Dafen, Llanelli

Transport Assessment

Persimmon Homes West Wales

Project Number: 60615588

April 2023

Delivering a better world

Quality information

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Revision History

Revision	Revision date	Details	Authorised	Name	Position
V1	08/04/2020	PAC submission	SP	Spiro Panagi	Associate Director
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1. Introduction

1.1 Introduction

1.1.1 This Transport Assessment (TA) has been prepared by AECOM on behalf of Persimmon Homes West Wales in respect of a planning application for a proposed residential development on land to the east of the A4138 at Dafen, Llanelli, South Wales.

1.1.2 The site is located approximately 500m to the east of Dafen, around 3km northeast of Llanelli. The site is bounded to the west by the A4138, and to the east and south by open countryside. At the site's northern extent is the existing A4138/Llethri Road roundabout ('Industrial Park Roundabout'). The site access will be taken from the already constructed south-eastern arm of the roundabout. This arm is formally constructed as a short connection of flared entry and exit; beyond this is an informal track serving existing agricultural uses. The location of the site east of Dafen and the surrounding local area is shown on **Figure 2-1**.

1.1.3 The site is allocated for 150 dwellings in the *Carmarthenshire Local Development Plan 2006-2021* (LDP) (Site Reference: GA2/h27). The indicative LDP allocation for this site was based on an initial generalised appraisal of the site, which is typical of the high level assessments considered at LDP inclusion.

1.1.4 A first iteration of this TA was originally completed in April 2020 for 149 dwellings. Following the output of intrusive ground investigations and pre-application consultation with the Carmarthenshire County Council (CCC) SAB/SuDS department, the masterplan layout was revised to accommodate 160 dwellings. The TA for PAC submission provided an assessment for a maximum of 170 dwellings in order to ensure a robust assessment. The masterplan layout has, since that time, been revised to accommodate 150 dwellings, with a TA providing an assessment for this quantum.

1.1.5 In the final preparations for a planning submission, it has been confirmed that further identified site constraints were such that the most recent update to the masterplan layout has comprised a reduction in units to a total of 145 dwellings. This version of to the TA now reflects this change to 145 dwellings within the report narrative, however, the assessments, set out in the later chapters, have been retained in their consideration of the previous total of 150 dwellings.

1.1.6 The decision to retain the previous assessments rather than reproduce this work for removal of five units has ensured a further level of robustness in terms of development impact.

1.2 Scoping Exercise

1.2.1 AECOM prepared a scoping note setting out the proposed content for the April 2020 TA including the study area extent and intended assessments. This was submitted for review to CCC in October 2019, with a response received from CCC's approved sub-consultant, Atkins. The response confirmed that the proposed contents will provide an adequate assessment and the required information for the audit of this proposed development. A copy of the scoping note is contained at **Appendix A**. This scoping note response remains valid for this iteration of the TA. It is noted that time has elapsed since the original assessments and therefore the assessment years were revised for the TA prepared for PAC submission from 2022 opening year and 2027 future year, to 2023 opening year and 2028 future year. These assessment years remain valid for this TA submission.

1.3 Report Structure

1.3.1 The TA examines the existing transport and highway issues relating to the proposed development. It considers the expected travel demand and also investigates methods of limiting car based travel to produce a sustainable development in line with national and local planning guidance.

1.3.2 The TA is structured as follows:

- **Section 2** – Existing Situation and Site Accessibility: Examines the local transport conditions in the vicinity of the site and the accessibility of the site to non-car modes of travel;
- **Section 3** – Development Proposals: Provides a detailed description of the development proposals, including the proposed means of access and parking provision;
- **Section 4** – Planning Policy Review: Considers the development in the context of relevant national and local planning and transport policies;
- **Section 5** – Existing Highway Operation: Sets out the data collection undertaken in terms of traffic surveys, and junction capacity modelling for the existing highway network;
- **Section 6** – Trip Generation and Distribution: Sets out the forecast trip generation for all modes of travel and method of trip distribution for the proposed development;
- **Section 7** – Traffic Impact Assessment: Examines the impact of the development proposals on the highway network during the weekday AM and PM peak hours;
- **Section 8** – Transport Implementation Strategy: Details the key measures to mitigate the impact of the proposed development; and
- **Section 9** – Conclusions: Summarises the key findings and conclusions of the TA.

2. Existing Site and Accessibility

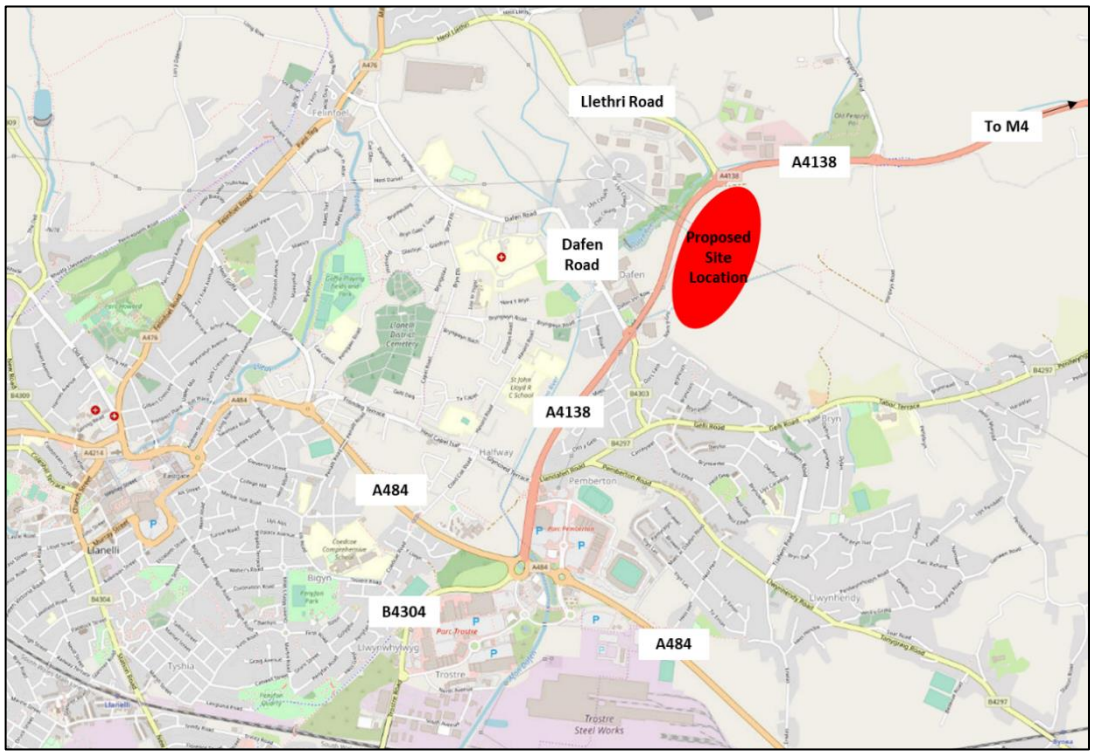
2.1 Introduction

2.1.1 This section of the TA provides a description of the site location and its existing usage, the local highway network, current safety record and traffic conditions, and accessibility to non-car modes of travel.

2.2 Site Location and Existing Usage

2.2.1 The site is located approximately 500m to the east of Dafen, around 3km northeast of Llanelli. The site is bounded to the west by the A4138, and to the east and south by open countryside. At the site's northern extent is the existing Industrial Park Roundabout. The site access will be taken from the already constructed south-eastern arm of the roundabout. This arm is formally constructed as a short connection of flared entry and exit; beyond this is an informal track serving existing agricultural uses. The location of the site east of Dafen and the surrounding local area is shown on **Figure 2-1.**

Figure 2-1 Site Location Plan



2.3 Local Highway Network

2.3.1 The local highway network comprises the following roads, which form the study area for this TA and are shown on **Figure 2-1**:

- A4138;
- Llethri Road; and
- B4303.

2.3.2 The A4138 is the main route linking Llanelli to the southwest of the site, to the M4 to the north of the site at Junction 48. The A4138 is a wide, single carriageway road subject to national speed limit within the vicinity of the site, shown in **Photo 2-1**. A shared footway/cycleway is provided on both sides of the A4138 between its junction with the B4303 to the south of the site, and Industrial Park Roundabout adjacent to the site boundary. An underpass is provided between the northbound and southbound pedestrian/cycle paths at the A4138/B4303 roundabout to the south of the site. Street lighting is provided along the extent of the A4138 within the vicinity of the site.

2.3.3 At the existing three-arm Industrial Park Roundabout, the A4138 forms the north-eastern and south-western arms, and Llethri Road forms the western arm of the roundabout. There is incomplete provision for a fourth south-eastern arm to the roundabout as shown in **Photo 2-2**, which is proposed to serve the proposed development. Both A4138 arms and Llethri Road have dual lane entry to the roundabout and single lane exit arms. A central island separates the entry and exit lanes of each arm at the roundabout as shown in **Photo 2-3**. Llethri Road continues in a north-easterly direction to meet the A476 Swiss Valley at a priority T-Junction to the north of Llanelli.

2.3.4 The A4138 meets the B4303 at a four-arm roundabout to the south of the site, with a single lane entry with flare and central island between the entry and exit carriageways on all arms. The A4138 forms the north-eastern and south-western arms of the roundabout, and the B4303 forms the north-western and south-eastern arms. Northwest of the A4138, the B4303 is a single carriageway road subject to a 30mph speed limit, shown in **Photo 2-4**; this provides access to a number of adjoining side roads including Clos Cilsaig which is the primary access route to the residential area of Dafen, as well as industrial, retail and education land uses along its extent. The B4303 Ynyswen forms the eastern arm of a four-arm roundabout where it meets the A476 at its western extent.

Photo 2-1 A4138 north of Industrial Park Roundabout.

Photo 2-2 Incomplete south-eastern arm of Industrial Park Roundabout, the proposed site access.

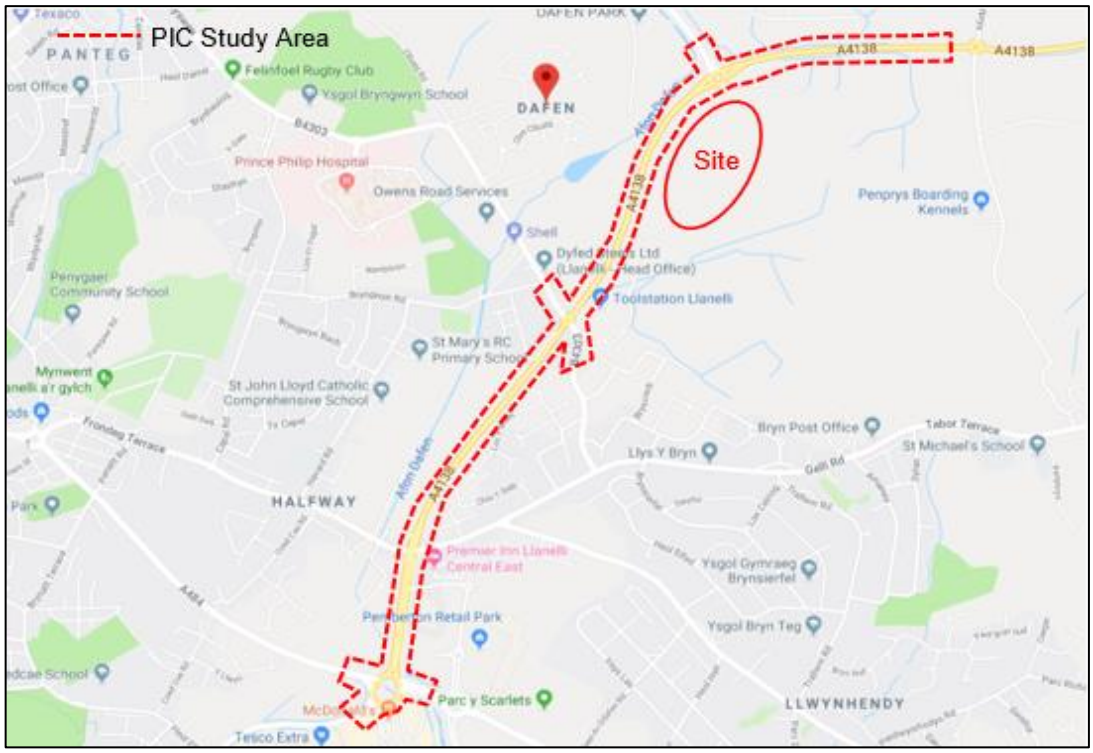
Photo 2-3 Dual lane entry, and central island between entry and exit arms to Industrial Park Roundabout.

Photo 2-4 B4303, looking towards the four-arm B4303/A4138 roundabout.

2.4 Road Safety

2.4.1 Personal Injury Accident (PIA) data has been obtained from CCC to determine whether there are any locations on the local highway network with poor collision records. CCC provided a report collating the individual PIA records and an accompanying map for the study area shown in **Figure 2-2**; for data protection reasons, these records cannot be reproduced in the TA.

Figure 2-2 Personal Injury Accident Data Study Area



2.4.2 During the five-year period from 1st August 2014 to 31st July 2019, a total of 43 PIAs were recorded in the study area, of which 38 resulted in 'slight' injuries. Five PIAs resulted in 'serious' injuries. No 'fatal' PIAs were recorded. A summary of the PIAs by location is provided in **Table 2-1**, discussed in the following paragraphs.

Table 2-1 Summary of Personal Injury Accident Data (CCC Data 01/08/2014 to 31/07/2019)

Location	Number of PIAs by Severity				No. of PIAs Involving Pedestrian / Cyclist Casualties
	Slight	Serious	Fatal	Total	
Industrial Park Roundabout	1	0	0	1	0
A4138, between Llethri Road and B4303	2	1	0	3	0
A4138/B4303 roundabout	5	0	0	5	0
B4303, west of A4138	0	1	0	1	1
A4138, between B4303 and B4297	2	0	0	2	0
A4138/B4297 signal-controlled junction	4	1	0	5	1
B4297, east of A4138	2	0	0	2	0
A4138/Pemberton Retail Park signal-controlled junction	4	0	0	4	0
A4138/A484 roundabout	18	2	0	20	3
Total	**38**	**5**	**0**	**43**	**5**

2.4.3 One ‘slight’ PIA was recorded at the Industrial Park Roundabout. This involved a collision between a car and goods vehicle on the roundabout circulatory.

2.4.4 Three PIAs were recorded on the A4138, between Llethri Road and the B4303, of which two were ‘slight’ and one was ‘serious’. All of the PIAs involved rear-end shunts.

2.4.5 Five ‘slight’ PIAs were recorded at the A4138/B4303 roundabout. Three of these PIAs were described as collisions between a car entering the roundabout into the path of another car already on the roundabout circulatory, indicating a failure to give-way. One of the PIAs involved a rear-end shunt between two cars. The remaining PIA involved one car, which lost control on the exit of the roundabout, exited the carriageway and collided with a lamp column.

2.4.6 One ‘serious’ PIA was recorded on the B4303, west of the roundabout with the A4138, although the description suggests it was not associated with this junction. This involved a collision between a car and a cyclist, both travelling westbound.

2.4.7 Two ‘slight’ PIAs were recorded on the A4138, between the B4303 and A429. These both involved a rear-end shunt between three cars.

2.4.8 Five PIAs were recorded at the A4138/B4297 signal-controlled junction, of which four were ‘slight’ and one was ‘serious’. Of the ‘slight’ PIAs, two involved rear-end shunts, one involved a car contravening a red signal (leading to a collision with another car), and one involved a bus/coach taking evasive action to avoid collision with a goods vehicle (causing a passenger to fall and sustain injury). The ‘serious’ PIA occurred when a cyclist crossed the road into the path of an emergency vehicle on response.

2.4.9 Two ‘slight’ PIAs were recorded on the B4297 and both involved rear-end shunts between three cars (from cars waiting to turn right/access on-street parking). This was recorded to the east of the signal-controlled junction with the A4138 and the description suggests it was not associated with this junction.

2.4.10 Four ‘slight’ PIAs were recorded at the A4138/Pemberton Retail Park signal-controlled junction. Three of the PIAs involved a collision caused by a vehicle contravening a red signal. The remaining PIA involved a rear-end shunt between two cars.

2.4.11 A total of 20 PIAs were recorded at the A4138/A484 roundabout, of which 18 were ‘slight’ and two were ‘serious’. Of the ‘slight’ PIAs, 14 involved rear-end shunts (from a following vehicle expecting another vehicle to enter the roundabout or failing to slow on the approach to the roundabout), of which one involved injury to a cyclist. Of the remaining ‘slight’ PIAs, two involved a collision between two cars on the roundabout circulatory, one involved a car entering the roundabout into the path of a cyclist already on the roundabout circulatory (causing injury to the cyclist), and one involved a pedestrian entering the carriageway into the path of a car (causing injury to the pedestrian). The two ‘serious’ PIAs involved a car entering the roundabout into the path of a cyclist already on the roundabout circulatory (resulting in injury to the cyclist), and a car losing control and colliding with the crash barrier.

2.4.12 The analysis identifies that most locations in the study area network have an accident rate of no higher than equivalent to one per annum. This, combined with a review of the descriptions supplied in the PIA records, would suggest that there are no existing highway safety issues at these locations. A total of 20 PIAs were recorded at the A4138/A484 roundabout, equating to four accidents per annum. A higher accident rate at this location is to be expected given the scale of this junction (i.e. numbers of arms and level of traffic). The review of the PIAs identified that most were of reduced severity, typical of the junction type.

2.4.13 Given the time elapsed since preparing the first iteration of this TA in April 2020, with updates through 2021 and 2022, a follow up assessment of PIAs has been undertaken. Due to the project constraints on the submission timeframe for preparing this revised iteration, there has been insufficient time to obtain updated data from CCC. As such, a high level assessment of Crashmap (www.crashmap.co.uk) has been carried out covering the period of time from 1st August 2019 to 31st December 2021 which marks the point of the most recent publicly available data. This is shown in **Table 2-2** will be used as an indicative assessment to determine if further analysis is required.

Table 2-2 Summary of Personal Injury Accident Data (Crashmap Data 01/08/2019 to 31/12/2021)

Location	Number of PIAs by Severity			
	Slight	Serious	Fatal	Total
Industrial Park Roundabout	1	0	0	1
A4138, between Llethri Road and B4303	0	0	0	0
A4138/B4303 roundabout	1	0	0	1
B4303, west of A4138	0	1	0	1
A4138, between B4303 and B4297	2	0	0	2
A4138/B4297 signal-controlled junction	1	0	0	1
B4297, east of A4138	0	0	0	0
A4138, between B4297 and A484	2	0	0	2
A4138/Pemberton Retail Park signal-controlled junction	2	0	0	2
A4138/A484 roundabout	10	0	0	10
Total	**19**	**1**	**0**	**20**

2.4.14 The Crashmap data shows comparable trends as the CCC accident data, with an average of no more than two accidents per annum at specific locations within the study, and around 10 collisions per annum over the extent of the study area. In the case of the A4138/A484 roundabout there were slightly more PIAs recorded, which would reasonably be expected at a roundabout linking two A class roads given its form and scale.

2.4.15 A review of the causation factors listed under each PIA record within the CCC data has identified that PIAs were attributed to road user error rather than highway design. It is on this basis and the analysis above that it can be considered that there are no inherent highway safety issues on the local network that would be exacerbated by the proposed development. There is no further in depth analysis required as a result of the findings of this assessment.

2.5 Walking and Cycling

2.5.1 The A4138 bordering the western site boundary has a shared footway/cycleway on both sides of the carriageway; these are approximately 2m wide. The footway/cycleway is one-way only and separated from the main carriageway by a grass verge. This results in pedestrian and cycle accessibility on the east side of the road adjacent to the site being southbound only, as shown in **Photo 2-5**, and access on the west side of the road being northbound only, as shown at **Photo 2-6**. The shared footway/cycleway extends between Industrial Park Roundabout adjacent to the site, to the four-arm roundabout with the B4303 to the south of the site. An underpass is provided between the northbound and southbound pedestrian/cycle path at the A4138/B4303 roundabout, shown in **Photos 2-6** and **2-7**. The underpass is lit and was identified as being clean and in good condition during a site visit. Ramped access is provided on both entrances/exits to the underpass to accommodate cyclists and wheelchair/pushchair users.

2.5.2 Northwest of the A4138/B4303 roundabout, the B4303 has footways on both sides of the carriageway, leading to key local facilities including retail, industrial, educational and religious establishments in northeast Llanelli. A zebra crossing over the B4303 is located around 70m from the roundabout, as shown in **Photo 2-8**.

2.5.3 A shared footway/cycleway is provided from close to the A4138/B4303 roundabout towards Pemberton Retail Park, as shown in **Photo 2-9**, with signalised crossing points provided at the A4138/Llandafen Road signalised junction. Footways are provided internally to the retail park from this point.

2.5.4 There are no National Cycle Routes (NCRs) within the vicinity of the site. The closest NCR to the site is NCR 47 which routes around the western edge of Llanelli and along the southern coast, ultimately linking Newport and Fishguard via Neath and Carmarthen.

2.5.5 There is a shared footway/cycleway on the eastern side of Llethri Road to the north of Industrial Park Roundabout. Uncontrolled crossing points with central refuge islands are provided over both the A4138 north and Llethri Road arms of Industrial Park Roundabout. On Llethri Road, an uncontrolled pedestrian crossing comprising dropper kerbs, tactile paving, and a central refuge island are provided just south of Heol Aur. To the north of this crossing, the shared footway/cycleway continues on the western side of Llethri Road. A similar crossing provision is located to the north of Heol Cropin.

Photo 2-5 Southbound pedestrian/cycle path adjacent to A4138.

Photo 2-6 Access to underpass and northbound pedestrian/cycle path near to A4138/B4303 roundabout.

Photo 2-7 Underpass between southbound and northbound pedestrian/cycle path at A4138/B4303 roundabout.

Photo 2-8 Zebra crossing over B4303 northwest of the A4138/B4303 roundabout.

Photo 2-9 Shared footway/cycleway between the A4138/B4303 roundabout towards Pemberton Retail Park.

2.6 Local Facilities

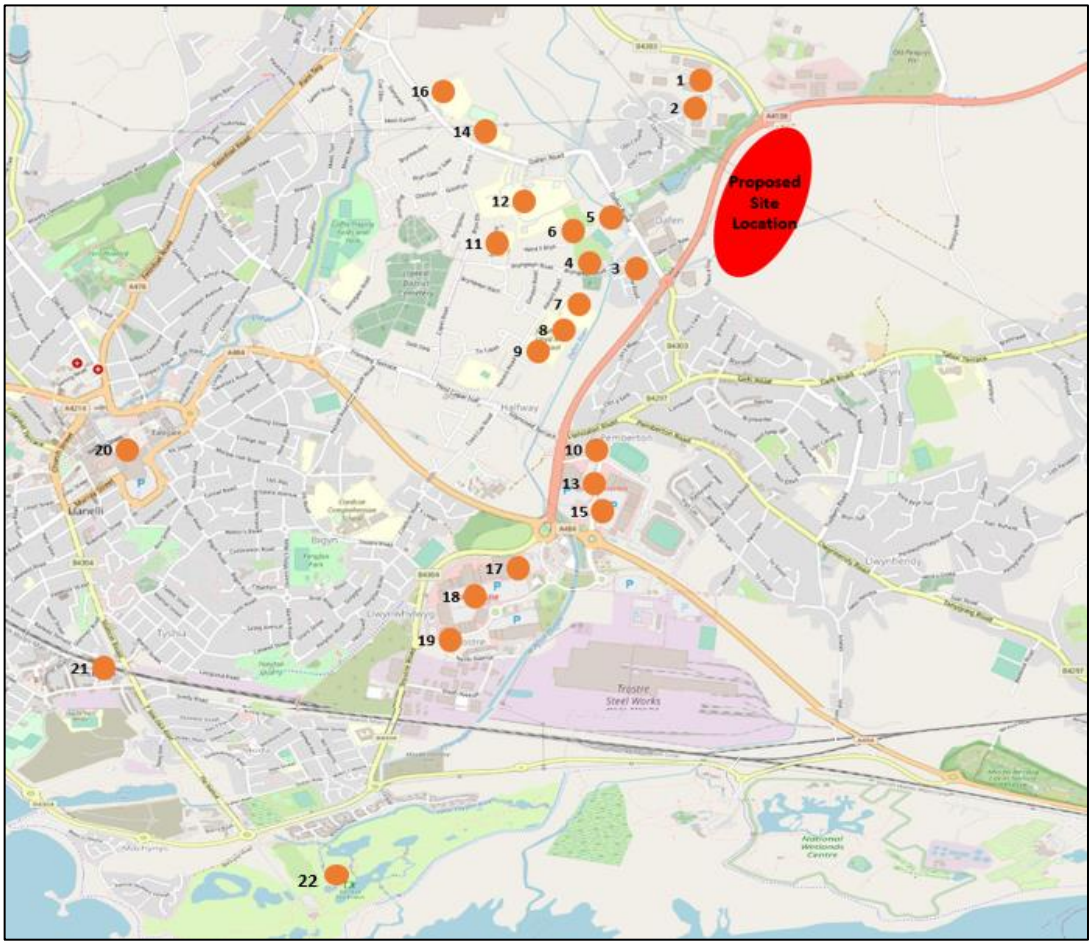
2.6.1 The Institution for Highways and Transportation's (IHT's) *Guidelines for Providing for Journeys on Foot*, published in 2000, identifies that 2km is the preferred maximum distance that people will walk. Cycling has been identified as having the potential to replace car trips of up to 5km. 5km equates to approximately a 20-minute journey by bicycle.

2.6.2 There are a wide range of local facilities available for future residents of the proposed development. The distance and indicative walking/cycling times to these facilities are set out in **Table 2-3**, and the location of these facilities (identified by their ID number from **Table 2-3**) are shown in **Figure 2-3**.

Table 2-3 Accessibility to Local Facilities

ID	Local Facilities	Distance (m)	Walking Accessibility Time	Cycling Accessibility Time
1	Dafen Trade Park	350	4 minutes	1 minute
2	Health and Fitness Centre	500	6 minutes	1½ minutes
3	Maescanner Baptist Chapel	1,000	12 minutes	3 minutes
4	The Parish of St Michael's and All Saints Church	1,200	14½ minutes	3½ minutes
5	Fuel Station and ATM	1,200	14½ minutes	3½ minutes
6	Dafen Cricket Club	1,200	14½ minutes	3½ minutes
7	St Mary's R.C. Primary School	1,500	18 minutes	4½ minutes
8	St John Lloyd R.C. High School	1,600	19 minutes	5 minutes
9	St John Lloyd R.C. Comprehensive School	1,650	19½ minutes	5 minutes
10	Premier Inn	1,650	19½ minutes	5 minutes
11	Dafen C.P. School	1,750	21 minutes	5½ minutes
12	Prince Philip Hospital	1,750	21 minutes	5½ minutes
13	Morrisons Supermarket	1,800	21½ minutes	5½ minutes
14	Ysgol Bryngwyn School	1,900	22½ minutes	6 minutes
15	Pemberton Retail Park	2,000	24 minutes	6 minutes
16	Ysgol Y Felin	2,220	26½ minutes	6½ minutes
17	Tesco Extra Supermarket	2,300	27½ minutes	7 minutes
18	Parc Trostre Retail Park	2,500	30 minutes	7½ minutes
19	DW Fitness First Llanelli	2,650	31½ minutes	8 minutes
20	Llanelli Town Centre	4,200	50 minutes	12½ minutes
21	Llanelli Rail Station	4,350	52 minutes	13 minutes
22	Machynys Peninsula Golf & Country Club	5,000	59½ minutes	15 minutes

Figure 2-3 Local Facilities Map



2.6.3 As shown in **Table 2-3**, a range of local facilities are within the recommended walking distances, including employment at Dafen Trade Park, leisure facilities, multiple education and religious establishments.

2.6.4 A range of local facilities are within the 5km catchment for cycling, including two retail parks at Pemberton and Parc Trostre, Llanelli town centre providing employment, retail and leisure opportunities, and Llanelli Rail Station.

2.6.5 Overall, there are a significant number of day-to-day facilities located within reasonable active travel distances of the site.

2.7 Public Transport

Introduction

2.7.1 Existing public transport services operating in the vicinity of the proposed development have been identified with reference to current timetable and routeing information.

Bus Services

2.7.2 The nearest bus stops to the proposed development are the 'Dyfed Steel' bus stops on the B4303 north of the roundabout with A4138, and 'Avon Inflatables' on the B4303 south of the roundabout with A4138.

2.7.3 The stops are approximately 900m walking distance from the site, equating to around a 15 minute walk. The bus stops at 'Avon Inflatables' and the southbound 'Dyfed Steel' stops are unmarked, whilst the northbound 'Dyfed Steel' stop provides a bus shelter. The 'Dyfed Steel' bus stops are served by bus services L3 and L5 providing links to Pontarddulais and Llanelli respectively. The 'Avon Inflatables' stop is served by bus service L3 only.

2.7.4 **Table 2-4** provides a summary of all bus services accessed from the 'Dyfed Steel' bus stops.

Table 2-4 Bus Service Information

Service	Route	Direction	Days	First Service	Last Service	Approximate Frequency
L3	Llanelli - Pontarddulais	Towards Pontarddulais	Mon-Fri	07:22	18:57	90 mins
			Sat	07:22	18:57	90 mins
	Pontarddulais - Llanelli	Towards Llanelli	Mon-Sat	07:57	18:27	90 mins
			Sat	07:57	18:27	90 mins
L5	Llanelli - Dafen	Circular	Mon-Fri	08:58	16:48	4 Services
			Sat	08:58	16:48	4 Services

Note: Information obtained from www.firstbus.co.uk (April 2023).

2.7.5 The IHT's *Guidelines for Providing for Public Transport in Developments*, published in 1999, suggests 400m as the acceptable walking distance to a bus stop. However, it states that this does not need to be *"slavishly adhered to"*, rather it is more important to provide services that are easy to understand and attractive to use.

2.7.6 The pedestrian and cycle accessibility to the 'Dyfed Steel' bus stop is very good, with a shared footway/cycleway along the A4138 and an underpass at the A4138/B4303 roundabout which provides access to hourly services towards Pontarddulais and Llanelli, and as such provides an attractive public transport travel option for the site.

Rail Services

2.7.7 The nearest railway station to the site is Llanelli Railway Station. This is located approximately 5km southwest of the site, equating to a 15-minute cycle. The station can be accessed via the A4138 shared footway/cycleway, the B4304, Langland Mews and Great Western Crescent leading to the station.

2.7.8 **Table 2-5** summarises the facilities at Llanelli station.

Table 2-5 Summary of Facilities at Llanelli Railway Station

Facility	Details
Car Parking	No car park. Taxi rank at the front of station.
Cycle Storage	Yes (2 stands)
Staffing / Ticket Office	Yes
Self-service Ticket Machines	No
CCTV	Yes
Customer Help Points	No

Source: www.nationalrail.co.uk (April 2023).

2.7.9 **Table 2-6** provides a summary of the rail services accessed from Llanelli.

Table 2-6 Rail Services to / from Llanelli

Direction	Days	First Departure	Last Departure	Approximate Journey Time
To Cardiff Central	Mon-Fri	06:15	21:30	90 minutes
	Sat	06:24	21:19	
	Sun	11:54	23:04	
From Cardiff Central	Mon-Fri	05:35	23:15	90 minutes
	Sat	05:35	19:19	
	Sun	09:53	22:30	
To Haverfordwest	Mon-Fri	07:13	21:08	80 minutes
	Sat	07:14	21:22	
	Sun	11:24	21:40	
From Haverfordwest	Mon-Fri	06:09	19:30	80 minutes
	Sat	06:09	19:27	
	Sun	11:39	21:51	

Notes: Information obtained from www.nationalrail.co.uk (April 2023). All services listed are direct.

2.7.10 Services to and from Cardiff Central operate at least hourly, and to and from Haverfordwest at least every two hours. Additional services to strategic locations such as Manchester Piccadilly are available on direct services.

2.8 Summary

2.8.1 The site is located approximately 500m to the east of Dafen, around 3km northeast of Llanelli. The site is bounded to the west by the A4138, and to the east and south by open countryside. At the site's northern extent is the existing Industrial Park Roundabout. The site access will be taken from the already constructed south-eastern arm of the roundabout. This arm is formally constructed as a short connection of flared entry and exit; beyond this is an informal track serving existing agricultural uses.

2.8.2 PIA data has been obtained from CCC to determine whether there are any locations on the local highway network with poor collision records. During the five-year period from 1st August 2014 to 31st July 2019, a total of 43 PIAs were recorded in the study area, of which 38 resulted in 'slight' injuries. Five PIAs resulted in 'serious' injuries. No 'fatal' PIAs were recorded. A further indicative assessment has been carried out to account for the time that has elapsed between the initial report and this update. The findings concluded that no further in depth analysis was required. The analysis of the PIA records concludes that it can be considered that there are no inherent highway safety issues on the local network that would be exacerbated by the proposed development.

2.8.3 The site benefits from excellent existing provision for pedestrians and cyclists in the locality; this includes shared footway/cycleways on both sides of the A4138, an underpass at the A4138/B4303 roundabout, and a shared footway/cycleway to Pemberton Retail Park from the A4138/B4303 roundabout.

2.8.4 Bus services are accessible from bus stops located at 'Dyfed Steel' and 'Avon Inflatables'. The 'Dyfed Steel' bus stop provides services to Llanelli and Pontarddulais every 90 minutes. Although these are beyond the IHT's suggested 'acceptable' walking distance of 400m, it is highlighted that the 400m distance does not need to be *"slavishly adhered to"* and it is considered that residents of the proposed development would likely be willing to walk the additional distance given frequency of services.

2.8.5 Rail services are available from Llanelli Railway Stations. The station is within acceptable cycling distance of the site. Regular rail services are provided in the direction of Cardiff Central and Haverfordwest, with additional direct services to strategic locations including Manchester Piccadilly. Overall, the site is considered accessible by sustainable modes.

3. Development Proposals

3.1 Introduction

3.1.1 This chapter of the TA outlines the development proposals, including the development quanta, access for all users including vehicles, pedestrians and cyclists and the parking and servicing strategies.

3.1.2 This TA considers the development of land to the east of the A4138 at Dafen for a residential development. The site is allocated within the LDP for 150 dwellings under Site Reference: GA2/h27, based on an initial generalised appraisal of the site. Following the output of intrusive ground investigations and pre-application consultation with the CCC SAB/SuDS department, the masterplan layout was revised to accommodate 160 dwellings. The TA for PAC submission provided an assessment for a maximum of 170 dwellings in order to ensure a robust assessment.

3.1.3 The masterplan layout has, since that time, been revised to accommodate 150 dwellings, with a TA providing an assessment for this quantum. In the final preparations for a planning submission, it has been confirmed that further identified site constraints were such that a reduction in units was required to a total of 145 dwellings. This update to the TA reflects this change to 145 dwellings within the report narrative, however, the assessments, set out in the later chapters, have been retained in their consideration of 150 dwellings.

3.2 Overview of Proposals

3.2.1 The proposed development is for the construction of 145 dwellings, of which 29 (20%) will be allocated for use as affordable homes. The proposed breakdown of dwellings is provided in **Table 3-1**. The proposed site layout is included at **Appendix B** .

Table 3-1 Development Quanta

Type of Dwelling	Proposed Number of Dwellings
Open Market:	
Two-Bedroom Dwelling	38
Three-Bedroom Dwelling	57
Four-Bedroom Dwelling	20
Five-Bedroom Dwelling	1
Total	**116**
Affordable Housing:	
One-Bedroom Apartment	16
Two-Bedroom Apartment	3
Two-Bedroom Dwelling	2
Three-Bedroom Dwelling	8
Total	**29**
Masterplan Total	**145**

3.3 Access Strategy

3.3.1 Vehicle access to the proposed development is from the south-eastern arm of the existing Industrial Park Roundabout. The south-eastern arm of the roundabout is partially constructed to provide access to a farm/field access to the north of the site. The central road and side streets have footways on both sides of the carriageway.

3.3.2 In terms of active travel, pedestrian/cycle only connections have been provided to the shared footway/cycleway on the A4138 at two locations, to the north and around midway along the site frontage extent to the west. These connections provide a more direct route for cycle and pedestrians to travel to and from the site, without the need to use the northern vehicle access.

3.4 Internal Movement Strategy

3.4.1 The indicative masterplan shows an access road routeing northeast-southwest through the site, serving adjacent frontage development and side-streets (cul-de-sacs incorporating areas of shared space at their end). Raised table/surface treatments are shown at side-street junctions and in the vicinity of the Local Area of Play (LAP) to encourage reduced vehicle speeds. Car parking is primarily shown as being on-plot, with some spaces provided on-street.

3.4.2 The internal site layout will be designed in a manner which facilitates walking and cycling and provides facilities for disabled people (dropped kerbs, tactile paving, etc). Car, motorcycle and cycle parking will be provided in accordance with the adopted standards.

3.4.3 Following comments provided during formal consultation, the layout has been adjusted to provide multiple connections to the A4138 and the sustainable travel options that are available along this movement corridor. The connections have neem place along the western boundary, where it is possible to do so, in respect of level difference challenges and water attenuation requirements.

3.5 Parking Strategy

Car Parking

3.5.1 CCC's Highways Design Guide (HDG) states that parking should be provided in accordance with County Surveyors Society (CSS) Parking Standards (2014), with reference to the appropriate development type and zone allocation. CCC has not developed a prescriptive zoning plan, and instead expects developer's to propose a zone allocation on a site-by-site basis.

3.5.2 The proposed development is considered to be in Zone 4 for the purposes of parking standards, however this makes little difference to parking standards as they are the same for Zones 2 to 6 which is from 'Town Centre or City Centre Fringe' to 'Deep Rural'. CCC's Parking Strategy document (2018) suggests that CCC will consider the implementation of parking standards as maximums where there is good accessibility for sustainable travel modes. The proposed development is currently located in a relatively sustainable area, with a number of facilities located within walking or cycling distance, as well as an excellent existing provision for pedestrians and cyclists in the locality. It is therefore considered appropriate that the CSS Parking Standards should be treated as maximum parking standards.

Cycle Parking

3.5.3 CCS Parking Standards (2014) does not include a cycle parking standard for houses, although the standard for apartments is 1 stand per 5 bedrooms. CCS Parking Standards also state that *"all residential developments must be accessible by cycles and cycle storage must be a factor of dwelling design"*. The proposed site layout demonstrates that there is sufficient space with the curtilage of each dwelling for the storage of bicycles.

3.6 Construction Traffic

3.6.1 Construction activities will not only include the building of residential development, but will also involve civil engineering works to provide new roads, including access roads and associated infrastructure.

3.6.2 Construction of the proposed development will give rise to deliveries of materials and products that would be transported by heavy goods vehicles. In addition, each construction phase will require on-site operation of construction equipment and plant.

3.6.3 Construction impacts will be managed through a Construction Traffic Management Plan (CTMP) or similar document, the measures of which would be intended to protect the environment, amenity and safety of local residents, businesses, the general public and the surroundings in the vicinity of the proposed development. As part of the management plan, a construction vehicle routeing regime for access to the construction site will be identified and agreed with the local and strategic highway authorities to ensure that drivers of construction related vehicles do not use inappropriate routes which are unsuitable by virtue of their width, alignment or character. The regime will aim to ensure that construction vehicles avoid residential areas and use the strategic highway network wherever possible.

3.6.4 Potential impacts of construction traffic include noise, vehicle exhaust emissions, dust, and mud and debris on roads, as well as possible road safety issues. Mitigation of these impacts will be achieved through strict adherence to the proposed construction routes and permitted hours of working, as well as by controls under health and safety legislation and good construction site practices.

3.7 Summary

3.7.1 The proposed development is for the construction of 145 dwellings to be provided as a combination of one and two bedroom apartments and also as two, three, four and five bedroom houses. The proposed site layout is included at **Appendix B**.

3.7.2 Vehicle access to the proposed development is from the south-eastern arm of the existing Industrial Park Roundabout. The south-eastern arm of the roundabout is partially constructed to provide access to a farm/field access to the north of the site. The central road and side streets have footways on both sides of the carriageway.

3.7.3 The internal site layout will be designed in a manner which facilitates walking and cycling and provides facilities for disabled people (dropped kerbs, tactile paving, etc). Car, motorcycle and cycle parking will be provided in accordance with the adopted standards.

3.7.4 The level of parking included within the layout of the proposed development is in accordance with the maximum provision outlined in CCS Parking Standards. Cycle parking can be accommodated within the curtilage of the proposed dwellings, in accordance with CCC cycle parking standards.

4. Planning Policy Review

4.1 Introduction

4.1.1 This section of the TA provides a review of existing planning and transport policies at a national and local level considered relevant to the proposed development.

4.2 National Policy

Planning Policy Wales

4.2.1 Edition 11 of PPW was published in February 2021 and sets out the land use planning policies of the WG. It is supported by a number of Technical Advice Notes (TANs), which provide detailed planning advice on subjects contained within PPW. *TAN 18: Transport* is considered of particular relevance to the proposed development and is included in this policy review. An overarching theme within PPW is the commitment of the WG to sustainability.

4.2.2 Planning policy in Wales is plan-led, with up to date LDPs forming a fundamental part of the system. PPW states that planning applications *"must be determined in accordance with the adopted plan unless material considerations indicate otherwise."*

4.2.3 PPW outlines the vision for development of a more effective and efficient transport system, the promotion of more sustainable and healthy forms of travel, as well as minimising the need to travel. PPW indicates that this will be achieved through 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."*

4.2.4 The WG outlines a support for a transport hierarchy in relation to the accessibility of new development that prioritises walking and cycling in the first instance, followed by public transport, ultra-low emissions vehicles and finally other private motor vehicles.

4.2.5 Paragraph 4.1.11 states:

> *"Development proposals must seek to maximise accessibility by walking, cycling and public transport, by prioritising the provision of appropriate on-site infrastructure and, where necessary, mitigating transport impacts through the provision of off-site measures, such as the development of active travel routes, bus priority infrastructure and financial support for public transport services."*

4.2.6 Paragraph 4.1.40 relates to the provision of facilities for EVs:

> *"To encourage the use of Ultra Low Emission Vehicles (ULEVs), the planning system should encourage and support the provision of ULEV charging points as part of new development."*

4.2.7 Paragraph 4.1.49 states that car parking provision has a major influence on both mode choice and development patterns.

4.2.8 Paragraphs 4.1.55 to 4.1.56 identify the requirements for development proposals to be accompanied by an appropriate level of transport assessment. It directs professionals to the TAN 18 for guidance on the preparation and content of assessments.

Technical Advice Note 18: Transport

4.2.9 TAN 18 was published in March 2007. It describes how to integrate land use and transport planning and explains how transport impacts should be assessed and mitigated. It supports, and should be read in conjunction with, PPW.

4.2.10 The integration of land use and transport planning forms part of an overall sustainable development approach by the WG towards strategy and policy objectives. This is predominantly through maximising the accessibility of developments by sustainable modes of transport. This also includes reducing the need to travel and encouraging multi-purpose trips. Accessibility is defined in TAN 18 as *"the relative ability to take up services, markets or facilities."*

4.2.11 Paragraph 4.6 states that parking standards for new developments should be determined on an evidence basis which includes accessibility to other modes of transport.

4.2.12 Section 5 requires all new development to be designed in a way that is inclusive for all. The design of the development also plays an important role in providing genuine alternatives to car travel.

4.2.13 Section 6 highlights the ability for walking and cycling to replace shorter car journeys, as well as the ways in which developments can encourage this. This includes the creation and protection of safe and legible pedestrian and cycle routes along key desire lines, and provision of cycle parking and facilities.

4.2.14 Section 7 considers the role that public transport can play in offering an alternative to car travel, giving emphasis to the provision of new services and facilities, as well as facilitating interchange, as methods of encouraging uptake.

4.2.15 Paragraph 9.2 states that "developers should be required by local authorities to submit transport assessments to accompany planning applications for developments that are likely to result in significant trip generation." This TA will demonstrate that the development proposals are suitable in terms of travel demand and impact.

4.2.16 TAN 18 requires a Transport Implementation Strategy to be included within a TA. This should seek to:

- *"identify what policy objectives and requirements are set by the development plan in terms of access to the development and movements in and around the site;*
- *identify what access arrangements are required for a successful development (meeting the needs of the developer, end user, addressing impacts on neighbours and existing movements surrounding the site); and*
- *specify the package of physical, management and promotional measures needed to accommodate the requirements identified above, such as physical infrastructure, the design and location of buildings, parking management, financial incentives and dedicated travel plan co-ordinators."*

4.2.17 The TIS is set out at **Chapter 8**.

The Wales Transport Strategy 2021

4.2.18 The *Wales Transport Strategy 2021* (WTS) was published in March 2021 and provides a long-term vision for transport over the next 20 years. The vision of the WTS is *"an accessible, sustainable and efficient transport system."* In order to deliver its vision, the WTS sets out three priorities:

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

National Transport Finance Plan

4.2.19 The *National Transport Finance Plan* (NTFP) provides the timescales for financing and delivery of schemes in Wales. The NTFP is not a policy document and nor does it prioritise schemes to be taken forward. It was published in 2015 and an update was since published in 2018.

4.2.20 This has identified that scheme reference R27h includes a "*Range of improvements including major infrastructure improvements to reduce congestion and increase capacity at junctions*" on the M4 between Junctions 35 and 49 from 2019/20 onwards. In addition, it is noted that scheme reference RI13 included station accessibility improvements at rail stations including Llanelli; however, these schemes have been deferred following the UK Government funding review.

Active Travel (Wales) Act 2013

4.2.21 The *Active Travel (Wales) Act* became law in Wales in November 2013. The Act makes it a legal requirement for local authorities in Wales to map and plan for suitable routes for active travel, and to build and improve their infrastructure for walking and cycling every year. It also requires both the WG and local authorities to promote walking and cycling as a mode of transport.

4.2.22 The Act is accompanied by a statutory design guidance document, published in December 2014, which provides advice on the planning, design, construction and maintenance of active travel networks and infrastructure, and is to be used at all stages of the process. Reference has been made to this guidance in the planning and design of the proposed development.

Wellbeing of Future Generations (Wales) Act 2015

4.2.23 The *Wellbeing of Future Generations (Wales) Act 2015* has resulted in the WG outlining seven goals in a 'wellbeing statement' (published in 2017) that contribute to sustainable development and details the aims to improve economic, social, environmental and cultural wellbeing of Wales for future generations. The Act places a duty on Local Authorities to set wellbeing objectives and contribute to achieving the seven well-being goals, which are:

- A prosperous Wales;
- A resilient Wales;
- A healthier Wales;
- A more equal Wales;
- A Wales of cohesive communities;
- A Wales of vibrant culture and thriving Welsh language; and
- A globally responsible Wales.

4.2.24 The seven goals form the basis for twelve objectives, also detailed in the wellbeing statement. Several of these are directly relevant to this proposed scheme:

- Drive sustainable growth and combat climate change;
- Promote good health and well-being for everyone;
- Build healthier communities and better environments; and
- Deliver modern and connected infrastructure.

County Surveyors Society (CSS) Wales Parking Standards 2014

4.2.25 The CSS Wales parking standards set out parking requirements according to land use and location. It is stated in the *Integrated Parking Strategy for Carmarthenshire 2018* that car parking standards are based on national and regional guidance. The 2005 version of the *Integrated Parking Strategy* for Carmarthenshire specifies the applicability of the *CSS Wales Parking Standards 2014* document, therefore it is assumed this is still relevant.

4.2.26 Parking zones are set out with Zone 1 being 'City Core', and Zone 6 being 'Deep Rural' areas. Based on the criteria set out in the standards, it is considered that the proposed site falls into Zone 4 – Suburban or Near Urban. Zone 4 is defined as "*The outer edges of the largest towns; suburban locations in towns; the whole of smaller settlements offering a range of local facilities. There is an at least hourly bus service to the town centre and there may also be a railway station in the town. Local facilities include a local centre within 400m walking distance. Some other basic amenities such as a doctor's surgery are also available within the same walking distance.*"

4.2.27 The residential car parking standards are the same across zones 2-6, with the requirements for general purpose houses and apartments shown at **Table 4-1**.

Table 4-1 Residential Parking Standards for Zones 2-6 (from CSS Wales Parking Standards 2014)

Type of Development	Residents	Visitors
Houses	One space per bedroom (maximum requirement three spaces)	One space per five units
Apartments	One space per bedroom (maximum requirement three spaces)	One space per five units

4.2.28 Cycle parking standards are also set out, with it being stated that "Cycle parking should be located in a safe, secure and convenient location. Care should also be taken to ensure that cycle parking facilities are not located where they may obstruct pedestrians, disabled persons and particularly people with sight problems." For residential sites, one long stay cycle stand per five bedrooms is required for apartments. There is no specified quantum required for housing.

4.3 Local Policy

Carmarthenshire Local Development Plan 2006-2021

4.3.1 The LDP was adopted in December 2014 and sets out the policies and proposals to guide future development in Carmarthenshire up to 2021.

4.3.2 The vision of the LDP is for Carmarthenshire to "be a prosperous and sustainable County of contrasts. It will have distinctive rural, urban and coastal communities, a unique culture, a high quality environment and a vibrant and diverse economy. The County will offer a high quality of life within safe, accessible and inclusive communities. Everyone will have access to good quality employment, a suitable mix of housing and to community and recreational facilities – all within a clean and green environment".

4.3.3 The vision is supported by additional strategic objectives falling into 'pillars' of the Community Strategy as follows:

- A Better Place: environment – improving the world around us, today and for tomorrow;
- Opening Doors: lifelong learning – helping everyone to achieve their potential, for childhood to old age;
- Feeling Fine: Health and wellbeing – tackling the causes of ill health by looking at life in the round;
- Investment and innovation: regeneration – building resources, creating opportunities and offering support; and
- Feeling Secure: safer communities – offering security, tackling crime and fear of crime, helping us to look out for each other.

4.3.4 The LDP aims to promote the principles of sustainability through various measures including "*Distributing and locating development in accordance with the settlement framework with a view to reducing the km required to be driven by private motor car in order to access places of work, retail, leisure and community services. The Strategy also promotes accessibility to alternative means of travel".*

4.3.5 Strategic Policy SP2 (Climate Change) states that "*Development proposals which respond to, are resilient to, adapt to and minimise for the causes and impacts of climate change will be supported". This includes those where they "Reflect sustainable transport principles and minimise the need to travel, particularly by private motor car".*

4.3.6 Strategic Policy SP9 (Transportation) states that "*Provision is made to contribute to the delivery of an efficient, effective, safe and sustainable integrated transport system through*:

- *"Reducing the need to travel, particularly by private motor car;*
- *Addressing social inclusion through increased accessibility to employment, services and facilities;*

- *Supporting and where applicable enhancing alternatives to the motor car, such as public transport (including park and ride facilities and encourage the adoption of travel plans), and active transport through cycling and walking;*
- *Re-enforcing the function and role of settlements in accordance with the settlement framework;*
- *Promoting the efficient use of the transport network;*
- *The use of locational considerations for significant trip generating proposals, with design and access solutions within developments to promote accessibility by non-car modes of transport."*

4.3.7 Section 6.5 (Transport and Accessibility) states that "*regard will be expected to be had to the provisions of the Equalities Act 2010",* including:

- *"Promoting walking;*
- *Encouraging cycling;*
- *Promoting public transport;*
- *Traffic management;*
- *Distribution centre location;*
- *Access to developments; and*
- *Transport Infrastructure Impacts".*

4.3.8 Policy T2 states that "*Proposals which have a potential for significant trip generation will be permitted where:*

- *It is located in a manner consistent with the plans strategic objectives, its settlement framework and its policies and proposals;*
- *It is accessible to non-car modes of transport including public transport, cycling and walking;*
- *Provision is made for the non-car modes of transport and for those with mobility difficulties in the design of the proposal and the provision of on-site facilities; and*
- *Travel Plans have been considered and where appropriate incorporated."*

4.3.9 Policy TR3 (Highways in Developments – Design Considerations) sets outs that "*the design and layout of all development proposals will, where appropriate, be required to include*:

- *An integrated network of convenient and safe pedestrian and cycle routes (within and from the site) which promotes the interests of pedestrians, cyclists and public transport;*
- *Suitable provision for access by public transport;*
- *Appropriate parking and where applicable, servicing space in accordance with required standards;*
- *Infrastructure and spaces allowing safe and easy access for those with mobility difficulties;*
- *Required access standards reflective of the relevant Class of road and speed restrictions including visibility splays and design features and calming measures necessary to ensure highway safety and the ease of movement is maintained, and where required enhanced; and*
- *Provision for Sustainable Urban Drainage Systems to allow for the disposal of surface water run-off from the highway.*

Proposals which do not generate unacceptable levels of traffic on the surrounding road network and would not be detrimental to highway safety or cause significant harm to the amenity of residents will be permitted.

Proposals which will not result in offsite congestion in terms of parking or service provision or where the capacity of the network is sufficient to serve the development will be permitted. Developers may be required to facilitate appropriate works as part of the granting of any permission."

4.3.10 The proposed site is an allocated site within the LDP for 150 dwellings (Site Reference: GA2/h27. There are no further details about the site given in the LDP.

Carmarthenshire Local Development Plan 2018-2033

4.3.11 CCC resolved to prepare a revised LDP for Carmarthenshire at a council meeting in January 2018. Once adopted, the revised LDP will be used as the basis for deciding on planning applications and will assist in guiding future investment programmes in areas such as infrastructure as well as plans and strategies including those of partner organisations. The Delivery Agreement targets adoption of the revised LDP in July / August 2022.

4.3.12 The Deposit Revised LDP was published in January 2020. It sets out the strategy and policies to guide development in the Carmarthenshire area (excluding the National Park) up to 2033. The vision of the Deposit Revised LDP is:

"Carmarthenshire 2033 will be a place to start, live and age well within a healthy, safe and prosperous environment, where its rich cultural and environmental qualities (including the Welsh language) are valued and respected for residents and visitors alike. It will have prosperous, cohesive and sustainable communities providing increased opportunities, interventions and connections for people, places and organisations in both rural and urban parts of our County. It will have a strong economy that reflects its position as a confident and ambitious driver for the Swansea Bay City Region."

4.3.13 Delivery of the vision is guided by 14 strategic objectives. Those of particular relevance to transport include:

- Strategic Objective 6: To ensure that the principles of spatial sustainability are upheld by directing development to sustainable locations with access to services and facilities and wherever possible encouraging the reuse of previously developed land; and
- Strategic Objective 8: To contribute to the delivery of an accessible integrated and sustainable transport system, including links to alternative transport methods.

4.3.14 Policy TRA2 (Active Travel) states:

"Proposals which enhance walking and cycling access by incorporating the following within the site, and/or making financial contributions towards the delivery of off-site provision, will be supported:

a) Permeable, legible, direct, convenient, attractive and safe walking and cycling routes connecting the development to: surrounding settlements; public transport nodes; community facilities; commercial and employment areas; tourism facilities; and leisure opportunities;

b) Improvements, connections, and/or extensions to: footpath network and existing PROWs (including bridleways); cycle network and routes; Safe Routes to School; and, routes forming part of the Green Infrastructure network; and

c) Facilities that encourage the uptake of walking and cycling, including: appropriate signage; secure and convenient cycle parking; and changing and associated facilities.

Proposals which have a significant adverse impact on PROW or existing routes identified through the Active Travel (Wales) Act 2013 will be expected to contribute to the delivery the Council's Active Travel Plan.

4.3.15 Policy TRA5 (Highways and Access Standards in Development) states:

Proposals for development will be permitted where they:

a) Incorporate the necessary access standards reflecting the road classification and conditions;

b) Include appropriate visibility splays and design features necessary to ensure highway safety and that the ease of movement is maintained, and enhanced where required;

c) Do not generate unacceptable levels of traffic which has a detrimental impact on the surrounding road network, highway safety, or would cause significant harm to the amenity of residents; and

d) Will not result in offsite congestion in terms of parking or service provision.

4.3.16 The proposed development remains as an allocated site comprising 150 dwellings (reference PrC2/h23) in the emerging updated LDP.

Joint Transport Plan for South West Wales 2015-2020

4.3.17 The *Joint Transport Plan South West Wales 2015-2020* (JTP) sets out the vision and objectives for transport in the four Local Authorities in South West Wales, namely CCC, Neath Port Talbot County Borough Council, Pembrokeshire County Council and the City and County of Swansea.

4.3.18 The overarching vision is to "improve transport and access within and beyond the region to facilitate economic regeneration, reduce deprivation and support the development and use of more sustainable and healthier modes of transport."

4.3.19 The objectives to achieve this vision are to:

- Improve the efficiency and reliability of the movement of people and freight within and beyond South West Wales to support economic growth in the City Region;
- Improve access for all to a wide range of services and facilities including employment and business, education and training, health care, tourism and leisure activities;
- Improve the sustainability of transport by improving the range and quality of, and awareness about, transport options, including those which improve health and wellbeing;
- Improve integration between policies, service provision and modes of transport in South West Wales;
- Implement measures which will protect and enhance the natural and built environment and reduce the adverse impact of transport on health and climate change; and
- Improve road safety and personal security in South West Wales.

4.3.20 The JTP lists a number of key overarching policies to achieve these objectives. These include the following:

- Policy KS1 – work collaboratively to develop improved public transport services, to link key settlements and their hinterlands with strategic corridors and employment sites;
- Policy KS2 – improve the journey time reliability between key settlements and strategic and local employment sites;
- Policy KS3 – improve walking and cycling links within and between key settlements, as part of delivering the ATA Action Plan;
- Policy E1 – work collaboratively to ensure that new development is located where there is sustainable access;
- Policy E3 – encourage the take up and development of travel planning to reduce single occupancy car commuting; and
- Policy SS2 – work collaboratively to promote the safety of and safe behaviour by all road and rail users.

4.3.21 The document provides a programme of interventions to work towards achieving its goals. The short-term programme sets out those schemes that are priorities for the next five years up to 2020. The medium / long term programme identifies aspirations up to 2030. It references the CWLR, which opened in 2019.

Carmarthenshire Parking Strategy 2018

4.3.22 The strategy aims to set out a policy for parking within Carmarthenshire that promotes the provision and management of car parking within the county in a consistent, sustainable and integrated manner.

4.3.23 Priority 7 of the strategy relates to parking standards on new developments, where it is stated that "the application of maximum standards is in accordance with national and regional guidelines to encourage lower levels of parking provision and greater use of more sustainable modes of transport."

Carmarthenshire Highways Design Guide 2018

4.3.24 The Carmarthenshire Highways Design Guide (HDG) 2018 identifies thresholds with regards to the level of assessment required for schemes. It sets out that for schemes of 50-100 dwellings, a TS is considered appropriate, with schemes of greater than 100 dwelling typically requiring a TA. A TA is therefore considered reasonable and appropriate for the proposed development. The TA report sets out further detail of this specific land parcel within an already assessed and agreed development expansion area as part of the allocation for 150 dwellings in the *Carmarthenshire Local Development Plan 2006-2021* (LDP) (Site Reference: GA2/h27).

4.4 Summary

4.4.1 This chapter of the report has discussed the planning policies at a national and local level considered relevant to the proposed development.

4.4.2 The development proposals are considered to align with the policies in PPW, TAN 18, the LDP and JTP. They support land use planning principles, providing residential development in proximity to day-to-day facilities, thereby reducing the need to travel. The proposed access arrangements have been designed with reference to appropriate standards and will integrate with off-site provision to facilitate take up of sustainable modes, and will ensure that safe and suitable access can be achieved for all people. Parking will be provided in accordance with the adopted parking standards. In summary, the proposals are considered to be consistent with both overarching national and local planning and transport policy.

5. Existing Highway Operation

5.1 Data Collection

5.1.1 An independent survey company was commissioned to undertake Junction Turning Count (JTC) surveys at three roundabout junctions; the proposed site access at the Industrial Park Roundabout, the A4138/B4303 roundabout and the A4138/A484 roundabout. The scope of traffic surveys was agreed with CCC during pre-application communications. Surveys were undertaken between the hours of 07:00-10:00 and 16:00-19:00 on Thursday 14th November 2019. The data from these surveys is provided in **Appendix C**.

5.1.2 From analysis of the total traffic at these junctions it was identified that the weekday AM and PM peak hours are 08:15-09:15hrs and 16:30-17:30hrs respectively.

5.2 Junction Capacity Models

5.2.1 The junctions which were included within the study area for traffic surveys have been assessed to determine the baseline operating conditions. The three roundabouts have been modelled using the industry standard 'Junctions 9' software. operational performance is summarised for all arms in terms of their ratio of flow/capacity (RFC). Roundabouts are typically considered to operate satisfactorily in terms of capacity when the RFC is below 0.85 ('practical' capacity). An RFC value of 1.00 represents 'absolute' capacity. Queues have been rounded up to the nearest vehicle.

Junction 1: Industrial Park Roundabout – Proposed Site Access

5.2.2 **Table 5-1** shows the junction capacity modelling results for the Industrial Park Roundabout for the AM and PM peak hours. This shows that the junction operates well within practical capacity in both the AM and PM peak hours, with maximum RFC forecast to be 0.53 in the AM peak hour and 0.51 in the PM peak hour.

Table 5-1 2019 Base Traffic Flows – Industrial Park Roundabout

Scenario	Arm	AM (08:15-09:15)		PM (16:30-17:30)	
		RFC	Queue (PCUs)	RFC	Queue (PCUs)
2019 Base	A – A4138 E	0.53	2	0.50	2
	B – Site Access	0.00	0	0.00	0
	C – A4138 W	0.38	1	0.47	1
	D – Llethri Rd	0.41	1	0.51	2

Junction 2: A4138 / B4303 Roundabout

5.2.3 **Table 5-2** shows the junction capacity modelling results for the A4138/B4303 roundabout for the AM and PM peak hours. This shows that the junction operates within absolute capacity in both the AM and PM peak hours; however, Arm A (A4138 North) exceeds practical capacity in both the AM and PM peak hours with RFCs of 0.86 and 0.87 respectively.

Table 5-2 2019 Base Traffic Flows – A4138 / B4303 Roundabout

Scenario	Arm	AM (08:15-09:15)		PM (16:30-17:30)	
		RFC	Queue (PCUs)	RFC	Queue (PCUs)
2019 Base	A – A4138 N	0.86	7	0.87	7
	B – B4303 S	0.67	3	0.46	1
	C – A4138 S	0.63	2	0.68	3
	D – B4303 N	0.55	2	0.71	3

Junction 3: A4138 / A484 Roundabout

5.2.4 **Table 5-3** shows the junction capacity modelling results for the A4138/A484 roundabout for the AM and PM peak hours. This shows that the junction operates within practical capacity in the AM peak hours, although Arm F (A484 W) operates close to practical capacity with an RFC value of 0.83. In the PM peak hour, Arm F (A484 W) operates at absolute capacity with an RFC of 1.00.

Table 5-3 2019 Base Traffic Flows – A4138 / A484 Roundabout

Scenario	Arm	AM (08:15-09:15)		PM (16:30-17:30)	
		RFC	Queue (PCUs)	RFC	Queue (PCUs)
2019 Base	A – A4138 N	0.62	2	0.56	2
	B – A484 E	0.46	1	0.63	2
	C – Service Exit	-	-	-	-
	D – Bus Retail Exit	-	-	-	-
	E – B4304	0.48	2	0.48	1
	F – A484 W	0.83	5	1.00	21

5.3 Summary

5.3.1 The local highway network comprises the A4138, Llethri Road and the B4303. Traffic surveys have been undertaken at three local junctions to identify baseline operational conditions and to inform the traffic impact assessment. These have identified that the peak hours on the local highway network are 08:15-09:15hrs hrs for the AM peak hour, and 16:30-17:30hrs for the PM peak hour.

5.3.2 The Industrial Park Roundabout operates well within capacity on all arms in both the AM and PM peak hours. The A4138/B4303 roundabout operates within absolute capacity in both the AM and PM peak hours; but exceeds practical capacity in both the AM and PM peak hours on Arm A (A4138 N). The A4138/A484 roundabout operates within practical capacity during the AM peak hour, but operates at absolute capacity on Arm F (A484 W) during the PM peak hour.

6. Trip Generation and Distribution

6.1 Introduction

6.1.1 This section of the TA sets out the method for calculating the trip generation of the proposed development. It also sets out the method for distributing the forecast vehicle trips onto the local highway network. As set out earlier, this update to the TA reflects this change to 145 dwellings within the report narrative, however, the assessments, including trip generation and distribution, have been retained in their consideration of 150 dwellings.

6.2 Vehicle Trip Generation

6.2.1 The vehicle trip generation of the proposed development has been calculated using the TRICS national database. At the time of assessment, trip rates were obtained from the 'mixed private/affordable housing' category; under the TRICS guidance, this assumes no more than 75% of dwellings are privately owned. The proposed housing mix of the proposed development allocates 80% of dwellings for private ownership. Whilst this is above the threshold in TRICS, the difference in level of private ownership is small, therefore it is considered that the resultant traffic generation is suitable and robust for assessment of the impact of the proposed development.

6.2.2 **Table 6-1** sets out the TRICS trip rates and resulting vehicle trip generation for the site, based on 150 dwellings. TRICS provides hourly trip rates, and the most representative hour to the established network peak hours has been used for analysis. For the PM peak hour, 1700-1800hrs has been used rather than 1600-1700hrs as it provides higher trip rates, therefore representing a worst-case scenario for assessment when compounded with the network peak hour. Full TRICS output reports can be found at **Appendix D**.

Table 6-1 Trip Rates and Vehicle Trip Generation

	TRICS AM Peak Hour (0800-0900hrs)		TRICS PM Peak Hour (1700-1800hrs)	
	Arrivals	Departures	Arrivals	Departures
Trip Rate (TRICS, per dwelling)	0.122	0.344	0.314	0.159
Trip Generation (based on 150 dwellings)	19	52	48	24
Total Trip Generation*	**71**		**72**	

**Note: Summation errors due to rounding.*

6.2.3 **Table 6-1** shows that the proposed development is forecast to generate around 71 and 72 two-way vehicle trips in the AM and PM peak hours respectively.

6.3 Traffic Distribution

6.3.1 An analysis has been undertaken using the 2011 Census Data information to establish the distribution of development traffic. The analysis has been based on the 'Location of usual residence and place of work' dataset (WF01BEW) for the 'the 'Carmarthenshire 020' MSOA. This MSOA comprises existing residential development neighbouring the site, and is therefore considered to provide a good indication of the destinations of trips from the proposed development.

6.3.2 Traffic has been distributed taking account of the origin/destination and route choice (determined from journey times from online journey planners for the weekday peak hours). The derived distribution at each junction in the study area is summarised in **Table 6-2**.

Table 6-2 Summary Development Traffic Distribution

Distribution	Proportion of Trips	Arrival Trips		Departure Trips	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Junction 1: A4138 / Llethri Road Roundabout – Proposed Site Access					
A4138 North	34%	7	17	18	9
A4138 South	41%	8	20	22	10
Llethri Road	25%	5	12	13	6
Junction 2: A4138 / B4303 Roundabout					
Dafen Road North-West	9%	2	5	5	3
A4138 South	32%	7	16	17	8
Junction 3: A4138 / A484 Roundabout					
A484 West	5%	1	3	3	2
B4304 South	17%	4	9	9	5
A484 East	10%	2	5	6	3

Note: Summation errors due to rounding.

6.3.3 **Figures 6-1** and **6-2** show a diagrammatic representation of the development trip distribution for the AM and PM peak hours respectively.

Figure 6-1 AM Peak Hour Vehicle Trip Distribution

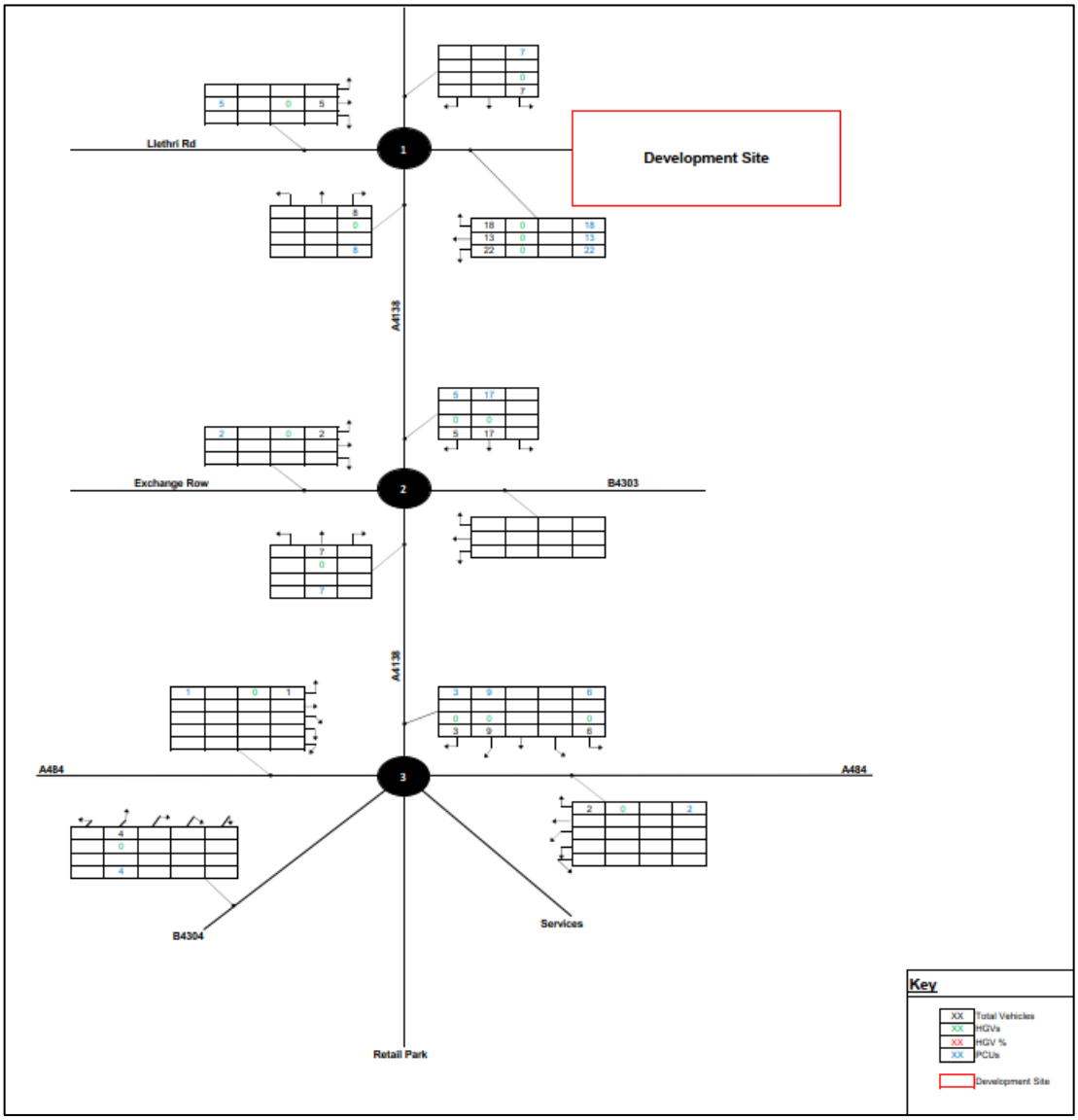
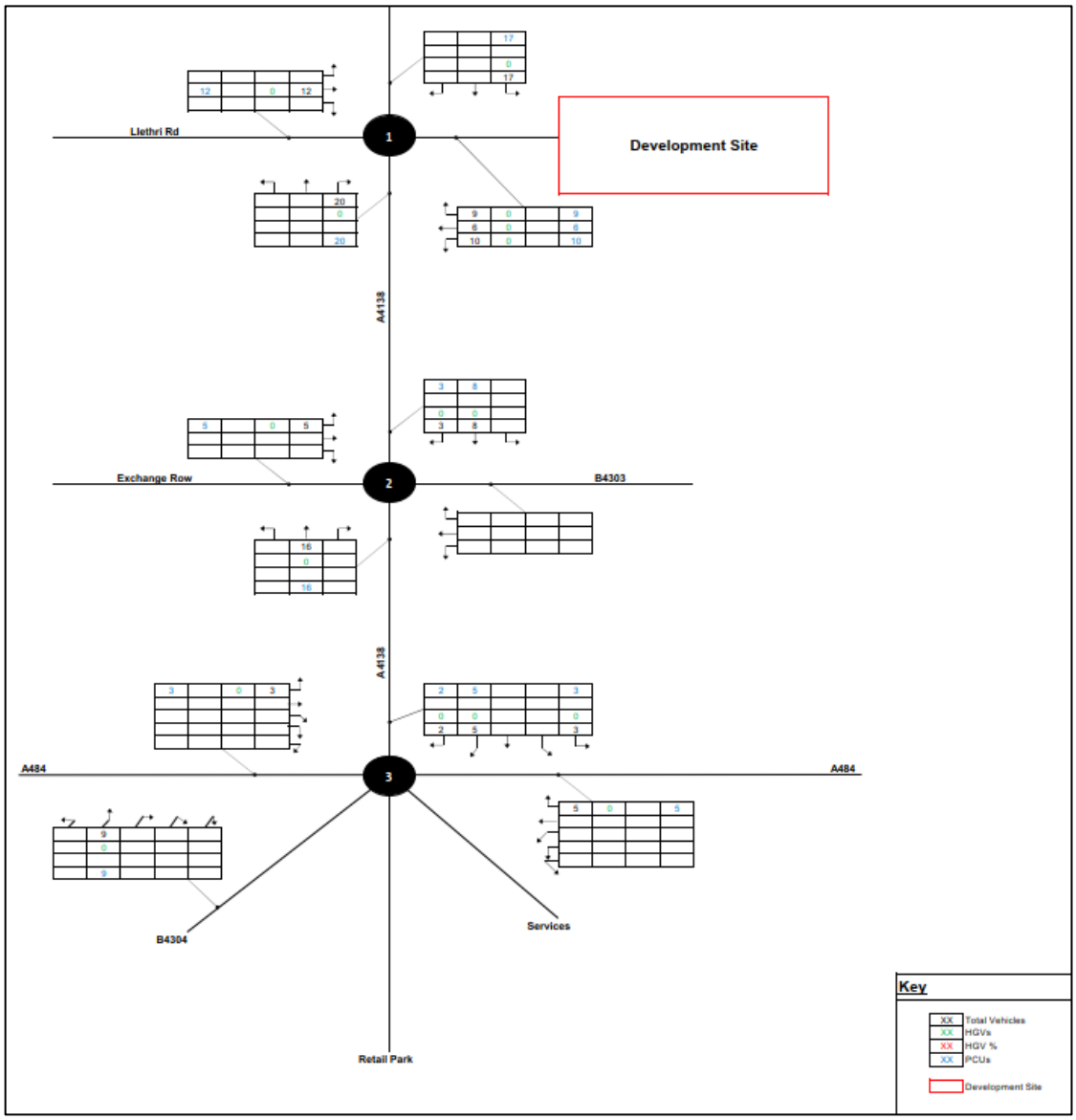


Figure 6-2 PM Peak Hour Vehicle Trip Distribution



6.4 Committed Development

6.4.1 In the period between the original assessment and scoping agreement and this revised TA, planning permission was granted for a new custody and police station in April 2021, on Land to the west of Heol Aur, Dafen. **Table 6-3** sets out the trip generation for the permitted development in relation to the A4138.

Table 6-3 Committed Development Trip Generation

Distribution	AM Peak Hour		AM Peak Hour	
	Arrival	Departure	Arrival	Departure
A4138 North	11	2	2	13
A4138 South	15	3	3	18
Total Trip Generation	**26**	**5**	**5**	**31**

6.4.2 The committed development trips have been distributed across the study network using the same proportional traffic distribution used for the proposed development traffic (set out in **Table 6-2**).

6.5 Development Traffic Impact

6.5.1 In order to consider the traffic impact of the proposed development, the distributed development traffic has been assessed against the forecast background traffic in 2023 including the committed development traffic; this is considered the likely opening year for the proposed development. The derivation of traffic flows for this future year is discussed at **Section 7**. This assessment provides a percentage impact, of the effect of the development, at each junction on an arm-by-arm basis.

6.5.2 **Tables 6-3** and **6-4** summarise the changes in traffic flows as a result of the proposed development in 2023 at each of the three roundabout junctions during the AM and PM peak hours respectively.

Table 6-4 2023 Junction Inflow Comparison – AM Peak Hour

Junction	Arm	Without Dev.	With Dev.	Difference	% Change
Industrial Park Roundabout – Proposed Site Access	A4138 North	1178	1185	7	1%
	Proposed Site Access	0	53	53	-
	A4138 South	727	735	8	1%
	Llethri Road	592	597	5	1%
A4138 / B4303 Roundabout	A4138 North	1000	1022	22	2%
	B4303 East	371	371	0	0%
	A4138 South	644	651	7	1%
	B4303 West	536	538	2	0%
A4138 / A484 Roundabout	A4138 North	1079	1097	18	2%
	A484 East	738	740	2	0%
	Retail Park		N/A		
	Retail Park (Bus Lane)		N/A		
	B3404	685	689	4	1%
	A484 West	684	685	1	0%

Note: Summation errors due to rounding.

Table 6-5 2023 Junction Inflow Comparison – PM Peak Hour

Junction	Arm	Without Dev.	With Dev.	Difference	% Change
Industrial Park Roundabout – Proposed Site Access	A4138 North	1098	1115	17	2%
	Proposed Site Access	0	25	25	-
	A4138 South	910	930	20	2%
	Llethri Road	725	737	12	2%
A4138 / B4303 Roundabout	A4138 North	1006	1017	11	1%
	B4303 East	268	268	0	0%
	A4138 South	792	808	16	2%
	B4303 West	653	658	5	1%
A4138 / A484 Roundabout	A4138 North	1012	1022	10	1%
	A484 East	1133	1138	5	0%
	Retail Park		N/A		
	Retail Park (Bus Lane)		N/A		
	B3404	676	685	9	1%
	A484 West	831	834	3	0%

Note: Summation errors due to rounding.

6.6 Summary

6.6.1 The trip generation of the proposed development has been forecast based on a development of 150 dwellings. Trip rates derived from TRICS have been utilised, specifically the 'mixed private/affordable housing' category; under the TRICS guidance, this assumes no more than 75% of dwellings are privately owned. The proposed housing mix of the proposed development allocates 80% of dwellings for private ownership. Whilst this is above the threshold in TRICS, the difference in level of private ownership is small (5%), therefore it is considered that the resultant traffic generation is suitable and robust for assessment of the impact of the proposed development.

6.6.2 The proposed development is forecast to generate around 71 and 72 two-way vehicle trips in the AM and PM peak hours respectively. This is based on the maximum density that could likely be achieved on site and selecting the development PM peak not the network peak hours. Therefore the actual traffic generation is likely to be less than forecast.

6.6.3 The likely trip distribution has been established using 2011 Census data for the 'Location of usual residence and place of work' dataset. Online route planning software has been used to establish the fastest route at peak hour to each potential location of work as informed by the Census data, and subsequently the percentage trip distribution at each of the three junctions being assessed has been established.

6.6.4 The impact of the development has been fully considered and quantified. The percentage increase in traffic inflow at each assessed junction has been calculated on an arm by arm basis. This identifies that the maximum increase is only 2% on any single junction movement across all three junctions. This level of traffic increase is not considered to be material, unlikely to be noticeable and is within the realms of daily traffic fluctuation.

7. Traffic Impact Assessment

7.1 Assessment Scenarios

7.1.1 The impact of the proposed development on the local highway network has been assessed using a future year of 2023; this is considered the likely opening year for the proposed development, and 2028 represents five years after opening. This approach has been agreed with CCC during pre-application scoping discussions. As set out earlier, the previous assessments have been retained for this TA update. The decision to retain the previous assessments rather than reproduce this work for removal of five units has ensured a further level of robustness in terms of development impact.

7.1.2 The assessment scenarios for the weekday AM peak hour (08:15-09:15) and weekday PM peak hour (16:30-17:30) are as follows:

- Scenario 1 – 2019 Base (Without Development);
- Scenario 2 – 2023 Base (Without Development);
- Scenario 3 – 2023 Base + Development (With Development);
- Scenario 4 – 2028 Base (Without Development); and
- Scenario 5 – 2028 Base + Development (With Development).

7.1.3 The future year assessment scenarios include traffic growth (discussed at **Section 7.2** below).

7.2 Traffic Growth

7.2.1 In order to estimate future growth in traffic flows, traffic growth factors have been obtained from TEMPro (Version 7.2). The TEMPro program is based on the National Trip End Model and takes into account changes in car ownership and local planning forecasts regarding housing and employment.

7.2.2 It should be set out clearly that this allocated site has formed part of the permitted and expected growth of the local area for considerable time. Therefore, the TEMPro data has already been informed of this expectation and the growth rates appropriately forecast. This allocated site has already been taken account of in published growth rates and this assessment is effectively double counting some 150 dwellings, in order to provide a robust assessment.

7.2.3 The forecast has been based on 'All' road types. Factors have been derived for the average of four MSOAs, three of which span sections of the study area (Carmarthenshire 020, 024 and 025) along with Carmarthenshire 019 which covers the key route to the strategic road network to the north. The factors are set out in **Table 7-1**.

Table 7-1 TEMPro Growth Factors

Time Period	AM Peak Period	PM Peak Period
2019-2023	1.044	1.043
2019-2028	1.089	1.091

7.3 Spreadsheet Model

7.3.1 A spreadsheet model has been developed for the assessment scenarios for each of the time periods. The traffic flows for each scenario are shown at **Appendix E**.

7.4 Junction Impact Assessment

7.4.1 Junction capacity assessments have been undertaken for three roundabout junctions (the Industrial Park Roundabout, the A4138/B4303 roundabout and the A4138/A484 roundabout) in all assessment scenarios. Full junction modelling results can be seen at **Appendix F**.

7.4.2 The roundabouts have been modelled using the industry standard 'Junctions 9' software. Operational performance is summarised for all arms in terms of their RFC. Roundabouts are typically considered to operate satisfactorily in terms of capacity when the RFC is below 0.85 ('practical' capacity). An RFC value of 1.00 represents 'absolute' capacity. Queues have been rounded up to the nearest vehicle.

Junction 1: Industrial Park Roundabout – Proposed Site Access

7.4.3 **Table 7-2** shows the junction capacity modelling results for the Industrial Park Roundabout for the AM (08:15-09:15) and PM peak hours (16:30-17:30). This shows that the junction is forecast to operate well within practical capacity in both the AM and PM peak hours, with maximum RFC forecast to be 0.61 in the PM peak hour in the '2028 Base + Development' scenario.

Table 7-2 Junction Modelling Results – A4138 / Llethri Road Roundabout

Scenario	Arm	AM (08:15-09:15)		PM (16:30-17:30)	
		RFC	Queue (PCUs)	RFC	Queue (PCUs)
2019 Base	A – A4138 E	0.53	2	0.50	1
	B – Site Access	0.00	0	0.00	0
	C – A4138 W	0.38	1	0.47	1
	D – Lethri Rd	0.41	1	0.51	1
2023 Base	A – A4138 E	0.56	2	0.52	2
	B – Site Access	0.00	0	0.00	0
	C – A4138 W	0.41	1	0.49	1
	D – Llethri Rd	0.44	1	0.56	2
2023 Base + Development	A – A4138 E	0.57	2	0.54	2
	B – Site Access	0.07	1	0.03	0
	C – A4138 W	0.42	1	0.51	1
	D – Llethri Rd	0.45	1	0.58	2
2028 Base	A – A4138 E	0.59	2	0.55	2
	B – Site Access	0.00	0	0.00	0
	C – A4138 W	0.43	1	0.52	2
	D – Llethri Rd	0.46	1	0.60	2
2028 Base + Development	A – A4138 E	0.59	2	0.56	2
	B – Site Access	0.08	1	0.04	0
	C – A4138 W	0.44	1	0.53	2
	D – Llethri Rd	0.47	1	0.61	2

Junction 2: A4138 / B4303 Roundabout

7.4.4 **Table 7-3** shows the junction capacity modelling results for the A4138/B4303 roundabout for the AM (08:15-09:15) and PM peak hours (16:30-17:30). This shows that the junction is forecast to operate within absolute capacity in both the AM and PM peak hours across all scenarios; however, Arm A (A4138 North) exceeds practical capacity in both the AM and PM peak hours across all scenarios.

7.4.5 The '2028 Base + Development' scenario sees an RFC of 0.97 in the AM peak hour and 0.99 in the PM peak hour. It is highlighted, however, that in comparison, the '2028 Base' scenario sees an RFC of 0.96 and 0.98 in the AM and PM peak hours respectively. This therefore indicates that the proposed development will have minimal impact on the operation of the junction in comparison to its operation without the proposed development, with a maximum increase in RFC of only 0.01 between the 'with' and 'without' development scenarios.

Table 7-3 Junction Modelling Results – A4138 / B4303 Roundabout

Scenario	Arm	AM (08:15-09:15)		PM (16:30-17:30)	
		RFC	Queue (PCUs)	RFC	Queue (PCUs)
2019 Base	A – A4138 N	0.86	7	0.87	7
	B – B4303 S	0.67	3	0.46	1
	C – A4138 S	0.63	2	0.68	3
	D – B4303 N	0.55	2	0.71	3
2023 Base	A – A4138 N	0.91	10	0.93	11
	B – B4303 S	0.74	3	0.50	1
	C – A4138 S	0.68	3	0.72	3
	D – B4303 N	0.60	2	0.76	4
2023 Base + Development	A – A4138 N	0.93	11	0.94	12
	B – B4303 S	0.75	3	0.51	1
	C – A4138 S	0.69	3	0.73	3
	D – B4303 N	0.60	2	0.77	4
2028 Base	A – A4138 N	0.96	16	0.98	20
	B – B4303 S	0.81	4	0.55	2
	C – A4138 S	0.72	3	0.76	3
	D – B4303 N	0.63	2	0.81	5
2028 Base + Development	A – A4138 N	0.97	19	0.99	23
	B – B4303 S	0.82	5	0.55	2
	C – A4138 S	0.73	3	0.77	4
	D – B4303 N	0.64	2	0.83	5

Junction 3: A4138 / A484 Roundabout

7.4.6 **Table 7-4** shows the junction capacity modelling results for the A4138/A484 roundabout for the AM (08:15-09:15) and PM peak hours (16:30-17:30). This shows that the junction is forecast to operate within absolute capacity across all arms, except Arm F (A484 W) in all scenarios. Arm F (A484 W) operates at/above absolute capacity in the PM peak in all future year scenarios. This demonstrates that there is an existing capacity issue on this arm of the roundabout, which is not forecast to be caused by the proposed development. When junctions are forecast to be operating at / near to capacity by Junctions 9, the model becomes disproportionately sensitive to changes in traffic flows, which can lead to the model overestimating increases in RFC and associated queueing and delay.

7.4.7 It is demonstrated in **Table 6-4** and **Table 6-5** that there are minimal additional traffic movements through Arm F (A484 W) as a result of the proposed development, representing less than a 1% increase in junction inflow in each of the AM and PM peak hours. As such, it is not considered that the proposed development will have a material impact on the operation of this junction.

Table 7-4 Junction Modelling Results – A4138 / A484 Roundabout

Scenario	Arm	AM (08:15-09:15)		PM (16:30-17:30)	
		RFC	Queue (PCUs)	RFC	Queue (PCUs)
2019 Base	A – A4138 N	0.62	2	0.56	2
	B – A484 E	0.46	1	0.63	2
	C – Service Exit	-	-	-	-
	D – Bus Retail Exit	-	-	-	-
	E – B4304	0.48	1	0.48	1
	F – A484 W	0.83	5	1.00	21
2023 Base	A – A4138 N	0.66	2	0.60	2
	B – A484 E	0.49	1	0.67	2
	C – Service Exit	-	-	-	-
	D – Bus Retail Exit	-	-	-	-
	E – B4304	0.51	2	0.52	2
	F – A484 W	0.90	8	1.07	43
2023 Base + Development	A – A4138 N	0.67	3	0.60	2
	B – A484 E	0.49	1	0.67	3
	C – Service Exit	-	-	-	-
	D – Bus Retail Exit	-	-	-	-
	E – B4304	0.52	2	0.52	2
	F – A484 W	0.90	8	1.09	48
2028 Base	A – A4138 N	0.69	3	0.62	2
	B – A484 E	0.52	2	0.71	3
	C – Service Exit	-	-	-	-
	D – Bus Retail Exit	-	-	-	-
	E – B4304	0.54	2	0.55	2
	F – A484 W	0.96	14	1.15	72
2028 Base + Development	A – A4138 N	0.70	3	0.63	2
	B – A484 E	0.52	2	0.71	3
	C – Service Exit	-	-	-	-
	D – Bus Retail Exit	-	-	-	-
	E – B4304	0.55	2	0.56	2
	F – A484 W	0.97	15	1.17	79

7.5 Summary

7.5.1 The junction modelling results have identified that the Industrial Park Roundabout is forecast to operate well within practical capacity in both the AM and PM peak hours across all scenarios.

7.5.2 The A4138/B4303 roundabout is forecast to operate within absolute capacity in both the AM and PM peak hours; however, the A4138 N arm exceeds practical capacity in both the AM and PM peak hours across all scenarios. The impact of the proposed development on the operation of the A4138 N is minimal, with a maximum increase in RFC of 0.01 between the '2028 Base' and '2028 Base + Development' scenarios.

7.5.3 The A4138/A484 roundabout is forecast to operate within absolute capacity across all arms, except the A484 W arm in all scenarios. The A484 W operates over actual capacity in all future year PM assessment scenarios, including the 'without' development scenarios, indicating that there is an existing capacity issue on this arm of the junction. It has also been shown that the proposed development will result in less than a 1% increase in traffic inflow on the A484 W.

7.5.4 Although it is acknowledged that there are existing capacity constraints at the A4138/B4303 and A4138/A484 roundabouts, it is not considered that the proposed development will have a material impact on the operation of these junctions when considered in comparison to their operation without the proposed development.

7.5.5 As set out earlier, this allocated site has formed part of the permitted and expected growth of the local area for considerable time. Therefore, the TEMPro data has already been informed of this expectation and the growth rates appropriately forecast. This allocated site has already been taken account of in published growth rates and this assessment is effectively double counting the 150 dwellings. The analyses presented within this report have therefore been carried out in a robust manner, in terms of the quantum of dwellings assessed and the inclusion of growth rate application.

8. Transport Implementation Strategy

8.1.1 As set out at **Section 4**, TAN 18 requires TAs to include a TIS. The TIS should:

- Identify the access arrangements required for a successful development. These are set out in Section 3;
- Identify the policy objectives and requirements set by the development plan in terms of access to the development and movements in and around the site. These are set out in Section 4;
- Specify the package of physical, management and promotion measures needed to accommodate these requirements. These are set out in the following paragraphs.

8.1.2 The internal site layout will be designed in a manner which facilitates walking and cycling and provides facilities for disabled people (dropped kerbs, tactile paving, etc). Footways and cycleways alongside the carriageway will be provided at high quality with clear spaces for non-motorised travel.

8.1.3 The indicative masterplan shows an access road routeing northeast-southwest through the site, serving adjacent frontage development and side-streets (cul-de-sacs incorporating areas of shared space at their end). Raised table/surface treatments are shown at side-street junctions and in the vicinity of the LAP to encourage reduced vehicle speeds. The central road and side-streets have footways on both sides of the carriageway. A number of pedestrian/cycle connections will be made to the shared footway/cycleway on the A4138, where it is considered deliverable in terms of engineering and drainage challenges. Therefore through these connections the development will support the provision of a direct route for the desire lines to/from the south.

8.2 Travel Plan

8.2.1 A TIS shares many of the same goals as a Travel Plan (TP). A TP has not been prepared for the proposed development at this stage. It is anticipated that a residential TP could be requested by way of a planning condition, informed by the modal information, targets and measures set out in this section. This would serve to further reduce the limited traffic impact of the proposals.

Mode Share and Targets

8.2.2 Mode share targets are used to evaluate the success of the TP and to identify areas on which further measures should be focused in order to help to drive travel behaviour change. To enable the setting of valid and realistic targets, a valid baseline first needs to be established.

8.2.3 As the TP will be requested by way of a planning condition, it is appropriate, at this stage, to set a target based on best practise and national guidance. The target will be to reduce the 'car' mode share by 6% over five years, consistent with Smarter Choices' report *Changing the way we travel* (2004). Following a baseline travel survey the target can be confirmed or adjusted as appropriate, during the drafting of the TP and following discussions with CCC.

Monitoring and Evaluation

8.2.4 The point at which baseline travel surveys are required will be subject to agreement with CCC as the LHA. A minimum response rate to the travel surveys will be required to be set and agreed to ensure that the data is representative.

8.2.5 The format of the baseline and monitoring surveys will also need to be agreed with CCC. In general, these will seek to establish the actual travel patterns, the reasons for travel choice and potential measures to encourage consideration of alternatives.

8.2.6 The results of the baseline travel surveys will be analysed and the factors influencing travel behaviour will be investigated. It will then be necessary for the TPC to review and update the respective TP to include additional details and the need for any other measures not already included that require further investigation.

8.2.7 Specific objectives and targets will need to be identified, separated into short/medium/long term targets, and will need to be SMART (Specific, Measurable, Achievable, Realistic, and Timed). Specific actions and measures to encourage sustainable modes of travel will be identified. For the on-going management of the TP to be successful and to deliver the desired outcomes, it is important that the parties involved in the delivery of the TP work effectively in partnership to achieve the desired results.

8.2.8 Monitoring of the TP will be required for a five-year period from the date of the baseline travel surveys. They will be undertaken at intervals of one, three and five years after the date (or close to the date) of the baseline travel surveys. The TPC will aim to coordinate the baseline travel surveys and subsequent monitoring surveys to ensure consistency between the collection of data for the TP. Surveys will avoid sustained periods of inclement weather or when there is significant disruption to the local road or public transport network.

8.2.9 A monitoring report will be prepared by the TPC for each monitoring survey. These will identify the results of the surveys and success of the measures implemented in achieving the targets. The reports will be submitted to CCC for comment. If the targets are not met, then it will be necessary to review what remedial measures need to be implemented to mitigate the impact of any under achievement.

TP Measures and Interventions

8.2.10 In order to achieve the reduction in single occupancy car use and encourage a modal shift to more sustainable forms of travel, a number of TP measures will be implemented.

8.2.11 A TP will be secured as a planning condition and will be produced ready for the opening of the proposed development. A TPC will be appointed who will be responsible in ensuring the success of the TP and its targets and objectives. The TP will contain a range of measures additional to those that will be provided as part of the development to enhance the attractiveness of sustainable travel and to encourage the use of the walking, cycling and public transport infrastructure.

9. Conclusions

9.1.1 This TA has been prepared by AECOM on behalf of Persimmon Homes West Wales in respect of a planning application for a residential development on land to the east of the A4138 at Dafen. The site is allocated for development in the LDP (150 dwellings under Site Reference: GA2/h27).

9.1.2 A first iteration of this TA was completed in April 2020 for 149 dwellings. Following the output of intrusive ground investigations and pre-application consultation with the Carmarthenshire County Council (CCC) SAB/SuDS department, the masterplan layout was revised to accommodate 160 dwellings. The TA for PAC submission provided an assessment for a maximum of 170 dwellings in order to ensure a robust assessment.

9.1.3 The masterplan layout has, since that time, been revised to accommodate 150 dwellings, with a TA providing an assessment for this quantum. In the final preparations for a planning submission, it has been confirmed that further identified site constraints were such that a reduction in units was required to a total of 145 dwellings. This update to the TA reflects this change to 145 dwellings within the report narrative, however, the assessments, set out in the later chapters, have been retained in their consideration of 150 dwellings.

9.1.4 The scope of the TA has been informed through pre-application scoping discussions with CCC. The content of this TA and extent of assessment is generally in accordance with the agreed scope.

9.1.5 A detailed review of the existing highway network and baseline situation has been carried out. The site benefits from excellent existing provision for pedestrians and cyclists in the locality; this includes shared footways/cycleways on both sides of the A4138, an underpass at the A4138/B4303 roundabout, and a shared footway/cycleway to Pemberton Retail Park from the A4138/B4303 roundabout. Employment areas and a range of local facilities are located within walking and cycling distance of the site. Opportunities for public transport use have been identified and are considered a reasonable alternative to single-occupancy vehicle use.

9.1.6 PIA data has been obtained from CCC to determine whether there are any locations on the local highway network with poor collision records. During the five-year period from 1st August 2014 to 31st July 2019, a total of 43 PIAs were recorded in the study area, of which 38 resulted in ‘slight’ injuries. Five PIAs resulted in ‘serious’ injuries. No ‘fatal’ PIAs were recorded. A further indicative assessment has been carried out to account for the time that has elapsed between the initial report and this update. The findings concluded that no further in depth analysis was required. The analysis of the PIA records concludes that it can be considered that there are no inherent highway safety issues on the local network that would be exacerbated by the proposed development.

9.1.7 Bus services are accessible from bus stops located at ‘Dyfed Steel’ and ‘Avon Inflatables’. The ‘Dyfed Steel’ bus stop provides services to Llanelli and Pontarddulais every 90 minutes. Rail services are available from Llanelli Railway Stations. The station is within acceptable cycling distance of the site. Regular rail services are provided in the direction of Cardiff Central and Haverfordwest, with additional direct services to strategic locations including Manchester Piccadilly. Overall, the site is considered accessible by sustainable modes.

9.1.8 Vehicle access is proposed from the south-eastern arm of the existing Industrial Park Roundabout. The south-eastern arm of the roundabout is partially constructed to provide access to a farm/field access to the north of the site.

9.1.9 The indicative masterplan shows an access road routeing northeast-southwest through the site, serving adjacent frontage development and side-streets (cul-de-sacs incorporating areas of shared space at their end). Raised table/surface treatments are shown at side-street junctions and in the vicinity of the LAP to encourage reduced vehicle speeds. The central road and side-streets have footways on both sides of the carriageway. A number of pedestrian/cycle connections will be made to the shared footway/cycleway on the A4138, where it is considered deliverable in terms of engineering and drainage challenges. Therefore through these connections the development will support the provision of a direct route for the desire lines to/from the south.

9.1.10 The internal site layout will be designed in a manner which facilitates walking and cycling and provides facilities for disabled people (dropped kerbs, tactile paving, etc). Car, motorcycle and cycle parking will be provided in accordance with the adopted standards.

9.1.11 The development proposals align with existing planning and transport policy at both a national and local level. The site benefits from allocation within the LDP and is therefore compliant with development policy. The LDP process has, through extensive candidate site testing, already found this site suitable for residential development. The proposals will facilitate sustainable travel through a number of measures including connections into existing infrastructure.

9.1.12 The trip generation of the proposed development has been forecast based on a development of 150 dwellings. The proposed development is forecast to generate around 71 and 72 two-way vehicle trips in the AM and PM peak hours respectively, using forecast development peaks not network peaks and the two compounded for assessment purposes. Traffic has been distributed onto the highway network with reference to the 2011 Census. The percentage increase in traffic inflow at each assessed junction has been undertaken on an arm-by-arm basis. This identifies that the maximum increase is only 2% on any single junction movement across all three junctions.

9.1.13 The traffic impact assessment has considered five assessment scenarios; '2019 Base', '2023 Base', '2023 Base + Development', '2028 Base' and '2028 Base + Development'. The future year of 2023 has been derived with reference to best practice guidance, based on the likely opening year of the development. The future year forecasts include traffic growth, although as set out in the relevant sections, this allocated site has formed part of the permitted and expected growth of the local area for considerable time. Therefore, the TEMPro data has already been informed of this expectation and the growth rates appropriately forecast. This allocated site has already been taken account of in published growth rates and this assessment is effectively double counting the proposed 150 dwellings, in order to provide a robust assessment.

9.1.14 An assessment has been undertaken of the impact of the proposed development at three junctions (Industrial Park Roundabout, A4138/B4303 roundabout, and A4138/A484 roundabout) during the weekday AM and PM peak hours. The assessment has comprised an examination of the changes in traffic flows at the junctions and a capacity assessment. This has identified that the proposed development will not result in a material change in traffic flows, or capacity at these junctions. The low levels of traffic forecast are likely to be unperceivable against the daily fluctuation of traffic. In reality the impact will likely be less than that which has been forecast using robust assessment methodology.

9.1.15 A TIS has been prepared; this includes a commitment to planning conditions relating to the proposed access arrangements and internal site layout, and the implementation of a TP for the proposed development.

9.1.16 Further to the findings of this TA following detailed assessments, and in compliance with the LDP allocated use of the site, it can be concluded that there are no apparent or obvious transport reasons why the proposed development should not be granted planning permission.

Appendix A:

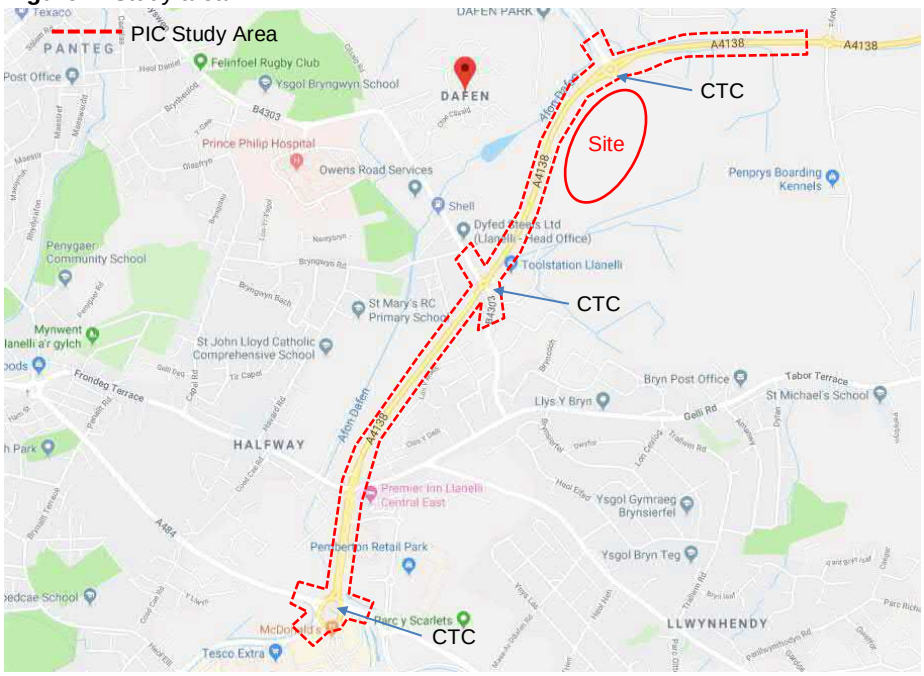
Scoping Note

Technical Note

Project:	**Dafen Residential Scheme, Llanelli**	Job No: **60615588**
Subject:	**Transport Assessment Scoping Note**	
Prepared by:	**Lucy Cooper (Senior Consultant)**	Date: **25/09/2019**
Checked by:	**Spiro Panagi (Associate Director)**	Date: **30/09/2019**
Approved by:	**Spiro Panagi (Associate Director)**	Date: **30/09/2019**

The following Table sets out a proposed scope of the Transport Assessment (TA) in respect of development proposals on land to the east of the A4138 at Dafen, Llanelli.

1	Site Location and Existing Land Use	The land is located to the east of the A4138 at Dafen, Llanelli and is currently open countryside. Access to the site will be at its northern extent from a proposed new fourth arm of the existing A4138/Llethri Road Industrial Park Roundabout.
2	Development Proposal	The development proposal is for circa. 160 residential units. The site is an allocated site within the Carmarthenshire Local Development Plan 2006-2021 (site reference GA2/h27 for 150 dwellings).
3	Planning Policy Review	The context of the development proposals will be considered in relation to the following policy and guidance: ▪ Planning Policy Wales PPW 10 (2018); ▪ Technical Advice Note 18: Transport (2007); ▪ The Wales Transport Strategy (2008); ▪ National Transport Finance Plan (2017); ▪ Active Travel (Wales) Act (2013); ▪ Carmarthenshire Local Development Plan 2006-2021; ▪ Joint Transport Plan for South West Wales 2015-2020; and ▪ Integrated Parking Strategy for Carmarthenshire (2005).
4	Existing Situation and Site Accessibility	The TA will include the following: ▪ Description of the site location and existing usage; ▪ Description of the local highway network, including carriageway widths, speed limits, street lighting, etc where appropriate; ▪ Analysis of the existing highway operational conditions with reference to traffic survey data; ▪ Details of existing walking/cycling facilities; ▪ Inventory of public transport services; and ▪ Identification of key local facilities and their accessibility by sustainable modes.
5	Data Collection	**Personal Injury Collision data (PIC)** Personal Injury Collision data (PIC) data will be obtained from the Welsh Government (WG) for the most recent five-year period for which data was available. The proposed PIC study area is shown at Figure 1. **Traffic Surveys** The PIC study area also forms our best judgement on the extent of the traffic study area. A development of this scale would be adequately represented through traffic surveys at the following locations: ▪ The proposed site access at the A4138 roundabout junction with Llethri Road; ▪ The A4138 roundabout junction with the B4303; and ▪ The A4138 roundabout junction with the A484. The traffic data will be used to determine the traffic impact of the proposals at these locations. If it is appropriate, a capacity assessment will be undertaken using appropriate junction modelling software.

		Classified Turning Counts (CTC) and queue length surveys will be conducted by a third-party traffic count specialist at roundabout locations listed above. These surveys will be undertaken on a neutral weekday and cover the three-hour AM (07:00-10:00hrs) and PM (16:00-19:00hrs) peak time periods. **Figure 1**: Study area 
6	Trip Generation	Development traffic generation will be calculated using the industry standard TRICS national database and will be based on the quantum of development.
7	Trip Distribution	Trip distribution will be informed by 2011 Census data to establish travel patterns for those who reside in and work in the Middle Super Output Areas 'Carmarthenshire 020', in which the site is located. From this, the fastest route to/from the site to each of these locations will be established using online journey planning software, and the percentage trip distribution for each turning movement at the surveyed roundabout junctions will be calculated.
8	Traffic Impact Assessment	**Assessment Scenarios:** ▪ The TA will assess the impact of the development proposals in the opening year (assumed 2022) and five years after opening (2027), both with and without the development proposals. ▪ The morning and evening weekday peak hours will be considered. The weekday peak hours will be identified from the traffic surveys referenced above. ▪ Traffic growth factors derived from TEMPro (Version 7.2) will be applied to the traffic data to establish traffic flows in the opening and forecast years. **Capacity Assessment:** Any required assessments will be undertaken using the industry-standard TRL software program 'Junctions 9'.
9	Transport Implementation Strategy (TIS)	The TA will include a TIS, which will consider potential measures, and appraise those already being implemented by the wider site, to increase the mode share of sustainable travel modes. In particular, the following will be considered: • Feasibility of walking and cycling routes in the surrounding areas including consideration for potential improvements; • Pedestrian and cycle access and circulation within the site; and • Commitment to a Residential Travel Plan with appropriate recommendations and actions. A new TP for the site could be secured as part of a planning condition.

Appendix B:

Indicative Masterplan

A0

OPEN MARKET

HOUSETYPE NAME	PREFIX	RANGE	TYPE	NO.	SQFT	TOTAL SQFT	NO. BEDROOMS	NO. STOREY	INDIVIDUAL %	GROUP %
ALNMOUTH	Al	R25	HOUSE	9	663	5967	2B3P	2	8%	43%
DANBURY	Da	R25	HOUSE	23	818	18814	2B3P	2	20%	
CHILTERN	Ct	R25	HOUSE	6	889	5334	2B3P	2	5%	
SAUNTON	Sa	R25	HOUSE	12	1033	12396	3B4P	2.5	10%	
SILVERDALE	Sv	R25	HOUSE	1	1042	1042	3B4P	2	1%	39%
GALLOWAY	Ga	R25	HOUSE	23	948	21804	3B4P	2	20%	
KINGLEY	Kg	R25	HOUSE	7	976	6832	3B4P	2	6%	
SHERWOOD	Sh	R25	HOUSE	5	1010	5050	3B4P	2	4%	
BARNWOOD	Bw	R25	HOUSE	9	1041	9369	3B4P	2	8%	
GALLOWAY + DT	GaDT	R25	HOUSE	2	1098	2196	4B5P	2	2%	18%
RIVINGTON	Ri	R25	HOUSE	2	1098	2196	4B5P	2	2%	
WHINFELL	Wh	R25	HOUSE	2	1178	2356	4B5P	2,5	2%	
BARNWOOD + DT	BwDT	R25	HOUSE	3	1209	3627	4B6P	2	3%	
BRAMPTON	Br	R25	HOUSE	3	1261	3783	4B5P	2	3%	
GREENWOOD	Gw	R25	HOUSE	5	1324	6620	4B 6P	2.5	4%	
KNEBWORTH + DT	KnDT	R25	HOUSE	1	1366	1366	5B7P	2	1%	
LAMBRIDGE	Lb	R25	HOUSE	1	1378	1378	4B5P	2	1%	
KIELDER	Ki	R25	HOUSE	2	1416	2832	4B5P	2	2%	

AFFORDABLE

SALCEY	Apt Sa	R25	APARTMENT	6	565	3390	1B2P	3	4%	20%
ARGYLL	Apt Ar	R25	APARTMENT	3	652	1956	2B3P	3	2%	
ASHRIDGE	Ad	R25	FOG	1	656	656	1B2P	2	1%	
STAPLEFORD	Apt Sf	R25	FLAT	9	624	5616	2x1B2P / 1x2B3P	3	6%	
DANBURY	Da	R25	HOUSE	2	818	1636	2B3P	2	1%	
SAUNTON	Sa	R25	HOUSE	8	1033	8264	3B4P	2.5	6%	

TOTAL OPEN MARKET	116		112962
TOTAL AFFORDABLE	29		21518
TOTAL	145		134480
NET ACRES			8.27

Persimmon

Persimmon Homes (West Wales)

Development

Dafen, Llanelli

Drawing Title	Date	Scale	Drawn / Checked by
Planning Layout	03/23	1:500@AO	JP/JP

Drawing Status	Drawing Ref	Rev
Draft	PL02-Draft	#

Appendix C:

Traffic Survey Data

Midlands

Haseley Office Centre,
Firs Lane, Haseley,
Warwick,
CV35 7LS

Tel: 01926 485504
Fax: 01926 485537

AECOM
LLANELLI
TRAFFIC SURVEY

SURVEY REPORT
NOVEMBER 2019

PROJECT NO.	10650
CHECKED	N. TOONE
DATE	26/11/2019
CONTACT	M. NORRIS
REVISION	

email: enquiries@nationwidedatacollection.co.uk
website: www.nationwidedatacollection.co.uk

Registered Office:
Haseley Office Centre, Firs Lane,
Haseley, Warwick, CV35 7LS

CONTENTS

INTRODUCTION

Nationwide Data Collection (NDC) was instructed by AECOM to undertake classified turning counts and queue length surveys along the A138 in Dafen, Llanelli. A general location plan is given in Diagram 1.

Classified Turning Counts

Classified turning counts were undertaken at the following junctions:

Site 1 – A4138 / Llethri
Site 2 – A4138 / B4303
Site 3 – A4138 / A484

The surveys were carried out on Thursday 14th November 2019 and the survey hours were 07:00 to 10:00 and 16:00 to 19:00. All information was collected in fifteen-minute intervals and has been tabulated in Excel with the peak 60-minute period calculated. Details of the observed movements are given in Drawings 10650-01 to 03.

Vehicles were classified into the following categories:
Cars and taxis (**CAR**), Light Goods Vehicles (**LGV**), Other Goods Vehicles (**OGV1**), Other Goods Vehicles 2 (**OGV2**) Public Service Vehicles (**PSV**), Motorcycles (**MCL**) & Pedal Cycles (**PCL**).

A detailed description of the vehicles included in each category is included in Appendix A.
The results of the classified counts are contained in Appendix B.

Queue Length Observations

Queue length observations were carried out on all approaches to the junctions at 5-minute intervals, by lane. Lane numbering is always outwards from the kerb in the direction of travel. Arm labelling is consistent with the classified counts. All observations are in vehicle numbers rather than a linear measurement.

The results of the queue length observations are included in Appendix C.

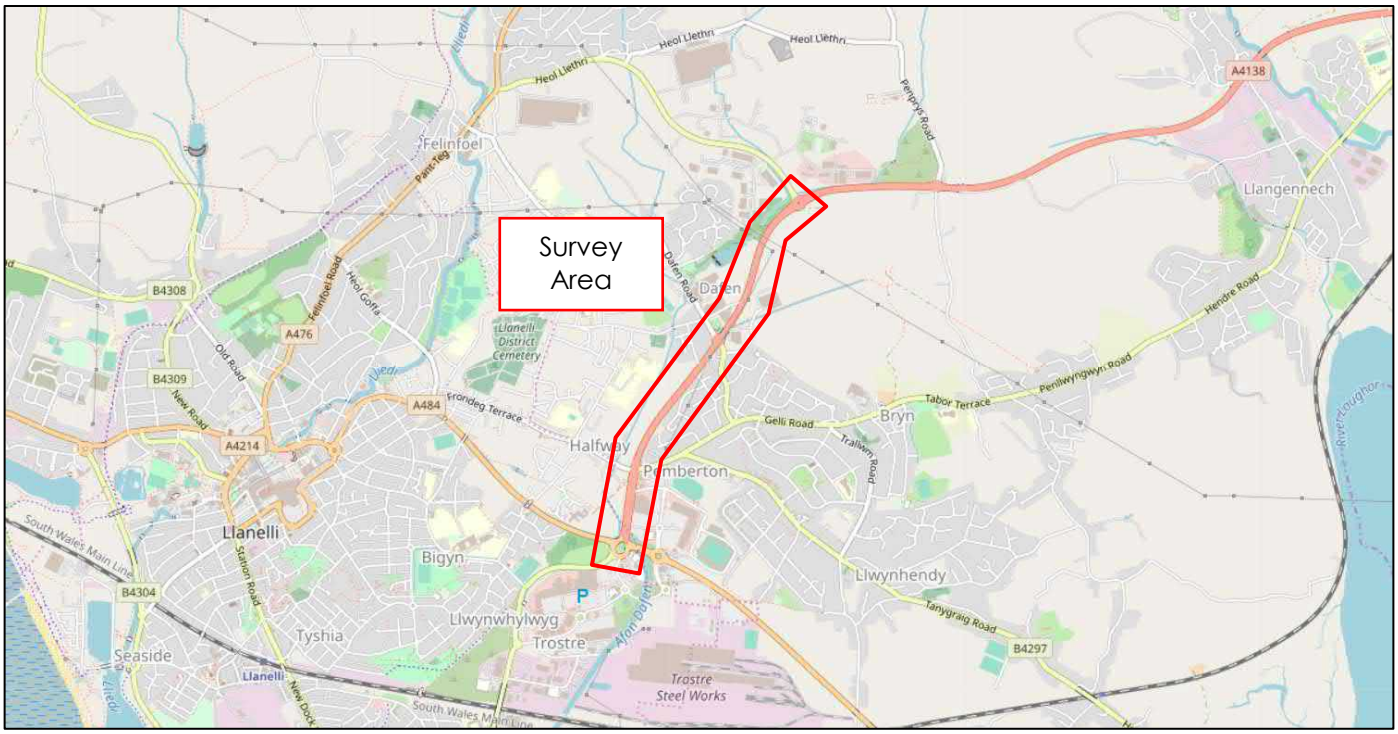
Site Notes

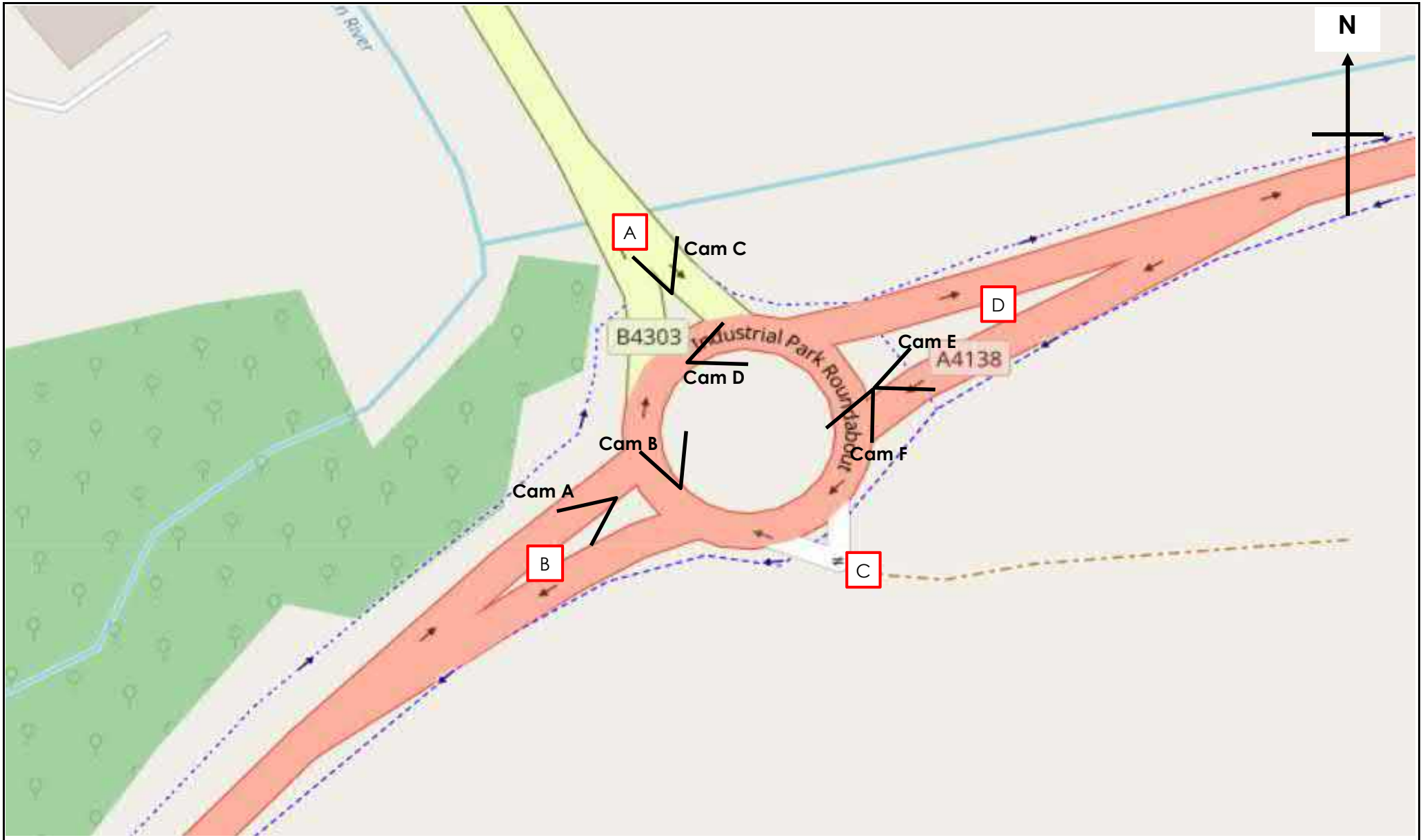
Any junction counts which are directly linked will include a "checks" tab in the Excel file; this shows the matching between sites for each 15-minute time period, and for each vehicle type. Where links are not 100% there should be a reason given such as "industrial estate between sites".

The weather was recorded as overcast, with rain showers throughout the day. There were no incidents or accidents likely to have had an effect on the results.

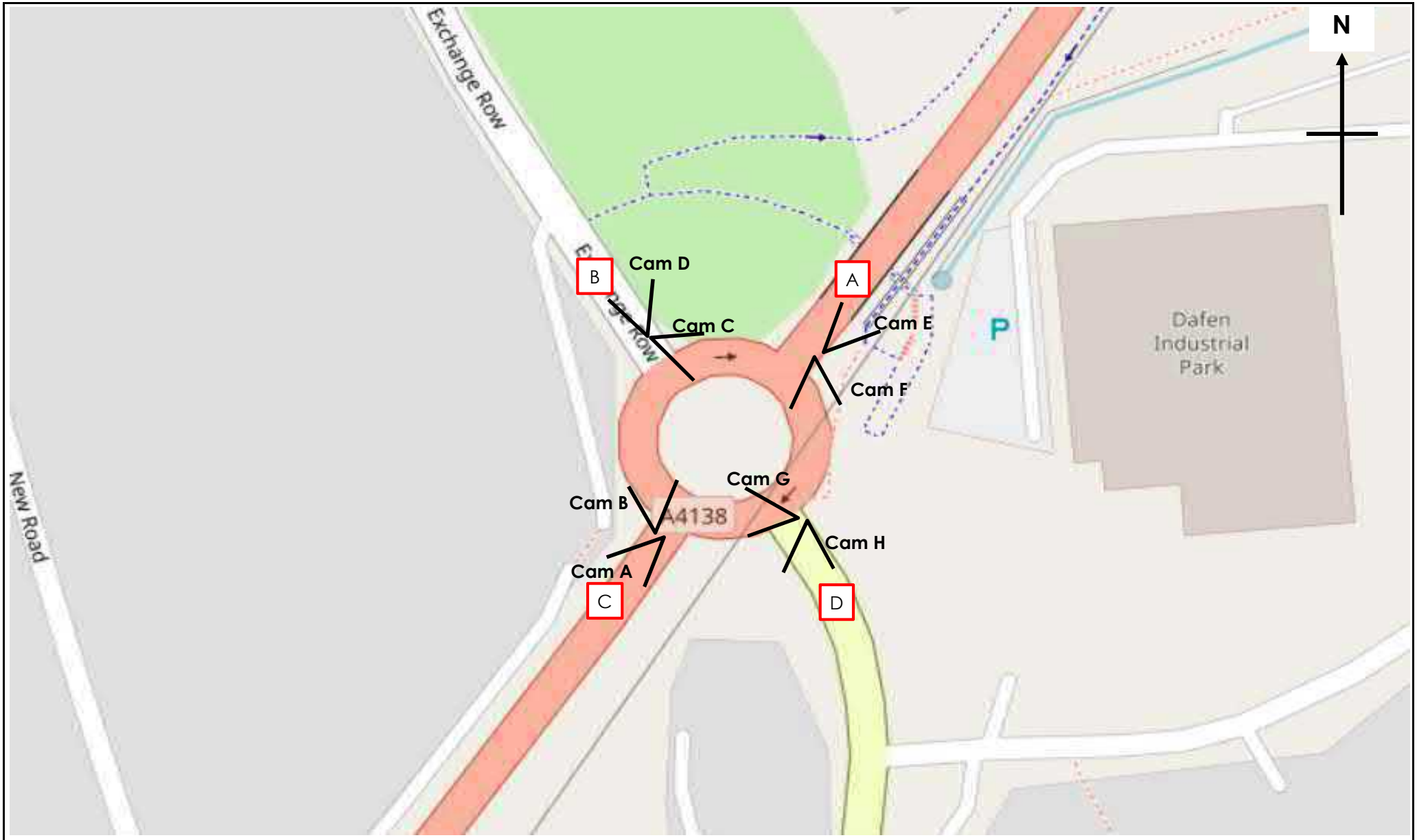
All data has been emailed to Lucy Cooper at lucy.cooper@aecom.com

Diagram 1 – General Location Plan

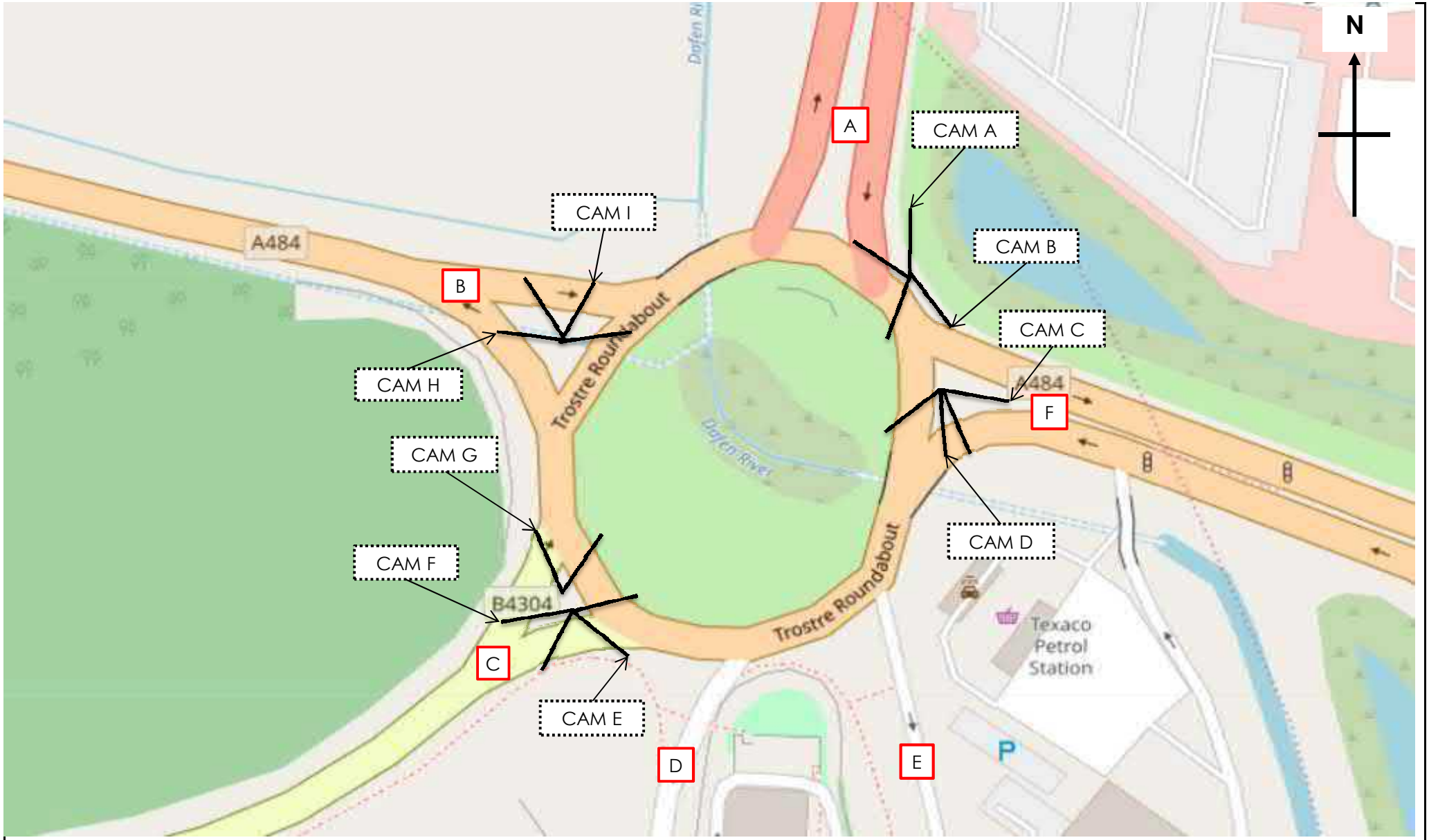




NDC NATIONWIDE DATA COLLECTION	**Site / Location:**	Site 1, A4138 / Llethri	**Project No:**	10650	**Drawing No:**	10650-01	**Drawn By:**	MN
	Survey Date:	Thursday 14th November 2019	**Project Name:**	Llanelli				
	Survey Times:	07:00 to 10:00 & 16:00 to 19:00	**Drawing Title:**	Site Layout and Observed Movements				



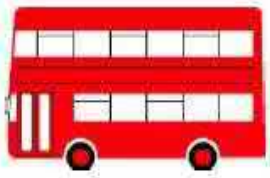
NDC NATIONWIDE DATA COLLECTION	**Site / Location:**	Site 2, A4138 / B4303	**Project No:**	10650	**Drawing No:**	10650-02	**Drawn By:**	MN
	Survey Date:	Thursday 14th November 2019	**Project Name:**	Llanelli				
	Survey Times:	07:00 to 10:00 & 16:00 to 19:00	**Drawing Title:**	Site Layout and Observed Movements				



NDC NATIONWIDE DATA COLLECTION	**Site / Location:**	Site 3, A4138 / A484	**Project No:**	10650	**Drawing No:**	10650-03	**Drawn By:** MN
	Survey Date:	Thursday 14th November 2019	**Project Name:**	Llanelli			
	Survey Times:	07:00 to 10:00 & 16:00 to 19:00	**Drawing Title:**	Site Layout and Observed Movements			

APPENDIX A
Vehicle Categories

COBA VEHICLE CATEGORIES

CAR	 SALOON  ESTATE  PEOPLE CARRIER  CAR TOWING CARAVAN / TRAILER
LIGHT GOODS VEHICLE (LGV)	 VAN  <3.5 TONNES – single rear tyres  PICK-UP
OTHER GOODS VEHICLE (OGV1)	 > 3.5 TONNES – twin rear tyres  2-AXLES RIGID  2-AXLES RIGID  3 AXLES-RIGID
OTHER GOODS VEHICLE (OGV2)	 4 OR MORE AXLES RIGID  3-AXLES ARTIC  4 OR MORE AXLES ARTIC  OTHER GOODS VEHICLE WITH TRAILER
BUSES & COACHES (PSV)	 DOUBLE DECK BUS  SINGLE DECK BUS OR COACH

COBA VEHICLE CATEGORIES

Definition of Categories

The various components of traffic have different characteristics in terms of operating costs, growth and occupancy. The most common categories into which the traffic is split in COBA; these are defined as:

Cars (CARS)

Including taxis, estate cars, 'people carriers' and other passenger vehicles (for example, minibuses and camper vans) with a gross vehicle weight of less than 3.5 tonnes, normally ones which can accommodate not more than 15 seats. Three-wheeled cars, motor invalid carriages, Land Rovers, Range Rovers and Jeeps and smaller ambulances are included. Cars towing caravans or trailers are counted as one vehicle unless included as a separate class.

Light Goods Vehicles (LGV)

Includes all goods vehicles up to 3.5 tonnes gross vehicle weight (goods vehicles over 3.5 tonnes have sideguards fitted between axles), including those towing a trailer or caravan. This includes all car delivery vans and those of the next larger carrying capacity such as transit vans. Included here are small pickup vans, three-wheeled goods vehicles, milk floats and pedestrian controlled motor vehicles. Most of this group is delivery vans of one type or another.

Other Goods Vehicles (OGV 1)

Includes all rigid vehicles over 3.5 tonnes gross vehicle weight with two or three axles Includes larger ambulances, tractors (without trailers), road rollers for tarmac pressing, box vans and similar large vans. A two or three axle motor tractive unit without a trailer is also included.

Other Goods Vehicles (OGV 2)

This category includes all rigid vehicles with four or more axles and all articulated vehicles. Also included in this class are OGV1 goods vehicles towing a caravan or trailer.

Buses and Coaches (PSV)

Includes all public service vehicles and works buses with a gross vehicle weight of 3.5 tonnes or more, usually vehicles with more than 16 seats.

NDC
NATIONWIDE DATA COLLECTION

APPENDIX B
Classified Count Data

10650 / LLANELLI
NOVEMBER 2019
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	A to D								A to C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	83	20	0	2	0	0	0	105	0	0	0	0	0	0	0	0
07:15	102	21	4	2	2	0	0	131	0	0	0	0	0	0	0	0
07:30	92	21	0	2	4	0	0	119	0	0	0	0	0	0	0	0
07:45	90	17	2	4	1	0	0	114	0	0	0	0	0	0	0	0
08:00	70	20	1	2	1	0	0	94	0	0	0	0	0	0	0	0
08:15	72	14	5	1	1	0	0	93	0	0	0	0	0	0	0	0
08:30	75	14	3	2	1	0	0	95	0	0	0	0	0	0	0	0
08:45	73	20	1	3	0	0	0	97	0	0	0	0	0	0	0	0
09:00	54	18	4	2	1	0	0	79	0	0	0	0	0	0	0	0
09:15	51	15	3	2	0	0	0	71	0	0	0	0	0	0	0	0
09:30	44	19	1	3	0	0	0	67	0	0	0	0	0	0	0	0
09:45	35	14	1	1	0	0	0	51	0	0	0	0	0	0	0	0
P/TOT	841	213	25	26	11	0	0	1116	0	0	0	0	0	0	0	0

	A to D								A to C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	87	19	0	1	0	0	0	107	0	0	0	0	0	0	0	0
16:15	63	16	1	1	0	0	0	81	0	0	0	0	0	0	0	0
16:30	87	21	0	1	0	0	0	109	0	0	0	0	0	0	0	0
16:45	79	8	1	0	3	0	0	91	0	0	0	0	0	0	0	0
17:00	98	23	0	1	1	0	0	123	0	0	0	0	0	0	0	0
17:15	77	11	0	0	0	0	0	88	0	0	0	0	0	0	0	0
17:30	80	6	2	0	0	0	0	88	0	0	0	0	0	0	0	0
17:45	58	6	1	0	0	0	0	65	0	0	0	0	0	0	0	0
18:00	59	3	0	0	0	0	0	62	0	0	0	0	0	0	0	0
18:15	46	5	1	0	0	0	0	52	0	0	0	0	0	0	0	0
18:30	51	3	0	1	0	0	0	55	0	0	0	0	0	0	0	0
18:45	37	4	0	1	0	0	0	42	0	0	0	0	0	0	0	0
P/TOT	822	125	6	6	4	0	0	963	0	0	0	0	0	0	0	0

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	A to B								A to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
07:15	27	1	0	0	0	0	0	28	0	0	0	0	0	0	0	0
07:30	28	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0
07:45	24	4	0	0	0	0	0	28	0	0	0	0	0	0	0	0
08:00	39	2	0	0	1	0	0	42	0	0	0	0	0	0	0	0
08:15	35	10	1	0	0	0	0	46	0	0	0	0	0	0	0	0
08:30	48	6	3	0	2	0	0	59	0	0	0	0	0	0	0	0
08:45	33	8	0	0	0	0	0	41	0	0	0	0	0	0	0	0
09:00	41	9	2	0	0	0	0	52	2	0	0	0	0	0	0	2
09:15	19	6	0	0	0	0	0	25	0	0	0	0	0	0	0	0
09:30	30	3	1	0	0	0	0	34	0	0	0	0	0	0	0	0
09:45	30	4	0	0	0	0	0	34	0	0	0	0	0	0	0	0
P/TOT	370	53	7	0	3	0	0	433	2	0	0	0	0	0	0	2

	A to B								A to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	76	3	1	0	0	0	0	80	1	0	0	0	0	0	0	1
16:15	23	3	0	1	0	0	0	27	0	0	0	0	0	0	0	0
16:30	77	4	1	0	0	1	0	83	2	0	0	0	0	0	0	2
16:45	61	0	0	0	1	0	0	62	0	0	0	0	0	0	0	0
17:00	65	3	0	1	1	0	0	70	0	0	0	0	0	0	0	0
17:15	37	2	0	0	0	0	0	39	0	0	0	0	0	0	0	0
17:30	54	9	0	0	0	0	0	63	0	0	0	0	0	0	0	0
17:45	41	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0
18:00	35	4	0	0	0	0	0	39	1	0	0	0	0	0	0	1
18:15	26	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0
18:30	26	0	0	0	0	0	0	26	1	0	0	0	0	0	0	1
18:45	21	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0
P/TOT	542	28	2	2	2	1	0	577	5	0	0	0	0	0	0	5

10650 / LLANELLI
NOVEMBER 2019
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	B to A								B to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	25	7	1	0	0	0	0	33	102	25	5	3	1	1	0	137
07:15	57	3	0	0	0	0	0	60	125	23	7	3	0	1	0	159
07:30	41	3	2	0	0	0	0	46	108	24	2	5	2	0	0	141
07:45	37	12	2	0	1	0	0	52	92	16	5	1	0	0	0	114
08:00	28	7	0	0	1	0	0	36	103	14	5	0	1	0	0	123
08:15	55	10	1	0	1	0	0	67	113	19	8	1	0	0	0	141
08:30	38	5	1	0	0	0	0	44	93	22	10	3	0	1	0	129
08:45	56	8	0	0	0	0	0	64	81	15	5	4	2	0	0	107
09:00	21	6	1	0	0	0	0	28	76	16	8	1	1	0	0	102
09:15	21	13	1	0	0	0	0	35	76	15	5	4	0	0	0	100
09:30	28	4	0	0	0	0	0	32	70	16	4	7	0	0	0	97
09:45	30	5	1	0	0	0	0	36	77	21	12	2	1	0	0	113
P/TOT	437	83	10	0	3	0	0	533	1116	226	76	34	8	3	0	1463

	B to A								B to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	41	5	0	1	0	0	0	47	148	24	4	3	1	0	0	180
16:15	41	1	0	0	0	0	0	42	175	16	4	0	0	0	0	195
16:30	31	3	0	0	0	0	0	34	155	16	6	0	1	0	0	178
16:45	49	2	0	0	0	0	0	51	158	18	1	1	0	0	0	178
17:00	49	3	0	1	0	0	0	53	156	10	0	0	0	0	0	166
17:15	43	4	0	0	1	0	0	48	155	4	1	1	0	0	0	161
17:30	48	4	0	0	0	0	0	52	119	9	0	1	0	0	0	129
17:45	52	5	0	0	0	0	0	57	125	7	0	1	0	0	0	133
18:00	34	4	0	0	1	0	0	39	109	13	3	0	0	0	0	125
18:15	33	3	0	0	0	0	0	36	91	3	1	0	1	0	0	96
18:30	23	3	0	0	0	0	0	26	98	5	0	0	0	0	0	103
18:45	33	1	0	0	0	0	0	34	85	6	0	1	0	0	0	92
P/TOT	477	38	0	2	2	0	0	519	1574	131	20	8	3	0	0	1736

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	B to C								B to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	5
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	4
09:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
09:30	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
09:45	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
P/TOT	2	0	0	0	0	0	0	2	8	6	0	0	0	0	0	14

	B to C								B to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
16:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
16:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
17:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P/TOT	2	0	0	0	0	0	0	2	3	1	0	2	0	0	0	6

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P/TOT	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	C to D								C to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	C to D								C to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P/TOT	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	D to C								D to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0	49	9	6	4	1	0	0	69
07:15	0	0	0	0	0	0	0	0	65	14	6	4	3	0	0	92
07:30	0	0	0	0	0	0	0	0	94	16	6	2	0	1	0	119
07:45	0	0	0	0	0	0	0	0	136	17	2	2	0	0	0	157
08:00	0	0	0	0	0	0	0	0	135	27	6	2	0	0	0	170
08:15	0	0	0	0	0	0	0	0	166	20	4	5	0	0	0	195
08:30	0	0	0	0	0	0	0	0	155	34	5	2	1	0	0	197
08:45	0	0	0	0	0	0	0	0	159	19	6	4	0	0	0	188
09:00	0	0	0	0	0	0	0	0	158	23	3	7	3	0	0	194
09:15	0	0	0	0	0	0	0	0	121	21	4	5	1	0	0	152
09:30	2	0	0	0	0	0	0	2	143	23	3	3	2	1	0	175
09:45	0	0	0	0	0	0	0	0	115	21	4	7	0	0	0	147
P/TOT	2	0	0	0	0	0	0	2	1496	244	55	47	11	2	0	1855

	D to C								D to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	0	0	0	0	0	0	0	0	139	18	4	1	0	0	0	162
16:15	0	0	0	0	0	0	0	0	131	20	7	2	1	0	0	161
16:30	0	0	0	0	0	0	0	0	140	22	2	2	2	1	0	169
16:45	0	0	0	0	0	0	0	0	133	22	4	2	0	1	0	162
17:00	0	0	0	0	0	0	0	0	136	31	2	0	1	0	0	170
17:15	0	0	0	0	0	0	0	0	165	14	2	3	0	1	0	185
17:30	0	0	0	0	0	0	0	0	145	17	3	1	0	0	0	166
17:45	1	0	0	0	0	0	0	1	134	11	0	2	1	1	0	149
18:00	0	0	0	0	0	0	0	0	151	11	1	4	0	0	0	167
18:15	0	0	0	0	0	0	0	0	147	13	4	0	1	0	0	165
18:30	0	0	0	0	0	0	0	0	131	11	1	2	0	0	0	145
18:45	0	0	0	0	0	0	0	0	77	8	1	2	0	0	0	88
P/TOT	1	0	0	0	0	0	0	1	1629	198	31	21	6	4	0	1889

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	D to A								D to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	21	10	2	2	0	0	0	35	0	0	0	0	0	0	0	0
07:15	91	11	0	1	1	0	0	104	0	0	0	0	0	0	0	0
07:30	59	11	1	0	1	0	0	72	0	0	0	0	0	0	0	0
07:45	72	11	3	1	0	0	0	87	0	0	0	0	0	0	0	0
08:00	73	17	0	2	0	0	0	92	0	0	0	0	0	0	0	0
08:15	83	16	5	0	0	0	0	104	0	0	0	0	0	0	0	0
08:30	72	13	2	3	0	0	0	90	0	0	0	0	0	0	0	0
08:45	65	7	2	1	1	0	0	76	0	0	0	0	0	0	0	0
09:00	53	16	1	0	3	0	0	73	0	0	0	0	0	0	0	0
09:15	38	4	0	1	1	0	0	44	0	0	0	0	0	0	0	0
09:30	33	11	3	1	1	0	0	49	0	0	0	0	0	0	0	0
09:45	33	9	1	3	1	0	0	47	0	0	0	0	0	0	0	0
P/TOT	693	136	20	15	9	0	0	873	0	0	0	0	0	0	0	0

	D to A								D to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	65	21	1	1	0	0	0	88	0	0	0	0	0	0	0	0
16:15	75	19	1	1	1	0	0	97	0	0	0	0	0	0	0	0
16:30	80	17	2	0	0	0	0	99	0	0	0	0	0	0	0	0
16:45	74	19	0	2	0	1	0	96	0	0	0	0	0	0	0	0
17:00	66	15	1	0	2	0	0	84	0	0	0	0	0	0	0	0
17:15	67	17	0	0	0	1	0	85	0	0	0	0	0	0	0	0
17:30	88	9	0	0	0	0	0	97	0	0	0	0	0	0	0	0
17:45	79	11	0	2	0	0	0	92	0	0	0	0	0	0	0	0
18:00	67	9	1	0	0	0	0	77	0	0	0	0	0	0	0	0
18:15	78	5	0	1	0	0	0	84	0	0	0	0	0	0	0	0
18:30	63	9	0	1	0	0	0	73	0	0	0	0	0	0	0	0
18:45	52	11	1	1	0	0	0	65	0	0	0	0	0	0	0	0
P/TOT	854	162	7	9	3	2	0	1037	0	0	0	0	0	0	0	0

10650 / LLANELLI
NOVEMBER 2019
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	TO ARM A								FROM ARM A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	46	17	3	2	0	0	0	68	99	20	0	2	0	0	0	121
07:15	148	14	0	1	1	0	0	164	129	22	4	2	2	0	0	159
07:30	100	14	3	0	1	0	0	118	120	21	0	2	4	0	0	147
07:45	109	23	5	1	1	0	0	139	114	21	2	4	1	0	0	142
08:00	101	24	0	2	1	0	0	128	109	22	1	2	2	0	0	136
08:15	138	26	6	0	1	0	0	171	107	24	6	1	1	0	0	139
08:30	110	18	3	3	0	0	0	134	123	20	6	2	3	0	0	154
08:45	121	15	2	1	1	0	0	140	106	28	1	3	0	0	0	138
09:00	76	22	2	0	3	0	0	103	97	27	6	2	1	0	0	133
09:15	59	17	1	1	1	0	0	79	70	21	3	2	0	0	0	96
09:30	61	15	3	1	1	0	0	81	74	22	2	3	0	0	0	101
09:45	63	14	2	3	1	0	0	83	65	18	1	1	0	0	0	85
P/TOT	1132	219	30	15	12	0	0	1408	1213	266	32	26	14	0	0	1551

	TO ARM A								FROM ARM A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	107	26	1	2	0	0	0	136	164	22	1	1	0	0	0	188
16:15	116	20	1	1	1	0	0	139	86	19	1	2	0	0	0	108
16:30	113	20	2	0	0	0	0	135	166	25	1	1	0	1	0	194
16:45	123	21	0	2	0	1	0	147	140	8	1	0	4	0	0	153
17:00	115	18	1	1	2	0	0	137	163	26	0	2	2	0	0	193
17:15	110	21	0	0	1	1	0	133	114	13	0	0	0	0	0	127
17:30	136	13	0	0	0	0	0	149	134	15	2	0	0	0	0	151
17:45	131	16	0	2	0	0	0	149	99	6	1	0	0	0	0	106
18:00	102	13	1	0	1	0	0	117	95	7	0	0	0	0	0	102
18:15	111	8	0	1	0	0	0	120	72	5	1	0	0	0	0	78
18:30	87	12	0	1	0	0	0	100	78	3	0	1	0	0	0	82
18:45	85	12	1	1	0	0	0	99	58	4	0	1	0	0	0	63
P/TOT	1336	200	7	11	5	2	0	1561	1369	153	8	8	6	1	0	1545

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NOVEMBER 2019
CLASSIFIED TURNING COUNT

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	65	9	6	4	1	0	0	85	127	32	6	3	1	1	0	170
07:15	93	15	6	4	3	0	0	121	183	26	7	3	0	1	0	220
07:30	124	16	6	2	0	1	0	149	151	27	4	5	2	0	0	189
07:45	160	21	2	2	0	0	0	185	129	28	7	1	1	0	0	166
08:00	175	33	6	2	1	0	0	217	132	25	5	0	2	0	0	164
08:15	201	30	5	5	0	0	0	241	168	29	9	1	1	0	0	208
08:30	203	40	8	2	3	0	0	256	131	27	11	3	0	1	0	173
08:45	192	27	6	4	0	0	0	229	137	23	5	4	2	0	0	171
09:00	201	34	5	7	3	0	0	250	99	24	9	1	1	0	0	134
09:15	141	27	4	5	1	0	0	178	98	28	6	4	0	0	0	136
09:30	174	26	4	3	2	1	0	210	100	20	4	7	0	0	0	131
09:45	145	25	4	7	0	0	0	181	108	26	13	2	1	0	0	150
P/TOT	1874	303	62	47	14	2	0	2302	1563	315	86	34	11	3	0	2012

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	215	21	5	1	0	0	0	242	189	29	4	4	1	0	0	227
16:15	154	24	7	3	1	0	0	189	217	18	4	0	0	0	0	239
16:30	218	26	3	2	2	2	0	253	187	19	6	0	1	0	0	213
16:45	194	22	4	3	1	1	0	225	207	20	1	2	0	0	0	230
17:00	201	34	2	2	2	0	0	241	205	13	0	2	0	0	0	220
17:15	202	16	2	3	0	1	0	224	198	8	1	1	1	0	0	209
17:30	199	26	3	1	0	0	0	229	167	13	0	1	0	0	0	181
17:45	175	11	0	2	1	1	0	190	178	12	0	1	0	0	0	191
18:00	187	15	1	4	0	0	0	207	144	17	3	0	1	0	0	165
18:15	175	13	4	0	1	0	0	193	124	6	1	0	1	0	0	132
18:30	158	11	1	2	0	0	0	172	122	8	0	0	0	0	0	130
18:45	98	8	1	2	0	0	0	109	118	7	0	1	0	0	0	126
P/TOT	2176	227	33	25	8	5	0	2474	2056	170	20	12	5	0	0	2263

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	TO ARM C								FROM ARM C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
09:45	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
P/TOT	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0

	TO ARM C								FROM ARM C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
18:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P/TOT	3	0	0	0	0	0	0	3	3	0	0	0	0	0	0	3

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

	TO ARM D								FROM ARM D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	185	45	5	5	1	1	0	242	70	19	8	6	1	0	0	104
07:15	227	44	11	5	2	1	0	290	156	25	6	5	4	0	0	196
07:30	200	45	2	7	6	0	0	260	153	27	7	2	1	1	0	191
07:45	182	33	7	5	1	0	0	228	208	28	5	3	0	0	0	244
08:00	173	34	6	2	2	0	0	217	208	44	6	4	0	0	0	262
08:15	185	33	13	2	1	0	0	234	249	36	9	5	0	0	0	299
08:30	168	36	13	5	1	1	0	224	227	47	7	5	1	0	0	287
08:45	154	35	6	7	2	0	0	204	224	26	8	5	1	0	0	264
09:00	130	34	12	3	2	0	0	181	211	39	4	7	6	0	0	267
09:15	127	30	8	6	0	0	0	171	159	25	4	6	2	0	0	196
09:30	114	35	5	10	0	0	0	164	178	34	6	4	3	1	0	226
09:45	112	35	13	3	1	0	0	164	148	30	5	10	1	0	0	194
P/TOT	1957	439	101	60	19	3	0	2579	2191	380	75	62	20	2	0	2730

	TO ARM D								FROM ARM D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	235	43	4	4	1	0	0	287	204	39	5	2	0	0	0	250
16:15	238	32	5	1	0	0	0	276	206	39	8	3	2	0	0	258
16:30	242	37	6	1	1	0	0	287	220	39	4	2	2	1	0	268
16:45	237	26	2	1	3	0	0	269	207	41	4	4	0	2	0	258
17:00	254	33	0	1	1	0	0	289	202	46	3	0	3	0	0	254
17:15	232	15	1	1	0	0	0	249	232	31	2	3	0	2	0	270
17:30	199	15	2	1	0	0	0	217	233	26	3	1	0	0	0	263
17:45	183	13	1	1	0	0	0	198	214	22	0	4	1	1	0	242
18:00	169	16	3	0	0	0	0	188	218	20	2	4	0	0	0	244
18:15	137	8	2	0	1	0	0	148	225	18	4	1	1	0	0	249
18:30	149	8	0	1	0	0	0	158	194	20	1	3	0	0	0	218
18:45	122	10	0	2	0	0	0	134	129	19	2	3	0	0	0	153
P/TOT	2397	256	26	14	7	0	0	2700	2484	360	38	30	9	6	0	2927

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SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri DAY: Thursday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	296	71	14	11	2	1	0	395
07:15	468	73	17	10	6	1	0	575
07:30	424	75	11	9	7	1	0	527
07:45	451	77	14	8	2	0	0	552
08:00	449	91	12	6	4	0	0	562
08:15	524	89	24	7	2	0	0	646
08:30	481	94	24	10	4	1	0	614
08:45	467	77	14	12	3	0	0	573
09:00	407	90	19	10	8	0	0	534
09:15	327	74	13	12	2	0	0	428
09:30	352	76	12	14	3	1	0	458
09:45	321	74	19	13	2	0	0	429
P/TOT	4967	961	193	122	45	5	0	6293

PEAK HOUR CALCULATION	
07:00 to 08:00	2049
07:15 to 08:15	2216
07:30 to 08:30	2287
07:45 to 08:45	2374
08:00 to 09:00	**2395**
08:15 to 09:15	2367
08:30 to 09:30	2149
08:45 to 09:45	1993
09:00 to 10:00	1849
PEAK VALUE	**2395**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	557	90	10	7	1	0	0	665
16:15	509	76	13	5	2	0	0	605
16:30	573	83	11	3	3	2	0	675
16:45	554	69	6	6	4	2	0	641
17:00	570	85	3	4	5	0	0	667
17:15	544	52	3	4	1	2	0	606
17:30	534	54	5	2	0	0	0	595
17:45	491	40	1	5	1	1	0	539
18:00	458	44	5	4	1	0	0	512
18:15	423	29	6	1	2	0	0	461
18:30	394	31	1	4	0	0	0	430
18:45	305	30	2	5	0	0	0	342
P/TOT	5912	683	66	50	20	7	0	6738

PEAK HOUR CALCULATION	
16:00 to 17:00	2586
16:15 to 17:15	2588
16:30 to 17:30	**2589**
16:45 to 17:45	2509
17:00 to 18:00	2407
17:15 to 18:15	2252
17:30 to 18:30	2107
17:45 to 18:45	1942
18:00 to 19:00	1745
PEAK VALUE	**2589**

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	A to D								A to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	10	0	0	0	0	0	0	10	44	8	4	3	1	0	0	60
07:15	8	1	0	0	0	0	0	9	73	12	3	3	2	0	1	94
07:30	14	1	2	0	0	0	0	17	76	16	3	1	0	1	1	98
07:45	12	3	0	0	0	0	0	15	114	17	0	3	0	0	0	134
08:00	9	5	0	0	1	0	0	15	98	20	4	0	0	0	0	122
08:15	18	2	1	1	0	0	0	22	108	23	3	3	0	0	0	137
08:30	20	6	0	0	1	0	0	27	114	23	4	2	1	0	0	144
08:45	14	3	1	0	0	0	0	18	130	20	5	3	0	0	0	158
09:00	16	5	0	0	0	0	0	21	121	17	4	6	2	0	0	150
09:15	13	10	2	0	0	0	0	25	112	18	2	2	1	0	0	135
09:30	7	5	0	0	0	0	0	12	137	13	2	2	2	1	0	157
09:45	14	3	2	0	0	0	0	19	121	18	1	2	0	0	0	142
P/TOT	155	44	8	1	2	0	0	210	1248	205	35	30	9	2	2	1531

	A to D								A to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	35	4	0	0	0	0	0	39	149	13	1	2	0	0	0	165
16:15	17	5	1	0	0	0	0	23	105	16	1	2	1	0	0	125
16:30	31	4	0	0	0	1	0	36	139	18	2	2	0	1	0	162
16:45	35	5	0	1	0	0	0	41	142	16	1	0	2	0	0	161
17:00	37	4	0	1	0	0	0	42	119	22	0	1	1	1	0	144
17:15	28	5	0	0	0	0	0	33	132	14	0	0	0	1	0	147
17:30	24	4	0	0	0	0	0	28	145	14	0	0	0	0	0	159
17:45	31	2	0	0	0	0	0	33	127	6	0	1	1	1	0	136
18:00	17	4	0	0	0	0	0	21	138	6	1	3	0	0	0	148
18:15	19	4	0	0	0	0	0	23	120	7	0	0	1	0	0	128
18:30	20	0	0	0	0	0	0	20	113	10	0	1	0	0	0	124
18:45	14	0	0	0	0	0	0	14	62	6	1	2	0	0	0	71
P/TOT	308	41	1	2	0	1	0	353	1491	148	7	14	6	4	0	1670

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	A to B								A to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	8	1	2	1	0	0	0	12	0	0	0	0	0	0	0	0
07:15	13	3	3	1	1	0	0	21	0	0	0	0	0	0	0	0
07:30	25	2	2	0	0	0	0	29	0	0	0	0	0	0	0	0
07:45	42	3	1	0	0	0	0	46	0	0	0	0	0	0	0	0
08:00	64	8	2	1	0	0	0	75	0	0	0	0	0	0	0	0
08:15	76	6	2	1	0	0	0	85	0	0	0	0	0	0	0	0
08:30	62	5	3	1	1	0	0	72	0	0	0	0	0	0	0	0
08:45	53	7	1	0	0	0	0	61	0	0	0	0	0	0	0	0
09:00	49	7	0	2	1	0	0	59	0	0	0	0	0	0	0	0
09:15	24	1	1	2	0	0	0	28	0	0	0	0	0	0	0	0
09:30	28	4	0	2	0	0	0	34	0	0	0	0	0	0	0	0
09:45	24	6	2	5	0	0	0	37	0	0	0	0	0	0	0	0
P/TOT	468	53	19	16	3	0	0	559	0	0	0	0	0	0	0	0

	A to B								A to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	35	5	3	0	0	0	0	43	1	0	0	0	0	0	0	1
16:15	32	3	6	1	0	0	0	42	0	0	0	0	0	0	0	0
16:30	43	1	1	0	0	0	0	45	1	0	0	0	0	0	0	1
16:45	24	4	3	2	0	0	0	33	0	0	0	0	0	0	0	0
17:00	39	8	2	1	2	0	0	52	0	1	0	0	0	0	0	1
17:15	43	2	2	3	0	0	0	50	0	0	0	0	0	0	0	0
17:30	32	5	1	0	0	0	0	38	0	0	0	0	0	0	0	0
17:45	23	0	1	2	0	0	0	26	0	0	0	0	0	0	0	0
18:00	30	5	0	0	0	0	0	35	0	0	0	0	0	0	0	0
18:15	31	1	4	0	0	0	0	36	0	0	0	0	0	0	0	0
18:30	27	1	2	0	0	0	0	30	0	0	0	0	0	0	0	0
18:45	21	2	0	0	0	0	0	23	0	0	0	0	0	0	0	0
P/TOT	380	37	25	9	2	0	0	453	2	1	0	0	0	0	0	3

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SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	B to A								B to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	29	5	3	1	0	0	0	38	9	0	0	0	0	0	0	9
07:15	26	8	2	2	0	0	0	38	10	1	2	0	1	0	0	14
07:30	42	6	1	0	0	0	0	49	14	2	0	0	1	0	0	17
07:45	28	2	2	1	0	0	0	33	28	5	0	0	0	0	0	33
08:00	43	8	1	0	0	0	0	52	40	4	0	0	0	0	0	44
08:15	54	6	0	0	0	0	0	60	50	4	1	0	1	1	0	57
08:30	27	8	5	1	0	0	0	41	36	4	0	0	1	0	0	41
08:45	43	5	2	0	1	0	0	51	39	4	1	0	1	0	0	45
09:00	21	3	7	0	0	0	0	31	32	2	1	0	1	0	0	36
09:15	30	5	1	1	0	0	0	37	30	6	0	0	0	0	0	36
09:30	19	2	1	2	0	0	0	24	17	4	0	0	1	0	0	22
09:45	17	4	5	0	0	0	0	26	24	3	0	0	0	0	0	27
P/TOT	379	62	30	8	1	0	0	480	329	39	5	0	7	1	0	381

	B to A								B to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	52	2	2	0	1	0	0	57	29	6	0	0	1	0	1	37
16:15	48	3	1	0	0	0	0	52	30	5	0	0	1	1	0	37
16:30	62	7	3	0	0	0	0	72	38	8	1	0	1	0	0	48
16:45	43	4	1	2	0	0	0	50	48	5	0	0	0	0	0	53
17:00	58	0	0	0	0	0	0	58	52	6	0	0	1	1	0	60
17:15	43	0	1	1	0	0	0	45	44	4	0	0	0	0	0	48
17:30	27	1	1	1	0	0	0	30	38	3	0	0	0	0	0	41
17:45	40	1	0	0	0	0	0	41	39	2	0	0	0	0	0	41
18:00	28	2	2	0	0	0	0	32	38	1	0	0	1	1	0	41
18:15	27	1	1	0	0	0	0	29	34	2	0	0	0	0	0	36
18:30	21	2	0	0	0	0	0	23	26	2	0	0	0	0	0	28
18:45	25	1	0	1	0	0	0	27	31	3	0	0	1	0	0	35
P/TOT	474	24	12	5	1	0	0	516	447	47	1	0	6	3	1	505

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	B to C								B to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	15	4	0	0	0	0	0	19	0	0	0	0	0	0	0	0
07:15	13	2	2	0	0	0	0	17	0	0	0	0	0	0	0	0
07:30	31	2	1	0	0	0	0	34	0	0	0	0	0	0	0	0
07:45	19	4	1	1	0	0	0	25	0	0	0	0	0	0	0	0
08:00	40	6	3	0	1	0	0	50	0	0	0	0	0	0	0	0
08:15	23	5	1	0	0	0	0	29	0	0	0	0	0	0	0	0
08:30	31	3	0	0	0	0	0	34	0	0	0	0	0	0	0	0
08:45	29	5	0	1	0	0	0	35	0	0	0	0	0	0	0	0
09:00	45	3	0	1	0	0	0	49	0	0	0	0	0	0	0	0
09:15	24	3	0	1	0	0	0	28	0	0	0	0	0	0	0	0
09:30	28	2	2	1	1	0	0	34	0	0	0	0	0	0	0	0
09:45	27	2	2	1	0	0	0	32	0	0	0	0	0	0	0	0
P/TOT	325	41	12	6	2	0	0	386	0	0	0	0	0	0	0	0

	B to C								B to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	45	1	0	0	1	0	0	47	0	0	0	0	0	0	0	0
16:15	37	3	0	0	0	0	0	40	0	0	0	0	0	0	0	0
16:30	43	2	0	0	0	0	0	45	3	0	0	0	0	0	0	3
16:45	45	1	0	0	0	0	0	46	1	0	0	0	0	0	0	1
17:00	44	2	0	0	0	0	0	46	0	0	0	0	0	0	0	0
17:15	53	1	0	0	0	0	0	54	0	0	0	0	0	0	0	0
17:30	36	2	0	0	0	0	0	38	0	0	0	0	0	0	0	0
17:45	23	1	0	0	0	0	0	24	0	0	0	0	0	0	0	0
18:00	34	0	0	0	0	0	0	34	1	0	0	0	0	0	0	1
18:15	21	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0
18:30	18	1	0	0	0	0	0	19	0	0	0	0	0	0	0	0
18:45	16	1	0	0	0	0	0	17	0	0	0	0	0	0	0	0
P/TOT	415	15	0	0	1	0	0	431	5	0	0	0	0	0	0	5

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	5	1	0	0	0	0	0	6	76	20	4	2	1	1	0	104
07:15	14	0	0	1	1	0	0	16	125	15	4	1	0	1	0	146
07:30	19	2	0	0	0	0	0	21	85	19	2	5	2	0	0	113
07:45	38	5	1	0	1	0	0	45	79	19	4	0	0	0	0	102
08:00	37	3	2	0	0	0	0	42	78	13	4	0	1	0	0	96
08:15	49	3	1	1	0	0	0	54	87	16	8	1	0	0	0	112
08:30	48	3	0	0	1	0	0	52	88	18	6	2	0	1	0	115
08:45	49	4	0	0	2	0	0	55	69	15	1	3	1	0	0	89
09:00	29	4	0	0	0	0	0	33	59	20	4	1	0	0	0	84
09:15	20	4	2	0	0	0	0	26	57	18	3	3	0	0	0	81
09:30	26	6	0	0	0	0	0	32	68	14	4	4	0	0	0	90
09:45	23	3	1	0	0	0	0	27	79	18	6	1	1	0	0	105
P/TOT	357	38	7	2	5	0	0	409	950	205	50	23	6	3	0	1237

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	39	0	0	0	0	0	0	39	125	21	1	2	0	0	0	149
16:15	38	0	0	0	0	0	0	38	161	17	0	0	0	0	0	178
16:30	42	1	0	1	0	0	0	44	128	13	2	0	1	0	0	144
16:45	48	3	1	0	0	0	0	52	131	15	0	2	0	0	0	148
17:00	37	2	0	1	0	0	0	40	127	9	1	1	0	0	0	138
17:15	28	1	0	0	0	0	0	29	138	7	0	0	1	0	0	146
17:30	35	6	0	0	0	0	0	41	120	11	0	0	0	0	0	131
17:45	34	0	0	0	0	0	0	34	123	9	1	1	1	0	0	135
18:00	26	1	0	0	0	0	0	27	105	8	0	0	0	0	0	113
18:15	37	0	0	1	0	0	0	38	80	4	0	0	0	0	0	84
18:30	30	0	0	0	0	0	0	30	89	4	0	0	0	0	0	93
18:45	35	3	0	0	0	0	0	38	71	5	1	1	0	0	0	78
P/TOT	429	17	1	3	0	0	0	450	1398	123	6	7	3	0	0	1537

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	C to D								C to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	1	3	0	0	0	0	0	4	0	0	0	0	0	0	0	0
07:45	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
08:00	2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
08:15	2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
08:30	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
08:45	3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0
09:00	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0
09:15	3	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0
09:30	3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0
09:45	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
P/TOT	19	10	1	0	0	0	0	30	0	0	0	0	0	0	0	0

	C to D								C to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0
16:15	2	1	1	0	0	0	0	4	0	0	0	0	0	0	0	0
16:30	2	1	1	0	0	0	0	4	0	0	0	0	0	0	0	0
16:45	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
17:00	3	0	0	0	0	0	0	3	1	0	0	0	0	0	0	1
17:15	4	0	0	0	0	0	0	4	1	0	0	0	0	0	0	1
17:30	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
17:45	3	0	0	0	0	0	0	3	1	0	0	0	0	0	0	1
18:00	5	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0
18:15	2	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0
18:30	3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0
18:45	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
P/TOT	34	5	3	0	0	0	0	42	4	0	0	0	0	0	0	4

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	D to C								D to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	1	0	0	0	0	0	0	1	8	2	0	0	0	0	1	11
07:15	1	0	0	0	1	0	0	2	8	5	1	0	0	0	1	15
07:30	2	2	0	0	0	0	0	4	24	0	2	0	1	0	0	27
07:45	5	1	0	0	0	0	0	6	42	3	0	0	0	1	0	46
08:00	3	1	0	0	0	0	0	4	67	4	0	0	3	0	0	74
08:15	3	1	0	0	0	0	0	4	65	2	0	0	1	0	0	68
08:30	5	1	0	0	0	0	0	6	57	4	0	0	1	0	0	62
08:45	8	1	0	0	0	0	0	9	54	2	1	0	1	0	0	58
09:00	9	2	0	0	0	0	0	11	28	7	0	0	0	1	0	36
09:15	3	1	0	0	0	0	0	4	20	7	0	0	1	0	0	28
09:30	4	2	0	0	1	0	0	7	25	1	1	0	1	0	0	28
09:45	3	3	0	0	0	0	0	6	19	10	3	0	0	0	0	32
P/TOT	47	15	0	0	2	0	0	64	417	47	8	0	9	2	2	485

	D to C								D to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	4	1	0	0	0	0	0	5	31	5	0	0	0	0	0	36
16:15	2	0	0	0	0	0	0	2	36	1	1	0	1	0	0	39
16:30	4	0	1	0	0	0	0	5	30	3	0	0	0	0	0	33
16:45	4	1	0	0	0	0	0	5	39	6	0	0	0	0	0	45
17:00	3	0	0	0	0	0	0	3	46	2	0	0	0	0	0	48
17:15	7	0	0	0	0	0	0	7	39	2	0	0	1	0	0	42
17:30	10	2	0	0	0	0	0	12	29	3	0	0	0	0	0	32
17:45	3	0	0	0	0	0	0	3	30	5	1	0	0	0	0	36
18:00	1	1	0	0	0	0	0	2	20	3	0	0	1	1	0	25
18:15	4	0	0	0	0	0	0	4	30	2	0	0	0	0	0	32
18:30	3	1	0	0	0	0	0	4	25	2	0	0	0	0	1	28
18:45	6	0	0	0	0	0	0	6	31	1	0	0	0	0	0	32
P/TOT	51	6	1	0	0	0	0	58	386	35	2	0	3	1	1	428

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	D to A								D to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	23	6	0	0	0	0	0	29	0	0	0	0	0	0	0	0
07:15	34	5	1	0	0	0	0	40	0	0	0	0	0	0	0	0
07:30	22	2	1	0	0	0	0	25	0	0	0	0	0	0	0	0
07:45	19	7	1	0	1	0	0	28	0	0	0	0	0	0	0	0
08:00	19	4	0	0	0	0	0	23	0	0	0	0	0	0	0	0
08:15	23	6	1	0	1	0	0	31	0	0	0	0	0	0	0	0
08:30	16	3	1	0	0	0	0	20	0	0	0	0	0	0	0	0
08:45	27	3	0	1	0	0	0	31	0	0	0	0	0	0	0	0
09:00	18	0	0	0	1	0	0	19	0	0	0	0	0	0	0	0
09:15	11	8	0	1	0	0	0	20	0	0	0	0	0	0	0	0
09:30	10	2	0	0	1	0	0	13	0	0	0	0	0	0	0	0
09:45	12	2	1	1	0	0	0	16	0	0	0	0	0	0	0	0
P/TOT	234	48	6	3	4	0	0	295	0	0	0	0	0	0	0	0

	D to A								D to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	16	3	0	0	0	0	0	19	0	0	0	0	0	0	0	0
16:15	13	1	0	0	0	0	0	14	0	0	0	0	0	0	0	0
16:30	10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
16:45	16	2	1	0	0	0	0	19	0	0	0	0	0	0	0	0
17:00	21	3	0	0	0	0	0	24	0	0	0	0	0	0	0	0
17:15	15	1	0	0	0	0	0	16	0	0	0	0	0	0	0	0
17:30	18	1	0	0	0	0	0	19	0	0	0	0	0	0	0	0
17:45	15	2	0	0	0	0	0	17	0	0	0	0	0	0	0	0
18:00	12	5	0	0	1	0	0	18	0	0	0	0	0	0	0	0
18:15	12	2	0	0	0	0	0	14	0	0	0	0	0	0	0	0
18:30	13	1	1	0	0	0	0	15	0	0	0	0	0	0	0	0
18:45	19	1	0	0	0	0	0	20	0	0	0	0	0	0	0	0
P/TOT	180	22	2	0	1	0	0	205	0	0	0	0	0	0	0	0

10650 / LLANELLI
NOVEMBER 2019
CLASSIFIED TURNING COUNT

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	TO ARM A								FROM ARM A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	128	31	7	3	1	1	0	171	62	9	6	4	1	0	0	82
07:15	185	28	7	3	0	1	0	224	94	16	6	4	3	0	1	124
07:30	149	27	4	5	2	0	0	187	115	19	7	1	0	1	1	144
07:45	126	28	7	1	1	0	0	163	168	23	1	3	0	0	0	195
08:00	140	25	5	0	1	0	0	171	171	33	6	1	1	0	0	212
08:15	164	28	9	1	1	0	0	203	202	31	6	5	0	0	0	244
08:30	131	29	12	3	0	1	0	176	196	34	7	3	3	0	0	243
08:45	139	23	3	4	2	0	0	171	197	30	7	3	0	0	0	237
09:00	98	23	11	1	1	0	0	134	186	29	4	8	3	0	0	230
09:15	98	31	4	5	0	0	0	138	149	29	5	4	1	0	0	188
09:30	97	18	5	6	1	0	0	127	172	22	2	4	2	1	0	203
09:45	108	24	12	2	1	0	0	147	159	27	5	7	0	0	0	198
P/TOT	1563	315	86	34	11	3	0	2012	1871	302	62	47	14	2	2	2300

	TO ARM A								FROM ARM A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	194	26	3	2	1	0	0	226	220	22	4	2	0	0	0	248
16:15	222	21	1	0	0	0	0	244	154	24	8	3	1	0	0	190
16:30	201	20	5	0	1	0	0	227	214	23	3	2	0	2	0	244
16:45	190	21	2	4	0	0	0	217	201	25	4	3	2	0	0	235
17:00	206	13	1	1	0	0	0	221	195	35	2	3	3	1	0	239
17:15	196	8	1	1	1	0	0	207	203	21	2	3	0	1	0	230
17:30	165	13	1	1	0	0	0	180	201	23	1	0	0	0	0	225
17:45	178	12	1	1	1	0	0	193	181	8	1	3	1	1	0	195
18:00	145	15	2	0	1	0	0	163	185	15	1	3	0	0	0	204
18:15	119	7	1	0	0	0	0	127	170	12	4	0	1	0	0	187
18:30	123	7	1	0	0	0	0	131	160	11	2	1	0	0	0	174
18:45	115	7	1	2	0	0	0	125	97	8	1	2	0	0	0	108
P/TOT	2054	170	20	12	5	0	0	2261	2181	227	33	25	8	5	0	2479

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	21	4	2	1	0	0	1	29	53	9	3	1	0	0	0	66
07:15	35	8	4	2	2	0	1	52	49	11	6	2	1	0	0	69
07:30	68	4	4	0	1	0	0	77	87	10	2	0	1	0	0	100
07:45	122	11	2	0	1	1	0	137	75	11	3	2	0	0	0	91
08:00	168	15	4	1	3	0	0	191	123	18	4	0	1	0	0	146
08:15	190	11	3	2	1	0	0	207	127	15	2	0	1	1	0	146
08:30	167	12	3	1	3	0	0	186	94	15	5	1	1	0	0	116
08:45	156	13	2	0	3	0	0	174	111	14	3	1	2	0	0	131
09:00	106	18	0	2	1	1	0	128	98	8	8	1	1	0	0	116
09:15	64	12	3	2	1	0	0	82	84	14	1	2	0	0	0	101
09:30	79	11	1	2	1	0	0	94	64	8	3	3	2	0	0	80
09:45	66	19	6	5	0	0	0	96	68	9	7	1	0	0	0	85
P/TOT	1242	138	34	18	17	2	2	1453	1033	142	47	14	10	1	0	1247

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	105	10	3	0	0	0	0	118	126	9	2	0	3	0	1	141
16:15	106	4	7	1	1	0	0	119	115	11	1	0	1	1	0	129
16:30	118	5	1	1	0	0	0	125	146	17	4	0	1	0	0	168
16:45	112	13	4	2	0	0	0	131	137	10	1	2	0	0	0	150
17:00	122	12	2	2	2	0	0	140	154	8	0	0	1	1	0	164
17:15	110	5	2	3	1	0	0	121	140	5	1	1	0	0	0	147
17:30	96	14	1	0	0	0	0	111	101	6	1	1	0	0	0	109
17:45	87	5	2	2	0	0	0	96	102	4	0	0	0	0	0	106
18:00	77	9	0	0	1	1	0	88	101	3	2	0	1	1	0	108
18:15	98	3	4	1	0	0	0	106	82	3	1	0	0	0	0	86
18:30	82	3	2	0	0	0	1	88	65	5	0	0	0	0	0	70
18:45	87	6	0	0	0	0	0	93	72	5	0	1	1	0	0	79
P/TOT	1200	89	28	12	5	1	1	1336	1341	86	13	5	8	3	1	1457

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	TO ARM C								FROM ARM C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	60	12	4	3	1	0	0	80	81	21	4	2	1	1	0	110
07:15	87	14	5	3	3	0	1	113	139	15	4	2	1	1	0	162
07:30	109	20	4	1	0	1	1	136	105	24	2	5	2	0	0	138
07:45	138	22	1	4	0	0	0	165	119	24	5	0	1	0	0	149
08:00	141	27	7	0	1	0	0	176	117	17	6	0	1	0	0	141
08:15	134	29	4	3	0	0	0	170	138	20	9	2	0	0	0	169
08:30	150	27	4	2	1	0	0	184	137	21	6	2	1	1	0	168
08:45	167	26	5	4	0	0	0	202	121	20	1	3	3	0	0	148
09:00	175	22	4	7	2	0	0	210	88	27	4	1	0	0	0	120
09:15	139	22	2	3	1	0	0	167	80	22	6	3	0	0	0	111
09:30	169	17	4	3	4	1	0	198	97	21	4	4	0	0	0	126
09:45	151	23	3	3	0	0	0	180	104	21	7	1	1	0	0	134
P/TOT	1620	261	47	36	13	2	2	1981	1326	253	58	25	11	3	0	1676

	TO ARM C								FROM ARM C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	198	15	1	2	1	0	0	217	167	22	1	2	0	0	0	192
16:15	144	19	1	2	1	0	0	167	201	18	1	0	0	0	0	220
16:30	186	20	3	2	0	1	0	212	172	15	3	1	1	0	0	192
16:45	191	18	1	0	2	0	0	212	183	18	1	2	0	0	0	204
17:00	167	24	0	1	1	1	0	194	168	11	1	2	0	0	0	182
17:15	193	15	0	0	0	1	0	209	171	8	0	0	1	0	0	180
17:30	191	18	0	0	0	0	0	209	157	17	0	0	0	0	0	174
17:45	154	7	0	1	1	1	0	164	161	9	1	1	1	0	0	173
18:00	173	7	1	3	0	0	0	184	136	10	0	0	0	0	0	146
18:15	145	7	0	0	1	0	0	153	119	4	1	1	0	0	0	125
18:30	134	12	0	1	0	0	0	147	122	5	0	0	0	0	0	127
18:45	85	7	1	2	0	0	0	95	108	8	1	1	0	0	0	118
P/TOT	1961	169	8	14	7	4	0	2163	1865	145	10	10	3	0	0	2033

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

	TO ARM D								FROM ARM D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	19	0	0	0	0	0	0	19	32	8	0	0	0	0	1	41
07:15	18	2	2	0	1	0	0	23	43	10	2	0	1	0	1	57
07:30	29	6	2	0	1	0	0	38	48	4	3	0	1	0	0	56
07:45	42	8	0	0	0	0	0	50	66	11	1	0	1	1	0	80
08:00	51	10	0	0	1	0	0	62	89	9	0	0	3	0	0	101
08:15	70	7	2	1	1	1	0	82	91	9	1	0	2	0	0	103
08:30	57	10	0	0	2	0	0	69	78	8	1	0	1	0	0	88
08:45	56	8	2	0	1	0	0	67	89	6	1	1	1	0	0	98
09:00	48	10	1	0	1	0	0	60	55	9	0	0	1	1	0	66
09:15	46	16	3	0	0	0	0	65	34	16	0	1	1	0	0	52
09:30	27	10	0	0	1	0	0	38	39	5	1	0	3	0	0	48
09:45	40	6	2	0	0	0	0	48	34	15	4	1	0	0	0	54
P/TOT	503	93	14	1	9	1	0	621	698	110	14	3	15	2	2	844

	TO ARM D								FROM ARM D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	67	11	0	0	1	0	1	80	51	9	0	0	0	0	0	60
16:15	49	11	2	0	1	1	0	64	51	2	1	0	1	0	0	55
16:30	71	13	2	0	1	1	0	88	44	3	1	0	0	0	0	48
16:45	87	10	0	1	0	0	0	98	59	9	1	0	0	0	0	69
17:00	92	10	0	1	1	1	0	105	70	5	0	0	0	0	0	75
17:15	76	9	0	0	0	0	0	85	61	3	0	0	1	0	0	65
17:30	64	7	0	0	0	0	0	71	57	6	0	0	0	0	0	63
17:45	73	4	0	0	0	0	0	77	48	7	1	0	0	0	0	56
18:00	60	6	0	0	1	1	0	68	33	9	0	0	2	1	0	45
18:15	55	6	1	0	0	0	0	62	46	4	0	0	0	0	0	50
18:30	49	3	0	0	0	0	0	52	41	4	1	0	0	0	1	47
18:45	46	3	0	0	1	0	0	50	56	2	0	0	0	0	0	58
P/TOT	789	93	5	2	6	4	1	900	617	63	5	0	4	1	1	691

10650 / LLANELLI
NOVEMBER 2019
CLASSIFIED TURNING COUNT

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	228	47	13	7	2	1	1	299
07:15	325	52	18	8	6	1	2	412
07:30	355	57	14	6	4	1	1	438
07:45	428	69	10	5	2	1	0	515
08:00	500	77	16	1	6	0	0	600
08:15	558	75	18	7	3	1	0	662
08:30	505	78	19	6	6	1	0	615
08:45	518	70	12	8	6	0	0	614
09:00	427	73	16	10	5	1	0	532
09:15	347	81	12	10	2	0	0	452
09:30	372	56	10	11	7	1	0	457
09:45	365	72	23	10	1	0	0	471
P/TOT	4928	807	181	89	50	8	4	6067

PEAK HOUR CALCULATION	
07:00 to 08:00	1664
07:15 to 08:15	1965
07:30 to 08:30	2215
07:45 to 08:45	2392
08:00 to 09:00	**2491**
08:15 to 09:15	2423
08:30 to 09:30	2213
08:45 to 09:45	2055
09:00 to 10:00	1912
PEAK VALUE	**2491**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	564	62	7	4	3	0	1	641
16:15	521	55	11	3	3	1	0	594
16:30	576	58	11	3	2	2	0	652
16:45	580	62	7	7	2	0	0	658
17:00	587	59	3	5	4	2	0	660
17:15	575	37	3	4	2	1	0	622
17:30	516	52	2	1	0	0	0	571
17:45	492	28	3	4	2	1	0	530
18:00	455	37	3	3	3	2	0	503
18:15	417	23	6	1	1	0	0	448
18:30	388	25	3	1	0	0	1	418
18:45	333	23	2	4	1	0	0	363
P/TOT	6004	521	61	40	23	9	2	6660

PEAK HOUR CALCULATION	
16:00 to 17:00	2545
16:15 to 17:15	2564
16:30 to 17:30	**2592**
16:45 to 17:45	2511
17:00 to 18:00	2383
17:15 to 18:15	2226
17:30 to 18:30	2052
17:45 to 18:45	1899
18:00 to 19:00	1732
PEAK VALUE	**2592**

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

TIME	A - F CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	35	2	2	1	0	1	0	41
07:15	46	6	2	2	0	0	0	56
07:30	55	7	0	0	0	0	0	62
07:45	53	7	0	1	0	1	0	62
08:00	54	13	2	0	0	0	0	69
08:15	61	6	2	1	0	0	0	70
08:30	47	12	2	0	0	0	0	61
08:45	64	7	2	1	0	0	0	74
09:00	67	10	2	2	0	0	0	81
09:15	62	7	2	0	0	0	0	71
09:30	66	2	2	2	1	0	0	73
09:45	63	5	1	2	0	0	0	71
P/TOT	673	84	19	12	1	2	0	791

TIME	A - F CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	84	5	0	1	0	0	0	90
16:15	80	5	0	1	0	0	0	86
16:30	95	4	0	0	0	0	0	99
16:45	95	2	0	0	0	0	0	97
17:00	81	5	0	1	0	0	0	87
17:15	109	3	0	0	0	0	0	112
17:30	110	6	2	0	0	0	0	118
17:45	94	4	0	0	0	0	0	98
18:00	77	7	0	2	0	0	0	86
18:15	98	4	0	0	0	0	0	102
18:30	70	5	0	0	0	0	0	75
18:45	53	5	0	0	0	0	0	58
P/TOT	1046	55	2	5	0	0	0	1108

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	A - E							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	3	1	0	0	0	0	0	4
07:15	3	1	1	0	0	0	0	5
07:30	2	1	0	0	0	0	0	3
07:45	7	0	0	0	0	0	0	7
08:00	1	1	0	0	0	0	0	2
08:15	12	4	1	0	0	0	0	17
08:30	5	1	0	0	0	0	0	6
08:45	6	3	0	0	0	0	0	9
09:00	5	4	0	0	0	0	0	9
09:15	8	2	1	2	0	0	0	13
09:30	13	4	0	0	1	0	0	18
09:45	1	1	0	0	0	0	0	2
P/TOT	66	23	3	2	1	0	0	95

	A - E							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	6	1	0	0	0	0	0	7
16:15	4	0	0	0	0	0	0	4
16:30	4	0	0	0	0	0	0	4
16:45	4	1	0	0	0	0	0	5
17:00	7	1	0	0	0	0	0	8
17:15	2	0	0	0	0	0	0	2
17:30	5	0	0	0	0	0	0	5
17:45	6	0	0	0	0	0	0	6
18:00	5	0	0	0	0	0	0	5
18:15	1	0	0	0	0	0	0	1
18:30	4	0	0	0	0	0	0	4
18:45	5	0	0	0	0	0	0	5
P/TOT	53	3	0	0	0	0	0	56

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	A - D							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	1	0	0	1	0	0	0	2
07:15	1	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	1	0	0	0	0	0	0	1
08:30	1	0	0	0	0	0	0	1
08:45	1	0	0	0	0	0	0	1
09:00	0	0	0	0	1	0	0	1
09:15	3	1	0	0	0	0	0	4
09:30	4	0	0	0	0	0	0	4
09:45	3	0	0	0	0	0	0	3
P/TOT	15	1	0	1	1	0	0	18

	A - D							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	2	0	0	0	1	0	0	3
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	2	0	0	0	1	0	1	4
17:00	2	0	0	0	0	0	0	2
17:15	2	0	0	0	0	0	0	2
17:30	3	0	0	0	0	0	0	3
17:45	2	0	0	0	0	0	0	2
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	2	0	0	0	0	0	0	2
18:45	0	0	0	0	0	0	0	0
P/TOT	15	0	0	0	2	0	1	18

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	A - C							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	36	8	0	0	0	0	0	44
07:15	33	3	1	1	0	0	0	38
07:30	46	10	4	1	2	0	1	64
07:45	75	19	4	2	0	0	0	100
08:00	54	16	2	0	1	0	0	73
08:15	59	10	3	2	1	0	0	75
08:30	66	8	2	1	0	0	0	77
08:45	78	17	4	0	1	0	0	100
09:00	69	13	3	3	0	0	0	88
09:15	58	13	6	2	2	0	0	81
09:30	56	13	5	0	3	0	0	77
09:45	61	15	1	3	0	0	0	80
P/TOT	691	145	35	15	10	0	1	897

	A - C							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	76	12	2	0	0	0	0	90
16:15	81	13	0	1	0	0	0	95
16:30	69	10	0	0	0	0	0	79
16:45	88	11	0	1	0	0	0	100
17:00	77	11	0	0	1	0	0	89
17:15	97	13	0	0	0	1	0	111
17:30	68	7	0	0	0	0	0	75
17:45	85	6	0	0	0	0	0	91
18:00	75	6	0	1	0	0	0	82
18:15	61	6	0	1	0	0	0	68
18:30	70	2	0	0	0	0	0	72
18:45	48	3	0	1	0	0	0	52
P/TOT	895	100	2	5	1	1	0	1004

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	A - B							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	10	0	1	1	0	0	0	12
07:15	10	3	1	1	0	0	0	15
07:30	22	2	1	0	0	0	0	25
07:45	29	5	1	1	0	0	0	36
08:00	71	10	2	0	4	0	0	87
08:15	93	8	1	0	1	0	0	103
08:30	79	5	0	1	2	0	0	87
08:45	83	13	2	0	1	0	0	99
09:00	64	3	0	1	1	0	0	69
09:15	65	0	0	0	0	0	0	65
09:30	65	4	0	1	1	0	0	71
09:45	68	6	0	0	0	0	0	74
P/TOT	659	59	9	6	10	0	0	743

	A - B							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	47	4	0	1	0	0	0	52
16:15	32	6	0	0	0	0	0	38
16:30	39	0	0	0	0	0	0	39
16:45	32	2	0	0	0	0	0	34
17:00	37	1	0	0	0	1	0	39
17:15	32	10	0	0	0	0	0	42
17:30	42	1	2	0	0	0	0	45
17:45	26	1	0	1	0	1	0	29
18:00	43	0	0	0	0	1	0	44
18:15	41	0	0	0	1	0	0	42
18:30	38	1	1	0	0	0	0	40
18:45	21	2	1	1	0	0	0	25
P/TOT	430	28	4	3	1	3	0	469

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

TIME	A - A CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

TIME	A - A CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

				B - A				
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	20	2	1	0	0	0	0	23
07:15	32	5	2	0	0	1	0	40
07:30	30	6	0	1	1	0	0	38
07:45	35	8	0	0	3	0	0	46
08:00	41	4	1	0	0	0	0	46
08:15	55	6	1	0	0	0	0	62
08:30	38	7	0	2	0	0	0	47
08:45	32	5	0	0	0	0	0	37
09:00	29	9	1	1	0	0	0	40
09:15	27	7	1	1	1	0	0	37
09:30	34	2	0	0	2	0	0	38
09:45	33	4	3	0	1	0	0	41
P/TOT	406	65	10	5	8	1	0	495

				B - A				
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	53	10	0	0	1	0	0	64
16:15	51	5	1	0	0	0	0	57
16:30	42	1	1	0	0	0	0	44
16:45	63	7	0	2	3	0	0	75
17:00	61	3	0	0	0	0	0	64
17:15	58	1	0	0	0	0	0	59
17:30	52	3	0	0	1	0	0	56
17:45	33	3	0	0	0	0	0	36
18:00	45	1	0	0	0	1	0	47
18:15	48	2	0	0	0	0	0	50
18:30	45	2	0	0	0	0	0	47
18:45	39	3	0	1	0	0	0	43
P/TOT	590	41	2	3	5	1	0	642

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

				B - F				
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	36	14	0	0	2	0	0	52
07:15	71	13	1	0	3	0	0	88
07:30	70	13	0	0	1	0	1	85
07:45	104	14	4	0	1	0	0	123
08:00	58	12	3	0	1	0	0	74
08:15	55	3	3	0	2	0	0	63
08:30	95	10	0	0	0	0	0	105
08:45	72	6	1	0	1	0	0	80
09:00	105	10	2	0	0	0	0	117
09:15	97	4	0	0	0	0	0	101
09:30	93	5	0	0	0	0	0	98
09:45	80	5	1	0	0	0	0	86
P/TOT	936	109	15	0	11	0	1	1072

				B - F				
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	98	3	0	0	0	0	0	101
16:15	77	7	1	0	1	1	0	87
16:30	90	8	1	0	0	0	0	99
16:45	96	7	1	0	0	0	0	104
17:00	118	8	0	0	0	0	0	126
17:15	127	5	0	0	0	0	0	132
17:30	120	4	0	0	0	0	0	124
17:45	107	0	0	0	0	0	0	107
18:00	106	0	0	0	0	0	0	106
18:15	74	1	0	0	0	0	0	75
18:30	67	4	0	0	0	0	0	71
18:45	54	3	0	0	0	0	0	57
P/TOT	1134	50	3	0	1	1	0	1189

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	B - E							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	3	1	0	0	0	0	0	4
07:15	1	1	1	0	0	0	0	3
07:30	2	1	0	0	0	0	0	3
07:45	1	0	0	0	0	0	0	1
08:00	1	0	1	0	0	0	0	2
08:15	2	0	0	0	0	0	0	2
08:30	1	0	0	0	0	0	0	1
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	1	0	0	0	0	0	1
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	11	4	2	0	0	0	0	17

	B - E							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

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LOCATION: A4138 / A484 DAY: Thursday

TIME	B - D CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	1	0	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	1	0	0	1
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	1	0	0	1
08:15	0	0	0	0	1	0	0	1
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	2	0	0	2
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	2	0	0	2
09:45	0	0	0	0	2	0	0	2
P/TOT	0	1	0	0	9	0	0	10

TIME	B - D CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	1	0	0	1
16:15	0	0	0	0	2	0	0	2
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	1	0	0	1
17:00	0	0	0	0	1	0	0	1
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	2	0	0	2
17:45	0	0	0	0	1	0	0	1
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	1	0	0	1
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	9	0	0	9

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LOCATION: A4138 / A484 DAY: Thursday

				B - C				
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	10	0	0	0	0	0	0	10
07:15	14	4	0	0	0	0	0	18
07:30	9	2	4	0	0	0	0	15
07:45	10	7	0	1	0	0	0	18
08:00	14	6	1	0	0	0	0	21
08:15	14	4	1	0	0	0	0	19
08:30	22	7	1	0	1	0	0	31
08:45	18	2	0	0	1	0	0	21
09:00	22	1	1	0	1	0	0	25
09:15	22	3	0	0	0	0	0	25
09:30	15	4	2	0	0	0	0	21
09:45	14	2	1	0	0	0	0	17
P/TOT	184	42	11	1	3	0	0	241

				B - C				
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	15	1	0	0	0	0	0	16
16:15	21	5	1	0	0	0	0	27
16:30	23	4	0	0	0	0	0	27
16:45	25	2	0	0	0	0	0	27
17:00	12	4	0	0	0	0	0	16
17:15	17	3	0	0	0	0	0	20
17:30	22	1	0	0	0	0	0	23
17:45	18	0	0	0	0	0	0	18
18:00	15	1	0	0	0	0	0	16
18:15	18	0	0	0	0	0	0	18
18:30	9	0	0	0	0	0	0	9
18:45	12	1	0	0	0	0	0	13
P/TOT	207	22	1	0	0	0	0	230

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TIME	B - B CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

TIME	B - B CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

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LOCATION: A4138 / A484 DAY: Thursday

				C - B				
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	2	0	0	0	0	0	0	2
07:15	5	0	1	0	0	0	0	6
07:30	6	0	0	0	0	0	0	6
07:45	8	2	1	0	0	0	0	11
08:00	19	7	0	0	0	0	0	26
08:15	36	6	1	0	1	0	0	44
08:30	17	2	2	0	0	0	0	21
08:45	16	1	2	0	0	0	0	19
09:00	11	3	0	0	0	0	0	14
09:15	12	3	3	1	0	0	0	19
09:30	11	4	0	1	0	0	0	16
09:45	15	5	0	1	1	0	0	22
P/TOT	158	33	10	3	2	0	0	206

				C - B				
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	25	1	1	0	0	0	0	27
16:15	24	3	0	0	0	0	0	27
16:30	33	2	1	0	0	0	0	36
16:45	14	2	0	0	1	0	0	17
17:00	40	1	0	0	0	0	0	41
17:15	17	0	0	0	0	0	0	17
17:30	27	1	0	0	0	0	0	28
17:45	28	1	0	0	0	0	0	29
18:00	27	2	0	0	0	0	0	29
18:15	16	0	0	0	0	0	0	16
18:30	19	1	0	0	0	0	0	20
18:45	19	1	0	0	0	0	0	20
P/TOT	289	15	2	0	1	0	0	307

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LOCATION: A4138 / A484 DAY: Thursday

	C - A							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	38	16	1	1	0	1	0	57
07:15	60	12	3	0	1	0	0	76
07:30	58	12	3	1	2	0	0	76
07:45	63	16	6	0	1	0	0	86
08:00	75	15	3	0	1	0	0	94
08:15	100	14	4	0	0	0	0	118
08:30	108	14	8	2	1	0	0	133
08:45	68	16	2	1	0	0	0	87
09:00	51	14	2	0	0	0	0	67
09:15	55	15	2	2	1	0	0	75
09:30	47	22	2	0	0	0	0	71
09:45	43	9	7	2	0	0	0	61
P/TOT	766	175	43	9	7	1	0	1001

	C - A							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	107	14	0	0	0	0	0	121
16:15	74	10	0	0	0	0	0	84
16:30	88	9	3	0	0	0	0	100
16:45	90	8	0	0	0	0	0	98
17:00	93	3	0	0	0	0	0	96
17:15	102	4	0	0	0	0	0	106
17:30	90	7	0	0	0	0	0	97
17:45	76	5	0	0	0	0	0	81
18:00	69	5	0	0	0	0	0	74
18:15	57	4	0	0	0	0	0	61
18:30	80	2	0	0	0	0	0	82
18:45	60	1	0	0	0	0	0	61
P/TOT	986	72	3	0	0	0	0	1061

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LOCATION: A4138 / A484 DAY: Thursday

				C - F				
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	16	4	1	0	0	0	0	21
07:15	24	9	1	0	0	0	0	34
07:30	17	6	0	0	0	0	0	23
07:45	19	3	0	0	2	0	0	24
08:00	21	6	0	0	0	0	0	27
08:15	33	3	2	0	1	0	0	39
08:30	20	5	0	0	0	0	0	25
08:45	30	5	1	0	0	0	0	36
09:00	33	5	0	0	1	0	0	39
09:15	39	6	0	0	0	1	0	46
09:30	24	4	0	0	0	1	0	29
09:45	22	6	1	1	0	0	0	30
P/TOT	298	62	6	1	4	2	0	373

				C - F				
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	39	5	0	0	0	0	0	44
16:15	28	1	0	0	1	0	0	30
16:30	32	3	0	0	0	0	0	35
16:45	33	5	0	0	0	1	0	39
17:00	30	3	0	0	0	0	0	33
17:15	23	4	0	0	0	0	0	27
17:30	28	3	0	0	0	0	0	31
17:45	23	2	0	0	0	0	0	25
18:00	18	2	0	0	0	0	0	20
18:15	14	3	0	0	0	1	0	18
18:30	23	2	0	0	0	0	0	25
18:45	14	0	0	0	0	0	0	14
P/TOT	305	33	0	0	1	2	0	341

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	C - E							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	2	1	0	0	0	0	0	3
08:15	0	2	0	0	0	0	0	2
08:30	0	1	0	0	0	0	0	1
08:45	0	1	0	0	0	0	0	1
09:00	1	1	1	0	0	0	0	3
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	1	0	0	0	0	1
P/TOT	3	6	2	0	0	0	0	11

	C - E							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	3	1	0	0	0	0	0	4
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	1	0	0	0	0	0	0	1
17:15	0	0	0	0	0	0	0	0
17:30	1	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	5	1	0	0	0	0	0	6

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LOCATION: A4138 / A484 DAY: Thursday

	C - D							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	1	0	0	1
P/TOT	0	0	0	0	1	0	0	1

	C - D							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	1	0	0	1
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	1	0	0	1

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	C - C							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	1	0	0	0	1
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	1	0	0	1
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	1	1	0	0	2

	C - C							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

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	D - C (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	D - C (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	D - B (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	D - B (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	D - A (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	D - A (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	D - F (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	D - F (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	D - E (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	D - E (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	D - D (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	D - D (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	E - D (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	E - D (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	E - C (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	E - C (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	E - B (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	E - B (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	E - A (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	E - A (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	E - F (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	E - F (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	E - E (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	E - E (Banned Movement)							
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

				F - E				
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	4	0	0	0	0	0	0	4
07:15	0	4	0	0	0	0	0	4
07:30	0	0	0	0	0	0	0	0
07:45	3	0	0	0	0	0	0	3
08:00	2	1	0	0	0	0	0	3
08:15	1	1	0	0	0	0	0	2
08:30	5	1	0	0	1	0	0	7
08:45	6	6	0	0	0	0	0	12
09:00	6	2	0	0	0	0	0	8
09:15	4	1	1	0	0	0	0	6
09:30	5	1	1	0	0	0	0	7
09:45	3	0	0	0	0	0	0	3
P/TOT	39	17	2	0	1	0	0	59

				F - E				
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	4	1	0	0	0	0	0	5
16:15	4	0	0	0	0	0	0	4
16:30	2	0	0	0	0	0	0	2
16:45	1	0	0	0	0	0	0	1
17:00	0	0	0	0	0	0	0	0
17:15	2	2	0	0	0	0	0	4
17:30	2	0	0	0	0	0	0	2
17:45	0	1	0	0	0	0	0	1
18:00	1	1	0	0	0	0	0	2
18:15	1	1	0	0	0	0	0	2
18:30	1	1	0	0	0	0	0	2
18:45	2	0	0	0	0	0	0	2
P/TOT	20	7	0	0	0	0	0	27

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

TIME	CARS	LGV	F - D OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	1	0	0	1
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	1	0	0	1
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	1	0	0	1
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	2	0	0	2
09:30	0	0	0	0	1	0	0	1
09:45	0	0	0	0	1	0	0	1
P/TOT	0	0	0	0	7	0	0	7

TIME	CARS	LGV	F - D OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	1	0	0	1
16:15	0	0	0	0	2	0	0	2
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	1	0	0	1
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	1	0	0	1
17:45	0	0	0	0	1	0	0	1
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	1	0	0	1
18:45	0	0	0	0	1	0	0	1
P/TOT	0	0	0	0	8	0	0	8

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

TIME	CARS	LGV	F - C OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	11	1	0	0	0	0	0	12
07:15	6	1	0	0	0	0	0	7
07:30	9	5	0	0	0	0	0	14
07:45	12	4	1	0	0	0	0	17
08:00	21	1	1	0	1	0	0	24
08:15	34	1	1	0	1	0	0	37
08:30	31	5	2	0	0	0	0	38
08:45	13	8	1	0	0	0	0	22
09:00	24	5	0	0	0	0	0	29
09:15	18	3	0	0	0	0	0	21
09:30	22	3	2	0	0	0	0	27
09:45	22	1	3	0	1	0	0	27
P/TOT	223	38	11	0	3	0	0	275

TIME	CARS	LGV	F - C OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	46	5	0	0	0	0	0	51
16:15	27	7	1	0	1	0	0	36
16:30	32	3	0	0	0	0	0	35
16:45	45	4	1	0	0	0	0	50
17:00	44	6	0	0	0	0	0	50
17:15	36	3	0	0	0	0	0	39
17:30	23	5	0	0	0	0	0	28
17:45	33	1	0	0	0	0	0	34
18:00	26	2	0	0	0	1	0	29
18:15	25	3	0	0	0	0	0	28
18:30	28	2	0	0	0	0	0	30
18:45	17	2	0	0	0	0	0	19
P/TOT	382	43	2	0	1	1	0	429

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

				F - B				
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	19	3	1	1	1	0	0	25
07:15	25	6	0	0	0	2	0	33
07:30	37	6	0	0	1	0	1	45
07:45	47	4	0	0	0	0	0	51
08:00	46	8	0	0	0	0	0	54
08:15	56	12	2	0	0	0	0	70
08:30	94	13	0	0	0	0	0	107
08:45	80	6	2	1	1	0	0	90
09:00	84	13	3	0	2	0	0	102
09:15	70	5	2	0	2	0	0	79
09:30	69	10	1	0	2	0	0	82
09:45	79	12	3	1	2	0	0	97
P/TOT	706	98	14	3	11	2	1	835

				F - B				
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	131	6	0	0	1	0	0	138
16:15	116	12	0	0	2	0	0	130
16:30	150	9	0	1	1	0	0	161
16:45	144	18	0	0	3	0	0	165
17:00	156	19	0	0	2	0	0	177
17:15	151	7	1	0	4	0	0	163
17:30	144	10	0	0	2	0	0	156
17:45	156	5	0	0	2	0	0	163
18:00	116	6	0	0	1	0	0	123
18:15	113	4	0	0	4	0	0	121
18:30	133	4	0	0	2	0	0	139
18:45	119	3	0	0	2	0	0	124
P/TOT	1629	103	1	1	26	0	0	1760

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

				F - A				
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	23	1	0	1	0	0	0	25
07:15	23	3	0	1	0	0	0	27
07:30	15	6	1	1	0	0	0	23
07:45	32	6	1	0	0	0	0	39
08:00	28	4	3	0	0	0	0	35
08:15	36	8	3	0	0	0	0	47
08:30	37	3	0	0	0	0	0	40
08:45	38	4	0	0	0	0	0	42
09:00	31	12	4	1	0	0	0	48
09:15	26	5	2	0	0	0	0	33
09:30	29	5	2	1	0	0	0	37
09:45	34	8	2	1	0	0	0	45
P/TOT	352	65	18	6	0	0	0	441

				F - A				
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	54	7	1	1	0	0	0	63
16:15	59	7	1	1	0	0	0	68
16:30	59	5	0	1	1	0	0	66
16:45	41	1	0	1	1	0	0	44
17:00	61	4	0	1	0	0	0	66
17:15	60	1	0	0	0	0	0	61
17:30	51	0	0	0	0	0	0	51
17:45	64	0	0	1	0	0	0	65
18:00	47	1	0	0	0	0	0	48
18:15	59	0	0	0	0	0	0	59
18:30	41	3	0	0	0	0	0	44
18:45	42	2	0	0	0	0	0	44
P/TOT	638	31	2	6	2	0	0	679

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LOCATION: A4138 / A484 DAY: Thursday

				F - F				
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	1	0	0	0	0	0	0	1
07:15	1	2	0	0	0	0	0	3
07:30	2	2	0	0	0	0	0	4
07:45	1	0	0	0	0	0	0	1
08:00	0	0	0	0	0	0	0	0
08:15	1	1	0	0	0	0	0	2
08:30	2	0	0	0	0	0	0	2
08:45	0	0	0	0	0	0	0	0
09:00	1	0	0	0	0	0	0	1
09:15	2	0	0	1	0	0	0	3
09:30	1	0	0	0	0	0	0	1
09:45	1	0	0	0	0	0	0	1
P/TOT	13	5	0	1	0	0	0	19

				F - F				
TIME	CARS	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	3	0	0	0	0	0	0	3
16:15	3	0	0	0	0	0	0	3
16:30	4	0	0	0	0	0	0	4
16:45	2	0	0	0	0	0	0	2
17:00	1	0	0	0	0	0	0	1
17:15	1	0	0	0	0	0	0	1
17:30	1	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	1	0	0	0	0	0	0	1
18:30	0	0	0	0	0	0	0	0
18:45	1	0	0	0	0	0	0	1
P/TOT	17	0	0	0	0	0	0	17

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LOCATION: A4138 / A484 DAY: Thursday

	TO ARM A							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	81	19	2	2	0	1	0	105
07:15	115	20	5	1	1	1	0	143
07:30	103	24	4	3	3	0	0	137
07:45	130	30	7	0	4	0	0	171
08:00	144	23	7	0	1	0	0	175
08:15	191	28	8	0	0	0	0	227
08:30	183	24	8	4	1	0	0	220
08:45	138	25	2	1	0	0	0	166
09:00	111	35	7	2	0	0	0	155
09:15	108	27	5	3	2	0	0	145
09:30	110	29	4	1	2	0	0	146
09:45	110	21	12	3	1	0	0	147
P/TOT	1524	305	71	20	15	2	0	1937

	TO ARM A							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	214	31	1	1	1	0	0	248
16:15	184	22	2	1	0	0	0	209
16:30	189	15	4	1	1	0	0	210
16:45	194	16	0	3	4	0	0	217
17:00	215	10	0	1	0	0	0	226
17:15	220	6	0	0	0	0	0	226
17:30	193	10	0	0	1	0	0	204
17:45	173	8	0	1	0	0	0	182
18:00	161	7	0	0	0	1	0	169
18:15	164	6	0	0	0	0	0	170
18:30	166	7	0	0	0	0	0	173
18:45	141	6	0	1	0	0	0	148
P/TOT	2214	144	7	9	7	1	0	2382

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LOCATION: A4138 / A484 DAY: Thursday

	FROM ARM A							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	85	11	3	3	0	1	0	103
07:15	93	13	5	4	0	0	0	115
07:30	125	20	5	1	2	0	1	154
07:45	164	31	5	4	0	1	0	205
08:00	180	40	6	0	5	0	0	231
08:15	226	28	7	3	2	0	0	266
08:30	198	26	4	2	2	0	0	232
08:45	232	40	8	1	2	0	0	283
09:00	205	30	5	6	2	0	0	248
09:15	196	23	9	4	2	0	0	234
09:30	204	23	7	3	6	0	0	243
09:45	196	27	2	5	0	0	0	230
P/TOT	2104	312	66	36	23	2	1	2544

	FROM ARM A							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	215	22	2	2	1	0	0	242
16:15	197	24	0	2	0	0	0	223
16:30	207	14	0	0	0	0	0	221
16:45	221	16	0	1	1	0	1	240
17:00	204	18	0	1	1	1	0	225
17:15	242	26	0	0	0	1	0	269
17:30	228	14	4	0	0	0	0	246
17:45	213	11	0	1	0	1	0	226
18:00	200	13	0	3	0	1	0	217
18:15	201	10	0	1	1	0	0	213
18:30	184	8	1	0	0	0	0	193
18:45	127	10	1	2	0	0	0	140
P/TOT	2439	186	8	13	4	4	1	2655

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LOCATION: A4138 / A484 DAY: Thursday

	TO ARM B							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	31	3	2	2	1	0	0	39
07:15	40	9	2	1	0	2	0	54
07:30	65	8	1	0	1	0	1	76
07:45	84	11	2	1	0	0	0	98
08:00	136	25	2	0	4	0	0	167
08:15	185	26	4	0	2	0	0	217
08:30	190	20	2	1	2	0	0	215
08:45	179	20	6	1	2	0	0	208
09:00	159	19	3	1	3	0	0	185
09:15	147	8	5	1	2	0	0	163
09:30	145	18	1	2	3	0	0	169
09:45	162	23	3	2	3	0	0	193
P/TOT	1523	190	33	12	23	2	1	1784

	TO ARM B							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	203	11	1	1	1	0	0	217
16:15	172	21	0	0	2	0	0	195
16:30	222	11	1	1	1	0	0	236
16:45	190	22	0	0	4	0	0	216
17:00	233	21	0	0	2	1	0	257
17:15	200	17	1	0	4	0	0	222
17:30	213	12	2	0	2	0	0	229
17:45	210	7	0	1	2	1	0	221
18:00	186	8	0	0	1	1	0	196
18:15	170	4	0	0	5	0	0	179
18:30	190	6	1	0	2	0	0	199
18:45	159	6	1	1	2	0	0	169
P/TOT	2348	146	7	4	28	3	0	2536

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	FROM ARM B							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	69	18	1	0	2	0	0	90
07:15	118	23	4	0	3	1	0	149
07:30	111	22	4	1	3	0	1	142
07:45	150	29	4	1	4	0	0	188
08:00	114	22	6	0	2	0	0	144
08:15	126	13	5	0	3	0	0	147
08:30	156	24	1	2	1	0	0	184
08:45	122	13	1	0	2	0	0	138
09:00	156	20	4	1	3	0	0	184
09:15	146	15	1	1	1	0	0	164
09:30	142	11	2	0	4	0	0	159
09:45	127	11	5	0	3	0	0	146
P/TOT	1537	221	38	6	31	1	1	1835

	FROM ARM B							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	166	14	0	0	2	0	0	182
16:15	149	17	3	0	3	1	0	173
16:30	155	13	2	0	0	0	0	170
16:45	184	16	1	2	4	0	0	207
17:00	191	15	0	0	1	0	0	207
17:15	202	9	0	0	0	0	0	211
17:30	194	8	0	0	3	0	0	205
17:45	158	3	0	0	1	0	0	162
18:00	166	2	0	0	0	1	0	169
18:15	140	3	0	0	0	0	0	143
18:30	121	6	0	0	1	0	0	128
18:45	105	7	0	1	0	0	0	113
P/TOT	1931	113	6	3	15	2	0	2070

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	TO ARM C							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	57	9	0	0	0	0	0	66
07:15	53	8	1	2	0	0	0	64
07:30	64	17	8	1	2	0	1	93
07:45	97	30	5	3	0	0	0	135
08:00	89	23	4	0	2	0	0	118
08:15	107	15	5	2	3	0	0	132
08:30	119	20	5	1	1	0	0	146
08:45	109	27	5	0	2	0	0	143
09:00	115	19	4	3	1	0	0	142
09:15	98	19	6	2	2	0	0	127
09:30	93	20	9	0	3	0	0	125
09:45	97	18	5	3	1	0	0	124
P/TOT	1098	225	57	17	17	0	1	1415

	TO ARM C							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	137	18	2	0	0	0	0	157
16:15	129	25	2	1	1	0	0	158
16:30	124	17	0	0	0	0	0	141
16:45	158	17	1	1	0	0	0	177
17:00	133	21	0	0	1	0	0	155
17:15	150	19	0	0	0	1	0	170
17:30	113	13	0	0	0	0	0	126
17:45	136	7	0	0	0	0	0	143
18:00	116	9	0	1	0	1	0	127
18:15	104	9	0	1	0	0	0	114
18:30	107	4	0	0	0	0	0	111
18:45	77	6	0	1	0	0	0	84
P/TOT	1484	165	5	5	2	2	0	1663

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LOCATION: A4138 / A484 DAY: Thursday

	FROM ARM C							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	56	20	2	1	0	1	0	80
07:15	89	21	5	1	1	0	0	117
07:30	81	18	3	1	2	0	0	105
07:45	90	21	7	0	3	0	0	121
08:00	117	29	3	0	1	0	0	150
08:15	169	25	7	0	3	0	0	204
08:30	145	22	10	2	1	0	0	180
08:45	114	23	5	1	0	0	0	143
09:00	96	23	3	0	1	0	0	123
09:15	106	24	5	3	1	1	0	140
09:30	82	30	2	1	0	1	0	116
09:45	80	20	9	4	2	0	0	115
P/TOT	1225	276	61	14	15	3	0	1594

	FROM ARM C							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	174	21	1	0	0	0	0	196
16:15	126	14	0	0	1	0	0	141
16:30	153	14	4	0	0	0	0	171
16:45	137	15	0	0	1	1	0	154
17:00	164	7	0	0	0	0	0	171
17:15	142	8	0	0	0	0	0	150
17:30	146	11	0	0	0	0	0	157
17:45	127	8	0	0	1	0	0	136
18:00	114	9	0	0	0	0	0	123
18:15	87	7	0	0	0	1	0	95
18:30	122	5	0	0	0	0	0	127
18:45	93	2	0	0	0	0	0	95
P/TOT	1585	121	5	0	3	2	0	1716

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LOCATION: A4138 / A484 DAY: Thursday

	TO ARM D							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	1	1	0	1	0	0	0	3
07:15	1	0	0	0	0	0	0	1
07:30	0	0	0	0	2	0	0	2
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	1	0	0	1
08:15	1	0	0	0	2	0	0	3
08:30	1	0	0	0	0	0	0	1
08:45	1	0	0	0	1	0	0	2
09:00	0	0	0	0	3	0	0	3
09:15	3	1	0	0	2	0	0	6
09:30	4	0	0	0	3	0	0	7
09:45	3	0	0	0	4	0	0	7
P/TOT	15	2	0	1	18	0	0	36

	TO ARM D							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	2	0	0	0	3	0	0	5
16:15	0	0	0	0	4	0	0	4
16:30	0	0	0	0	0	0	0	0
16:45	2	0	0	0	2	0	1	5
17:00	2	0	0	0	2	0	0	4
17:15	2	0	0	0	0	0	0	2
17:30	3	0	0	0	3	0	0	6
17:45	2	0	0	0	3	0	0	5
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	2	0	0	0	2	0	0	4
18:45	0	0	0	0	1	0	0	1
P/TOT	15	0	0	0	20	0	1	36

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	FROM ARM D							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	FROM ARM D							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	TO ARM E							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	10	2	0	0	0	0	0	12
07:15	4	6	2	0	0	0	0	12
07:30	4	2	0	0	0	0	0	6
07:45	11	0	0	0	0	0	0	11
08:00	6	3	1	0	0	0	0	10
08:15	15	7	1	0	0	0	0	23
08:30	11	3	0	0	1	0	0	15
08:45	12	10	0	0	0	0	0	22
09:00	12	7	1	0	0	0	0	20
09:15	12	4	2	2	0	0	0	20
09:30	18	5	1	0	1	0	0	25
09:45	4	1	1	0	0	0	0	6
P/TOT	119	50	9	2	2	0	0	182

	TO ARM E							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	13	3	0	0	0	0	0	16
16:15	8	0	0	0	0	0	0	8
16:30	6	0	0	0	0	0	0	6
16:45	5	1	0	0	0	0	0	6
17:00	8	1	0	0	0	0	0	9
17:15	4	2	0	0	0	0	0	6
17:30	8	0	0	0	0	0	0	8
17:45	6	1	0	0	0	0	0	7
18:00	6	1	0	0	0	0	0	7
18:15	2	1	0	0	0	0	0	3
18:30	5	1	0	0	0	0	0	6
18:45	7	0	0	0	0	0	0	7
P/TOT	78	11	0	0	0	0	0	89

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	FROM ARM E							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

	FROM ARM E							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	TO ARM F							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	88	20	3	1	2	1	0	115
07:15	142	30	4	2	3	0	0	181
07:30	144	28	0	0	1	0	1	174
07:45	177	24	4	1	3	1	0	210
08:00	133	31	5	0	1	0	0	170
08:15	150	13	7	1	3	0	0	174
08:30	164	27	2	0	0	0	0	193
08:45	166	18	4	1	1	0	0	190
09:00	206	25	4	2	1	0	0	238
09:15	200	17	2	1	0	1	0	221
09:30	184	11	2	2	1	1	0	201
09:45	166	16	3	3	0	0	0	188
P/TOT	1920	260	40	14	16	4	1	2255

	TO ARM F							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	224	13	0	1	0	0	0	238
16:15	188	13	1	1	2	1	0	206
16:30	221	15	1	0	0	0	0	237
16:45	226	14	1	0	0	1	0	242
17:00	230	16	0	1	0	0	0	247
17:15	260	12	0	0	0	0	0	272
17:30	259	13	2	0	0	0	0	274
17:45	224	6	0	0	0	0	0	230
18:00	201	9	0	2	0	0	0	212
18:15	187	8	0	0	0	1	0	196
18:30	160	11	0	0	0	0	0	171
18:45	122	8	0	0	0	0	0	130
P/TOT	2502	138	5	5	2	3	0	2655

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

	FROM ARM F							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	58	5	1	2	1	0	0	67
07:15	55	16	0	1	0	2	0	74
07:30	63	19	1	1	2	0	1	87
07:45	95	14	2	0	0	0	0	111
08:00	97	14	4	0	1	0	0	116
08:15	128	23	6	0	2	0	0	159
08:30	169	22	2	0	1	0	0	194
08:45	137	24	3	1	2	0	0	167
09:00	146	32	7	1	2	0	0	188
09:15	120	14	5	1	4	0	0	144
09:30	126	19	6	1	3	0	0	155
09:45	139	21	8	2	4	0	0	174
P/TOT	1333	223	45	10	22	2	1	1636

	FROM ARM F							
TIME	**CARS**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	238	19	1	1	2	0	0	261
16:15	209	26	2	1	5	0	0	243
16:30	247	17	0	2	2	0	0	268
16:45	233	23	1	1	4	0	0	262
17:00	262	29	0	1	3	0	0	295
17:15	250	13	1	0	4	0	0	268
17:30	221	15	0	0	3	0	0	239
17:45	253	7	0	1	3	0	0	264
18:00	190	10	0	0	1	1	0	202
18:15	199	8	0	0	4	0	0	211
18:30	203	10	0	0	3	0	0	216
18:45	181	7	0	0	3	0	0	191
P/TOT	2686	184	5	7	37	1	0	2920

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	268	54	7	6	3	2	0	340
07:15	355	73	14	6	4	3	0	455
07:30	380	79	13	4	9	0	3	488
07:45	499	95	18	5	7	1	0	625
08:00	508	105	19	0	9	0	0	641
08:15	649	89	25	3	10	0	0	776
08:30	668	94	17	6	5	0	0	790
08:45	605	100	17	3	6	0	0	731
09:00	603	105	19	8	8	0	0	743
09:15	568	76	20	9	8	1	0	682
09:30	554	83	17	5	13	1	0	673
09:45	542	79	24	11	9	0	0	665
P/TOT	6199	1032	210	66	91	8	3	7609

PEAK HOUR CALCULATION	
07:00 to 08:00	1908
07:15 to 08:15	2209
07:30 to 08:30	2530
07:45 to 08:45	2832
08:00 to 09:00	2938
08:15 to 09:15	**3040**
08:30 to 09:30	2946
08:45 to 09:45	2829
09:00 to 10:00	2763
PEAK VALUE	**3040**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	793	76	4	3	5	0	0	881
16:15	681	81	5	3	9	1	0	780
16:30	762	58	6	2	2	0	0	830
16:45	775	70	2	4	10	1	1	863
17:00	821	69	0	2	5	1	0	898
17:15	836	56	1	0	4	1	0	898
17:30	789	48	4	0	6	0	0	847
17:45	751	29	0	2	5	1	0	788
18:00	670	34	0	3	1	3	0	711
18:15	627	28	0	1	5	1	0	662
18:30	630	29	1	0	4	0	0	664
18:45	506	26	1	3	3	0	0	539
P/TOT	8641	604	24	23	59	9	1	9361

PEAK HOUR CALCULATION	
16:00 to 17:00	3354
16:15 to 17:15	3371
16:30 to 17:30	3489
16:45 to 17:45	**3506**
17:00 to 18:00	3431
17:15 to 18:15	3244
17:30 to 18:30	3008
17:45 to 18:45	2825
18:00 to 19:00	2576
PEAK VALUE	**3506**

APPENDIX C
Queue Length Data

10650 / LLANELLI
NOVEMBER 2019
QUEUE LENGTH SURVEY

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri Road DAY: Thursday

Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

	ARM A		ARM B		ARM C		ARM D	
TIME	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
07:00	0	0	0	0	0	0	0	0
07:05	0	0	0	0	0	0	0	0
07:10	0	0	0	0	0	0	0	0
07:15	7	0	0	0	0	0	0	0
07:20	12	0	0	0	0	0	0	0
07:25	3	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:35	0	0	0	0	0	0	0	0
07:40	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
07:50	0	0	0	0	0	0	0	0
07:55	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:05	0	0	0	0	0	0	0	0
08:10	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:20	0	0	0	0	0	0	0	0
08:25	0	0	1	1	0	0	0	0
08:30	5	0	0	0	0	0	0	0
08:35	0	0	0	0	0	0	0	1
08:40	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
08:50	0	0	0	0	0	0	0	0
08:55	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:05	0	0	0	0	0	0	0	0
09:10	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:20	0	0	0	0	0	0	0	0
09:25	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:35	0	0	0	0	0	0	0	0
09:40	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
09:50	0	0	0	0	0	0	0	0
09:55	0	1	0	0	0	0	0	0
10:00	0	0	0	0	0	0	3	0
MAX QUEUE	12	1	1	1	0	0	3	1

10650 / LLANELLI
NOVEMBER 2019
QUEUE LENGTH SURVEY

SITE: 1 DATE: 14/11/2019

LOCATION: A4138 / Llethri Road DAY: Thursday

Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

	ARM A		ARM B		ARM C		ARM D	
TIME	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
16:00	0	0	0	0	0	0	0	0
16:05	0	0	0	0	0	0	0	0
16:10	0	0	0	0	0	0	0	0
16:15	2	0	0	0	0	0	0	0
16:20	0	0	0	0	0	0	0	0
16:25	0	0	0	0	0	0	0	0
16:30	4	2	0	0	0	0	0	0
16:35	5	0	0	0	0	0	0	0
16:40	3	5	0	4	0	0	0	0
16:45	6	0	0	2	0	0	0	0
16:50	0	0	0	0	0	0	0	0
16:55	0	0	0	0	0	0	1	0
17:00	0	0	0	0	0	0	0	0
17:05	0	3	0	0	0	0	0	0
17:10	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:20	0	0	0	0	0	0	0	0
17:25	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:35	0	0	0	0	0	0	0	1
17:40	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
17:50	0	0	0	0	0	0	0	0
17:55	0	0	0	0	0	0	0	0
18:00	0	0	1	2	0	0	0	0
18:05	0	0	0	0	0	0	0	0
18:10	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:20	0	0	0	0	0	0	0	0
18:25	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:35	0	0	0	0	0	0	0	0
18:40	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
18:50	2	0	0	0	0	0	0	0
18:55	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0
MAX QUEUE	6	5	1	4	0	0	1	1

10650 / LLANELLI
NOVEMBER 2019
QUEUE LENGTH SURVEY

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

	ARM A		ARM B		ARM C		ARM D	
TIME	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
07:00	0	0	0	0	0	0	0	0
07:05	0	0	0	0	0	0	0	0
07:10	0	0	2	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:20	0	0	0	0	0	0	0	0
07:25	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	5	0
07:35	0	0	0	0	0	0	0	0
07:40	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
07:50	0	0	0	0	0	0	0	0
07:55	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	1	0
08:05	0	0	0	0	0	0	0	0
08:10	0	0	0	1	0	0	1	1
08:15	0	0	0	0	0	0	0	0
08:20	0	0	0	0	0	0	0	0
08:25	0	1	0	0	0	0	4	0
08:30	0	0	0	0	1	0	3	0
08:35	0	0	0	0	0	0	0	0
08:40	0	0	0	0	4	0	9	0
08:45	0	0	0	0	8	0	0	0
08:50	0	0	0	0	0	0	0	0
08:55	0	0	0	0	0	0	0	0
09:00	0	0	1	0	0	0	0	0
09:05	1	3	0	2	0	0	0	0
09:10	5	3	0	0	0	0	0	0
09:15	3	0	0	0	0	0	0	0
09:20	0	0	0	0	0	0	0	0
09:25	0	0	2	0	0	0	0	0
09:30	2	0	0	0	0	0	0	0
09:35	0	0	0	0	0	0	0	0
09:40	0	0	0	0	0	0	6	0
09:45	0	0	0	0	0	0	0	0
09:50	0	0	0	0	0	0	1	0
09:55	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0
MAX QUEUE	5	3	2	2	8	0	9	1

10650 / LLANELLI
NOVEMBER 2019
QUEUE LENGTH SURVEY

SITE: 2 DATE: 14/11/2019

LOCATION: A4138 / B4303 DAY: Thursday

Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

	ARM A		ARM B		ARM C		ARM D	
TIME	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
16:00	0	0	2	0	0	0	0	0
16:05	0	0	1	0	0	0	2	0
16:10	0	1	0	0	0	0	0	0
16:15	0	0	0	0	1	0	0	0
16:20	0	0	3	0	0	0	0	0
16:25	0	0	0	2	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:35	0	0	0	0	0	0	0	0
16:40	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	3	0
16:50	0	0	3	0	0	0	0	1
16:55	0	0	0	0	0	0	0	0
17:00	1	0	0	0	0	0	3	0
17:05	2	1	0	0	0	0	0	0
17:10	0	0	0	0	0	0	0	0
17:15	1	1	0	0	0	0	1	1
17:20	2	0	5	0	0	0	2	0
17:25	0	0	1	0	0	0	0	0
17:30	0	0	0	0	0	0	1	0
17:35	2	0	0	0	0	0	0	0
17:40	1	0	1	0	2	0	1	0
17:45	0	0	0	0	0	0	0	0
17:50	0	0	0	0	0	0	0	0
17:55	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:05	0	3	0	0	0	0	0	0
18:10	0	0	3	0	0	0	0	0
18:15	0	0	1	0	0	0	0	0
18:20	0	0	0	0	0	0	0	0
18:25	3	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:35	0	0	0	0	0	0	0	0
18:40	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
18:50	0	0	0	0	0	0	0	0
18:55	0	0	2	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0
MAX QUEUE	3	3	5	2	2	0	3	1

10650 / LLANELLI
NOVEMBER 2019
QUEUE LENGTH SURVEY

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.
Arms D and E are one-way, away from the junction.

	ARM A		ARM B		ARM C		ARM F	
TIME	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
07:00	0	0	0	0	0	0	0	0
07:05	0	0	0	0	0	0	0	0
07:10	0	0	0	0	0	0	0	0
07:15	0	0	1	0	0	0	0	0
07:20	0	0	0	0	0	0	0	0
07:25	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:35	0	0	0	0	0	0	0	0
07:40	0	0	0	0	0	0	0	0
07:45	0	2	0	0	0	0	0	0
07:50	0	0	0	0	0	0	0	0
07:55	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:05	0	0	0	0	0	0	0	0
08:10	0	0	0	0	0	0	0	0
08:15	0	0	1	0	0	0	0	0
08:20	0	0	0	0	0	0	0	0
08:25	0	1	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:35	0	0	0	0	0	0	0	0
08:40	0	0	0	0	0	0	0	0
08:45	0	6	0	0	0	0	0	0
08:50	0	0	0	0	0	0	0	0
08:55	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:05	0	0	0	0	0	0	0	0
09:10	0	5	1	1	0	0	0	1
09:15	0	0	0	0	4	1	0	3
09:20	0	1	0	0	0	0	0	0
09:25	0	1	0	0	0	0	0	0
09:30	0	0	0	0	2	0	0	0
09:35	0	0	0	0	2	1	0	0
09:40	0	2	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
09:50	0	0	0	0	0	0	0	1
09:55	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0
MAX QUEUE	0	6	1	1	4	1	0	3

10650 / LLANELLI
NOVEMBER 2019
QUEUE LENGTH SURVEY

SITE: 3 DATE: 14/11/2019

LOCATION: A4138 / A484 DAY: Thursday

Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.
Arms D and E are one-way, away from the junction.

	ARM A		ARM B		ARM C		ARM F	
TIME	**LANE 1**	**LANE 2**	**LANE 1**	**LANE 2**	**LANE 1**	**LANE 2**	**LANE 1**	**LANE 2**
16:00	0	1	0	0	1	1	0	0
16:05	0	0	0	**1**	0	0	0	0
16:10	0	0	**2**	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:20	0	3	0	0	0	0	0	0
16:25	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:35	0	8	1	0	0	0	0	0
16:40	0	0	1	0	0	0	0	0
16:45	**2**	9	0	0	0	0	0	0
16:50	0	0	0	0	0	0	0	0
16:55	0	11	0	**1**	0	0	0	0
17:00	0	0	0	0	0	0	0	2
17:05	0	0	0	0	**3**	**2**	0	**4**
17:10	0	**14**	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:20	0	0	0	0	0	1	0	0
17:25	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	1	0	0
17:35	0	0	**2**	0	0	0	0	0
17:40	0	4	0	0	0	0	0	0
17:45	0	8	0	0	0	0	0	0
17:50	0	0	1	**1**	0	0	**2**	0
17:55	0	0	0	0	0	0	0	0
18:00	0	0	1	0	0	0	0	3
18:05	0	0	0	0	0	0	0	0
18:10	0	7	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	3
18:20	0	1	0	0	0	0	0	0
18:25	**2**	0	0	0	0	0	0	3
18:30	0	0	0	0	0	0	0	0
18:35	0	0	0	0	0	0	0	0
18:40	0	3	0	0	0	1	0	0
18:45	0	3	0	0	0	0	0	0
18:50	0	0	0	0	0	0	0	0
18:55	0	0	0	0	0	0	0	0
19:00	0	2	0	0	0	0	0	0
MAX QUEUE	**2**	**14**	**2**	**1**	**3**	**2**	**2**	**4**

Appendix D:

TRICS Output Reports

Calculation Reference: AUDIT-204605-200401-0456

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : M - MIXED PRIVATE/AFFORDABLE HOUSING
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	9 days
	HC	HAMPSHIRE	5 days
	KC	KENT	2 days
	OX	OXFORDSHIRE	1 days
	SC	SURREY	3 days
	WS	WEST SUSSEX	10 days
03	SOUTH WEST		
	DC	DORSET	1 days
	DV	DEVON	1 days
	SM	SOMERSET	1 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
	LE	LEICESTERSHIRE	1 days
06	WEST MIDLANDS		
	WK	WARWICKSHIRE	3 days
	WM	WEST MIDLANDS	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
	MS	MERSEYSIDE	2 days
09	NORTH		
	CB	CUMBRIA	1 days
	TW	TYNE & WEAR	2 days
10	WALES		
	CM	CARMARTHENSHIRE	1 days
11	SCOTLAND		
	HI	HIGHLAND	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 Dwellings
Actual Range: 9 to 500 (units:)
Range Selected by User: 9 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: 01/01/11 to 13/03/19

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	4 days
Tuesday	9 days
Wednesday	12 days
Thursday	13 days
Friday	11 days

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

Selected survey types:

Manual count	49 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

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	39
Village	7
No Sub Category	2

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

Secondary Filtering selection:

Use Class:

C3	49 days

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

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	9 days
5,001 to 10,000	7 days
10,001 to 15,000	11 days
15,001 to 20,000	2 days
20,001 to 25,000	7 days
25,001 to 50,000	12 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	4 days
25,001 to 50,000	6 days
50,001 to 75,000	9 days
75,001 to 100,000	8 days
100,001 to 125,000	4 days
125,001 to 250,000	12 days
250,001 to 500,000	5 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	10 days
1.1 to 1.5	34 days
1.6 to 2.0	5 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	27 days
No	22 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	49 days

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

LIST OF SITES relevant to selection parameters

1 CA-03-M-01 MIXED HOUSES & FLATS CAMBRIDGESHIRE
BANNOLD ROAD
WATERBEACH

Edge of Town
Residential Zone
Total No of Dwellings: 52
Survey date: WEDNESDAY *20/06/18* *Survey Type: MANUAL*

2 CB-03-M-04 SEMI-DETACHED & TERRACED CUMBRIA
STANHOPE ROAD
CARLISLE

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 20
Survey date: FRIDAY *24/06/16* *Survey Type: MANUAL*

3 CM-03-M-02 HOUSES & FLATS CARMARTHENSHIRE
COLLEGE ROAD
CARMARTHEN

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 49
Survey date: TUESDAY *14/10/14* *Survey Type: MANUAL*

4 DC-03-M-02 TERRACED & BUNGALOWS DORSET
KINGS ROAD
DORCHESTER
FORDINGTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 37
Survey date: FRIDAY *16/09/16* *Survey Type: MANUAL*

5 DS-03-M-01 TERRACED/SEMI DETACHED DERBYSHIRE
COCKAYNE STREET
DERBY
BOULTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 32
Survey date: TUESDAY *21/10/14* *Survey Type: MANUAL*

6 DV-03-M-01 HOUSES & FLATS DEVON
TOPSHAM ROAD
EXETER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 61
Survey date: THURSDAY *06/10/11* *Survey Type: MANUAL*

7 ES-03-M-05 HOUSES & FLATS EAST SUSSEX
A26 CROWBOROUGH RD
NEAR UCKFIELD
FIVE ASH DOWN VILLAGE
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 138
Survey date: MONDAY *30/06/14* *Survey Type: MANUAL*

8 ES-03-M-07 MIXED HOUSING EAST SUSSEX
SOUTH COAST ROAD
PEACEHAVEN

Edge of Town
Residential Zone
Total No of Dwellings: 188
Survey date: THURSDAY *12/11/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 ES-03-M-09 DETACHED/SEMI-DETACHED EAST SUSSEX
STATION ROAD
NORTHIAM

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 16
Survey date: WEDNESDAY 17/05/17 Survey Type: MANUAL

10 ES-03-M-10 MIXED HOUSES & FLATS EAST SUSSEX
DITTONS ROAD
POLEGATE

Edge of Town
Residential Zone
Total No of Dwellings: 108
Survey date: MONDAY 11/07/16 Survey Type: MANUAL

11 ES-03-M-11 MIXED HOUSES & FLATS EAST SUSSEX
HEMPSTEAD LANE
HAILSHAM
UPPER HORSEBRIDGE
Edge of Town
Residential Zone
Total No of Dwellings: 354
Survey date: WEDNESDAY 13/07/16 Survey Type: MANUAL

12 ES-03-M-12 MIXED HOUSES & FLATS EAST SUSSEX
PARK ROAD
HAILSHAM

Edge of Town
Residential Zone
Total No of Dwellings: 93
Survey date: THURSDAY 21/06/18 Survey Type: MANUAL

13 ES-03-M-13 MIXED HOUSES EAST SUSSEX
NORTH COMMON ROAD
WIVELSFIELD GREEN

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 66
Survey date: FRIDAY 22/06/18 Survey Type: MANUAL

14 ES-03-M-14 MIXED HOUSES & FLATS EAST SUSSEX
KINGS DRIVE
EASTBOURNE
UPPERTON
Edge of Town
Residential Zone
Total No of Dwellings: 119
Survey date: THURSDAY 15/11/18 Survey Type: MANUAL

15 ES-03-M-15 MIXED HOUSES EAST SUSSEX
FIELD END
MARESFIELD

Edge of Town
Residential Zone
Total No of Dwellings: 80
Survey date: WEDNESDAY 13/03/19 Survey Type: MANUAL

16 GM-03-M-01 TERRACED & FLATS GREATER MANCHESTER
PARK ROAD
ROCHDALE

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 9
Survey date: TUESDAY 25/11/14 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

17 HC-03-M-05 HOUSES & FLATS HAMPSHIRE
WIMPSON LANE
SOUTHAMPTON
MAYBUSH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 62
Survey date: FRIDAY *03/10/14* *Survey Type: MANUAL*

18 HC-03-M-06 HOUSES & FLATS HAMPSHIRE
HUNTS POND ROAD
NEAR FAREHAM
TITCHFIELD
Edge of Town
Residential Zone
Total No of Dwellings: 328
Survey date: WEDNESDAY *04/11/15* *Survey Type: MANUAL*

19 HC-03-M-09 MIXED HOUSES & FLATS HAMPSHIRE
ROMSEY ROAD
WINCHESTER
STANMORE
Edge of Town
Residential Zone
Total No of Dwellings: 157
Survey date: THURSDAY *07/06/18* *Survey Type: MANUAL*

20 HC-03-M-10 MIXED HOUSES & FLATS HAMPSHIRE
RAWLINGS LANE
ALTON

Edge of Town
Residential Zone
Total No of Dwellings: 176
Survey date: TUESDAY *05/03/19* *Survey Type: MANUAL*

21 HC-03-M-11 MIXED HOUSES & FLATS HAMPSHIRE
ALDERMASTON ROAD
BASINGSTOKE

Edge of Town
No Sub Category
Total No of Dwellings: 238
Survey date: THURSDAY *07/03/19* *Survey Type: MANUAL*

22 HI-03-M-05 SEMI-DETACHED HIGHLAND
CALEDONIAN ROAD
INVERNESS
DALNEIGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 73
Survey date: FRIDAY *13/05/11* *Survey Type: MANUAL*

23 KC-03-M-02 MIXED HOUSES AND FLATS KENT
HERMITAGE LANE
MAIDSTONE
BARMING
Edge of Town
No Sub Category
Total No of Dwellings: 119
Survey date: TUESDAY *05/06/18* *Survey Type: MANUAL*

24 KC-03-M-03 MIXED HOUSES & FLATS KENT
BUNYARD WAY
MAIDSTONE
ALLINGTON
Edge of Town
Residential Zone
Total No of Dwellings: 140
Survey date: TUESDAY *22/05/18* *Survey Type: MANUAL*

25 LE-03-M-01 SEMI DETACHED LEICESTERSHIRE
RYDER ROAD
LEICESTER
BRAUNSTONE FRITH
Edge of Town
Residential Zone
Total No of Dwellings: 16
Survey date: THURSDAY *27/09/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

26 MS-03-M-02 TERRACED MERSEYSIDE
LOVEL ROAD
LIVERPOOL
SPEKE
Edge of Town
Residential Zone
Total No of Dwellings: 27
Survey date: FRIDAY *21/06/13* *Survey Type: MANUAL*

27 MS-03-M-03 SEMI DETACHED/TERRACED MERSEYSIDE
LOVEL ROAD
LIVERPOOL
SPEKE
Edge of Town
Residential Zone
Total No of Dwellings: 24
Survey date: FRIDAY *21/06/13* *Survey Type: MANUAL*

28 OX-03-M-01 MIXED HOUSES OXFORDSHIRE
WENMAN ROAD
THAME

Edge of Town
Industrial Zone
Total No of Dwellings: 100
Survey date: THURSDAY *28/06/18* *Survey Type: MANUAL*

29 SC-03-M-05 HOUSES & FLATS SURREY
HOLYWELL WAY
STAINES
STANWELL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 52
Survey date: MONDAY *19/11/12* *Survey Type: MANUAL*

30 SC-03-M-06 HOUSES & FLATS SURREY
ST ANNE'S DRIVE
REDHILL

Edge of Town
Residential Zone
Total No of Dwellings: 500
Survey date: WEDNESDAY *11/12/13* *Survey Type: MANUAL*

31 SC-03-M-07 HOUSES/FLATS SURREY
EPSOM ROAD
GUILDFORD

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 199
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

32 SM-03-M-01 DETACHED & TERRACED HOUSES SOMERSET
MILTON HILL
TAUNTON
MONKTON HEATHFIELD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 135
Survey date: WEDNESDAY *26/09/18* *Survey Type: MANUAL*

33 TW-03-M-01 DETACHED & BUNGALOWS TYNE & WEAR
WESTLANDS
NEWCASTLE
CHAPEL HOUSE
Edge of Town
Residential Zone
Total No of Dwellings: 27
Survey date: FRIDAY *13/11/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

34 TW-03-M-02 MIXED HOUSES & FLATS TYNE & WEAR
BENTON ROAD
NEWCASTLE UPON TYNE

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 108
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

35 WK-03-M-01 MIXED HOUSES & FLATS WARWICKSHIRE
BIRMINGHAM ROAD
STRATFORD UPON AVON

Edge of Town
Residential Zone
Total No of Dwellings: 395
Survey date: FRIDAY *29/06/18* *Survey Type: MANUAL*

36 WK-03-M-02 MIXED HOUSES WARWICKSHIRE
BISHOPTON LANE
STRATFORD UPON AVON
BISHOPTON
Edge of Town
Residential Zone
Total No of Dwellings: 130
Survey date: FRIDAY *29/06/18* *Survey Type: MANUAL*

37 WK-03-M-03 MIXED HOUSES WARWICKSHIRE
STOCKTON ROAD
LONG ITCHINGTON

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 124
Survey date: WEDNESDAY *27/06/18* *Survey Type: MANUAL*

38 WL-03-M-03 MIXED HOUSES & FLATS WILTSHIRE
WARNEFORD CRESCENT
NEAR SALISBURY
LONGHEDGE
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 260
Survey date: TUESDAY *09/10/18* *Survey Type: MANUAL*

39 WM-03-M-01 SEMI DETACHED WEST MIDLANDS
MEADOWSWEET AVENUE
BIRMINGHAM
KINGS NORTON
Edge of Town
Residential Zone
Total No of Dwellings: 56
Survey date: MONDAY *09/11/15* *Survey Type: MANUAL*

40 WS-03-M-04 HOUSES & FLATS WEST SUSSEX
SUMMERSDALE ROAD
CHICHESTER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 214
Survey date: THURSDAY *08/05/14* *Survey Type: MANUAL*

41 WS-03-M-05 MIXED HOUSING WEST SUSSEX
ELLIS ROAD
WEST HORSHAM
S BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total No of Dwellings: 92
Survey date: THURSDAY *23/10/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

42 WS-03-M-06 SEMI DETACHED/DETACHED WEST SUSSEX
SOUTHFIELDS CLOSE
CHICHESTER

Edge of Town
Residential Zone
Total No of Dwellings: 67
Survey date: TUESDAY *27/01/15* *Survey Type: MANUAL*

43 WS-03-M-07 HOUSES & FLATS WEST SUSSEX
ROSE GREEN ROAD
BOGNOR REGIS
ALDWICK
Edge of Town
Residential Zone
Total No of Dwellings: 90
Survey date: WEDNESDAY *05/03/14* *Survey Type: MANUAL*

44 WS-03-M-12 HOUSES & FLATS WEST SUSSEX
UPPER SHOREHAM ROAD
SHOREHAM BY SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 192
Survey date: WEDNESDAY *27/04/16* *Survey Type: MANUAL*

45 WS-03-M-13 TERRACED & FLATS WEST SUSSEX
IRENE AVENUE
WORTHING
LANCING
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 23
Survey date: TUESDAY *21/06/16* *Survey Type: MANUAL*

46 WS-03-M-14 MIXED HOUSES & FLATS WEST SUSSEX
WESTLOATS LANE
BOGNOR REGIS
NORTH BERSTED
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 86
Survey date: THURSDAY *15/03/18* *Survey Type: MANUAL*

47 WS-03-M-15 MIXED HOUSES & FLATS WEST SUSSEX
ADLINGTON GARDENS
BOGNOR REGIS

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 32
Survey date: THURSDAY *15/03/18* *Survey Type: MANUAL*

48 WS-03-M-16 MIXED FLATS & HOUSES WEST SUSSEX
BROYLE ROAD
CHICHESTER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 252
Survey date: WEDNESDAY *21/03/18* *Survey Type: MANUAL*

49 WS-03-M-17 MIXED HOUSES & FLATS WEST SUSSEX
STANE STREET
CHICHESTER
WESTHAMPNETT
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 99
Survey date: WEDNESDAY *03/10/18* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	49	123	0.077	49	123	0.274	49	123	0.351
08:00 - 09:00	49	123	0.122	49	123	0.344	49	123	0.466
09:00 - 10:00	49	123	0.130	49	123	0.166	49	123	0.296
10:00 - 11:00	49	123	0.125	49	123	0.136	49	123	0.261
11:00 - 12:00	49	123	0.136	49	123	0.138	49	123	0.274
12:00 - 13:00	49	123	0.144	49	123	0.135	49	123	0.279
13:00 - 14:00	49	123	0.140	49	123	0.143	49	123	0.283
14:00 - 15:00	49	123	0.134	49	123	0.155	49	123	0.289
15:00 - 16:00	49	123	0.228	49	123	0.170	49	123	0.398
16:00 - 17:00	49	123	0.236	49	123	0.158	49	123	0.394
17:00 - 18:00	49	123	0.314	49	123	0.159	49	123	0.473
18:00 - 19:00	49	123	0.279	49	123	0.154	49	123	0.433
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.065			2.132			4.197

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

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

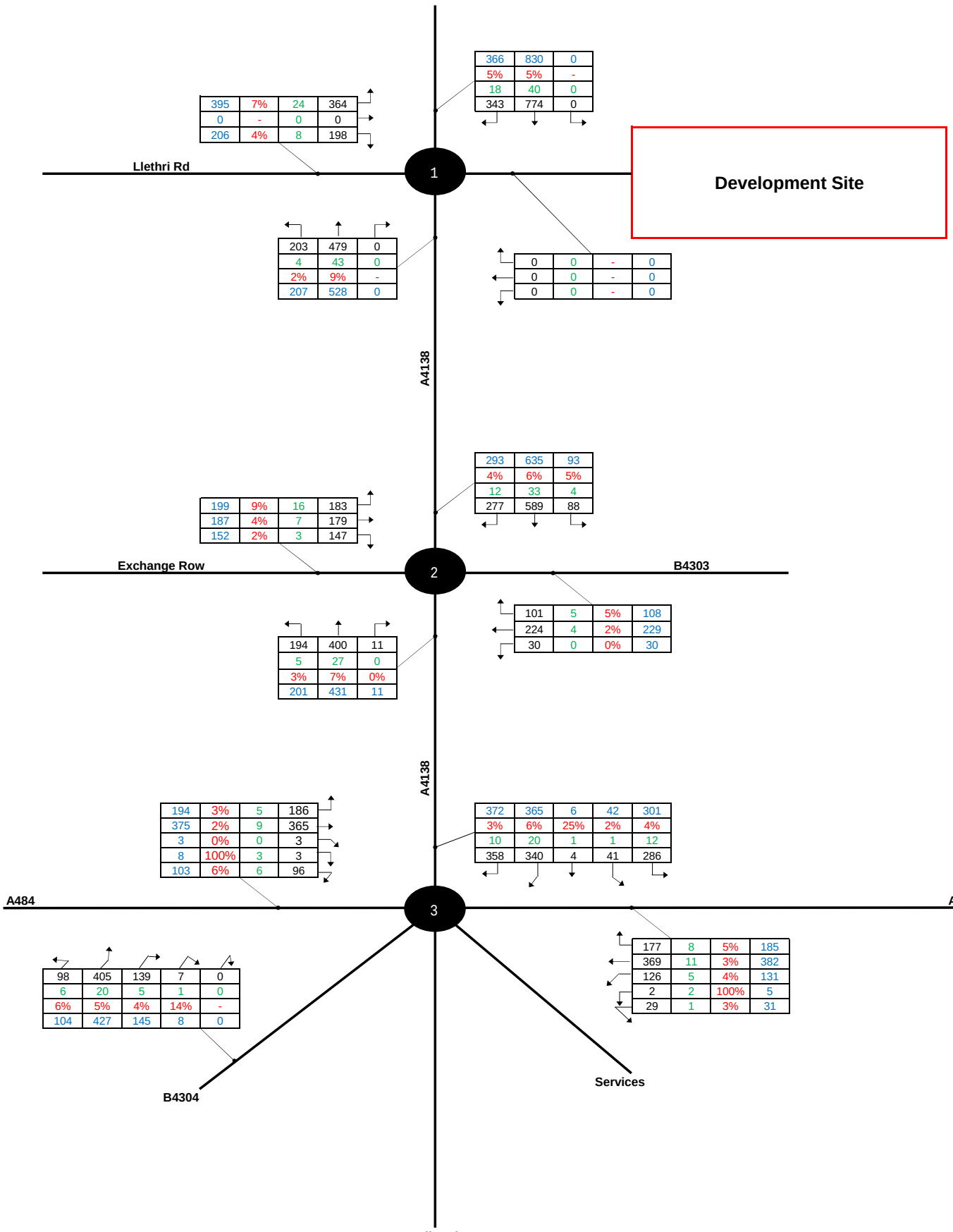
Parameter summary

Trip rate parameter range selected:	9 - 500 (units:)
Survey date date range:	01/01/11 - 13/03/19
Number of weekdays (Monday-Friday):	49
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	14
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 E:

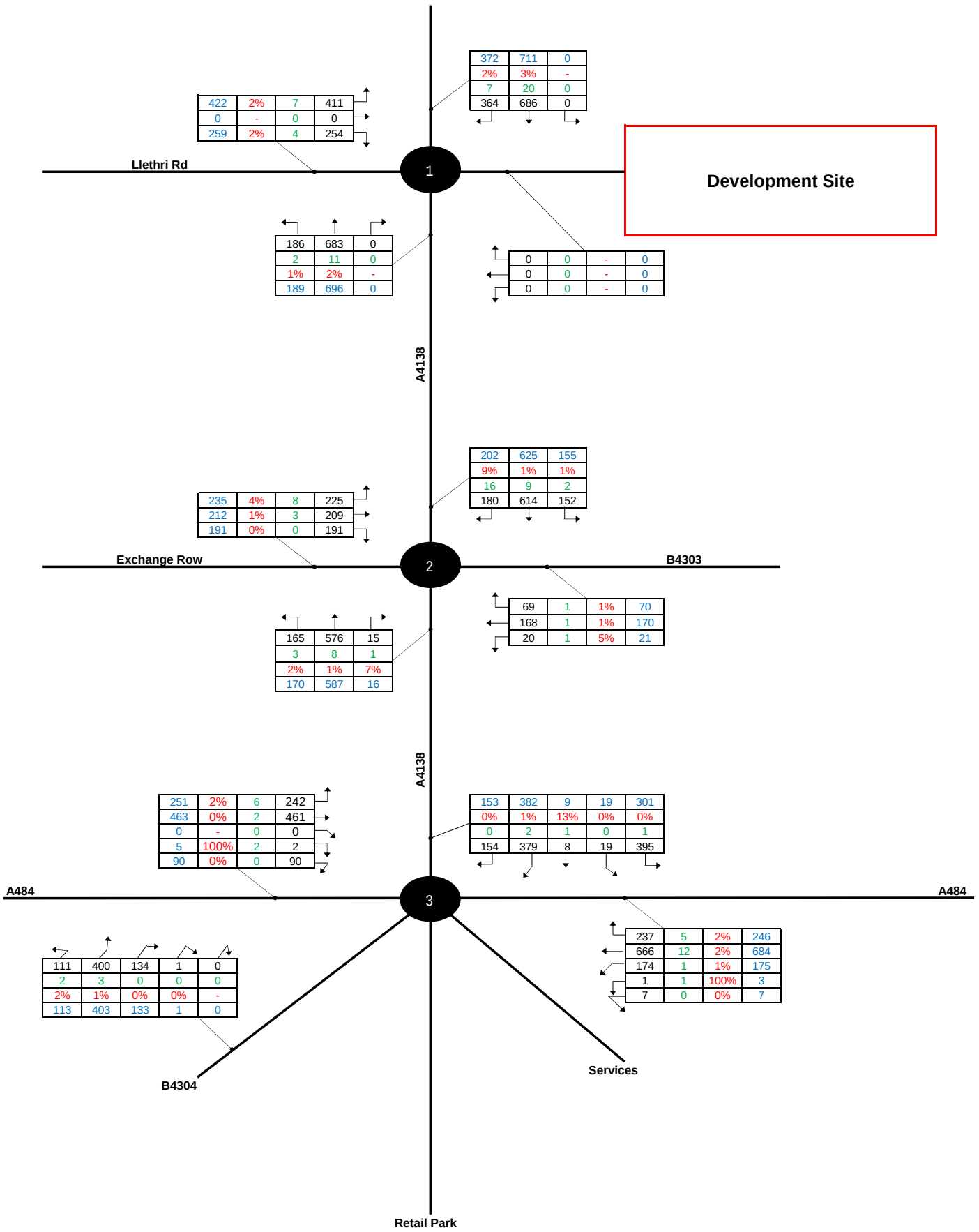
Traffic Flow Diagrams



Key

XX	Total Vehicles
XX	HGVs
XX	HGV %
XX	PCUs
	Development Site

AECOM	Project	Dafen, Llanelli	Drawn	BB	**Notes:**
	Title	2019 Base: AM Peak Hour (08:15-09:15)	Verified	LC	1. Data derived from surveys undertaken on Thursday 14th November 2019.
AECOM Limited 1 Callaghan Square Cardiff CF10 5BT United Kingdom www.aecom.com	Fig No.	-	Checked	SP	
	Client	Persimmon Homes West Wales	Approved	JD	
	Date	27/01/2022	Scale	NTS	



Key

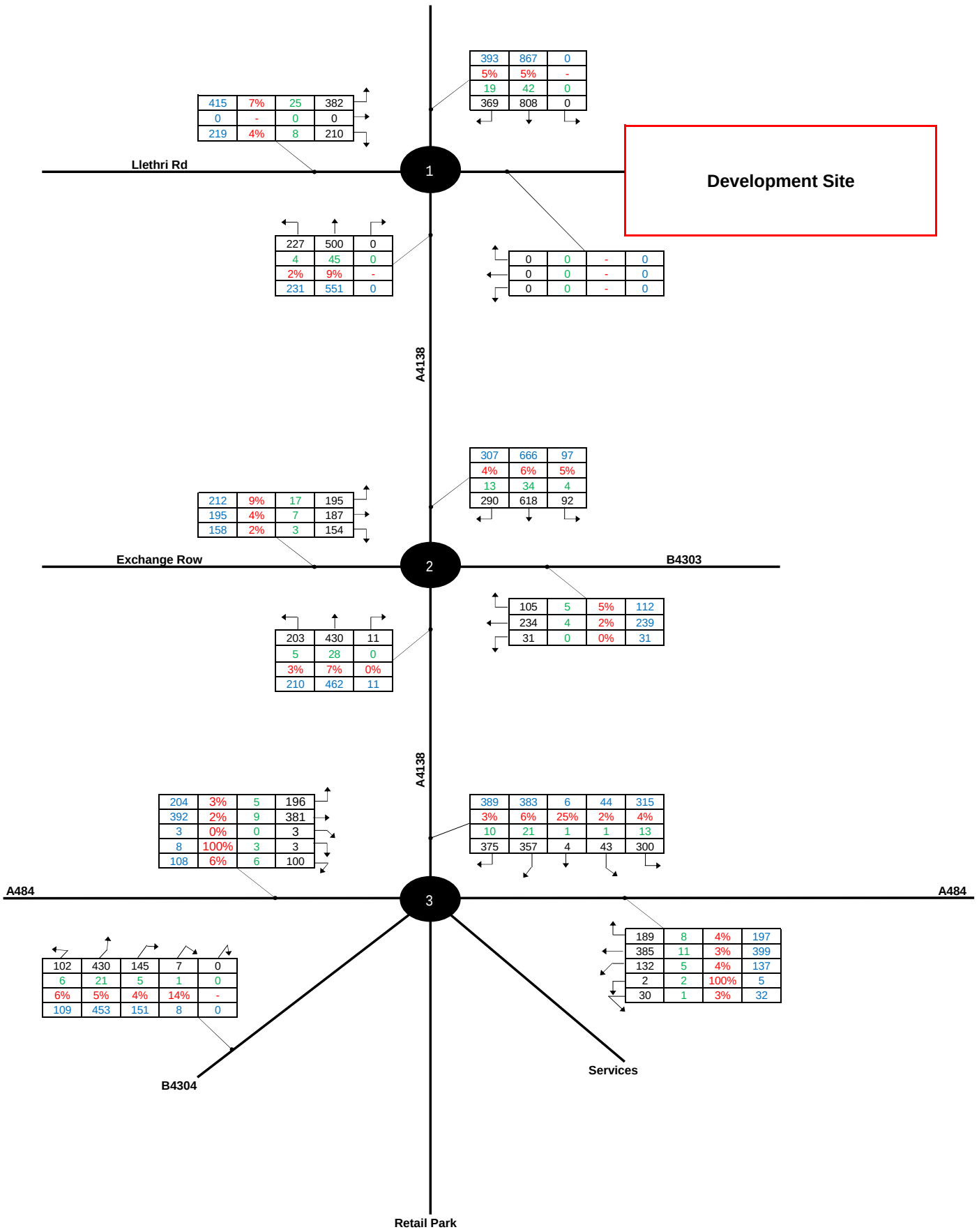
XX	Total Vehicles
XX	HGVs
XX	HGV %
XX	PCUs
	Development Site

AECOM Limited
1 Callaghan Square
Cardiff CF10 5BT
United Kingdom
www.aecom.com

Project	Dafen, Llanelli	Drawn	BB
Title	2019 Base: PM Peak Hour (16:30-17:30)	Verified	LC
Fig No.	-	Checked	SP
Client	Persimmon Homes West Wales	Approved	JD
Date	27/01/2022	Scale	NTS

Notes:

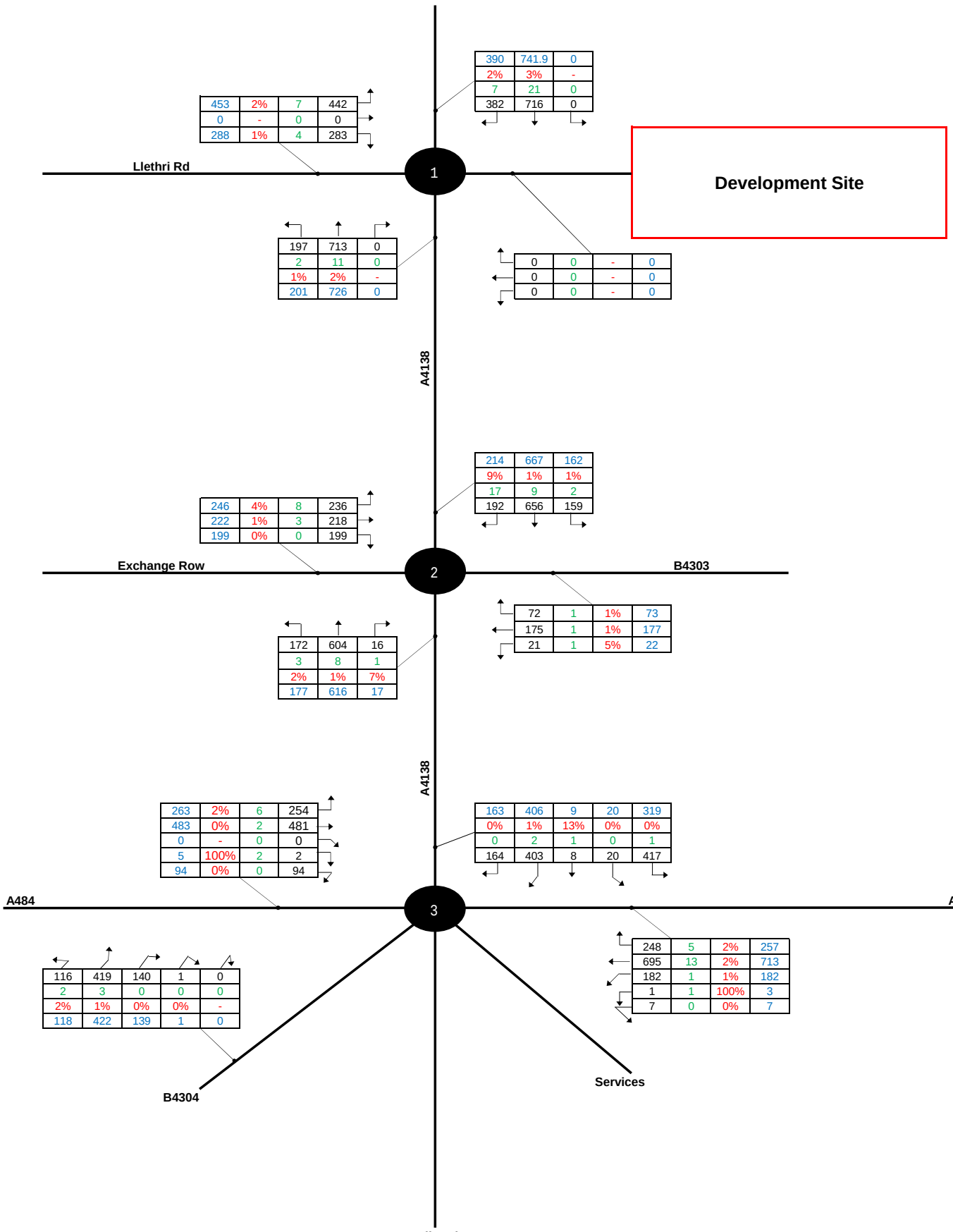
1. Data derived from surveys undertaken on Thursday 14th November 2019.



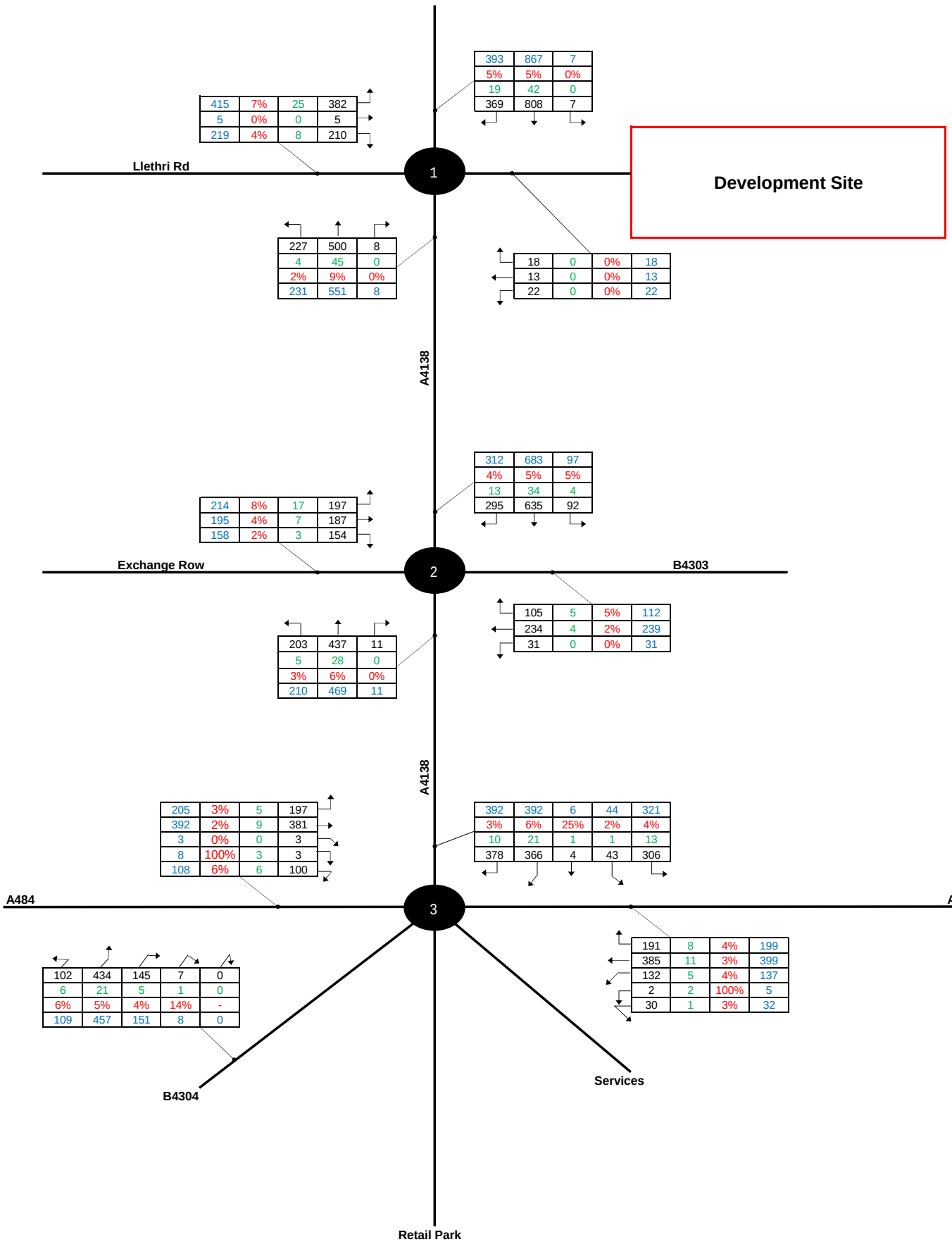
Key

XX	Total Vehicles
XX	HGVs
XX	HGV %
XX	PCUs
	Development Site

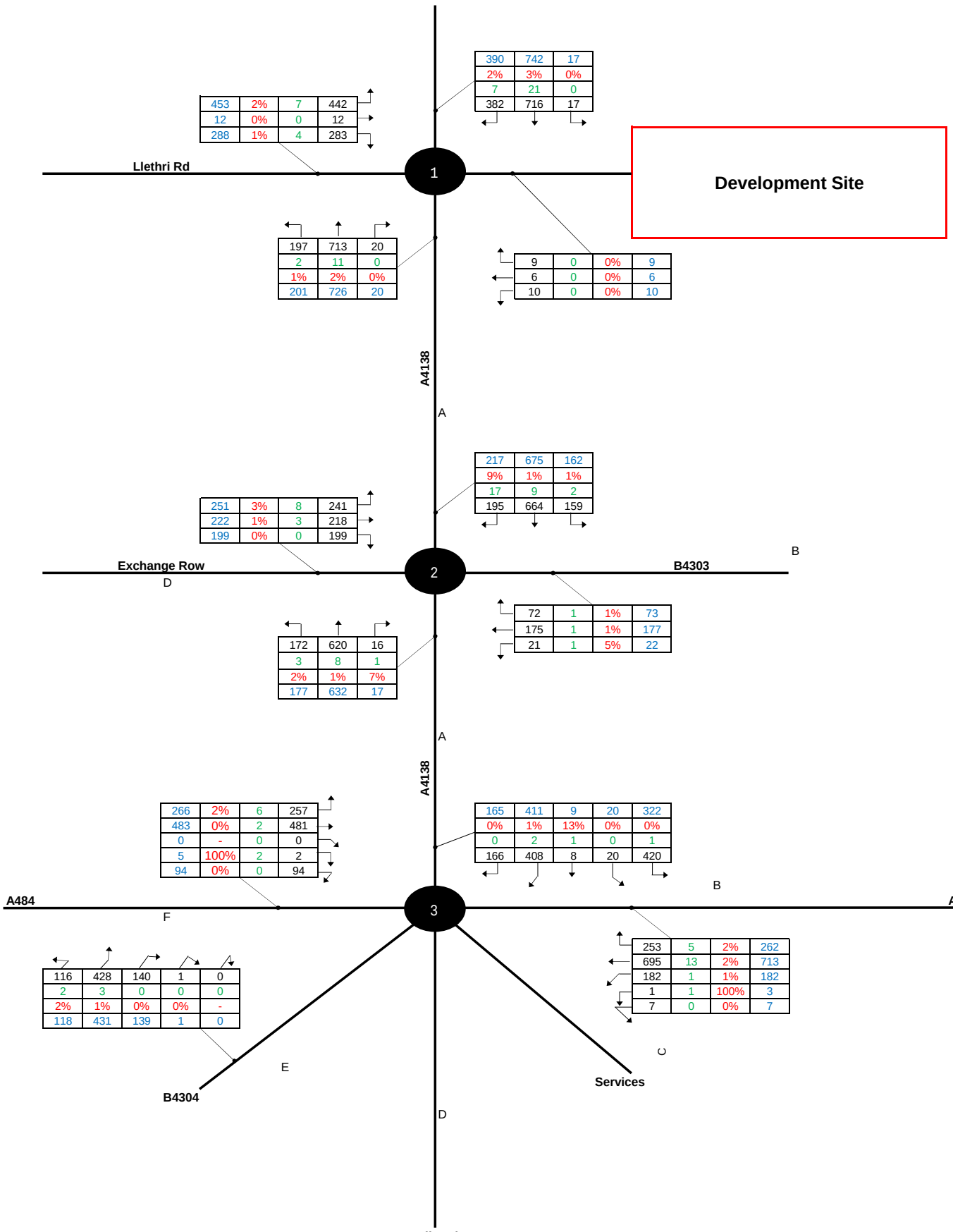
AECOM	Project	Dafen, Llanelli	Drawn	BB	**Notes:**
	Title	2023 Base: AM Peak Hour (08:15-09:15)	Verified	LC	1. Includes traffic growth and committed development.
AECOM Limited 1 Callaghan Square Cardiff CF10 5BT United Kingdom www.aecom.com	Fig No.	-	Checked	SP	
	Client	Persimmon Homes West Wales	Approved	JD	
	Date	27/01/2022	Scale	NTS	



AECOM	Project	Dafen, Llanelli	Drawn	BB	**Notes:**
	Title	2023 Base: PM Peak Hour (16:30-17:30)	Verified	LC	1. Includes traffic growth and committed development.
AECOM Limited 1 Callaghan Square Cardiff CF10 5BT United Kingdom www.aecom.com	Fig No.	-	Checked	SP	
	Client	Persimmon Homes West Wales	Approved	JD	
	Date	27/01/2022	Scale	NTS	



AECOM	Project	Dafen, Llanelli	Drawn	BB	**Notes:**
	Title	2023 Base + Development: AM Peak Hour (08:15-09:15)	Verified	LC	1. Includes traffic growth, committed development and proposed development.
AECOM Limited 1 Callaghan Square Cardiff CF10 5BT United Kingdom www.aecom.com	Fig No.	-	Checked	SP	
	Client	Persimmon Homes West Wales	Approved	JD	
	Date	27/01/2022	Scale	NTS	

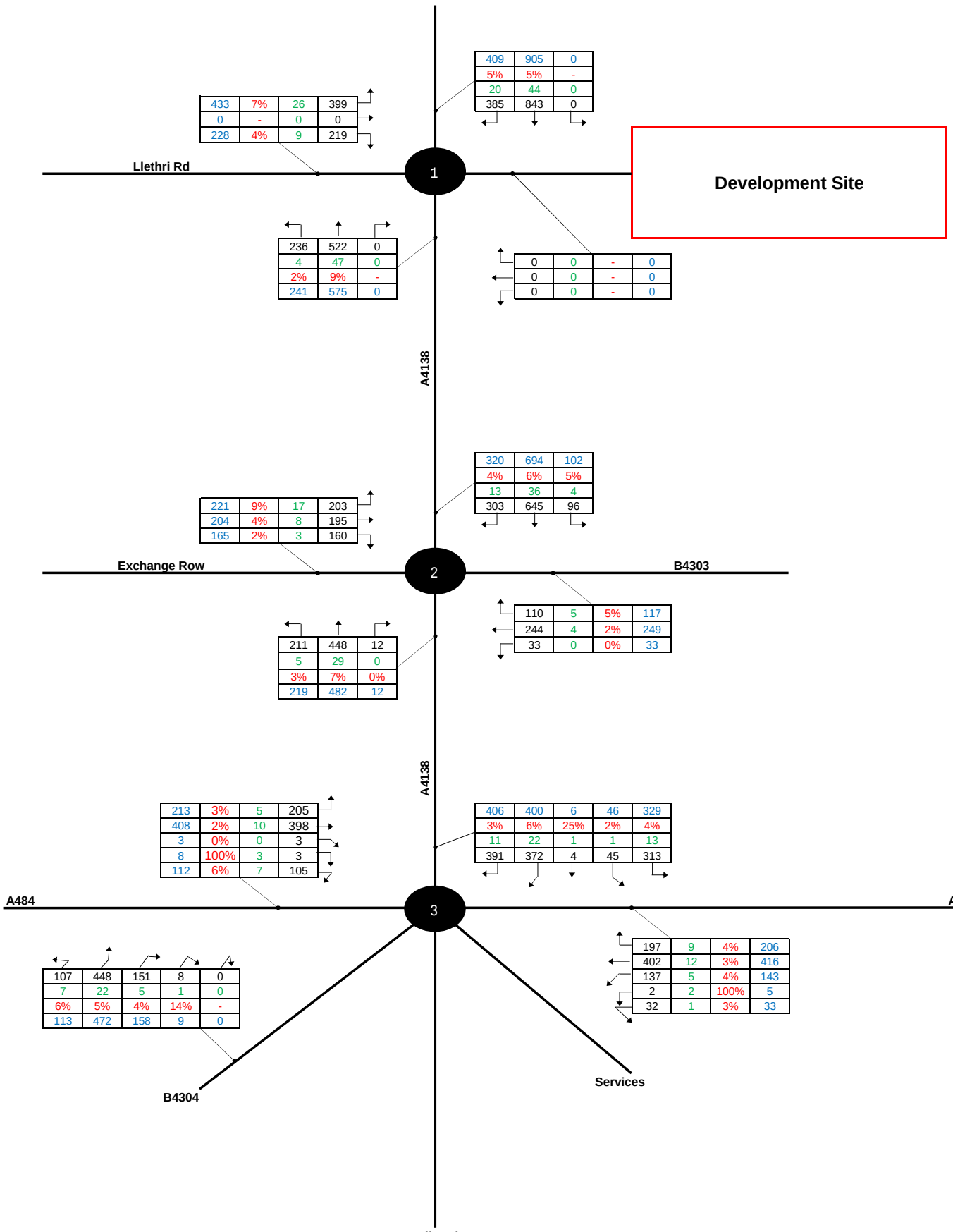


Key

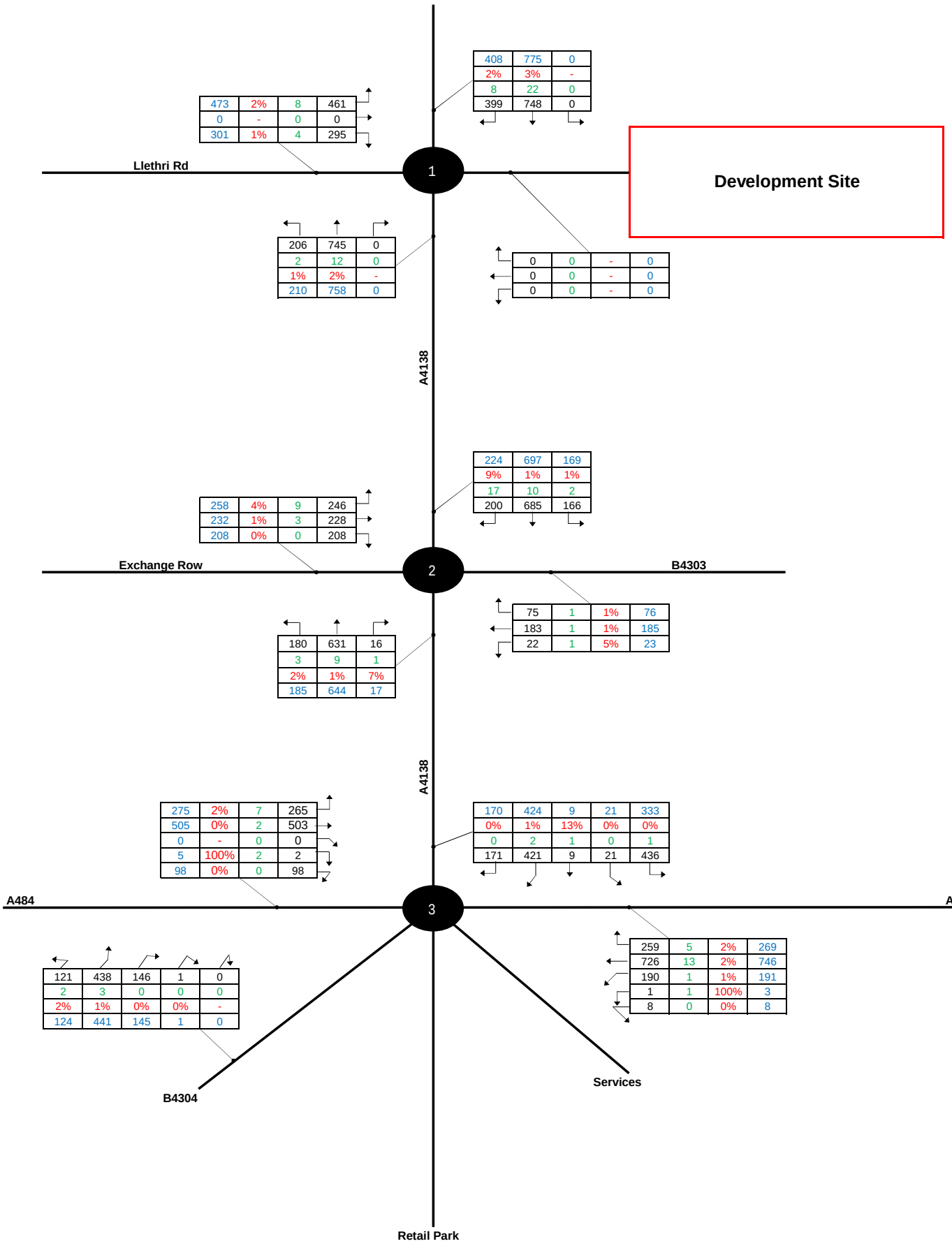
XX	Total Vehicles
XX	HGVs
XX	HGV %
XX	PCUs
	Development Site

AECOM Limited
1 Callaghan Square
Cardiff CF10 5BT
United Kingdom
www.aecom.com

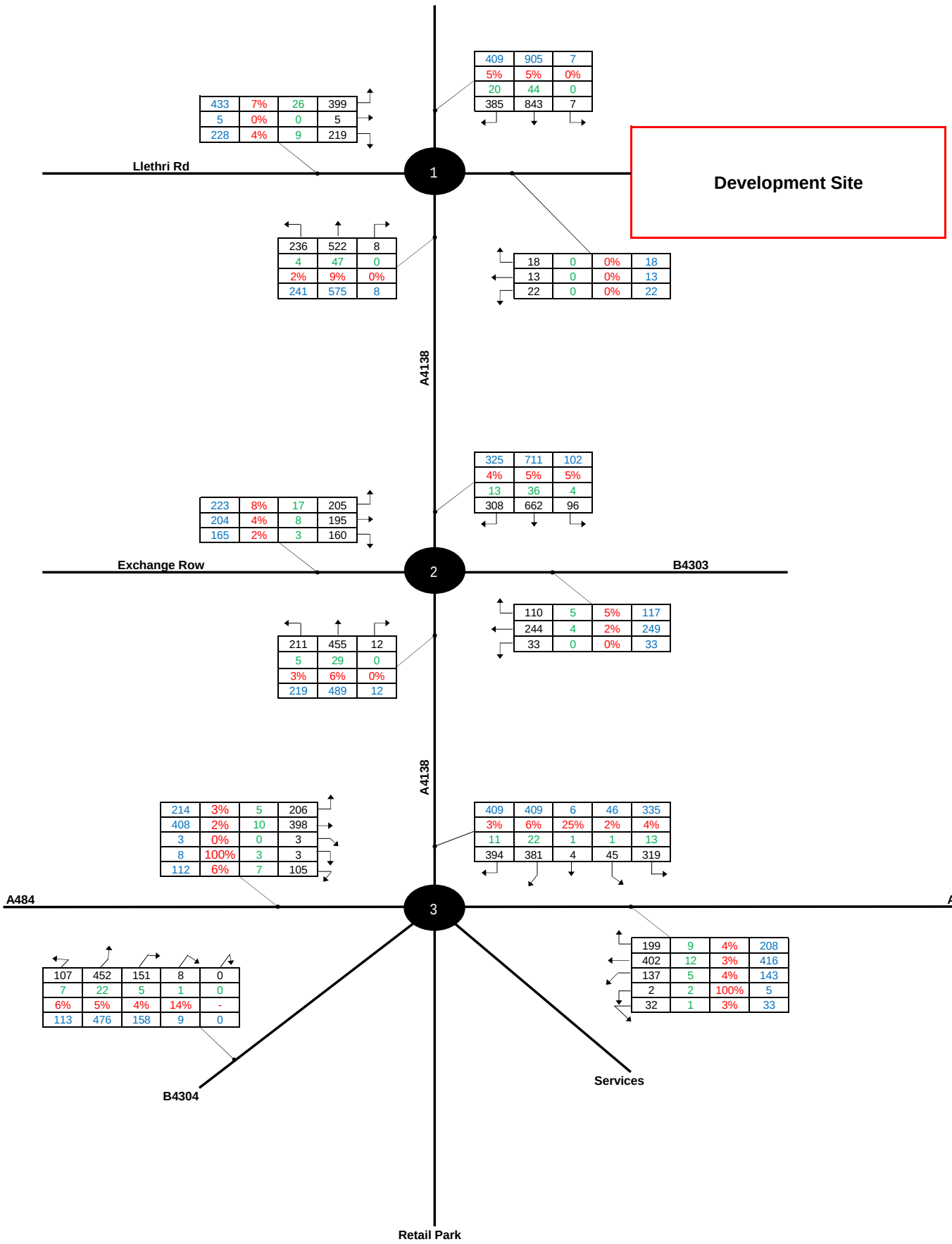
Project	Dafen, Llanelli	Drawn	BB	**Notes:**
Title	2023 Base + Development: PM Peak Hour (16:30-17:30)	Verified	LC	1. Includes traffic growth, committed development and proposed development.
Fig No.	-	Checked	SP	
Client	Persimmon Homes West Wales	Approved	JD	
Date	27/01/2022	Scale	NTS	



AECOM	Project	Dafen, Llanelli	Drawn	BB	**Notes:**
	Title	2028 Base: AM Peak Hour (08:15-09:15)	Verified	LC	1. Includes traffic growth and committed development.
AECOM Limited 1 Callaghan Square Cardiff CF10 5BT United Kingdom www.aecom.com	Fig No.	-	Checked	SP	
	Client	Persimmon Homes West Wales	Approved	JD	
	Date	27/01/2022	Scale	NTS	



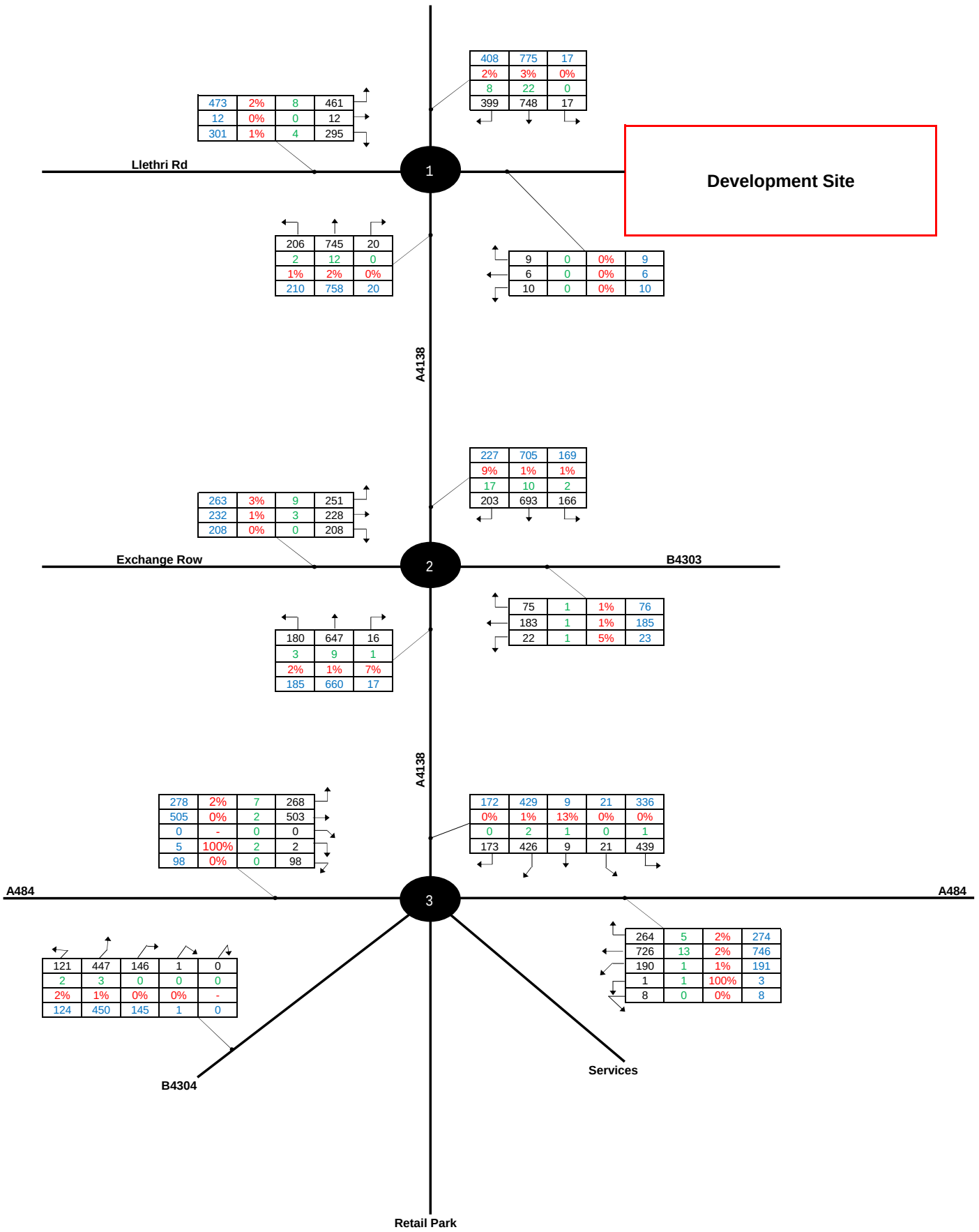
AECOM	Project	Dafen, Llanelli	Drawn	BB	**Notes:**
	Title	2028 Base: PM Peak Hour (16:30-17:30)	Verified	LC	1. Includes traffic growth and committed development.
AECOM Limited 1 Callaghan Square Cardiff CF10 5BT United Kingdom www.aecom.com	Fig No.	-	Checked	SP	
	Client	Persimmon Homes West Wales	Approved	JD	
	Date	27/01/2022	Scale	NTS	



Key

XX	Total Vehicles
XX	HGVs
XX	HGV %
XX	PCUs
	Development Site

AECOM	Project	Dafen, Llanelli	Drawn	BB	**Notes:**
	Title	2028 Base + Development: AM Peak Hour (08:15-09:15)	Verified	LC	1. Includes traffic growth, committed development and proposed development.
AECOM Limited 1 Callaghan Square Cardiff CF10 5BT United Kingdom www.aecom.com	Fig No.	-	Checked	SP	
	Client	Persimmon Homes West Wales	Approved	JD	
	Date	27/01/2022	Scale	NTS	



Key

XX	Total Vehicles
XX	HGVs
XX	HGV %
XX	PCUs
	Development Site

AECOM	Project	Dafen, Llanelli	Drawn	BB	**Notes:**
	Title	2028 Base + Development: PM Peak Hour (16:30-17:30)	Verified	LC	1. Includes traffic growth, committed development and proposed development.
AECOM Limited 1 Callaghan Square Cardiff CF10 5BT United Kingdom www.aecom.com	Fig No.	-	Checked	SP	
	Client	Persimmon Homes West Wales	Approved	JD	
	Date	27/01/2022	Scale	NTS	

Appendix F:

Junction Modelling Results

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: J1 - Industrial Park Roundabout v3.j9
Path: L:\Legacy\UKBRI2FP001\VOL1TP\projects\Development Planning\Cardiff Office Work\Dafen, Llanelli\Analysis\Junction Models\Version 3 Jan 2022 Update
Report generation date: 27/01/2022 15:41:13

Summary of junction performance

	AM			PM		
	Set ID	Queue (PCU)	RFC	Set ID	Queue (PCU)	RFC
	2019 Base					
Arm A	D1	1.2	0.53	D2	1.0	0.50
Arm B		0.0	0.00		0.0	0.00
Arm C		0.7	0.38		0.9	0.47
Arm D		0.7	0.41		1.0	0.51
	2023 Base					
Arm A	D3	1.3	0.56	D4	1.1	0.52
Arm B		0.0	0.00		0.0	0.00
Arm C		0.7	0.41		1.0	0.49
Arm D		0.8	0.44		1.3	0.56
	2023 Base + Dev					
Arm A	D5	1.4	0.57	D6	1.2	0.54
Arm B		0.1	0.07		0.0	0.03
Arm C		0.8	0.42		1.0	0.51
Arm D		0.8	0.45		1.4	0.58
	2028 Base					
Arm A	D7	1.5	0.59	D8	1.2	0.55
Arm B		0.0	0.00		0.0	0.00
Arm C		0.8	0.43		1.1	0.52
Arm D		0.9	0.46		1.5	0.60
	2028 Base + Dev					
Arm A	D9	1.5	0.59	D10	1.3	0.56
Arm B		0.1	0.08		0.0	0.04
Arm C		0.8	0.44		1.2	0.53
Arm D		0.9	0.47		1.6	0.61

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.

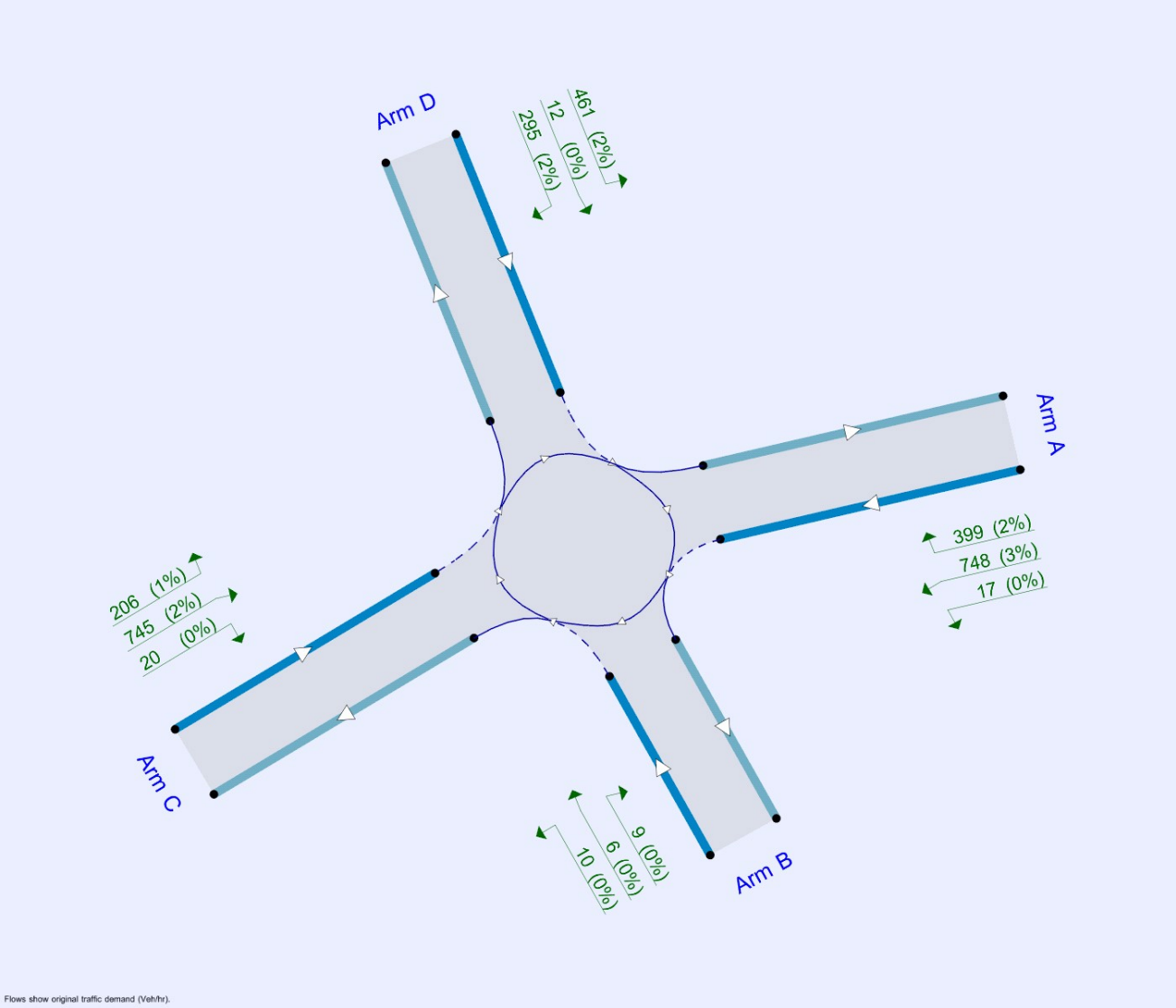
File summary

File Description

Title	Industrial Park Roundabout
Location	Dafen, Llanelli
Site number	
Date	14/11/2019
Version	
Status	
Identifier	
Client	Persimmon Homes West Wales
Jobnumber	60615588
Enumerator	EU\Benjamin.Burton1
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	Veh	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2019 Base	AM	ONE HOUR	08:00	09:30	15
D2	2019 Base	PM	ONE HOUR	16:15	17:45	15
D3	2023 Base	AM	ONE HOUR	08:00	09:30	15
D4	2023 Base	PM	ONE HOUR	16:15	17:45	15
D5	2023 Base + Dev	AM	ONE HOUR	08:00	09:30	15
D6	2023 Base + Dev	PM	ONE HOUR	16:15	17:45	15
D7	2028 Base	AM	ONE HOUR	08:00	09:30	15
D8	2028 Base	PM	ONE HOUR	16:15	17:45	15
D9	2028 Base + Dev	AM	ONE HOUR	08:00	09:30	15
D10	2028 Base + Dev	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2019 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
1	Industrial Park Roundabout	Standard Roundabout		A, B, C, D	3.38	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A4138 E	
B	Site Access	
C	A4138 W	
D	Lethri Rd	

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	7.15	8.89	35.6	32.1	50.5	36.0	
B	4.86	7.33	3.8	39.3	50.5	17.0	
C	6.82	8.03	38.6	20.7	50.5	32.0	
D	6.58	6.58	0.0	30.0	50.5	38.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.779	2616
B	0.651	1833
C	0.734	2387
D	0.654	1971

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2019 Base	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1117	100.000
B		✓	0	100.000
C		✓	682	100.000
D		✓	562	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	774	343
	B	0	0	0	0
	C	479	0	0	203
	D	364	0	198	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	5
	B	0	0	0	0
	C	9	0	0	2
	D	7	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.53	3.29	1.2	A
B	0.00	0.00	0.0	A
C	0.38	2.98	0.7	A
D	0.41	4.06	0.7	A

2019 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
1	Industrial Park Roundabout	Standard Roundabout		A, B, C, D	3.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2019 Base	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1050	100.000
B		✓	0	100.000
C		✓	869	100.000
D		✓	665	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	686	364
	B	0	0	0	0
	C	683	0	0	186
	D	411	0	254	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	2
	B	0	0	0	0
	C	2	0	0	1
	D	2	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.50	3.06	1.0	A
B	0.00	0.00	0.0	A
C	0.47	3.29	0.9	A
D	0.51	5.08	1.0	A

2023 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
1	Industrial Park Roundabout	Standard Roundabout		A, B, C, D	3.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 Base	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1177	100.000
B		✓	0	100.000
C		✓	727	100.000
D		✓	592	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	808	369
	B	0	0	0	0
	C	500	0	0	227
	D	382	0	210	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	5
	B	0	0	0	0
	C	9	0	0	2
	D	7	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.56	3.54	1.3	A
B	0.00	0.00	0.0	A
C	0.41	3.15	0.7	A
D	0.44	4.29	0.8	A

2023 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
1	Industrial Park Roundabout	Standard Roundabout		A, B, C, D	4.01	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 Base	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1098	100.000
B		✓	0	100.000
C		✓	910	100.000
D		✓	725	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	716	382
	B	0	0	0	0
	C	713	0	0	197
	D	442	0	283	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	2
	B	0	0	0	0
	C	2	0	0	1
	D	2	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.52	3.28	1.1	A
B	0.00	0.00	0.0	A
C	0.49	3.48	1.0	A
D	0.56	5.80	1.3	A

2023 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
1	Industrial Park Roundabout	Standard Roundabout		A, B, C, D	3.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 Base + Dev	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1184	100.000
B		✓	53	100.000
C		✓	735	100.000
D		✓	597	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	7	808	369
	B	18	0	22	13
	C	500	8	0	227
	D	382	5	210	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	5
	B	0	0	0	0
	C	9	0	0	2
	D	7	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.57	3.60	1.4	A
B	0.07	4.92	0.1	A
C	0.42	3.24	0.8	A
D	0.45	4.41	0.8	A

2023 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
1	Industrial Park Roundabout	Standard Roundabout		A, B, C, D	4.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 Base + Dev	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1115	100.000
B		✓	25	100.000
C		✓	930	100.000
D		✓	737	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	17	716	382
	B	9	0	10	6
	C	713	20	0	197
	D	442	12	283	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	2
	B	0	0	0	0
	C	2	0	0	1
	D	2	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.54	3.41	1.2	A
B	0.03	4.56	0.0	A
C	0.51	3.60	1.0	A
D	0.58	6.13	1.4	A

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
1	Industrial Park Roundabout	Standard Roundabout		A, B, C, D	3.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 Base	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1228	100.000
B		✓	0	100.000
C		✓	758	100.000
D		✓	618	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	843	385
	B	0	0	0	0
	C	522	0	0	236
	D	399	0	219	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	5
	B	0	0	0	0
	C	9	0	0	2
	D	7	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.59	3.77	1.5	A
B	0.00	0.00	0.0	A
C	0.43	3.29	0.8	A
D	0.46	4.54	0.9	A

2028 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
1	Industrial Park Roundabout	Standard Roundabout		A, B, C, D	4.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 Base	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1147	100.000
B		✓	0	100.000
C		✓	951	100.000
D		✓	756	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	748	399
	B	0	0	0	0
	C	745	0	0	206
	D	461	0	295	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	2
	B	0	0	0	0
	C	2	0	0	1
	D	2	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.55	3.48	1.2	A
B	0.00	0.00	0.0	A
C	0.52	3.69	1.1	A
D	0.60	6.39	1.5	A

2028 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
1	Industrial Park Roundabout	Standard Roundabout		A, B, C, D	3.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 Base + Dev	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1235	100.000
B		✓	53	100.000
C		✓	766	100.000
D		✓	623	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	7	843	385
	B	18	0	22	13
	C	522	8	0	236
	D	399	5	219	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	5
	B	0	0	0	0
	C	9	0	0	2
	D	7	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.59	3.85	1.5	A
B	0.08	5.24	0.1	A
C	0.44	3.39	0.8	A
D	0.47	4.67	0.9	A

2028 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
1	Industrial Park Roundabout	Standard Roundabout		A, B, C, D	4.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 Base + Dev	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1164	100.000
B		✓	25	100.000
C		✓	971	100.000
D		✓	768	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	17	748	399
	B	9	0	10	6
	C	745	20	0	206
	D	461	12	295	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	2
	B	0	0	0	0
	C	2	0	0	1
	D	2	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.56	3.64	1.3	A
B	0.04	4.83	0.0	A
C	0.53	3.82	1.2	A
D	0.61	6.79	1.6	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

For sales and distribution information, program advice and maintenance, contact TRL:
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Filename: J2 - A4138_B4303 Roundabout v3.j9
Path: L:\Legacy\UKBRI2FP001\VOL1TP\projects\Development Planning\Cardiff Office Work\Dafen, Llanelli\Analysis\Junction Models\Version 3 Jan 2022 Update
Report generation date: 27/01/2022 16:03:03

Summary of junction performance

	AM			PM		
	Set ID	Queue (PCU)	RFC	Set ID	Queue (PCU)	RFC
	2019 Base					
Arm A	D1	6.1	0.86	D2	6.1	0.87
Arm B		2.0	0.67		0.8	0.46
Arm C		1.8	0.63		2.1	0.68
Arm D		1.3	0.55		2.5	0.71
	2023 Base					
Arm A	D3	9.2	0.91	D4	10.8	0.93
Arm B		2.7	0.74		1.0	0.50
Arm C		2.2	0.68		2.5	0.72
Arm D		1.5	0.60		3.1	0.76
	2023 Base + Dev					
Arm A	D5	10.6	0.93	D6	12.0	0.94
Arm B		2.9	0.75		1.0	0.51
Arm C		2.3	0.69		2.7	0.73
Arm D		1.6	0.60		3.3	0.77
	2028 Base					
Arm A	D7	15.4	0.96	D8	19.4	0.98
Arm B		3.9	0.81		1.2	0.55
Arm C		2.7	0.72		3.0	0.76
Arm D		1.8	0.63		4.2	0.81
	2028 Base + Dev					
Arm A	D9	18.3	0.97	D10	22.1	0.99
Arm B		4.1	0.82		1.2	0.55
Arm C		2.8	0.73		3.3	0.77
Arm D		1.8	0.64		4.5	0.83

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

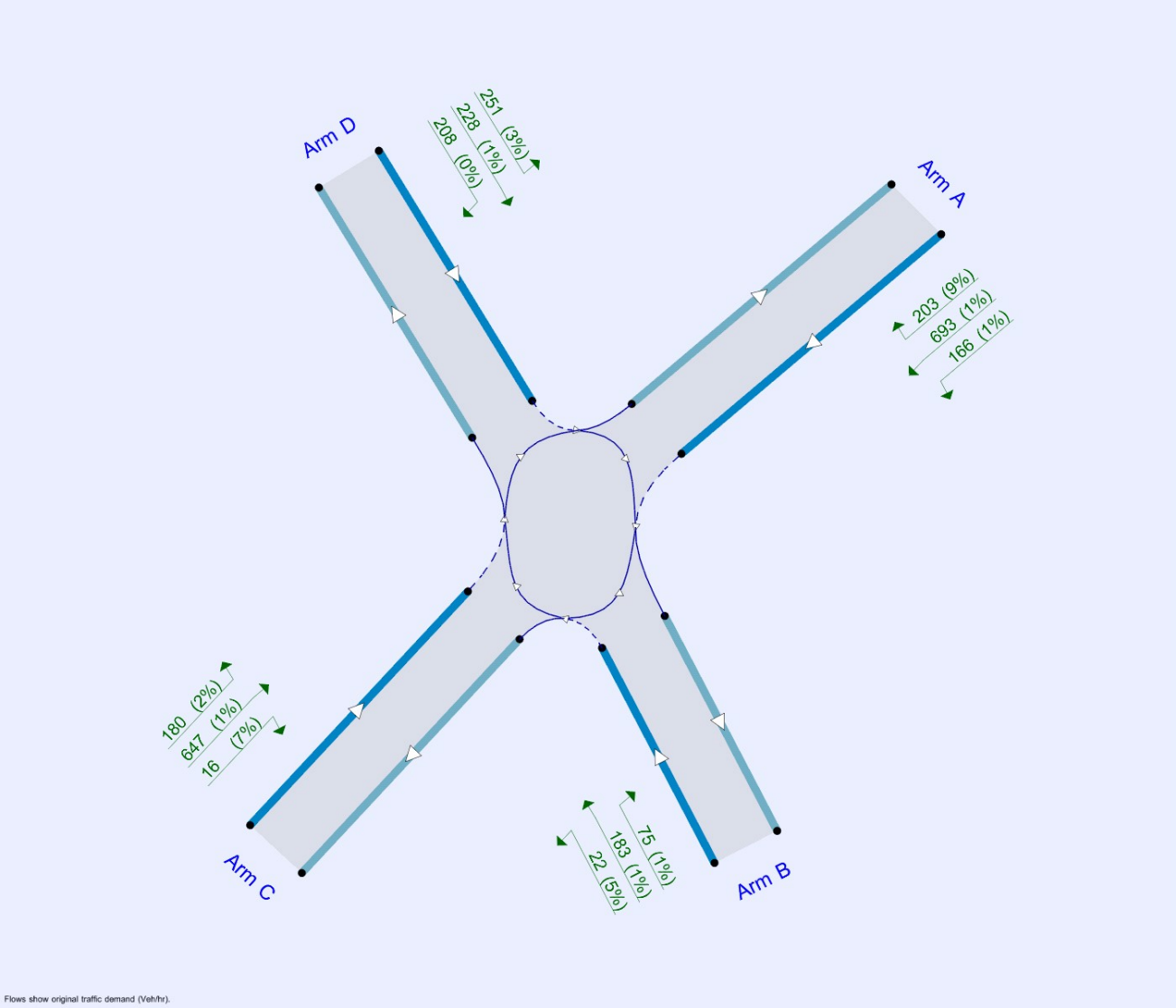
File summary

File Description

Title	A4138/B4303 Roundabout
Location	Dafen, Llanelli
Site number	
Date	14/11/2019
Version	
Status	
Identifier	
Client	Persimmon Homes West Wales
Jobnumber	60615588
Enumerator	EU\Benjamin.Burton1
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	Veh	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2019 Base	AM	ONE HOUR	08:00	09:30	15
D2	2019 Base	PM	ONE HOUR	16:15	17:45	15
D3	2023 Base	AM	ONE HOUR	08:00	09:30	15
D4	2023 Base	PM	ONE HOUR	16:15	17:45	15
D5	2023 Base + Dev	AM	ONE HOUR	08:00	09:30	15
D6	2023 Base + Dev	PM	ONE HOUR	16:15	17:45	15
D7	2028 Base	AM	ONE HOUR	08:00	09:30	15
D8	2028 Base	PM	ONE HOUR	16:15	17:45	15
D9	2028 Base + Dev	AM	ONE HOUR	08:00	09:30	15
D10	2028 Base + Dev	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2019 Base, AM

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
2	A4138/B4303 Roundabout	Standard Roundabout		A, B, C, D	14.93	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A4138 N	
B	B4303 S	
C	A4138 S	
D	B4303 N	

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	3.50	6.43	7.3	25.0	34.8	18.0	
B	3.50	5.97	3.4	11.9	34.8	32.5	
C	3.50	6.98	7.5	31.6	34.8	22.0	
D	3.50	5.75	7.0	17.0	34.8	22.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.632	1524
B	0.544	1232
C	0.636	1553
D	0.602	1424

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2019 Base	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	954	100.000
B		✓	355	100.000
C		✓	605	100.000
D		✓	509	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	88	589	277
	B	101	0	30	224
	C	400	11	0	194
	D	183	179	147	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	5	6	4
	B	5	0	0	2
	C	7	0	0	3
	D	9	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.86	20.87	6.1	C
B	0.67	18.84	2.0	C
C	0.63	9.16	1.8	A
D	0.55	8.01	1.3	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	756	260	1360	0.556	751	1.3	6.178	A
B	274	794	800	0.343	272	0.5	6.982	A
C	481	465	1257	0.382	478	0.6	4.864	A
D	403	408	1178	0.342	401	0.5	4.861	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	903	311	1327	0.680	900	2.2	8.793	A
B	328	952	714	0.459	326	0.9	9.501	A
C	574	558	1199	0.479	573	1.0	6.062	A
D	481	489	1129	0.426	481	0.8	5.829	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1106	381	1284	0.862	1092	5.7	18.559	C
B	401	1156	603	0.666	397	1.9	17.632	C
C	703	677	1122	0.627	700	1.7	8.939	A
D	590	597	1064	0.554	588	1.3	7.910	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1106	382	1283	0.862	1105	6.1	20.871	C
B	401	1168	596	0.673	401	2.0	18.843	C
C	703	685	1118	0.629	703	1.8	9.159	A
D	590	600	1063	0.555	590	1.3	8.006	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	903	313	1326	0.681	918	2.3	9.623	A
B	328	969	705	0.465	332	0.9	10.044	B
C	574	568	1192	0.482	577	1.0	6.217	A
D	481	493	1127	0.427	483	0.8	5.907	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	756	262	1359	0.557	760	1.3	6.377	A
B	274	804	795	0.345	276	0.5	7.146	A
C	481	471	1254	0.384	482	0.7	4.937	A
D	403	412	1176	0.343	404	0.6	4.916	A

2019 Base, 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
2	A4138/B4303 Roundabout	Standard Roundabout		A, B, C, D	14.75	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2019 Base	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	946	100.000
B		✓	257	100.000
C		✓	756	100.000
D		✓	625	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	152	614	180
	B	69	0	20	168
	C	576	15	0	165
	D	225	209	191	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	1	9
	B	1	0	5	1
	C	1	7	0	2
	D	4	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.87	21.56	6.1	C
B	0.46	10.64	0.8	B
C	0.68	8.99	2.1	A
D	0.71	12.99	2.5	B

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	730	313	1327	0.550	725	1.2	6.088	A
B	196	753	822	0.238	195	0.3	5.802	A
C	577	326	1346	0.428	574	0.8	4.705	A
D	479	500	1123	0.427	476	0.7	5.638	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	872	375	1287	0.677	868	2.1	8.738	A
B	234	902	741	0.316	233	0.5	7.174	A
C	689	390	1305	0.528	687	1.1	5.890	A
D	572	599	1063	0.538	570	1.2	7.405	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1068	457	1235	0.864	1054	5.7	18.963	C
B	287	1096	636	0.451	285	0.8	10.361	B
C	844	475	1251	0.674	840	2.0	8.793	A
D	700	732	983	0.712	695	2.4	12.513	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1068	460	1233	0.866	1066	6.1	21.563	C
B	287	1108	629	0.456	287	0.8	10.638	B
C	844	479	1249	0.676	843	2.1	8.994	A
D	700	735	981	0.714	700	2.5	12.991	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	872	379	1285	0.679	887	2.2	9.626	A
B	234	920	731	0.320	235	0.5	7.377	A
C	689	396	1302	0.529	692	1.2	6.024	A
D	572	603	1061	0.539	577	1.2	7.653	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	730	316	1325	0.551	734	1.3	6.290	A
B	196	762	817	0.240	197	0.3	5.882	A
C	577	329	1344	0.429	578	0.8	4.774	A
D	479	504	1120	0.427	481	0.8	5.745	A

2023 Base, AM

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
2	A4138/B4303 Roundabout	Standard Roundabout		A, B, C, D	20.13	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 Base	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1000	100.000
B		✓	370	100.000
C		✓	644	100.000
D		✓	536	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	92	618	290
	B	105	0	31	234
	C	430	11	0	203
	D	195	187	154	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	5	6	4
	B	5	0	0	2
	C	7	0	0	3
	D	9	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.91	30.47	9.2	D
B	0.74	24.50	2.7	C
C	0.68	10.83	2.2	B
D	0.60	9.07	1.5	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	793	271	1353	0.586	787	1.5	6.638	A
B	286	833	779	0.367	284	0.6	7.430	A
C	512	486	1244	0.412	509	0.7	5.151	A
D	425	435	1162	0.366	422	0.6	5.107	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	947	325	1319	0.718	942	2.6	9.955	A
B	342	997	690	0.495	340	1.0	10.526	B
C	611	582	1183	0.517	610	1.1	6.616	A
D	507	521	1110	0.457	506	0.9	6.261	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1160	398	1273	0.911	1137	8.2	24.632	C
B	418	1205	576	0.726	412	2.5	21.786	C
C	749	704	1105	0.678	745	2.1	10.425	B
D	621	635	1041	0.597	619	1.5	8.909	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1160	399	1272	0.912	1156	9.2	30.472	D
B	418	1223	567	0.738	417	2.7	24.503	C
C	749	714	1099	0.681	749	2.2	10.834	B
D	621	640	1039	0.598	621	1.5	9.065	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	947	328	1317	0.719	972	2.8	11.749	B
B	342	1025	674	0.507	348	1.1	11.558	B
C	611	598	1173	0.521	616	1.2	6.872	A
D	507	527	1106	0.458	510	0.9	6.377	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	793	274	1351	0.587	798	1.5	6.915	A
B	286	843	773	0.370	288	0.6	7.651	A
C	512	493	1240	0.413	514	0.8	5.250	A
D	425	439	1159	0.366	426	0.6	5.174	A

2023 Base, 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
2	A4138/B4303 Roundabout	Standard Roundabout		A, B, C, D	21.66	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 Base	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1007	100.000
B		✓	268	100.000
C		✓	792	100.000
D		✓	653	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	159	656	192
	B	72	0	21	175
	C	604	16	0	172
	D	236	218	199	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	1	9
	B	1	0	5	1
	C	1	7	0	2
	D	4	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.93	36.52	10.8	E
B	0.50	12.37	1.0	B
C	0.72	10.42	2.5	B
D	0.76	15.93	3.1	C

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	777	326	1318	0.590	771	1.4	6.685	A
B	204	800	797	0.257	203	0.3	6.132	A
C	604	343	1335	0.453	601	0.8	4.947	A
D	500	524	1108	0.451	497	0.8	5.962	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	928	391	1277	0.727	923	2.6	10.296	B
B	244	958	711	0.343	243	0.5	7.794	A
C	722	411	1292	0.558	720	1.3	6.355	A
D	597	628	1046	0.571	595	1.3	8.098	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1137	476	1223	0.929	1110	9.2	27.753	D
B	299	1155	604	0.495	297	1.0	11.829	B
C	884	498	1237	0.715	879	2.4	10.069	B
D	732	766	962	0.760	725	3.0	15.005	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1137	480	1221	0.931	1131	10.8	36.516	E
B	299	1174	593	0.504	299	1.0	12.371	B
C	884	504	1233	0.717	883	2.5	10.418	B
D	732	770	960	0.762	731	3.1	15.934	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	928	397	1274	0.729	960	2.9	12.848	B
B	244	991	692	0.352	246	0.6	8.200	A
C	722	420	1286	0.561	726	1.3	6.574	A
D	597	633	1042	0.573	604	1.4	8.495	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	777	330	1316	0.591	783	1.5	6.992	A
B	204	811	790	0.259	205	0.4	6.242	A
C	604	347	1333	0.453	606	0.8	5.036	A
D	500	529	1105	0.453	503	0.9	6.097	A

2023 Base + Dev, AM

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
2	A4138/B4303 Roundabout	Standard Roundabout		A, B, C, D	22.09	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 Base + Dev	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1022	100.000
B		✓	370	100.000
C		✓	651	100.000
D		✓	538	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	92	635	295
	B	105	0	31	234
	C	437	11	0	203
	D	197	187	154	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	5	5	4
	B	5	0	0	2
	C	7	0	0	3
	D	9	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.93	34.49	10.6	D
B	0.75	26.03	2.9	D
C	0.69	11.20	2.3	B
D	0.60	9.23	1.6	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	806	271	1353	0.596	800	1.5	6.744	A
B	286	845	772	0.370	284	0.6	7.531	A
C	518	490	1242	0.417	515	0.7	5.209	A
D	426	441	1158	0.368	424	0.6	5.142	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	962	325	1319	0.730	957	2.7	10.289	B
B	342	1012	681	0.501	340	1.0	10.770	B
C	618	587	1180	0.524	617	1.1	6.728	A
D	509	528	1106	0.460	508	0.9	6.325	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1178	397	1273	0.926	1152	9.2	26.815	D
B	418	1221	568	0.737	412	2.6	22.814	C
C	757	709	1103	0.687	753	2.2	10.738	B
D	623	643	1036	0.602	621	1.6	9.060	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1178	399	1272	0.926	1173	10.6	34.490	D
B	418	1240	557	0.751	417	2.9	26.026	D
C	757	719	1096	0.691	757	2.3	11.200	B
D	623	648	1034	0.603	623	1.6	9.228	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	962	328	1317	0.730	992	3.0	12.600	B
B	342	1045	663	0.515	349	1.1	11.990	B
C	618	605	1169	0.529	623	1.2	7.017	A
D	509	534	1102	0.462	512	0.9	6.450	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	806	274	1351	0.596	811	1.6	7.048	A
B	286	857	766	0.373	288	0.6	7.767	A
C	518	497	1237	0.418	519	0.8	5.312	A
D	426	445	1156	0.369	428	0.6	5.213	A

2023 Base + Dev, 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
2	A4138/B4303 Roundabout	Standard Roundabout		A, B, C, D	23.44	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 Base + Dev	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1018	100.000
B		✓	268	100.000
C		✓	808	100.000
D		✓	658	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	159	664	195
	B	72	0	21	175
	C	620	16	0	172
	D	241	218	199	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	1	9
	B	1	0	5	1
	C	1	7	0	2
	D	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.94	40.17	12.0	E
B	0.51	12.63	1.0	B
C	0.73	11.04	2.7	B
D	0.77	16.87	3.3	C

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	786	326	1318	0.596	780	1.5	6.788	A
B	204	809	792	0.258	203	0.3	6.174	A
C	616	345	1334	0.462	613	0.9	5.037	A
D	502	536	1101	0.456	499	0.8	6.032	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	938	391	1277	0.735	933	2.7	10.582	B
B	244	968	705	0.346	243	0.5	7.884	A
C	736	414	1290	0.570	734	1.3	6.537	A
D	600	642	1037	0.578	598	1.4	8.272	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1149	476	1224	0.939	1120	10.1	29.568	D
B	299	1164	598	0.500	297	1.0	12.036	B
C	901	501	1235	0.730	896	2.6	10.615	B
D	735	784	952	0.772	728	3.2	15.775	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1149	480	1221	0.941	1141	12.0	40.172	E
B	299	1185	587	0.509	299	1.0	12.628	B
C	901	507	1231	0.732	901	2.7	11.037	B
D	735	788	949	0.774	734	3.3	16.869	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	938	397	1273	0.737	974	3.0	13.704	B
B	244	1006	685	0.356	246	0.6	8.346	A
C	736	424	1283	0.573	741	1.4	6.794	A
D	600	648	1033	0.581	608	1.4	8.722	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	786	330	1316	0.597	792	1.5	7.121	A
B	204	820	786	0.260	205	0.4	6.295	A
C	616	350	1331	0.463	618	0.9	5.135	A
D	502	541	1098	0.458	505	0.9	6.176	A

2028 Base, AM

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
2	A4138/B4303 Roundabout	Standard Roundabout		A, B, C, D	29.10	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 Base	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1044	100.000
B		✓	387	100.000
C		✓	671	100.000
D		✓	558	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	96	645	303
	B	110	0	33	244
	C	448	12	0	211
	D	203	195	160	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	5	6	4
	B	5	0	0	2
	C	7	0	0	3
	D	9	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.96	48.23	15.4	E
B	0.81	33.69	3.9	D
C	0.72	12.59	2.7	B
D	0.63	10.08	1.8	B

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	828	283	1345	0.615	821	1.7	7.147	A
B	299	868	760	0.394	297	0.7	7.938	A
C	534	507	1231	0.434	530	0.8	5.404	A
D	442	454	1150	0.384	440	0.7	5.310	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	989	339	1310	0.755	983	3.1	11.386	B
B	357	1039	667	0.536	355	1.2	11.797	B
C	637	607	1167	0.546	635	1.2	7.126	A
D	528	544	1096	0.482	527	1.0	6.635	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1211	414	1263	0.959	1174	12.4	33.579	D
B	438	1245	555	0.789	429	3.4	27.646	D
C	780	729	1089	0.716	775	2.6	11.902	B
D	647	662	1025	0.631	643	1.7	9.844	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1211	416	1261	0.960	1199	15.4	48.231	E
B	438	1269	542	0.808	436	3.9	33.688	D
C	780	743	1081	0.722	780	2.7	12.593	B
D	647	667	1022	0.633	646	1.8	10.079	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	989	342	1308	0.756	1036	3.4	16.117	C
B	357	1089	640	0.559	367	1.3	14.044	B
C	637	634	1150	0.554	642	1.3	7.564	A
D	528	552	1091	0.484	531	1.0	6.799	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	828	285	1344	0.616	835	1.7	7.546	A
B	299	881	752	0.398	302	0.7	8.252	A
C	534	516	1225	0.435	536	0.8	5.529	A
D	442	459	1147	0.385	443	0.7	5.394	A

2028 Base, 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
2	A4138/B4303 Roundabout	Standard Roundabout		A, B, C, D	32.43	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 Base	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1051	100.000
B		✓	280	100.000
C		✓	827	100.000
D		✓	682	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	166	685	200
	B	75	0	22	183
	C	631	16	0	180
	D	246	228	208	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	1	9
	B	1	0	5	1
	C	1	7	0	2
	D	4	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.98	60.71	19.4	F
B	0.55	14.03	1.2	B
C	0.76	12.18	3.0	B
D	0.81	20.47	4.2	C

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	811	340	1309	0.620	805	1.6	7.226	A
B	214	835	778	0.275	212	0.4	6.432	A
C	631	358	1326	0.476	627	0.9	5.194	A
D	523	546	1095	0.477	519	0.9	6.364	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	969	408	1267	0.765	963	3.2	11.903	B
B	255	999	688	0.370	254	0.6	8.385	A
C	753	428	1281	0.588	751	1.4	6.861	A
D	624	655	1030	0.606	622	1.5	8.923	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1186	495	1211	0.979	1141	14.5	38.656	E
B	312	1190	585	0.534	310	1.1	13.186	B
C	923	516	1225	0.753	917	2.9	11.593	B
D	764	799	943	0.810	755	3.9	18.568	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1186	501	1208	0.982	1166	19.4	60.711	F
B	312	1214	572	0.546	312	1.2	14.033	B
C	923	523	1221	0.756	922	3.0	12.184	B
D	764	804	940	0.813	763	4.2	20.469	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	969	416	1261	0.768	1032	3.6	19.956	C
B	255	1061	654	0.390	257	0.7	9.228	A
C	753	445	1270	0.593	760	1.5	7.224	A
D	624	662	1025	0.609	634	1.6	9.599	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	811	345	1306	0.621	819	1.7	7.684	A
B	214	849	770	0.277	215	0.4	6.580	A
C	631	363	1323	0.477	633	0.9	5.308	A
D	523	552	1092	0.479	525	0.9	6.502	A

2028 Base + Dev, AM

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
2	A4138/B4303 Roundabout	Standard Roundabout		A, B, C, D	32.59	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 Base + Dev	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1066	100.000
B		✓	387	100.000
C		✓	678	100.000
D		✓	560	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	96	662	308
	B	110	0	33	244
	C	455	12	0	211
	D	205	195	160	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	5	5	4
	B	5	0	0	2
	C	7	0	0	3
	D	9	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.97	55.71	18.3	F
B	0.82	35.92	4.1	E
C	0.73	13.06	2.8	B
D	0.64	10.28	1.8	B

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	840	283	1345	0.625	834	1.7	7.272	A
B	299	880	753	0.397	297	0.7	8.054	A
C	539	511	1228	0.439	536	0.8	5.468	A
D	444	459	1147	0.387	441	0.7	5.349	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1003	339	1310	0.766	997	3.3	11.820	B
B	357	1054	659	0.542	355	1.2	12.096	B
C	644	612	1164	0.553	642	1.3	7.255	A
D	530	550	1092	0.485	529	1.0	6.707	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1229	414	1263	0.973	1186	14.1	36.800	E
B	438	1257	548	0.799	428	3.5	28.927	D
C	789	733	1087	0.725	783	2.7	12.282	B
D	649	670	1020	0.636	646	1.8	10.026	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1229	416	1261	0.974	1212	18.3	55.712	F
B	438	1282	534	0.819	435	4.1	35.917	E
C	789	747	1078	0.731	788	2.8	13.055	B
D	649	675	1017	0.638	649	1.8	10.277	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1003	342	1308	0.767	1062	3.7	18.483	C
B	357	1114	626	0.571	368	1.4	14.877	B
C	644	642	1145	0.562	649	1.4	7.760	A
D	530	559	1087	0.487	533	1.0	6.879	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	840	285	1344	0.625	848	1.8	7.712	A
B	299	895	745	0.401	302	0.7	8.392	A
C	539	520	1222	0.441	541	0.8	5.602	A
D	444	465	1144	0.388	445	0.7	5.435	A

2028 Base + Dev, 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
2	A4138/B4303 Roundabout	Standard Roundabout		A, B, C, D	35.51	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 Base + Dev	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1062	100.000
B		✓	280	100.000
C		✓	843	100.000
D		✓	687	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	166	693	203
	B	75	0	22	183
	C	647	16	0	180
	D	251	228	208	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	1	9
	B	1	0	5	1
	C	1	7	0	2
	D	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.99	67.34	22.1	F
B	0.55	14.27	1.2	B
C	0.77	13.01	3.3	B
D	0.83	22.00	4.5	C

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	820	340	1309	0.626	813	1.7	7.344	A
B	214	843	773	0.276	212	0.4	6.484	A
C	643	360	1324	0.486	639	0.9	5.296	A
D	525	559	1087	0.482	521	0.9	6.402	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	979	408	1267	0.773	972	3.3	12.279	B
B	255	1009	683	0.373	254	0.6	8.488	A
C	768	431	1279	0.600	766	1.5	7.070	A
D	626	669	1021	0.614	624	1.6	9.136	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1199	495	1212	0.989	1148	15.9	41.301	E
B	312	1198	580	0.538	310	1.1	13.389	B
C	940	518	1224	0.769	934	3.2	12.297	B
D	767	816	933	0.823	757	4.2	19.678	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1199	501	1208	0.993	1174	22.1	67.343	F
B	312	1222	567	0.551	312	1.2	14.274	B
C	940	525	1219	0.771	940	3.3	13.005	B
D	767	821	929	0.825	766	4.5	22.001	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	979	417	1261	0.776	1052	3.8	22.920	C
B	255	1080	644	0.396	257	0.7	9.477	A
C	768	450	1267	0.606	775	1.6	7.507	A
D	626	677	1016	0.616	638	1.7	9.913	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	820	345	1306	0.627	828	1.8	7.843	A
B	214	858	765	0.279	215	0.4	6.641	A
C	643	365	1321	0.487	646	1.0	5.422	A
D	525	564	1084	0.484	527	1.0	6.593	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

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+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: J3 - A4138_A484 Roundabout v3.j9
Path: L:\Legacy\UKBRI2FP001\VOL1TP\projects\Development Planning\Cardiff Office Work\Dafen, Llanelli\Analysis\Junction Models\Version 3 Jan 2022 Update
Report generation date: 27/01/2022 16:32:48

Summary of junction performance

	AM			PM		
	Set ID	Queue (PCU)	RFC	Set ID	Queue (PCU)	RFC
	2019 Base					
Arm A	D1	1.7	0.62	D2	1.3	0.56
Arm B		0.9	0.46		1.7	0.63
Arm E		1.0	0.48		0.9	0.48
Arm F		4.6	0.83		20.2	1.00
	2023 Base					
Arm A	D3	2.0	0.66	D4	1.5	0.60
Arm B		1.0	0.49		2.0	0.67
Arm E		1.1	0.51		1.1	0.52
Arm F		7.6	0.90		42.2	1.07
	2023 Base + Dev					
Arm A	D5	2.1	0.67	D6	1.5	0.60
Arm B		1.0	0.49		2.1	0.67
Arm E		1.1	0.52		1.1	0.52
Arm F		7.8	0.90		47.7	1.09
	2028 Base					
Arm A	D7	2.3	0.69	D8	1.7	0.62
Arm B		1.1	0.52		2.4	0.71
Arm E		1.2	0.54		1.2	0.55
Arm F		14.0	0.96		72.0	1.15
	2028 Base + Dev					
Arm A	D9	2.4	0.70	D10	1.7	0.63
Arm B		1.1	0.52		2.5	0.71
Arm E		1.3	0.55		1.3	0.56
Arm F		14.7	0.97		78.4	1.17

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

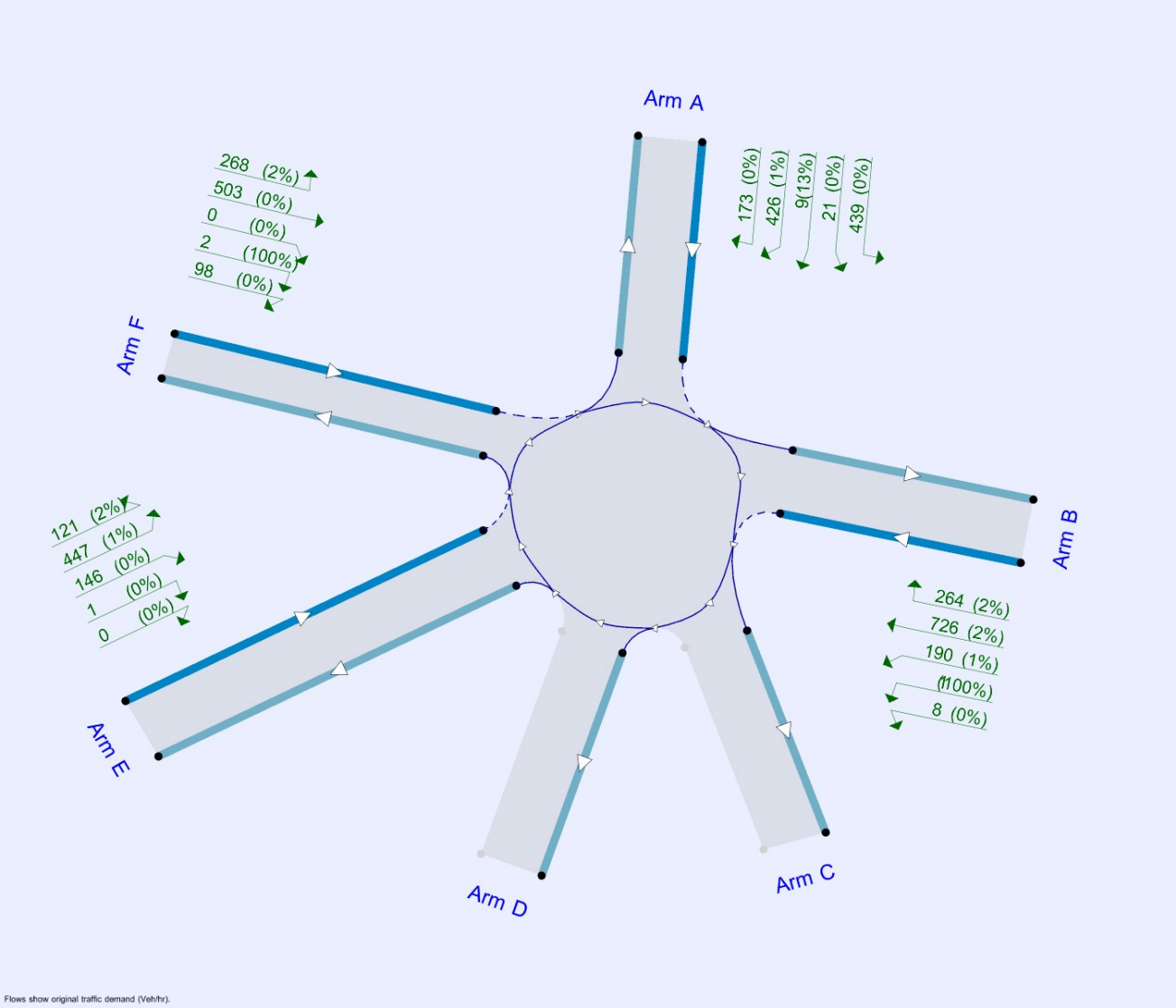
File summary

File Description

Title	A4138/A484 Roundabout
Location	Dafen, Llanelli
Site number	
Date	14/11/2019
Version	
Status	
Identifier	
Client	Persimmon Homes West Wales
Jobnumber	60615588
Enumerator	EU\Benjamin.Burton1
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	Veh	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2019 Base	AM	ONE HOUR	08:00	09:30	15
D2	2019 Base	PM	ONE HOUR	16:15	17:45	15
D3	2023 Base	AM	ONE HOUR	08:00	09:30	15
D4	2023 Base	PM	ONE HOUR	16:15	17:45	15
D5	2023 Base + Dev	AM	ONE HOUR	08:00	09:30	15
D6	2023 Base + Dev	PM	ONE HOUR	16:15	17:45	15
D7	2028 Base	AM	ONE HOUR	08:00	09:30	15
D8	2028 Base	PM	ONE HOUR	16:15	17:45	15
D9	2028 Base + Dev	AM	ONE HOUR	08:00	09:30	15
D10	2028 Base + Dev	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2019 Base, AM

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
3	A4138/A484 Roundabout	Standard Roundabout		A, B, C, D, E, F	8.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A4138 N	
B	A484 E	
C	Service Access	
D	Bus Only Access	
E	B4304	
F	A484 W	

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	7.00	7.90	2.5	23.9	67.9	20.5	
B	7.00	8.88	3.2	18.6	67.9	21.5	
C							✓
D							✓
E	4.81	7.20	24.6	25.8	80.3	14.5	
F	3.80	8.49	2.3	30.3	18.6	17.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.627	2339
B	0.630	2377
C		
D		
E	0.550	2140
F	0.627	1424

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2019 Base	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1029	100.000
B		✓	703	100.000
C				
D				
E		✓	649	100.000
F		✓	653	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A	B	C	D	E	F
From	A	0	286	41	4	340	358
	B	177	0	29	2	126	369
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	405	139	7	0	0	98
	F	186	365	3	3	96	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A	B	C	D	E	F
From	A	0	4	2	25	6	3
	B	5	0	3	100	4	3
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	5	4	14	0	0	6
	F	3	2	0	100	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.62	5.23	1.7	A
B	0.46	3.93	0.9	A
C				
D				
E	0.48	4.59	1.0	A
F	0.83	23.56	4.6	C

2019 Base, 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
3	A4138/A484 Roundabout	Standard Roundabout		A, B, C, D, E, F	22.62	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2019 Base	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	955	100.000
B		✓	1085	100.000
C				
D				
E		✓	646	100.000
F		✓	795	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A	B	C	D	E	F
From	A	0	395	19	8	379	154
	B	237	0	7	1	174	666
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	400	134	1	0	0	111
	F	242	461	0	2	90	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A	B	C	D	E	F
From	A	0	0	0	13	1	0
	B	2	0	0	100	1	2
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	1	0	0	0	0	2
	F	2	0	0	100	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.56	4.44	1.3	A
B	0.63	5.21	1.7	A
C				
D				
E	0.48	4.72	0.9	A
F	1.00	82.93	20.2	F

2023 Base, AM

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
3	A4138/A484 Roundabout	Standard Roundabout		A, B, C, D, E, F	12.01	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 Base	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1079	100.000
B		✓	738	100.000
C				
D				
E		✓	684	100.000
F		✓	683	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A	B	C	D	E	F
From	A	0	300	43	4	357	375
	B	189	0	30	2	132	385
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	430	145	7	0	0	102
	F	196	381	3	3	100	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A	B	C	D	E	F
From	A	0	4	2	25	6	3
	B	5	0	3	100	4	3
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	5	4	14	0	0	6
	F	3	2	0	100	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.66	5.83	2.0	A
B	0.49	4.24	1.0	A
C				
D				
E	0.51	5.01	1.1	A
F	0.90	37.46	7.6	E

2023 Base, 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
3	A4138/A484 Roundabout	Standard Roundabout		A, B, C, D, E, F	38.58	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 Base	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1012	100.000
B		✓	1133	100.000
C				
D				
E		✓	676	100.000
F		✓	831	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A	B	C	D	E	F
From	A	0	417	20	8	403	164
	B	248	0	7	1	182	695
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	419	140	1	0	0	116
	F	254	481	0	2	94	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A	B	C	D	E	F
From	A	0	0	0	13	1	0
	B	2	0	0	100	1	2
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	1	0	0	0	0	2
	F	2	0	0	100	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.60	4.81	1.5	A
B	0.67	5.86	2.0	A
C				
D				
E	0.52	5.14	1.1	A
F	1.07	151.88	42.2	F

2023 Base + Dev, AM

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
3	A4138/A484 Roundabout	Standard Roundabout		A, B, C, D, E, F	12.35	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 Base + Dev	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1097	100.000
B		✓	740	100.000
C				
D				
E		✓	688	100.000
F		✓	684	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A	B	C	D	E	F
From	A	0	306	43	4	366	378
	B	191	0	30	2	132	385
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	434	145	7	0	0	102
	F	197	381	3	3	100	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A	B	C	D	E	F
From	A	0	4	2	25	6	3
	B	4	0	3	100	4	3
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	5	4	14	0	0	6
	F	3	2	0	100	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.67	6.03	2.1	A
B	0.49	4.27	1.0	A
C				
D				
E	0.52	5.05	1.1	A
F	0.90	38.81	7.8	E

2023 Base + Dev, 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
3	A4138/A484 Roundabout	Standard Roundabout		A, B, C, D, E, F	42.55	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 Base + Dev	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1022	100.000
B		✓	1138	100.000
C				
D				
E		✓	685	100.000
F		✓	834	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A	B	C	D	E	F
From	A	0	420	20	8	408	166
	B	253	0	7	1	182	695
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	428	140	1	0	0	116
	F	257	481	0	2	94	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A	B	C	D	E	F
From	A	0	0	0	13	1	0
	B	2	0	0	100	1	2
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	1	0	0	0	0	2
	F	2	0	0	100	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.60	4.85	1.5	A
B	0.67	5.95	2.1	A
C				
D				
E	0.52	5.25	1.1	A
F	1.09	169.70	47.7	F

2028 Base, AM

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
3	A4138/A484 Roundabout	Standard Roundabout		A, B, C, D, E, F	18.32	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 Base	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1125	100.000
B		✓	770	100.000
C				
D				
E		✓	714	100.000
F		✓	714	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A	B	C	D	E	F
From	A	0	313	45	4	372	391
	B	197	0	32	2	137	402
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	448	151	8	0	0	107
	F	205	398	3	3	105	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A	B	C	D	E	F
From	A	0	4	2	25	6	3
	B	5	0	3	100	4	3
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	5	4	14	0	0	6
	F	3	2	0	100	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.69	6.54	2.3	A
B	0.52	4.57	1.1	A
C				
D				
E	0.54	5.45	1.2	A
F	0.96	65.09	14.0	F

2028 Base, 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
3	A4138/A484 Roundabout	Standard Roundabout		A, B, C, D, E, F	60.30	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 Base	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1058	100.000
B		✓	1184	100.000
C				
D				
E		✓	706	100.000
F		✓	868	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A	B	C	D	E	F
From	A	0	436	21	9	421	171
	B	259	0	8	1	190	726
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	438	146	1	0	0	121
	F	265	503	0	2	98	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A	B	C	D	E	F
From	A	0	0	0	13	1	0
	B	2	0	0	100	1	2
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	1	0	0	0	0	2
	F	2	0	0	100	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.62	5.13	1.7	A
B	0.71	6.65	2.4	A
C				
D				
E	0.55	5.65	1.2	A
F	1.15	245.79	72.0	F

2028 Base + Dev, AM

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
3	A4138/A484 Roundabout	Standard Roundabout		A, B, C, D, E, F	18.95	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2028 Base + Dev	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1143	100.000
B		✓	772	100.000
C				
D				
E		✓	718	100.000
F		✓	715	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A	B	C	D	E	F
From	A	0	319	45	4	381	394
	B	199	0	32	2	137	402
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	452	151	8	0	0	107
	F	206	398	3	3	105	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A	B	C	D	E	F
From	A	0	4	2	25	6	3
	B	4	0	3	100	4	3
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	5	4	14	0	0	6
	F	3	2	0	100	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.70	6.77	2.4	A
B	0.52	4.61	1.1	A
C				
D				
E	0.55	5.50	1.3	A
F	0.97	67.90	14.7	F

2028 Base + Dev, 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
3	A4138/A484 Roundabout	Standard Roundabout		A, B, C, D, E, F	65.15	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2028 Base + Dev	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	1068	100.000
B		✓	1189	100.000
C				
D				
E		✓	715	100.000
F		✓	871	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
		A	B	C	D	E	F
From	A	0	439	21	9	426	173
	B	264	0	8	1	190	726
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	447	146	1	0	0	121
	F	268	503	0	2	98	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
		A	B	C	D	E	F
From	A	0	0	0	13	1	0
	B	2	0	0	100	1	2
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	E	1	0	0	0	0	2
	F	2	0	0	100	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.63	5.17	1.7	A
B	0.71	6.77	2.5	A
C				
D				
E	0.56	5.78	1.3	A
F	1.17	267.76	78.4	F

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