					
4/3	892					
5/1	704					
5/2	400					
6/1	765					
6/2	808					
6/3	337					
7/1	1122					
7/2	1178					
8/1	405					
8/2	392					
8/3	119					
9/1	736					
9/2	399					
10/1	392					
10/2	375					
10/3	202					
10/4	308					
11/1	614					
11/2	384					
12/1	482					
12/2	446					

Full Input Data And Resu	lts
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#### **Lane Saturation Flows**

	_ane Saturation Flows Junction: Unnamed Junction							
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902
2/2	3.50	0.00	N	Arm 9 Left	45.00	1.8 %	2104	2104
(A40 West)	0.00	0.00	14	Arm 10 Ahead	Inf	98.2 %	2104	
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
3/1 (A40 North)	3.50	0.00	Y	Arm 11 Left	35.00	100.0 %	1884	1884
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	3.1 % 96.9 %	2103	2103
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908
4/2	3.50	0.00	N	Arm 5 Left	55.00	1.0 %	2104	2104
(A48 East)	0.00	0.00		Arm 6 Ahead	Inf	99.0 %		
4/3 (A48 East)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
5/1			Infinite S	Saturation Flow			Inf	Inf
5/2			Infinite S	Saturation Flow			Inf	Inf
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	91.0 %	2073	2073
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow					Inf	Inf	
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870
8/2 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead Arm 10 Right	Inf 40.00	100.0 %	1940	1940

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1			Infinite S	Saturation Flow			Inf	Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	0.05	0.00	NI	Arm 5 Ahead	Inf	88.1 %	2071	2074
(Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	11.9 %		2071
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 6: '2037 PM' (FG6: '2037 PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

	Destination									
		Α	В	С	D	Tot.				
	Α	0	315	969	677	1961				
Origin	В	411	0	345	400	1156				
Oligili	С	829	253	0	159	1241				
	D	500 359		183	33	1075				
	Tot.	1740	927	1497	1269	5433				

Traffic Lan	e Flows
Lane	Scenario 6: 2037 PM
Junction: Un	named Junction
1/1 (short)	241
1/2 (with short)	500(In) 259(Out)
1/3 (with short)	575(In) 375(Out)
1/4 (short)	200
2/1 (short)	307
2/2 (with short)	944(In) 637(Out)
2/3 (with short)	1017(In) 340(Out)
2/4 (short)	677
3/1 (short)	295
3/2 (with short)	645(In) 350(Out)
3/3	511
4/1 (short)	159
4/2 (with short)	737(In) 578(Out)
4/3	504
5/1	735
5/2	534
6/1	624
6/2	677
6/3	192
7/1	865
7/2	875
8/1	311
8/2	317
8/3	200
9/1	618
9/2	309
10/1	645
10/2	507
10/3	276
10/4	434
11/1	940
11/2	557
12/1	576
12/2	580

12/3

365

Junction: Unnamed Junction											
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)			
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933			
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070			
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105			
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105			
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902			
2/2	0.50			Arm 9 Left	45.00	1.3 %	0404	0404			
(A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	98.7 %	2104	2104			
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105			
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105			
3/1 (A40 North)	3.50	0.00	Y	Arm 11 Left	35.00	100.0 %	1884	1884			
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	14.3 % 85.7 %	2094	2094			
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105			
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908			
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left Arm 6 Ahead	55.00 Inf	0.0 %	2105	2105			
4/3 (A48 East)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105			
5/1			Infinite S	Saturation Flow			Inf	Inf			
5/2			Infinite S	Saturation Flow			Inf	Inf			
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894			
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	91.0 %	2073	2073			
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005			
7/1	Infinite Saturation Flow Inf										
7/2			Infinite S	Saturation Flow			Inf	Inf			
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870			
8/2 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead Arm 10 Right	Inf 40.00	95.0 % 5.0 %	1936	1936			

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005	
9/1			Infinite S	Saturation Flow			Inf	Inf	
9/2			Infinite S	Saturation Flow			Inf	Inf	
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940	
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080	
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005	
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005	
11/1			Infinite S	Saturation Flow			Inf	Inf	
11/2			Infinite S	Saturation Flow			Inf	Inf	
12/1 (Circulatory E)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940	
12/2	2.25	0.00	N	Arm 5 Ahead	Inf	92.1 %	2074	2074	
(Circulatory E)	3.25	0.00	IN	Arm 6 Right	40.00	7.9 %	2014	2074	
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005	

Scenario 7: 'S1 2027 AM B+D' (FG7: 'S1 2027 AM + D', Plan 1: 'Network Control Plan 1') Traffic Flows, Desired Desired Flow:

	Destination										
		Α	В	С	D	Tot.					
	Α	0	312	608	463	1383					
Origin	В	282	0	213	355	850					
Origin	С	1101	378	0	228	1707					
	D	744 383		126	11	1264					
	Tot.	2127	1073	947	1057	5204					

Traffic Lan	e Flows
Lane	Scenario 7: S1 2027 AM B+D
Junction: Un	named Junction
1/1 (short)	340
1/2 (with short)	744(In) 404(Out)
1/3 (with short)	520(In) 384(Out)
1/4 (short)	136
2/1 (short)	305
2/2 (with short)	666(In) 361(Out)
2/3 (with short)	717(In) 254(Out)
2/4 (short)	463
3/1 (short)	208
3/2 (with short)	489(In) 281(Out)
3/3	361
4/1 (short)	228
4/2 (with short)	885(In) 657(Out)
4/3	822
5/1	687
5/2	370
6/1	702
6/2	742
6/3	317
7/1	1042
7/2	1085
8/1	392
8/2	370
8/3	136
9/1	697
9/2	376
10/1	355
10/2	379
10/3	183
10/4	291
11/1	563
11/2	384
12/1	459

12/2	415
12/3	237

Junction: Unnamed Junction											
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)			
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933			
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070			
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105			
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105			
2/1 (A40 West)	3.50	0.00	Υ	Arm 9 Left	45.00	100.0 %	1902	1902			
2/2	0.50	0.00		Arm 9 Left	45.00	1.9 %	0404	0404			
(A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	98.1 %	2104	2104			
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105			
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105			
3/1 (A40 North)	3.50	0.00	Υ	Arm 11 Left	35.00	100.0 %	1884	1884			
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	1.8 % 98.2 %	2104	2104			
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105			
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908			
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left Arm 6 Ahead	55.00 Inf	0.0 %	2105	2105			
4/3 (A48 East)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105			
5/1			Infinite S	Saturation Flow			Inf	Inf			
5/2			Infinite S	Saturation Flow			Inf	Inf			
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894			
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	91.8 %	2074	2074			
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005			
7/1		I	Inf	Inf							
7/2			Infinite S	Saturation Flow			Inf	Inf			
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870			
8/2 (Circulatory E)	3.25	0.00	Υ	Arm 9 Ahead Arm 10 Right	Inf 40.00	99.7 %	1940	1940			

8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1			Infinite S	Saturation Flow			Inf	Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	0.05	0.00	N.	Arm 5 Ahead	Inf	89.2 %		
(Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	10.8 %	2072	2072
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 8: 'S1 2027 PM B+D' (FG8: 'S1 2027 PM + D', Plan 1: 'Network Control Plan 1') Traffic Flows, Desired Desired Flow:

	Destination									
		Α	В	С	D	Tot.				
	Α	0	291	893	629	1813				
Origin	В	379	0	318	389	1086				
Origin	С	764	233	0	168	1165				
	D	466 355		191	30	1042				
	Tot.	1609	879	1402	1216	5106				

Traffic Lane Flows				
Lane	Scenario 8: S1 2027 PM B+D			
Junction: Un	named Junction			
1/1 (short)	225			
1/2 (with short)	466(In) 241(Out)			
1/3 (with short)	576(In) 374(Out)			
1/4 (short)	202			
2/1 (short)	290			
2/2 (with short)	865(In) 575(Out)			
2/3 (with short)	948(In) 319(Out)			
2/4 (short)	629			
3/1 (short)	282			
3/2 (with short)	608(In) 326(Out)			
3/3	478			
4/1 (short)	168			
4/2 (with short)	691(In) 523(Out)			
4/3	474			
5/1	720			
5/2	496			
6/1	578			
6/2	629			
6/3	169			
7/1	803			
7/2	806			
8/1	293			
8/2	314			
8/3	202			
9/1	583			
9/2	296			
10/1	593			
10/2	491			
10/3	262			
10/4	397			
11/1	875			
11/2	527			
12/1	552			

12/2	551
12/3	324

	Lane		Nooroida	Allewed	Turning	Turmina	Sot Flam	Flored Set Flore
Lane	Width (m)	Gradient	Nearside Lane	Allowed Turns	Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A484 South)	3.50	0.00	Υ	Arm 7 Left	90.00	100.0 %	1933	1933
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902
2/2	3.50	0.00	N	Arm 9 Left	45.00	0.2 %	2105	2105
(A40 West)	0.00	0.00	IN	Arm 10 Ahead	Inf	99.8 %	2100	2100
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
3/1 (A40 North)	3.50	0.00	Υ	Arm 11 Left	35.00	100.0 %	1884	1884
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	11.0 % 89.0 %	2096	2096
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
4/1 (A48 East)	3.50	0.00	Υ	Arm 5 Left	50.00	100.0 %	1908	1908
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left Arm 6 Ahead	55.00 Inf	0.0 %	2105	2105
4/3 (A48 East)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
5/1			Infinite S	Saturation Flow			Inf	Inf
5/2			Infinite S	Saturation Flow			Inf	Inf
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	89.8 %	2072	2072
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005
7/1	Infinite Saturation Flow				Inf	Inf		
7/2	Infinite Saturation Flow				Inf	Inf		
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870
8/2 (Circulatory E)	3.25	0.00	Υ	Arm 9 Ahead Arm 10 Right	Inf 40.00	93.9 %	1936	1936

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1		Infinite Saturation Flow						Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Υ	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	2.25	0.00	N	Arm 5 Ahead	Inf	90.0 %	2072	2072
(Circulatory E)	3.25	0.00	IN	Arm 6 Right	40.00	10.0 %	2072	2072
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 9: 'S1 2037 AM B+D' (FG9: 'S1 2037 AM + D', Plan 1: 'Network Control Plan 1') Traffic Flows, Desired Desired Flow:

	Destination					
		Α	В	С	D	Tot.
	Α	0	338	660	502	1500
Origin	В	306	0	231	384	921
Origin	С	1194	410	0	246	1850
	D	807	414	134	12	1367
	Tot.	2307	1162	1025	1144	5638

Traffic Lane Flows				
Lane	Scenario 9: S1 2037 AM B+D			
Junction: Un	named Junction			
1/1 (short)	378			
1/2 (with short)	807(In) 429(Out)			
1/3 (with short)	560(In) 418(Out)			
1/4 (short)	142			
2/1 (short)	336			
2/2 (with short)	768(In) 432(Out)			
2/3 (with short)	732(In) 230(Out)			
2/4 (short)	502			
3/1 (short)	229			
3/2 (with short)	509(In) 280(Out)			
3/3	412			
4/1 (short)	183			
4/2 (with short)	949(In) 766(Out)			
4/3	901			
5/1	686			
5/2	458			
6/1	744			
6/2	764			
6/3	402			
7/1	1122			
7/2	1185			
8/1	400			
8/2	428			
8/3	142			
9/1	736			
9/2	426			
10/1	434			
10/2	360			
10/3	225			
10/4	289			
11/1	663			
11/2	362			
12/1	503			

12/2	436
12/3	265

Junction: Unn	amed Ju	unction						
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902
2/2 (A40 West)	3.50	0.00	N	Arm 9 Left Arm 10 Ahead	45.00 Inf	0.5 % 99.5 %	2105	2105
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
3/1 (A40 North)	3.50	0.00	Y	Arm 11 Left	35.00	100.0 %	1884	1884
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	0.7 % 99.3 %	2104	2104
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left	55.00	8.2 %	2100	2100
4/3	3.50	0.00	N	Arm 6 Ahead Arm 6 Ahead	Inf Inf	91.8 %	2105	2105
(A48 East) 5/1				Saturation Flow			Inf	Inf
5/2				Saturation Flow			Inf	Inf
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	99.0 %	2079	2079
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005
7/1	Infinite Saturation Flow In					Inf	Inf	
7/2			Infinite S	Saturation Flow			Inf	Inf
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870
8/2 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead Arm 10 Right	Inf 40.00	99.1 %	1939	1939
(5553.61, 2)				10 raignt	.0.00	0.0 /0		

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	Ν	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1		Infinite Saturation Flow						Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Υ	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	2.25	0.00	N	Arm 5 Ahead	Inf	90.6 %	2073	2072
(Circulatory E)	3.25	0.00	IN	Arm 6 Right	40.00	9.4 %	2013	2073
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 10: 'S1 2037 PM B+D' (FG10: 'S1 2037 PM + D', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

	Destination						
		Α	В	С	D	Tot.	
	Α	0	315	969	682	1966	
Origin	В	411	0	345	420	1176	
Origin	С	829	253	0	181	1263	
	D	505	383	205	33	1126	
	Tot.	1745	951	1519	1316	5531	

Traffic Lane Flows				
Lane	Scenario 10: S1 2037 PM B+D			
Junction: Un	named Junction			
1/1 (short)	244			
1/2 (with short)	505(In) 261(Out)			
1/3 (with short)	621(In) 408(Out)			
1/4 (short)	213			
2/1 (short)	274			
2/2 (with short)	961(In) 687(Out)			
2/3 (with short)	1005(In) 323(Out)			
2/4 (short)	682			
3/1 (short)	301			
3/2 (with short)	638(In) 337(Out)			
3/3	538			
4/1 (short)	181			
4/2 (with short)	680(In) 499(Out)			
4/3	583			
5/1	799			
5/2	517			
6/1	601			
6/2	649			
6/3	243			
7/1	845			
7/2	900			
8/1	346			
8/2	315			
8/3	213			
9/1	620			
9/2	331			
10/1	671			
10/2	503			
10/3	325			
10/4	390			
11/1	972			
11/2	547			
12/1	618			

12/2	619
12/3	309

Junction: Unn	amed Ju	unction						
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902
2/2 (A40 West)	3.50	0.00	N	Arm 9 Left Arm 10 Ahead	45.00 Inf	6.0 % 94.0 %	2101	2101
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
3/1 (A40 North)	3.50	0.00	Y	Arm 11 Left	35.00	100.0 %	1884	1884
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	13.1 % 86.9 %	2095	2095
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left	55.00	0.0 %	2105	2105
4/3	3.50	0.00	N	Arm 6 Ahead Arm 6 Ahead	Inf Inf	100.0 %	2105	2105
(A48 East) 5/1				Saturation Flow			Inf	Inf
5/2				Saturation Flow			Inf	Inf
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	98.5 %	2079	2079
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005
7/1	Infinite Saturation Flow					Inf	Inf	
7/2			Infinite S	Saturation Flow			Inf	Inf
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870
8/2 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead Arm 10 Right	Inf 40.00	92.1 %	1934	1934
				10 raignt	.0.00	/0		

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1			Infinite S	Saturation Flow			Inf	Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	2.25	0.00	N	Arm 5 Ahead	Inf	83.5 %	2007	2007
(Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	16.5 %	2067	2067
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 11: 'S5 2027 AM B+D' (FG11: 'S5 2027 AM + D', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

	Destination									
		Α	В	С	D	Tot.				
	Α	0	312	608	480	1400				
Origin	В	282 0		213	372	867				
Origin	С	1101	378	0	242	1721				
	D	763	763 409		11	1330				
	Tot.	2146	1099	968	1105	5318				

Traffic Lane Flows							
Lane	Scenario 11: S5 2027 AM B+D						
Junction: Un	named Junction						
1/1 (short)	362						
1/2 (with short)	763(In) 401(Out)						
1/3 (with short)	567(In) 411(Out)						
1/4 (short)	156						
2/1 (short)	312						
2/2 (with short)	716(In) 404(Out)						
2/3 (with short)	684(In) 204(Out)						
2/4 (short)	480						
3/1 (short)	213						
3/2 (with short)	480(In) 267(Out)						
3/3	387						
4/1 (short)	216						
4/2 (with short)	894(In) 678(Out)						
4/3	827						
5/1	698						
5/2	407						
6/1	680						
6/2	717						
6/3	364						
7/1	1042						
7/2	1104						
8/1	405						
8/2	384						
8/3	156						
9/1	717						
9/2	382						
10/1	406						
10/2	349						
10/3	215						
10/4	276						
11/1	619						
11/2	349						
12/1	482						

12/2	409
12/3	254

Junction: Unn	amed Jı	unction						
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902
2/2 (A40 West)	3.50	0.00	N	Arm 9 Left Arm 10 Ahead	45.00 Inf	0.0 %	2105	2105
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
3/1 (A40 North)	3.50	0.00	Y	Arm 11 Left	35.00	100.0 %	1884	1884
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	0.0 %	2105	2105
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left	55.00	3.8 %	2103	2103
4/3	0.50	0.00	N.	Arm 6 Ahead	Inf	96.2 %	0405	0405
(A48 East)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
5/1				Saturation Flow			Inf	Inf
5/2		<u> </u>	Infinite S	Saturation Flow			Inf	Inf
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	98.0 %	2078	2078
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005
7/1	Infinite Saturation Flow					Inf	Inf	
7/2			Infinite S	Saturation Flow			Inf	Inf
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870
8/2 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead Arm 10 Right	Inf 40.00	99.5 %	1940	1940
. ,				7 mm To raight	70.00	0.0 /6		

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1			Infinite S	Saturation Flow			Inf	Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Υ	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	2.25	0.00	N	Arm 5 Ahead	Inf	93.2 %	2075	2075
(Circulatory E)	3.25	0.00	IN	Arm 6 Right	40.00	6.8 %	2075	2075
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 12: 'S5 2027 PM B+D' (FG12: 'S5 2027 PM + D', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

	Destination									
		Α	В	С	D	Tot.				
	Α	0	291	893	670	1854				
Origin	В	379 0		318	426	1123				
Origin	С	764	233	0	193	1190				
	D	494	382	209	30	1115				
	Tot.	1637	906	1420	1319	5282				

Traffic Lane Flows							
Lane	Scenario 12: S5 2027 PM B+D						
Junction: Un	named Junction						
1/1 (short)	239						
1/2 (with short)	494(In) 255(Out)						
1/3 (with short)	621(In) 401(Out)						
1/4 (short)	220						
2/1 (short)	271						
2/2 (with short)	916(In) 645(Out)						
2/3 (with short)	938(In) 268(Out)						
2/4 (short)	670						
3/1 (short)	287						
3/2 (with short)	607(In) 320(Out)						
3/3	516						
4/1 (short)	193						
4/2 (with short)	651(In) 458(Out)						
4/3	539						
5/1	802						
5/2	517						
6/1	554						
6/2	603						
6/3	219						
7/1	793						
7/2	844						
8/1	324						
8/2	310						
8/3	220						
9/1	595						
9/2	311						
10/1	644						
10/2	458						
10/3	320						
10/4	380						
11/1	931						
11/2	489						
12/1	609						

12/2	613
12/3	283

Junction: Unn	amed Ju	unction						
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902
2/2 (A40 West)	3.50	0.00	N	Arm 9 Left Arm 10 Ahead	45.00 Inf	3.1 % 96.9 %	2103	2103
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
3/1 (A40 North)	3.50	0.00	Y	Arm 11 Left	35.00	100.0 %	1884	1884
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	9.7 % 90.3 %	2097	2097
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left	55.00	0.0 %	2105	2105
4/3	3.50	0.00	N	Arm 6 Ahead Arm 6 Ahead	Inf Inf	100.0 %	2105	2105
(A48 East)	3.30	0.00			""	100.0 /6		
5/1				Saturation Flow			Inf	Inf
5/2		<u> </u>	Infinite S	Saturation Flow		<u> </u>	Inf	Inf
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	97.7 %	2078	2078
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005
7/1	Infinite Saturation Flow					Inf	Inf	
7/2			Infinite S	Saturation Flow			Inf	Inf
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870
8/2 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead Arm 10 Right	Inf 40.00	93.9 %	1936	1936
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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1			Infinite S	Saturation Flow			Inf	Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	2.25	0.00	N	Arm 5 Ahead	Inf	84.3 %	2000	2000
(Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	15.7 %	2068	2068
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 13: 'S5 2037 AM B+D' (FG13: 'S5 2037 AM + D', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow:

	Destination								
		Α	В	С	D	Tot.			
	Α	0	338	660	519	1517			
Origin	В	306	0	231	401	938			
Origin	С	1194	410	0	260	1864			
	D 826		439	155	12	1432			
	Tot.	2326	1187	1046	1192	5751			

Traffic Lane Flows						
Lane	Scenario 13: S5 2037 AM B+D					
Junction: Un	named Junction					
1/1 (short)	387					
1/2 (with short)	826(In) 439(Out)					
1/3 (with short)	606(In) 446(Out)					
1/4 (short)	160					
2/1 (short)	331					
2/2 (with short)	783(In) 452(Out)					
2/3 (with short)	734(In) 215(Out)					
2/4 (short)	519					
3/1 (short)	228					
3/2 (with short)	513(In) 285(Out)					
3/3	425					
4/1 (short)	176					
4/2 (with short)	956(In) 780(Out)					
4/3	908					
5/1	693					
5/2	499					
6/1	742					
6/2	761					
6/3	407					
7/1	1129					
7/2	1197					
8/1	414					
8/2	442					
8/3	160					
9/1	745					
9/2	442					
10/1	452					
10/2	363					
10/3	235					
10/4	296					
11/1	680					
11/2	366					
12/1	517					

12/2	461
12/3	260

Junction: Unn	amed Ju	unction						
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/1 (A40 West)	3.50	0.00	Y	Arm 9 Left	45.00	100.0 %	1902	1902
2/2 (A40 West)	3.50	0.00	N	Arm 9 Left Arm 10 Ahead	45.00 Inf	1.5 % 98.5 %	2104	2104
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
3/1 (A40 North)	3.50	0.00	Y	Arm 11 Left	35.00	100.0 %	1884	1884
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	1.1 % 98.9 %	2104	2104
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left	55.00	10.8 %	2099	2099
4/3	3.50	0.00	N	Arm 6 Ahead Arm 6 Ahead	Inf Inf	89.2 %	2105	2105
(A48 East)	3.50	0.00			1111	100.0 /6		
5/1				Saturation Flow			Inf	Inf
5/2		1	Infinite S	Saturation Flow		1	Inf	Inf
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	99.6 %	2080	2080
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005
7/1	Infinite Saturation Flow							Inf
7/2	Infinite Saturation Flow						Inf	Inf
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870
8/2 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead Arm 10 Right	Inf 40.00	98.4 %	1939	1939
J. J				Ann to Night	70.00	1.0 /0		

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8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
10/4 (Circulatory N)	3.25	0.00	N	Arm 12 Right	40.00	100.0 %	2005	2005
11/1	Infinite Saturation Flow							Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
12/2	0.05	0.00	NI	Arm 5 Ahead	Inf	90.0 %	2072	2072
(Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	10.0 %	2072	2072
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005

Scenario 14: 'S5 2037 PM B+D' (FG14: 'S5 2037 PM + D', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Paging Flows

Desired	Flow	:

	Destination								
		А	В	С	D	Tot.			
	Α	0	315 969		723	2007			
Origin	В	B 411 0 345		345	457	1213			
Origin	С	829	253	0	206	1288			
	D	534 410		223	33	1200			
	Tot.	1774	978	1537	1419	5708			

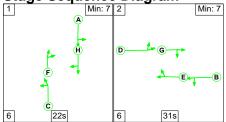
Traffic Lane Flows						
Lane	Scenario 14: S5 2037 PM B+D					
Junction: Un	named Junction					
1/1 (short)	258					
1/2 (with short)	534(In) 276(Out)					
1/3 (with short)	666(In) 421(Out)					
1/4 (short)	245					
2/1 (short)	277					
2/2 (with short)	989(In) 712(Out)					
2/3 (with short)	1018(In) 295(Out)					
2/4 (short)	723					
3/1 (short)	305					
3/2 (with short)	647(In) 342(Out)					
3/3	566					
4/1 (short)	206					
4/2 (with short)	704(In) 498(Out)					
4/3	584					
5/1	857					
5/2	562					
6/1	595					
6/2	651					
6/3	247					
7/1	853					
7/2	921					
8/1	349					
8/2	325					
8/3	245					
9/1	626					
9/2	352					
10/1	685					
10/2	507					
10/3	349					
10/4	407					
11/1	990					
11/2	547					
12/1	651					

12/2	659
12/3	314

Junction: Unn	amed Ju	unction						
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A484 South)	3.50	0.00	Y	Arm 7 Left	90.00	100.0 %	1933	1933
1/2 (A484 South)	3.50	0.00	N	Arm 7 Left	90.00	100.0 %	2070	2070
1/3 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
1/4 (A484 South)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/1 (A40 West)	3.50	0.00	Υ	Arm 9 Left	45.00	100.0 %	1902	1902
2/2	0.50			Arm 9 Left	45.00	5.3 %	0404	0.404
(A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	94.7 %	2101	2101
2/3 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
2/4 (A40 West)	3.50	0.00	N	Arm 10 Ahead	Inf	100.0 %	2105	2105
3/1 (A40 North)	3.50	0.00	Υ	Arm 11 Left	35.00	100.0 %	1884	1884
3/2 (A40 North)	3.50	0.00	N	Arm 11 Left Arm 12 Ahead	40.00 Inf	11.7 % 88.3 %	2096	2096
3/3 (A40 North)	3.50	0.00	N	Arm 12 Ahead	Inf	100.0 %	2105	2105
4/1 (A48 East)	3.50	0.00	Y	Arm 5 Left	50.00	100.0 %	1908	1908
4/2 (A48 East)	3.50	0.00	N	Arm 5 Left Arm 6 Ahead	55.00 Inf	0.0 %	2105	2105
4/3 (A48 East)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
5/1			Infinite S	Saturation Flow			Inf	Inf
5/2			Infinite S	Saturation Flow			Inf	Inf
6/1 (Circulatory S)	3.50	0.00	Y	Arm 7 Ahead	40.00	100.0 %	1894	1894
6/2 (Circulatory S)	3.25	0.00	N	Arm 7 Ahead Arm 8 Right	Inf 40.00	99.1 %	2079	2079
6/3 (Circulatory S)	3.25	0.00	N	Arm 8 Right	40.00	100.0 %	2005	2005
7/1	Infinite Saturation Flow							Inf
7/2			Infinite S	Saturation Flow			Inf	Inf
8/1 (Circulatory E)	3.25	0.00	Y	Arm 9 Ahead	40.00	100.0 %	1870	1870
8/2 (Circulatory E)	3.25	0.00	Υ	Arm 9 Ahead Arm 10 Right	Inf 40.00	96.6 %	1938	1938

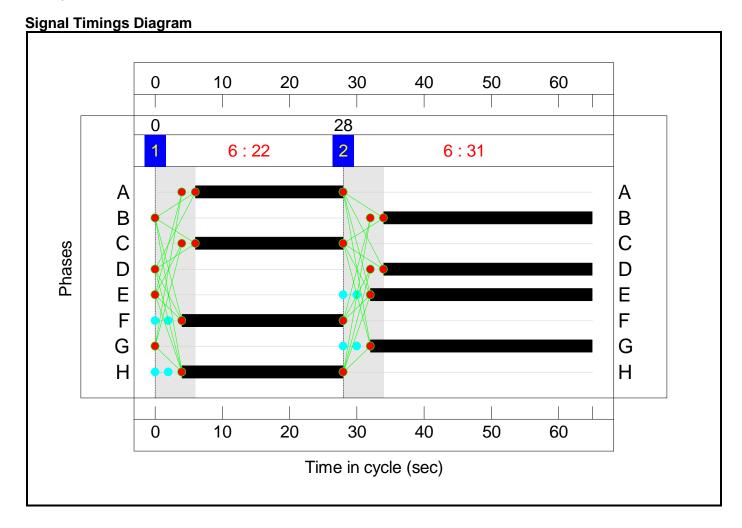
Full	Input	Data	And	Results
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i all illpat Bata	,a	Journa						_
8/3 (Circulatory E)	3.25	0.00	N	Arm 10 Right	40.00	100.0 %	2005	2005
9/1			Infinite S	Saturation Flow			Inf	Inf
9/2			Infinite S	Saturation Flow			Inf	Inf
10/1 (Circulatory N)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
10/2 (Circulatory N)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (Circulatory N)	3.25 0.00 N Arm 12 Right 40.00 100.0 %							2005
10/4 (Circulatory N)	3.25	25 0.00 N Arm 12 Right 40.00 100.0 %						2005
11/1			Infinite S	Saturation Flow			Inf	Inf
11/2			Infinite S	Saturation Flow			Inf	Inf
12/1 (Circulatory E)	3.25 0.00 V Arm 5.Aboad Inf 100.0.94						1940	1940
12/2	0.05	0.00	NI	Arm 5 Ahead	Inf	85.3 %	2000	2000
(Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	14.7 %	2069	2069
12/3 (Circulatory E)	3.25	0.00	N	Arm 6 Right	40.00	100.0 %	2005	2005



**Stage Timings** 

Stage	1	2
Duration	22	31
Change Point	0	28



Full Input Data And Results Network Layout Diagram

## **Network Results**

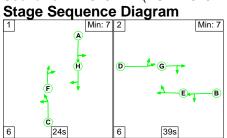
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	77.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	77.2%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	22	-	712	2070:1933	498+428	76.9 : 76.9%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	22	-	450	2105:2105	637+196	54.0 : 54.0%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	31	-	632	2103:1902	662+558	51.8 : 51.8%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	31	-	699	2105:2105	433+749	59.1 : 59.1%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	22	-	463	2103:1884	523+394	50.5 : 50.5%
3/3	A40 North Ahead	U	N/A	N/A	А		1	22	-	340	2105	745	45.6%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	31	-	843	2105:1908	828+264	77.2 : 77.2%
4/3	A48 East Ahead	U	N/A	N/A	В		1	31	-	789	2105	1036	76.1%
5/1		U	N/A	N/A	-		-	-	-	638	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	345	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	33	-	687	1894	991	69.3%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	33	-	718	2072	1084	66.2%
6/3	Circulatory S Right	U	N/A	N/A	E		1	33	-	295	2005	1049	28.1%
7/1		U	N/A	N/A	-		-	-	-	1016	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	1031	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	24	-	362	1870	719	50.3%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	24	-	347	1940	746	46.5%

T all hipat E	Jala Allu Nesul	1.0										
8/3	Circulatory E Right	U	N/A	N/A	F	1	24	-	106	2005	771	13.7%
9/1		U	N/A	N/A	-	-	-	-	651	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	359	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	331	1940	1015	32.6%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	351	2080	1088	32.3%
10/3	Circulatory N Right	U	N/A	N/A	G	1	33	-	177	2005	1049	16.9%
10/4	Circulatory N Right	U	N/A	N/A	G	1	33	-	277	2005	1049	26.4%
11/1		U	N/A	N/A	-	-	-	-	530	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	358	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н	1	24	-	434	1940	746	58.2%
12/2	Circulatory E Ahead Right	U	N/A	N/A	н	1	24	-	393	2071	797	49.3%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	24	-	224	2005	771	29.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	27.2	13.1	0.0	40.3	-	-	-	-
Unnamed Junction	-	-	0	0	0	27.2	13.1	0.0	40.3	-	-	-	-
1/2+1/1	712	712	-	-	-	3.3	1.6	-	5.0	25.1	7.4	1.6	9.1
1/3+1/4	450	450	-	-	-	2.0	0.6	-	2.6	20.6	5.0	0.6	5.5
2/2+2/1	632	632	-	-	-	1.7	0.5	-	2.3	13.0	3.7	0.5	4.3
2/3+2/4	699	699	-	-	-	2.0	0.7	-	2.7	14.0	5.4	0.7	6.1
3/2+3/1	463	463	-	-	-	2.0	0.5	-	2.5	19.3	3.5	0.5	4.0
3/3	340	340	-	-	-	1.5	0.4	-	1.9	20.6	4.7	0.4	5.1
4/2+4/1	843	843	-	-	-	2.9	1.7	-	4.5	19.4	10.3	1.7	12.0
4/3	789	789	-	-	-	2.9	1.6	-	4.5	20.6	11.4	1.6	13.0
5/1	638	638	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	345	345	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	687	687	-	-	-	0.6	1.1	-	1.7	9.1	3.2	1.1	4.3
6/2	718	718	-	-	-	1.3	1.0	-	2.3	11.5	5.8	1.0	6.8
6/3	295	295	-	-	-	0.2	0.2	-	0.4	4.8	0.4	0.2	0.6
7/1	1016	1016	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1031	1031	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	362	362	-	-	-	0.6	0.5	-	1.1	10.7	1.7	0.5	2.2
8/2	347	347	-	-	-	1.6	0.4	-	2.1	21.6	5.6	0.4	6.1
8/3	106	106	-	-	-	0.1	0.1	-	0.2	5.8	0.2	0.1	0.2
9/1	651	651	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	359	359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	331	331	-	-	-	0.2	0.2	-	0.5	5.0	0.5	0.2	0.8
10/2	351	351	-	-	-	0.5	0.2	-	0.8	8.1	2.1	0.2	2.3
10/3	177	177	-	-	-	0.1	0.1	-	0.2	4.5	0.3	0.1	0.4
10/4	277	277	-	-	-	0.2	0.2	-	0.4	5.0	0.6	0.2	0.7

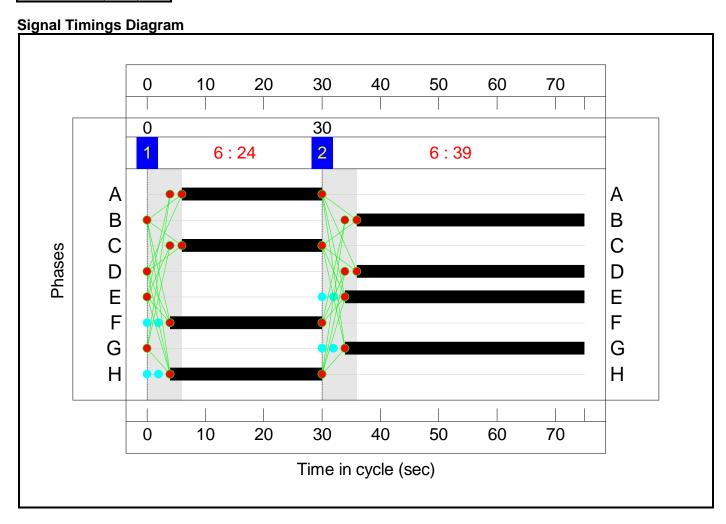
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11/1	530	530	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	434	434	-	-	-	1.3	0.7	-	1.9	16.1	3.8	0.7	4.5
12/2	393	393	-	-	-	1.8	0.5	-	2.3	21.1	5.5	0.5	6.0
12/3	224	224	-	-	-	0.2	0.2	-	0.4	6.4	0.3	0.2	0.5
		C1		for Signalled Lanes (%) RC Over All Lanes (%)			/ for Signalled Lan Delay Over All Lar		0.27 Cyc 0.27	cle Time (s): 65			

Full Input Data And Results
Scenario 2: '2023 PM' (FG2: '2023 PM', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	24	39
Change Point	0	30



Full Input Data And Results Network Layout Diagram

## **Network Results**

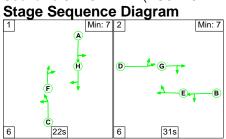
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	75.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	75.9%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	24	-	445	2070:1933	447+417	51.5 : 51.5%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	24	-	512	2105:2105	537+282	62.5 : 62.5%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	39	-	827	2105:1902	795+407	68.8 : 68.8%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	39	-	920	2105:2105	426+810	74.4 : 74.4%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	24	-	576	2095:1884	466+409	65.8 : 65.8%
3/3	A40 North Ahead	U	N/A	N/A	А		1	24	-	453	2105	702	64.6%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	39	-	640	2105:1908	902+257	55.2 : 55.2%
4/3	A48 East Ahead	U	N/A	N/A	В		1	39	-	465	2105	1123	41.4%
5/1		U	N/A	N/A	-		-	-	-	672	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	41	-	563	1894	1061	53.1%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	41	-	607	2072	1160	52.3%
6/3	Circulatory S Right	U	N/A	N/A	E		1	41	-	159	2005	1123	14.2%
7/1		U	N/A	N/A	-		-	-	-	778	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	771	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	26	-	270	1870	673	40.1%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	26	-	291	1936	697	41.8%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	26	-	176	2005	722	24.4%
9/1		U	N/A	N/A	-	-	-	-	550	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	276	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	41	-	562	1940	1086	51.7%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	41	-	464	2080	1165	39.8%
10/3	Circulatory N Right	U	N/A	N/A	G	1	41	-	261	2005	1123	23.2%
10/4	Circulatory N Right	U	N/A	N/A	G	1	41	-	371	2005	1123	33.0%
11/1		U	N/A	N/A	-	-	-	-	831	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	502	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н	1	26	-	530	1940	698	75.9%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	26	-	523	2070	745	70.2%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	26	-	301	2005	722	41.7%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	31.7	13.1	0.0	44.8	-	-	-	-
Unnamed Junction	-	-	0	0	0	31.7	13.1	0.0	44.8	-	-	•	-
1/2+1/1	445	445	-	-	-	2.3	0.5	-	2.8	23.0	3.6	0.5	4.1
1/3+1/4	512	512	-	-	-	2.8	0.8	-	3.6	25.4	6.5	0.8	7.4
2/2+2/1	827	827	-	-	-	2.6	1.1	-	3.7	15.9	9.2	1.1	10.3
2/3+2/4	920	920	-	-	-	3.0	1.4	-	4.5	17.4	11.2	1.4	12.6
3/2+3/1	576	576	-	-	-	3.1	1.0	-	4.1	25.5	5.2	1.0	6.1
3/3	453	453	-	-	-	2.7	0.9	-	3.6	28.4	7.9	0.9	8.8
4/2+4/1	640	640	-	-	-	1.9	0.6	-	2.5	14.0	6.9	0.6	7.5
4/3	465	465	-	-	-	1.4	0.4	-	1.7	13.2	5.7	0.4	6.0
5/1	672	672	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	458	458	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	563	563	-	-	-	0.5	0.6	-	1.1	6.9	3.2	0.6	3.8
6/2	607	607	-	-	-	1.7	0.5	-	2.3	13.5	10.5	0.5	11.0
6/3	159	159	-	-	-	0.1	0.1	-	0.2	4.1	0.2	0.1	0.3
7/1	778	778	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	771	771	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	270	270	-	-	-	0.6	0.3	-	0.9	12.5	1.7	0.3	2.0
8/2	291	291	-	-	-	1.3	0.4	-	1.6	20.1	3.5	0.4	3.9
8/3	176	176	-	-	-	0.2	0.2	-	0.3	6.6	0.3	0.2	0.4
9/1	550	550	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	276	276	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	562	562	-	-	-	0.4	0.5	-	0.9	6.0	2.7	0.5	3.3
10/2	464	464	-	-	-	0.9	0.3	-	1.2	9.2	3.5	0.3	3.9
10/3	261	261	-	-	-	0.2	0.2	-	0.3	4.5	0.5	0.2	0.7
10/4	371	371	-	-	-	0.3	0.2	-	0.5	5.3	1.0	0.2	1.2

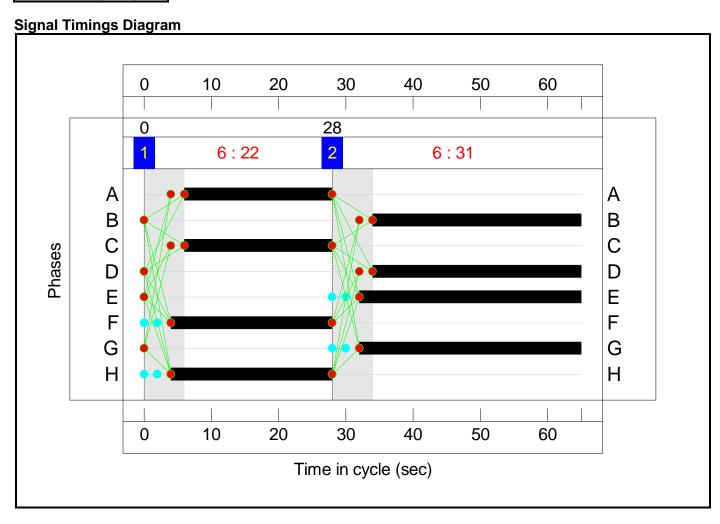
	G. C.					1	1			1	1		
11/1	831	831	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	502	502	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	530	530	-	-	-	2.4	1.5	-	3.9	26.8	10.4	1.5	11.9
12/2	523	523	-	-	-	3.2	1.2	-	4.4	30.2	9.8	1.2	11.0
12/3	301	301	-	-	-	0.3	0.4	-	0.6	7.6	0.5	0.4	0.8
		C1		for Signalled Lanes (%) RC Over All Lanes (%)			ofor Signalled Lan Delay Over All Lar		4.81 Cyc 4.81	cle Time (s): 75	•		

Full Input Data And Results Scenario 3: '2027 AM' (FG3: '2027 AM', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	22	31
Change Point	0	28



Full Input Data And Results Network Layout Diagram

## **Network Results**

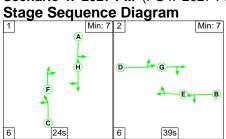
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	79.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	79.8%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	22	-	737	2070:1933	500+423	79.8 : 79.8%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	22	-	465	2105:2105	638+195	55.8 : 55.8%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	31	-	661	2103:1902	661+560	54.1 : 54.1%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	31	-	718	2105:2105	425+753	60.9 : 60.9%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	22	-	479	2103:1884	524+392	52.3 : 52.3%
3/3	A40 North Ahead	U	N/A	N/A	А		1	22	-	352	2105	745	47.3%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	31	-	871	2105:1908	828+265	79.8 : 79.8%
4/3	A48 East Ahead	U	N/A	N/A	В		1	31	-	819	2105	1036	79.0%
5/1		U	N/A	N/A	-		-	-	-	659	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	358	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	33	-	707	1894	991	71.4%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	33	-	741	2073	1084	68.3%
6/3	Circulatory S Right	U	N/A	N/A	E		1	33	-	313	2005	1049	29.8%
7/1		U	N/A	N/A	-		-	-	-	1045	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	1075	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	24	-	376	1870	719	52.3%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	24	-	358	1940	746	48.0%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	24	-	109	2005	771	14.1%
9/1		U	N/A	N/A	-	-	-	-	679	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	367	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	349	1940	1015	34.4%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	357	2080	1088	32.8%
10/3	Circulatory N Right	U	N/A	N/A	G	1	33	-	182	2005	1049	17.4%
10/4	Circulatory N Right	U	N/A	N/A	G	1	33	-	288	2005	1049	27.5%
11/1		U	N/A	N/A	-	-	-	-	554	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	365	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	н	1	24	-	448	1940	746	60.0%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	24	-	405	2071	797	50.8%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	24	-	235	2005	771	30.5%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	28.4	14.6	0.0	43.0	-	-	-	-
Unnamed Junction	-	-	0	0	0	28.4	14.6	0.0	43.0	-	-	-	-
1/2+1/1	737	737	-	-	-	3.5	1.9	-	5.4	26.6	8.0	1.9	10.0
1/3+1/4	465	465	-	-	-	2.1	0.6	-	2.7	20.9	5.3	0.6	5.9
2/2+2/1	661	661	-	-	-	1.8	0.6	-	2.4	13.2	3.9	0.6	4.5
2/3+2/4	718	718	-	-	-	2.1	0.8	-	2.8	14.3	5.8	0.8	6.6
3/2+3/1	479	479	-	-	-	2.1	0.5	-	2.6	19.6	3.7	0.5	4.2
3/3	352	352	-	-	-	1.6	0.4	-	2.0	20.9	4.9	0.4	5.3
4/2+4/1	871	871	-	-	-	3.0	1.9	-	5.0	20.5	11.0	1.9	12.9
4/3	819	819	-	-	-	3.1	1.9	-	5.0	21.9	12.3	1.9	14.1
5/1	659	659	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	707	707	-	-	-	0.6	1.2	-	1.9	9.4	3.2	1.2	4.4
6/2	741	741	-	-	-	1.4	1.1	-	2.5	11.9	6.3	1.1	7.4
6/3	313	313	-	-	-	0.2	0.2	-	0.4	4.8	0.5	0.2	0.7
7/1	1045	1045	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1075	1075	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	376	376	-	-	-	0.6	0.5	-	1.1	10.6	1.6	0.5	2.2
8/2	358	358	-	-	-	1.7	0.5	-	2.2	22.1	6.0	0.5	6.5
8/3	109	109	-	-	-	0.1	0.1	-	0.2	5.8	0.2	0.1	0.2
9/1	679	679	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	349	349	-	-	-	0.2	0.3	-	0.5	5.1	0.5	0.3	0.8
10/2	357	357	-	-	-	0.6	0.2	-	0.8	8.1	2.1	0.2	2.4
10/3	182	182	-	-	-	0.1	0.1	-	0.2	4.6	0.3	0.1	0.4
10/4	288	288	-	-	-	0.2	0.2	-	0.4	5.1	0.6	0.2	0.8

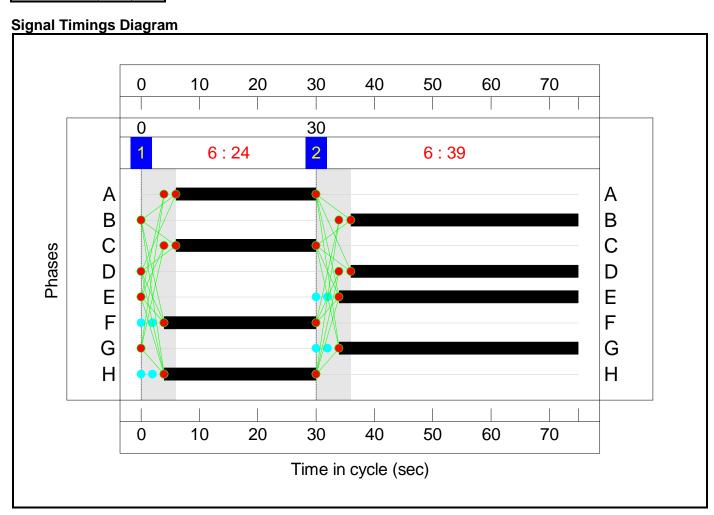
11/1	554	554	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	365	365	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	448	448	-	-	-	1.3	0.7	-	2.0	16.4	3.9	0.7	4.7
12/2	405	405	-	-	ı	1.9	0.5	-	2.4	21.4	5.9	0.5	6.4
12/3	235	235	-	-	ı	0.2	0.2	-	0.4	6.5	0.4	0.2	0.6
		C1		for Signalled Lanes (% RC Over All Lanes (%)			/ for Signalled Lan Delay Over All Lar		43.01 Cyc 43.01	cle Time (s): 65	5		

Full Input Data And Results Scenario 4: '2027 PM' (FG4: '2027 PM', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	24	39
Change Point	0	30



Full Input Data And Results Network Layout Diagram

## **Network Results**

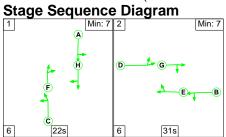
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	77.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	77.5%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	24	-	460	2070:1933	447+417	53.2 : 53.2%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	24	-	530	2105:2105	538+281	64.7 : 64.7%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	39	-	860	2105:1902	797+405	71.6 : 71.6%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	39	-	948	2105:2105	422+813	76.8 : 76.8%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	24	-	593	2094:1884	469+400	68.2 : 68.2%
3/3	A40 North Ahead	U	N/A	N/A	А		1	24	-	472	2105	702	67.3%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	39	-	668	2105:1908	904+255	57.7 : 57.7%
4/3	A48 East Ahead	U	N/A	N/A	В		1	39	-	476	2105	1123	42.4%
5/1		U	N/A	N/A	-		-	-	-	688	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	481	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	41	-	581	1894	1061	54.8%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	41	-	626	2072	1160	54.0%
6/3	Circulatory S Right	U	N/A	N/A	E		1	41	-	169	2005	1123	15.1%
7/1		U	N/A	N/A	-		-	-	-	803	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	800	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	26	-	285	1870	673	42.3%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	26	-	296	1936	697	42.5%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	26	-	182	2005	722	25.2%
9/1		U	N/A	N/A	-	-	-	-	575	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	280	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	41	-	586	1940	1086	53.9%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	41	-	476	2080	1165	40.9%
10/3	Circulatory N Right	U	N/A	N/A	G	1	41	-	266	2005	1123	23.7%
10/4	Circulatory N Right	U	N/A	N/A	G	1	41	-	388	2005	1123	34.6%
11/1		U	N/A	N/A	-	-	-	-	859	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	521	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н	1	26	-	541	1940	698	77.5%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	26	-	541	2071	746	72.6%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	26	-	319	2005	722	44.2%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	33.1	14.4	0.0	47.6	-	-	-	-
Unnamed Junction	-	-	0	0	0	33.1	14.4	0.0	47.6	-	-	-	-
1/2+1/1	460	460	-	-	-	2.4	0.6	-	3.0	23.3	3.7	0.6	4.3
1/3+1/4	530	530	-	-	-	2.9	0.9	-	3.8	26.0	7.0	0.9	7.9
2/2+2/1	860	860	-	-	-	2.7	1.2	-	4.0	16.6	10.1	1.2	11.4
2/3+2/4	948	948	-	-	-	3.2	1.6	-	4.8	18.3	12.2	1.6	13.8
3/2+3/1	593	593	-	-	-	3.2	1.1	-	4.3	26.1	5.7	1.1	6.7
3/3	472	472	-	-	-	2.8	1.0	-	3.8	29.3	8.4	1.0	9.4
4/2+4/1	668	668	-	-	-	2.0	0.7	-	2.7	14.4	7.5	0.7	8.2
4/3	476	476	-	-	-	1.4	0.4	-	1.8	13.3	5.9	0.4	6.3
5/1	688	688	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	481	481	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	581	581	-	-	-	0.5	0.6	-	1.1	6.9	3.2	0.6	3.8
6/2	626	626	-	-	-	1.9	0.6	-	2.4	14.1	11.0	0.6	11.6
6/3	169	169	-	-	-	0.1	0.1	-	0.2	4.1	0.3	0.1	0.3
7/1	803	803	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	800	800	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	285	285	-	-	-	0.6	0.4	-	1.0	12.2	1.7	0.4	2.0
8/2	296	296	-	-	-	1.3	0.4	-	1.7	20.7	3.8	0.4	4.2
8/3	182	182	-	-	-	0.2	0.2	-	0.3	6.6	0.3	0.2	0.4
9/1	575	575	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	280	280	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	586	586	-	-	-	0.4	0.6	-	1.0	6.2	2.7	0.6	3.3
10/2	476	476	-	-	-	0.9	0.3	-	1.2	9.3	3.6	0.3	4.0
10/3	266	266	-	-	-	0.2	0.2	-	0.3	4.6	0.5	0.2	0.7
10/4	388	388	-	-	-	0.3	0.3	-	0.6	5.4	1.0	0.3	1.3

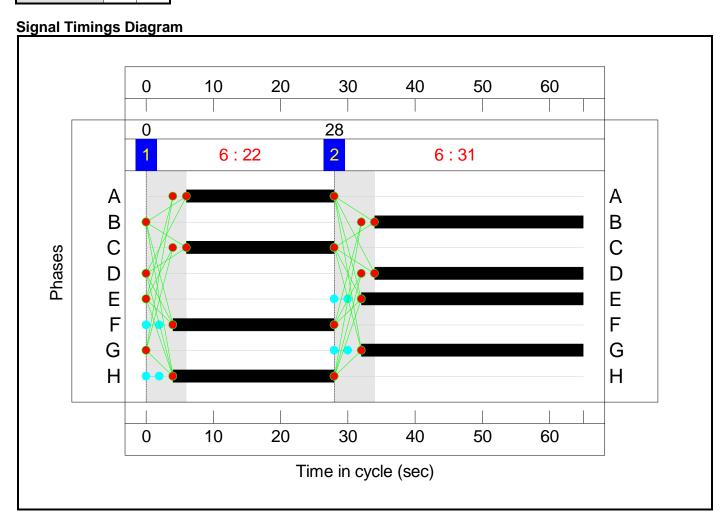
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11/1	859	859	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	541	541	-	-	-	2.4	1.7	-	4.1	27.5	10.6	1.7	12.3
12/2	541	541	-	-	-	3.4	1.3	-	4.7	31.1	10.1	1.3	11.4
12/3	319	319	-	-	-	0.3	0.4	-	0.7	7.8	0.5	0.4	0.9
		C1		for Signalled Lanes (% RC Over All Lanes (%)			/ for Signalled Lan Delay Over All Lar		47.55 Cyc 47.55	cle Time (s): 75	5		

Full Input Data And Results Scenario 5: '2037 AM' (FG5: '2037 AM', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	22	31
Change Point	0	28



Full Input Data And Results Network Layout Diagram

## **Network Results**

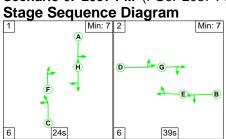
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	87.5%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	22	-	800	2070:1933	506+408	87.5 : 87.5%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	22	-	506	2105:2105	638+196	60.7 : 60.7%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	31	-	730	2104:1902	665+552	60.0 : 60.0%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	31	-	766	2105:2105	410+761	65.4 : 65.4%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	22	-	511	2103:1884	521+400	55.5 : 55.5%
3/3	A40 North Ahead	U	N/A	N/A	А		1	22	-	391	2105	745	52.5%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	31	-	941	2104:1908	832+257	86.4 : 86.4%
4/3	A48 East Ahead	U	N/A	N/A	В		1	31	-	892	2105	1036	86.1%
5/1		U	N/A	N/A	-		-	-	-	704	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	400	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	Е		1	33	-	765	1894	991	77.2%
6/2	Circulatory S Ahead Right	U	N/A	N/A	Е		1	33	-	808	2073	1084	74.5%
6/3	Circulatory S Right	U	N/A	N/A	E		1	33	-	337	2005	1049	32.1%
7/1		U	N/A	N/A	-		-	-	-	1122	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	1178	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	24	-	405	1870	719	56.3%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	24	-	392	1940	746	52.5%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	24	-	119	2005	771	15.4%
9/1		U	N/A	N/A	-	-	-	-	736	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	399	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	392	1940	1015	38.6%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	375	2080	1088	34.5%
10/3	Circulatory N Right	U	N/A	N/A	G	1	33	-	202	2005	1049	19.3%
10/4	Circulatory N Right	U	N/A	N/A	G	1	33	-	308	2005	1049	29.4%
11/1		U	N/A	N/A	-	-	-	-	614	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	384	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	н	1	24	-	482	1940	746	64.6%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	24	-	446	2071	797	56.0%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	24	-	253	2005	771	32.8%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	31.7	20.3	0.0	52.0	-	-	-	-
Unnamed Junction	-	-	0	0	0	31.7	20.3	0.0	52.0	-	-	-	-
1/2+1/1	800	800	-	-	-	4.0	3.3	-	7.3	32.7	9.8	3.3	13.1
1/3+1/4	506	506	-	-	-	2.3	0.8	-	3.1	21.8	6.0	0.8	6.8
2/2+2/1	730	730	-	-	-	2.1	0.7	-	2.8	13.9	4.4	0.7	5.2
2/3+2/4	766	766	-	-	-	2.3	0.9	-	3.2	15.1	6.9	0.9	7.8
3/2+3/1	511	511	-	-	-	2.2	0.6	-	2.8	20.0	3.9	0.6	4.5
3/3	391	391	-	-	-	1.8	0.6	-	2.4	21.7	5.5	0.6	6.1
4/2+4/1	941	941	-	-	-	3.5	3.0	-	6.5	25.0	13.1	3.0	16.1
4/3	892	892	-	-	-	3.6	3.0	-	6.6	26.5	14.1	3.0	17.1
5/1	704	704	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	400	400	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	765	765	-	-	-	0.7	1.7	-	2.4	11.1	2.7	1.7	4.4
6/2	808	808	-	-	-	1.5	1.4	-	3.0	13.3	7.5	1.4	8.9
6/3	337	337	-	-	-	0.2	0.2	-	0.5	5.0	0.5	0.2	0.8
7/1	1122	1122	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1178	1178	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	405	405	-	-	-	0.6	0.6	-	1.2	11.0	1.8	0.6	2.4
8/2	392	392	-	-	-	1.9	0.6	-	2.4	22.1	6.6	0.6	7.1
8/3	119	119	-	-	-	0.1	0.1	-	0.2	5.9	0.2	0.1	0.3
9/1	736	736	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	399	399	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	392	392	-	-	-	0.3	0.3	-	0.6	5.3	1.6	0.3	1.9
10/2	375	375	-	-	-	0.6	0.3	-	0.9	8.2	2.3	0.3	2.6
10/3	202	202	-	=	-	0.1	0.1	-	0.3	4.7	0.4	0.1	0.5
10/4	308	308	-	-	-	0.2	0.2	-	0.4	5.1	0.6	0.2	0.8

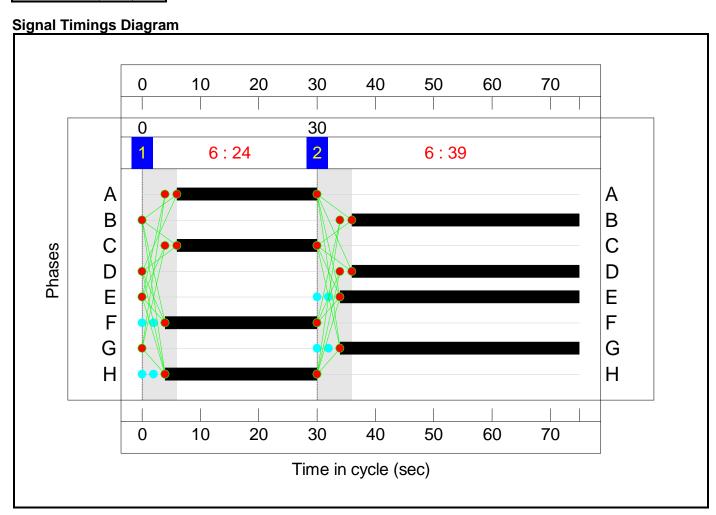
	G1G7 111G 1100G												
11/1	614	614	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	482	482	-	-	-	1.5	0.9	-	2.4	17.6	7.2	0.9	8.1
12/2	446	446	-	-	-	2.0	0.6	-	2.7	21.6	6.5	0.6	7.2
12/3	253	253	-	-	-	0.2	0.2	-	0.5	6.6	0.4	0.2	0.6
		C1		for Signalled Lanes (%) RC Over All Lanes (%)			r for Signalled Lan Delay Over All Lar		51.96 Cyc 51.96	cle Time (s): 65	5		

Full Input Data And Results Scenario 6: '2037 PM' (FG6: '2037 PM', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	24	39
Change Point	0	30



Full Input Data And Results Network Layout Diagram

## **Network Results**

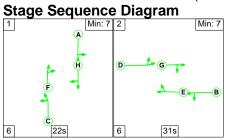
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	82.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	82.6%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	24	-	500	2070:1933	448+417	57.9 : 57.9%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	24	-	575	2105:2105	535+285	70.1 : 70.1%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	39	-	944	2104:1902	807+389	78.9 : 78.9%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	39	-	1017	2105:2105	411+819	82.6 : 82.6%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	24	-	645	2094:1884	471+397	74.4 : 74.4%
3/3	A40 North Ahead	U	N/A	N/A	А		1	24	-	511	2105	702	72.8%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	39	-	737	2105:1908	907+250	63.7 : 63.7%
4/3	A48 East Ahead	U	N/A	N/A	В		1	39	-	504	2105	1123	44.9%
5/1		U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	534	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	41	-	624	1894	1061	58.8%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	41	-	677	2073	1161	58.3%
6/3	Circulatory S Right	U	N/A	N/A	E		1	41	-	192	2005	1123	17.1%
7/1		U	N/A	N/A	-		-	-	-	865	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	875	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	26	-	311	1870	673	46.2%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	26	-	317	1936	697	45.5%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	26	-	200	2005	722	27.7%
9/1		U	N/A	N/A	-	-	-	-	618	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	309	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	41	-	645	1940	1086	59.4%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	41	-	507	2080	1165	43.5%
10/3	Circulatory N Right	U	N/A	N/A	G	1	41	-	276	2005	1123	24.6%
10/4	Circulatory N Right	U	N/A	N/A	G	1	41	-	434	2005	1123	38.7%
11/1		U	N/A	N/A	-	-	-	-	940	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	557	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н	1	26	-	576	1940	698	82.5%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	26	-	580	2074	747	77.7%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	26	-	365	2005	722	50.6%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	37.0	18.7	0.0	55.7	-	-	-	-
Unnamed Junction	-	-	0	0	0	37.0	18.7	0.0	55.7	-	-	-	-
1/2+1/1	500	500	-	-	-	2.6	0.7	-	3.3	24.0	4.4	0.7	5.0
1/3+1/4	575	575	-	-	-	3.2	1.2	-	4.4	27.5	7.9	1.2	9.0
2/2+2/1	944	944	-	-	-	3.2	1.8	-	5.1	19.4	12.5	1.8	14.4
2/3+2/4	1017	1017	-	-	-	3.6	2.3	-	6.0	21.1	14.4	2.3	16.8
3/2+3/1	645	645	-	-	-	3.6	1.4	-	5.0	28.1	6.9	1.4	8.3
3/3	511	511	-	-	-	3.1	1.3	-	4.4	31.3	9.4	1.3	10.7
4/2+4/1	737	737	-	-	-	2.3	0.9	-	3.2	15.6	9.1	0.9	9.9
4/3	504	504	-	-	-	1.5	0.4	-	1.9	13.6	6.4	0.4	6.8
5/1	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	534	534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	624	624	-	-	-	0.5	0.7	-	1.2	6.9	3.2	0.7	3.9
6/2	677	677	-	-	-	2.2	0.7	-	2.9	15.4	12.2	0.7	12.9
6/3	192	192	-	-	-	0.1	0.1	-	0.2	4.1	0.3	0.1	0.4
7/1	865	865	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	875	875	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	311	311	-	-	-	0.6	0.4	-	1.0	11.8	1.6	0.4	2.1
8/2	317	317	-	-	-	1.5	0.4	-	1.9	21.9	4.4	0.4	4.8
8/3	200	200	-	-	-	0.2	0.2	-	0.4	6.8	0.3	0.2	0.5
9/1	618	618	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	645	645	-	-	-	0.5	0.7	-	1.2	6.6	1.7	0.7	2.4
10/2	507	507	-	-	-	1.0	0.4	-	1.3	9.5	4.2	0.4	4.6
10/3	276	276	-	-	-	0.2	0.2	-	0.4	4.6	0.5	0.2	0.7
10/4	434	434	-	-	-	0.3	0.3	-	0.7	5.5	1.1	0.3	1.5

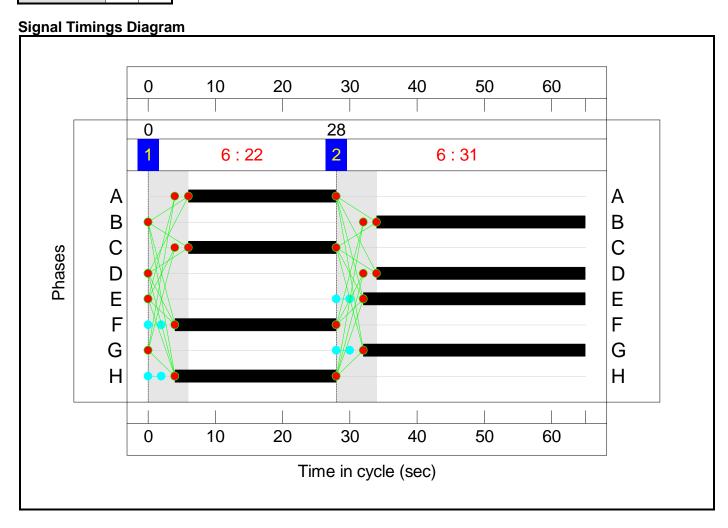
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11/1	940	940	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	557	557	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	576	576	-	-	-	2.5	2.3	-	4.8	30.1	11.4	2.3	13.7
12/2	580	580	-	-	-	3.8	1.7	-	5.5	34.0	11.2	1.7	12.9
12/3	365	365	-	-	-	0.4	0.5	-	0.9	8.5	0.6	0.5	1.1
		C1		for Signalled Lanes (% RC Over All Lanes (%)			/ for Signalled Lan Delay Over All Lar		55.67 Cyc 55.67	cle Time (s): 75	5		

Full Input Data And Results Scenario 7: 'S1 2027 AM B+D' (FG7: 'S1 2027 AM + D', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	22	31
Change Point	0	28



Full Input Data And Results Network Layout Diagram

## **Network Results**

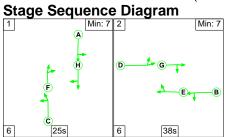
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	80.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	80.7%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	22	-	744	2070:1933	501+421	80.7 : 80.7%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	22	-	520	2105:2105	623+221	61.6 : 61.6%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	31	-	666	2104:1902	662+559	54.6 : 54.6%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	31	-	717	2105:2105	416+758	61.1 : 61.1%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	22	-	489	2104:1884	525+389	53.5 : 53.5%
3/3	A40 North Ahead	U	N/A	N/A	А		1	22	-	361	2105	745	48.5%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	31	-	885	2105:1908	816+283	80.6 : 80.6%
4/3	A48 East Ahead	U	N/A	N/A	В		1	31	-	822	2105	1036	79.3%
5/1		U	N/A	N/A	-		-	-	-	687	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	370	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	33	-	702	1894	991	70.9%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	33	-	742	2074	1085	68.4%
6/3	Circulatory S Right	U	N/A	N/A	E		1	33	-	317	2005	1049	30.2%
7/1		U	N/A	N/A	-		-	-	-	1042	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	1085	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	24	-	392	1870	719	54.5%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	24	-	370	1940	746	49.6%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	24	-	136	2005	771	17.6%
9/1		U	N/A	N/A	-	-	-	-	697	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	376	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	355	1940	1015	35.0%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	379	2080	1088	34.8%
10/3	Circulatory N Right	U	N/A	N/A	G	1	33	-	183	2005	1049	17.4%
10/4	Circulatory N Right	U	N/A	N/A	G	1	33	-	291	2005	1049	27.7%
11/1		U	N/A	N/A	-	-	-	-	563	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	384	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н	1	24	-	459	1940	746	61.5%
12/2	Circulatory E Ahead Right	U	N/A	N/A	н	1	24	-	415	2072	797	52.1%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	24	-	237	2005	771	30.7%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	29.1	15.3	0.0	44.4	-	-	-	-
Unnamed Junction	-	-	0	0	0	29.1	15.3	0.0	44.4	-	-	-	-
1/2+1/1	744	744	-	-	-	3.5	2.0	-	5.6	27.0	8.2	2.0	10.2
1/3+1/4	520	520	-	-	-	2.4	0.8	-	3.2	21.8	6.0	0.8	6.8
2/2+2/1	666	666	-	-	-	1.9	0.6	-	2.5	13.3	3.9	0.6	4.5
2/3+2/4	717	717	-	-	-	2.1	0.8	-	2.9	14.3	6.0	0.8	6.8
3/2+3/1	489	489	-	-	-	2.1	0.6	-	2.7	19.7	3.7	0.6	4.3
3/3	361	361	-	-	-	1.6	0.5	-	2.1	21.1	5.0	0.5	5.5
4/2+4/1	885	885	-	-	-	3.1	2.0	-	5.1	20.8	11.3	2.0	13.3
4/3	822	822	-	-	-	3.1	1.9	-	5.0	22.0	12.3	1.9	14.2
5/1	687	687	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	370	370	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	702	702	-	-	-	0.6	1.2	-	1.8	9.3	3.2	1.2	4.4
6/2	742	742	-	-	-	1.4	1.1	-	2.5	12.0	6.4	1.1	7.4
6/3	317	317	-	-	-	0.2	0.2	-	0.4	4.9	0.5	0.2	0.7
7/1	1042	1042	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1085	1085	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	392	392	-	-	-	0.6	0.6	-	1.2	10.6	1.6	0.6	2.2
8/2	370	370	-	-	-	1.8	0.5	-	2.3	22.0	6.1	0.5	6.6
8/3	136	136	-	-	-	0.1	0.1	-	0.2	6.0	0.2	0.1	0.3
9/1	697	697	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	376	376	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	355	355	-	-	-	0.2	0.3	-	0.5	5.1	1.1	0.3	1.3
10/2	379	379	-	-	-	0.7	0.3	-	0.9	8.8	2.6	0.3	2.9
10/3	183	183	-	-	-	0.1	0.1	-	0.2	4.6	0.3	0.1	0.4
10/4	291	291	-	-	-	0.2	0.2	-	0.4	5.0	0.6	0.2	0.8

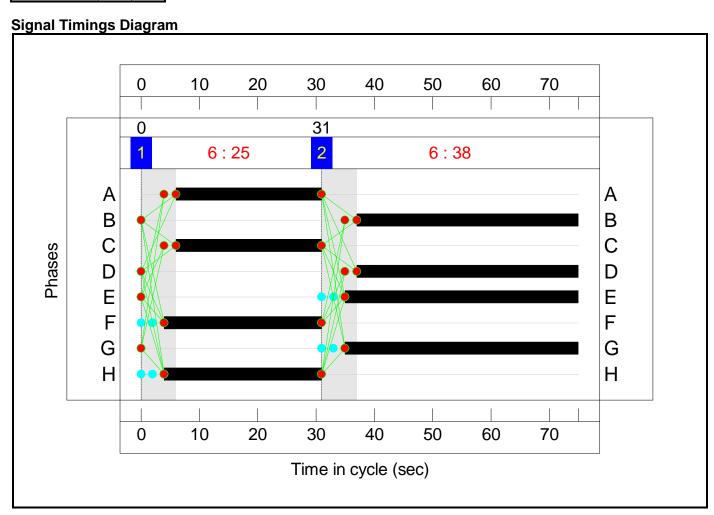
11/1	563	563	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	459	459	-	-	-	1.3	0.8	-	2.1	16.5	4.3	0.8	5.1
12/2	415	415	-	-	-	1.9	0.5	-	2.5	21.4	6.0	0.5	6.5
12/3	237	237	-	-	-	0.2	0.2	-	0.4	6.5	0.4	0.2	0.6
		C1		for Signalled Lanes (%) RC Over All Lanes (%)			r for Signalled Lan Delay Over All Lar		1.40 Cyc 1.40	ele Time (s): 65			

Full Input Data And Results Scenario 8: 'S1 2027 PM B+D' (FG8: 'S1 2027 PM + D', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	25	38
Change Point	0	31



Full Input Data And Results Network Layout Diagram

## **Network Results**

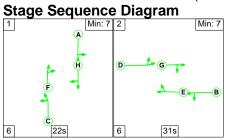
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	78.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	78.8%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	25	-	466	2070:1933	461+430	52.3 : 52.3%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	25	-	576	2105:2105	552+298	67.8 : 67.8%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	38	-	865	2105:1902	780+394	73.7 : 73.7%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	38	-	948	2105:2105	405+799	78.8 : 78.8%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	25	-	608	2096:1884	482+417	67.6 : 67.6%
3/3	A40 North Ahead	U	N/A	N/A	А		1	25	-	478	2105	730	65.5%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	38	-	691	2105:1908	862+277	60.7 : 60.7%
4/3	A48 East Ahead	U	N/A	N/A	В		1	38	-	474	2105	1095	43.3%
5/1		U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	40	_	578	1894	1035	55.8%
6/2	Circulatory S Ahead Right	U	N/A	N/A	Е		1	40	-	629	2072	1133	55.5%
6/3	Circulatory S Right	U	N/A	N/A	E		1	40	-	169	2005	1096	15.4%
7/1		U	N/A	N/A	-		-	-	-	803	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	806	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	27	-	293	1870	698	42.0%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	27	-	314	1936	723	43.4%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	27	-	202	2005	749	27.0%
9/1		U	N/A	N/A	-	-	-	-	583	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	296	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	40	-	593	1940	1061	55.9%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	40	-	491	2080	1137	43.2%
10/3	Circulatory N Right	U	N/A	N/A	G	1	40	-	262	2005	1096	23.9%
10/4	Circulatory N Right	U	N/A	N/A	G	1	40	-	397	2005	1096	36.2%
11/1		U	N/A	N/A	-	-	-	-	875	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	527	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	н	1	27	-	552	1940	724	76.2%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	27	-	551	2072	774	71.2%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	27	-	324	2005	749	43.3%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	34.1	14.8	0.0	48.9	-	-	-	-
Unnamed Junction	-	-	0	0	0	34.1	14.8	0.0	48.9	-	-	-	-
1/2+1/1	466	466	-	-	-	2.3	0.5	-	2.9	22.4	3.7	0.5	4.2
1/3+1/4	576	576	-	-	-	3.1	1.0	-	4.1	25.9	7.7	1.0	8.8
2/2+2/1	865	865	-	-	-	2.9	1.4	-	4.3	18.0	10.7	1.4	12.1
2/3+2/4	948	948	-	-	-	3.4	1.8	-	5.2	19.8	12.7	1.8	14.6
3/2+3/1	608	608	-	-	-	3.2	1.0	-	4.2	25.1	5.7	1.0	6.7
3/3	478	478	-	-	-	2.8	0.9	-	3.7	27.8	8.4	0.9	9.3
4/2+4/1	691	691	-	-	-	2.2	0.8	-	3.0	15.4	8.0	0.8	8.8
4/3	474	474	-	-	-	1.5	0.4	-	1.9	14.1	6.1	0.4	6.4
5/1	720	720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	578	578	-	-	-	0.5	0.6	-	1.1	7.1	3.2	0.6	3.8
6/2	629	629	-	-	-	2.0	0.6	-	2.6	14.9	11.1	0.6	11.8
6/3	169	169	-	-	-	0.1	0.1	-	0.2	4.2	0.3	0.1	0.3
7/1	803	803	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	806	806	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	293	293	-	-	-	0.6	0.4	-	0.9	11.7	1.7	0.4	2.0
8/2	314	314	-	-	-	1.3	0.4	-	1.7	19.5	3.8	0.4	4.2
8/3	202	202	-	-	-	0.2	0.2	-	0.4	6.5	0.3	0.2	0.5
9/1	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	296	296	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	593	593	-	-	-	0.4	0.6	-	1.1	6.5	2.7	0.6	3.4
10/2	491	491	-	-	-	1.0	0.4	-	1.4	10.2	4.7	0.4	5.1
10/3	262	262	-	-	-	0.2	0.2	-	0.3	4.7	0.5	0.2	0.7
10/4	397	397	-	-	-	0.3	0.3	-	0.6	5.6	1.0	0.3	1.3

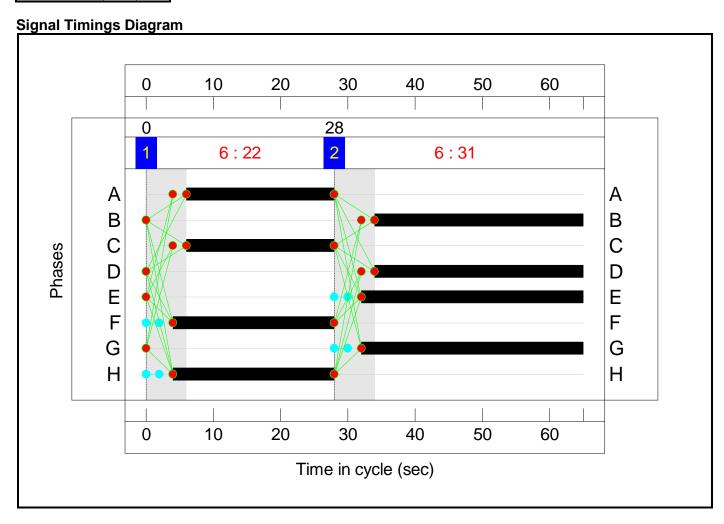
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11/1	875	875	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	527	527	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	552	552	-	-	-	2.4	1.6	-	3.9	25.7	10.8	1.6	12.4
12/2	551	551	-	-	-	3.4	1.2	-	4.6	30.0	10.5	1.2	11.7
12/3	324	324	-	-	-	0.3	0.4	-	0.7	7.5	0.5	0.4	0.9
		C1		for Signalled Lanes (%) RC Over All Lanes (%)			ofor Signalled Lan Delay Over All Lar		8.91 Cyc 8.91	cle Time (s): 75	5		

Full Input Data And Results Scenario 9: 'S1 2037 AM B+D' (FG9: 'S1 2037 AM + D', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	22	31
Change Point	0	28



Full Input Data And Results Network Layout Diagram

## **Network Results**

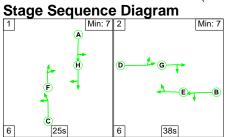
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	88.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	88.5%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	22	-	807	2070:1933	494+435	86.8 : 86.8%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	22	-	560	2105:2105	627+213	66.6 : 66.6%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	31	-	768	2105:1902	677+527	63.8 : 63.8%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	31	-	732	2105:2105	361+788	63.7 : 63.7%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	22	-	509	2104:1884	514+420	54.5 : 54.5%
3/3	A40 North Ahead	U	N/A	N/A	А		1	22	-	412	2105	745	55.3%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	31	-	949	2100:1908	865+207	88.5 : 88.5%
4/3	A48 East Ahead	U	N/A	N/A	В		1	31	-	901	2105	1036	86.9%
5/1		U	N/A	N/A	-		-	-	-	686	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	33	-	744	1894	991	75.1%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	33	-	764	2079	1087	70.3%
6/3	Circulatory S Right	U	N/A	N/A	E		1	33	-	402	2005	1049	38.3%
7/1		U	N/A	N/A	-		-	-	-	1122	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	1185	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	24	-	400	1870	719	55.6%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	24	-	428	1939	746	57.4%

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8/3	Circulatory E Right	U	N/A	N/A	F		1	24	-	142	2005	771	18.4%
9/1		U	N/A	N/A	-		-	-	-	736	Inf	Inf	0.0%
9/2		U	N/A	N/A	-		-	-	-	426	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G		1	33	-	434	1940	1015	42.8%
10/2	Circulatory N Ahead	U	N/A	N/A	G		1	33	-	360	2080	1088	33.1%
10/3	Circulatory N Right	U	N/A	N/A	G		1	33	-	225	2005	1049	21.5%
10/4	Circulatory N Right	U	N/A	N/A	G		1	33	-	289	2005	1049	27.6%
11/1		U	N/A	N/A	-		-	-	-	663	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н		1	24	-	503	1940	746	67.4%
12/2	Circulatory E Ahead Right	U	N/A	N/A	н		1	24	-	436	2073	797	54.7%
12/3	Circulatory E Right	U	N/A	N/A	Н		1	24	-	265	2005	771	34.4%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	32.8	21.1	0.0	53.9	-	-	-	-
Unnamed Junction	-	-	0	0	0	32.8	21.1	0.0	53.9	-	-	-	-
1/2+1/1	807	807	-	-	-	4.0	3.1	-	7.1	31.7	9.7	3.1	12.8
1/3+1/4	560	560	-	-	-	2.6	1.0	-	3.6	23.1	7.0	1.0	7.9
2/2+2/1	768	768	-	-	-	2.2	0.9	-	3.1	14.5	5.2	0.9	6.1
2/3+2/4	732	732	-	-	-	2.2	0.9	-	3.1	15.0	6.9	0.9	7.7
3/2+3/1	509	509	-	-	-	2.2	0.6	-	2.8	19.8	3.7	0.6	4.3
3/3	412	412	-	-	-	1.9	0.6	-	2.5	22.3	6.0	0.6	6.6
4/2+4/1	949	949	-	-	-	3.7	3.6	-	7.3	27.7	13.8	3.6	17.5
4/3	901	901	-	-	-	3.7	3.2	-	6.8	27.4	14.3	3.2	17.4
5/1	686	686	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	458	458	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	744	744	-	-	-	0.6	1.5	-	2.1	10.3	1.8	1.5	3.3
6/2	764	764	-	-	-	1.5	1.2	-	2.7	12.8	7.1	1.2	8.3
6/3	402	402	-	-	-	0.3	0.3	-	0.6	5.3	0.6	0.3	0.9
7/1	1122	1122	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1185	1185	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	400	400	-	-	-	0.4	0.6	-	1.0	9.0	2.6	0.6	3.2
8/2	428	428	-	-	-	2.3	0.7	-	2.9	24.8	7.5	0.7	8.2
8/3	142	142	-	-	-	0.1	0.1	-	0.2	6.0	0.2	0.1	0.3
9/1	736	736	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	426	426	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	434	434	-	-	-	0.3	0.4	-	0.7	5.6	2.7	0.4	3.1
10/2	360	360	-	-	-	0.6	0.2	-	0.9	9.0	2.7	0.2	2.9
10/3	225	225	-	=	-	0.2	0.1	-	0.3	4.8	0.4	0.1	0.6
10/4	289	289	-	-	-	0.2	0.2	-	0.4	4.9	0.5	0.2	0.7

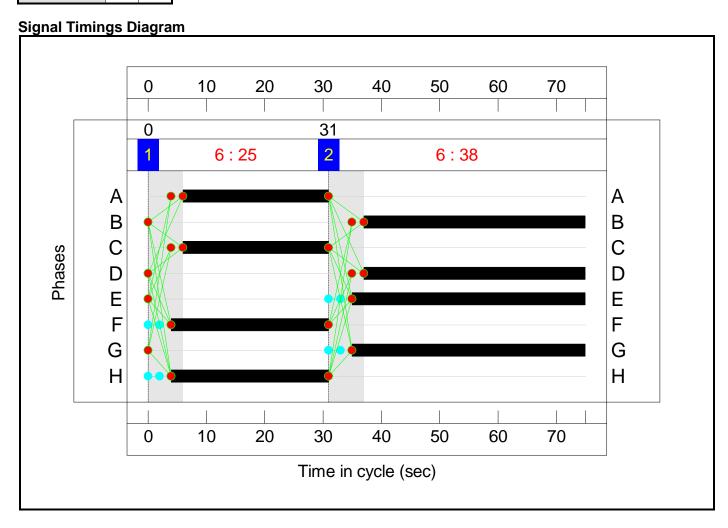
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11/1	663	663	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	362	362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	503	503	-	-	-	1.7	1.0	-	2.7	19.2	8.1	1.0	9.2
12/2	436	436	-	-	-	1.9	0.6	-	2.5	20.6	6.0	0.6	6.6
12/3	265	265	-	-	-	0.2	0.3	-	0.5	6.7	0.4	0.3	0.7
		C1		for Signalled Lanes (% RC Over All Lanes (%)			ofor Signalled Lan Delay Over All Lar		53.90 Cyd 53.90	cle Time (s): 65	5		

Full Input Data And Results Scenario 10: 'S1 2037 PM B+D' (FG10: 'S1 2037 PM + D', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	25	38
Change Point	0	31



Full Input Data And Results Network Layout Diagram

## **Network Results**

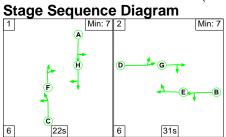
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	85.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	85.3%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	25	-	505	2070:1933	460+430	56.7 : 56.7%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	25	-	621	2105:2105	556+290	73.3 : 73.3%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	38	-	961	2101:1902	823+328	83.4 : 83.4%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	38	-	1005	2105:2105	384+811	84.1 : 84.1%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	25	-	638	2095:1884	478+427	70.5 : 70.5%
3/3	A40 North Ahead	U	N/A	N/A	А		1	25	-	538	2105	730	73.7%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	38	-	680	2105:1908	841+305	59.3 : 59.3%
4/3	A48 East Ahead	U	N/A	N/A	В		1	38	-	583	2105	1095	53.3%
5/1		U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	40	-	601	1894	1035	58.0%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	40	-	649	2079	1137	57.1%
6/3	Circulatory S Right	U	N/A	N/A	E		1	40	-	243	2005	1096	22.2%
7/1		U	N/A	N/A	-		-	-	-	845	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	900	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	27	-	346	1870	698	49.6%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	27	-	315	1934	722	43.6%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	27	-	213	2005	749	28.5%
9/1		U	N/A	N/A	-	-	-	-	620	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	331	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	40	-	671	1940	1061	63.3%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	40	-	503	2080	1137	44.2%
10/3	Circulatory N Right	U	N/A	N/A	G	1	40	-	325	2005	1096	29.7%
10/4	Circulatory N Right	U	N/A	N/A	G	1	40	-	390	2005	1096	35.6%
11/1		U	N/A	N/A	-	-	-	-	972	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	547	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н	1	27	-	618	1940	724	85.3%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	27	-	619	2067	772	80.2%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	27	-	309	2005	749	41.3%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	37.9	20.3	0.0	58.2	-	-	-	-
Unnamed Junction	-	-	0	0	0	37.9	20.3	0.0	58.2	-	-	-	-
1/2+1/1	505	505	-	-	-	2.6	0.7	-	3.2	23.0	4.2	0.7	4.9
1/3+1/4	621	621	-	-	-	3.4	1.4	-	4.8	27.8	8.9	1.4	10.2
2/2+2/1	961	961	-	-	-	3.7	2.5	-	6.1	22.9	14.3	2.5	16.7
2/3+2/4	1005	1005	-	-	-	3.8	2.6	-	6.4	22.9	14.9	2.6	17.5
3/2+3/1	638	638	-	-	-	3.4	1.2	-	4.6	25.8	6.2	1.2	7.4
3/3	538	538	-	-	-	3.2	1.4	-	4.6	30.8	9.7	1.4	11.1
4/2+4/1	680	680	-	-	-	2.1	0.7	-	2.8	15.0	7.4	0.7	8.2
4/3	583	583	-	-	-	1.9	0.6	-	2.5	15.5	7.9	0.6	8.5
5/1	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	601	601	-	-	-	0.6	0.7	-	1.3	8.0	3.2	0.7	3.9
6/2	649	649	-	-	-	1.8	0.7	-	2.5	13.6	10.6	0.7	11.2
6/3	243	243	-	-	-	0.2	0.1	-	0.3	4.4	0.4	0.1	0.5
7/1	845	845	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	900	900	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	346	346	-	-	-	0.4	0.5	-	0.9	8.9	0.7	0.5	1.2
8/2	315	315	-	-	-	1.8	0.4	-	2.2	25.1	5.5	0.4	5.8
8/3	213	213	-	-	-	0.2	0.2	-	0.4	6.6	0.3	0.2	0.5
9/1	620	620	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	671	671	-	-	-	0.5	0.9	-	1.4	7.3	1.5	0.9	2.3
10/2	503	503	-	-	-	1.0	0.4	-	1.4	10.3	5.8	0.4	6.2
10/3	325	325	-	-	-	0.3	0.2	-	0.5	5.1	0.8	0.2	1.0
10/4	390	390	-	-	-	0.3	0.3	-	0.6	5.4	0.9	0.3	1.2

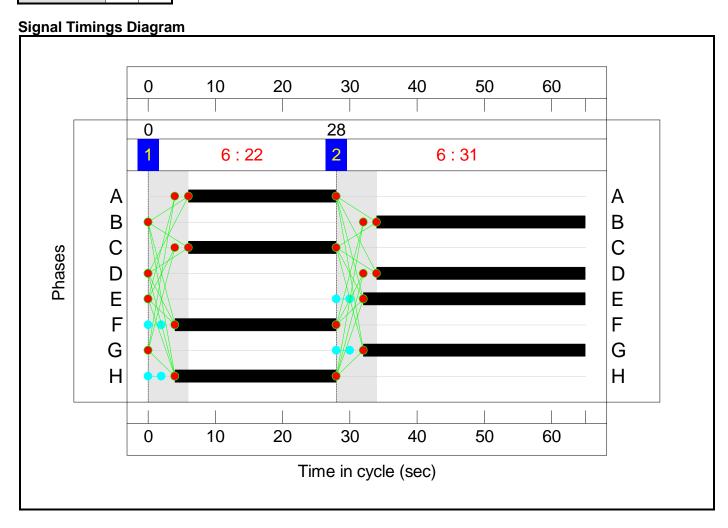
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11/1	972	972	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	547	547	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	618	618	-	-	-	3.1	2.8	-	5.8	33.9	12.5	2.8	15.2
12/2	619	619	-	-	-	3.3	2.0	-	5.3	31.0	11.6	2.0	13.6
12/3	309	309	-	-	-	0.3	0.4	-	0.6	7.4	0.5	0.4	0.8
		C1		for Signalled Lanes (% RC Over All Lanes (%)			/ for Signalled Lan Delay Over All Lar		58.21 Cyc 58.21	cle Time (s): 75	5		

Full Input Data And Results Scenario 11: 'S5 2027 AM B+D' (FG11: 'S5 2027 AM + D', Plan 1: 'Network Control Plan 1')

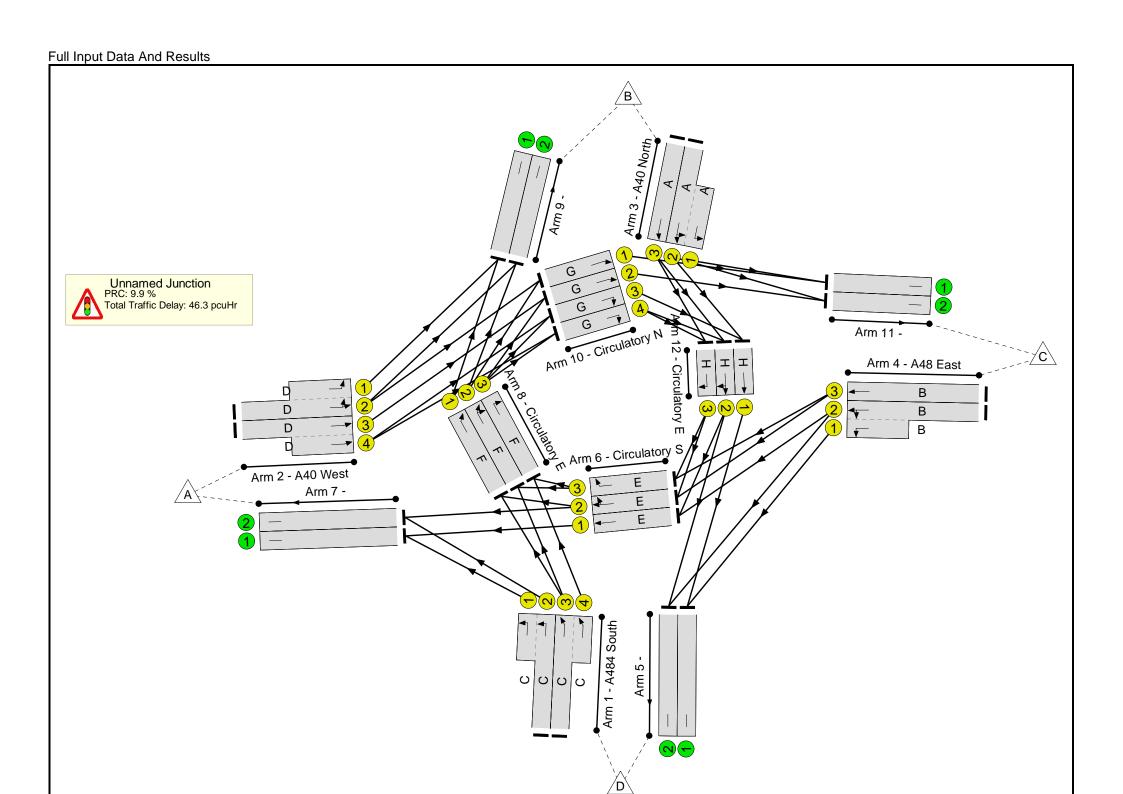


**Stage Timings** 

Stage	1	2
Duration	22	31
Change Point	0	28



Full Input Data And Results Network Layout Diagram



## **Network Results**

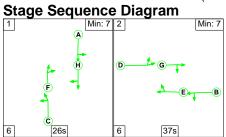
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	81.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	81.9%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	22	-	763	2070:1933	490+443	81.8 : 81.8%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	22	-	567	2105:2105	616+234	66.8 : 66.8%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	31	-	716	2105:1902	679+524	59.5 : 59.5%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	31	-	684	2105:2105	340+800	60.0 : 60.0%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	22	-	480	2105:1884	517+412	51.7 : 51.7%
3/3	A40 North Ahead	U	N/A	N/A	А		1	22	-	387	2105	745	52.0%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	31	-	894	2103:1908	828+264	81.9 : 81.9%
4/3	A48 East Ahead	U	N/A	N/A	В		1	31	-	827	2105	1036	79.8%
5/1		U	N/A	N/A	-		-	-	-	698	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	407	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	33	-	680	1894	991	68.6%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	33	-	717	2078	1087	66.0%
6/3	Circulatory S Right	U	N/A	N/A	E		1	33	-	364	2005	1049	34.7%
7/1		U	N/A	N/A	-		-	-	-	1042	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	1104	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	24	-	405	1870	719	56.3%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	24	-	384	1940	746	51.5%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	24	-	156	2005	771	20.2%
9/1		U	N/A	N/A	-	-	-	-	717	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	382	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	406	1940	1015	40.0%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	349	2080	1088	32.1%
10/3	Circulatory N Right	U	N/A	N/A	G	1	33	-	215	2005	1049	20.5%
10/4	Circulatory N Right	U	N/A	N/A	G	1	33	-	276	2005	1049	26.3%
11/1		U	N/A	N/A	-	-	-	-	619	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	349	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н	1	24	-	482	1940	746	64.6%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	24	-	409	2075	798	51.2%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	24	-	254	2005	771	32.9%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	30.2	16.1	0.0	46.3	-	-	-	-
Unnamed Junction	-	-	0	0	0	30.2	16.1	0.0	46.3	-	-	-	-
1/2+1/1	763	763	-	-	-	3.6	2.2	-	5.8	27.5	8.4	2.2	10.6
1/3+1/4	567	567	-	-	-	2.6	1.0	-	3.6	23.0	6.9	1.0	7.9
2/2+2/1	716	716	-	-	-	2.0	0.7	-	2.8	13.9	4.5	0.7	5.2
2/3+2/4	684	684	-	-	-	2.0	0.7	-	2.7	14.5	6.3	0.7	7.1
3/2+3/1	480	480	-	-	-	2.1	0.5	-	2.6	19.4	3.6	0.5	4.1
3/3	387	387	-	-	-	1.8	0.5	-	2.3	21.6	5.5	0.5	6.0
4/2+4/1	894	894	-	-	-	3.2	2.2	-	5.4	21.7	11.6	2.2	13.8
4/3	827	827	-	-	-	3.2	1.9	-	5.1	22.2	12.4	1.9	14.3
5/1	698	698	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	407	407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	680	680	-	-	-	0.5	1.1	-	1.6	8.6	1.6	1.1	2.7
6/2	717	717	-	-	-	1.4	1.0	-	2.4	12.0	6.5	1.0	7.5
6/3	364	364	-	-	-	0.2	0.3	-	0.5	5.0	0.6	0.3	0.8
7/1	1042	1042	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1104	1104	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	405	405	-	-	-	0.4	0.6	-	1.0	9.3	2.6	0.6	3.3
8/2	384	384	-	-	-	2.1	0.5	-	2.6	24.3	6.7	0.5	7.3
8/3	156	156	-	-	-	0.1	0.1	-	0.3	6.1	0.2	0.1	0.4
9/1	717	717	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	382	382	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	406	406	-	-	-	0.3	0.3	-	0.6	5.4	2.2	0.3	2.6
10/2	349	349	-	-	-	0.7	0.2	-	0.9	9.6	2.9	0.2	3.2
10/3	215	215	-	-	-	0.1	0.1	-	0.3	4.7	0.4	0.1	0.5
10/4	276	276	-	-	-	0.2	0.2	-	0.4	5.0	0.5	0.2	0.7

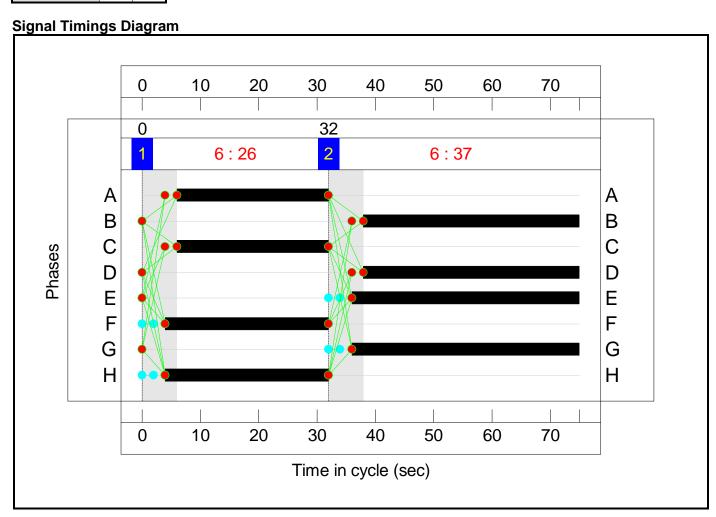
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11/1	619	619	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	349	349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	482	482	-	-	-	1.6	0.9	-	2.5	18.4	7.6	0.9	8.5
12/2	409	409	-	-	-	1.8	0.5	-	2.3	20.5	5.6	0.5	6.1
12/3	254	254	-	-	-	0.2	0.2	-	0.5	6.6	0.4	0.2	0.6
		C1		for Signalled Lanes (% RC Over All Lanes (%)			/ for Signalled Lan Delay Over All Lar		46.27 Cyc 46.27	cle Time (s): 65	•		

Full Input Data And Results Scenario 12: 'S5 2027 PM B+D' (FG12: 'S5 2027 PM + D', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	26	37
Change Point	0	32



Full Input Data And Results Network Layout Diagram

## **Network Results**

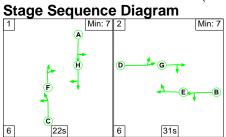
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	81.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	81.6%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	26	-	494	2070:1933	473+444	53.9 : 53.9%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	26	-	621	2105:2105	568+312	70.6 : 70.6%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	37	-	916	2103:1902	795+334	81.1 : 81.1%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	37	-	938	2105:2105	329+821	81.6 : 81.6%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	26	-	607	2097:1884	492+441	65.1 : 65.1%
3/3	A40 North Ahead	U	N/A	N/A	А		1	26	-	516	2105	758	68.1%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	37	-	651	2105:1908	796+335	57.6 : 57.6%
4/3	A48 East Ahead	U	N/A	N/A	В		1	37	-	539	2105	1067	50.5%
5/1		U	N/A	N/A	-		-	-	-	802	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	39	-	554	1894	1010	54.8%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	39	-	603	2078	1108	54.4%
6/3	Circulatory S Right	U	N/A	N/A	E		1	39	-	219	2005	1069	20.5%
7/1		U	N/A	N/A	-		-	-	-	793	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	844	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	28	-	324	1870	723	44.8%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	28	-	310	1936	749	41.4%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	28	-	220	2005	775	28.4%
9/1		U	N/A	N/A	-	-	-	-	595	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	311	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	39	-	644	1940	1035	62.2%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	39	-	458	2080	1109	41.3%
10/3	Circulatory N Right	U	N/A	N/A	G	1	39	-	320	2005	1069	29.9%
10/4	Circulatory N Right	U	N/A	N/A	G	1	39	-	380	2005	1069	35.5%
11/1		U	N/A	N/A	-	-	-	-	931	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	489	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н	1	28	-	609	1940	750	81.2%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	28	-	613	2068	800	76.7%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	28	-	283	2005	775	36.5%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	35.9	17.2	0.0	53.1	-	-	-	-
Unnamed Junction	-	-	0	0	0	35.9	17.2	0.0	53.1	-	-	-	-
1/2+1/1	494	494	-	-	-	2.4	0.6	-	3.0	21.8	3.8	0.6	4.4
1/3+1/4	621	621	-	-	-	3.3	1.2	-	4.5	25.9	8.4	1.2	9.6
2/2+2/1	916	916	-	-	-	3.5	2.1	-	5.6	22.2	13.2	2.1	15.3
2/3+2/4	938	938	-	-	-	3.7	2.2	-	5.8	22.4	13.9	2.2	16.1
3/2+3/1	607	607	-	-	-	3.1	0.9	=	4.0	23.6	5.2	0.9	6.1
3/3	516	516	-	-	-	2.9	1.1	-	4.0	27.7	9.0	1.1	10.1
4/2+4/1	651	651	-	-	-	2.1	0.7	-	2.7	15.2	6.8	0.7	7.4
4/3	539	539	-	-	-	1.8	0.5	-	2.3	15.7	7.3	0.5	7.8
5/1	802	802	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	554	554	-	-	-	0.6	0.6	-	1.2	8.1	3.2	0.6	3.8
6/2	603	603	-	-	-	1.7	0.6	-	2.3	13.6	9.4	0.6	10.0
6/3	219	219	-	-	-	0.1	0.1	=	0.3	4.5	0.3	0.1	0.5
7/1	793	793	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	844	844	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	324	324	-	-	-	0.4	0.4	-	0.8	8.4	0.8	0.4	1.2
8/2	310	310	-	-	-	1.6	0.4	=	2.0	22.7	4.9	0.4	5.3
8/3	220	220	-	-	-	0.2	0.2	-	0.4	6.4	0.3	0.2	0.5
9/1	595	595	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	311	311	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	644	644	-	-	-	0.5	0.8	-	1.3	7.3	1.7	0.8	2.5
10/2	458	458	-	-	-	1.1	0.4	-	1.5	11.5	5.8	0.4	6.2
10/3	320	320	-	-	-	0.3	0.2	-	0.5	5.4	0.8	0.2	1.0
10/4	380	380	-	-	-	0.3	0.3	-	0.6	5.4	0.8	0.3	1.1

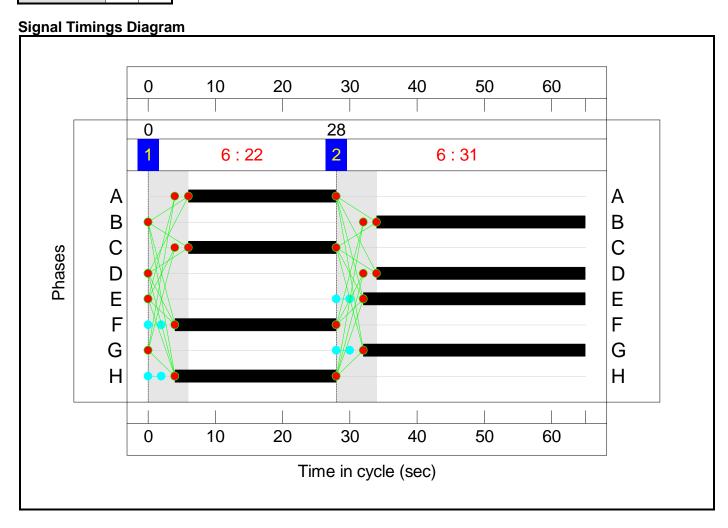
	ata / tila i tooa												
11/1	931	931	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	489	489	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	609	609	-	-	-	3.0	2.1	-	5.0	29.8	12.1	2.1	14.2
12/2	613	613	-	-	-	3.2	1.6	-	4.8	28.1	11.6	1.6	13.2
12/3	283	283	-	-	-	0.2	0.3	-	0.5	6.8	0.4	0.3	0.7
		C1		for Signalled Lanes (%) RC Over All Lanes (%)			ofor Signalled Lan Delay Over All Lar		3.07 Cyc 3.07	cle Time (s): 75	5		

Full Input Data And Results Scenario 13: 'S5 2037 AM B+D' (FG13: 'S5 2037 AM + D', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	22	31
Change Point	0	28



Full Input Data And Results Network Layout Diagram

## **Network Results**

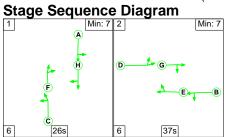
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	22	-	826	2070:1933	494+436	88.9 : 88.9%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	22	-	606	2105:2105	622+223	71.7 : 71.7%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	31	-	783	2104:1902	688+504	65.7 : 65.7%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	31	-	734	2105:2105	333+804	64.6 : 64.6%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	22	-	513	2104:1884	516+413	55.2 : 55.2%
3/3	A40 North Ahead	U	N/A	N/A	А		1	22	-	425	2105	745	57.1%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	31	-	956	2099:1908	872+197	89.5 : 89.5%
4/3	A48 East Ahead	U	N/A	N/A	В		1	31	-	908	2105	1036	87.6%
5/1		U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	499	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	E		1	33	-	742	1894	991	74.9%
6/2	Circulatory S Ahead Right	U	N/A	N/A	E		1	33	-	761	2080	1088	69.9%
6/3	Circulatory S Right	U	N/A	N/A	E		1	33	-	407	2005	1049	38.8%
7/1		U	N/A	N/A	-		-	-	-	1129	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	1197	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	24	-	414	1870	719	57.6%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	24	-	442	1939	746	59.3%

T all hipat E	Jala Allu Nesul	1.0										
8/3	Circulatory E Right	U	N/A	N/A	F	1	24	-	160	2005	771	20.7%
9/1		U	N/A	N/A	-	-	-	-	745	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	442	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	452	1940	1015	44.5%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	33	-	363	2080	1088	33.4%
10/3	Circulatory N Right	U	N/A	N/A	G	1	33	-	235	2005	1049	22.4%
10/4	Circulatory N Right	U	N/A	N/A	G	1	33	-	296	2005	1049	28.2%
11/1		U	N/A	N/A	-	-	-	-	680	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	366	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н	1	24	-	517	1940	746	69.3%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	24	-	461	2072	797	57.8%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	24	-	260	2005	771	33.7%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	33.8	23.0	0.0	56.8	-	-	-	-
Unnamed Junction	-	-	0	0	0	33.8	23.0	0.0	56.8	-	-	-	-
1/2+1/1	826	826	-	-	-	4.1	3.7	-	7.8	34.1	10.2	3.7	13.9
1/3+1/4	606	606	-	-	-	2.9	1.3	-	4.1	24.5	7.7	1.3	9.0
2/2+2/1	783	783	-	-	-	2.3	1.0	-	3.2	14.9	5.9	1.0	6.8
2/3+2/4	734	734	-	-	-	2.2	0.9	-	3.1	15.3	7.1	0.9	8.0
3/2+3/1	513	513	-	-	-	2.2	0.6	-	2.8	19.9	3.8	0.6	4.4
3/3	425	425	-	-	-	2.0	0.7	-	2.7	22.6	6.1	0.7	6.8
4/2+4/1	956	956	-	-	-	3.7	4.0	-	7.7	29.0	14.3	4.0	18.2
4/3	908	908	-	-	-	3.7	3.4	-	7.1	28.1	14.6	3.4	18.0
5/1	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	499	499	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	742	742	-	-	-	0.7	1.5	-	2.1	10.4	1.9	1.5	3.4
6/2	761	761	-	-	-	1.5	1.2	-	2.7	12.6	7.0	1.2	8.2
6/3	407	407	-	-	-	0.3	0.3	-	0.6	5.4	0.7	0.3	1.0
7/1	1129	1129	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1197	1197	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	414	414	-	-	-	0.4	0.7	-	1.1	9.2	1.6	0.7	2.2
8/2	442	442	-	-	-	2.3	0.7	-	3.0	24.8	7.7	0.7	8.4
8/3	160	160	-	-	-	0.1	0.1	-	0.3	6.1	0.2	0.1	0.4
9/1	745	745	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	452	452	-	-	-	0.3	0.4	-	0.7	5.7	1.7	0.4	2.1
10/2	363	363	-	-	-	0.7	0.3	-	1.0	9.4	3.0	0.3	3.2
10/3	235	235	-	-	-	0.2	0.1	-	0.3	5.0	0.5	0.1	0.7
10/4	296	296	-	-	-	0.2	0.2	-	0.4	4.8	0.5	0.2	0.7

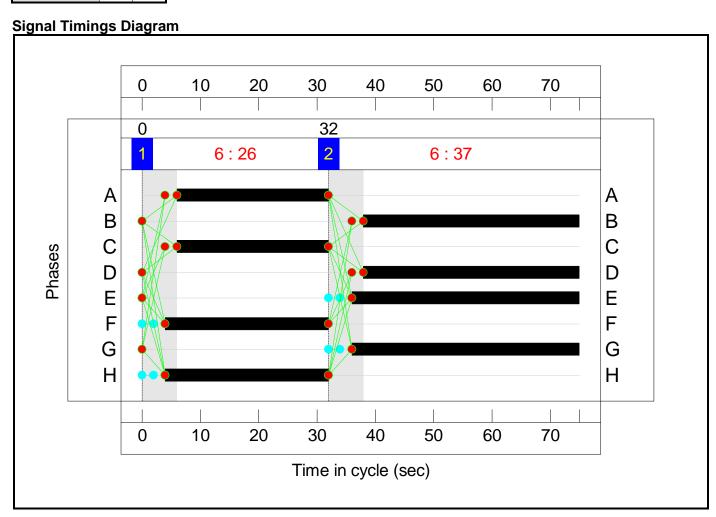
		1			1	1	1			1	1		1
11/1	680	680	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	366	366	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	517	517	-	-	-	1.8	1.1	-	2.9	20.0	8.4	1.1	9.5
12/2	461	461	-	-	-	1.9	0.7	-	2.6	20.5	6.4	0.7	7.1
12/3	260	260	-	-	-	0.2	0.3	-	0.5	6.7	0.4	0.3	0.6
		C1		for Signalled Lanes (% RC Over All Lanes (%)			r for Signalled Lan Delay Over All Lar		56.76 Cyc 56.76	cle Time (s): 65	5		·

Full Input Data And Results Scenario 14: 'S5 2037 PM B+D' (FG14: 'S5 2037 PM + D', Plan 1: 'Network Control Plan 1')



**Stage Timings** 

Stage	1	2
Duration	26	37
Change Point	0	32



Full Input Data And Results Network Layout Diagram

## **Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	88.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	88.4%
1/2+1/1	A484 South Left	U	N/A	N/A	С		1	26	-	534	2070:1933	474+443	58.2 : 58.2%
1/3+1/4	A484 South Ahead	U	N/A	N/A	С		1	26	-	666	2105:2105	560+326	75.2 : 75.2%
2/2+2/1	A40 West Left Ahead	U	N/A	N/A	D		1	37	-	989	2101:1902	808+314	88.1 : 88.1%
2/3+2/4	A40 West Ahead	U	N/A	N/A	D		1	37	-	1018	2105:2105	334+818	88.4 : 88.4%
3/2+3/1	A40 North Left Ahead	U	N/A	N/A	А		1	26	-	647	2096:1884	493+439	69.4 : 69.4%
3/3	A40 North Ahead	U	N/A	N/A	А		1	26	-	566	2105	758	74.7%
4/2+4/1	A48 East Left Ahead	U	N/A	N/A	В		1	37	-	704	2105:1908	799+330	62.3 : 62.3%
4/3	A48 East Ahead	U	N/A	N/A	В		1	37	-	584	2105	1067	54.8%
5/1		U	N/A	N/A	-		-	-	-	857	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	562	Inf	Inf	0.0%
6/1	Circulatory S Ahead	U	N/A	N/A	Е		1	39	-	595	1894	1010	58.9%
6/2	Circulatory S Ahead Right	U	N/A	N/A	Е		1	39	-	651	2079	1109	58.7%
6/3	Circulatory S Right	U	N/A	N/A	E		1	39	-	247	2005	1069	23.1%
7/1		U	N/A	N/A	-		-	-	-	853	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	921	Inf	Inf	0.0%
8/1	Circulatory E Ahead	U	N/A	N/A	F		1	28	-	349	1870	723	48.3%
8/2	Circulatory E Ahead Right	U	N/A	N/A	F		1	28	-	325	1938	749	43.4%

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8/3	Circulatory E Right	U	N/A	N/A	F	1	28	-	245	2005	775	31.6%
9/1		U	N/A	N/A	-	-	-	-	626	Inf	Inf	0.0%
9/2		U	N/A	N/A	-	-	-	-	352	Inf	Inf	0.0%
10/1	Circulatory N Ahead	U	N/A	N/A	G	1	39	-	685	1940	1035	66.2%
10/2	Circulatory N Ahead	U	N/A	N/A	G	1	39	-	507	2080	1109	45.7%
10/3	Circulatory N Right	U	N/A	N/A	G	1	39	-	349	2005	1069	32.6%
10/4	Circulatory N Right	U	N/A	N/A	G	1	39	-	407	2005	1069	38.1%
11/1		U	N/A	N/A	-	-	-	-	990	Inf	Inf	0.0%
11/2		U	N/A	N/A	-	-	-	-	547	Inf	Inf	0.0%
12/1	Circulatory E Ahead	U	N/A	N/A	Н	1	28	-	651	1940	750	86.8%
12/2	Circulatory E Ahead Right	U	N/A	N/A	Н	1	28	-	659	2069	800	82.4%
12/3	Circulatory E Right	U	N/A	N/A	Н	1	28	-	314	2005	775	40.5%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	39.9	23.6	0.0	63.5	-	-	-	-
Unnamed Junction	-	-	0	0	0	39.9	23.6	0.0	63.5	-	-	,	-
1/2+1/1	534	534	-	-	-	2.6	0.7	-	3.3	22.4	4.6	0.7	5.3
1/3+1/4	666	666	-	-	-	3.6	1.5	-	5.1	27.4	9.4	1.5	10.9
2/2+2/1	989	989	-	-	-	4.1	3.5	-	7.6	27.8	15.9	3.5	19.4
2/3+2/4	1018	1018	-	-	-	4.3	3.6	-	7.9	27.8	16.3	3.6	19.9
3/2+3/1	647	647	-	-	-	3.3	1.1	-	4.4	24.7	6.3	1.1	7.4
3/3	566	566	-	-	-	3.3	1.5	-	4.8	30.3	10.2	1.5	11.7
4/2+4/1	704	704	-	-	-	2.3	0.8	-	3.1	16.1	7.9	0.8	8.7
4/3	584	584	-	-	-	2.0	0.6	-	2.7	16.4	8.3	0.6	8.9
5/1	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	562	562	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	595	595	-	-	-	0.6	0.7	-	1.4	8.2	3.2	0.7	3.9
6/2	651	651	-	-	-	1.9	0.7	-	2.6	14.3	10.6	0.7	11.3
6/3	247	247	-	-	-	0.2	0.2	-	0.3	4.5	0.4	0.2	0.5
7/1	853	853	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	921	921	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	349	349	-	-	-	0.3	0.5	-	0.8	8.3	0.6	0.5	1.1
8/2	325	325	-	-	-	1.8	0.4	-	2.2	24.2	5.6	0.4	5.9
8/3	245	245	-	-	-	0.2	0.2	-	0.4	6.6	0.4	0.2	0.6
9/1	626	626	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	352	352	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	685	685	-	-	-	0.5	1.0	-	1.5	7.7	1.3	1.0	2.2
10/2	507	507	-	-	-	1.3	0.4	-	1.7	12.0	6.6	0.4	7.0
10/3	349	349	-	-	-	0.3	0.2	-	0.5	5.1	0.7	0.2	0.9
10/4	407	407	-	-	-	0.4	0.3	-	0.7	5.9	1.1	0.3	1.4

	ata / tila i tooa												
11/1	990	990	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	547	547	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	651	651	-	-	-	3.2	3.1	-	6.3	34.7	13.1	3.1	16.2
12/2	659	659	-	-	-	3.5	2.3	-	5.7	31.3	12.7	2.3	14.9
12/3	314	314	-	-	-	0.3	0.3	-	0.6	7.2	0.5	0.3	0.8
		C1		for Signalled Lanes (%) RC Over All Lanes (%)			/ for Signalled Lan Delay Over All Lar		63.53 Cyc 63.53	cle Time (s): 75	5		

# Appendix S



# **Junctions 9**

#### **ARCADY 9 - Roundabout Module**

Version: 9.5.1.7462 © Copyright TRL Limited, 2019

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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Morrisons Roundabout.j9

Path: K:\T23\Jobs\T23.107 Pibwrlwyd\Analysis\Modelling\JUNCTIONS9\ARCADY

**Report generation date:** 27/04/2023 15:55:36

«2023, AM

**»Junction Network** 

»Arms

»Traffic Demand

»Origin-Destination Data

»Vehicle Mix

»Results



#### Summary of junction performance

		А	M				Р	M		
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					20	23				
A - A484 north		1.5	5.00	0.60	А		2.1	5.93	0.68	А
B - Morrisons	_	0.3	3.95	0.23	А	D0	0.6	4.88	0.36	А
C - Llys Deri	D1	0.1	6.09	0.07	Α	D2	0.4	9.58	0.28	Α
D - A484 south		2.3	7.48	0.69	А		0.6	3.90	0.36	Α
					20	27				
A - A484 north		1.7	5.31	0.63	А		2.3	6.42	0.70	А
B - Morrisons	D0	0.3	4.07	0.24	А		0.6	5.11	0.38	Α
C - Llys Deri	D3	0.1	6.28	0.07	А	D4	0.4	10.26	0.30	В
D - A484 south		2.6	8.27	0.72	А		0.6	4.04	0.37	Α
					20	37				
A - A484 north		2.2	6.29	0.68	А		3.2	8.10	0.76	А
B - Morrisons	D.	0.4	4.42	0.27	А	D.	0.8	5.84	0.43	А
C - Llys Deri	D5	0.1	6.79	0.08	А	D6	0.6	12.49	0.36	В
D - A484 south		3.8	11.23	0.79	В		0.7	4.42	0.41	Α
	S1 2027 B+D									
A - A484 north		1.9	5.76	0.65	А	D8	2.7	7.12	0.73	А
B - Morrisons		0.3	4.23	0.25	А		0.7	5.43	0.40	А
C - Llys Deri	D7	0.1	6.51	0.09	А	שט	0.7	12.47	0.40	В
D - A484 south		3.3	10.09	0.77	В		0.7	4.28	0.40	Α
				S	1 203	7 B+D				
A - A484 north		2.5	6.93	0.71	А		3.7	9.24	0.79	А
B - Morrisons	D.	0.4	4.60	0.28	А	D40	0.8	6.25	0.45	Α
C - Llys Deri	D9	0.1	7.07	0.10	Α	D10	0.9	15.93	0.47	С
D - A484 south		5.2	14.78	0.84	В		0.8	4.72	0.44	Α
				S	5 202	7 B+D				
A - A484 north		2.2	6.36	0.69	А		3.8	9.33	0.79	А
B - Morrisons	D44	0.4	4.41	0.26	Α	D40	0.8	6.28	0.45	А
C - Llys Deri	D11	0.1	6.80	0.09	Α	D12	0.8	15.23	0.45	С
D - A484 south		4.6	13.07	0.82	В		0.9	4.84	0.47	Α
				s	5 203	7 B+D				
A - A484 north		2.9	7.80	0.74	А		5.7	13.28	0.86	В
B - Morrisons	D40	0.4	4.82	0.29	А	B44	1.0	7.40	0.51	Α
C - Llys Deri	D13	0.1	7.40	0.11	А	D14	1.2	20.68	0.54	С
D - A484 south		8.0	21.69	0.90	С		1.1	5.40	0.51	Α

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.



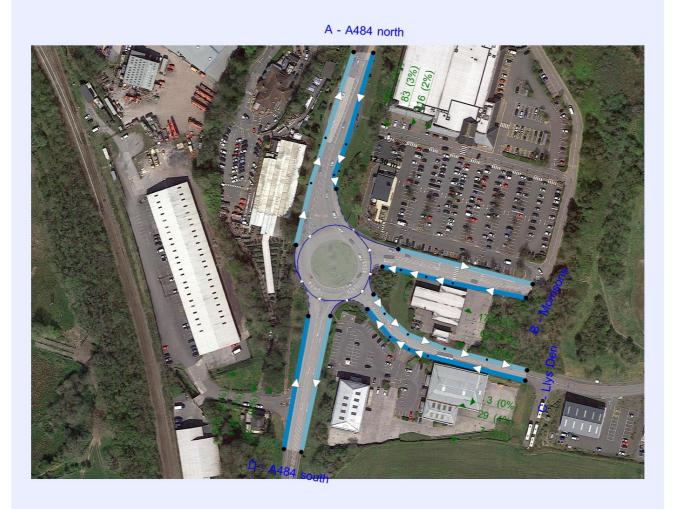
#### File summary

#### File Description

Title	Р
Location	
Site number	
Date	11/04/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ATRANS\KatieWilliams
Description	

#### Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	S	-Min	perMin



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.



## **Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

#### **Analysis Set Details**

I	D	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A	۱۱	✓	100.000	100.000

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	AM	ONE HOUR	07:45	09:15	15	✓



# 2023, AM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Geometry	A - A484 north - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

#### **Junctions**

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS	ĺ
1	Morrisons Roundabout	Standard Roundabout		A, B, C, D	5.98	Α	ĺ

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## Arms

#### **Arms**

Arm	Name	Description
Α	A484 north	
В	Morrisons	
С	Llys Deri	
D	A484 south	

#### **Roundabout Geometry**

Arm	width (m) width (m)		l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A484 north	4.21 7.00		32.9	53.1	55.0	37.3	
B - Morrisons	orrisons 3.22 7.34		27.1	12.5	55.0	34.9	
C - Llys Deri	lys Deri 3.47 7.03		3.3	14.6	55.0	64.8	
D - A484 south	3.73	7.20	15.2	56.6	55.0	25.1	

#### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A484 north	0.632	1951
B - Morrisons	0.577	1730
C - Llys Deri	0.440	1114
D - A484 south	0.620	1822

The slope and intercept shown above include any corrections and adjustments.

## **Traffic Demand**

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00



#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)		
A - A484 north		ONE HOUR	✓	1019	100.000		
B - Morrisons		ONE HOUR	✓	250	100.000		
C - Llys Deri		ONE HOUR	✓	39	100.000		
D - A484 south		ONE HOUR	✓	1002	100.000		

# **Origin-Destination Data**

#### Demand (PCU/hr)

			То			
		A - A484 north	B - Morrisons	C - Llys Deri	D - A484 south	
From	A - A484 north	129	216	83	591	
	B - Morrisons	174	0	13	63	
	C - Llys Deri	29	3	0	7	
	D - A484 south	870	110	22	0	

# Vehicle Mix

#### **Heavy Vehicle Percentages**

			То			
		A - A484 north	B - Morrisons	C - Llys Deri	D - A484 south	
	A - A484 north	3	2	3	2	
From	B - Morrisons	3	0	0	0	
	C - Llys Deri	4	0	0	0	
	D - A484 south	2	1	6	0	

# Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A484 north	<b>484 north</b> 0.60 5.00		1.5	А	935	1403
B - Morrisons	rrisons 0.23 3.99		0.3	А	229	344
C - Llys Deri	C - Llys Deri 0.07		0.1	А	A 36	
D - A484 south	0.69	7.48	2.3	Α	919	1379

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	767	192	101	1887	0.407	764	901	0.0	0.7	3.269	Α
B - Morrisons	188	47	619	1373	0.137	188	247	0.0	0.2	3.098	А
C - Llys Deri	29	7	718	798	0.037	29	89	0.0	0.0	4.816	Α
D - A484 south	754	189	251	1666	0.453	751	496	0.0	0.8	3.997	А



#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	916	229	121	1874	0.489	915	1079	0.7	1.0	3.832	Α
B - Morrisons	225	56	741	1303	0.173	225	295	0.2	0.2	3.408	А
C - Llys Deri	35	9	859	736	0.048	35	106	0.0	0.1	5.284	А
D - A484 south	901	225	301	1636	0.551	899	594	0.8	1.2	4.974	А

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	1122	280	148	1857	0.604	1120	1319	1.0	1.5	4.972	Α
B - Morrisons	275	69	906	1207	0.228	275	361	0.2	0.3	3.941	Α
C - Llys Deri	43	11	1052	652	0.066	43	130	0.1	0.1	6.086	А
D - A484 south	1103	276	368	1594	0.692	1099	726	1.2	2.2	7.363	А

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	1122	280	149	1857	0.604	1122	1323	1.5	1.5	5.004	Α
B - Morrisons	275	69	908	1206	0.228	275	362	0.3	0.3	3.948	А
C - Llys Deri	43	11	1054	651	0.066	43	130	0.1	0.1	6.095	А
D - A484 south	1103	276	369	1593	0.692	1103	728	2.2	2.3	7.482	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	916	229	122	1874	0.489	918	1085	1.5	1.0	3.858	А
B - Morrisons	225	56	744	1301	0.173	225	297	0.3	0.2	3.415	А
C - Llys Deri	35	9	862	735	0.048	35	106	0.1	0.1	5.295	А
D - A484 south	901	225	302	1635	0.551	905	596	2.3	1.3	5.056	А

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	767	192	102	1887	0.407	768	907	1.0	0.7	3.295	Α
B - Morrisons	188	47	622	1371	0.137	188	248	0.2	0.2	3.106	Α
C - Llys Deri	29	7	721	797	0.037	29	89	0.1	0.0	4.828	А
D - A484 south	754	189	253	1665	0.453	756	498	1.3	0.9	4.045	Α

# Appendix T



# **Junctions 9**

#### **ARCADY 9 - Roundabout Module**

Version: 9.5.1.7462 © Copyright TRL Limited, 2019

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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Pibwrlwyd roundabout.j9

Path: K:\T23\Jobs\T23.107 Pibwrlwyd\Analysis\Modelling\JUNCTIONS9\ARCADY

**Report generation date:** 27/04/2023 16:05:23

#### «S5 2037 B+D, PM

»Junction Network

»Arms

»Traffic Demand

»Origin-Destination Data

»Vehicle Mix

»Results



#### Summary of junction performance

		А	.M				Р	М		
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					20	23				
A - A484 north		0.9	4.59	0.47	Α		1.2	5.27	0.55	А
B - Pibwrlwyd Lane	D1	0.0	2.86	0.03	Α	D2	0.1	3.26	0.06	Α
C - A484 south	וטו	1.1	4.42	0.52	Α	D2	0.2	2.39	0.19	Α
D - Ysgol Bro Myrddin		0.3	3.60	0.23	Α		0.1	2.33	0.05	Α
					20	27				
A - A484 north		1.0	4.75	0.49	Α		1.3	5.51	0.57	А
B - Pibwrlwyd Lane	D3	0.0	2.90	0.04	Α	D4	0.1	3.32	0.06	Α
C - A484 south	D3	1.2	4.64	0.54	Α	D4	0.3	2.41	0.20	Α
D - Ysgol Bro Myrddin		0.3	3.71	0.25	Α		0.1	2.35	0.05	Α
	2037									
A - A484 north		1.2	5.20	0.53	Α		1.6	6.22	0.62	А
B - Pibwrlwyd Lane	D5	0.0	3.00	0.04	Α	D6	0.1	3.49	0.07	Α
C - A484 south	טט	1.5	5.30	0.59	Α		0.3	2.48	0.22	Α
D - Ysgol Bro Myrddin		0.4	4.04	0.28	Α		0.1	2.40	0.06	Α
				S	1 202	7 B+D				
A - A484 north		1.0	4.81	0.50	Α	D8	1.4	5.61	0.58	А
B - Pibwrlwyd Lane	D7	0.0	2.91	0.04	Α		0.1	3.35	0.06	Α
C - A484 south		1.2	4.69	0.55	Α		0.3	2.42	0.20	Α
D - Ysgol Bro Myrddin		0.3	3.74	0.25	Α		0.1	2.35	0.06	Α
				S	1 203	7 B+D				
A - A484 north		1.2	5.27	0.54	Α		1.7	6.35	0.63	А
B - Pibwrlwyd Lane	D9	0.0	3.01	0.04	Α	D10	0.1	3.51	0.07	Α
C - A484 south	Da	1.5	5.38	0.60	Α	D10	0.3	2.49	0.22	Α
D - Ysgol Bro Myrddin		0.4	4.07	0.28	Α		0.1	2.40	0.06	Α
				S	5 202	27 B+D				
A - A484 north		1.0	4.91	0.51	Α		1.5	5.99	0.60	А
B - Pibwrlwyd Lane	D11	0.0	2.93	0.04	Α	D12	0.1	3.43	0.07	Α
C - A484 south		1.3	4.82	0.56	Α	012	0.3	2.46	0.21	Α
D - Ysgol Bro Myrddin		0.3	3.80	0.25	Α		0.1	2.38	0.06	Α
	\$5 2037 B+D									
A - A484 north		1.2	5.39	0.55	Α		1.9	6.83	0.65	А
B - Pibwrlwyd Lane	D13	0.0	3.04	0.04	Α	D14	0.1	3.60	0.07	Α
C - A484 south	סוט	1.6	5.54	0.61	Α	014	0.3	2.53	0.23	Α
D - Ysgol Bro Myrddin		0.4	4.15	0.29	Α		0.1	2.43	0.06	Α

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.



## File summary

#### File Description

Title	
Location	
Site number	
Date	11/04/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ATRANS\KatieWilliams
Description	

#### Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.



## **Analysis Options**

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

#### **Analysis Set Details**

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

#### **Demand Set Details**

	ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
Γ	D14	S5 2037 B+D	PM	ONE HOUR	16:15	17:45	15	✓



# S5 2037 B+D, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### **Junctions**

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.24	Α

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

#### **Arms**

#### **Arms**

Arm	Name	Description
Α	A484 north	
В	Pibwrlwyd Lane	
С	A484 south	
D	Ysgol Bro Myrddin	

#### **Roundabout Geometry**

Arm	V - Approach road half- width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A484 north	3.26	6.24	15.4	22.4	50.0	31.3	
B - Pibwrlwyd Lane	3.51	6.13	21.9	38.7	50.0	20.7	
C - A484 south	4.10	7.25	14.0	76.5	50.0	13.2	
D - Ysgol Bro Myrddin	3.52	8.03	15.8	53.7	50.0	17.2	

#### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A484 north	0.580	1545
B - Pibwrlwyd Lane	0.630	1729
C - A484 south	0.686	1968
D - Ysgol Bro Myrddin	0.671	1914

The slope and intercept shown above include any corrections and adjustments.

## **Traffic Demand**

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00



#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A484 north		ONE HOUR	✓	912	100.000
B - Pibwrlwyd Lane		ONE HOUR	✓	75	100.000
C - A484 south		ONE HOUR	✓	396	100.000
D - Ysgol Bro Myrddin		ONE HOUR	✓	91	100.000

# **Origin-Destination Data**

#### Demand (PCU/hr)

			То		
		A - A484 north	B - Pibwrlwyd Lane	C - A484 south	D - Ysgol Bro Myrddin
	A - A484 north	4	30	818	60
From	B - Pibwrlwyd Lane	60	0	15	0
	C - A484 south	382	4	0	9
	D - Ysgol Bro Myrddin	83	0	8	0

# Vehicle Mix

#### **Heavy Vehicle Percentages**

			То		
		A - A484 north	B - Pibwrlwyd Lane	C - A484 south	D - Ysgol Bro Myrddin
	A - A484 north	0	9	1	0
From	B - Pibwrlwyd Lane	2	0	8	0
	C - A484 south	1	0	0	0
	D - Ysgol Bro Myrddin	0	0	0	0

# Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A484 north	0.65	6.83	1.9	А	837	1256
B - Pibwrlwyd Lane	0.07	3.60	0.1	А	69	103
C - A484 south	0.23	2.53	0.3	А	363	545
D - Ysgol Bro Myrddin	0.06	2.43	0.1	А	84	126

### Main Results for each time segment

#### 16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	687	172	9	1540	0.446	684	398	0.0	0.8	4.236	Α
B - Pibwrlwyd Lane	56	14	667	1309	0.043	56	26	0.0	0.0	2.962	Α
C - A484 south	298	74	94	1904	0.156	297	630	0.0	0.2	2.260	Α
D - Ysgol Bro Myrddin	69	17	339	1686	0.041	69	52	0.0	0.0	2.225	Α



#### 16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	820	205	11	1539	0.533	819	477	0.8	1.1	5.048	А
B - Pibwrlwyd Lane	67	17	799	1226	0.055	67	31	0.0	0.1	3.203	А
C - A484 south	356	89	112	1892	0.188	356	754	0.2	0.2	2.366	А
D - Ysgol Bro Myrddin	82	21	406	1642	0.050	82	62	0.0	0.1	2.308	А

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	1004	251	14	1538	0.653	1002	584	1.1	1.9	6.759	А
B - Pibwrlwyd Lane	82	21	978	1113	0.074	82	38	0.1	0.1	3.599	Α
C - A484 south	436	109	137	1874	0.232	435	923	0.2	0.3	2.526	А
D - Ysgol Bro Myrddin	101	25	497	1580	0.064	100	76	0.1	0.1	2.432	А

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	1004	251	14	1538	0.653	1004	584	1.9	1.9	6.829	А
B - Pibwrlwyd Lane	82	21	980	1112	0.074	82	38	0.1	0.1	3.605	А
C - A484 south	436	109	137	1874	0.232	436	925	0.3	0.3	2.526	Α
D - Ysgol Bro Myrddin	101	25	497	1580	0.064	101	76	0.1	0.1	2.432	А

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	820	205	11	1539	0.533	823	477	1.9	1.2	5.106	Α
B - Pibwrlwyd Lane	67	17	803	1223	0.055	67	31	0.1	0.1	3.210	А
C - A484 south	356	89	112	1891	0.188	356	758	0.3	0.2	2.367	А
D - Ysgol Bro Myrddin	82	21	406	1641	0.050	82	62	0.1	0.1	2.308	А

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A484 north	687	172	9	1540	0.446	688	400	1.2	0.8	4.282	Α
B - Pibwrlwyd Lane	56	14	672	1306	0.043	56	26	0.1	0.0	2.971	Α
C - A484 south	298	74	94	1904	0.156	298	634	0.2	0.2	2.265	А
D - Ysgol Bro Myrddin	69	17	340	1685	0.041	69	52	0.1	0.0	2.226	А

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