SCP

Transportation Planning : Infrastructure Design

Transport Assessment

Proposed Residential Development

New Brighton Road, New Brighton, Mold

Stewart Milne Homes

June 2021

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1.0 INTRODUCTION

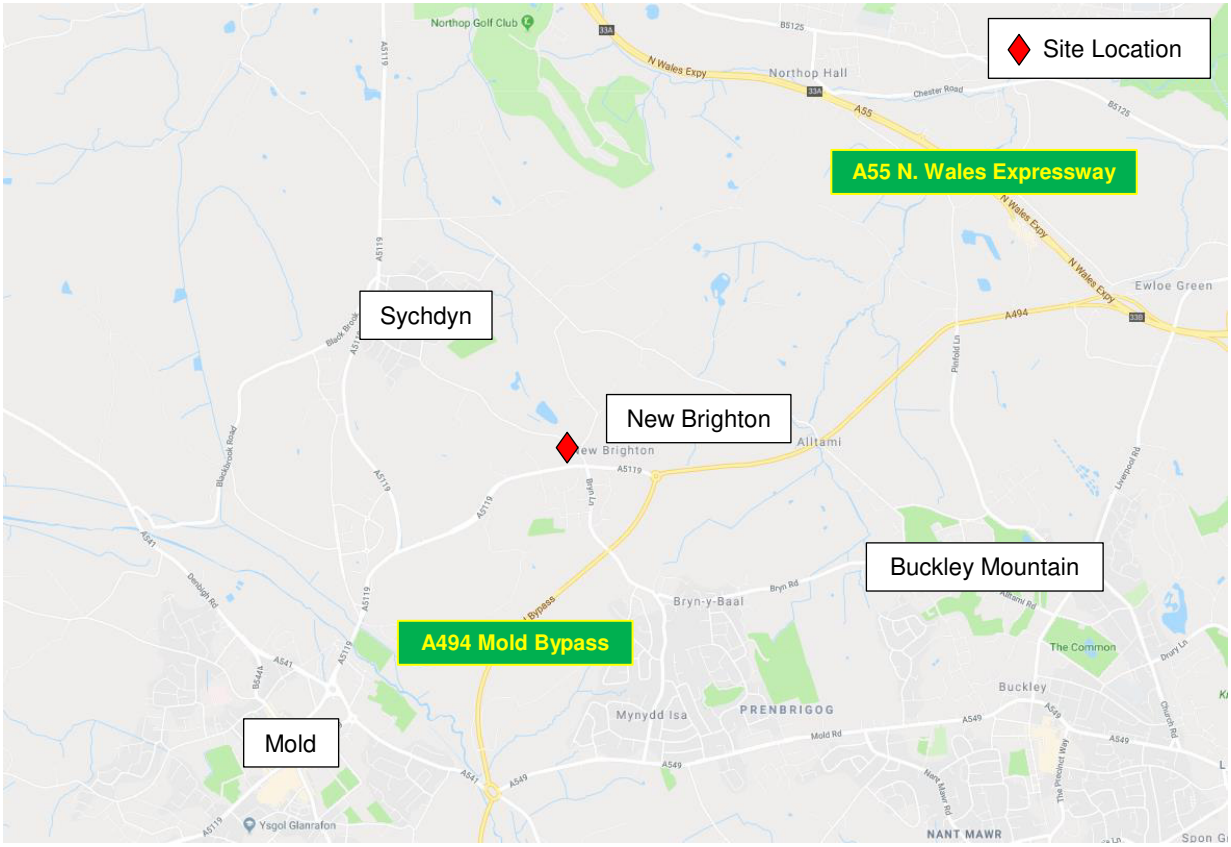
General

1.1 Stewart Milne Homes seek planning permission for a residential development of 84 dwellings on a plot of land situated to the south-west of Brighton New Road.

1.2 The application site is allocated for housing in the draft 'Flintshire Local Development Plan 2019' (ref Cae Isa, A5119, HN1.10) and has recently been supported by the Council in the examination of the Local Plan by the Welsh Government.

1.3 The location of the site in relation to the wider highway network is shown on **Figure 1.1** below and the site boundary in relation to the local highway network is shown in red on **Figure 1.2** overleaf:-

Figure 1.1 – Site Location – Wider Highway Network



Source: Google Images ©

Figure 1.2 – Site Location Plan – Local View

Source: Google Images ©

1.4 SCP has been appointed Stewart Milne Homes to prepare this Transport Assessment (TA) to accompany the planning application for the proposals.

1.5 This TA provides an assessment of the traffic and transport implications associated with the development proposals to inform Flintshire County Council (FCC), as local highway and planning authority, regarding the nature and magnitude of their impact.

1.6 It should be noted that the proposals for this site have previously been tested at a Planning Appeal and that there were no highway or transport grounds cited as reasons for refusal of planning permission.

Structure of This Report

1.7 The structure of this report is as follows:-

i) Chapter 2 – summarises relevant national and local transport policies and evaluated a Transport Implementation Strategy;

ii) Chapter 3 – provides an appraisal of the existing conditions of the site including an appraisal of the local highway network, existing traffic conditions and road safety record;

iii) Chapter 4 – provides an appraisal of the development proposals including the proposed site access arrangements, servicing arrangements and car parking;

iv) Chapter 5 – considers the scheme in relation to the existing and proposed sustainable transport infrastructure;

v) Chapter 6 – presents estimates of the trip generating potential of the scheme;

vi) Chapter 7 – sets out the methodologies for estimating the distribution of site traffic and assigning this traffic through the TA study area;

vii) Chapter 8 – describes the future baseline traffic conditions on the local highway network in relation to committed development traffic flows and traffic growth;

viii) Chapter 9 – presents an assessment of the impact of the development on the operational performance of the local highway network; and;

ix) Chapter 10 – provides the summary and conclusions to the above chapters.

2.0 POLICY CONTEXT AND TRANSPORT IMPLEMENTATION STRATEGY

Introduction

2.1 Technical Advice Note 18 (TAN 18) sets out the need for all TA supporting documents in Wales to include a Transport Implementation Strategy (TIS), which should include the following information in respect of each particular development proposal:-

i) Details of how the development and the TIS relate to transport planning policies and strategy. TIS's are intended to incorporate all the elements of a Travel Plan (TP) and to ensure that these are integrated with design elements of the new development;

ii) A set of objectives and targets relating to managing travel demand for the development;

iii) A framework for monitoring the objectives and targets, including the future modal split of transport to the development; and

iv) Details of measures proposed to improve access by public transport, walking and cycling to reduce the number and impacts of motorised journeys associated with the development.

2.2 This TIS section is therefore prepared having regard to the advice from TAN 18, as outlined above. It is considered that this TIS can be taken forward and used as a framework for a future detailed Travel Plan that can be secured as part of a planning condition, if considered necessary.

Policy Context - Planning Policy Wales (PPW)

2.3 In terms of the national transport policy that is relevant to the TIS, the latest 11th edition of PPW was published in February 2021 by the Welsh Government and sets out a framework for the Welsh planning authorities to prepare their development plans.

2.4 Paragraph 4.1.1 of PPW states that *"The planning system should enable people to access jobs and services through shorter, more efficient and sustainable journeys, by walking, cycling and public transport. By influencing the location, scale, density, mix of uses and design of new development, the planning system can improve choice in transport and secure accessibility in a way which supports sustainable development, increases physical activity, improves health and helps to tackle the causes of climate change and airborne pollution by:*

- *Enabling More Sustainable Travel Choices – measures to increase walking, cycling and public transport, reduce dependency on the car for daily travel;*

- *Network Management – measures to make best use of the available capacity, supported by targeted new infrastructure; and*
- *Demand Management – the application of strategies and policies to reduce travel demand, specifically that of single-occupancy private vehicles."*

2.5 Paragraph 4.1.4 of PPW states that *"Land use and transport planning must be integrated. The planning system must ensure it enables integration:*

- *within and between different types of transport;*
- *between transport measures and land use planning;*
- *between transport measures and policies to protect and improve the environment; and*
- *between transport measures and policies for education, health, social inclusion and wealth creation.*

2.6 Paragraph 4.1.27 of PPW states that the Active Travel (Wales) Act 2013 *"makes walking and cycling the preferred option for shorter journeys, particularly everyday journeys, such as to and from a workplace or education establishment, or in order to access health, leisure or other services or facilities. The Active Travel Act requires local authorities to produce Integrated Network Maps, identifying the walking and cycling routes required to create fully integrated networks for walking and cycling to access work, education, services and facilities.*

2.7 In reference to supporting documentation with planning applications, paragraph 4.1.55 of PPW states that *"Transport Assessments are an important mechanism for setting out the scale of anticipated impacts of a proposed development, or redevelopment, is likely to have. They assist in helping to anticipate the impacts of development so that they can be understood and catered for appropriately."*

TIS Objectives and Targets

2.8 The objectives of a TIS should benefit both the occupiers of a development and the wider community. The objectives will be set out in the following sections and form the basis for a TP for the development. Site specific objectives that are relevant to the proposed development are as follows:-

- Increase opportunities for residents;
- Reduce vehicle use in and around the site;
- Improve the image of the local area;

- Reduce the transport impact of the development upon the environment;
- Promote more sustainable ways of travelling; and
- Support government policy to manage travel demand more effectively.

2.9 In order to achieve the objective of reducing single occupancy vehicle travel, realistic short term annual targets for mode share will be set.

2.10 The proposed development is located in the Flintshire 014 Middle Super Output Area (MSOA). The 2011 UK Census shows that single occupancy travel to work by car mode is, on average; higher in the Flintshire 014 MSOA (82.7%) to Flintshire (76.2%) and Wales (71.2%). The existing local single occupancy modal share percentage of 82.7% will form the initial baseline target for the residential properties on the site. The following table shows the figures obtained from the Census data:-

Table 2.1 – Mode Share from Local, Regional and National Area (2011 Census)

Travel to Work (QS701EW) Census Statistics	Flintshire 014 MSOA	Flintshire County	Wales Country
All Usual Residents Aged 16 to 74 in Employment	5,582	112,325	2,245,166
Work Mainly at or From Home	132	3,234	73,140
Underground, Metro, Light Rail, Tram	3	45	1,175
Train	19	676	27,341
Bus, Minibus or Coach	120	2,951	62,903
Taxi	9	343	6,523
Motorcycle, Scooter or Moped	26	533	7,694
Driving a Car or Van	2,969	53,927	918,645
Passenger in a Car or Van	218	4,941	92,727
Bicycle	42	1,311	19,659
On Foot	173	5,676	145,135
Other Method of Travel to Work	13	412	8,673
Not in Employment	1,858	38,276	881,551
Total Persons Travelling to Work	3,592	70,815	1,290,475
Single Occupancy Car Journeys (%)	**82.7%**	**76.2%**	**71.2%**
Car Shares (%)	**6.1%**	**7.0%**	**7.2%**
Public Transport (%)	**4.0%**	**5.2%**	**7.1%**
Walking (%)	**4.8%**	**8.0%**	**11.2%**
Bicycle (%)	**1.2%**	**1.9%**	**1.5%**
Taxi (%)	**0.3%**	**0.5%**	**0.5%**
Motorcycle (%)	**0.7%**	**0.8%**	**0.6%**

2.11 If it is demonstrated (through surveys) that the level of single occupancy car travel from the proposed development is lower than the 82.7% local level, the initial short term targets will be reassessed in conjunction with the local authority to try and bring levels down even further.

2.12 In addition to the single occupancy car travel targets, if it is demonstrated (through surveys) that the level of public transport travel usage to / from the site is less than the 4.0% for the MSOA, the initial short term targets will be to increase the public transport travel to that level. Once public transport usage from the development is at 4.0%, the targets will be reassessed to try to increase public transport usage levels even further.

Achieving the TIS Objectives and the Monitoring Process

2.13 The objectives and monitoring of the TIS will substantially be achieved through the appointment of suitable Travel Plan Co-ordinator/s (TPC/s). The TPC role for the development would most commonly be overseen by a Management Company located on the site, although in time this role could evolve to be overseen by the residents of the site themselves. Appropriate start-up funding will be provided for the TPC/s to cover the administration costs involved.

2.14 Once appointed, the TPC/s will act as the main contact for the TIS and will be responsible for implementing the TIS measures, involving new residents, maintaining a database and monitoring the effects of implementation. A full set of duties and responsibilities of the TPC/s is set out in the sections below.

2.15 The TPC/s will inform the Local Planning Authority and the appropriate local public transport operators of their contact details. Similarly, the TPC/s will obtain the contact details of the owners and complete a 'Contact' form to provide easy reference when dealing with relevant matters.

2.16 The TPC/s will undertake an initial resident travel survey, within three months of 30% occupation of the site, to enable a resident travel database to be set up. The TPC/s will prepare and distribute a questionnaire to each resident, to collect the following details:

- Postcode area of place of employment;
- Normal working hours;
- Mode of travel to work;
- Car ownership / usage;
- Reasons for not using public transport and other modes;
- The anticipated take-up of a car sharing scheme, the use of public transport or other non-car modes of travel to work; and
- Information relating to potential areas for sustainable travel improvement, upon which the TPC/s could act and draw up measures to improve the TIS.

2.17 On receipt of the completed questionnaires the TPC/s will set up a travel database within 3 months of completion of the travel survey.

2.18 The TPC/s will agree the annual targets with the LPA within 1 month of completion of the travel survey analysis. The initial travel survey results for the proportion of residents travelling by single occupancy vehicles should be recorded along with the agreed short term annual targets.

2.19 The TPC/s will ensure that any changes to the TIS or any relevant information is passed on to residents on a biannual / annual basis in the form of leaflets.

2.20 The TPC/s will ensure that residents are provided with information to allow ease of use of the local public transport by providing up-to-date public transport route maps and timetable information in residential 'welcome packs', and updating by leaflet drop, as necessary. Contact details for local taxi firms will also be provided by the TPC/s.

2.21 The TPC/s will liaise regularly with local public transport operators to ensure that information remains valid. The TPC/s will provide details of the websites and telephone advice services, such as http://www.traveline.info/ to enable residents to obtain details on their individual journey requirements.

2.22 The TPC/s will also liaise with the local public transport operators and release survey data to the operators to identify travel demands and allow appropriate services to be provided. The TPC/s will check regularly to ensure that the information supplied to residents remains valid.

2.23 The TPC/s will encourage walking as a mode of travel to the site by implementing the following initiatives:-

- Raise awareness of the health benefits of walking through promotional material;
- Provide a map showing walking routes, indicating distances and times to the most common destinations near to the site; and,
- Ensure that footways on site are well maintained and lit and any defects reported to the highways authority on an annual/biannual basis.

2.24 In conjunction with the pedestrian initiatives, the TPC/s will investigate the potential to set up a bicycle user group (BUG) to encourage residents to cycle to work.

2.25 The TPC/s will set up a car sharing scheme, utilising the online website www.liftshare.com, within 3 months of receiving the initial residents travel surveys. Residents will be contacted by the TPC/s to allow potential car sharers to register an interest and provide details of their journey to and from work along with their contact phone number and work location. The TPC/s will then identify suitable matches for residents that may be able to share their journeys to and from work or for shopping trips.

2.26 The TPC/s will make the new residents aware of the existence of the TIS by providing them with a copy of the TIS as part of a welcome pack as they move into their properties. The existence of the TIS would also be highlighted in promotional literature and advertising for the new dwellings.

2.27 The TPC/s will monitor travel patterns on an annual basis for the first five years of the occupation of the sites and then at suitable intervals as agreed by the Local Planning Authority. The monitoring of the plan is important for the following reasons:-

- It will ensure that the Local Planning Authority can see that the aims and objectives of the TIS are being achieved;
- It justifies the commitment of the TPC/s and of other resources;
- It maintains support for the plan by reporting successes;
- It identifies any measures that are not working or problems with the approach of the Plan;
- It can be shared with other organisations to refine the development of the Plan.

2.28 Surveys will be used to monitor travel to and from the site. The surveys can be used to monitor the number of residents walking, cycling, using cars and using public transport. The results can then be compared with the mode share targets identified earlier in this framework TIS.

2.29 The TPC/s will develop the monitoring programme in conjunction with the Local Planning Authority to ensure that the monitoring procedures are appropriate. The TPC/s will maintain a monitoring table of progress to key TIS targets based on the results of the monitoring travel surveys. This table will be published and distributed by leaflet to residents on the site.

2.30 The TPC/s will make information on mode share available to the Local Planning Authority as part of the continuous monitoring process, subject to the provisions of the Data Protection Act.

2.31 The TPC/s will undertake an annual review of the TIS in conjunction with the Local Planning Authority. This review will be important in assessing the effectiveness of the measures implemented and to identify areas where modification may be necessary. In particular the following will be assessed:

- The level of car/non-car usage at the site;
- Comments received from residents.

2.32 When reviewing the effectiveness of the TIS, the following questions will be asked:-

- Which areas offer the greatest potential for change/improvement?
- Was the initiative implemented by the target date?
- How well used is each scheme/initiative?

- How much did it cost to introduce?

2.33 The TPC/s will compare the mode share statistics obtained from the annual monitoring to the targets set for the development. The TPC/s will set revised realistic targets for modal shifts to non-car travel modes and investigate the effectiveness of the TIS initiatives being promoted in conjunction with the Local Planning Authority.

2.34 In light of the data collected from the monitoring process, the TPC/s will adapt the TIS to enable the revised agreed targets to be achieved and submit a review report to be agreed with the Local Planning Authority.

2.35 It is considered that the delivery of the TIS / TP can be secured by planning condition, as appropriate.

3.0 EXISTING CONDITIONS

Site Location

3.1 The proposed development site comprises an irregular shaped plot of land located to the south-west of New Brighton Road, New Brighton, as shown in **Figures 1.1** and **1.2** earlier.

3.2 The site is an area of farmland to the north of New Brighton, straddling green candidate site NEW004 and Amber Candidate Site NEW003 meaning that, in principle, the site complies with the Council's Local Plan Preferred Strategy for development.

3.3 The site is bounded by New Brighton Road to the north, residential areas at Argoed View and Cae Isa to the west and east respectively. To the south and east is an area of green space and two detached dwellings on the northern edge of the A5119.

3.4 As shown in Figure 1.2 previously, PROW footpath 121 runs along the western boundary of the site.

Surrounding Highway Network

3.5 New Brighton Road, which bounds the site to the north is a minor rural road. It meets the A5119 and Bryn Lane at a crossroads in the centre of New Brighton. To the north it connects to the village of Sychdyn. It is subject to a 30mph speed limit within the vicinity of the site, becoming derestricted (national speed limit) to the north west of the site boundary.

3.6 The A5119 meets the A494 Mold Bypass at a roundabout junction to the east of New Brighton and connects westward to the centre of Mold, this was the original route of the A494 before the bypass was constructed in 1999. The A494 continues north eastwards and connects to Flint via Junction 33 of the A55.

3.7 Bryn Lane leads south from the signalised crossroads junction with the A5119, before becoming Bryn-Y-Baal Road and then Chambers Lane in the village of Mynydd Isa. It is subject to a 30mph speed limit.

3.8 The A494 connects Queensferry and the M56 with Dolgellau. It bypasses Mold to the south and east from a roundabout junction with the A5119 to the east of New Brighton. The link connecting south from the roundabout is derestricted (national speed limit) and has one lane southbound and two lanes northbound (to allow overtaking of slower vehicles ascending the steep gradient).

3.9 The A494 connects Mold with the M56 which then continues north east through Cheshire and towards Greater Manchester. It also connects with the A550 north of Queensferry, connecting to South Wirral and the M53.

3.10 Bryn Offa Lane is a narrow country lane that meets New Brighton Road at a priority T-junction. It connects north to Alltami Road and a number of other narrow lanes which serve farms and single dwellings in the surrounding area. It is subject to a 30mph speed limit and has a weight restriction of 7.5T.

3.11 Argoed View is a residential cul-de-sac that meets the A5119 a priority T-junction and serves 15 detached dwellings to the west of the proposed development site.

3.12 Cae Isa is a residential cul-de-sac that meets New Brighton Road at a priority T-junction and serves 18 dwellings to the south east of the proposed development site.

3.13 The A55 North Wales Expressway is a dual carriageway trunk road that connects the M53 north east of Chester to the port of Holyhead via the North Wales Coast. Following on from the Terminus of the M53 it forms a semi-circular bypass of Chester to the south and east before merging with the A494 at Ewloe, north of Queensferry.

Traffic Survey Data

3.14 In order to establish the existing traffic flow demand on the local network, manual classified turning count traffic flow surveys were undertaken at the A5119 / New Brighton Road / Bryn Lane junction on Wednesday 27th June 2018.

3.15 The raw traffic survey data is presented in **Appendix A** with the traffic flows shown diagrammatically on **Traffic Flow Figure 1**.

3.16 The peak hours for the local highway network have been calculated as follows:

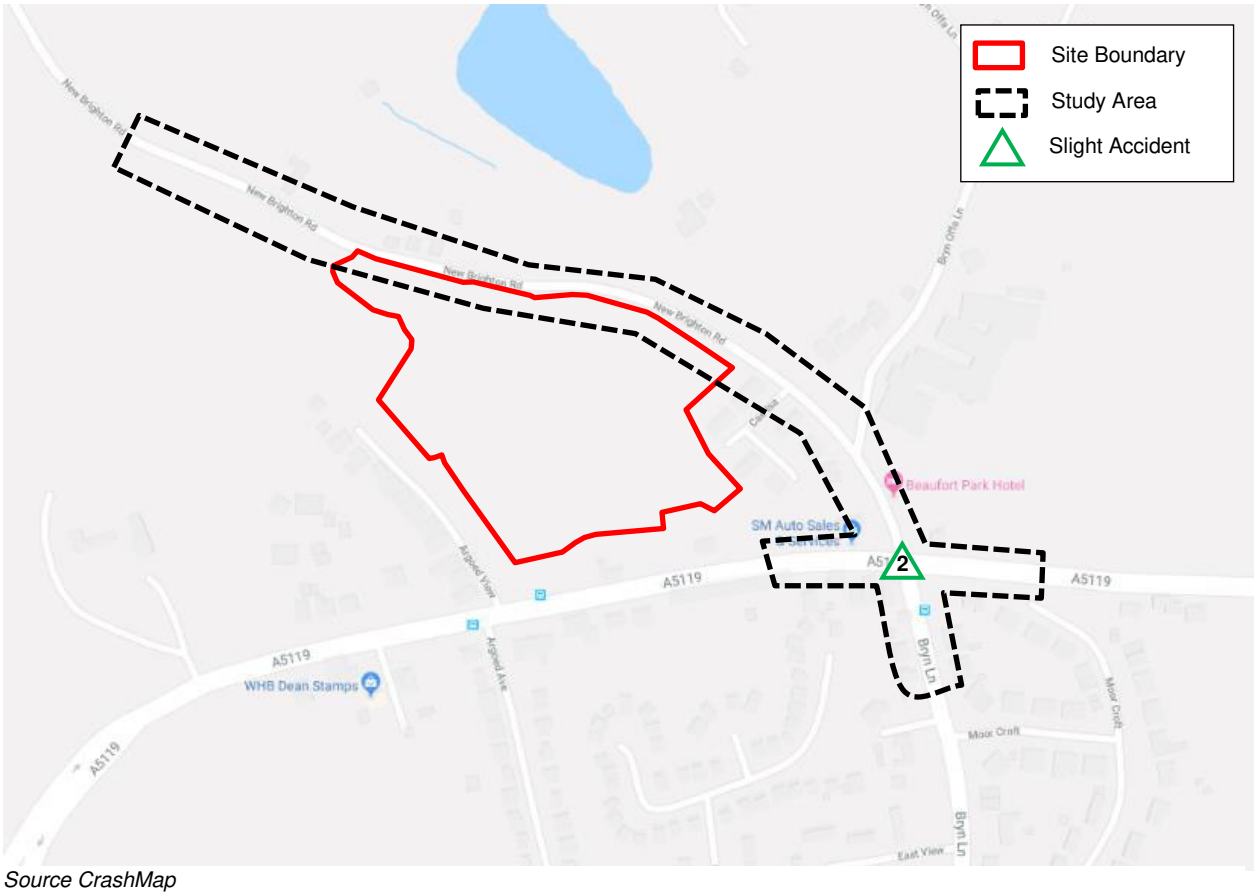
- Weekday AM peak hour – 08:15-09:15
- Weekday PM peak hour – 17:00-18:00

Road Safety

3.17 In order to identify critical locations on the local highway network which may have an underlying highway safety problem, SCP has interrogated the last 5 years of data available through the CrashMap website www.crashmap.co.uk.

3.18 The location and severity of any accidents within the study area during this period are shown on **Figure 3.1** below:-

Figure 3.1 – Accident Record in TA Study Area



Source CrashMap

3.19 The analysis shows that two accidents occurred at the A5119 / New Brighton Road / Bryn Lane junction in the study area during the 5 year study period, both of slight severity injury. No accidents occurred along the site's boundary.

3.20 Having regard to the number of accidents and the severity of the accident that has occurred over the five year study period, the existing accident record does not represent a material concern in the context of the proposed development.

4.0 PROPOSED DEVELOPMENT

General

4.1 The development proposals consist of the construction of 84 residential houses (including 25 affordable houses) and public open space on a plot of land situated to the south-west of New Brighton Road.

4.2 The proposed site layout plan is contained in **Appendix B**.

Proposed Site Access Arrangements

4.3 The proposed development will provide a single vehicular access point along New Brighton Road but 2 further pedestrian access points are proposed along the frontage to New Brighton Road. Additionally, there will be a footpath connection to the A5119 on the southern boundary of the site and the public footpath route through the site will be retained.

4.4 Whilst the site is close to other public highways, a vehicular access to the A5119 is not possible due to land ownership limitations and an access to Argoed View is not considered to be of an appropriate standard for additional traffic to be accommodated.

4.5 The vehicular access to the development will be provided approximately 65m to the north-west of Cae Isa along New Brighton Road and will serve all 84 dwellings. The proposed access will take the form of a simple priority controlled access arrangement as shown on Drawing Number SCP/18259/F02 Rev B presented in **Appendix C**. The access will include a 5.5m wide carriageway and 2m wide footways on both sides. Dropped kerb and tactile paving will also be provided in order to further assist pedestrians.

4.6 The vehicular site access provides visibility splays that have an ‘x’ (minor arm setback distance) of 2.4m and a ‘y’ (major road visibility) distance of over 43m in both directions, in accordance with the guidance in the MfS for a 30mph road.

4.7 At present there is no footway on New Brighton Road beyond the junction with Cae Isa. It is proposed to provide new section of footway along the western side of New Brighton Road to the south of the development which will link up with the existing footway (see drawing in **Appendix C**).

4.8 The change in speed limit close to the northern boundary of the site will be relocated approximately 30m to the north-west along New Brighton Road to take account of potential pedestrian activity along the site frontage and the extended built-up area of New Brighton, as shown in **Appendix C.** A village gateway and traffic calming features will be provided, including dragon teeth and hi-vis signage to highlight the start of the urban area and the change in speed limit.

4.9 PROW Footpath 121 which runs along the western boundary of the site will continue to provide pedestrian access between New Brighton Road and Argoed View. Additional pedestrian/cycle links will be provided on the southern section of the site along the A5119 and in two locations on the northern section of the site along New Brighton Road.

4.10 Signalised pedestrian crossing features will be incorporated into the A5119 / New Brighton Road / Bryn Lane Signalised Junction, with dropped kerb and tactile paving to be provided along the New Brighton Road arm of the junction, as shown in **Appendix C**.

Internal Site Layout and Servicing

4.11 The main spine road, measuring 5.5m in width, which is accessed from the New Brighton Road. As mentioned earlier, 2.0m footways will be provided throughout the site.

4.12 In order to demonstrate that the site can be serviced sufficiently, swept path analysis of a large 4-axle refuse vehicle has been undertaken at the site access and at the turning head.

4.13 SCP drawing SCP\18259\ATR01 Rev C is presented in **Appendix D** and illustrates the swept path analysis of this vehicle. The drawing demonstrates that a vehicle of this size can enter the site via the site accesses, turn within the site at appropriate points, and exit the site in a forward gear.

Parking

4.14 Local parking standards are set out in FCC's Supplementary Planning Guidance (adopted January 2017). This specifies the following maximum parking standards:

- 1-bed dwellings - 1.5 spaces per unit;
- 2 & 3-bed dwellings - 2 spaces per unit; and
- >3-bed dwellings - 3 spaces per unit.

4.15 The level of parking to be provided is in line with FCC's maximum standards.

5.0 ACCESSIBILITY

5.1 This Chapter presents a review of the accessibility of the site by walking, cycling and public transport modes.

5.2 The accessibility of the site by non-car modes has been assessed by comparison with the following threshold distances, as set out by Andrew Davies AM 'Minister for Economic Development and Transport' in his foreword to the 2003 *"Walking and Cycling Strategy for Wales"* document:-

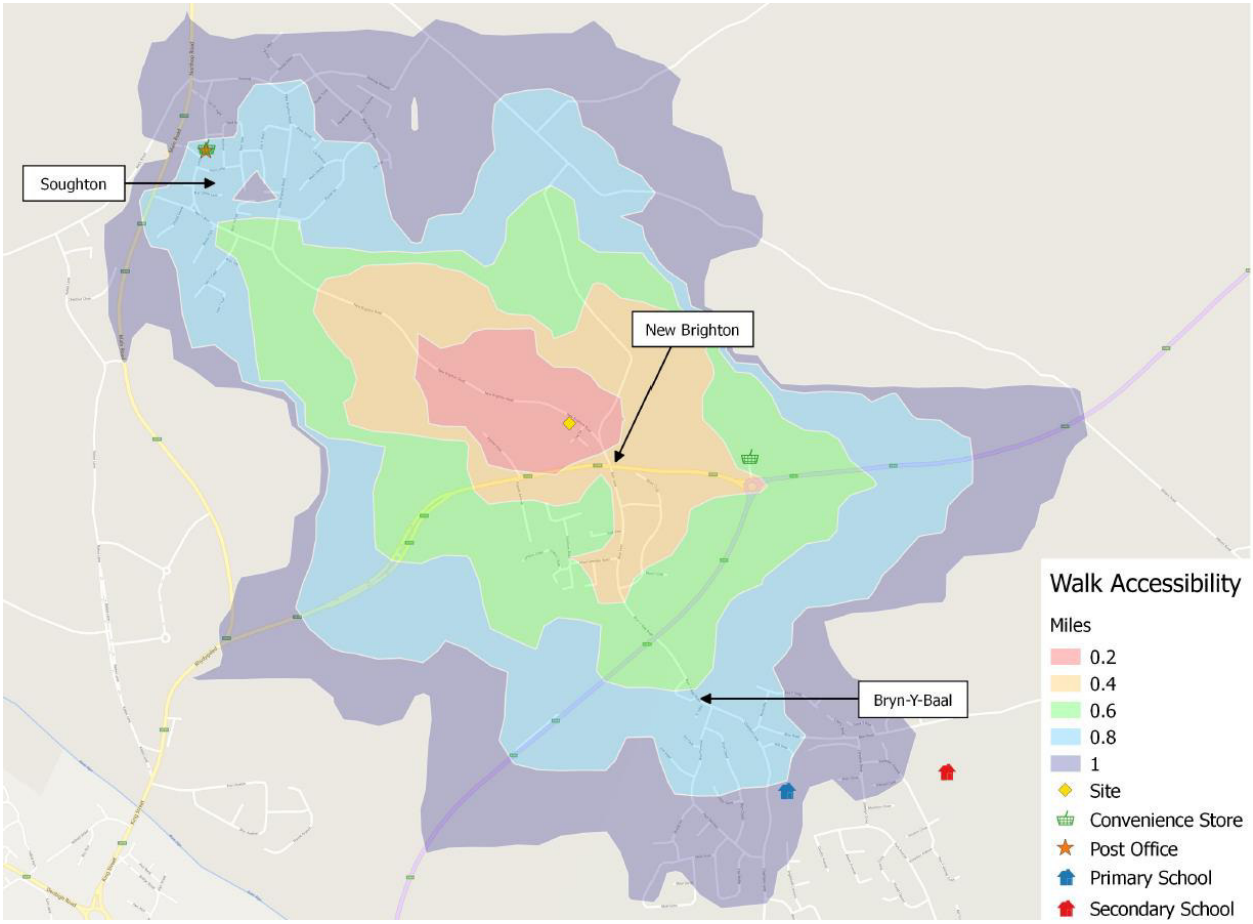
Table 5.1 – Walk / Cycle Distance Thresholds

Threshold Distance	Significance	Reference
1 mile	Walking can offer viable and attractive alternatives [to car trips]	Walking and Cycling Strategy for Wales
5 miles	Cycling can offer viable and attractive alternatives [to car trips]	Walking and Cycling Strategy for Wales

Pedestrian Accessibility

5.3 The pedestrian accessibility of the development has been modelled using the Geographical Information System (GIS) software TRACC to produce isochrone mapping figures. The purpose of the isochrones is to demonstrate the areas within an acceptable walking distance of 1 mile of the site. The areas located within 1 mile walking distance of the site are shown below on **Figure 5.1**

Figure 5.1 – Walk Accessibility



5.4 As mentioned previously, PROW Footpath 121 which runs along the western boundary of the site will continue to provide pedestrian access between New Brighton Road and Argoed View. Additional pedestrian links will be provided on the southern section of the site along the A5119 and the northern section of the site along New Brighton Road.

5.5 **Table 5.1** below lists the key local amenities within a 1-mile walking distance of the proposed site.

Table 5.1 – Accessibility of Local Facilities from the Development Site

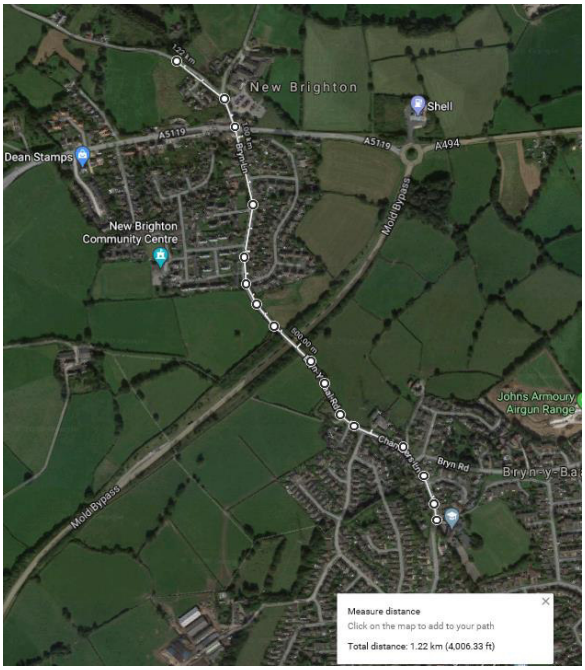
Facility	Name	Distance from the Development Site (miles)
Hotel / Restaurant	Beaufort Park Hotel	0.1
Place of Worship	St James Church	0.1
Bus Stops	Bus Stops at Bryn Lane	0.1
Bus Stops	Bus Stops at Argoed View	0.2
PFS / Convenience Store	Shell PFS and Shop	0.4
Civic Amenity	New Brighton Community Centre	0.5
Primary School	Ysgol Mynydd Isa	0.8
Secondary School	Argoed High School	1.0
Takeaway Food	Yiannos Fish Bar	1.0

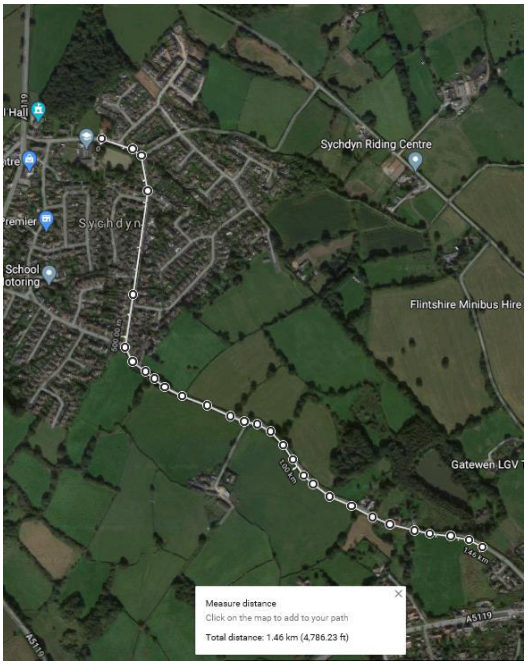
5.6 New Brighton and nearby Mynydd Isa have a number of key facilities such as a Tesco superstore, Sainsburys Local supermarket, Premier Store and a Pharmacy, marginally over a mile travel distance within walking distance.

5.7 A review of the safe routes to schools has been undertaken as part of our assessment. Infants, primary and secondary schools have all been considered and pedestrian routes that use continuous footways have been identified. All of these schools are south of the development site in Mynydd Isa, to which New Brighton is most appropriately linked.

5.8 There has been discussion with the Council in relation to the nearest primary school, but our assessment is that Mynydd Isa primary school is 1.22km walking distance from the site access and Sychdyn primary school is 1.46km from the site access. Both the proximity of the school and the fact that there is a continuous segregated pedestrian route to Mynydd Isa supports the view that the route to Mynydd Isa should be considered by this safe routes to school assessment. By comparison, there is no footway and a 60mph road that provides the most direct route to Sychdyn.

5.9 The plan below compares the distances to the primary schools:





5.10 At present there is no footway on New Brighton Road beyond the junction with Cae Isa. It is proposed to provide new section of footway along the western side of New Brighton Road to the south of the development which will link up with the existing footway (see drawing in **Appendix C**).

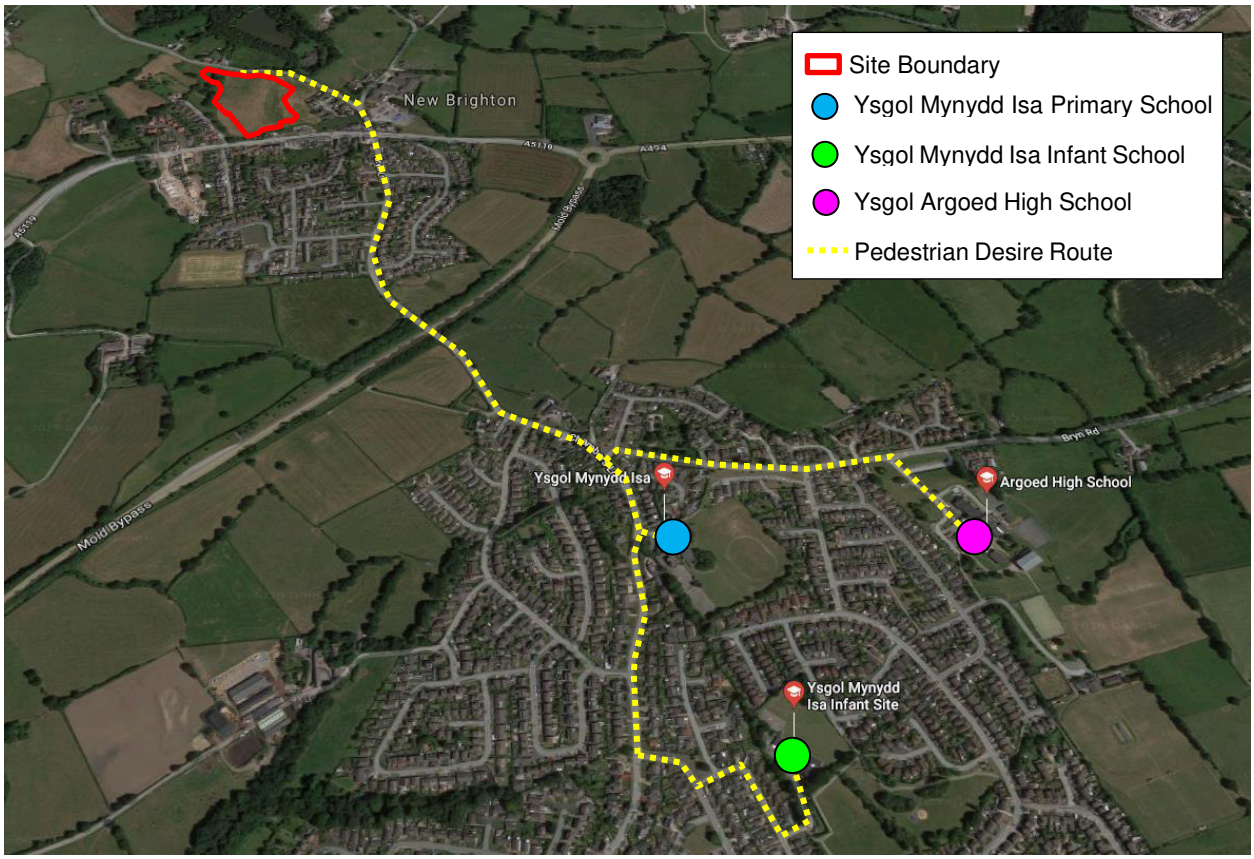
5.11 In addition, signalised pedestrian crossing features will be incorporated into the A5119 / New Brighton Road / Bryn Lane Signalised Junction, with dropped kerb and tactile paving to be provided along the New Brighton Road arm of the junction.

5.12 This will ensure a continuous footway is provided between the site and all three nearby schools.

5.13 Bryn Lane, Bryn-Y-Baal Road and Chambers Lane all provide a continuous footway along the eastern section of the carriageway and provide access to Ysgol Mynydd Isa Primary School. Mercia Drive and Wats Dyke Avenue both provide continuous footways on both sides of the carriageway and provide access to Ysgol Mynydd Isa Infant School. Bryn Road provides a continuous footway on the northern section of the carriageway which provides access to Argoed High School.

5.14 With reference to the Active Travel (Wales) Act 2013, Paragraph 4.1.26 of PPW states that walking and cycling should be promoted for shorter journeys, particularly everyday journeys to work and education establishments or to other local services and facilities. "*The Active Travel Act requires local authorities to produce Integrated Network Maps, identifying the walking and cycling routes required to create fully integrated networks for walking and cycling to access work, education, services and facilities*". The walking routes to the nearby schools are shown on the pedestrian route plan on **Figure 5.2** below which demonstrates the direct nature of the routes.

Figure 5.2 – Pedestrian Route Plan



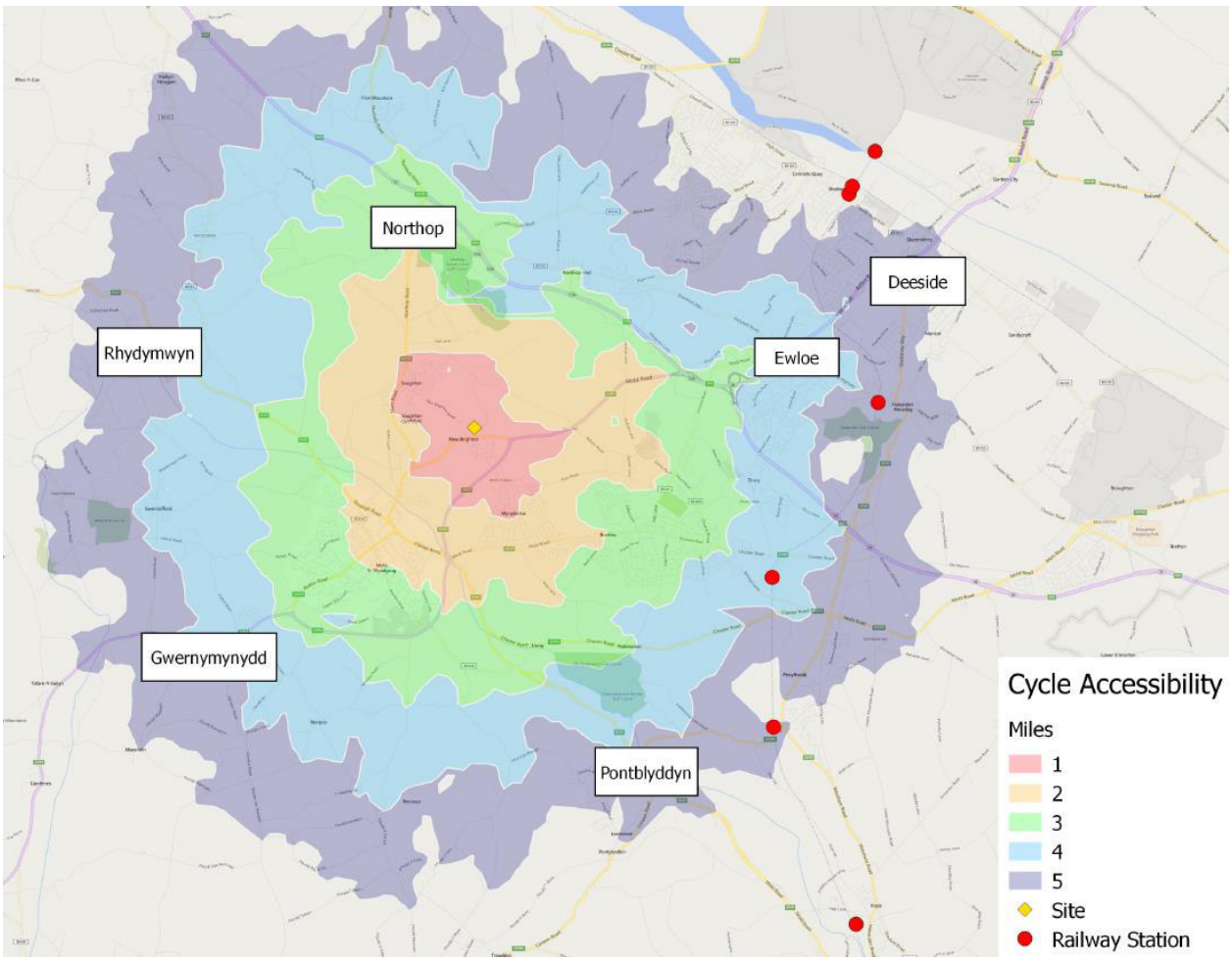
Source: Google Maps

Cycle Accessibility

5.15 PPW identifies that "Cycling should also be encouraged for short trips and as a substitute for shorter car journeys or, as part of a longer journey when combined with public transport."

5.16 TRACC software has been used to assess the accessibility of the development by bicycle from the site. Isochrones illustrating the areas which lie within 5 miles of the site can be seen on the **Figure 5.3** below.

Figure 5.3 – Cycle Accessibility



5.17 The plan shows that key retail and employment facilities in Mold are within a 2 mile cycle distance of the proposed development site.

5.18 The villages of Buckley and Ewloe also lie within a 3-mile cycle distance of the development site and provide further services and employment opportunities.

5.19 New Brighton is it not on the National Cycle Network, however the lightly trafficked roads within and surrounding the village are conducive to cycling.

Public Transport

5.20 The development is well placed to encourage travel by bus. Guidance published by the CIHT 'Planning for Public Transport in Developments' (1999), recommends that *"Bus stops are located to minimise passengers' walking distance to their final destination. The maximum walking distance to a bus stop should not exceed 400m and preferably be no more than 300m."*

5.21 The closest bus stops to the site are located along the A5119, directly opposite the proposed pedestrian access and therefore well within the recommended walking distance. There are also bus stops on Bryn Lane, approximately 230m from the primary site access. Both stops are served by the same routes. **Table 5.2** below shows a summary of bus services from these stops.

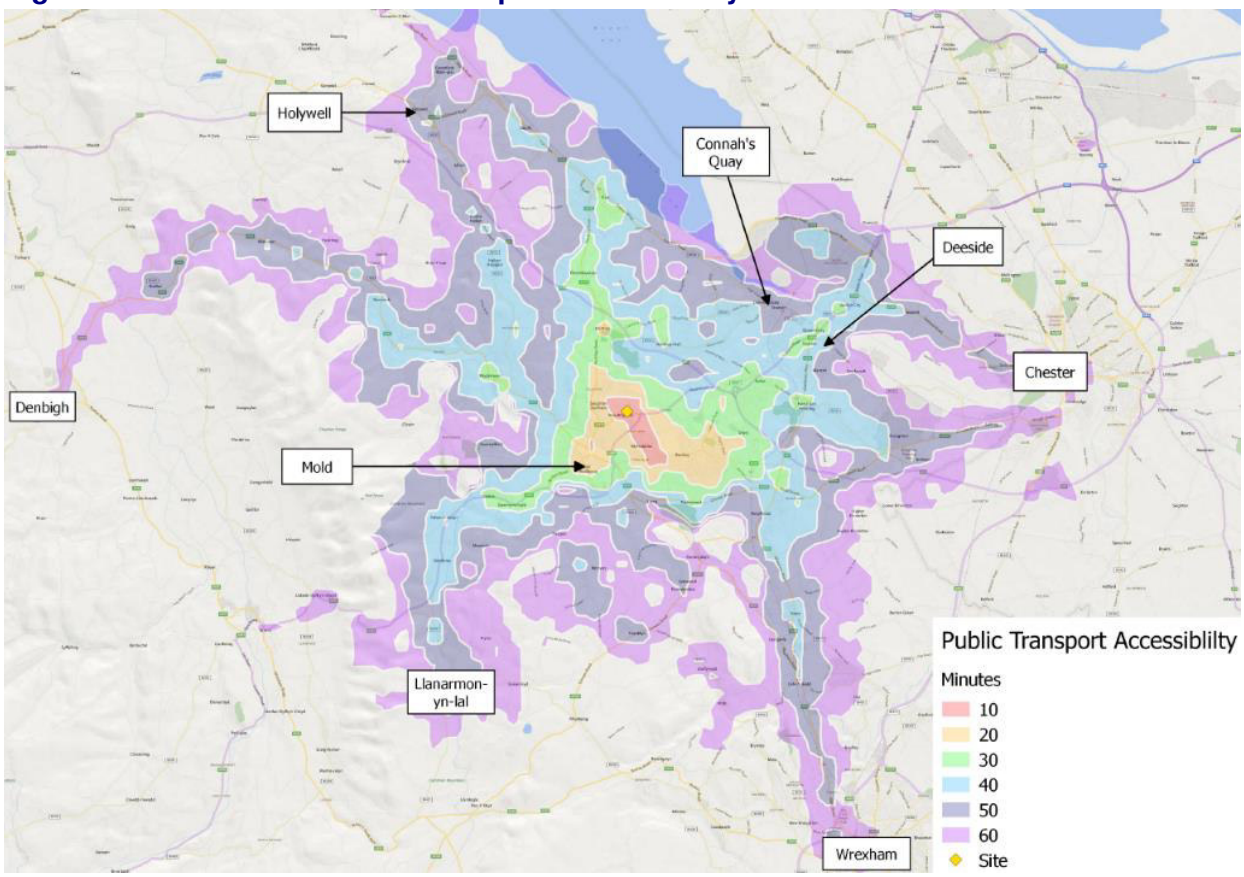
Table 5.2. – Bus Accessibility from the Development Site

Service No.	Route	Core Frequency of Services
4/4S	Mold – Buckley – Hawarden – Broughton – Chester	Mon – Fri: 2 per hour
		Sat: 2 per hour
		Sun: 1 per hour
5	Mold – Buckley – Queensferry – Cheshire Oaks – Ellesmere Port	Mon – Fri: 1 per hour
		Sat: 1 per hour
		Sun: No service
5S	Garden City – Mold (school service)	1 inbound/outbound service per day on school days only

5.22 As can be seen from **Table 5.2**, the nearby bus stops are is served by 3 buses per hour in each direction with route 4/4S providing a half hourly service between Mold and Chester via Buckley and Broughton, 7 days a week. Route 5 provides an hourly service between Mold and Ellesmere Port via Queensferry Monday to Saturday, with no service on Sundays.

5.23 The level of accessibility by public transport has been analysed using GIS TRACC software to assess the accessibility of the site and is shown on **Figure 5.4** overleaf. The figure illustrates the distance that can be travelled within 60 minutes by public transport to and from the site, which includes the time taken to walk to the bus stops.

Figure 5.4 – 60 minute Public Transport Accessibility



5.24 The 60-minute isochrone shows that Chester, Mold, Buckley, Connah's Quay, Deeside and Queensferry are all accessible by public transport from the proposed site.

5.25 New Brighton does not have a railway station, however there are stations that are locally accessible by bus, at Buckley and Hawarden. These stations are all on the Borderlands Line between Wrexham and Bidston via Shotton (for the North Wales Coast Line) all of which have cycle parking facilities.

5.26 There is currently an hourly service on the Borderlands Line between Bidston and Wrexham, this is set to increase by 2021 to two trains per hour with one service being a faster limited stop service, however exact stopping patterns are not yet known. There are also proposals for direct trains to Liverpool Central via the Merseyrail Wirral line.

Summary

5.27 The site is within an acceptable walk and cycle distance of a range of local amenities and facilities.

5.28 There is a reasonable level of public transport including an effective service by both bus which also provides access to rail services within a short journey distance.

5.29 Areas of significant employment in Mold, Ewloe, Buckley and are accessible within a short bus or cycle journey from the site.

5.30 Based on the above factors, the proposed development would provide opportunities for sustainable travel.

6.0 TRIP GENERATION

6.1 This Chapter provides an estimate of the vehicular, pedestrian, public transport and cycle trips likely to be generated by the proposed development.

6.2 In order to estimate the trip generating potential of the proposed development, average trip rates from the industry-standard TRICS Database have been obtained.

6.3 The selection criteria for the TRICS based trip rates is as follows:-

i) Residential;

ii) Houses Privately owned;

iii) Multi modal surveys;

iv) Sites in Greater London and Ireland excluded;

v) Selection by number of dwellings (50-200);

vi) Weekday surveys only; and

vii) Only sites in 'Edge of Town' and 'Neighbourhood Centre' locations have been selected.

6.4 The multi modal TRICS outputs for the proposed development are presented in **Appendix E** and are summarised in **Table 6.1** below:-

Table 6.1 - Estimated Trip Rates (Per Dwelling) Associated with the Proposed Development

Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.107	0.300	0.248	0.107
Cycles	0.013	0.021	0.021	0.010
Pedestrians	0.045	0.103	0.069	0.030
Pub. Trans.	0.000	0.035	0.006	0.003

6.5 The estimated trip generation associated with the proposed 84 dwellings is therefore as summarised in **Table 6.2** below:-

Table 6.2 – Estimated Trip Generation – 84 Dwellings				
Mode	**Weekday AM Peak Hour**		**Weekday PM Peak Hour**	
	Arrivals	**Departures**	**Arrivals**	**Departures**
Vehicles	9	25	21	9
Cycles	1	2	2	1
Pedestrians	4	9	6	3
Pub. Trans.	0	3	1	0

6.6 It should be noted that the 25 affordable houses which are considered to have a lower trip generation have been included in the above analysis and therefore the capacity assessments provided later in this report are considered robust.

7.0 TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

Trip Distribution Methodology

7.1 The methodology used to estimate the trip distribution of the proposed development traffic routing through the TA study area is based on information from the 2011 Census.

7.2 Location of usual residence and place of work data from the national census for all "out-moves" from the Flintshire 014 Middle Super Output Area (MSOA) have been obtained from Nomis for the purposes of determining a suitable and localised trip distribution model. The trip distribution percentages are presented in **Table 7.1** below:-

Table 7.1 –Trip Distribution Percentages

	Route	% Assigned to Each Route
A	A5119 (East)	18
B	A5119 (West)	72
C	Bryn Lane	5
D	New Brighton Road	5

7.3 Out-moves provide an indication of the numbers and destinations (on a MSOA basis) of people who reside in the Flintshire 014 MSOA and who work elsewhere.

7.4 This methodology has been adopted to distribute trips for the proposed site. The percentage distribution of vehicular trips generated by the proposed development is also presented diagrammatically in **Traffic Flow Figure 2**.

Traffic Assignment

7.5 The traffic assignment of the proposed scheme has been obtained by applying the relevant estimated trip distribution proportions to the relevant estimated traffic generation figures. The traffic assignment for the scheme is presented diagrammatically in **Traffic Flow Figure 3** within the TA study area.

8.0 FUTURE BASELINE AND ASSESSMENT TRAFFIC FLOWS

Future Baseline Traffic Flows

8.1 As per typical guidance, a future assessment year of 2026 has been adopted for this TA (i.e. based on the year of application + 5 years for developments outside of the strategic road network).

8.2 In order to quantify the level of background traffic growth that could occur on the local network between the date of the traffic surveys and the assessment year, National Trip End Model NTEM / National Traffic Model (NTM) growth factors, modified by TEMPRO local growth factors, have been used as summarised in **Table 8.1** below:-

Table 8.1 – Traffic Growth Factors

Period	AM Peak	PM Peak
2018-2026	1.0311	1.0302

8.3 The above growth factors have been applied to the surveyed traffic flows to obtain the 2026 base traffic flows, as shown in **Traffic Flow Figure 4**.

Assessment Traffic Flows

8.4 The 2026 assessment traffic flows are therefore equal to the sum of the 2026 baseline traffic flows (**Traffic Flow Figure 4**) and the assigned development traffic flows (**Traffic Flow Figure 3**). These are presented diagrammatically in the TA study area in **Traffic Flow Figure 5**.

9.0 ANTICIPATED HIGHWAY IMPACT

Overview

9.1 This Chapter describes the future traffic conditions on the local highway network with the scheme in place. The junctions assessed as part of this TA include:

- Proposed Site Access Junctions; and
- A5119 / New Brighton Road / Bryn Lane Signalised Junction.

9.2 Assessments have been undertaken of the primary site access only, with all trips generated by the proposed development assigned through the primary access in order to provide a robust assessment.

9.3 As part of our investigations, we have been requested by the Council to consider the potential for a Traffic Regulation Order (TRO) on New Brighton Road to make it one-way operation for cars and allocating some space within the carriageway for pedestrians. This suggestion has been considered and dismissed for a number of reasons.

9.4 Primarily, the problems with a one-way order and encouraging pedestrians to walk in the reduced carriageway include, the increase in vehicle speeds that is likely to occur when opposing vehicle movements are removed, the absence of street lighting to highlight the presence of pedestrians, the absence of a convenient alternative route for emergency vehicles, connectivity would be reduced by limiting journeys in one direction, journey lengths would be increased and the consultation that is required to implement a TRO is likely to lead to objections from people who live along the route or who are disadvantaged by a TRO which cannot be demonstrated to be necessary.

9.5 In determining the site access proposals, the current proposals were found to be the optimum solution.

Assessment Methodology

9.6 An assessment of the proposed primary site access junction has been undertaken using Junctions 9 (PICADY) software and the A5119 / New Brighton Road / Bryn Lane signal controlled junction has been assessed using LINSIG Software.

9.7 Junctions 9 (PICADY) models the results generating a Ratio to Flow capacity (RFC) along with an estimate of the likely traffic queues. RFC values between 0.00 and 0.85 are generally accepted as representing stable and acceptable operating conditions. Values between 0.85 and one and represents variable operation (i.e. possible queues building up at the junction during the period under consideration and increases in vehicular delay moving through the junction). RFC values in excess of one represents overloaded conditions (i.e. congested conditions).

9.8 LINSIG software presents results as a percentage Degree of Saturation (DoS) and corresponding likely traffic queues for each modelled link at the junction. For Traffic Signals it is generally accepted that DoS of 90% or less on individual links represents satisfactory signal operation. DoS of between 90% and 100% represent variable operation which warrants further investigation and values in excess of 100% represent overloaded conditions.

9.9 The 2026 'with' and 'without' development traffic flows are shown on **Traffic Flow Figures 5** and **4** respectively. Capacity assessments have been undertaken in 2026 'with' development scenarios and are based on the provision of 92 houses. Given the current proposals provide 84 houses (including 25 affordable) the following capacity assessments are considered very robust.

Proposed Site Access

9.10 The PICADY results for the site access junction are presented in **Appendix F** with the results summarised in **Table 9.1** below.

Table 9.1 – Proposed Site Access Junction – 2026 'With Development' PICADY Results

Movement	AM PEAK		PM PEAK	
	RFC	MMQ	RFC	MMQ
Site Access (Left)	0.00	0.0	0.00	0.0
Site Access (Right)	0.07	0.1	0.03	0.0
A547 (Ahead / Right)	0.00	0.0	0.00	0.0

9.11 Due to the volume of traffic along New Brighton Road the Highway Officer at FCC suggested that a ghost island right turn may be required at the proposed site access for traffic turning right.

9.12 The above results show that the proposed site access junction is predicted to operate well within the practical capacity threshold of 0.85 RFC on all movements in the 'with' development scenario. As a result, a ghost island right turn is not required at this junction.

A5119 / New Brighton Road / Bryn Lane Signalised Junction

9.13 The LINSIG results are contained within **Appendix G** and a summary of the LINSIG capacity assessment results at the A5119 / New Brighton Road / Bryn Lane signalised junction are presented in **Table 9.2** below:-

Table 9.2 - A5119 / New Brighton Road / Bryn Lane Signalised Junction

	Weekday AM		Weekday PM	
	DoS (%)	Queue (PCU)	DoS (%)	Queue (PCU)
2026 Base 'With' Development Scenario				
A5119 (E) - Ahead Right Left	65.1%	11.9	75.6%	16.6
Bryn Lane - Left Ahead Right	63.2%	6.8	77.2%	6.4
A5119 (W) - Left Ahead Right	61.0%	10.7	63.05	9.6
New Brighton Rd - Right Left Ahead	53.3%	5.4	76.7%	8.6
PRC	38.3%		16.7%	

9.14 The results above demonstrate that the junction will operate with spare capacity in 2026 with the proposed development in place and fully operational. This assessment includes provision for a pedestrian phase to be included every 2 minutes, which is likely to be a robust assessment in this area where pedestrian flows are relatively low.

9.15 We understand that the Council is considering improvements to the junction to improve turning manoeuvres for larger vehicles passing through the junction, and to improve pedestrian crossing facilities at the junction. Whilst the proposed development will not impact upon the number of large vehicles needing to turn at the junction, there will be an increase in pedestrian numbers from the development, and these pedestrians will benefit from improved crossing facilities. In the event that the Council wish to carry out a more extensive improvement, our client would be willing to contribute to the wider scheme, or simply carry out the pedestrian improvements identified on the drawing at **Appendix C**.

A5119 / A494 New Brighton Roundabout

9.16 **Table 9.3** below provides a summary of the development traffic impact along the A5119 eastern arm of the junction.

Table 9.3 – Percentage Impact along the A5119 East Arm of the A5119 / A494 New Brighton Roundabout

	AM Peak	PM Peak	AM & PM Combined
2018 Survey Total Inflow	908	1069	1977
Development Traffic Total Inflow	28	24	52
Percentage Impact	3.1%	2.2%	2.6%

9.17 The above demonstrates that the proposed development will result in an increase of 28 two-way vehicular trips in the AM peak hour and 24 two-way trips in the PM peak hour. This equates to a maximum impact of only 2.6% which is considered to be minimal and will be even lower when distributed on all arms of the A5119 / A494 New Brighton Roundabout junction. As a result, detailed capacity assessments have not been undertaken in this TA.

Sensitivity Tests

9.18 The Highway Officer at FCC has stated that due to the location of the site, it is unlikely that the surveys used in the TRICS database are representative of the development site.

9.19 As a result, 85th percentile trip rates have been used as part of the capacity assessments and the TRICS outputs are presented in **Appendix E** and are summarised in **Table 9.4** below:-

Table 9.4 - Estimated Trip Generation Associated with the Proposed Development – 85th Percentile

Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Trip Rate	0.127	0.473	0.278	0.206
Trip Generation (92 Dwellings)	12	44	26	19

Proposed Site Access – Sensitivity Test

9.20 The PICADY results of the sensitivity test for the site access junction are presented in **Appendix F** with the results summarised in **Table 9.5** below.

Table 9.5 – Proposed Site Access Junction – 2026 'With Development' PICADY Results – Sensitivity Tests

Movement	AM PEAK		PM PEAK	
	RFC	MMQ	RFC	MMQ
Site Access (Left)	0.00	0.0	0.00	0.0
Site Access (Right)	0.12	0.1	0.06	0.1
A547 (Ahead / Right)	0.00	0.0	0.00	0.1

9.21 The above results show that the proposed site access junction is predicted to operate well within the practical capacity threshold of 0.85 RFC on all movements in the 'with' development scenario.

A5119 / New Brighton Road / Bryn Lane Signalised Junction – Sensitivity Test

9.22 The LINSIG results of the sensitivity test are contained within **Appendix G** and a summary of the LINSIG capacity assessment results at the A5119 / New Brighton Road / Bryn Lane signalised junction sensitivity test are presented in **Table 9.6** below:-

Table 9.6 - A5119 / New Brighton Road / Bryn Lane Signalised Junction – Sensitivity Test

	Weekday AM		Weekday PM	
	DoS (%)	Queue (PCU)	DoS (%)	Queue (PCU)
2026 Base 'With' Development Scenario				
A5119 (E) - Ahead Right Left	66.7%	9.0	78.1%	17.3
Bryn Lane - Left Ahead Right	66.8%	7.6	76.7%	6.4
A5119 (W) - Left Ahead Right	63.8%	8.3	67.1%	10.0
New Brighton Rd - Right Left Ahead	60.0%	7.0	77.3%	9.1
PRC	34.7%		15.3%	

10.0 SUMMARY AND CONCLUSIONS

10.1 Stewart Milne Homes seek planning permission for a residential development of 84 dwellings (including 25 affordable) on a plot of land situated to the south-west of Brighton New Road.

10.2 The most recently available five-year road safety record of the local area around the site has been examined and does not represent a material concern in the context of the development.

10.3 The proposed development will provide a single vehicular access on New Brighton Road which will be provided approximately 65m to the north-west of Cae Isa. The proposed access will take the form of a simple priority controlled access arrangement. The site access provides visibility splays that have an 'x' (minor arm setback distance) of 2.4m and a 'y' (major road visibility) distance of over 43m in both directions, in accordance with the guidance in the MfS for a 30mph road.

10.4 The change in the speed limit will be relocated approximately 30m to the north-west of its current location along New Brighton Road in order to reflect the urbanisation of the frontage and the increased presence of pedestrians. A village gateway and traffic calming features will be provided, including dragon teeth and hi-visibility signage.

10.5 PROW Footpath 121 which runs along the western boundary of the site will continue to provide pedestrian access between New Brighton Road and Argoed View. Additional pedestrian and cycle links will be provided on the southern section of the site along the A5119 and in two positions the northern section of the site along New Brighton Road.

10.6 At present there is no footway on New Brighton Road beyond the junction with Cae Isa. It is proposed to provide new section of footway along the western side of New Brighton Road to the south of the development which will link up with the existing footway. In addition, signalised pedestrian crossing features will be incorporated into the A5119 / New Brighton Road / Bryn Lane Signalised Junction, with dropped kerb and tactile paving to be provided along the New Brighton Road arm of the junction. This will ensure a continuous footway is provided between the site and the services and facilities in Mynydd Isa, including the nearest infants, primary and secondary schools.

10.7 The accessibility of the site has been assessed by walk, cycle, and bus and train modes. The site is within an acceptable walk and cycle distance of a range of local amenities and facilities. There is a reasonable level of public transport including an effective service by both bus which also provides access to rail services within a short journey distance. Areas of significant employment in Mold, Ewloe, Buckley are accessible within a short bus or cycle journey from the site.

10.8 The impact of the traffic arising from the scheme has been tested in detail at the site access and the A5119 / New Brighton Road / Bryn Lane Signalised Junction. The assessments show that there is sufficient spare capacity to accommodate the proposed development.

10.9 Having regard to the above, it is concluded that there are no highway or transport related reason to withhold planning permission for the scheme.

S|C|P

APPENDIX A

Site:	**A5119/Bryn Lane/New Brighton Road**	**A:**	**A5119 Queensferry**
Day:	**Wednesday**	**B:**	**Bryn Lane**
Date:	**27 June 2018**	**C:**	**A5119 Mold**
Weather:	**Fine, Sunny & Hot**	**D:**	**New Brighton Road**

	A - B 3									A - C 2									A - D 1								
Time	**Car**	**LGV**	**OGVI**	**0GV2**	**P/C**	**M/C**	**PSV**	**Total**	**PCU**	**Car**	**LGV**	**OGVI**	**0GV2**	**P/C**	**M/C**	**PSV**	**Total**	**PCU**	**Car**	**LGV**	**OGVI**	**0GV2**	**P/C**	**M/C**	**PSV**	**Total**	**PCU**
07:30	3	1	0	0	0	0	0	4	4	46	10	2	0	0	1	0	59	59	9	3	0	0	0	0	0	12	12
07:45	4	1	0	0	0	0	0	5	5	38	10	5	3	0	0	0	56	62	11	6	0	0	0	0	0	17	17
08:00	6	4	0	0	0	0	0	10	10	39	9	2	2	0	0	0	52	55	8	8	2	0	0	0	0	18	19
08:15	8	1	0	0	0	1	0	10	9	45	9	4	9	0	2	1	70	83	20	2	1	0	0	0	0	23	24
08:30	7	1	0	0	0	0	0	8	8	79	10	1	6	0	2	1	99	107	19	3	0	0	0	0	0	22	22
08:45	10	1	1	0	0	0	0	12	13	46	13	3	9	0	0	0	71	83	12	4	1	0	0	0	0	17	18
09:00	9	2	0	0	0	0	1	12	13	66	5	1	7	0	0	1	80	90	13	3	4	0	0	0	0	20	22
09:15	8	2	0	0	0	0	0	10	10	60	7	2	2	0	0	1	72	76	11	1	0	0	0	0	0	12	12
Total	**55**	**13**	**1**	**0**	**0**	**1**	**1**	**71**		**419**	**73**	**20**	**38**	**0**	**5**	**4**	**559**		**103**	**30**	**8**	**0**	**0**	**0**	**0**	**141**	
16:00	23	2	0	0	0	0	1	26	27	51	6	1	1	0	0	0	59	61	21	7	0	0	1	0	0	29	28
16:15	14	1	0	0	0	0	0	15	15	77	12	3	2	0	0	0	94	98	24	1	0	0	0	0	0	25	25
16:30	26	1	0	0	0	0	0	27	27	61	11	0	2	1	1	0	76	77	21	8	0	0	0	0	0	29	29
16:45	20	3	0	0	0	0	0	23	23	74	11	3	4	0	2	0	94	99	28	7	0	0	0	0	0	35	35
17:00	23	3	1	0	0	0	0	27	28	78	10	0	0	0	1	0	89	88	37	2	0	0	0	0	0	39	39
17:15	28	2	0	0	0	0	0	30	30	92	10	2	2	0	0	0	106	109	29	4	0	0	0	0	0	33	33
17:30	22	5	0	0	0	0	0	27	27	100	8	1	2	0	0	0	111	114	39	4	1	1	0	0	0	45	47
17:45	21	3	0	0	0	1	0	25	24	118	8	2	0	2	0	1	131	131	24	2	1	0	0	0	1	28	30
Total	**177**	**20**	**1**	**0**	**0**	**1**	**1**	**200**		**651**	**76**	**12**	**13**	**3**	**4**	**1**	**760**		**223**	**35**	**2**	**1**	**1**	**0**	**1**	**263**	

	B - A 6									B - C 4									B - D 5								
Time	**Car**	**LGV**	**OGVI**	**0GV2**	**P/C**	**M/C**	**PSV**	**Total**	**PCU**	**Car**	**LGV**	**OGVI**	**0GV2**	**P/C**	**M/C**	**PSV**	**Total**	**PCU**	**Car**	**LGV**	**OGVI**	**0GV2**	**P/C**	**M/C**	**PSV**	**Total**	**PCU**
07:30	29	3	0	0	0	0	0	32	32	17	0	0	0	0	0	1	18	19	27	4	1	0	0	1	0	33	33
07:45	19	3	1	0	0	0	0	23	24	11	0	0	0	0	0	0	11	11	23	2	0	0	1	0	0	26	25
08:00	21	3	0	0	0	1	0	25	24	17	2	0	0	0	0	1	20	21	22	4	0	0	1	0	0	27	26
08:15	22	3	0	0	0	0	1	26	27	18	3	2	0	0	0	1	24	26	32	3	0	0	2	0	0	37	35
08:30	17	5	0	0	0	0	1	23	24	10	2	0	0	0	0	2	14	16	40	2	0	0	0	0	0	42	42
08:45	8	0	0	0	0	0	0	8	8	26	1	0	0	0	0	1	28	29	25	2	0	0	0	1	1	29	29
09:00	13	3	0	0	0	0	0	16	16	23	2	1	0	0	0	1	27	29	25	0	1	0	1	0	0	27	27
09:15	10	5	0	0	0	0	0	15	15	14	1	1	0	0	0	1	17	19	16	2	1	0	0	0	0	19	20
Total	**139**	**25**	**1**	**0**	**0**	**1**	**2**	**168**		**136**	**11**	**4**	**0**	**0**	**0**	**8**	**159**		**210**	**19**	**3**	**0**	**5**	**2**	**1**	**240**	
16:00	8	4	0	0	1	0	0	13	12	11	1	0	0	0	0	0	12	12	13	2	0	0	0	0	0	15	15
16:15	8	2	0	0	0	0	0	10	10	22	1	0	0	0	0	1	24	25	15	0	0	0	0	0	0	15	15
16:30	9	1	0	0	0	0	0	10	10	12	0	0	0	0	0	1	13	14	9	6	0	0	0	0	0	15	15
16:45	7	0	0	0	0	0	0	7	7	14	5	0	0	0	1	1	21	21	13	2	0	0	0	0	0	15	15
17:00	3	1	0	0	0	0	0	4	4	11	3	0	0	1	0	1	16	16	23	4	0	0	1	0	1	29	29
17:15	14	2	0	0	0	0	0	16	16	12	2	1	0	0	0	0	15	16	11	2	1	0	0	0	0	14	15
17:30	17	0	0	0	0	0	0	17	17	9	0	0	0	0	0	0	9	9	30	1	0	0	0	0	0	31	31
17:45	10	1	0	0	0	2	0	13	12	14	1	0	0	0	0	2	17	19	19	4	1	0	1	0	0	25	25
Total	**76**	**11**	**0**	**0**	**1**	**2**	**0**	**90**		**105**	**13**	**1**	**0**	**1**	**1**	**6**	**127**		**133**	**21**	**2**	**0**	**2**	**0**	**1**	**159**	

	C - A 8									C - B 9									C - D 7								
Time	Car	LGV	OGVI	0GV2	P/C	M/C	PSV	Total	PCU	Car	LGV	OGVI	0GV2	P/C	M/C	PSV	Total	PCU	Car	LGV	OGVI	0GV2	P/C	M/C	PSV	Total	PCU
07:30	56	14	3	6	0	0	0	79	88	2	0	0	0	0	0	1	3	4	1	0	0	0	0	0	0	1	1
07:45	49	5	1	10	1	1	0	67	78	5	0	0	0	0	0	0	5	5	4	1	0	0	0	0	0	5	5
08:00	41	8	4	5	0	0	0	58	66	6	1	0	0	0	0	1	8	9	0	1	0	0	0	0	0	1	1
08:15	50	8	0	3	0	0	0	61	65	7	0	0	0	0	0	0	7	7	1	0	0	0	0	0	0	1	1
08:30	52	4	5	4	0	0	0	65	72	10	0	0	0	0	0	1	11	12	3	0	0	0	0	0	0	3	3
08:45	36	6	2	5	0	1	0	50	56	7	1	0	0	0	1	1	10	10	0	0	0	0	0	0	0	0	0
09:00	41	11	3	8	0	0	1	64	76	11	3	0	0	0	0	1	15	16	6	0	0	0	0	0	0	6	6
09:15	40	7	2	10	0	0	0	59	72	8	2	0	0	0	0	0	10	10	5	1	0	0	0	0	0	6	6
Total	365	63	20	51	1	2	1	503		56	7	0	0	0	1	5	69		20	3	0	0	0	0	0	23	
16:00	54	3	2	0	3	0	0	62	61	11	0	0	0	0	0	1	12	13	2	0	0	0	0	0	0	2	2
16:15	57	14	3	4	0	1	0	79	85	11	0	0	0	0	0	0	11	11	2	2	0	0	0	0	0	4	4
16:30	66	10	1	1	0	1	0	79	80	12	1	0	0	0	0	0	13	13	2	0	1	0	0	0	0	3	4
16:45	34	6	0	1	1	0	0	42	42	12	1	0	0	0	0	1	14	15	1	0	0	0	0	0	0	1	1
17:00	63	3	1	3	0	1	0	71	75	20	0	0	0	0	0	1	21	22	5	1	0	0	0	0	0	6	6
17:15	46	0	0	0	1	2	0	49	47	13	2	0	0	0	0	1	16	17	4	2	0	0	0	0	0	6	6
17:30	61	1	1	1	0	3	0	67	67	15	0	0	0	0	0	0	15	15	2	0	0	0	0	0	0	2	2
17:45	46	3	0	0	0	1	2	52	53	15	0	0	0	0	1	0	16	15	3	3	0	0	0	0	0	6	6
Total	427	40	8	10	5	9	2	501		109	4	0	0	0	1	4	118		21	8	1	0	0	0	0	30	

	D - A 12									D - B 11									D - C 10								
Time	Car	LGV	OGVI	0GV2	P/C	M/C	PSV	Total	PCU	Car	LGV	OGVI	0GV2	P/C	M/C	PSV	Total	PCU	Car	LGV	OGVI	0GV2	P/C	M/C	PSV	Total	PCU
07:30	26	7	1	0	1	0	0	35	35	6	2	0	1	0	0	0	9	10	2	1	0	0	0	0	0	3	3
07:45	25	6	0	0	0	0	0	31	31	15	4	1	0	0	0	0	20	21	1	3	0	0	0	0	0	4	4
08:00	35	1	0	0	0	0	1	37	38	25	5	0	0	0	0	0	30	30	0	0	0	0	0	0	0	0	0
08:15	17	6	0	0	0	0	0	23	23	24	4	0	0	0	1	0	29	28	4	0	1	0	0	0	0	5	6
08:30	22	3	0	0	0	0	0	25	25	34	3	0	0	0	0	0	37	37	0	0	0	0	0	0	0	0	0
08:45	22	3	0	0	0	1	0	26	25	20	0	1	0	1	0	1	23	24	1	0	0	0	0	0	0	1	1
09:00	22	4	1	0	0	0	1	28	30	12	3	0	0	0	0	0	15	15	2	0	0	0	0	0	0	2	2
09:15	14	1	0	0	0	0	0	15	15	11	4	0	0	0	0	0	15	15	5	1	1	0	0	0	0	7	8
Total	183	31	2	0	1	1	2	220		147	25	2	1	1	1	1	178		15	5	2	0	0	0	0	22	
16:00	14	5	0	0	0	0	0	19	19	23	1	1	1	1	0	0	27	28	1	1	0	0	0	0	0	2	2
16:15	10	2	0	0	0	0	0	12	12	30	4	0	0	0	0	0	34	34	1	1	1	0	0	0	0	3	4
16:30	8	2	0	0	0	0	0	10	10	19	3	0	0	0	0	0	22	22	4	0	0	0	0	0	0	4	4
16:45	12	7	1	0	0	1	0	21	21	28	3	0	0	0	2	0	33	32	1	0	0	0	0	0	0	1	1
17:00	12	4	0	0	0	0	0	16	16	32	11	0	0	1	1	0	45	44	3	0	0	0	0	0	0	3	3
17:15	16	3	2	0	0	0	0	21	22	43	9	1	0	2	1	0	56	54	2	0	0	0	0	0	0	2	2
17:30	21	2	0	0	0	0	0	23	23	44	5	0	0	1	0	0	50	49	2	0	0	0	0	0	0	2	2
17:45	17	0	0	0	0	0	0	17	17	35	1	0	0	0	1	0	37	36	4	0	0	0	0	0	0	4	4
Total	110	25	3	0	0	1	0	139		254	37	2	1	5	5	0	304		18	2	1	0	0	0	0	21	

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APPENDIX B

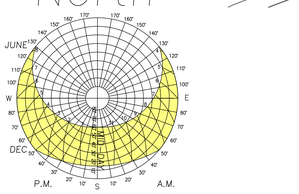
Argoed View, Nr Mold
Proposed Sketch Layout - 1:500

STEWART Milne HOMES

Planning Layout Legend

- Proposed dwelling and Dwelling type.
- Proposed dwelling handing.
- 26 — Plot numbers.
- AF — Affordable Dwellings.
- Proposed dual aspect units.
- Proposed SUDS pond.
- Proposed indicative tree position. (refer to landscaping layout for detail)
- Existing Category A trees to be retained. (refer to tree report for detail)
- Existing Category B trees to be retained. (refer to tree report for detail)
- Existing Category C trees to be retained. (refer to tree report for detail)
- Trees to be removed. (refer to tree report for detail)
- Hard Landscaping Treatment A — Alternative surface material colour TBC
- Hard Landscaping Treatment B — Block Paving Herringbone bonded to shared surface, focal points and pirmeate driveways Colour TBC
- Soft Landscaping — Soft Landscaping. Refer to landscaping plans for schedule and details.
- Boundary Treatment A — 1800mm high brick screen wall
- Boundary Treatment B — 1800mm high close boarded fence.
- Boundary Treatment C — 1200mm high 'stock proof' post and wire fence
- Application Site boundary.
- Existing Easement.

North



1:500 — 10m 0 10m 20m 30m 40m 50m

STEWART Milne HOMES

Schedule of Accommodation

Mews Dwelling Types AFFORDABLE			SQFT	No	Total Sq ft
AB	5%	Aberlady Mid	654	4	2616
AB	10%	Aberlady End	657	8	5256
AE	4%	Aviemore Mid	770	3	2310
AE	12%	Aviemore End	770	10	7700
Total dwellings and sqft				25	17,882

2/3 Bed Mews Dwelling Types			SQFT	No	Total Sq ft
AL	3%	Alnwick Mid	713	2	1426
BK	5%	Berwick Mid	866	3	2598
BK	22%	Berwick End	869	13	11297
CL	19%	Cairnhill	972	11	10692
CU	7%	Culcross	1031	4	4124

3 Bed Detached Dwellings			SQFT	No	Total Sq ft
CD	7%	Castleford	963	4	3852
CM	5%	Corringham	1026	4	4104

4 Bed Semi Detached Dwellings			SQFT	No	Total Sq ft
DY	7%	Dewsbury	1141	4	4564

4 Bed Detached Dwellings			SQFT	No	Total Sq ft
FH	3%	Farnham	1266	2	2532
HR	7%	Harris	1382	4	5528
KD	4%	Kendal	1493	3	4479

5 Bed Detached Dwellings			SQFT	No	Total Sq ft
LE	8%	Leven	1630	5	8150

Total dwellings and sqft - OMS	59	63,346
Total dwellings and sqft - Including Affordable	84	81,228

Gross Site Area in Acres	8.344
POS	1.118
SUD's	0.706
Single Sided Road	0.268
Undevelopable	0.507
Net Site Area in Acres	5.75
Density (units per acre)	15
Density (units per hectare)	36
Nett Square foot / Acre	14,139

Rev	Details	Date	By	Chk

DATE	03.2021	DRAWN	DJM
SCALE	1:500	CHK	

Argoed View, Nr Mold

Proposed Planning Layout

Dwg No	SK296/NBM/PL50	Rev

STEWART Milne HOMES
Stewart Milne Homes
Harrier House
2 Lumsdale Road
Cobra Business Park
Trafford Park Manchester
Telephone (0161) 866 6900
fax (0161) 866 6909

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APPENDIX C

EXISTING LOCATION OF SPEED LIMIT CHANGE TO BE RELOCATED APPROXIMATELY 30M TO THE NORTH-WEST OF THE SITE

PROPOSED LOCATION OF SPEED LIMIT CHANGE, INCLUDING GATEWAY FEATURES AND HI-VIS SIGNS

2.4m x 43m VISIBILITY SPLAYS

SCALE 1:250

PROPOSED SIGNALISED PEDESTRIAN CROSSINGS ALONG NEW BRIGHTON ROAD AND A5119

REVISIONS			
Rev	Description	Date	By
A	–LATEST SITE LAYOUT UNDERLAID –	24.04.19	WD
B	–LATEST SITE LAYOUT UNDERLAID –	11.08.20	BH
–	– –	–	–

S|C|P
Transportation Planning : Infrastructure Design
Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,
www.scptransport.co.uk, Email info@scptransport.co.uk

Client: STEWART MILNE HOMES (NORTH WEST)	Drawing Title: SITE ACCESS ARRANEMENT AND PEDESTRIAN ACCESS	Scale: 1:500 @ A3 UNLESS SHOWN	By: WD	Drawing No.: SCP/18259/F02
Project Title: ARGOED VIEW, MOLD		Date: 25.01.19	Checked: LB	
		Approved/ Unapproved: -	Status: PLANNING	Revision: B

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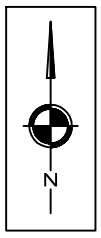
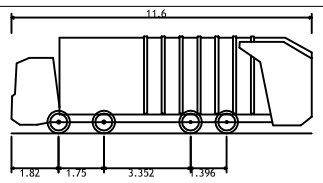
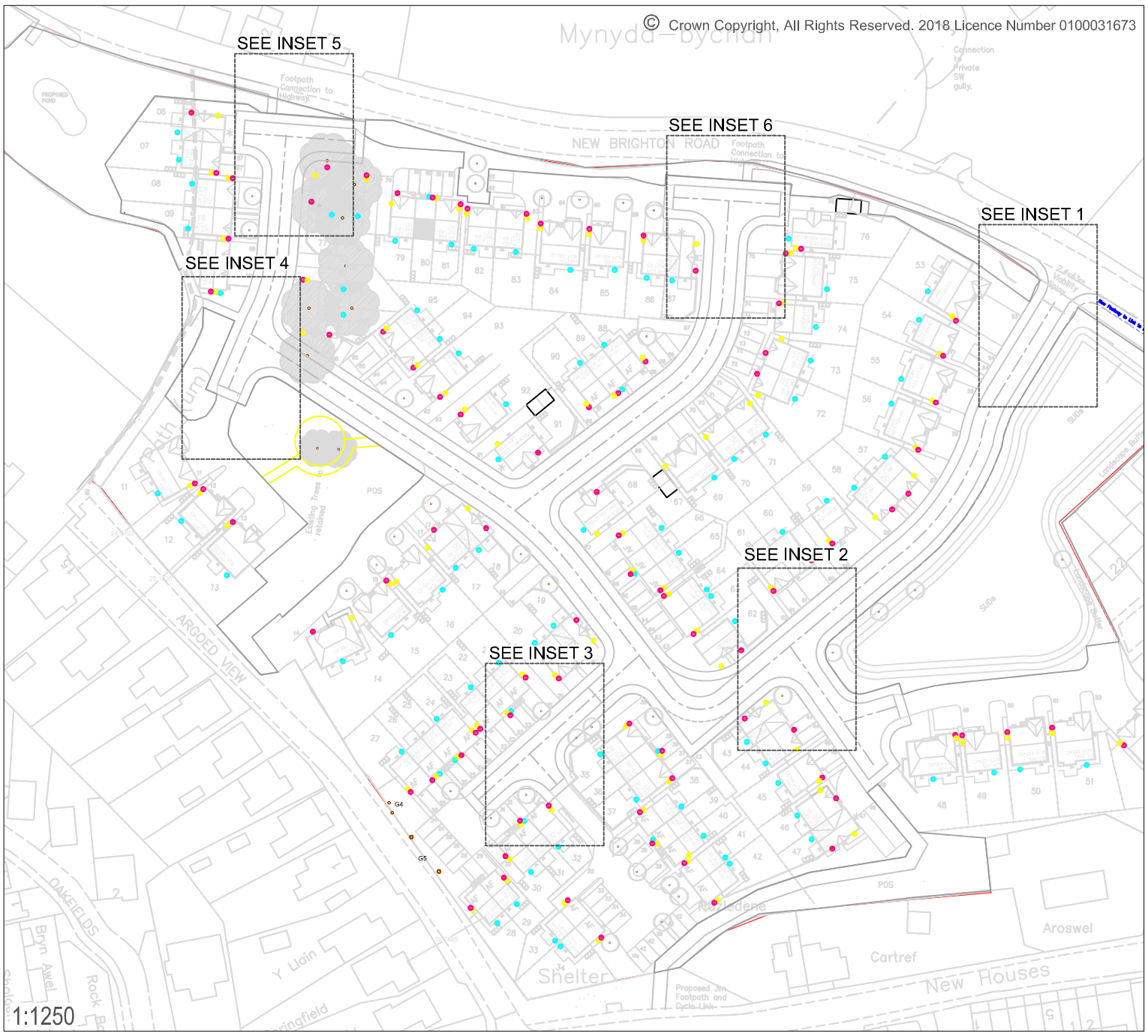
APPENDIX D

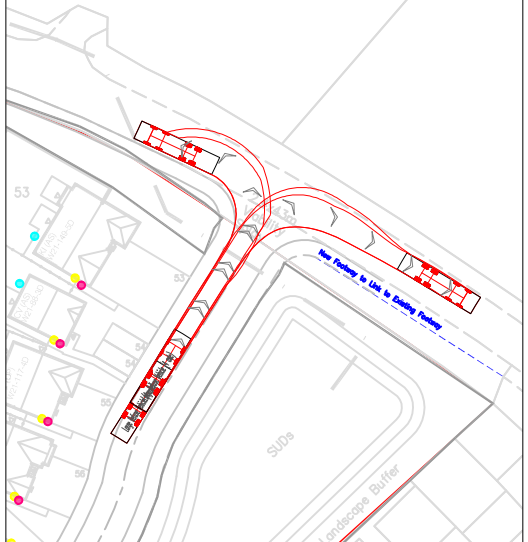




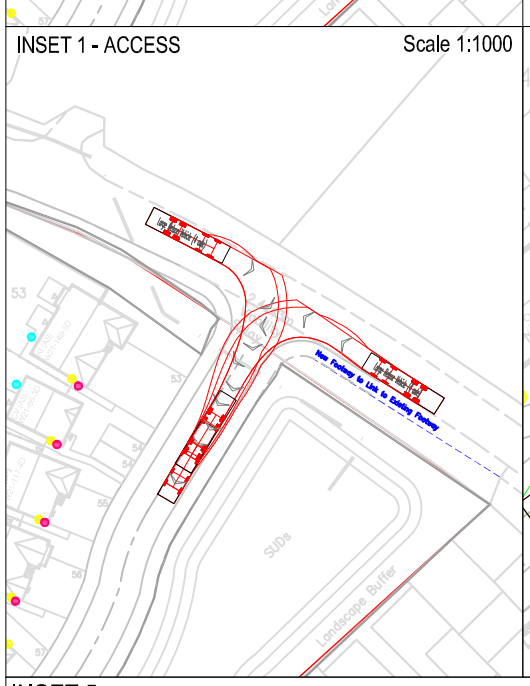
Large Refuse Vehicle (4 axle)	
Overall Length	11.600m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to Lock Time	6.00s
Wall to Wall Turning Radius	10.150m



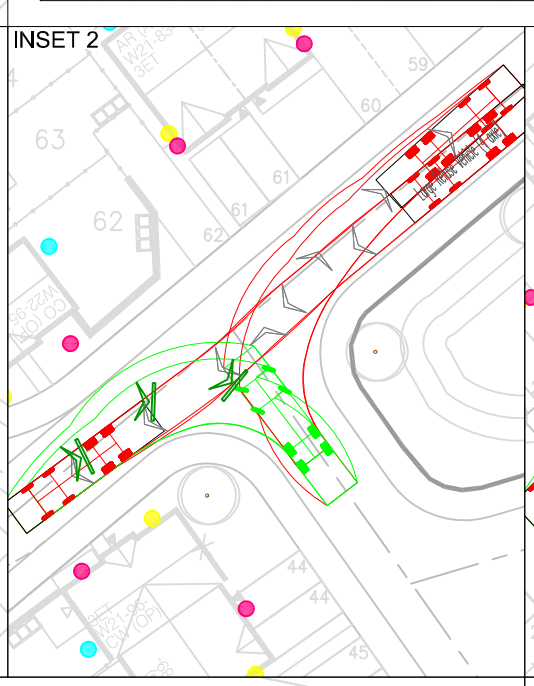
INSET 1 - EGRESS Scale 1:1000



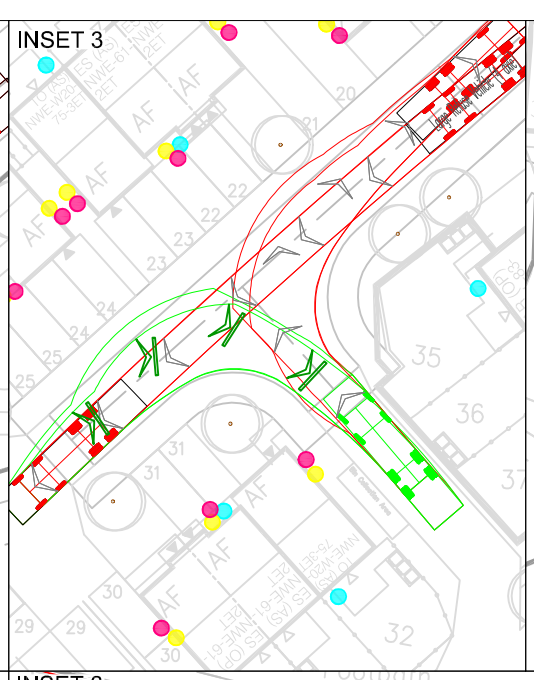
INSET 1 - ACCESS Scale 1:1000



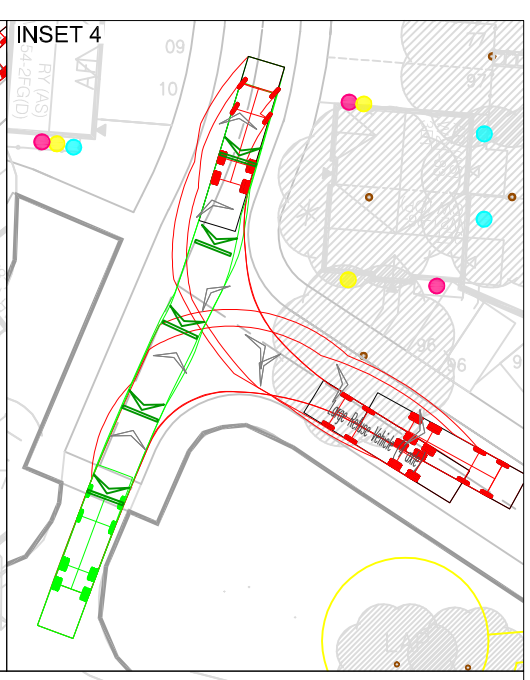
INSET 2



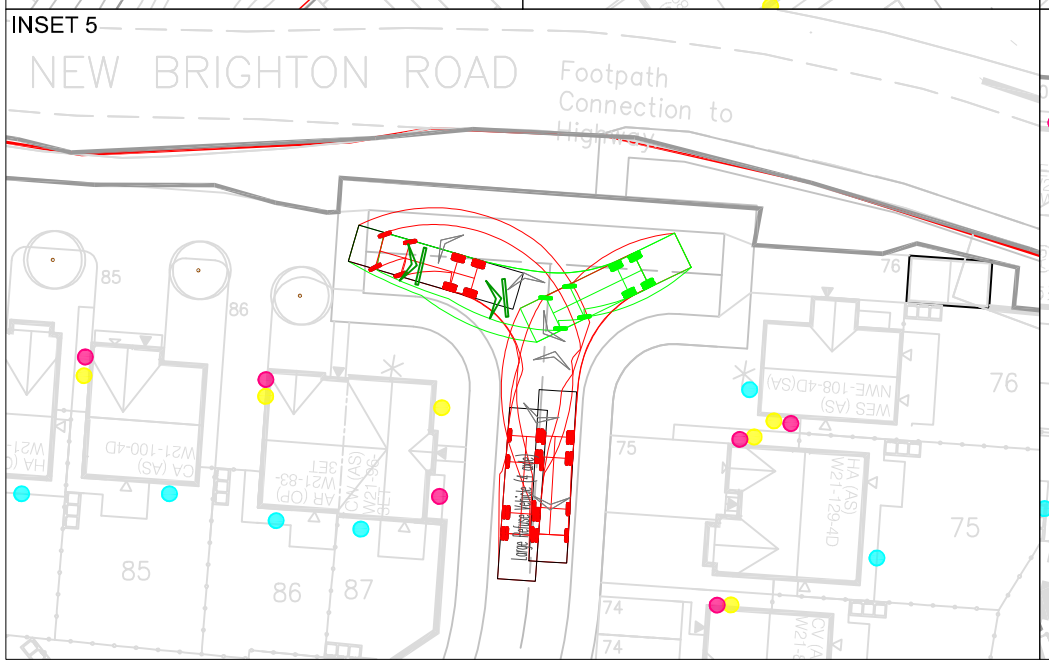
INSET 3



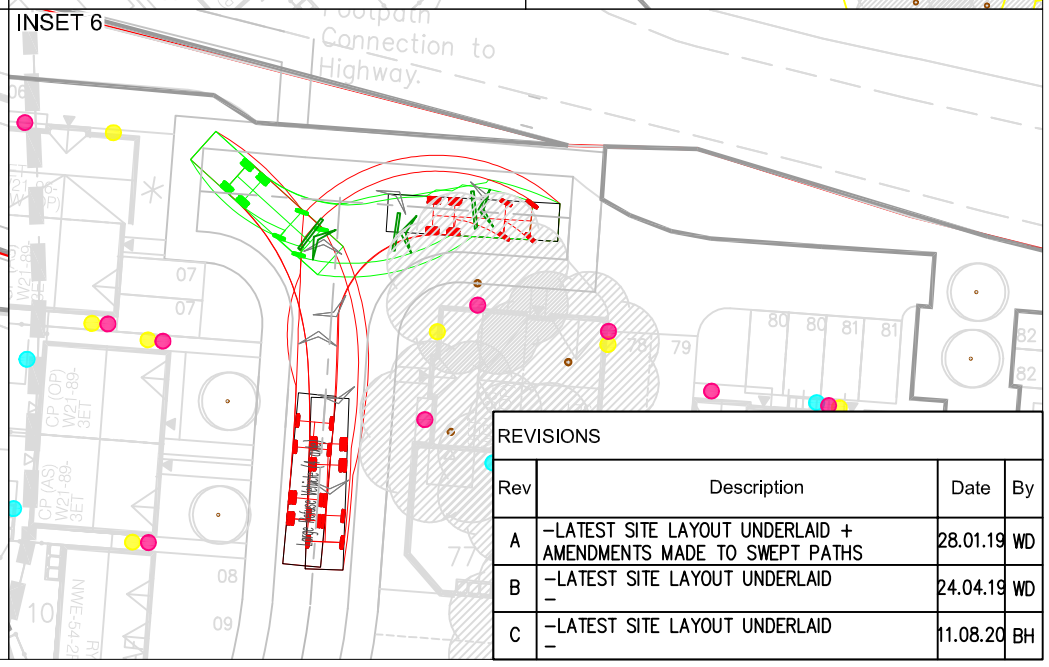
INSET 4



INSET 5



INSET 6



REVISIONS			
Rev	Description	Date	By
A	-LATEST SITE LAYOUT UNDERLAID + AMENDMENTS MADE TO SWEPT PATHS	28.01.19	WD
B	-LATEST SITE LAYOUT UNDERLAID -	24.04.19	WD
C	-LATEST SITE LAYOUT UNDERLAID -	11.08.20	BH

SCP
Transportation Planning : Infrastructure Design
Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,
www.scptransport.co.uk, Email info@scptransport.co.uk

Client: STEWART MILNE HOMES (NORTH WEST)	Drawing Title: SWEPT PATH ANALYSIS	Scale: 1:500 @ A3 UNLESS SHOWN	By: MC
Project Title: ARGOED VIEW, MOLD		Date: 25.01.19	Checked: LB
		Approved/ Unapproved: -	Status: PLANNING
		Drawing No.: SCP/18259/ATR01	Revision: C

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APPENDIX E

Calculation Reference: AUDIT-726001-190115-0154

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	KC	KENT	1 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	4 days
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NY	NORTH YORKSHIRE	1 days
09	**NORTH**		
	DH	DURHAM	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 54 to 197 (units:)
Range Selected by User: 50 to 200 (units:)

Parking Spaces Range: Selected: 12 to 1726 Actual: 12 to 1726

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 20/11/18

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Thursday	6 days
Friday	2 days

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

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	8
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Residential Zone	8
Village	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

C3	10 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	2 days
5,001 to 10,000	2 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	2 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	3 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	2 days
1.1 to 1.5	7 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	3 days
No	7 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	10 days

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

LIST OF SITES relevant to selection parameters

1 **DH-03-A-02** **MIXED HOUSES** **DURHAM**
LEAZES LANE
BISHOP AUCKLAND
ST HELEN AUCKLAND
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Number of dwellings: 125
Survey date: MONDAY *27/03/17* *Survey Type: MANUAL*

2 **ES-03-A-04** **MIXED HOUSES & FLATS** **EAST SUSSEX**
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total Number of dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

3 **KC-03-A-04** **SEMI-DETACHED & TERRACED** **KENT**
KILN BARN ROAD
AYLESFORD
DITTON
Edge of Town
Residential Zone
Total Number of dwellings: 110
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

4 **NY-03-A-10** **HOUSES AND FLATS** **NORTH YORKSHIRE**
BOROUGHBRIDGE ROAD
RIPON

Edge of Town
No Sub Category
Total Number of dwellings: 71
Survey date: TUESDAY *17/09/13* *Survey Type: MANUAL*

5 **SC-03-A-04** **DETACHED & TERRACED** **SURREY**
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

6 **SH-03-A-05** **SEMI-DETACHED/TERRACED** **SHROPSHIRE**
SANDCROFT
TELFORD
SUTTON HILL
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

7 **WS-03-A-04** **MIXED HOUSES** **WEST SUSSEX**
HILLS FARM LANE
HORSHAM
BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total Number of dwellings: 151
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

8 **WS-03-A-07** **BUNGALOWS** **WEST SUSSEX**
EMMS LANE
NEAR HORSHAM
BROOKS GREEN
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 57
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **WS-03-A-08** **MIXED HOUSES** **WEST SUSSEX**
ROUNDSTONE LANE
ANGMERING

Edge of Town
Residential Zone
Total Number of dwellings: 180
Survey date: THURSDAY *19/04/18* *Survey Type: MANUAL*

10 **WS-03-A-09** **MIXED HOUSES & FLATS** **WEST SUSSEX**
LITTLEHAMPTON ROAD
WORTHING
WEST DURRINGTON
Edge of Town
Residential Zone
Total Number of dwellings: 197
Survey date: THURSDAY *05/07/18* *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/A - HOUSES PRIVATELY OWNED
MULTI-MODAL 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	10	115	0.063	10	115	0.239	10	115	0.302
08:00 - 09:00	10	115	0.107	**10**	**115**	**0.300**	**10**	**115**	**0.407**
09:00 - 10:00	10	115	0.141	10	115	0.170	10	115	0.311
10:00 - 11:00	10	115	0.129	10	115	0.168	10	115	0.297
11:00 - 12:00	10	115	0.130	10	115	0.139	10	115	0.269
12:00 - 13:00	10	115	0.141	10	115	0.124	10	115	0.265
13:00 - 14:00	10	115	0.173	10	115	0.155	10	115	0.328
14:00 - 15:00	10	115	0.142	10	115	0.185	10	115	0.327
15:00 - 16:00	10	115	0.236	10	115	0.150	10	115	0.386
16:00 - 17:00	10	115	0.223	10	115	0.136	10	115	0.359
17:00 - 18:00	**10**	**115**	**0.248**	10	115	0.107	10	115	0.355
18:00 - 19:00	10	115	0.211	10	115	0.125	10	115	0.336
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.944			1.998			3.942

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:	54 - 197 (units:)
Survey date date range:	01/01/10 - 20/11/18
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

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

MULTI-MODAL CYCLISTS

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	10	115	0.010	10	115	0.009	10	115	0.019
08:00 - 09:00	10	115	0.013	**10**	**115**	**0.021**	**10**	**115**	**0.034**
09:00 - 10:00	10	115	0.000	10	115	0.004	10	115	0.004
10:00 - 11:00	10	115	0.003	10	115	0.008	10	115	0.011
11:00 - 12:00	10	115	0.004	10	115	0.005	10	115	0.009
12:00 - 13:00	10	115	0.005	10	115	0.007	10	115	0.012
13:00 - 14:00	10	115	0.004	10	115	0.002	10	115	0.006
14:00 - 15:00	10	115	0.006	10	115	0.003	10	115	0.009
15:00 - 16:00	10	115	0.009	10	115	0.008	10	115	0.017
16:00 - 17:00	10	115	0.011	10	115	0.014	10	115	0.025
17:00 - 18:00	**10**	**115**	**0.021**	10	115	0.010	10	115	0.031
18:00 - 19:00	10	115	0.016	10	115	0.014	10	115	0.030
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.102			0.105			0.207

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
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	10	115	0.021	10	115	0.043	10	115	0.064
08:00 - 09:00	10	115	0.045	**10**	**115**	**0.103**	10	115	0.148
09:00 - 10:00	10	115	0.057	10	115	0.069	10	115	0.126
10:00 - 11:00	10	115	0.051	10	115	0.064	10	115	0.115
11:00 - 12:00	10	115	0.035	10	115	0.044	10	115	0.079
12:00 - 13:00	10	115	0.057	10	115	0.048	10	115	0.105
13:00 - 14:00	10	115	0.043	10	115	0.041	10	115	0.084
14:00 - 15:00	10	115	0.044	10	115	0.046	10	115	0.090
15:00 - 16:00	**10**	**115**	**0.101**	10	115	0.057	**10**	**115**	**0.158**
16:00 - 17:00	10	115	0.077	10	115	0.055	10	115	0.132
17:00 - 18:00	10	115	0.069	10	115	0.030	10	115	0.099
18:00 - 19:00	10	115	0.057	10	115	0.043	10	115	0.100
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.657			0.643			1.300

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
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	10	115	0.003	10	115	0.012	10	115	0.015
08:00 - 09:00	10	115	0.000	**10**	**115**	**0.035**	**10**	**115**	**0.035**
09:00 - 10:00	10	115	0.003	10	115	0.014	10	115	0.017
10:00 - 11:00	10	115	0.003	10	115	0.002	10	115	0.005
11:00 - 12:00	10	115	0.001	10	115	0.003	10	115	0.004
12:00 - 13:00	10	115	0.006	10	115	0.008	10	115	0.014
13:00 - 14:00	10	115	0.003	10	115	0.003	10	115	0.006
14:00 - 15:00	10	115	0.006	10	115	0.002	10	115	0.008
15:00 - 16:00	**10**	**115**	**0.017**	10	115	0.006	10	115	0.023
16:00 - 17:00	10	115	0.010	10	115	0.003	10	115	0.013
17:00 - 18:00	10	115	0.006	10	115	0.003	10	115	0.009
18:00 - 19:00	10	115	0.013	10	115	0.003	10	115	0.016
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.071			0.094			0.165

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

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

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	KC	KENT	1 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	4 days
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NY	NORTH YORKSHIRE	1 days
09	**NORTH**		
	DH	DURHAM	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 54 to 197 (units:)
Range Selected by User: 50 to 200 (units:)

Parking Spaces Range: Selected: 12 to 1726 Actual: 12 to 1726

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 20/11/18

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Thursday	6 days
Friday	2 days

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

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	8
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Residential Zone	8
Village	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

C3	10 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	2 days
5,001 to 10,000	2 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	2 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	3 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	2 days
1.1 to 1.5	7 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	3 days
No	7 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	10 days

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

LIST OF SITES relevant to selection parameters

1 **DH-03-A-02** **MIXED HOUSES** **DURHAM**
LEAZES LANE
BISHOP AUCKLAND
ST HELEN AUCKLAND
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Number of dwellings: 125
Survey date: MONDAY *27/03/17* *Survey Type: MANUAL*

2 **ES-03-A-04** **MIXED HOUSES & FLATS** **EAST SUSSEX**
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total Number of dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

3 **KC-03-A-04** **SEMI-DETACHED & TERRACED** **KENT**
KILN BARN ROAD
AYLESFORD
DITTON
Edge of Town
Residential Zone
Total Number of dwellings: 110
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

4 **NY-03-A-10** **HOUSES AND FLATS** **NORTH YORKSHIRE**
BOROUGHBRIDGE ROAD
RIPON

Edge of Town
No Sub Category
Total Number of dwellings: 71
Survey date: TUESDAY *17/09/13* *Survey Type: MANUAL*

5 **SC-03-A-04** **DETACHED & TERRACED** **SURREY**
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

6 **SH-03-A-05** **SEMI-DETACHED/TERRACED** **SHROPSHIRE**
SANDCROFT
TELFORD
SUTTON HILL
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

7 **WS-03-A-04** **MIXED HOUSES** **WEST SUSSEX**
HILLS FARM LANE
HORSHAM
BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total Number of dwellings: 151
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

8 **WS-03-A-07** **BUNGALOWS** **WEST SUSSEX**
EMMS LANE
NEAR HORSHAM
BROOKS GREEN
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 57
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **WS-03-A-08** **MIXED HOUSES** **WEST SUSSEX**
ROUNDSTONE LANE
ANGMERING

Edge of Town
Residential Zone
Total Number of dwellings: 180
Survey date: THURSDAY *19/04/18* *Survey Type: MANUAL*

10 **WS-03-A-09** **MIXED HOUSES & FLATS** **WEST SUSSEX**
LITTLEHAMPTON ROAD
WORTHING
WEST DURRINGTON
Edge of Town
Residential Zone
Total Number of dwellings: 197
Survey date: THURSDAY *05/07/18* *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.

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES

Ranking Type: **TOTALS** Time Range: 08:00-09:00

WARNING: Using 85th and 15th percentile highlighted trip rates in data sets of under 20 surveys is not recommended by TRICS and may be misleading.

15th Percentile = No. **9** ES-03-A-04 Tot: 0.186

85th Percentile = No. **2** KC-03-A-04 Tot: 0.600

Median Values		Mean Values	
Arrivals:	0.104	Arrivals:	0.115
Departures:	0.346	Departures:	0.306
Totals:	0.450	Totals:	0.422

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces Per Dwelling
								Arrivals	Departures	Totals	
1	NY-03-A-10	HOUSES AND FLA	RIPON	NORTH YORKSHIRE	71	Tue	17/09/13	0.183	0.521	0.704	0.83
2	**KC-03-A-04**	**SEMI-DETACHED**	**AYLESFORD**	**KENT**	**110**	**Fri**	**22/09/17**	**0.127**	**0.473**	**0.600**	**1.77**
3	SH-03-A-05	SEMI-DETACHED/	TELFORD	SHROPSHIRE	54	Thu	24/10/13	0.130	0.370	0.500	1.17
4	SC-03-A-04	DETACHED & TER	BYFLEET	SURREY	71	Thu	23/01/14	0.141	0.352	0.493	2.49
5	WS-03-A-08	MIXED HOUSES	ANGMERING	WEST SUSSEX	180	Thu	19/04/18	0.106	0.367	0.473	2.93
6	WS-03-A-09	MIXED HOUSES &	WORTHING	WEST SUSSEX	197	Thu	05/07/18	0.102	0.325	0.427	1.93
7	WS-03-A-04	MIXED HOUSES	HORSHAM	WEST SUSSEX	151	Thu	11/12/14	0.139	0.278	0.417	2.28
8	WS-03-A-07	BUNGALOWS	NEAR HORSHAM	WEST SUSSEX	57	Thu	19/10/17	0.140	0.140	0.280	1.89
9	**ES-03-A-04**	**MIXED HOUSES &**	**CAMBER**	**EAST SUSSEX**	**134**	**Fri**	**15/07/16**	**0.052**	**0.134**	**0.186**	**1.91**
10	DH-03-A-02	MIXED HOUSES	BISHOP AUCKLAND	DURHAM	125	Mon	27/03/17	0.032	0.104	0.136	0.99

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	KC	KENT	1 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	4 days
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NY	NORTH YORKSHIRE	1 days
09	**NORTH**		
	DH	DURHAM	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 54 to 197 (units:)
Range Selected by User: 50 to 200 (units:)

Parking Spaces Range: Selected: 12 to 1726 Actual: 12 to 1726

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 20/11/18

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Thursday	6 days
Friday	2 days

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

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	8
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Residential Zone	8
Village	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

C3	10 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	2 days
5,001 to 10,000	2 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	2 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	3 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	2 days
1.1 to 1.5	7 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	3 days
No	7 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	10 days

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

LIST OF SITES relevant to selection parameters

1 **DH-03-A-02** **MIXED HOUSES** **DURHAM**
LEAZES LANE
BISHOP AUCKLAND
ST HELEN AUCKLAND
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Number of dwellings: 125
Survey date: MONDAY *27/03/17* *Survey Type: MANUAL*

2 **ES-03-A-04** **MIXED HOUSES & FLATS** **EAST SUSSEX**
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total Number of dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

3 **KC-03-A-04** **SEMI-DETACHED & TERRACED** **KENT**
KILN BARN ROAD
AYLESFORD
DITTON
Edge of Town
Residential Zone
Total Number of dwellings: 110
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

4 **NY-03-A-10** **HOUSES AND FLATS** **NORTH YORKSHIRE**
BOROUGHBRIDGE ROAD
RIPON

Edge of Town
No Sub Category
Total Number of dwellings: 71
Survey date: TUESDAY *17/09/13* *Survey Type: MANUAL*

5 **SC-03-A-04** **DETACHED & TERRACED** **SURREY**
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

6 **SH-03-A-05** **SEMI-DETACHED/TERRACED** **SHROPSHIRE**
SANDCROFT
TELFORD
SUTTON HILL
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

7 **WS-03-A-04** **MIXED HOUSES** **WEST SUSSEX**
HILLS FARM LANE
HORSHAM
BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total Number of dwellings: 151
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

8 **WS-03-A-07** **BUNGALOWS** **WEST SUSSEX**
EMMS LANE
NEAR HORSHAM
BROOKS GREEN
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 57
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **WS-03-A-08** **MIXED HOUSES** **WEST SUSSEX**
ROUNDSTONE LANE
ANGMERING

Edge of Town
Residential Zone
Total Number of dwellings: 180
Survey date: THURSDAY *19/04/18* *Survey Type: MANUAL*

10 **WS-03-A-09** **MIXED HOUSES & FLATS** **WEST SUSSEX**
LITTLEHAMPTON ROAD
WORTHING
WEST DURRINGTON
Edge of Town
Residential Zone
Total Number of dwellings: 197
Survey date: THURSDAY *05/07/18* *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.

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES

Ranking Type: **TOTALS** Time Range: 17:00-18:00

WARNING: Using 85th and 15th percentile highlighted trip rates in data sets of under 20 surveys is not recommended by TRICS and may be misleading.

15th Percentile = No. **9** WS-03-A-07 Tot: 0.158

85th Percentile = No. **2** WS-03-A-08 Tot: 0.484

Median Values		Mean Values	
Arrivals:	0.246	Arrivals:	0.250
Departures:	0.125	Departures:	0.101
Totals:	0.371	Totals:	0.351

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces Per Dwelling
								Arrivals	Departures	Totals	
1	NY-03-A-10	HOUSES AND FLA	RIPON	NORTH YORKSHIRE	71	Tue	17/09/13	0.479	0.099	0.578	0.83
2	**WS-03-A-08**	**MIXED HOUSES**	**ANGMERING**	**WEST SUSSEX**	**180**	**Thu**	**19/04/18**	**0.278**	**0.206**	**0.484**	**2.93**
3	SC-03-A-04	DETACHED & TER	BYFLEET	SURREY	71	Thu	23/01/14	0.366	0.099	0.465	2.49
4	WS-03-A-09	MIXED HOUSES &	WORTHING	WEST SUSSEX	197	Thu	05/07/18	0.305	0.096	0.401	1.93
5	WS-03-A-04	MIXED HOUSES	HORSHAM	WEST SUSSEX	151	Thu	11/12/14	0.252	0.119	0.371	2.28
6	SH-03-A-05	SEMI-DETACHED/	TELFORD	SHROPSHIRE	54	Thu	24/10/13	0.241	0.130	0.371	1.17
7	KC-03-A-04	SEMI-DETACHED	AYLESFORD	KENT	110	Fri	22/09/17	0.273	0.064	0.337	1.77
8	ES-03-A-04	MIXED HOUSES &	CAMBER	EAST SUSSEX	134	Fri	15/07/16	0.157	0.112	0.269	1.91
9	**WS-03-A-07**	**BUNGALOWS**	**NEAR HORSHAM**	**WEST SUSSEX**	**57**	**Thu**	**19/10/17**	**0.088**	**0.070**	**0.158**	**1.89**
10	DH-03-A-02	MIXED HOUSES	BISHOP AUCKLAND	DURHAM	125	Mon	27/03/17	0.064	0.016	0.080	0.99

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

S|C|P

APPENDIX F

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: New Brighton_Site Access_Priority Junction.j9
Path: Z:\Job Library\2018\18259 - New Brighton Road, Mold\Traffic Data\PICADY
Report generation date: 24/04/2019 10:29:38

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Assessment							
Stream B-C	0.0	5.94	0.00	A	0.0	6.06	0.00	A
Stream B-A	0.1	9.42	0.07	A	0.0	9.69	0.03	A
Stream C-AB	0.0	5.26	0.00	A	0.0	5.06	0.00	A
	2024 Assessment - SENSITIVITY TEST							
Stream B-C	0.0	6.04	0.00	A	0.0	6.12	0.00	A
Stream B-A	0.1	9.94	0.12	A	0.1	9.99	0.06	A
Stream C-AB	0.0	5.27	0.00	A	0.0	5.06	0.00	A

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	Argoed View
Location	Mold
Site number	
Date	16/01/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	18259
Enumerator	SCP\vicky.lomas
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Assessment	AM	ONE HOUR	08:15	09:45	15	✓
D2	2024 Assessment	PM	ONE HOUR	16:45	18:15	15	✓
D3	2024 Assessment - SENSITIVITY TEST	AM	ONE HOUR	08:15	09:45	15	✓
D4	2024 Assessment - SENSITIVITY TEST	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2024 Assessment, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	New Brighton Road East		Major
B	Site Access		Minor
C	New Brighton Road West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	5.80			84.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	8.75	2.80	2.70	2.70	2.70		1.00	19	18

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	501	0.092	0.233	0.146	0.333
1	B-C	683	0.106	0.267	-	-
1	C-B	623	0.243	0.243	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Assessment	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	223	100.000
B		ONE HOUR	✓	29	100.000
C		ONE HOUR	✓	203	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	10	213
	B	28	0	1
	C	202	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	5.94	0.0	A	0.92	1
B-A	0.07	9.42	0.1	A	26	39
C-AB	0.00	5.26	0.0	A	1	2
C-A					185	278
A-B					9	14
A-C					195	293

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	0.19	631	0.001	0.75	0.0	0.0	5.707	A
B-A	21	5	441	0.048	21	0.0	0.0	8.569	A
C-AB	0.97	0.24	685	0.001	0.96	0.0	0.0	5.264	A
C-A	152	38			152				
A-B	8	2			8				
A-C	160	40			160				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.90	0.22	621	0.001	0.90	0.0	0.0	5.802	A
B-A	25	6	429	0.059	25	0.0	0.1	8.910	A
C-AB	1	0.30	698	0.002	1	0.0	0.0	5.169	A
C-A	181	45			181				
A-B	9	2			9				
A-C	191	48			191				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1	0.28	607	0.002	1	0.0	0.0	5.940	A
B-A	31	8	413	0.075	31	0.1	0.1	9.422	A
C-AB	2	0.40	716	0.002	2	0.0	0.0	5.040	A
C-A	222	55			222				
A-B	11	3			11				
A-C	235	59			235				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1	0.28	607	0.002	1	0.0	0.0	5.940	A
B-A	31	8	413	0.075	31	0.1	0.1	9.423	A
C-AB	2	0.40	716	0.002	2	0.0	0.0	5.042	A
C-A	222	55			222				
A-B	11	3			11				
A-C	235	59			235				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.90	0.22	621	0.001	0.90	0.0	0.0	5.803	A
B-A	25	6	429	0.059	25	0.1	0.1	8.915	A
C-AB	1	0.30	698	0.002	1	0.0	0.0	5.171	A
C-A	181	45			181				
A-B	9	2			9				
A-C	191	48			191				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	0.19	631	0.001	0.75	0.0	0.0	5.708	A
B-A	21	5	441	0.048	21	0.1	0.1	8.579	A
C-AB	0.97	0.24	685	0.001	0.97	0.0	0.0	5.264	A
C-A	152	38			152				
A-B	8	2			8				
A-C	160	40			160				

2024 Assessment, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.19	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)	Run automatically
D2	2024 Assessment	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	299	100.000
B		ONE HOUR	✓	11	100.000
C		ONE HOUR	✓	282	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	23	276
	B	10	0	1
	C	281	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	6.06	0.0	A	0.92	1
B-A	0.03	9.69	0.0	A	9	14
C-AB	0.00	5.06	0.0	A	1	2
C-A					257	386
A-B					21	32
A-C					253	380

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	0.19	623	0.001	0.75	0.0	0.0	5.788	A
B-A	8	2	420	0.018	7	0.0	0.0	8.721	A
C-AB	1	0.27	713	0.002	1	0.0	0.0	5.058	A
C-A	211	53			211				
A-B	17	4			17				
A-C	208	52			208				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.90	0.22	611	0.001	0.90	0.0	0.0	5.901	A
B-A	9	2	404	0.022	9	0.0	0.0	9.103	A
C-AB	1	0.34	732	0.002	1	0.0	0.0	4.929	A
C-A	252	63			252				
A-B	21	5			21				
A-C	248	62			248				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1	0.28	595	0.002	1	0.0	0.0	6.065	A
B-A	11	3	383	0.029	11	0.0	0.0	9.686	A
C-AB	2	0.47	759	0.002	2	0.0	0.0	4.756	A
C-A	309	77			309				
A-B	25	6			25				
A-C	304	76			304				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1	0.28	595	0.002	1	0.0	0.0	6.065	A
B-A	11	3	383	0.029	11	0.0	0.0	9.687	A
C-AB	2	0.47	759	0.002	2	0.0	0.0	4.758	A
C-A	309	77			309				
A-B	25	6			25				
A-C	304	76			304				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.90	0.22	611	0.001	0.90	0.0	0.0	5.901	A
B-A	9	2	404	0.022	9	0.0	0.0	9.104	A
C-AB	1	0.34	732	0.002	1	0.0	0.0	4.929	A
C-A	252	63			252				
A-B	21	5			21				
A-C	248	62			248				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	0.19	623	0.001	0.75	0.0	0.0	5.790	A
B-A	8	2	420	0.018	8	0.0	0.0	8.724	A
C-AB	1	0.27	713	0.002	1	0.0	0.0	5.060	A
C-A	211	53			211				
A-B	17	4			17				
A-C	208	52			208				

2024 Assessment - SENSITIVITY TEST, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.00	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)	Run automatically
D3	2024 Assessment - SENSITIVITY TEST	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	225	100.000
B		ONE HOUR	✓	48	100.000
C		ONE HOUR	✓	203	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	12	213
	B	46	0	2
	C	202	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	6.04	0.0	A	2	3
B-A	0.12	9.94	0.1	A	42	63
C-AB	0.00	5.27	0.0	A	1	2
C-A					185	278
A-B					11	17
A-C					195	293

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	0.38	626	0.002	1	0.0	0.0	5.763	A
B-A	35	9	441	0.079	34	0.0	0.1	8.851	A
C-AB	0.97	0.24	684	0.001	0.96	0.0	0.0	5.267	A
C-A	152	38			152				
A-B	9	2			9				
A-C	160	40			160				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	0.45	615	0.003	2	0.0	0.0	5.874	A
B-A	41	10	429	0.096	41	0.1	0.1	9.284	A
C-AB	1	0.30	697	0.002	1	0.0	0.0	5.172	A
C-A	181	45			181				
A-B	11	3			11				
A-C	191	48			191				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	0.55	598	0.004	2	0.0	0.0	6.036	A
B-A	51	13	413	0.123	51	0.1	0.1	9.938	A
C-AB	2	0.40	715	0.002	2	0.0	0.0	5.043	A
C-A	222	55			222				
A-B	13	3			13				
A-C	235	59			235				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	0.55	598	0.004	2	0.0	0.0	6.037	A
B-A	51	13	413	0.123	51	0.1	0.1	9.944	A
C-AB	2	0.40	715	0.002	2	0.0	0.0	5.045	A
C-A	222	55			222				
A-B	13	3			13				
A-C	235	59			235				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	0.45	615	0.003	2	0.0	0.0	5.874	A
B-A	41	10	429	0.096	41	0.1	0.1	9.296	A
C-AB	1	0.30	697	0.002	1	0.0	0.0	5.172	A
C-A	181	45			181				
A-B	11	3			11				
A-C	191	48			191				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	0.38	626	0.002	2	0.0	0.0	5.764	A
B-A	35	9	441	0.079	35	0.1	0.1	8.870	A
C-AB	0.97	0.24	684	0.001	0.97	0.0	0.0	5.269	A
C-A	152	38			152				
A-B	9	2			9				
A-C	160	40			160				

2024 Assessment - SENSITIVITY TEST, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.35	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)	Run automatically
D4	2024 Assessment - SENSITIVITY TEST	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	303	100.000
B		ONE HOUR	✓	21	100.000
C		ONE HOUR	✓	282	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	27	276
	B	20	0	1
	C	281	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	6.12	0.0	A	0.92	1
B-A	0.06	9.99	0.1	A	18	28
C-AB	0.00	5.06	0.0	A	1	2
C-A					257	386
A-B					25	37
A-C					253	380

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	0.19	619	0.001	0.75	0.0	0.0	5.817	A
B-A	15	4	420	0.036	15	0.0	0.0	8.886	A
C-AB	1	0.27	712	0.002	1	0.0	0.0	5.063	A
C-A	211	53			211				
A-B	20	5			20				
A-C	208	52			208				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.90	0.22	607	0.001	0.90	0.0	0.0	5.938	A
B-A	18	4	404	0.044	18	0.0	0.0	9.321	A
C-AB	1	0.34	731	0.002	1	0.0	0.0	4.934	A
C-A	252	63			252				
A-B	24	6			24				
A-C	248	62			248				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1	0.28	590	0.002	1	0.0	0.0	6.115	A
B-A	22	6	382	0.058	22	0.0	0.1	9.992	A
C-AB	2	0.47	758	0.002	2	0.0	0.0	4.762	A
C-A	309	77			309				
A-B	30	7			30				
A-C	304	76			304				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1	0.28	590	0.002	1	0.0	0.0	6.116	A
B-A	22	6	382	0.058	22	0.1	0.1	9.994	A
C-AB	2	0.47	758	0.002	2	0.0	0.0	4.762	A
C-A	309	77			309				
A-B	30	7			30				
A-C	304	76			304				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.90	0.22	607	0.001	0.90	0.0	0.0	5.941	A
B-A	18	4	404	0.044	18	0.1	0.0	9.327	A
C-AB	1	0.34	731	0.002	1	0.0	0.0	4.936	A
C-A	252	63			252				
A-B	24	6			24				
A-C	248	62			248				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	0.19	619	0.001	0.75	0.0	0.0	5.820	A
B-A	15	4	420	0.036	15	0.0	0.0	8.895	A
C-AB	1	0.27	712	0.002	1	0.0	0.0	5.065	A
C-A	211	53			211				
A-B	20	5			20				
A-C	208	52			208				

S|C|P

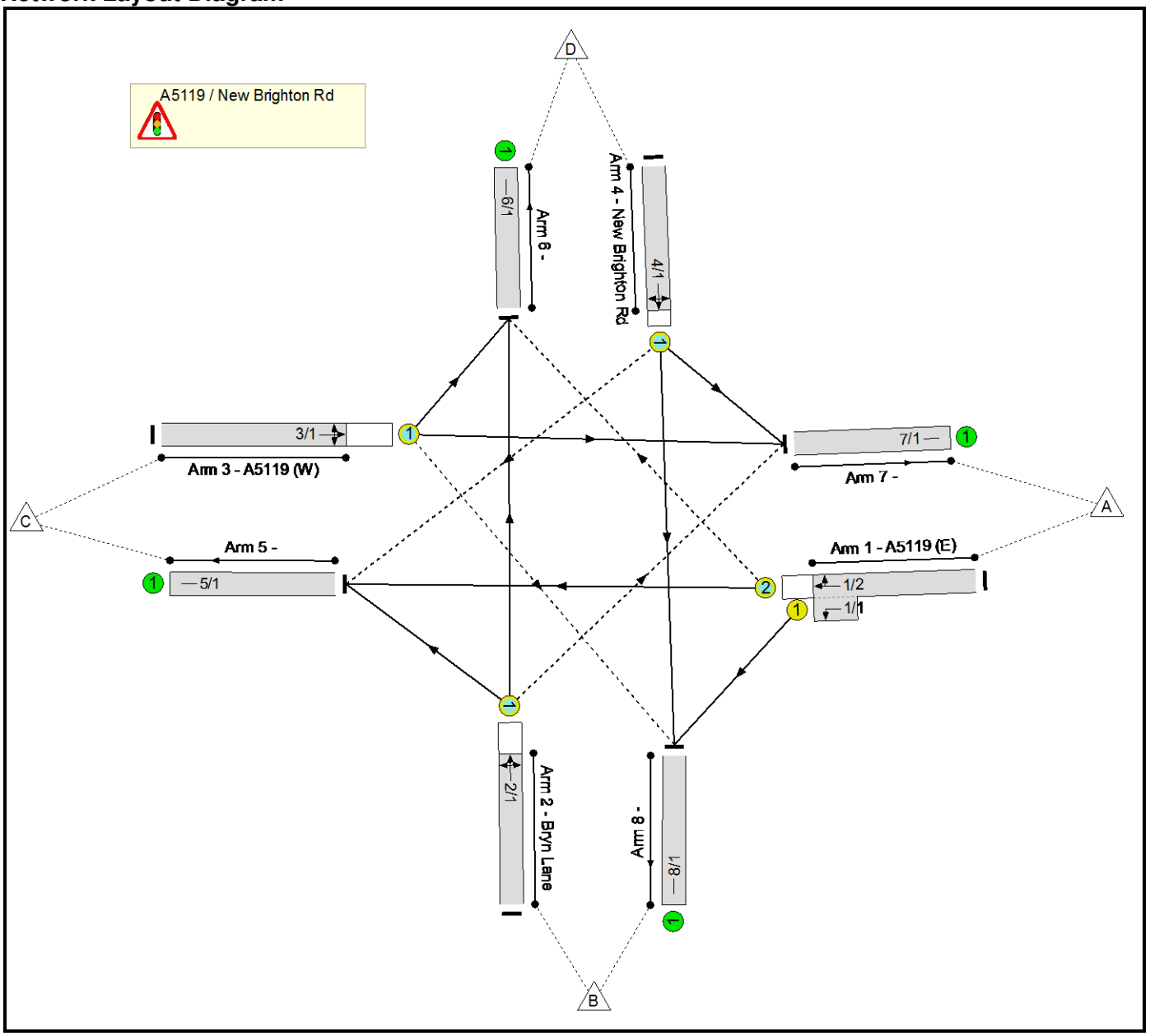
APPENDIX G

Full Input Data And Results

User and Project Details

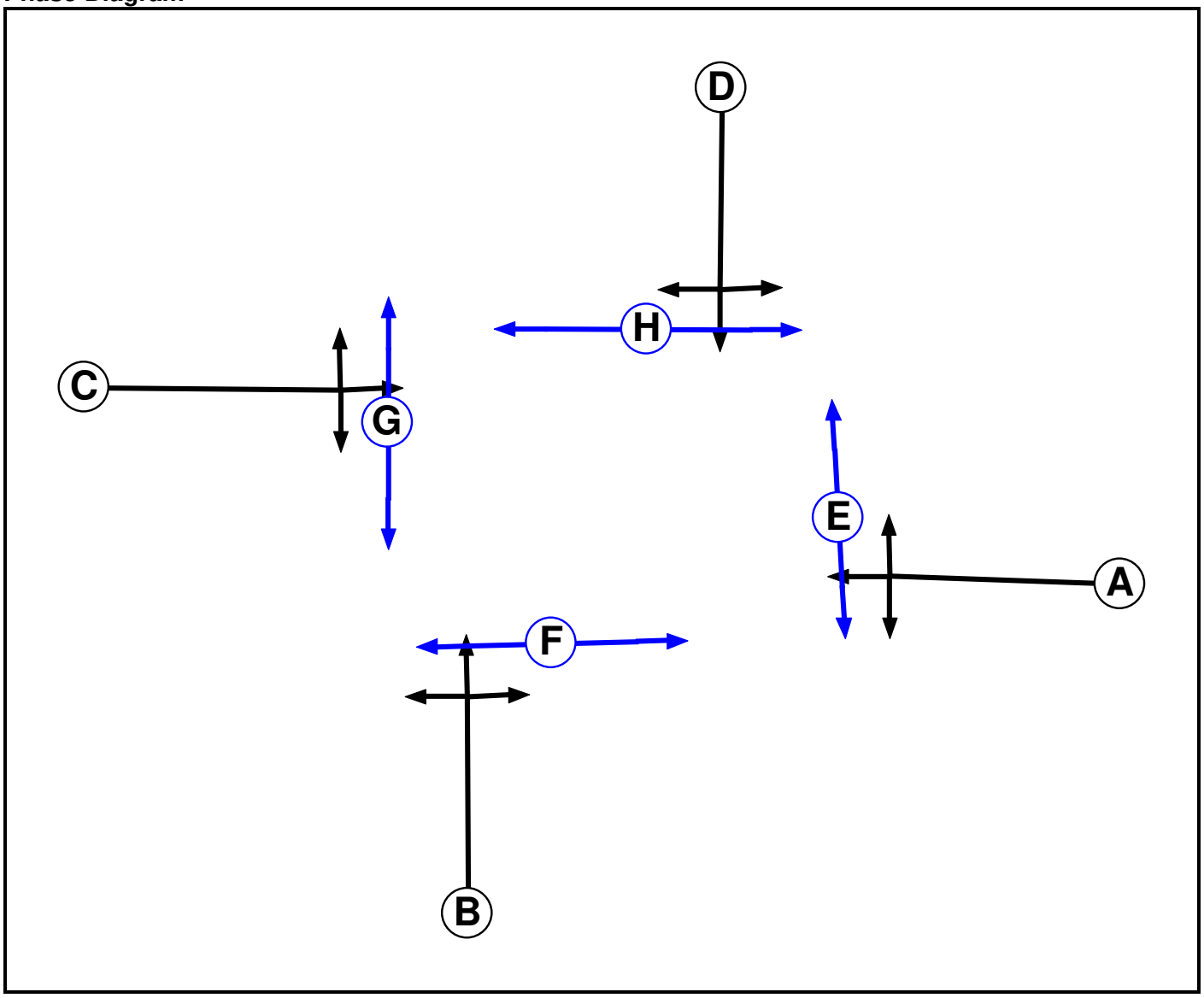
Project:	
Title:	
Location:	
Additional detail:	
File name:	18259 Mold_LINSIG Model_16.01.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		5	5
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		5	5
F	Pedestrian		5	5
G	Pedestrian		5	5
H	Pedestrian		7	7

Full Input Data And Results

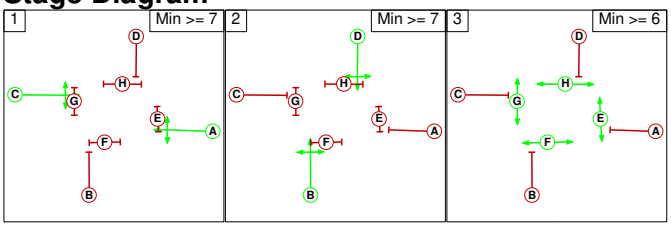
Phase Intergreens Matrix

Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		5	-	5	5	7	8	8
	B	5		5	-	8	5	8	7
	C	-	5		5	8	9	5	7
	D	5	-	5		7	8	7	5
	E	6	6	6	6		-	-	-
	F	5	5	5	5	-		-	-
	G	5	5	5	5	-	-		-
	H	6	6	6	6	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A C
2	B D
3	E F G H

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage			
		1	2	3
	1		5	9
	2	5		8
	3	6	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A5119 / New Brighton Rd											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
1/2 (A5119 (E))	6/1 (Right)	1439	0	3/1	1.09	To 6/1 (Left) To 7/1 (Ahead)	2.00	-	0.50	2	2.00
2/1 (Bryn Lane)	7/1 (Right)	1439	0	4/1	1.09	To 7/1 (Left) To 8/1 (Ahead)	2.00	-	0.50	2	2.00
3/1 (A5119 (W))	8/1 (Right)	1439	0	1/1	1.09	All	3.00	-	0.50	3	3.00
				1/2	1.09	To 5/1 (Ahead)					
4/1 (New Brighton Rd)	5/1 (Right)	1439	0	2/1	1.09	To 5/1 (Left) To 6/1 (Ahead)	1.00	-	0.50	1	1.00

Full Input Data And Results

Lane Input Data

Junction: A5119 / New Brighton Rd												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (A5119 (E))	U	A	2	3	2.8	Geom	-	3.25	0.00	Y	Arm 8 Left	9.00
1/2 (A5119 (E))	O	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Right	25.00
2/1 (Bryn Lane)	O	B	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 5 Left	6.00
											Arm 6 Ahead	Inf
											Arm 7 Right	16.00
3/1 (A5119 (W))	O	C	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 6 Left	4.00
											Arm 7 Ahead	Inf
											Arm 8 Right	10.00
4/1 (New Brighton Rd)	O	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Right	12.00
											Arm 7 Left	8.00
											Arm 8 Ahead	Inf
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Assess 2024 AM'	08:15	09:15	01:00	
2: 'Assess 2024 PM'	17:00	18:00	01:00	
3: 'Assess 2024 AM - Sens Test'	08:15	09:15	01:00	
4: 'Assess 2024 PM - Sens Test'	17:00	18:00	01:00	

Scenario 1: 'Assess 2024 AM' (FG1: 'Assess 2024 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	45	367	83	495
	B	65	0	95	122	282
	C	285	50	0	17	352
	D	119	95	16	0	230
	Tot.	469	190	478	222	1359

Traffic Lane Flows

Lane	Scenario 1: Assess 2024 AM
Junction: A5119 / New Brighton Rd	
1/1 (short)	45
1/2 (with short)	495(In) 450(Out)
2/1	282
3/1	352
4/1	230
5/1	478
6/1	222
7/1	469
8/1	190

Full Input Data And Results

Lane Saturation Flows

Junction: A5119 / New Brighton Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A5119 (E))	3.25	0.00	Y	Arm 8 Left	9.00	100.0 %	1663	1663
1/2 (A5119 (E))	3.25	0.00	Y	Arm 5 Ahead	Inf	81.6 %	1919	1919
				Arm 6 Right	25.00	18.4 %		
2/1 (Bryn Lane)	3.40	0.00	Y	Arm 5 Left	6.00	33.7 %	1768	1768
				Arm 6 Ahead	Inf	43.3 %		
				Arm 7 Right	16.00	23.0 %		
3/1 (A5119 (W))	3.30	0.00	Y	Arm 6 Left	4.00	4.8 %	1871	1871
				Arm 7 Ahead	Inf	81.0 %		
				Arm 8 Right	10.00	14.2 %		
4/1 (New Brighton Rd)	3.00	0.00	Y	Arm 5 Right	12.00	7.0 %	1732	1732
				Arm 7 Left	8.00	51.7 %		
				Arm 8 Ahead	Inf	41.3 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Assess 2024 PM' (FG2: 'Assess 2024 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	112	456	170	738
	B	50	0	62	104	216
	C	249	71	0	25	345
	D	88	190	13	0	291
	Tot.	387	373	531	299	1590

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Assess 2024 PM
Junction: A5119 / New Brighton Rd	
1/1 (short)	112
1/2 (with short)	738(In) 626(Out)
2/1	216
3/1	345
4/1	291
5/1	531
6/1	299
7/1	387
8/1	373

Lane Saturation Flows

Junction: A5119 / New Brighton Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A5119 (E))	3.25	0.00	Y	Arm 8 Left	9.00	100.0 %	1663	1663
1/2 (A5119 (E))	3.25	0.00	Y	Arm 5 Ahead	Inf	72.8 %	1909	1909
				Arm 6 Right	25.00	27.2 %		
2/1 (Bryn Lane)	3.40	0.00	Y	Arm 5 Left	6.00	28.7 %	1788	1788
				Arm 6 Ahead	Inf	48.1 %		
				Arm 7 Right	16.00	23.1 %		
3/1 (A5119 (W))	3.30	0.00	Y	Arm 6 Left	4.00	7.2 %	1838	1838
				Arm 7 Ahead	Inf	72.2 %		
				Arm 8 Right	10.00	20.6 %		
4/1 (New Brighton Rd)	3.00	0.00	Y	Arm 5 Right	12.00	4.5 %	1803	1803
				Arm 7 Left	8.00	30.2 %		
				Arm 8 Ahead	Inf	65.3 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'Assess 2024 AM - Sens Test' (FG3: 'Assess 2024 AM - Sens Test', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	45	367	85	497
	B	65	0	95	122	282
	C	285	50	0	18	353
	D	133	96	20	0	249
	Tot.	483	191	482	225	1381

Traffic Lane Flows

Lane	Scenario 3: Assess 2024 AM - Sens Test
Junction: A5119 / New Brighton Rd	
1/1 (short)	45
1/2 (with short)	497(In) 452(Out)
2/1	282
3/1	353
4/1	249
5/1	482
6/1	225
7/1	483
8/1	191

Full Input Data And Results

Lane Saturation Flows

Junction: A5119 / New Brighton Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A5119 (E))	3.25	0.00	Y	Arm 8 Left	9.00	100.0 %	1663	1663
1/2 (A5119 (E))	3.25	0.00	Y	Arm 5 Ahead	Inf	81.2 %	1918	1918
				Arm 6 Right	25.00	18.8 %		
2/1 (Bryn Lane)	3.40	0.00	Y	Arm 5 Left	6.00	33.7 %	1768	1768
				Arm 6 Ahead	Inf	43.3 %		
				Arm 7 Right	16.00	23.0 %		
3/1 (A5119 (W))	3.30	0.00	Y	Arm 6 Left	4.00	5.1 %	1870	1870
				Arm 7 Ahead	Inf	80.7 %		
				Arm 8 Right	10.00	14.2 %		
4/1 (New Brighton Rd)	3.00	0.00	Y	Arm 5 Right	12.00	8.0 %	1725	1725
				Arm 7 Left	8.00	53.4 %		
				Arm 8 Ahead	Inf	38.6 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Assess 2024 PM - Sens Test' (FG4: 'Assess 2024 PM - Sens Test', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	112	456	173	741
	B	50	0	62	104	216
	C	249	71	0	26	346
	D	96	190	15	0	301
	Tot.	395	373	533	303	1604

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Assess 2024 PM - Sens Test
Junction: A5119 / New Brighton Rd	
1/1 (short)	112
1/2 (with short)	741(In) 629(Out)
2/1	216
3/1	346
4/1	301
5/1	533
6/1	303
7/1	395
8/1	373

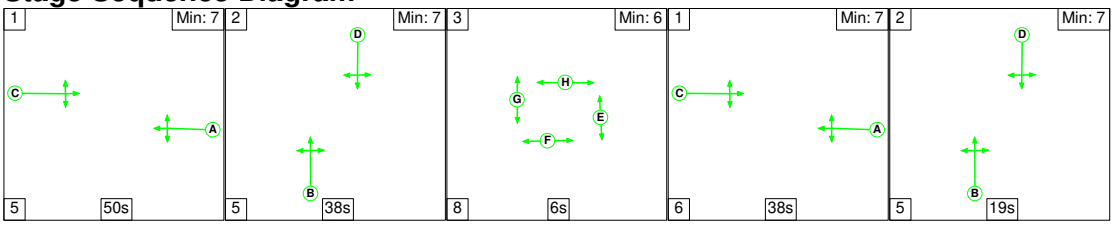
Lane Saturation Flows

Junction: A5119 / New Brighton Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A5119 (E))	3.25	0.00	Y	Arm 8 Left	9.00	100.0 %	1663	1663
1/2 (A5119 (E))	3.25	0.00	Y	Arm 5 Ahead	Inf	72.5 %	1909	1909
				Arm 6 Right	25.00	27.5 %		
2/1 (Bryn Lane)	3.40	0.00	Y	Arm 5 Left	6.00	28.7 %	1788	1788
				Arm 6 Ahead	Inf	48.1 %		
				Arm 7 Right	16.00	23.1 %		
3/1 (A5119 (W))	3.30	0.00	Y	Arm 6 Left	4.00	7.5 %	1837	1837
				Arm 7 Ahead	Inf	72.0 %		
				Arm 8 Right	10.00	20.5 %		
4/1 (New Brighton Rd)	3.00	0.00	Y	Arm 5 Right	12.00	5.0 %	1796	1796
				Arm 7 Left	8.00	31.9 %		
				Arm 8 Ahead	Inf	63.1 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: 'Assess 2024 AM' (FG1: 'Assess 2024 AM', Plan 1: 'Network Control Plan 1')

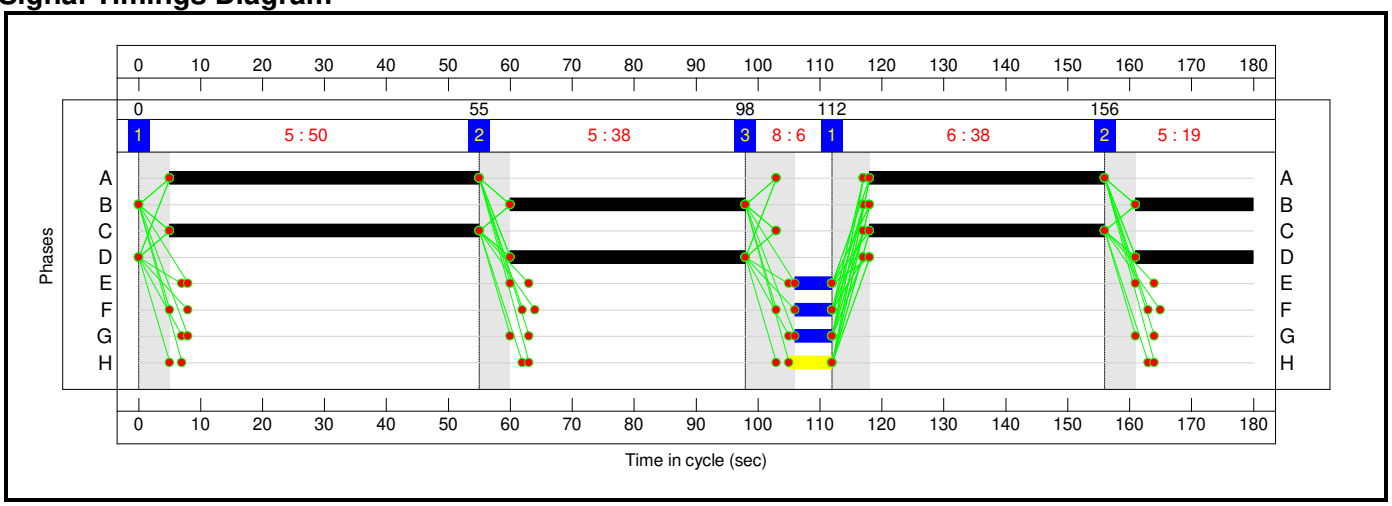
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	50	38	6	38	19
Change Point	0	55	98	112	156

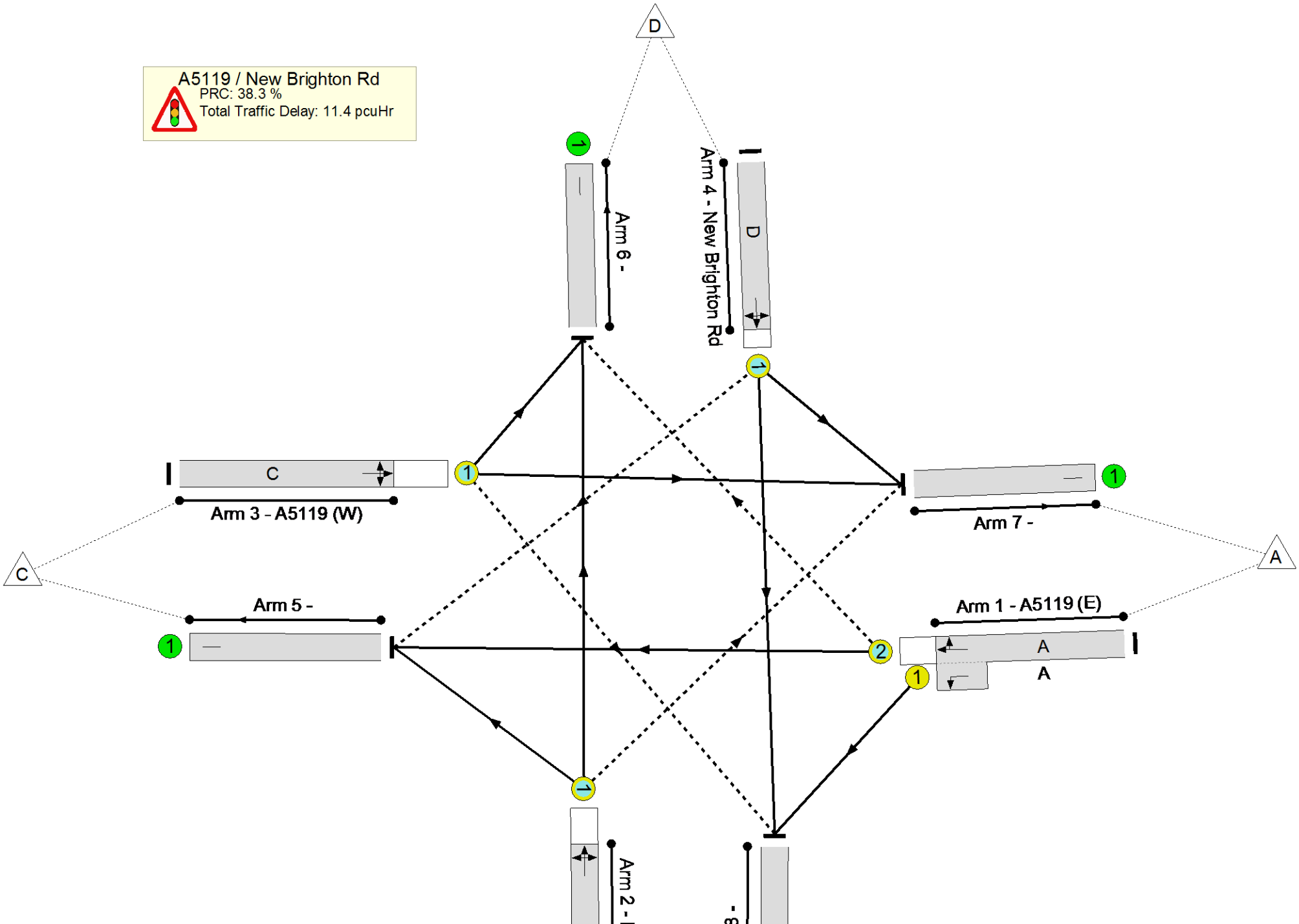
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**65.1%**
A5119 / New Brighton Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**65.1%**
1/2+1/1	A5119 (E) Ahead Right Left	O+U	N/A	N/A	A		2	88	-	495	1919:1663	691+69	65.1 : 65.1%
2/1	Bryn Lane Left Ahead Right	O	N/A	N/A	B		2	57	-	282	1768	446	63.2%
3/1	A5119 (W) Left Ahead Right	O	N/A	N/A	C		2	88	-	352	1871	577	61.0%
4/1	New Brighton Rd Right Left Ahead	O	N/A	N/A	D		2	57	-	230	1732	431	53.3%
5/1		U	N/A	N/A	-		-	-	-	478	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	222	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	469	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	190	Inf	Inf	0.0%

Full Input Data And Results

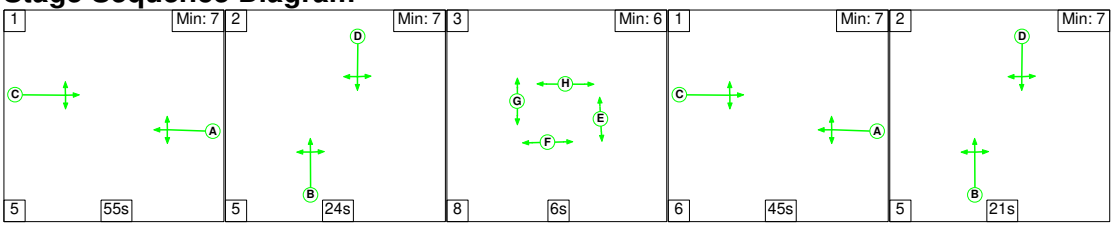
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**198**	**0**	**16**	**8.1**	**3.1**	**0.2**	**11.4**	**-**	**-**	**-**	**-**
A5119 / New Brighton Rd	**-**	**-**	**198**	**0**	**16**	**8.1**	**3.1**	**0.2**	**11.4**	**-**	**-**	**-**	**-**
1/2+1/1	495	495	76	0	7	2.3	0.9	0.0	3.3	23.9	11.0	0.9	11.9
2/1	282	282	63	0	2	2.0	0.8	0.0	2.8	36.2	6.0	0.8	6.8
3/1	352	352	44	0	6	2.3	0.8	0.1	3.2	32.3	9.9	0.8	10.7
4/1	230	230	16	0	0	1.6	0.6	0.0	2.1	33.5	4.9	0.6	5.4
5/1	478	478	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	222	222	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	469	469	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	190	190	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 38.3 Total Delay for Signalled Lanes (pcuHr): 11.41 Cycle Time (s): 180
PRC Over All Lanes (%): 38.3 Total Delay Over All Lanes(pcuHr): 11.41

Full Input Data And Results

Scenario 2: 'Assess 2024 PM' (FG2: 'Assess 2024 PM', Plan 1: 'Network Control Plan 1')

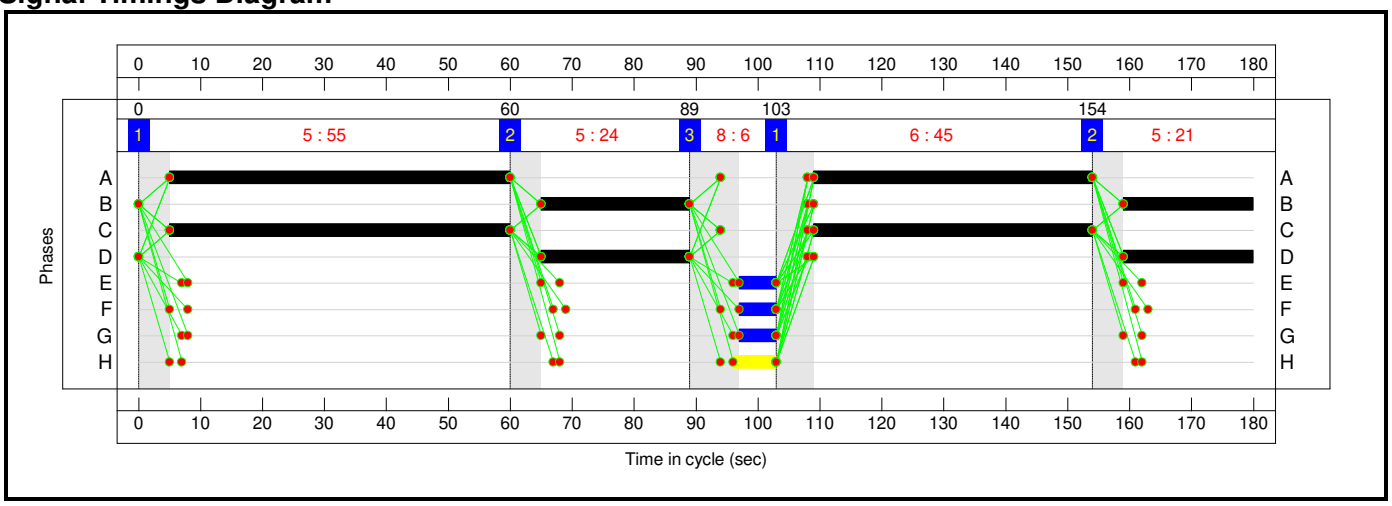
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	55	24	6	45	21
Change Point	0	60	89	103	154

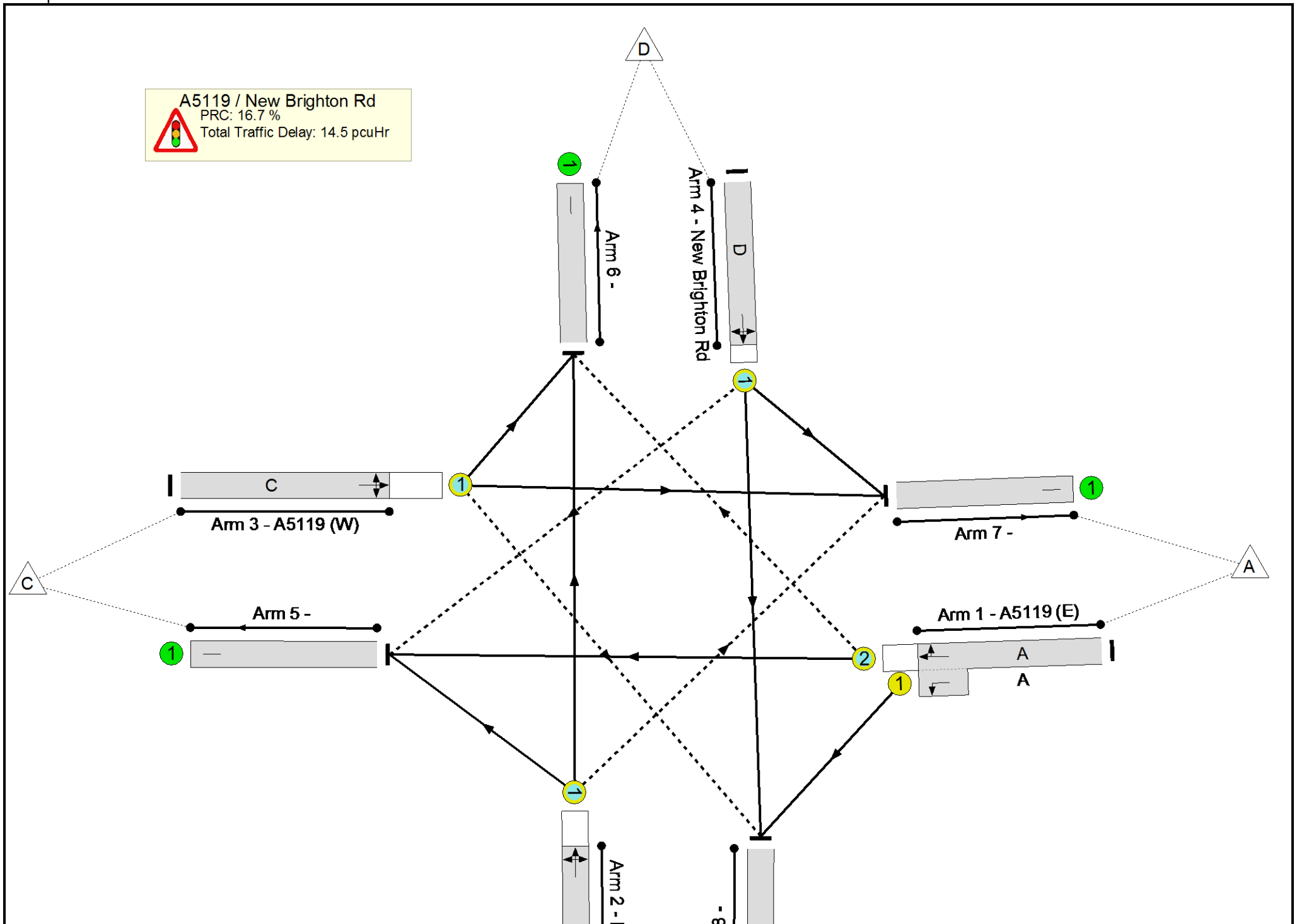
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.2%**
A5119 / New Brighton Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.2%**
1/2+1/1	A5119 (E) Ahead Right Left	O+U	N/A	N/A	A		2	100	-	738	1909:1663	828+148	75.6 : 75.6%
2/1	Bryn Lane Left Ahead Right	O	N/A	N/A	B		2	45	-	216	1788	280	77.2%
3/1	A5119 (W) Left Ahead Right	O	N/A	N/A	C		2	100	-	345	1838	548	63.0%
4/1	New Brighton Rd Right Left Ahead	O	N/A	N/A	D		2	45	-	291	1803	379	76.7%
5/1		U	N/A	N/A	-		-	-	-	531	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	387	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%

Full Input Data And Results

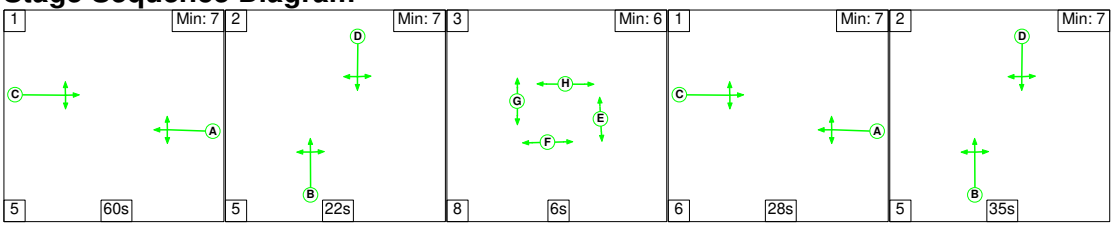
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**282**	**0**	**22**	**8.6**	**5.6**	**0.3**	**14.5**	**-**	**-**	**-**	**-**
A5119 / New Brighton Rd	**-**	**-**	**282**	**0**	**22**	**8.6**	**5.6**	**0.3**	**14.5**	**-**	**-**	**-**	**-**
1/2+1/1	738	738	164	0	6	2.8	1.5	0.0	4.4	21.4	15.1	1.5	16.6
2/1	216	216	44	0	6	1.7	1.6	0.0	3.4	55.9	4.8	1.6	6.4
3/1	345	345	61	0	10	1.6	0.8	0.2	2.6	27.1	8.7	0.8	9.6
4/1	291	291	13	0	0	2.5	1.6	0.0	4.1	50.9	7.0	1.6	8.6
5/1	531	531	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	387	387	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 16.7 Total Delay for Signalled Lanes (pcuHr): 14.45 Cycle Time (s): 180
PRC Over All Lanes (%): 16.7 Total Delay Over All Lanes(pcuHr): 14.45

Full Input Data And Results

Scenario 3: 'Assess 2024 AM - Sens Test' (FG3: 'Assess 2024 AM - Sens Test', Plan 1: 'Network Control Plan 1')

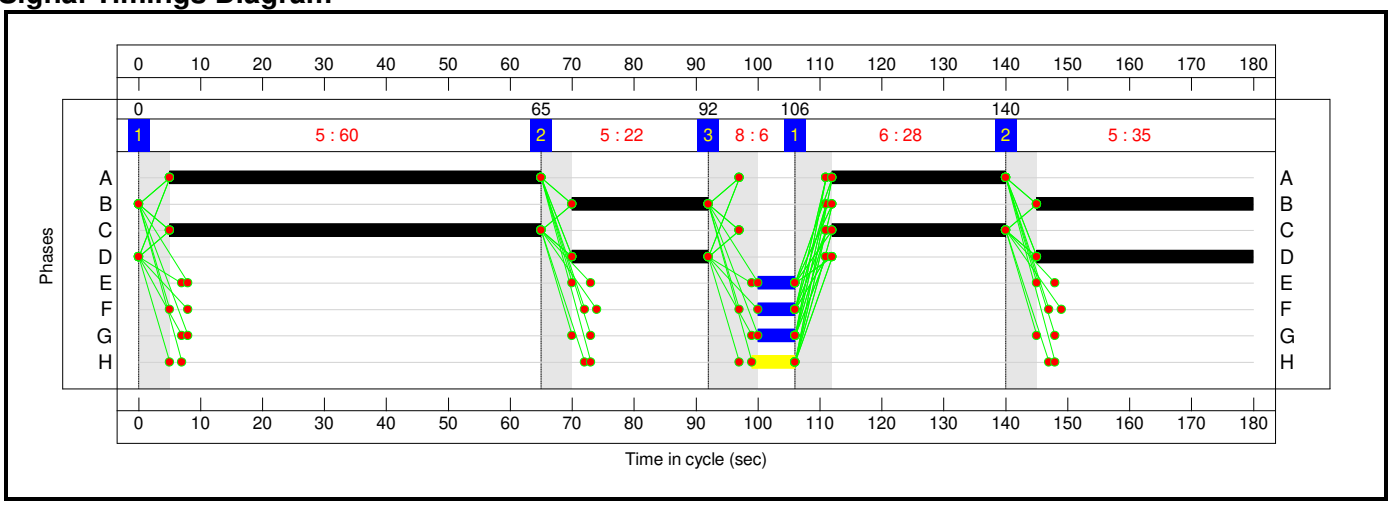
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	60	22	6	28	35
Change Point	0	65	92	106	140

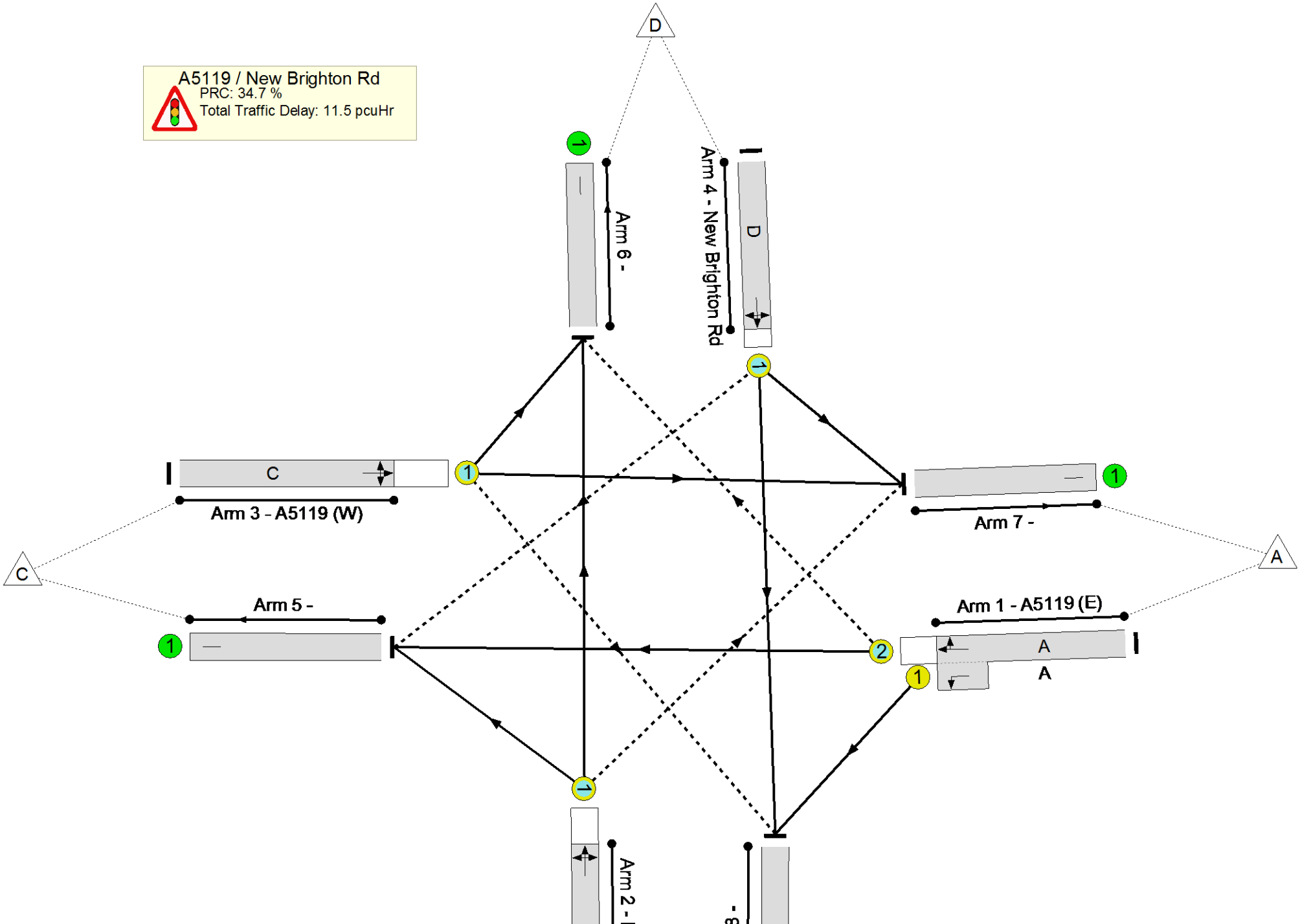
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**66.8%**
A5119 / New Brighton Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**66.8%**
1/2+1/1	A5119 (E) Ahead Right Left	O+U	N/A	N/A	A		2	88	-	497	1918:1663	677+67	66.7 : 66.7%
2/1	Bryn Lane Left Ahead Right	O	N/A	N/A	B		2	57	-	282	1768	422	66.8%
3/1	A5119 (W) Left Ahead Right	O	N/A	N/A	C		2	88	-	353	1870	554	63.8%
4/1	New Brighton Rd Right Left Ahead	O	N/A	N/A	D		2	57	-	249	1725	415	60.0%
5/1		U	N/A	N/A	-		-	-	-	482	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	483	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	191	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**205**	**0**	**15**	**7.7**	**3.6**	**0.2**	**11.5**	**-**	**-**	**-**	**-**
A5119 / New Brighton Rd	**-**	**-**	**205**	**0**	**15**	**7.7**	**3.6**	**0.2**	**11.5**	**-**	**-**	**-**	**-**
1/2+1/1	497	497	80	0	5	2.0	1.0	0.0	3.1	22.3	8.0	1.0	9.0
2/1	282	282	62	0	3	2.0	1.0	0.0	3.0	38.5	6.6	1.0	7.6
3/1	353	353	43	0	7	1.9	0.9	0.1	2.8	28.9	7.4	0.9	8.3
4/1	249	249	19	0	1	1.8	0.7	0.0	2.5	36.8	6.2	0.7	7.0
5/1	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	225	225	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	191	191	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): 34.7
PRC Over All Lanes (%): 34.7

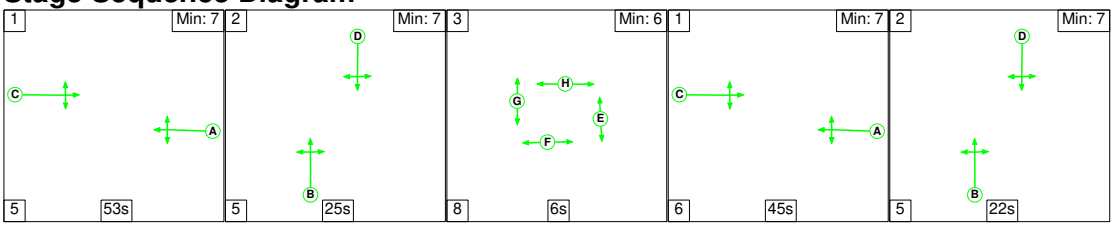
Total Delay for Signalled Lanes (pcuHr): 11.47
Total Delay Over All Lanes(pcuHr): 11.47

Cycle Time (s): 180

Full Input Data And Results

Scenario 4: 'Assess 2024 PM - Sens Test' (FG4: 'Assess 2024 PM - Sens Test', Plan 1: 'Network Control Plan 1')

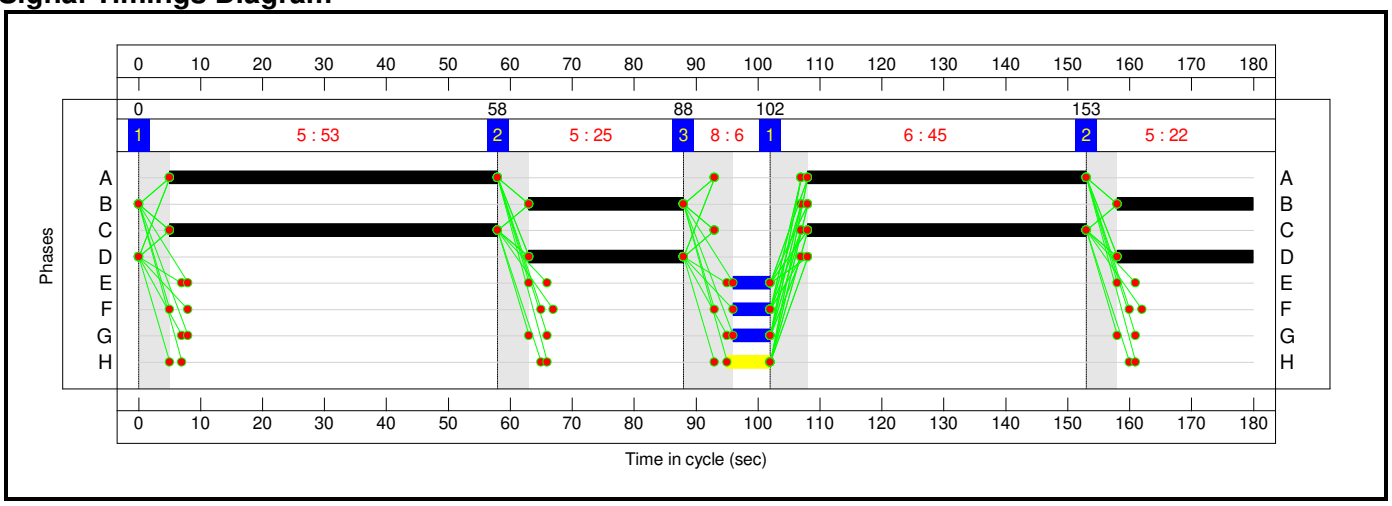
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2
Duration	53	25	6	45	22
Change Point	0	58	88	102	153

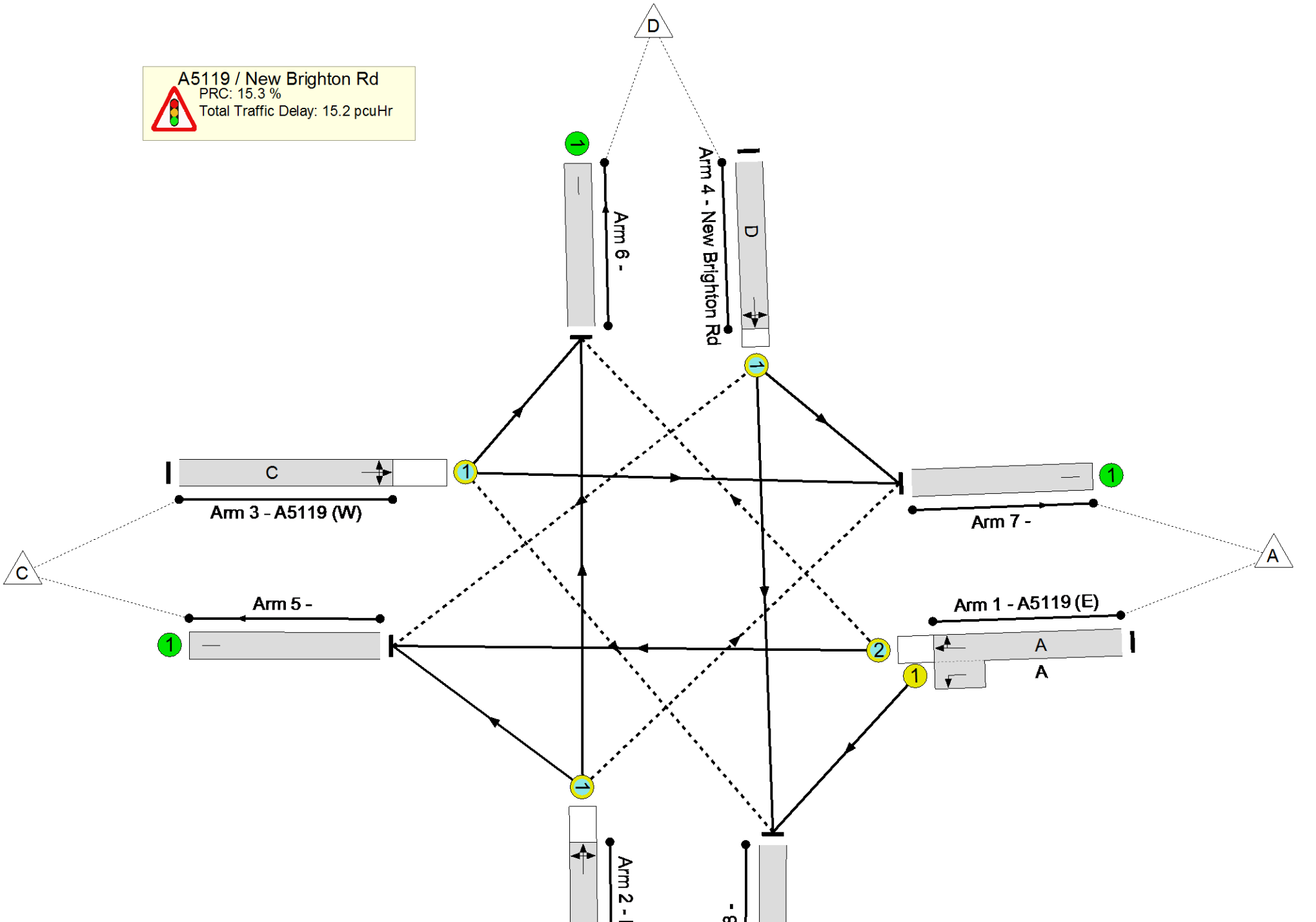
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.1%**
A5119 / New Brighton Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.1%**
1/2+1/1	A5119 (E) Ahead Right Left	O+U	N/A	N/A	A		2	98	-	741	1909:1663	806+143	78.1 : 78.1%
2/1	Bryn Lane Left Ahead Right	O	N/A	N/A	B		2	47	-	216	1788	282	76.7%
3/1	A5119 (W) Left Ahead Right	O	N/A	N/A	C		2	98	-	346	1837	516	67.1%
4/1	New Brighton Rd Right Left Ahead	O	N/A	N/A	D		2	47	-	301	1796	389	77.3%
5/1		U	N/A	N/A	-		-	-	-	533	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	303	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	395	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%

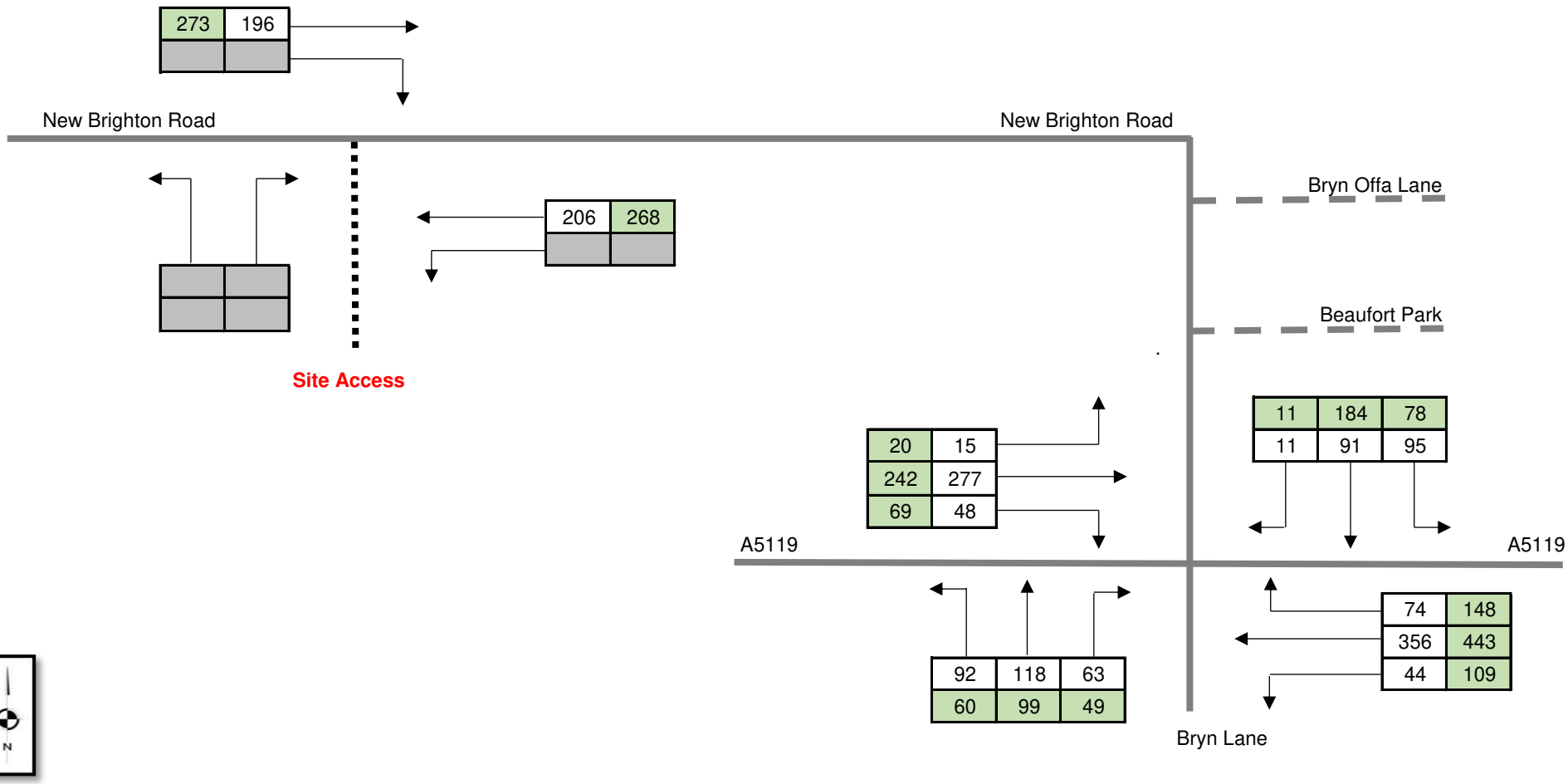
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**285**	**0**	**24**	**8.9**	**6.0**	**0.3**	**15.2**	**-**	**-**	**-**	**-**
A5119 / New Brighton Rd	**-**	**-**	**285**	**0**	**24**	**8.9**	**6.0**	**0.3**	**15.2**	**-**	**-**	**-**	**-**
1/2+1/1	741	741	167	0	6	3.0	1.8	0.0	4.8	23.2	15.6	1.8	17.3
2/1	216	216	44	0	6	1.7	1.6	0.0	3.3	54.4	4.8	1.6	6.4
3/1	346	346	59	0	12	1.7	1.0	0.2	2.9	30.0	9.0	1.0	10.0
4/1	301	301	15	0	0	2.6	1.6	0.0	4.2	50.5	7.4	1.6	9.1
5/1	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	303	303	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	395	395	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

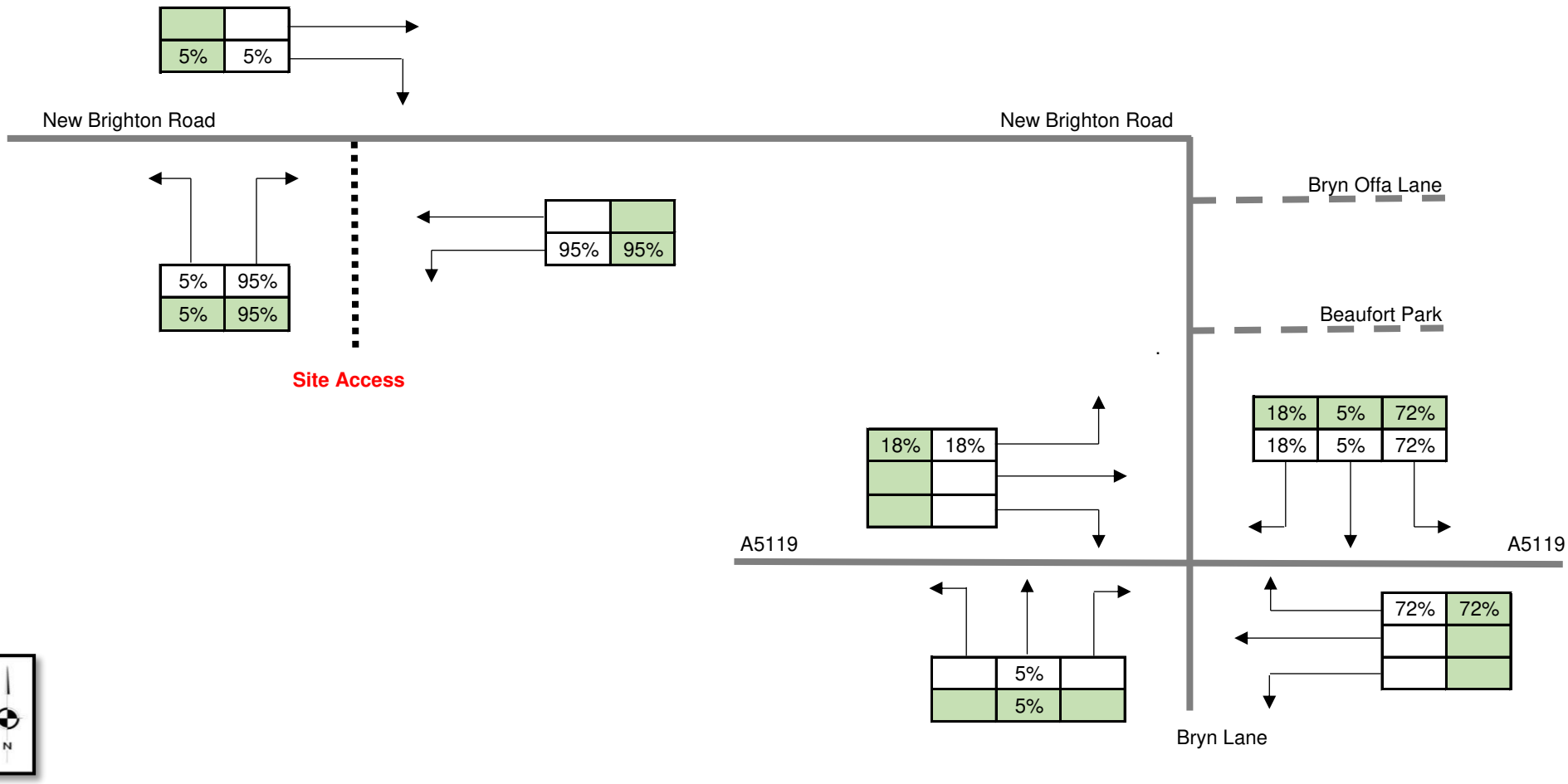
C1 PRC for Signalled Lanes (%): 15.3 Total Delay for Signalled Lanes (pcuHr): 15.15 Cycle Time (s): 180
PRC Over All Lanes (%): 15.3 Total Delay Over All Lanes(pcuHr): 15.15

S|C|P

FIGURES



S C P Transportation Planning : Infrastructure Design	**Survey 2018**	**02/06/2021**	Job Number - SCP/18259
	New Brighton Road, Mold		**Traffic Figure 1**



S C P Transportation Planning : Infrastructure Design	**Trip Distribution %**	**02/06/2021**	Job Number - SCP/18259
	New Brighton Road, Mold		**Traffic Figure 2**

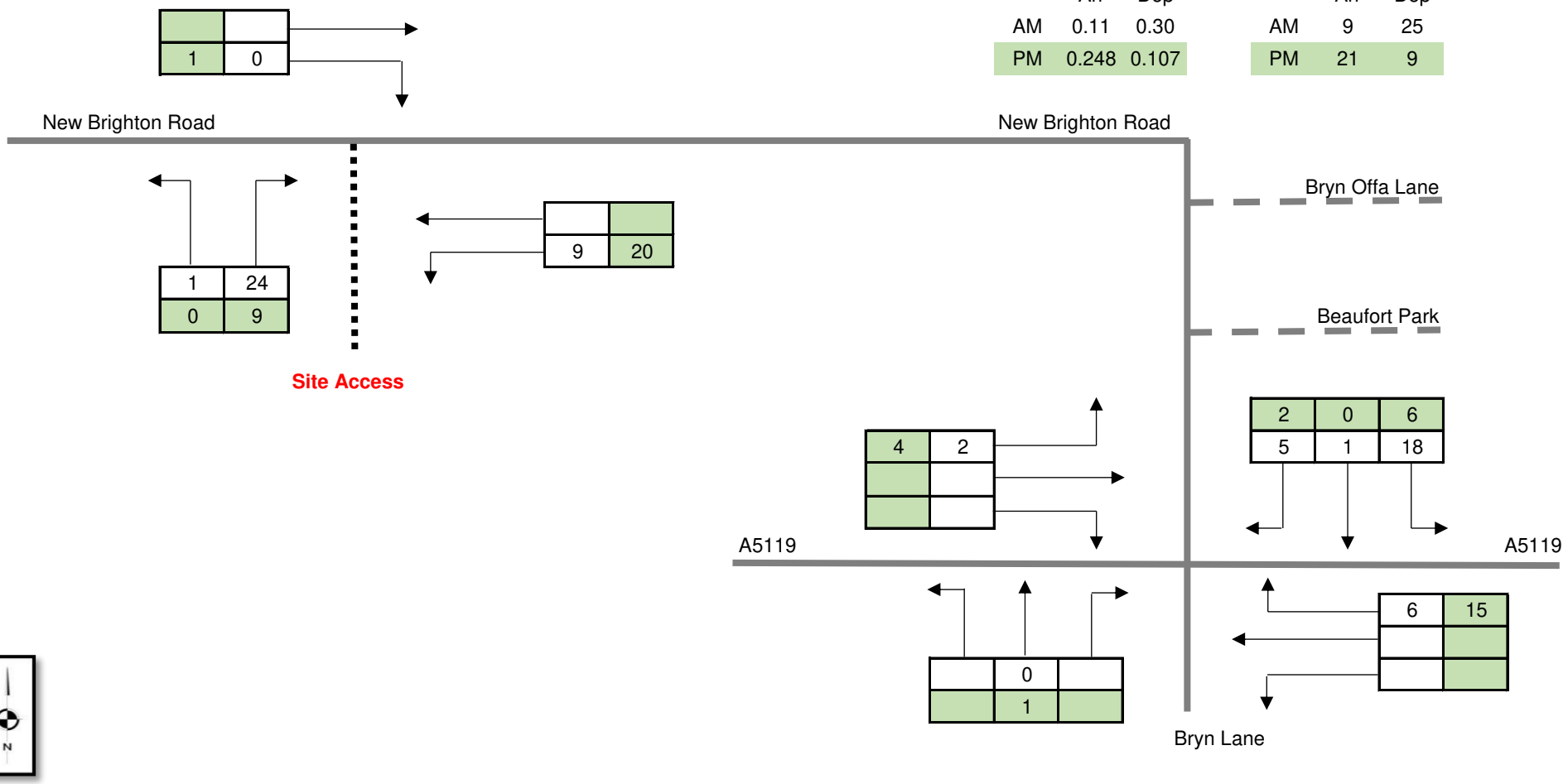
Proposed Number of Dwellings: 84

Trip Rate

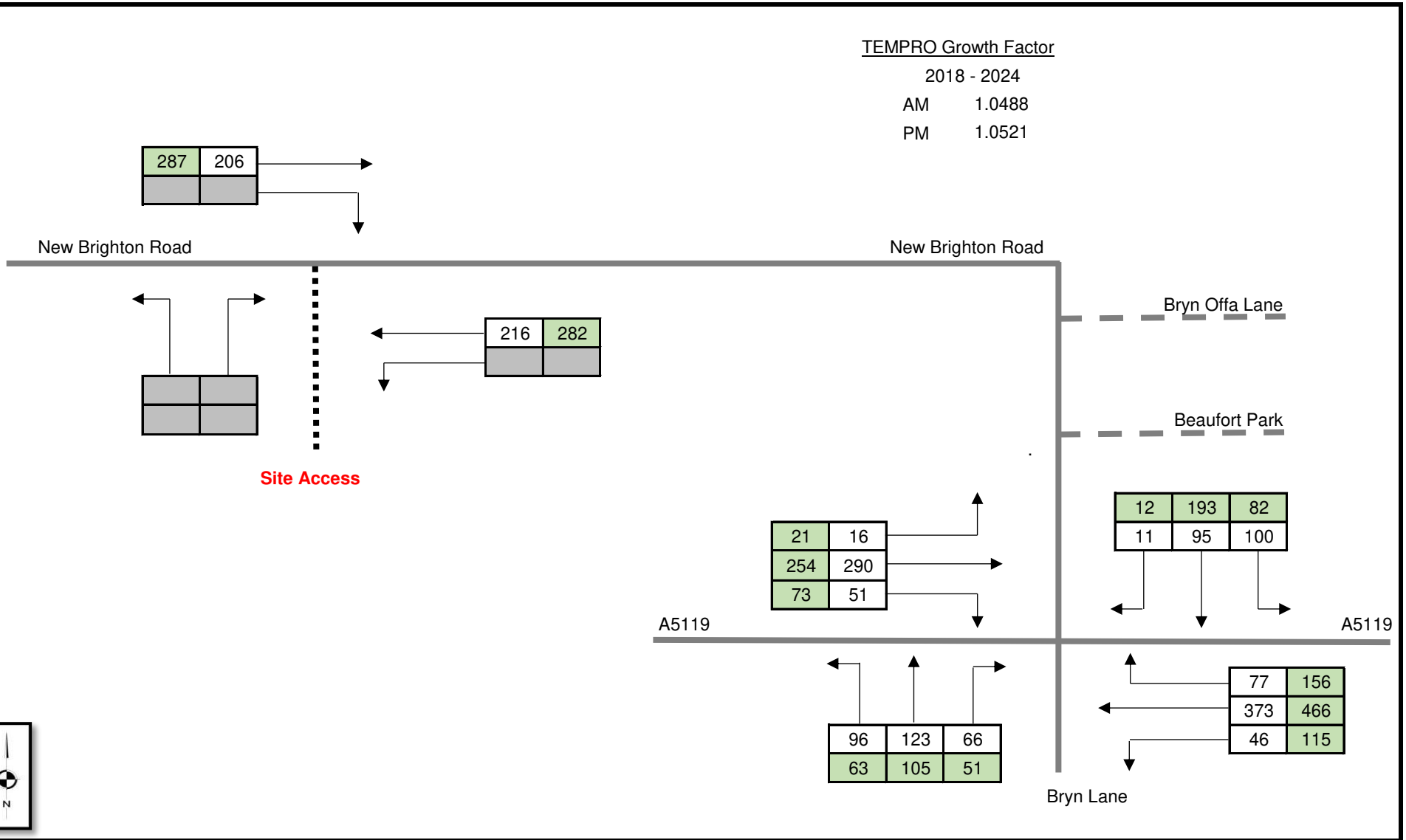
	Arr	Dep
AM	0.11	0.30
PM	0.248	0.107

Trip Generation

	Arr	Dep
AM	9	25
PM	21	9

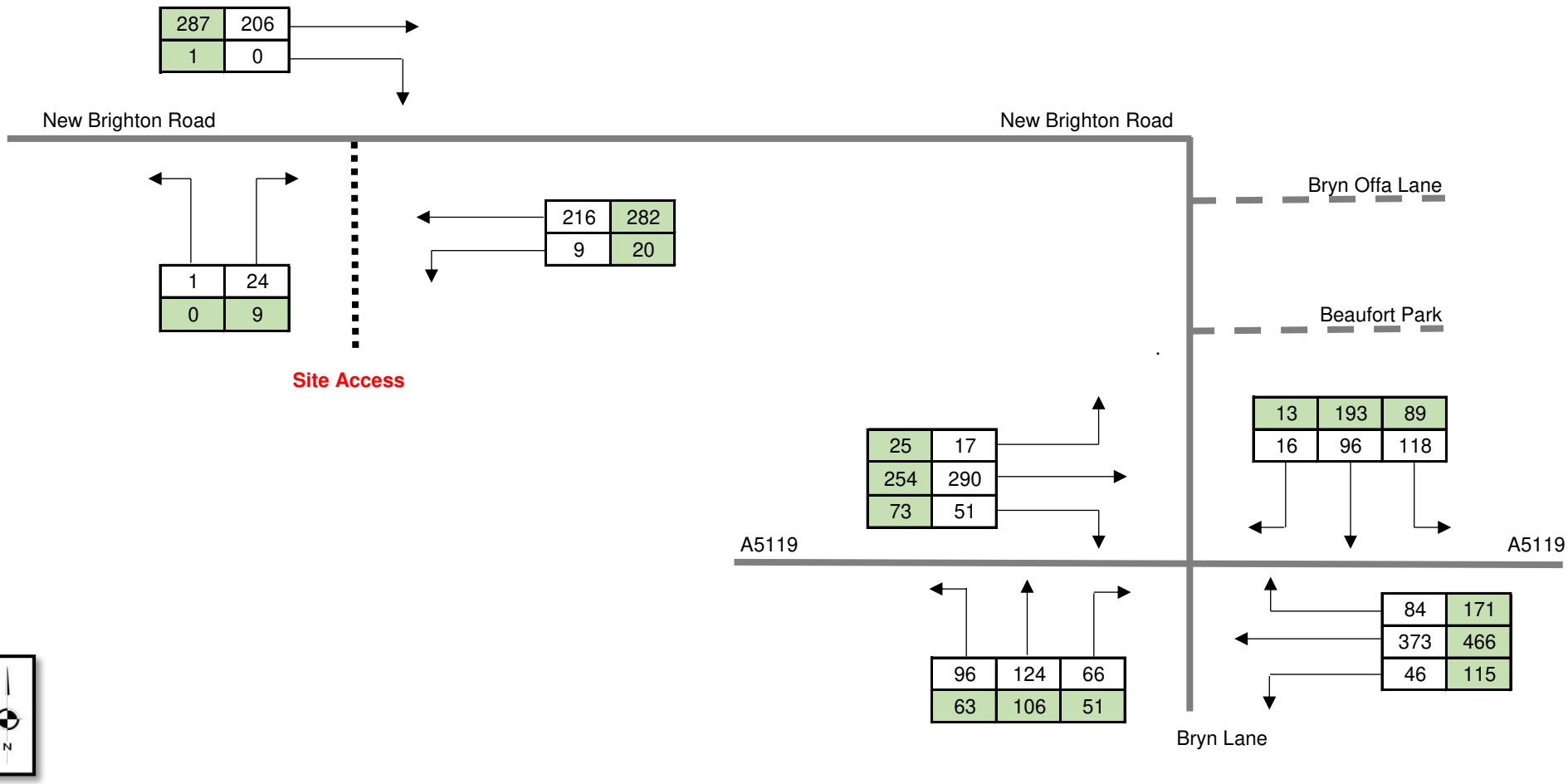


S C P Transportation Planning : Infrastructure Design	**Traffic Assignment**	**02/06/2021**	Job Number - SCP/18259
	New Brighton Road, Mold		**Traffic Figure 3**



S C P Transportation Planning : Infrastructure Design	**Growthed 2026**	**02/06/2021**	Job Number - SCP/18259
	New Brighton Road, Mold		**Traffic Figure 4**

Z:\Job Library\2018\18259 - New Brighton Road, Mold\Traffic Data\18259 Mold_Traffic Model_02.06.21.



S C P Transportation Planning : Infrastructure Design	**Assessment Traffic Flows 2026**	**02/06/2021**	Job Number - SCP/18259
	New Brighton Road, Mold	**Traffic Figure 5**	