AVANTI HOUSE SCHOOL, WHITCHURCH PLAYING FIELDS

Transport Assessment prepared on behalf of the Education Funding Agency

September 2015




MILESTONE
TRANSPORT PLANNING

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CONTENTS

TABLES

FIGURES

APPENDICES

1. INTRODUCTION

1.1 This Transport Assessment (TA) has been prepared on behalf of the Education Funding Agency (EFA) in conjunction with the governors of Avanti House Free School (AHFS) to consider the highways and transport implications related to the development of a Secondary School on existing greenfield land at Whitchurch Playing Fields, Stanmore.

1.2 The proposed AHFS is planning to take occupation of the site from the beginning of the 2017 / 2018 academic year with an annual intake of 180 students per annum from Year 7 – 11 plus sixth form. At full occupation the school will serve 1,260 students supported by 120 full-time equivalent (FTE) staff.

1.3 The purpose of this TA is to consider the implications of development related travel on the operation of the surrounding highway and transport networks. Furthermore this TA will consider the appropriateness of development in this location in transport policy terms, giving due regard to the need to ensure that it is accessible by all modes of travel.

1.4 The TA will demonstrate that in terms of Planning Policy at both National and Local level with respect to issues such as sustainability and traffic impact, the application site is more than capable of accommodating the proposed level of development.

1.5 On this basis Section 2 of the TA considers the application site's existing conditions and details of the proposed development including vehicular access.

1.6 The policy context within which the development proposals should be assessed from a highways and transport perspective will be detailed in Section 3.

1.7 Section 4 of the TA considers baseline conditions related to the application site including a review of pedestrian and cycle accessibility, public transport accessibility, the surrounding highway network, highway safety records and base traffic conditions.

1.8 An exercise to consider the level of trip generation of the proposed development, the modal share of such trips and their distribution onto the surrounding highway and transport networks are considered in Section 5 of the TA.

1.9 Section 6 of the TA considers, in detail, the impacts of the proposed development on the local road network as well as existing transport routes in the vicinity of the site.

1.10 Section 7 details parking provision and a parking accumulation assessment. This section also includes details of the Construction Management Plan and Deliveries & Servicing Plan.

1.11 Any mitigation required to overcome the impacts of the proposed development is considered in Section 8 of the TA. Within this section details are provided of measures to be put in place by AHFS, through the Travel Plan process, to manage trips generated by the school so as to minimise impact on the local community.

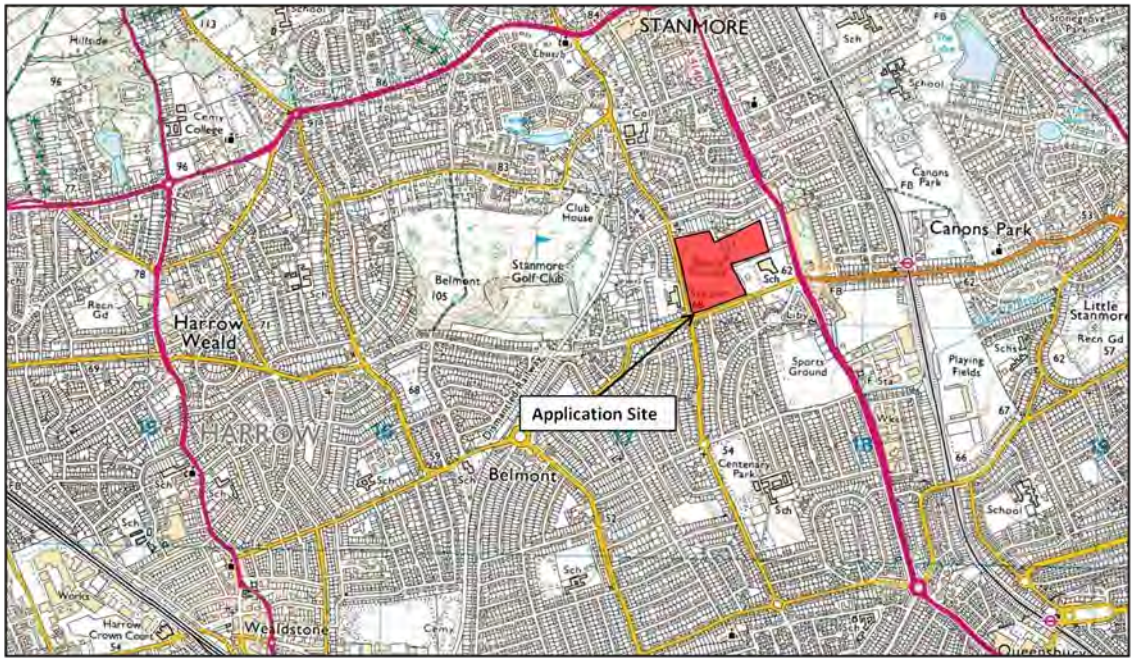
1.12 Finally Section 9 provides a summary and conclusion to the TA.

2. APPLICATION SITE & EXISTING USE

Site Information

2.1 The application site is located on existing greenfield land at Whitchurch Playing Fields which is situated to the north of Wemborough Road and the east of Abercorn Road in a predominately residential area. Directly to the south-east of the site is Whitchurch First and Junior Schools which have recently been granted planning permission for expansion from 695 to 905 pupils to reach full capacity in September 2020. The application site location in relation to the surrounding area is shown at Figure 1.

Figure 1 Application Site Location



The Proposal

2.2 As noted in Section 1, the proposed AHFS plans to take occupation of the site from September 2017. The school will see an annual intake of 180 per annum until full occupation of 1,260 pupils plus 120 FTE staff. The school will provide secondary education for Year 7 – 11 inclusive in addition to sixth form.

2.3 School opening hours will be 07:00-17:30 and include a comprehensive range of pre and post-school activities including a breakfast club and additional education / training and sporting activities after school which will operate on a daily basis. In addition to the separate start / finish times by key stage, this will result in staggering the start and finish times of the school, as detailed below.

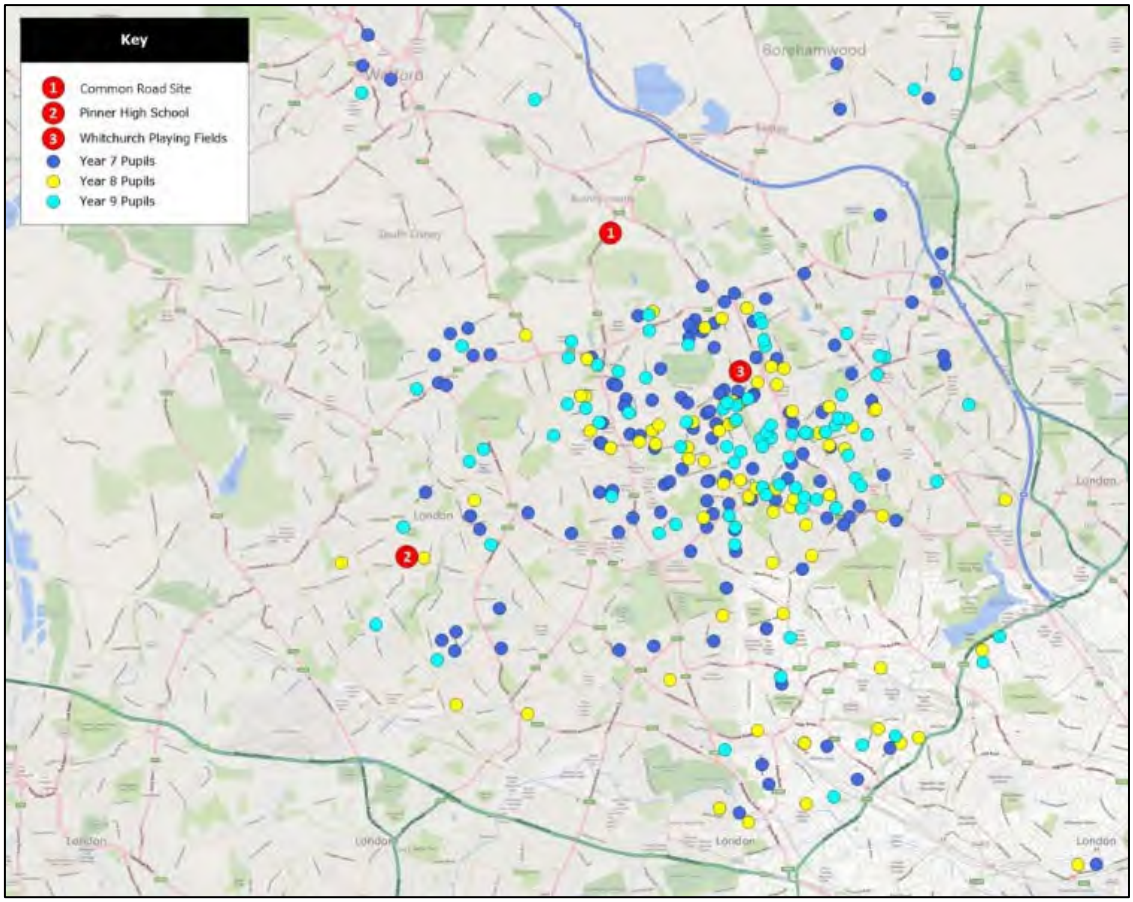
Table 2.1 Proposed School Start and Finish Times

Time	Activity	No. Pupil Arrivals / Departures
Morning		
07:00-08:00	Breakfast Club	60
07:45	Key Stage 4 Registration	320
08:15	Key Stage 3 Registration	520
09:45	Key Stage 5 Registration	340
Evening		
15:45	Official KS3 & KS4 end of day	400
16:45	KS3/KS4 After School Clubs end	500
17:30	Official KS5 end of day	360

2.4 Indeed it is the case that the majority of both staff and students of AHFS will be arriving and departing at different times to those of the network peak and the neighbouring Whitchurch Schools, which operate start times of 08:45/08:55 and finish times of 15:15/15:20. It is also the case that the arrival / departures times of the proposed school will be during the AM and PM 'shoulder' peak periods on the wider highway network thereby minimising the impact of school-related trips on the operation of the surrounding highway and transport networks.

2.5 It should be noted that the 2014/2015 Year 7-9 pupil home locations were not focused around the school site located on Common Road. It is in fact the case that the catchment of the 2014/2015 Year 7-9 pupils was centred more around the Whitchurch playing fields site providing considerable opportunity for existing and prospective pupils to walk and cycle to school. Figure 2 illustrates the 2014/2015 Year 7-9 pupil's home postcode locations, and also shows the location of the previous school site (as vacated July 2015), temporary school site on Beaulieu Drive, Pinner (to be occupied by the school over the 2015-2017 academic years) and the permanent proposed school site at Whitchurch playing fields.

Figure 2 2014/2015 Year 7-9 Pupil Home Locations



2.6 Whilst a significant proportion of students within the catchment area will be able to use a public bus service, or combination of bus services to travel to school, it is proposed to supplement this with a private school operated bus service. Further details of the school bus service are provided in Section 8 of the TA.

Vehicular Access

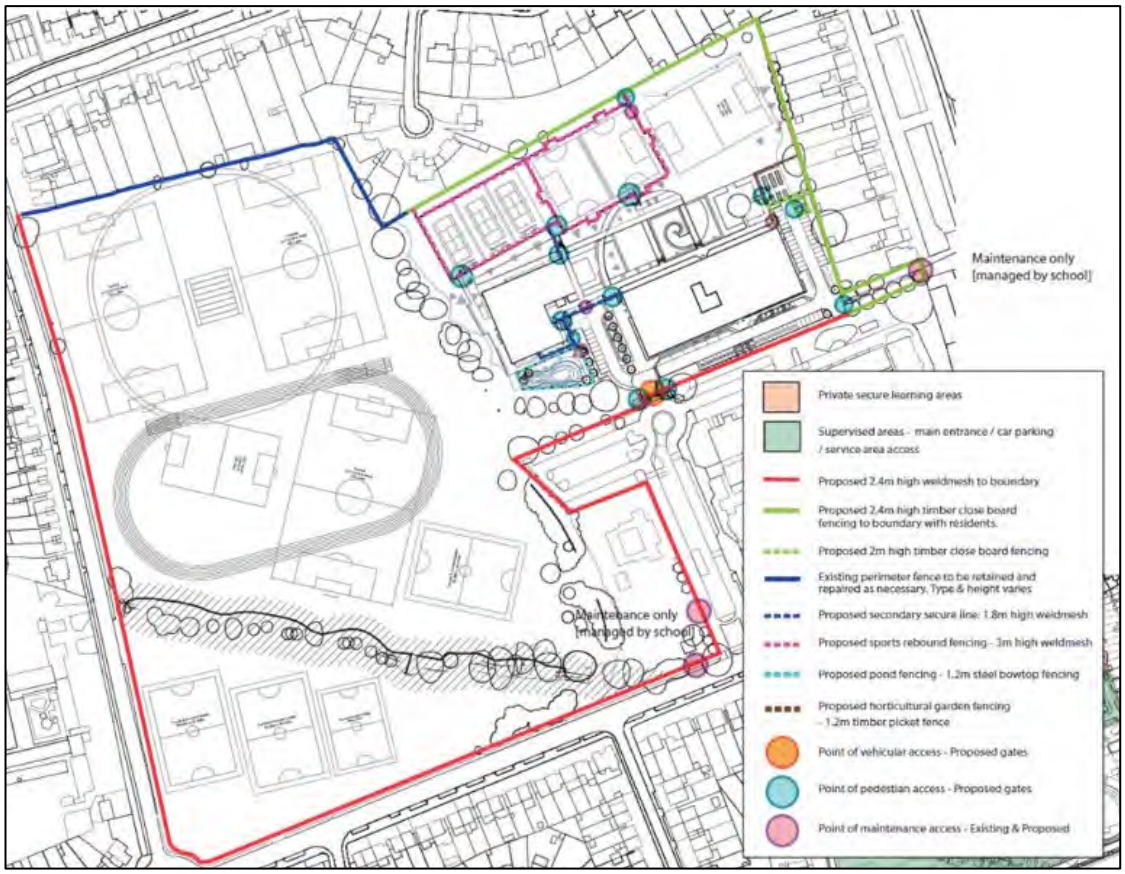
2.7 The existing playing fields on the proposed development site, and the Whitchurch First and Junior Schools southeast of the site are accessed from Wemborough Road via separate entry and egress simple priority junctions, and thereafter a shared access way. The egress onto Wemborough Road is provided with segregated left and right turn lanes.

2.8 With regard to the future vehicular access arrangements, upon occupation of the site by AHFS, it is proposed to utilise the existing priority junction arrangement and shared access way from Wemborough Road into the site for deliveries / servicing and staff access only. Delivery movements will be restricted to times away from the start and finish of the school day and outside of network 'peak' hours. It is understood that any modifications required to the access way to facilitate the movement of larger vehicles to and from the school, will be subject to agreement with Harrow Council Highways, Planners and Corporate Estates departments.

2.9 Further to the scoping meeting held with Harrow Council Highways on 13 January 2015, it was considered that vehicular set-down / pick-up trips were most likely to be undertaken in the public car park to the south of the school. On this basis, a parking beat survey was undertaken at the car park during the typical AM and PM drop-off / pick-up periods on 20 January 2015. The results of this parking survey with analysis of available parking supply and demand generated by the AHFS proposals are presented in Section 7 of this TA. It should be noted that 'committed' parking demand associated with the expansion of the Whitchurch First and Junior Schools has been taken into account in these calculations.

2.10 Figure 3 shows the proposed security and access arrangements for AHFS. These arrangements will be supported by signage and road markings, as appropriate. The strategy will also be embodied within the School's Travel Plan and Delivery / Servicing Plan such that all end users will be made aware of the arrangements to be put in place. It should be noted that the pedestrian access point off Wemborough Road will act as the sole point of access on foot.

Figure 3 Site Layout, Security & Access Arrangements



2.11 Through the public consultation process it has been noted that there has been support for the concept of a vehicular access way from Marsh Lane, creating a route through to Wemborough Road. It has been suggested that such a route could operate as one way with entry from Marsh Lane, drop-off / pick-up outside the school, and exit onto Wemborough Road.

2.12 This concept has been discussed with Harrow Highways on numerous occasions, who have raised a number of highway safety and capacity based concerns as identified below:

- By providing an alternative access route it would only encourage car trips;
- The new junction would be too close to the existing signalised crossroads and could cause conflict in respect of vehicles queuing back from the signals and blocking the school access junction;
- It could encourage 'rat-running' to avoid the signalised crossroads;
- Marsh Lane is the key distributor route in the area and any new access points are generally resisted;
- Even if it is a vehicular route parents might choose to drop-off / pick-up on Marsh Lane which raises safety issues with vehicles stopped on a busy route and children potentially crossing between stopping / queuing cars;
- Such an arrangement would be difficult to police, if as suggested, the route only operated for certain periods of the day.

2.13 In respect of providing a pedestrian only access at this location the last point would remain a concern for the Highway Authority, given that parents would be likely to drop-off on Marsh Lane in the AM peak and potentially wait for their children to finish school during the PM peak period. Such behaviour could also be disruptive to traffic flow and the operation of the signal junction to the south.

2.14 For the reasons outlined above Harrow Council Highways would not support any form of access to the school from Marsh Lane.

3. POLICY CONTEXT

3.1 An important consideration of the promotion of the proposed development is to highlight the guidance given with respect to transport policies at both National and Local Government level. In overall terms, planning policy seeks to achieve a balance by integrating land use and transport policy to create more sustainable development by appropriate location and design.

National Planning Policy Framework

3.2 The National Planning Policy Framework (NPPF) published in March 2012. Within the core planning principles as highlighted in para. 17 of the NPPF it states that planning should *"...actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable..."*

3.3 Section 4 of the NPPF continues on the theme of promoting sustainable transport. In para. 29 it highlights the role that transport policies have in contributing to wider sustainability and health objectives, citing smarter use of technologies and giving people real choice about how they travel as playing a key role in this regard. Para. 29 also recognises that different policies and measures to promote sustainable transport will apply and vary between rural and urban communities.

3.4 Para. 32 of the NPPF requires developments that generate significant amounts of movement to be supported by a Transport Statement of Transport Assessment. Within such documentation there is a requirement to ensure that:

- opportunities for sustainable transport modes have been taken up;
- safe and suitable access to the site can be achieved for all people; and
- cost effective improvements can be made, if required, to the limit the significant impacts of development.

3.5 Para. 32 goes on to state that *"...development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."*

3.6 Paragraph 35 of the NPPF states that "*Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people..."* It goes on to state that where practical developments should be located and designed to:

- *"accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*

- *incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *consider the needs of people with disabilities by all modes of transport."*

3.7 Para. 36 of NPPF suggests that a key tool to achieving the goals as set out in para. 35 is through Travel Plans.

3.8 Para. 37 of NPPF recommends that *"Planning policies should aim for a balance of land uses within an area so that people can be encouraged to minimise journey lengths for employment, shopping, leisure, education and other activities."*

London Plan (Further Alterations - 2015)

3.9 Within the latest version of the London Plan (March 2015) the Mayor outlines his key policy objectives. Chapter 6 of the London Plan, entitled *'London's Transport'*, recognises that transport plays a fundamental role in addressing the whole range of the Mayor's spatial, environmental, economic and social policy priorities. The Mayor will work with all relevant partners to encourage the closer integration of transport and development and by:

- *"..encouraging the patterns and nodes of development that reduce the needs to travel, especially by car;*
- *..seeking to improve capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand*
- *...supporting development that generates high levels of trips at locations with high public transport accessibility and / or capacity, either currently or via committed funded improvements*
- *...promoting walking by ensuring an improved public realm...."*

Harrow Council's Core Strategy (2012)

3.10 The Core Strategy, adopted 12 February 2012, is a key part of Harrow's Local Plan, and sets out the Borough's strategic approach to managing growth and development to 2026.

3.11 Within the Core Strategy, there are a number of objectives which relate to transport:

- *"enhance the infrastructure, environment and other resources which make Harrow a desirable place to live, work and visit by improving sustainable transport capacity, accessibility and quality to meet users' needs and expectations;*
- *manage the Borough's contribution to climate change by co-ordinating development and public transport to promote more sustainable patterns of land use to reduce reliance on private vehicles;*

- *adapt to population and demographic changes to meet people's needs and quality of life by promoting walking, cycling and participation in sport by all ages."*

3.12 Specifically Harrow Core Strategy Policy CS1 states the Council's aspiration for development to contribute to the delivery of a modal shift from private car to more sustainable transport methods, supported by sustainable Travel Plans.

Harrow Sustainable Transport Strategy (January 2013)

3.13 This document sets out Harrow's sustainable transport strategy, highlighting the "borough's commitment to a sustainable future". The strategy details the importance of finding alternatives to reliance on car travel and the initiatives the Council use to encourage this modal shift.

3.14 This involves a range of initiatives such as: *"raising awareness of available travel options through targeted promotions; supporting sustainable travel through small scale infrastructure projects such as cycle racks; building an understanding of factors motivating travel behaviour; and engaging directly with schools, workplaces and local communities."*

3.15 In terms of school accessibility, the borough encourages walking to school by supporting and promoting events such as Living Streets Walk to School campaign, International Walk to School Month, Walk on Wednesdays, Theatre in Education, Junior Walks and encouraging school walking buses. These all form part of the school travel plan.

3.16 The Harrow Sustainable Transport Strategy sets out specific policies under the subheadings of cycling, walking, travel planning and public transport. The most relevant of these are set out below.

3.17 Harrow cycling policies C1 and C4 set out the aim to provide cycle training for adults and children, in particular to facilitate cycle trips to and from school.

3.18 Harrow walking policies W1 and W3 set out the council's aspiration to encourage school walking buses and in general promote walking as a transport mode as a viable alternative to motorised travel.

3.19 Harrow travel planning policies 1-10 reference the importance of developing school Travel Plans, encouraging sustainable and healthy travel choices that are deliverable and secured via TfL's accreditation criteria.

3.20 Harrow public transport policies target working in partnership with TfL to deliver services that meet the demands of school travel, making public transport an attractive and viable method of transport for students, staff and visitors.

Scoping Discussions with London Borough of Harrow and the Greater London Authority

3.21 An initial meeting was held with Harrow Council Highways on 12 May 2014, through which a scope of junction surveys was identified. Subsequent to this, a Pre-Application meeting was held with Council Planners on 19 December 2014 and a more detailed scoping meeting with Harrow Council Highways on 13 January 2015 – the minutes of which (as agreed with Harrow Highways) are provided at Appendix 1.

3.22 A meeting was held to review draft Transport Assessment and Travel Plan documents with Harrow Council Highways on 4 August 2015. This was followed by a Pre-Application meeting with all Harrow Council planning disciplines on 12 August 2015. These most recent meetings have focused on the scope and delivery of junction improvement proposals at the signalised crossroads to the east of the site.

3.23 Pre-Application meetings were held with the GLA on 19 March 2015 and 30 June 2015 with transport comments provided by the GLA from both meetings set out at Appendix 2.

4. BASELINE CONDITIONS

Surrounding Highway Network

4.1 Wemborough Road is a two-way residential road which forms a crossroad junction with Marsh Lane (A4140) / Whitchurch Lane (B461) / Honeypot Lane (A414) to the east and a 4-arm roundabout with Abercorn Road / St. Andrew's Drive to the west. To the east of the signal junction is Canons Park Underground Station and to the north Stanmore Underground Station.

4.2 St Andrew's Drive has no on-street parking restrictions except within the vicinity of the roundabout. Abercorn Road is subject to on-street parking restrictions within the vicinity of the roundabout and the Stanburn Primary School access, with single yellow line parking restrictions present on the southbound side of the carriageway operational Monday-Friday 0800-0930 & 1500-1630.

4.3 Wemborough Road is the subject of a 30mph speed limit which continues along St. Andrew's Drive, Abercorn Road, Marsh Lane and Whitchurch Lane. The road has a vehicular weight restriction of 7.5T expect for access.

4.4 Honeypot Lane (A4140), a dual carriageway, is subject to a 40mph speed limit and is provided with grass verges between the footway and both the north and southbound carriageways. Both Honeypot Lane (A4140) and Marsh Lane to the north of the crossroad junction are subject to double yellow line parking restrictions.

4.5 Whitchurch Lane (B461) is subject to double yellow line restrictions for an approximate distance of 500m east of the crossroad junction and thereafter single yellow line restriction apply. Wemborough Road forms three priority junctions with Gyles Park, Bush Grove and Bromfield. Bush Grove and Bromfield are subject to single yellow line parking restrictions Monday – Friday 1400-1500 whereas Gyles Park has no on-street parking restrictions.

4.6 North of the development site, Old Church Lane connects with other neighbouring residential streets and cul-de-sacs including Cranmer Close and Lansdowne Road.

4.7 Wemborough Road is subject to recently implemented single yellow line parking restrictions, save for the pedestrian crossings and bus stops outside the school entrance. These were introduced following the Canons Park Area parking review (see Appendix 3). Restrictions are operational Mon–Fri, 2-3pm, aiming to reduce parking congestion created by commuters using Canons Park LU Station.

4.8 On-street parking bays are located outside Canons Park shopping parade which specifies restrictions Monday – Saturday 0800-1830. Parking is free for permit holders or pay and displays machines are available for a maximum stay of 2 hours. Single yellow restrictions apply Monday – Saturday 1000-1100 & 1400-1500 at this location also.

4.9 To the north of the application site, Marsh Lane junctions with London Road and The Broadway. London Road provides access to the M1 via the A41 and the Broadway provides access to north Stanmore and further north towards Watford.

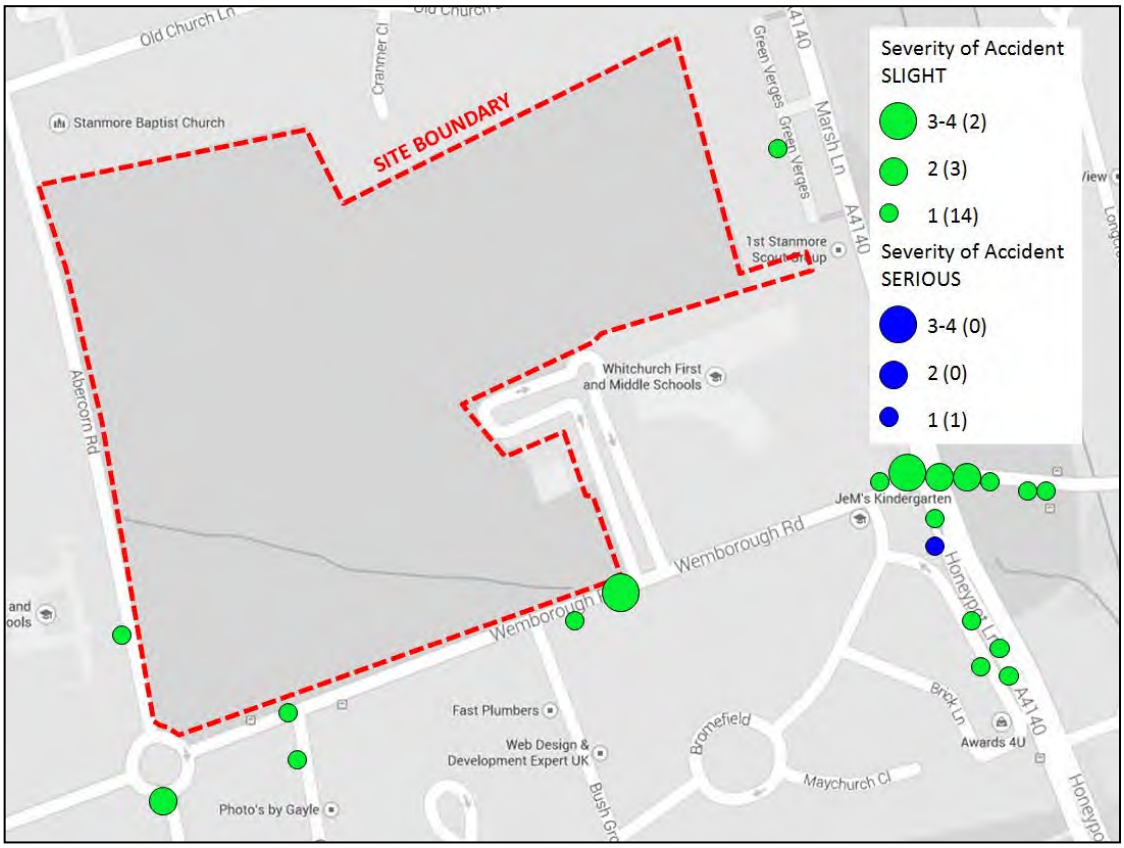
Highway Safety

4.10 To enable review of the road safety record of the road network in the immediate vicinity of the application site, Personal Injury Accident (PIA) data has been secured from Transport for London (TfL) for a 5-year period up to the end of November 2013. Full details of the PIAs together with a location map are included as Appendix 4 to the TA and illustrated in Figure 4.

4.11 From the data supplied by TfL it can be seen that there have been 48 recorded PIAs of which 46 have been classified as 'slight' and two as 'serious'. The 'slight' incidents were attributed to reasons including pedestrians crossing at inappropriate times or locations, rear vehicles shunts, vehicles turning right into the path of oncoming traffic and careless driving.

4.12 The two PIAs classified as 'serious' were attributed to a vehicle pulling out into the path of an oncoming vehicle and a rear end shunt caused by sudden braking. These incidents occurred along Whitchurch Lane close to the junction with Donnefield Avenue and Honeypot Lane crossroad junction respectively and thus not in the immediate vicinity of the proposed site.

Figure 4 PIA Location Map



4.13 Of the 48 PIAs, 16 involved pedestrians and of these less than half involved children. The reasons for the incidents were attributed to pedestrians' inappropriate use/failure to use crossing facilities, attempting to cross between parked cars, failure to look properly and carelessness. Only one PIA occurred along Wemborough Road which involved a child.

4.14 Three incidents occurred in the vicinity of the site access junction. The first incident involved a pedestrian crossing between parked cars and failure to use crossing facilities. The second incident involved a vehicle losing control and driving into a stationary vehicle and the final incident occurred as a result of a vehicle pulling into the path of cyclist which was attributed to failing to look properly.

4.15 In the context of the PIAs identified, and in particular those occurring at the signal junction to the east of the site, potential mitigation measures have been considered within Section 8 of this report.

Base Traffic Conditions

4.16 In order to determine baseline traffic operational conditions on the road network in the vicinity of the application site, in discussion with Harrow Council Highways on 12th May 2014 assessment has been undertaken on the following junctions which are illustrated in Figure 5 below:

- Whitchurch Lane / Honeypot Lane / Wemborough Road / Marsh Lane signalised crossroads;
- Whitchurch Schools Access / Wemborough Road priority junction (Site Access); and
- Wemborough Road / St Andrews Drive / Abercorn Road roundabout.

Figure 5 Junction Assessment Location Plan

4.17 Manual Classified Turning Movement (MCC) surveys were undertaken on all junctions identified above on Wednesday 18th June 2014 conducted over the AM peak periods, 07:00-10:00 and the PM peak period 16:00-19:00. A copy of the MCC surveys is included as Appendix 5 and details of the peak hour turning movements are appended to this report.

4.18 Tables 4.1 – 4.3 provides summaries of the ARCADY, PICADY and LINSIG outputs that assess the operational conditions of these three junctions during the AM and PM peak hours. The results of each analysis are included at Appendices 6-8 respectively. It should be noted that the 'peak hour' periods used for analysis are centred around the KS3 start / finish times for the Avanti House School, on the basis that these are the periods during which the school will generate the most vehicle trips. The AM peak period is 0745-0845, whilst the PM peak period is 1615-1715. Traffic flow diagrams for the 2014 surveyed AM and PM peak scenarios are provided at Figures 1.1-1.2, 2.1-2.2 and 3.1-3.2 for each junction respectively.

Table 4.1 Whitchurch Lane / Honeypot Lane / Wemborough Road / March Lane - 2014 Surveyed Flows

Arm	AM Peak Hour		PM Peak Hour	
	DoS	Queue	DoS	Queue
Whitchurch Lane Left Ahead	81.1%	12.7	72.3%	11.0
Whitchurch Lane Right	55.2%	1.8	41.0%	1.7
Honeypot Lane Left Ahead	84.5%	10.3	78.0%	9.9
Honeypot Lane Right Ahead	85.4%	11.0	79.8%	11.2
Wemborough Road Left Ahead	84.0%	14.1	67.9%	10.4
Wemborough Road Right	79.7%	3.6	75.8%	4.6
Marsh Lane Left Ahead	84.0%	10.8	75.3%	6.8
Marsh Lane Right Ahead	85.6%	12.2	77.2%	7.7

4.19 Table 4.1 shows that the under its existing highway layout the signalised junction operates within overall capacity, and with degrees of saturation of less than 90% across all approach arms. The greatest levels of queuing are present on the Whitchurch Lane and Wemborough Road approach arms in the AM peak, and on the Whitchurch Lane and Honeypot Lane approach arms in the PM peak.

Table 4.2 Whitchurch Schools Access / Wemborough Road - 2014 Surveyed Flows

Arm	AM Peak Hour		PM Peak Hour	
	Max RFC	Queue	Max RFC	Queue
Whitchurch Schools LT	0.079	0.1	0.037	0.0
Whitchurch School RT	0.131	0.1	0.110	0.1
Wemborough Road	0.202	0.5	0.059	0.1

4.20 From Table 4.2 it can be seen that under existing highway conditions the priority junction operates well within capacity during the AM and PM peak periods with minimal queuing.

Table 4.3 Wemborough Road / St Andrews Drive / Abercorn Road - 2014 Surveyed Flows

Arm	AM Peak Hour		PM Peak Hour	
	Max RFC	Queue	Max RFC	Queue
Wemborough Road (E)	0.740	2.8	0.840	4.9
St Andrew's Drive	0.580	1.4	0.660	1.9
Wemborough Road (W)	0.640	1.7	0.650	1.9
Abercorn Road	0.790	3.5	0.690	2.2

4.21 From Table 4.3 it can be seen that under its existing highway layout the junction operates within capacity during both the AM and PM peak periods, with the most notable queuing on the Abercorn Road approach arm in the AM peak and Wemborough Road (E) approach arm during the PM peak.

Pedestrian & Cycle Accessibility

4.22 The Chartered Institution of Highways and Transportation document 'Guidelines for Providing for Journeys on Foot' state that "walking accounts for over a quarter of all journeys and four fifths of journeys less than one mile". The document also provides guidance on acceptable walking distances and suggests that a preferred maximum walking distance of 2km is applicable for school trips. In relation to cycling, it is also recognised that this mode also has the potential to substitute short car journeys particularly those less than 5.0 kilometres. Figure 6 below illustrates the 2.0km walking and 5.0km cycling catchment areas of AHFS.

4.23 Wemborough Road is provided with lit footways on both sides of the carriageway and approximately 10 metres from the main site entrance is a pelican crossing across Wemborough Road. Existing school signage and carriageway markings are present alerting drivers to the fact that children will be crossing the road.

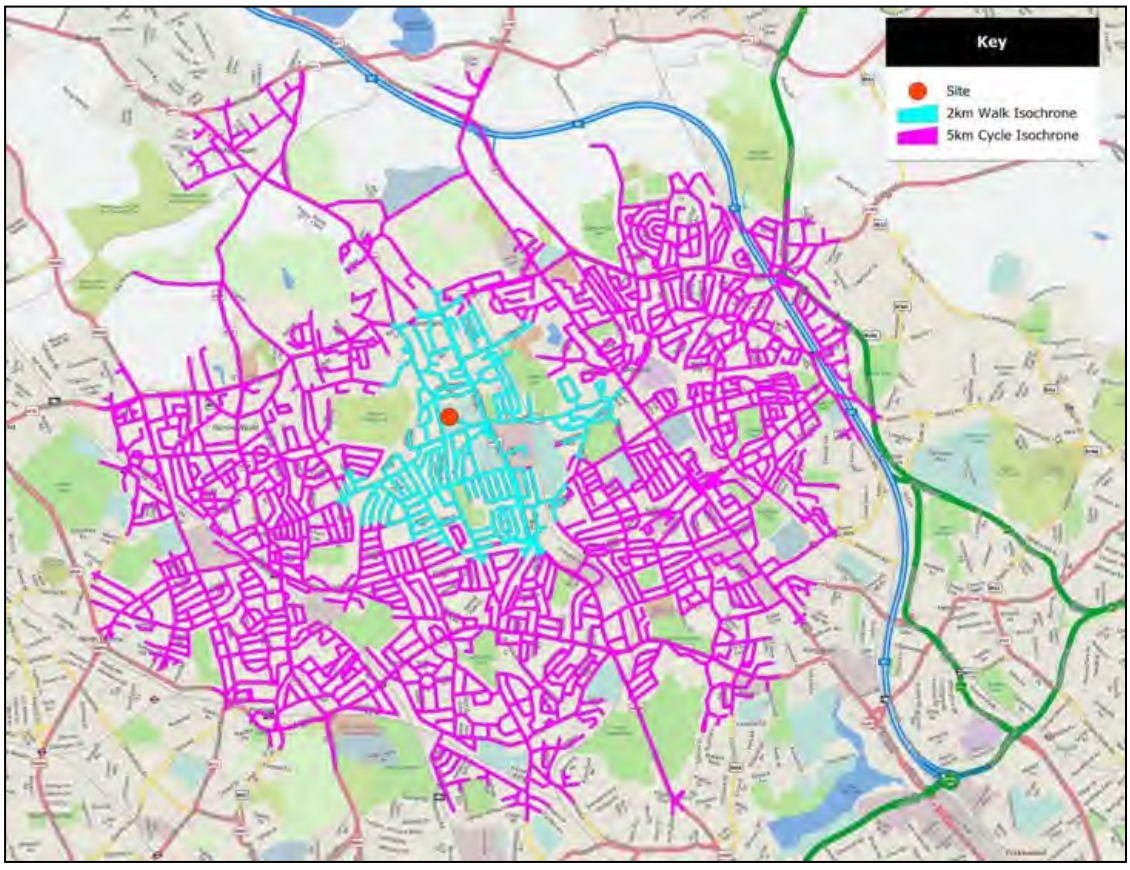
4.24 Pedestrian infrastructure within the vicinity of the site is of a good standard with pedestrian crossing points present along key pedestrian desire lines and the local footway network provided with lit footways. Abercorn Road to the west of the site benefits from three pedestrian crossing points.

4.25 The 4-arm roundabout to the west of the site benefits from pedestrian crossing zones, with either zebra crossing facilities or pedestrian refuge islands and tactile paving on all arms of the junction.

4.26 Located to the east of the site is a signalised crossroad junction linking Marsh Lane / Whitchurch Lane (B461) / Honeypot Lane (A4140) / Wemborough Road which benefits from pedestrian crossings with tactile paving and pedestrian refuge islands on all arms of the junction. Honeypot Lane is provided with staggered signalised pedestrian crossing facilities.

4.27 It will be demonstrated in Section 6 of this TA that the footways surrounding the site access are capable of absorbing existing foot traffic and that associated with the school proposals and expansion of the neighbouring Whitchurch Schools.

Figure 6 Potential Walk & Cycle Catchment



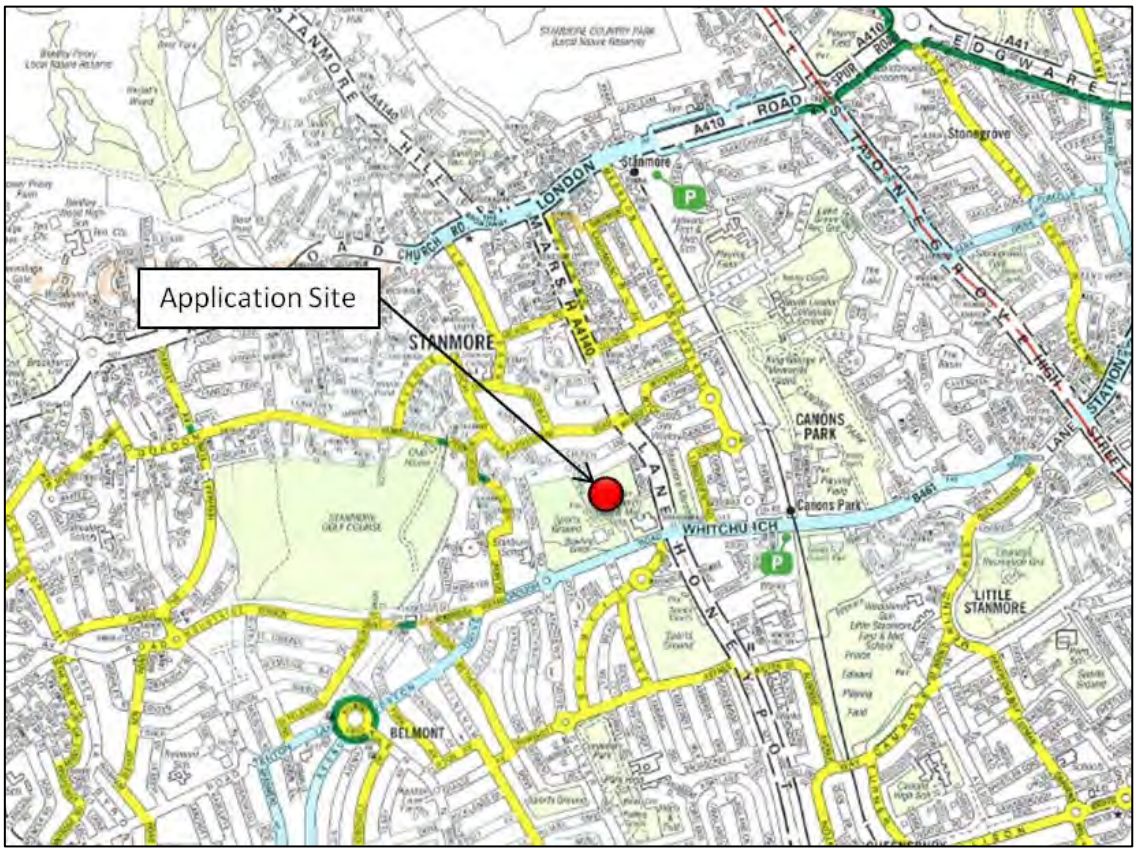
4.28 Figure 7 shows an extract of the local TfL cycle guide from which is can be seen that there is a network of signed and recommended routes for cyclists within the vicinity of the proposed school. Wemborough Road benefits from dedicated on-road cycle lanes as does Marsh Lane.

4.29 Whitchurch Lane benefits from on-road cycle markings (diag. 1057) alerting drivers to the presence of cyclists. A dedicated cycle lane is present along the eastbound side of the carriageway approximately 160 metres from the signalised junction.

4.30 It is noted that proposals will be coming forward for the implementation of the 'Jubilee Line Quietway' cycle route, which, in the vicinity of the site, will run north-south along Honeypot Lane / Marsh Lane. This proposal will likely be implemented prior to the occupation of the school, and will therefore offer additional dedicated cycle connectivity between the school and its immediate catchment.

4.31 Where dedicated cycle routes are not present, carriageway widths are wide enough to accommodate both cyclists and vehicles and visibility is generally of a good level aiding inter-visibility between cyclists and vehicles.

Figure 7 Local Cycle Routes



4.32 Within Figure 7, yellow routes denote quieter roads that have been recommended by other cyclists and may connect to other route sections. Blue routes are signed or marked for use by cyclists on a mixture of quite or busier roads and green routes are off-road routes which may also be shared with pedestrians. The full map can be found in the TfL Local Cycle Guide 3.

Public Transport Accessibility

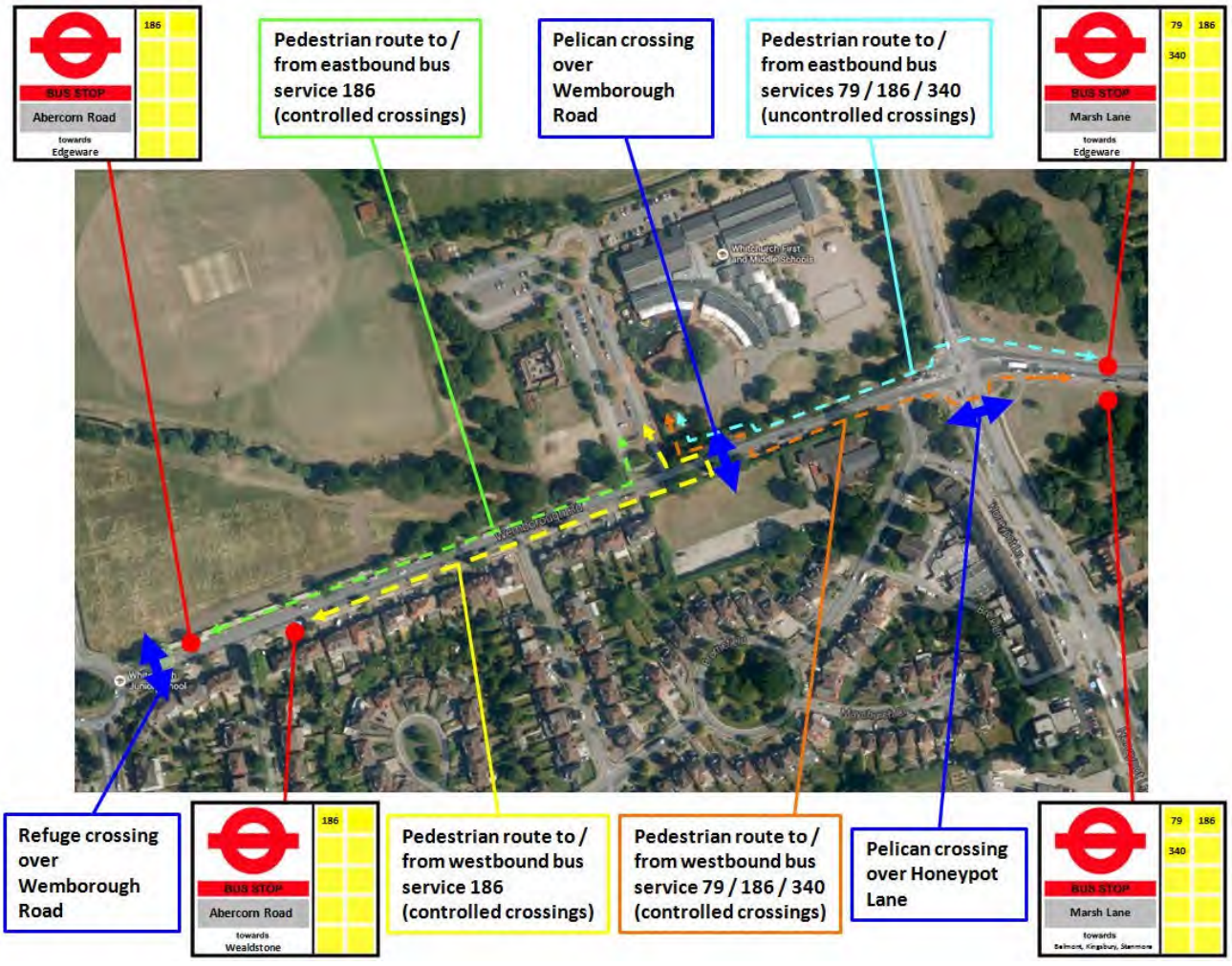
Bus Services

4.33 The nearest bus stops to the application site are located on Wemborough Road, the closest being 250m west of the pedestrian entrance to the school. The bus stops further west are provided with bus shelters, seating, timetable information, with the exception of Stop BL which is not provided with sheltering. The stops are served by route 186.

4.34 To the east of the site, services 79, 186 and 340 stop regularly along Whitchurch Lane (B461) and benefit from shelters, seating and timetable information. The walking route from the school to the bus stops on the south side of Whithchurch Lane is via two sets of controlled crossing facilities.

4.35 The most direct route to the stops on the north side of Whitchurch Lane requires pedestrians to use the uncontrolled crossing over Marsh Lane. Investigation has been undertaken within Section 8 of this report as to whether a signalised crossing facility could be delivered at this location. An overview of connectivity between the school site and the nearest bus stops is provided at Figure 8 below.

Figure 8 Pedestrian Connectivity to Local Bus Stops



4.36 The closest bus stop for Route N98 is located 480m south of the site on Honeypot Lane and is provided with a bus shelter, seating and timetable information.

4.37 Abercorn Road, west of the school, links bus service 324 which stops approximately 420 metres from the school entrance. The service runs between Stanmore London Underground (LU) Station and Brent Cross via Kingsbury. The walking route is provided with a zebra crossing at the roundabout, south on Abercorn Road.

4.38 A summary of the weekday daytime operations of these bus services is provided in Table 4.4.

Table 4.4 Direct Bus Services & Frequencies

Route No.	Nearest Bus Stop	Route	Frequency
186	250 metres	St Mark's Hospital-Harrow-Edgware-Brent Cross	Every 12 minutes
79	260 metres	Edgware-Honeypot Lane-Alperton	Every 12 minutes
340	260 metres	Edgware-Stanmore-Harrow	Every 12 minutes
324	420 metres	Stanmore-Kingsbury Station-Brent Cross	3 p/hr
N98	480 metres	Stanmore-Willesden-Edgware-Holborn	4 p/hr

4.39 The bus routes set out in Table 4.4 will provide a direct route to the proposed school for a good proportion of prospective students. Table 4.5 identifies additional connecting bus services which will allow access from other home locations with North London, particularly around the Enfield / Bush Hill Park or Cockfosters areas.

Table 4.5 Connecting Bus Services

Route No.	Route	Connecting At	Connecting Route No.	Frequency
32	Edgware-Cricklewood-Kilburn	High Street (A5)	79/186/340	Every 20 minutes
142	Watford-Bushey-Brent Cross	High Street (A5)	79/186/340	Every 12 minutes
204	Edgware-Wembley Central Station-Sudbury	High Street (A5)	79/186/340	Every 10 minutes
288	Queensbury-Edgware Bus Station-Broadfields	High Street (A5)	79/186/340	Every 10 minutes
292	Borehamwood-Barnet Way-Colindale	High Street (A5)	79/186/340	Every 15 minutes
644	Hatfield-Barnet-Edgware-Wembley Park Station	High Street (A5)	79/186/340	Every 30 minutes

4.40 It can be seen that these connections offer students the opportunity to travel from their home from a variety of locations to the school by public transport, i.e. 'door to door' in a maximum journey time of 45 minutes.

Rail Services

4.41 The nearest rail / London Underground station to the proposed school is Canons Park, approximately 600 metres (10 minute walk-time) to the east. Canons Park is operated by London Underground on the Jubilee Line located between Stanmore to the north and Queensbury to the south. A service is provided every 5 minutes and bus routes 79, 186 and 340 stop outside the station.

4.42 Edgware Station (London Underground) is the northern terminus on the Northern Line, approximately 2.4km from the proposed site and is also served by bus services 79, 186 and 340. Services arrive in Edgware every 12 minutes.

PTAL

4.43 PTAL or Public Transport Accessibility Level is a widely adopted tool amongst London Authorities for measuring a sites' accessibility. The PTAL methodology identifies the key factors that influence personal choice of a public transport mode as being, number of accessible services, walk distances, frequency, reliability and time of day / day of week. On the basis of these factors, a formula has been developed to calculate an Accessibility Index (AI) for any given location.

4.44 Using the PTAL methodology / formula, a PTAL has been calculated for the application site, the results of which are included as Appendix 9. From Appendix 9 it can be seen that the application site has an AI value of 8.73 or a PTAL banding of 2.

4.45 In overall terms, whilst the PTAL value for the site is low, the accessibility of the application site by public transport offers a range of alternative travel choices to both student and staff and there are a wide range of journey origins and destinations can be reached by the bus and underground networks.

5. PROPOSED TRIP GENERATION & DISTRIBUTION

5.1 The AHFS will generate person trip movements by all modes of travel throughout a weekday period and in particular the AM and PM peak periods. The AHFS will provide a comprehensive range of pre- and post- school activities including a breakfast club and additional education / training and sporting activities after school. The effect of these activities will be to stagger arrivals and departures (in addition to the staggered start / finish times by key stage) thereby reducing the potential impact of person trips generated by the AHFS on the local area and transport networks.

5.2 In respect of modal split information, the existing AHFS School Travel Plan (albeit for their previous location at Common Road) contains hands-up survey information undertaken to determine children's methods of travel to school. The School Travel Plan is provided at Appendix 10.

5.3 It is however noted, that the location of the school at the time on Common Road, was less accessible to public transport, pedestrian and cycle routes in comparison to the Whitchurch Fields site. The Common Road site was also not as central to the school catchment as the Whitchurch Fields site (2014/2015 Year 7-9 catchment illustrated in Section 2). It is therefore considered that the use of TRICS data for Secondary School provides a more accurate idea of children's method of travel to and from the Whitchurch site, as well as deriving trip rates.

5.4 Table 5.1 provides a summary of weekday peak hourly person trip rates and resultant movements by mode of travel for the proposed uses on the site based on the full occupation scenario, as described above. Whilst it is noted that the site may be used for 'out of hours' leisure activities, in the context of school trip generation, these trips will be minimal and will occur outside of network peak periods.

5.5 The original trip rates (as agreed with Harrow Council Highways) have been modified to reflect comments provided by the GLA. Through the revised selection of TRICS survey sites (discounting schools from outside London) a trip generation profile has been generated that maintains a similar level of car based trips whilst re-dressing the balance of trips by sustainable modes to reflect a greater proportion of public transport users. A copy of the TRICS output is provided at Appendix 11.

5.6 It should be noted that on the basis of the school providing a dedicated bus service to transport c. 150 children in the AM and PM peak periods (one run for each key stage), the school bus has been included as an additional travel mode with the pedestrian mode discounted accordingly in order to maintain consistent total two-way trips rates and movements.

5.7 In respect of pedestrian trips in particular, Harrow Council Highways advised that any modal split assumptions should be substantiated by first principles information. In this regard, Figure 9 below illustrates the proportion of 2014/2015 academic year pupils living within 1200m of the school (c. 20 minute walk time) and that could therefore reasonably walk to the school.

5.8 From the 2014/2015 pupil postcode locations shown at Figure 9, it is illustrated that approximately 80 of 320 pupils lived within a 20 minute walk of the school. This amounts to 25% of the school population at that time. On the basis that when the school is relocated to Whitchurch Playing Fields it will attract more pupils from its proximity, and taking into account the likelihood that as the school grows there are more likely to be siblings able to walk together to school, it is not considered unreasonable to expect an increase in pedestrian trips to c. 30-35% as indicated in the TRICS output at Table 5.1.

Figure 9 Pupils Living within 1.5km of Proposed School Site

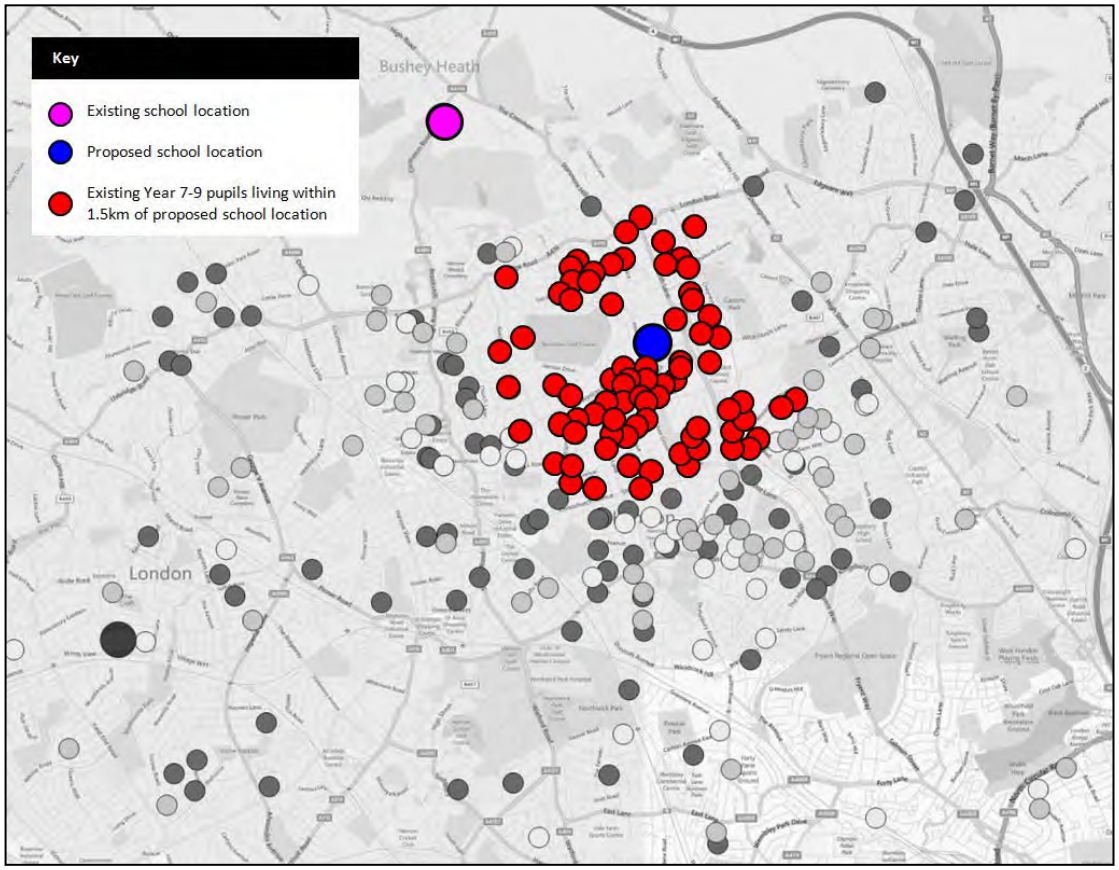


Table 5.1 Weekday Peak Hour Person Trip Generation - Proposed Uses (1,260 students)

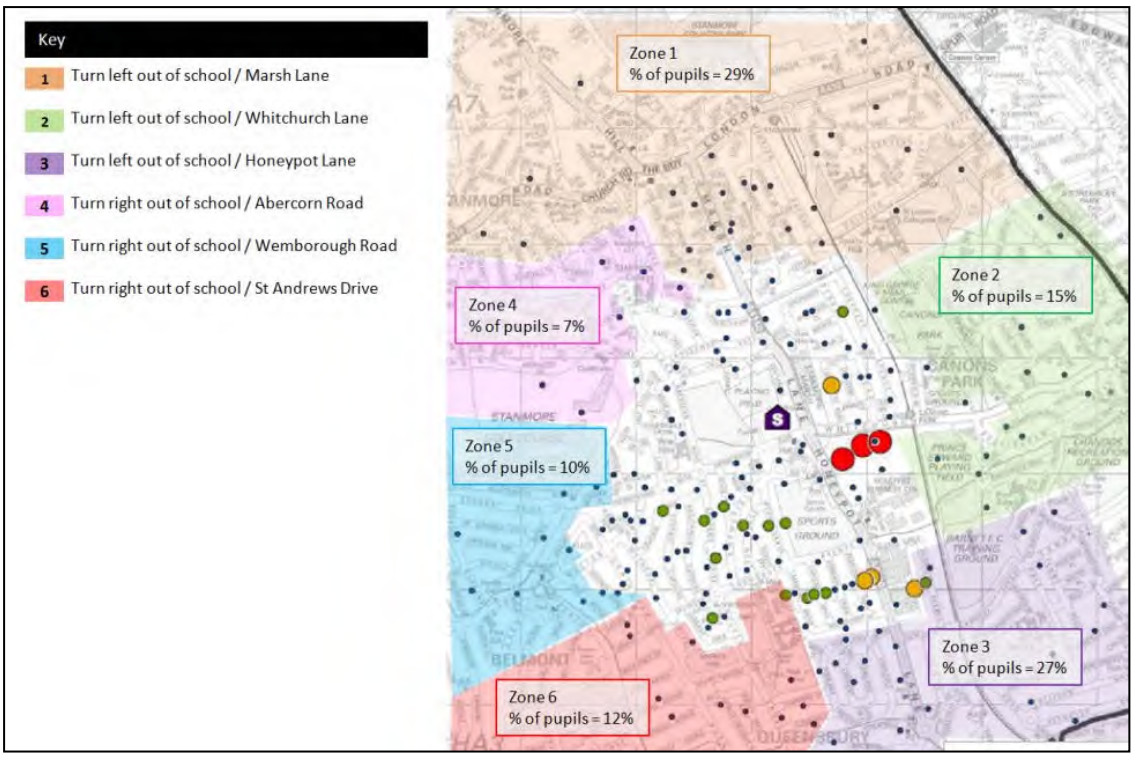
Mode of Travel	AM Peak (0800-0900hrs)			PM Peak (1500-1600hrs)		
	Two-Way Trip Rate (per pupil)	Mode Split	No. Movements	Two-Way Trip Rate (per pupil)	Mode Split	No. Movements
Car Occupants	0.168	21.7%	212	0.075	8.7%	95
Cyclists	0.008	1.0%	10	0.008	0.9%	10
Pedestrians	0.246	31.8%	310	0.299	34.7%	377
Public Transport	0.233	30.1%	294	0.360	41.8%	454
School Bus	0.119	15.4%	150	0.119	13.8%	150
TOTALS	**0.774**	**100.0%**	**976**	**0.861**	**100.0%**	**1086**

5.9 From Table 1 it can be seen that the proposed uses on site have the potential to generate between 976 and 1086 total person trips during the weekday AM and PM peak periods. Of these some 95-212 are car borne trips, equating to a modal share of some 9-22%. Of the remainder of these trips, the number of public transport users equates to around 30-42%, cyclists 1% and pedestrians between 32-35%. The impact of development related trips is considered in Section 6 of this Transport Assessment.

Vehicle Trip Distribution

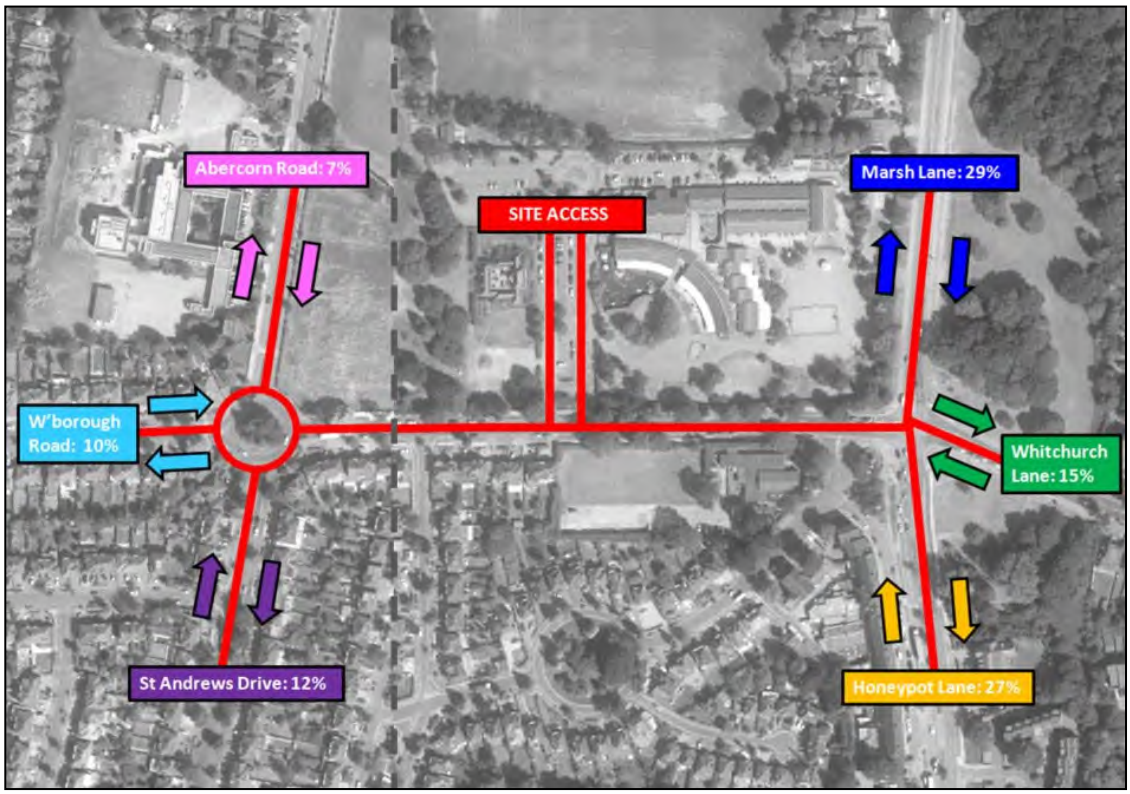
5.10 In consultation with Harrow Council Highways it is proposed to distribute school-related traffic using the home postcode information for the neighbouring Whitchurch Schools. Pupil postcode plots for the Whitchurch School have been obtained from their Travel Plan, and origin / destination 'zones' derived based on shortest driven routes from the school access point. Figure 10 illustrates the designation of zones and percentage of Whitchurch School pupils drawn from each.

Figure 10 Derivation of Traffic Distribution from Whitchurch Schools Home Postcode Data



5.11 The resultant distribution of traffic by percentage through the site access junction and roundabout / signal junctions to the west and east is shown at Figure 11, and used thereafter within the appended traffic flow figure diagrams for the distribution of 'committed development' relating to the expansion of the Whitchurch Schools, and traffic associated with the AHFS proposals.

Figure 11 Distribution of School Related Traffic



6. IMPACTS

Road Network

6.1 In order to assess the impact of development-related trips, and in particular car borne traffic, a future year assessment has been undertaken. For the purposes of a robust assessment both AM and PM peak hour school flow scenarios have been superimposed onto the network peak hour flows. This therefore takes no account of the potential spreading of school related traffic resulting from the staggering of start / finish times by key stage.

6.2 The 2014 surveyed traffic flows have been factored up to 2020 using TEMPRO growth for 'Harrow minor' road types, a copy of which is included as Appendix 12.

- 2014 - 2020 AM Peak – x 1.0647
- 2014 - 2020 PM Peak – x 1.0637

6.3 The impact of the increases in vehicular traffic on the existing road network have been assessed by comparing 'Base' with 'Base + Development' traffic conditions for the proposed future assessment year. The purpose of this analysis is to establish the potential impact of traffic flows associated with the proposed scheme on the operation of the surrounding highway network during the weekday AM and PM peak periods. It should be noted that the committed traffic in relation to the expansion of the neighbouring Whitchurch First and Junior Schools has been taken into account and incorporated into the 'base' scenario.

6.4 The distribution of development traffic has been based on the methodology as identified in Section 5 of this TA. On the basis of the distribution of development traffic, the three junctions referred to in Section 4 have been tested for operational capacity to consider the traffic impact of the development on the local highway network.

Whitchurch Lane / Honeypot Lane / Wemborough Road / Marsh Lane Signal Junction

6.5 Tables 6.1 and 6.2 provides a summary of the LINSIG outputs that assess the 2020 'Base' and 'base + development' flows of the proposed school during the weekday AM and PM peak periods. These flows are also illustrated in appended Figures 1.3 – 1.12. The results of the LINSIG analysis are included as Appendix 6.

Table 6.1 Whitchurch Lane / Honeypot Lane / Wemborough Road / Marsh Lane – 2020 Base

Arm	AM Peak Hour		PM Peak Hour	
	DoS	Queue	DoS	Queue
Whitchurch Lane Left Ahead	83.5%	14.1	74.7%	12.1
Whitchurch Lane Right	69.2%	2.2	47.9%	1.9
Honeypot Lane Left Ahead	97.8%	16.5	89.4%	13.0
Honeypot Lane Right Ahead	98.1%	17.5	90.5%	14.5
Wemborough Road Left Ahead	89.4%	17.3	73.4%	12.0
Wemborough Road Right	101.7%	9.6	93.0%	7.9
Marsh Lane Left Ahead	96.6%	16.6	91.2%	10.2
Marsh Lane Right Ahead	97.4%	18.4	92.2%	11.3

Table 6.2 Whitchurch Lane / Honeypot Lane / Wemborough Road / Marsh Lane – 2020 Base + Development

Arm	AM Peak Hour		PM Peak Hour	
	DoS	Queue	DoS	Queue
Whitchurch Lane Left Ahead	82.1%	14.4	72.8%	11.9
Whitchurch Lane Right	60.8%	1.9	51.9%	1.9
Honeypot Lane Left Ahead	110.1%	32.0	94.4%	15.3
Honeypot Lane Right Ahead	110.3%	34.3	95.2%	17.0
Wemborough Road Left Ahead	87.4%	16.9	76.4%	13.2
Wemborough Road Right	104.5%	11.5	97.9%	10.3
Marsh Lane Left Ahead	108.1%	31.6	91.9%	10.5
Marsh Lane Right Ahead	108.6%	34.8	93.0%	11.6

6.6 From Tables 6.1 and 6.2 it can be seen that under Year 2020 'base + development' traffic flow conditions the signalised crossroad junction will continue to function above overall capacity, when compared with 2020 'base' conditions. Honeypot Lane and Wemborough Road approach arms will experience the highest degrees of saturation and queuing, particularly during the AM peak periods. It should nevertheless be noted that in reality, pupils arriving by car will be spread between 07:00 and 09:45 rather than concentrated into a single hourly period, and therefore to some degree the traffic impact is overstated.

Whitchurch Schools Access / Wemborough Road (Site Access) Priority Junction

6.7 Tables 6.3 and 6.4 provide a summary of the PICADY outputs that assess the 2020 'Base' and 'base + development' flows of the proposed school during the weekday AM and PM peak periods. These flows are also illustrated in Figures 2.3-2.12. The results of the PICADY analysis are included as Appendix 7.

Table 6.3 Whitchurch Schools Access / Wemborough Road (Site Access) – 2020 Base

Arm	AM Peak Hour		PM Peak Hour	
	Max RFC	Queue	Max RFC	Queue
Whitchurch Schools LT	0.207	0.3	0.152	0.2
Whitchurch School RT	0.363	0.6	0.322	0.5
Wemborough Road	0.400	1.2	0.245	0.7

Table 6.4 Whitchurch Schools Access / Wemborough Road (Site Access) – 2020 Base + Development

Arm	AM Peak Hour		PM Peak Hour	
	Max RFC	Queue	Max RFC	Queue
Whitchurch Schools LT	0.295	0.4	0.274	0.4
Whitchurch School RT	0.502	1.0	0.410	0.7
Wemborough Road	0.793	5.7	0.282	0.8

6.8 From Table 6.4 it can be seen that under Year 2020 'base + development' traffic flow conditions the priority junction will continue to function within capacity and with queues that can be accommodated within the available road space.

Wemborough Road / St Andrew's Drive / Abercorn Road Roundabout

6.9 Tables 6.5 and 6.6 provide a summary of the ARCADY outputs that assess the 2020 'Base' and 'base + development' flows of the proposed school during the weekday AM and PM peak periods. These flows are also illustrated in Figures 3.3-3.12. The results of the ARCADY analysis are included as Appendix 8.

Table 6.5 Wemborough Road / St Andrew's Drive / Abercorn Road – 2020 Base

Arm	AM Peak Hour		PM Peak Hour	
	Max RFC	Queue	Max RFC	Queue
Wemborough Road (E)	0.870	6.1	0.980	16.1
St Andrew's Drive	0.690	2.1	0.790	3.4
Wemborough Road (W)	0.730	2.7	0.760	3.0
Abercorn Road	0.900	7.7	0.790	3.6

Table 6.6 Wemborough Road / St Andrew's Drive / Abercorn Road – 2020 Base + Development

Arm	AM Peak Hour		PM Peak Hour	
	Max RFC	Queue	Max RFC	Queue
Wemborough Road (E)	0.890	6.8	1.000	21.3
St Andrew's Drive	0.720	2.5	0.800	3.6
Wemborough Road (W)	0.770	3.1	0.760	3.0
Abercorn Road	0.950	10.9	0.790	3.6

6.10 From Table 6.6 it can be seen that under Year 2020 'base + development' traffic flow conditions the roundabout junction will experience some increase in queuing but not to a substantial degree. This is most evident on the Abercorn Road arm during the AM peak and on the Wemborough Road (E) arm during the PM peak with this arm operating at an RFC of 1.000.

Pedestrian and Cycle Infrastructure

6.11 In respect of the impact of the development on local pedestrian infrastructure, the footways on Wemborough Road are generally provided to a c. 2.6m width and will support all pedestrian activity entering and exiting the site.

6.12 Using the TFL Pedestrian Comfort Guidance it is noted that a footway with a clear unobstructed width of 2.6m in a 'residential' area can support in the order of 1,650 two-way hourly movements, maintaining a 'comfortable' pedestrian experience. Appendix 13 illustrates the output from a TfL based 'Pedestrian Level of Service Assessment', demonstrating the maximum value of 1,650 two-way hourly movements within the comfortable 'B+' standard.

6.13 Predicted pedestrian trip generation associated with the AHFS, as set out in Section 5, is in the order of 310-377 hourly two-way pedestrian movements during the peak hour periods. Committed pedestrian activity associated with the neighbouring school has also been taken into account. This has been derived on the basis of the Whitchurch Schools Travel Plan, which states that in 2014 41% of children walked to school. Applying this percentage to the fully expanded school at 905 pupils, results in a predicted 371 pupils using the Wemborough Road footways.

6.14 Consequently, the combined number of pedestrians using the Wemborough Road footways from the Whitchurch and Avanti Schools totals a maximum of 748 two-way movements, over a peak hourly period. This still leaves capacity for a further 902 two-way pedestrian movements within the peak hours, before the footway function reduces from 'comfortable' to 'acceptable'.

6.15 On the basis of on-site observation and even taking into account pedestrian activity associated with the Stanburn Primary School on Abercorn Road, it is conclusive that the Wemborough Road footways would operate within capacity under future conditions.

7. PARKING

7.1 Parking demand data has been obtained in order to gauge current parking levels within the car park to the south of the site in order to assess the impact of the development on parking supply. It was agreed with Harrow Council Highways through the scoping process, that the car park would represent the optimum location for school related set-down / pick-up, and thereby reduce the risk of these activities occurring on the public highway, and in particularly where waiting restriction apply.

7.2 Parking beat surveys have been carried out by an independent survey specialist during typical weekday peak periods including school drop-off / pick-up periods, between 07:00-10:00 and 15:00-18:00 on Tuesday 20th January 2015. The parking beat surveys established the demand for parking in 15 minute intervals throughout the survey periods. The survey cordon is illustrated in Figure 12 below.

Figure 12 Parking Stress Survey Cordon

7.3 The results of the parking beat surveys are contained in Appendix 14 and the summary of results is provided in Table 7.1.

Table 7.1 Surveyed Car Park Demand

Time Period	Zone 1 Total Number of Spaces: 28		Zone 2 Total Number of Spaces: 64		Zone 3 Total Number of Spaces: 10		Total of all Zones Total Number of Space: 102	
	Demand	Spare Capacity	Demand	Spare Capacity	Demand	Spare Capacity	Total Demand	Total Spare Capacity
07:00	0	28	1	63	0	10	1	101
07:15	0	28	1	6	0	10	1	44
07:30	1	27	2	62	4	6	7	95
07:45	0	28	4	60	8	2	12	90
08:00	5	23	4	60	8	2	17	85
08:15	11	17	7	57	10	0	28	74
08:30	22	6	20	44	10	0	52	50
08:45	28	0	64	0	10	0	102	0
09:00	24	4	10	54	10	0	44	58
09:15	23	5	28	36	10	0	61	41
09:30	23	5	28	36	9	1	60	42
09:45	23	5	28	36	9	1	60	42
10:00	24	4	28	36	8	2	60	42
Total	**184**	**180**	**255**	**544**	**96**	**34**	**505**	**764**
15:00	28	0	64	0	10	0	102	0
15:15	28	0	64	0	10	0	102	0
15:30	28	0	50	14	10	0	88	14
15:45	24	4	20	44	9	1	53	49
16:00	22	6	19	45	9	1	50	52
16:15	28	0	16	48	9	1	53	49

Table 7.1 Surveyed Car Park Demand (Cont.)

16:30	25	3	14	50	4	6	43	59
16:45	17	11	11	53	4	6	32	70
17:00	14	14	9	55	4	6	27	75
17:15	11	17	5	59	2	8	18	84
17:30	11	17	4	60	3	7	18	84
17:45	9	19	4	60	1	9	14	88
18:00	2	26	0	64	0	10	2	100
Total	**247**	**117**	**280**	**552**	**75**	**55**	**602**	**724**

7.4 Table 7.1 indicates that the two set-down periods show comparable parking demands levels. Analysis shows that under existing conditions all zones reach capacity during the AM peak at 08:45 and during the PM peak at 15:00 & 15:15. It is noted that these are the periods at the start and end of the neighbouring Whitchurch Schools days.

7.5 Analysis of predicted parking demand associated with the AHFS drop-offs / pick-ups, in the context of the identified supply is provided at Appendix 15. The calculations also take into account reduced supply as a result of the Whitchurch Schools expansion. The committed trip generation figures used in relation to the Whitchurch Schools expansion were taken from the approved Mott MacDonald Transport Assessment (March 2014).

7.6 The methodology used to derive the parking accumulation associated with the AHFS considers the 3 hour TRICS based vehicle trip generation over the AM and PM peak periods (ie. 07:00-10:00 arrivals and 14:00-17:00 departures). These trips have then been superimposed onto the parking profile in accordance with the AHFS start / finish times, in proportion to the predicted number of pupils arriving / departing through each time period (see Table 2.1).

7.7 For the purpose of the parking accumulation calculations it has been assumed that 75% pupils arrive / depart school in the 15 minute period before or after their school start / finish time. The remaining 25% pupils arrive / depart school 15-30 minutes before or after school start / finish time.

7.8 Consequently, the parking accumulation calculations illustrate that over the AM and PM peak survey periods, the following patterns occur:

- Around the Breakfast Club, AHFS KS4 and KS3 start times it is predicted that there will be sufficient spare capacity to accommodate demand;

- During the periods that the Whitchurch Schools drop-off there would be a shortfall in parking supply, particularly between 08:45 and 09:00;
- Between 09:30 and 09:45 when the majority of AHFS KS5 drop-offs take place there will be potential for demand to exceed supply by 9 vehicles;
- Between 15:00 and 15:30 it is predicted that Whitchurch Schools expansion traffic will mean the car park continues to operate at capacity;
- Between 15:30 and 17:45 when AHFS pick-ups take place there is sufficient parking supply to accommodate demand.

7.9 It should be noted that the Whitchurch Schools expansion is subject to an ongoing Travel Plan which seeks to reduce the impact of its associated parking within the car park.

7.10 In the context of the predicted AHFS parking accumulation, the proposed staggered start / finish times ensure that periods of higher AHFS parking accumulation do not coincide with Whitchurch Schools traffic. As such the only predicted period where AHFS drop-off / pick-up parking demand exceeds supply is during the Key Stage 5 AM drop-off.

7.11 The assessment is considered robust as it assumes each 15 minute parking supply and demand profile occur at a single point in time. In reality, and given the more independent nature of Secondary School pupils it is likely that drop-off / pick-up parking will turn over numerous times during each 15 minute period, and therefore demand is unlikely to exceed supply.

7.12 It should also be noted that the implementation of the School Travel Plan will seek to minimise travel by car, and thereby reduce impact on parking accumulation within the car park to the south of the school.

Parking Provision

7.13 There is no prescriptive car parking standard within the London Plan (Further Alterations) or Harrow Council's Development Management Policies document in respect of education-based land uses. It is proposed to provide a total of 69 parking spaces (including 5% disabled provision, 10% active electric vehicle charging points and 10% passive electric vehicle charging points).

7.14 This level of parking is considered appropriate based on site specific demand for the school and any proposed 'out of hours' leisure activities. The disabled and electric vehicle provision accords with London Plan standards and reflects consultation with the GLA.

7.15 The figure of 69 car parking spaces has been derived on the basis of the travel behaviour of existing AHFS staff. The current AHFS Travel Plan (included at Appendix 10) indicates that 53% of staff travel by car with a further 24% of staff car sharing. In terms of preferred mode of travel, 41% of staff said they would prefer to travel by car, whilst 41% would prefer to car share. An average of these figures would see a 63.3% proportion of staff arriving / departing school by car. On the basis that the school will be targeting a 6% modal shift away from car travel as part of achieving a STARS 'Gold' accredited Travel Plan, it should be expected that the proportion of staff travelling to and from school by car will fall to c. 57.3%. Applying this to 120 FTE staff would therefore require a parking supply of c. 69 spaces.

7.16 Whilst it is envisaged that the proportion of staff driving to school will increase further over time, it is considered that 69 parking spaces will provide sufficient parking for staff, visitors and for activities outside of school hours. The level of parking is considered a balance, such that it does not represent an over-supply of parking that would encourage staff to travel to school by car.

7.17 Specific guidance in respect of cycle parking is provided in the adopted London Plan Further Alterations (March 2015) document. It is therefore proposed to provide 1 long-term cycle parking space per 8 students / staff plus an additional short stay space per 100 students.

7.18 In this regard, at full capacity, the school will provide as a minimum covered long-stay cycle parking for 173 cycles and 12 additional short stay spaces.

Provision for Pedestrians, Cyclists and Public Transport Users

7.19 From Section 5 it is established that at full capacity the proposed secondary school is likely to generate 310-377 pedestrian trips during the weekday AM and PM pick-up/drop-off periods. Such levels of additional pedestrian demand have been subject to analysis using a TfL 'Pedestrian Level of Service Assessment'.

7.20 As noted in Section 6 of the TA, the assessment shows that footways on Wemborough Road could accommodate in the order of 1,650 two-way peak hour movements before footway comfort is compromised. In the context of committed footway traffic from the Whithchurch Schools expansion, and pedestrian trips associated with AHFS, there would still remain significant capacity to absorb further peak hour pedestrian movements.

7.21 Section 5 shows that AHFS has the potential to generate an increase in public transport trips of 294-454 movements during the AM and PM peak periods. Given the school's proximity to bus services on Wemborough Road, Whitchurch Lane and Honeypot Lane, clearly a large proportion of these trips will be undertaken by bus.

7.22 In this regard, TfL have stated that as a free school, TfL will not seek additional financial contribution toward bus capacity.

7.23 At full capacity, the school will provide as a minimum covered long-stay cycle parking for 173 cycles and 12 additional short stay spaces. This will support cycle trips undertaken by pupils and staff, which is expected to be in the order of 10 movements during the peak hour periods. This is anticipated to increase significantly through the Travel Planning process, which will focus in particular on cycle training, maintenance and safety.

7.24 As stated in Section 4, there is a network of signed and recommended routes for cyclists within the vicinity of the proposed school. It is also worth noting that with the introduction of restricted parking on the northern side of Wemborough Road, the cycle lane will be useable for greater periods of the day and provide greater opportunity for students / parents / staff to cycle to and from school on dedicated routes.

Construction Period

7.25 In order to minimise disturbance to local residents, a number of mitigating measures will be implemented and enforced throughout the duration of the construction period, the details of which will be provided within a full Construction Logistics Plan (CLP) to be prepared by the site contractor. By way of example the CLP will include:

- Restricted hours to avoid peak arrival and departure periods on the local road network;
- Measures to protect existing footways and marked pedestrian routes using barriers / signage, as appropriate;
- Protection of any statutory services equipment;
- Monitoring of vehicle movements and turning using banksmen, if appropriate;
- Details of any reinstatement works required following completion of works.

7.26 A framework CLP is included as part of this planning submission and provides swept path analysis to confirm that construction vehicle access can be gained to the site, with the ability to turn on site and depart in forward gear. As noted previously any modifications required to the access way to facilitate the movement of construction vehicles to and from the school, will be subject to agreement with Harrow Council Highways, Planners and Corporate Estates departments.

Refuse Collection, Deliveries & Servicing

7.27 Given the nature of the proposed development, the number of service vehicles that will deliver to AHFS on a daily or weekly basis will be minimal. These will be limited to waste collection, deliveries to the canteen and general supplies.

7.28 A framework Delivery and Servicing Plan (DSP) has been developed and is included as part of this planning submission. Conclusions within the DSP include the following:

- The number of delivery and servicing movements at the Avanti House Secondary School would be minimal;
- The majority of delivery and servicing movements would be undertaken by a vehicle no larger than a transit van, with swept path analysis undertaken for a range of access options;
- Servicing movements would as far as possible be undertaken outside of school start / finish times and would therefore not conflict with access to cycle parking;
- Refuse collection would be undertaken within the school, outside of school operational hours.

7.29 Swept path analysis has also been undertaken and appended to the DSP demonstrating that all delivery, servicing, emergency and refuse collection vehicles can enter and exit the development site in a forward gear.

8. MITIGATION & PLANNING OBLIGATIONS

Travel Plan Structure

8.1 As noted in Section 4 of the TA, a full and through assessment of the impact of person trips generated by the AHFS proposals has been undertaken. In order to ensure that the school maintains a minimal impact on highways and transport operations in the local area, AHFS Secondary School will prepare and implement a STARS accredited Travel Plan. AHFS currently have an accredited Travel Plan, and this will be updated upon occupation of the site at Whitchurch Playing Fields to reflect site specific characteristics.

8.2 It is worthy of note that AHFS achieved STARS 'Gold' accreditation for the 2014/2015 academic year, demonstrating their dedication to Travel Planning measures and achieving their targets / objectives, a commitment that will be continued and built upon at the Playing Fields site.

8.3 A Travel Plan (TP) has been prepared to accompany the planning application, as a separate document. In preparing the TP reference is made to guidance given in NPPF (2012), the London Plan (2015), Harrow's Core Strategy (2012) as well as TfL's 'Travel Planning for New Development in London.

8.4 The key objective of the TP is to set out a package of measures for reducing the number of car trips generated by parents and staff at the school and to improve safety on the school journey. In terms of planning obligations it is intended that the TP will be secured by way of a Section 106 Agreement, should consent be granted.

8.5 It is proposed to retain the deputy Headteacher as Travel Plan Coordinator (TPC) for AHFS, assisted by administrative staff to deliver the aims and objectives of the Travel Plan.

8.6 The TfL STARS accredited Travel Plan will be underpinned by a comprehensive and deliverable Action Plan. The Action Plan will clearly outline a list of actions to be undertaken so as to promote the Travel Plan to students, parents/ carers and staff. The success of the Travel Plan will be judged against TfL STARS accreditation criteria. The school will be targeting gold accreditation within 2 years of opening (to be maintained thereafter), which will involve completing 25 TfL initiatives;

8.7 The TPC is committed to the regular monitoring and review of the Travel Plan as a means of ensuring that it meets the aims, objectives and targets as set out within the Plan. The output of the annual monitoring and review process will be a Monitoring Report made available to the Council and other stakeholders.

8.8 The most important part of the monitoring process will be the regular re—survey of students and staff on an annual basis. The main purpose of the surveys will be to identify modal split and monitor staff and student travel patterns. The results of these surveys will be analysed by the TPC and the Harrow Council School Travel Plan Officer and will form a key element of the monitoring process. The surveys will seek to understand why certain modes of transport are used and to identify any possible barriers to using sustainable modes of transport.

8.9 Should there be a need to modify or change any aspect of the travel initiatives, the TPC, in consultation with Council Officers, will amend the Action Plan detailing agreed activities to be undertaken and timescales for the implementation of recommendations/ modifications. Should it transpire that STARS targets are not being met financial sanctions will be imposed to fund additional measures to support the travel plan and increase the school's sustainable mode share.

Travel Plan Initiatives

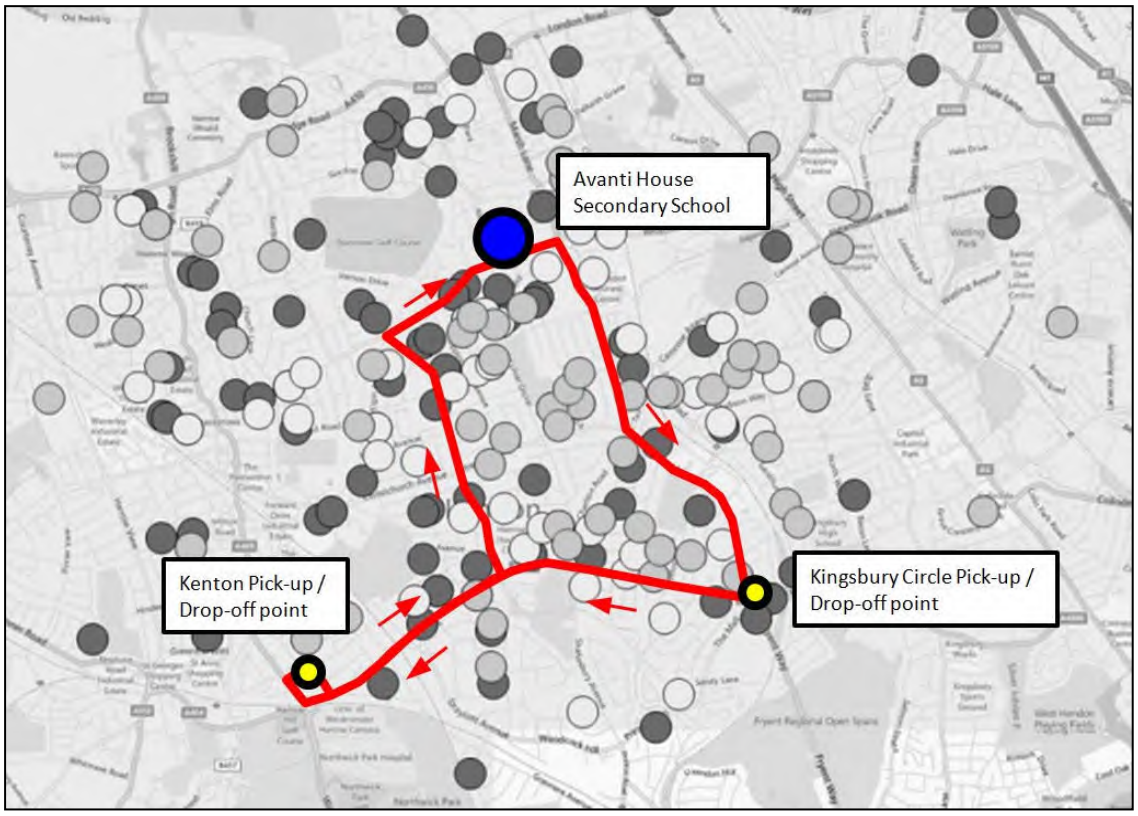
8.10 Key physical and management initiatives to be implemented within the AHFS Travel Plan include:

- Travel Information on the School Website, also repeated in the School Prospectus and on notice boards, as appropriate, to include:
  - guidance to parents / guardians on the policy related to set down / pick up at the start and end of the school day so as to minimise impact on movement and parking within the local area and the surrounding local roads;
  - guidance on road safety and safe access to / from the school;
  - details of safe walking and cycling routes to the school;
  - details of public transport services, with links to TfL and other useful websites;
  - details of the timings / routings of the bus service run by the school as well as the mechanisms for sign up to the service.
- The establishment and operation of a School Car Share scheme;
  - secure area on school website where parents can register interest and be linked up with other parents in their local vicinity;
  - TPC to manage and promote scheme highlighting financial and environmental benefits of car sharing.
- Promotion of Walking and Cycling as viable modes of travel amongst students and staff;
  - Integral part of school's daily exercise regime;
  - Easy to understand mapping made available to students and staff;

- Promote participation in initiatives such as 'Walk to School Week', 'International Walk to School Month' and 'Walk in May';
- Provision of secure, covered cycle parking close to pedestrian entrance of school building to accord with London Plan standards;
- Road safety training as part of the curriculum with specific guidance on the use of safe crossing facilities;
- Cycle skills training and maintenance sessions as part of curriculum including the Government-supported 'Bikeability' scheme. Cycle training for students (Bikeability)
- Setting up a cycle club;
- Cycling lessons within PE;
- Cycle trips / excursions to build skills and confidence.

- Active encouragement of the use of existing, local public transport services for access to the school;
  - Website links to public transport operators;
  - Easy to understand mapping made available to students and staff of most direct and safe routes to bus stops, rail and underground stations;
  - Awareness of Zip Oyster Cards that allow free bus travel for children aged 11-15 yrs.
- Parents agreeing and signing a 'Travel Plan charter' committing to the minimisation of car travel wherever possible;
- The implementation of a bus service to serve those students within the catchment area of the school that do not have direct access to existing public transport routes;
  - Service to be provided over a single bus or two mini-buses (currently liaising with operators TfL and Desi Coaches);
  - At full capacity service to transport 50 students over each start / finish time (totalling 150 students);
  - Active promotion of service on School website;
  - Regular monitoring of usage and increased provision to respond to demand, as required.
  - On the basis of 2014/2015 home postcodes and bus service operations, Figure 13 below identifies an indicative route with two pick-up / drop-off points at strategic locations within the catchment. The route journey time would take less than 30 minutes and would therefore provided opportunity for buses to undertake a trip within each start / finish time stagger;

Figure 13 Indicative School Bus Route



- The implementation of a personalised sustainable travel planning service;
  - Parents / guardians provided with the opportunity to discuss the travel options available for their children when accessing AHFS.
- Working in partnership with Travel Plan officers at the Council and TPC's at other local schools;
  - Develop partnerships to promote sustainable travel, coordinate joint activities and share ideas (for instance with the Whithchurch Schools);
  - Students to be involved in road safety initiatives, environmental and active travel voluntary organisations.

Off-Site Mitigation

8.11 It is noted from Pre-Application comments provided by the GLA that the bus stops on Whitchurch Lane require students to cross the Marsh Lane / Whitchurch Lane (B461) / Honeypot Lane (A4140) / Wemborough Road signalised crossroads. In particular, to reach the eastbound bus routes 79/340 which stop on the northern side of Whitchurch Lane only, the most direct access to the school is gained by crossing the uncontrolled Marsh Lane arm of the signal junction.

8.12 As set out in the PIA analysis in Section 4, a number of accidents involving pedestrians have occurred at this junction as a result of the misuse or misunderstanding of crossing facilities. To this end, options have been investigated to deliver controlled crossings on the northern and eastern arms of the junction.

8.13 In retaining the current layout (maintaining the same 'all movements' traffic function) and converting the crossing facilities on both arms to deliver controlled facilities, this would require a significant re-staging of the junction operation to deliver an 'all-red' pedestrian phase.

8.14 The results of an indicative LINSIG modelling exercise demonstrate that the addition of simple signalised crossing facilities on the northern and eastern arms of the junction would severely compromise junction performance. During the AM and PM peak modelled 'base' scenarios almost all arms operate at over 100% degree of saturation with the Wemborough Road and Honeypot Lane arms experiencing queuing of up to 100 vehicles, even before traffic associated with the Avanti House Secondary School is accounted for.

8.15 Therefore, a second approach has been pursued considering whether additional controlled crossing facilities could be incorporated into the existing junction staging operation.

8.16 The scheme illustrated on Plan 14042-01 at Appendix 16 proposes the following improvements at the junction, to be undertaken within the existing public highway (boundary as indicated on Plan 14042-02 also at Appendix 17):

- Provide controlled staggered pelican crossing over Marsh Lane arm to be integrated into existing junction staging as illustrated at Appendix 16;
- Carriageway widening on Honeypot Lane approach arm to create dedicated 'Left Turn' lane, ahead lane, and ahead / right lane improving efficiency of traffic movements from this arm;
- Increased exit lane width and taper on Marsh Lane to accord with Design Manual for Roads and Bridges guidelines reducing risk of vehicle collisions for simultaneous ahead movements from Honeypot Lane;
- Adjustments to kerbline from Honeypot Lane entry lane to Wemborough Road providing shallower radius improving manoeuvres for large vehicles (as shown on Plan 14042-TK01 at Appendix 18);
- Widening of Wemborough Road approach lanes allowing large vehicles to queue simultaneously in each lane;
- Adjustments to kerbline from Marsh Lane entry lane to Whitchurch Lane providing shallower radius improving manoeuvres for large vehicles (see Plan 14042-TK01 at Appendix 18).

8.17 It is considered that the above measures would aid pedestrian safety at the junction by offering a controlled crossing facility over the northern Marsh Lane arm, in particular connecting the school with bus stops on the northern side of Whitchurch Lane.

8.18 The addition of a left-turn lane on the Honeypot Lane approach and kerb adjustments on other junction arms would improve traffic congestion through the junction as indicated by the LINSIG model outputs below. Table 8.1 provided AM and PM peak junction operation under '2020 base+ development conditions', taking into account the junction improvement proposals, as compared with the '2020 Base' output for existing junction layout conditions as set out in Table 6.1.

Table 8.1 LINSIG Output – '2020 Base + Development' (Proposed Junction Layout)

Arm	AM Peak Hour		PM Peak Hour	
	DoS	Queue	DoS	Queue
Whitchurch Lane Left Ahead	78.8%	16.4	68.1%	12.7
Whitchurch Lane Right	58.0%	2.0	45.4%	1.9
Honeypot Lane Left Ahead	95.5%	17.1	85.2%	11.7
Honeypot Lane Right Ahead	93.3%	15.3	78.4%	10.9
Wemborough Road Left Ahead	84.1%	19.1	71.7%	14.2
Wemborough Road Right	98.0%	9.7	87.1%	7.9
Marsh Lane Left Ahead	97.2%	20.3	84.8%	9.8
Marsh Lane Right Ahead	97.6%	21.6	85.6%	10.5
Junction PRC (%):	-8.9%		3.3%	

8.19 Full LINSIG outputs for Table 8.1 can be found at Appendix 19. The outputs above indicate that the junction improvement proposals would result in comparable capacity and queuing levels through the junction when comparing '2020 base' peak hour traffic under the existing highway layout with '2020 base + development' peak hour traffic under the proposed highway layout.

8.20 When compared to the assessment of the 'base + development' traffic under existing highway layout conditions, the reduction in queueing is significant. This is particularly evident on the Honeypot Lane approach where, for instance, in the AM peak queues in each lane were predicted in excess of 30 PCUs (see Table 6.2), with the junction improvement proposals reducing this to c. 15-17 PCUs.

8.21 These findings demonstrate that the scheme proposed could mitigate the impact of school related traffic, whilst delivering the wider benefit of the controlled pedestrian crossing, improved junction manoeuvrability for larger vehicles and a vehicle safety benefit in the increased exit width and taper on Marsh Lane.

8.22 The junction mitigation scheme proposals and capacity modelling as provided within Appendices 17-20 have been issued to Harrow Council Highways, who have agreed the proposals in principle subject to costing of the work and the reaching of a funding agreement for their implementation.

9. SUMMARY & CONCLUSIONS

Summary

9.1 This Transport Assessment (TA) has been prepared on behalf of the Education Funding Agency (EFA) in conjunction with the governors of Avanti House Free School (AHFS) to consider the highways and transport implications related to the development of a Secondary School on existing greenfield land at Whitchurch Playing Fields, Stanmore.

9.2 The proposed AHFS is planning to take occupation of the site from the beginning of the 2017 / 2018 academic year with an annual intake of 180 students per annum from Year 7 – 11 plus sixth form. At full occupation the school will serve 1,260 students supported by 120 full-time equivalent (FTE) staff.

Conclusions

9.3 From the findings within the TA the following has been concluded:

- School opening hours will be staggered by key stage and will also include breakfast and after-school clubs, to further dissipate the impact of school related person trips. School start/finish times have been developed to avoid highway network peak periods and periods at the beginning and end of the neighbouring Whitchurch Schools day;
- It is proposed to utilise the existing priority junction arrangement and shared access way from Wemborough Road for deliveries / servicing and staff access only. It is understood that any modifications required to the access way to facilitate the movement of larger vehicles to and from the school, will be subject to agreement with Harrow Council Highways, Planners and Corporate Estates departments;
- It is proposed that vehicle-based school drop-offs / pick-ups take place in the car park immediately south of the school. Suggested concepts for pedestrian / vehicular access from Marsh Lane, put forward by public consultation attendees have been rejected by Harrow Council on grounds of highway safety and capacity concerns;
- 48 PIAs occurred within the vicinity of the school of which 16 involved pedestrians and of these less than half involved children. The reasons for the incidents were attributed to pedestrians' inappropriate use/failure to use crossing facilities, attempting to cross between parked cars, failure to look properly and carelessness. In the context of the PIAs identified at the signal junction to the east of the site, potential mitigation measures have been considered;
- Pedestrian infrastructure within the vicinity of the site is of a good standard with pedestrian crossing points present along key pedestrian desire lines and the local footway network provided with lit footways. Abercorn Road to the west of the site benefits from three pedestrian crossing points;

- The site is served by 5 regular bus routes within a 480m walk distance. Bus services provide connections to key location destinations including Edgeware, Stanmore station, Kingsbury Station and Harrow. The site is also located within 600m of Canons Park LU station which provides connections to Stanmore to the north and towards central London to the south on the Jubilee Line;

- Trip generation has been calculated using TRICS and adapted to take account of the privately run school bus service. The modal split derived from TRICS is considered to be representative of the likely travel patterns of AHFS students, and in particular the proportion of pedestrians given that c. 25% of 2014/2015 academic year pupils lived within walking distance of the site and this would be expected to increase when the school relocates;

- Analysis of the TRICS database has shown that during the weekday AM and PM peak periods at full capacity AHFS has the ability to generate between 976 and 1086 total person trips during the weekday AM and PM peak periods. Of these 9-22% are car borne trips, 30-42% public transport trips, 1% cycle trips and 32-35% pedestrian trips;

- AHFS vehicle trips have been distributed onto the local highway network as scoped with Harrow Highways using home postcode information for the neighbouring Whitchurch Schools, and thereafter by the 'shortest driven route';

- Assessment of local highway capacity has been undertaken at three junctions, as scoped with Harrow Council highway officers. In assessing these junctions it is concluded that the Whitchurch Schools / Wemborough Road priority junction and roundabout junction to the west of the site will continue to function within capacity. It is predicted that under 'base + development' conditions the signal junction to the east of the site will experience over 100% degrees of saturation on the Honeypot Lane and Wemborough Road arms in the AM peak;

- In assessing the impact of the development on local pedestrian infrastructure, the Wemborough Road footway has been subject to a TfL 'Pedestrian Level of Service Assessment'. Findings from the assessment indicate that the footway can support c. 1,650 two-way peak hour movements before comfort is compromised. In the context of pedestrian trips generated by AHFS, Whitchurch Schools and general foot traffic, there is ample capacity on Wemborough Road footways;

- Parking beat surveys were undertaken in the car park to the south of the school to gauge existing car parking supply and consider the impact of AHFS demand. The proposed AHFS staggered start / finish times ensure that periods of higher AHFS parking accumulation do not coincide with Whitchurch Schools traffic. As such the only predicted period where AHFS drop-off / pick-up parking demand exceeds supply is during the Key Stage 5 AM drop-off;

- It is proposed to provide a total of 69 parking spaces (including 5% disabled provision, 10% active electric vehicle charging points and 10% passive electric vehicle charging points). This level of parking is considered appropriate based on site specific demand for the school and any proposed 'out of hours' leisure activities. The disabled and electric vehicle provision accords with London Plan standards and reflects consultation with the GLA;

- At full capacity, the school will provide as a minimum covered long-stay cycle parking for 173 cycles and 12 additional short stay spaces. This will support cycle trips undertaken by pupils and staff, which is expected to be in the order of 10 movements during the peak hour periods, but is anticipated to increase as Travel Plan measures are put in place;

- TfL have stated that as a free school, AHFS will not be required to provide a financial contribution towards improved local bus service capacity;

- A draft Construction Logistics Plans has been provided as part of the planning submission, and the contractor will develop a full version post-application with the aim to minimise any adverse impact or disturbance to any users, businesses and local residents;

- The number of service vehicles that deliver to AHFS on a daily or weekly basis will be minimal and limited to waste collection, deliveries to the canteen and general supplies. Further details have been provided in a framework Delivery and Servicing Plan as part of the planning submission;

- To mitigate any residual impacts and in order to ensure that the school maintains a minimal impact on the operations of the local highway and transport networks, AHFS will prepare and implement a STARS accredited Travel Plan. The Travel Plan, submitted as a separate document within the planning application and to be secured by way of a Section 106 Agreement, sets out a package of measures for reducing the number of car trips generated by parents and staff at the school and to improve safety on the school journey;

- The Travel Plan provides details of the appointed Travel Plan Coordinator (TPC) and is underpinned by a comprehensive and deliverable Action Plan with a view to attaining STARS 'Gold' accreditation within 2 years of occupation;

- Commitments are made within the Travel Plan in respect of regular monitoring and review, the setting of targets, repeat travel surveys, a comprehensive list of physical and management initiatives as well as corrective steps, remedial measures and financial sanctions as required;

- As part of the School Travel Plan the school is proposing to operate a privately run bus service that will serve those students within the catchment area of the school that do not have direct access to existing public transport routes. The bus service will off-set the number of vehicle trips generated by the school as a whole, and its success and uptake will be monitored and revised as required;

- Investigations have been undertaken in order to provide additional controlled crossing facilities at the signalised crossroads to the east of the site. An improvement scheme has been developed incorporating pelican crossings over the northern junction arm with highway modifications on the north, west and southern arms in order to improve capacity. The scheme has been submitted to Harrow Council Highways and agreed in principle subject to costing and funding discussions.

9.4 On the basis of the findings within this Transport Assessment and in the context of the guidelines within para. 32 of the NPPF it is not considered that there are any residual cumulative impacts in terms of highway safety or on the operational capacity of the surrounding transport network that should result in planning permission being withheld on transport grounds.

FIGURES

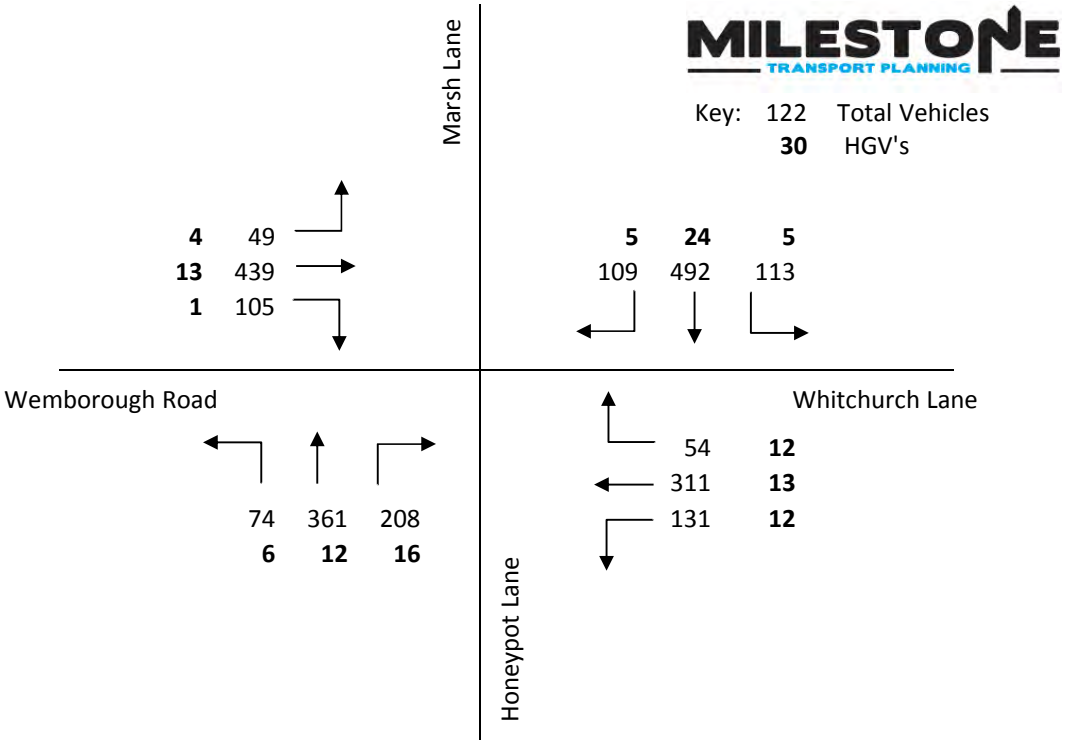


Figure 1.1 AM Peak 2014 Surveyed Flows (0745-0845)

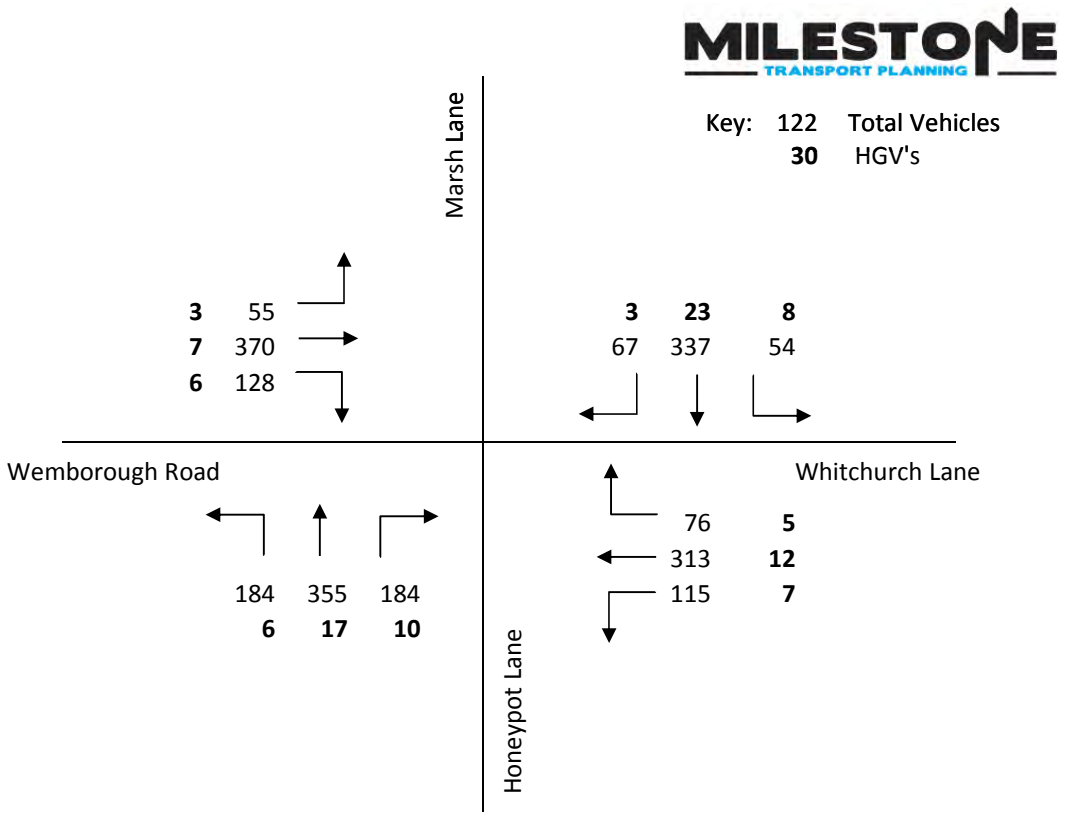


Figure 1.2 PM Peak 2014 Surveyed Flows (1615-1715)

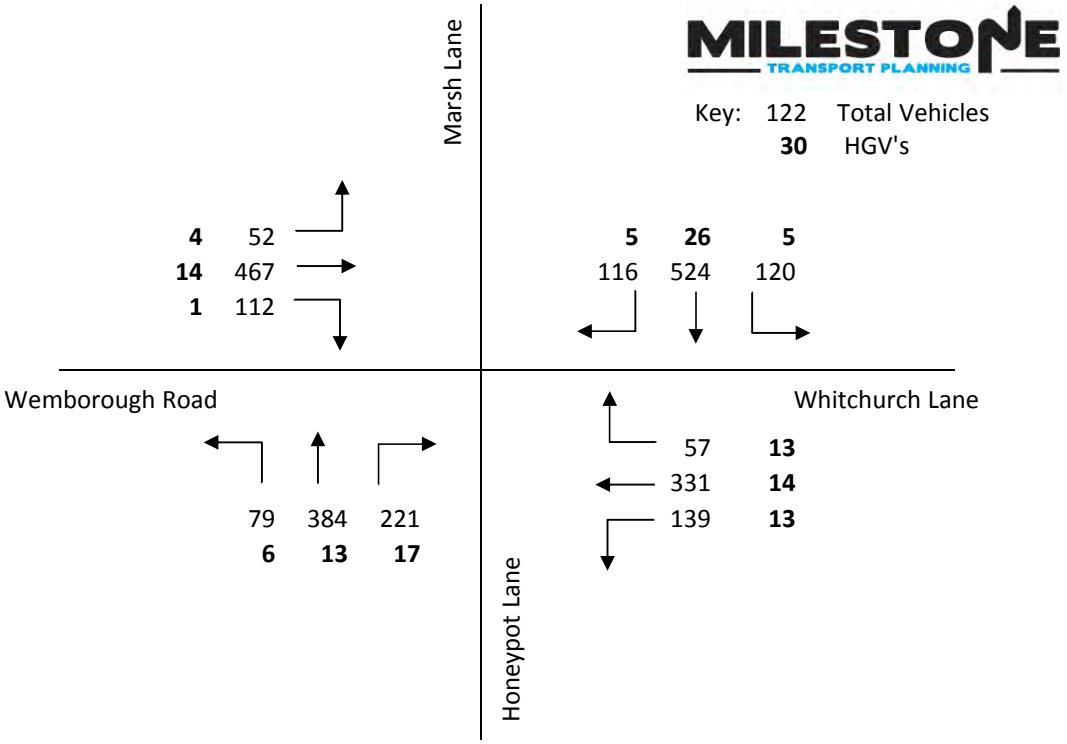


Figure 1.3 AM Peak 2020 Future Flows (x 1.0647)

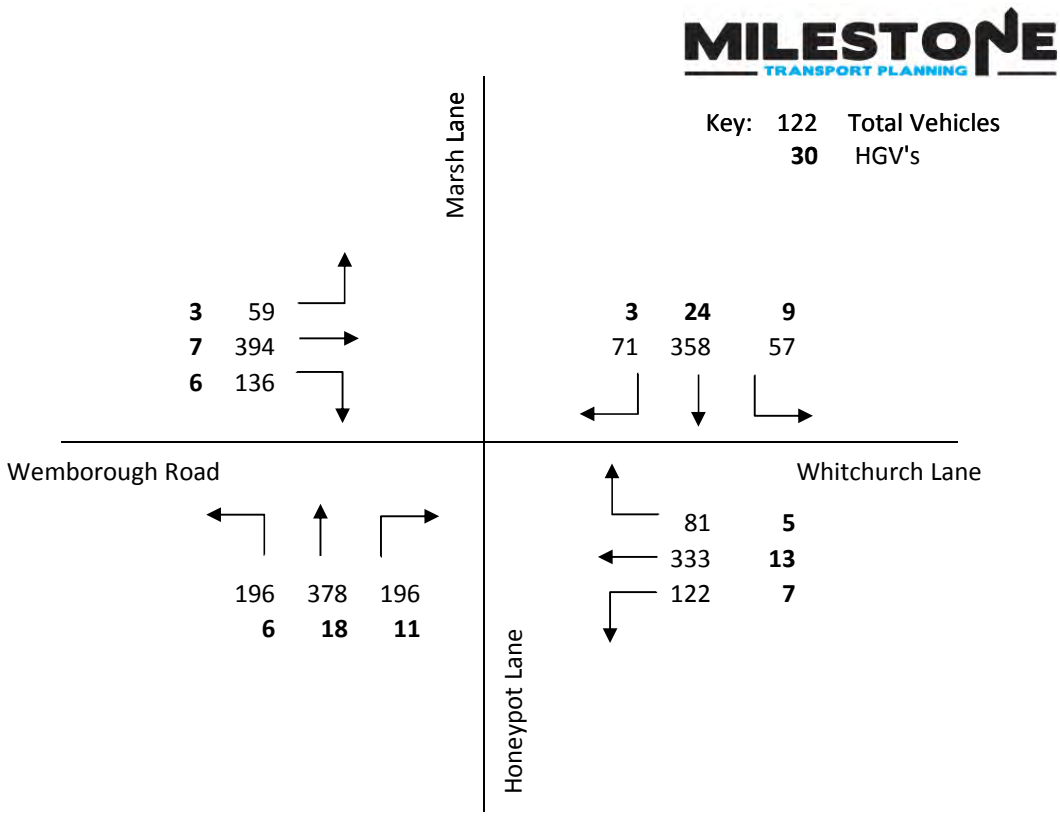


Figure 1.4 PM Peak 2020 Future Flows (x 1.0637)

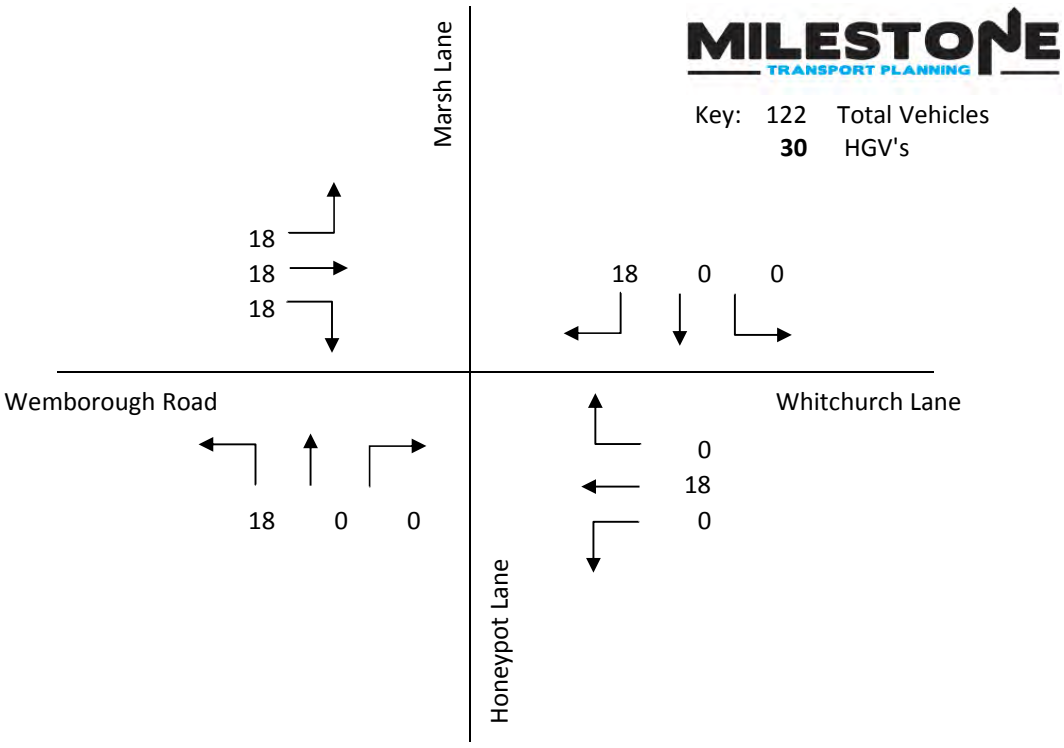


Figure 1.5 AM Peak Committed Development Flows

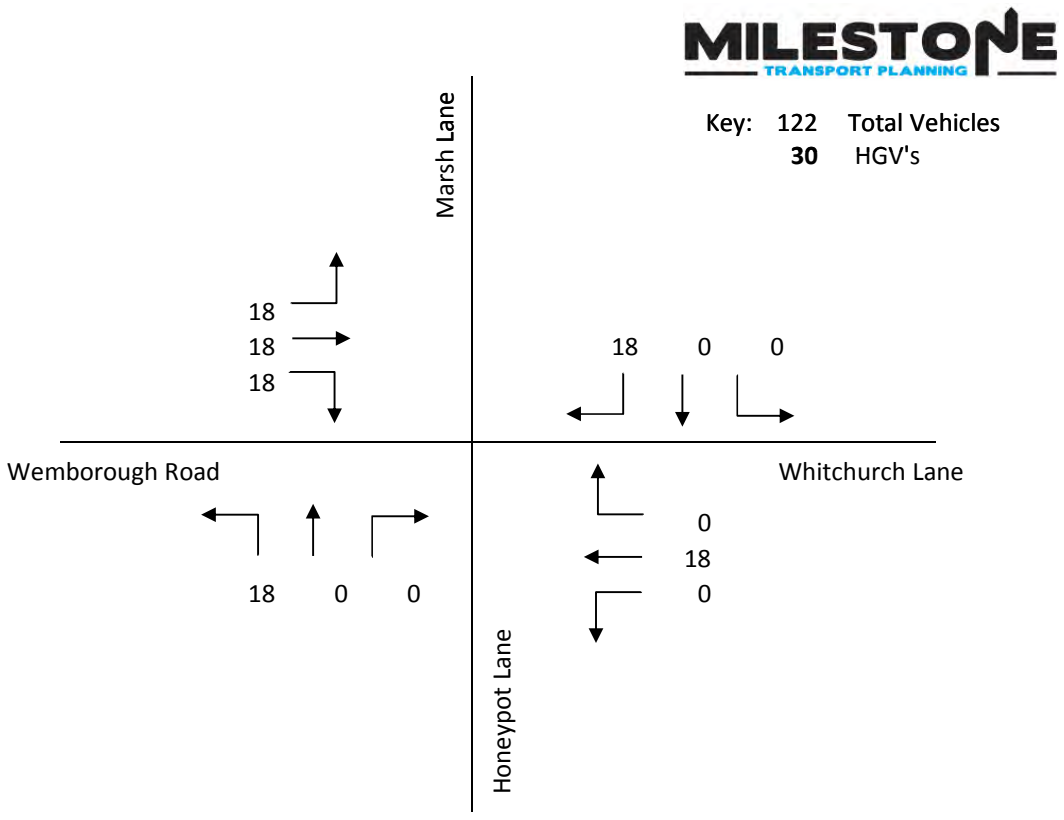


Figure 1.6 PM Peak Committed Development Flows

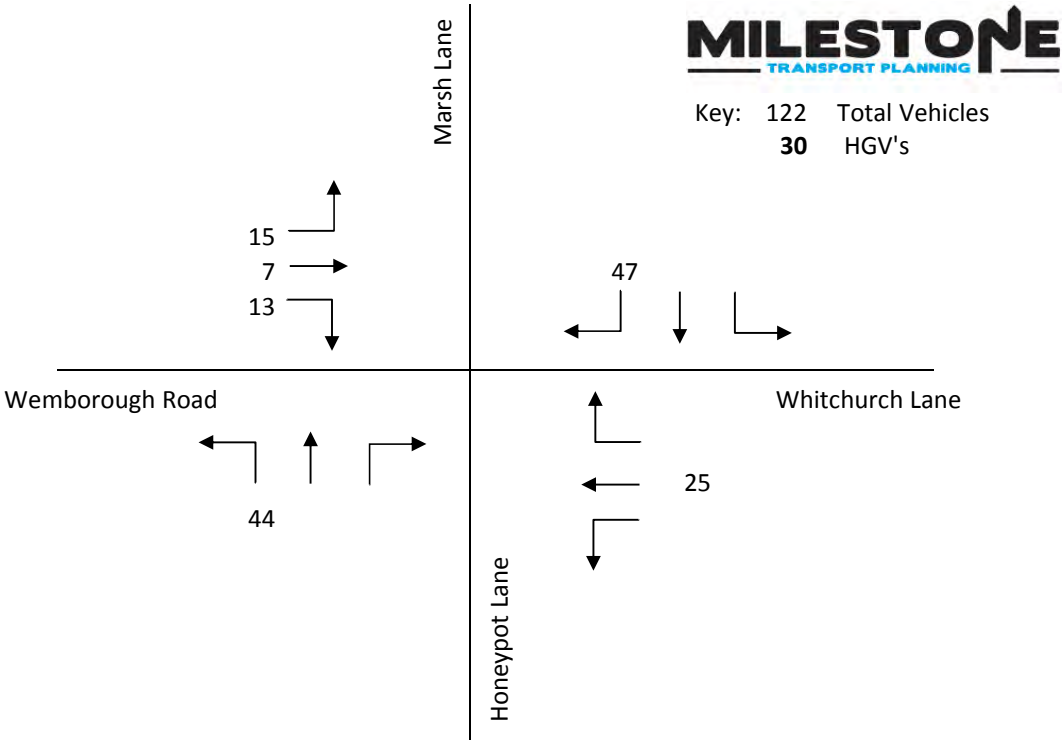


Figure 1.7 AM Peak Development Flows

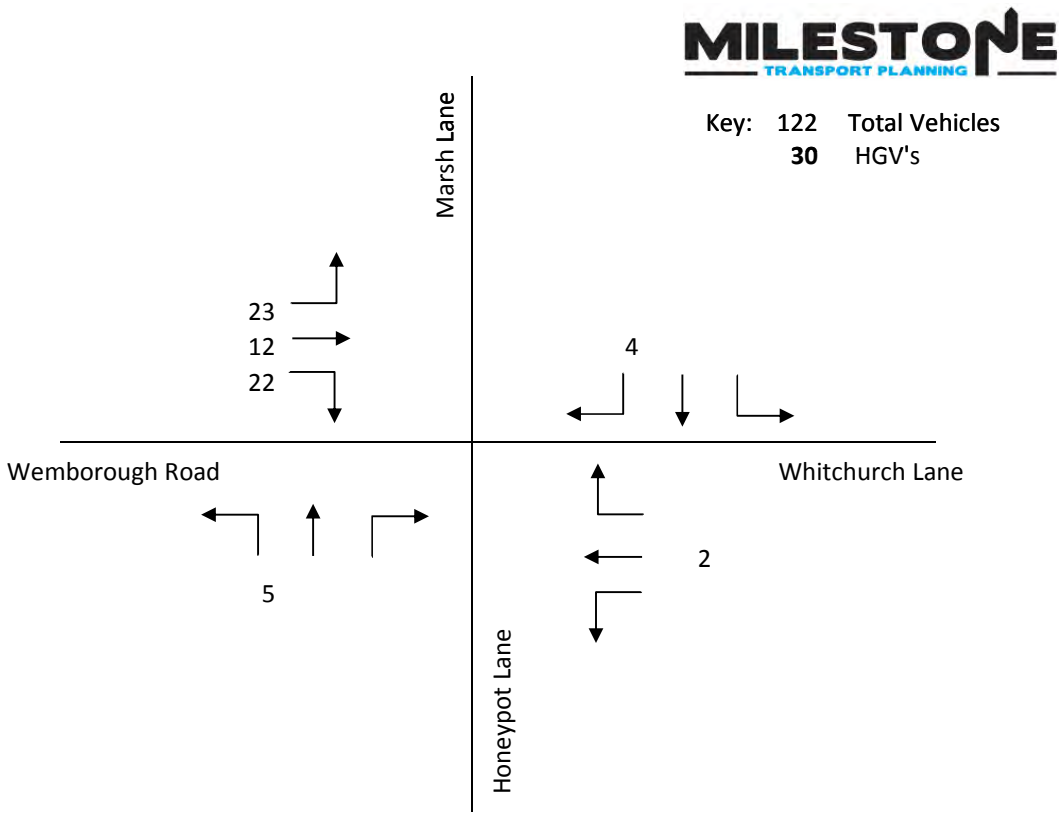


Figure 1.8 PM Peak Development Flows

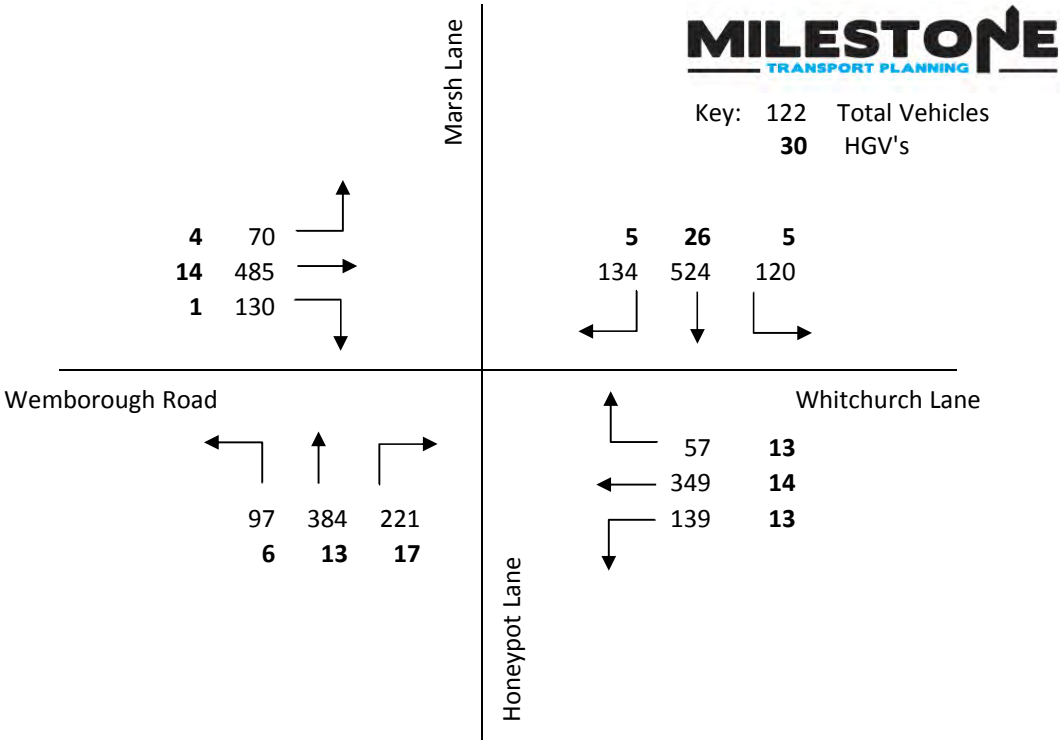


Figure 1.9 AM Peak 2020 + Committed Development Flows

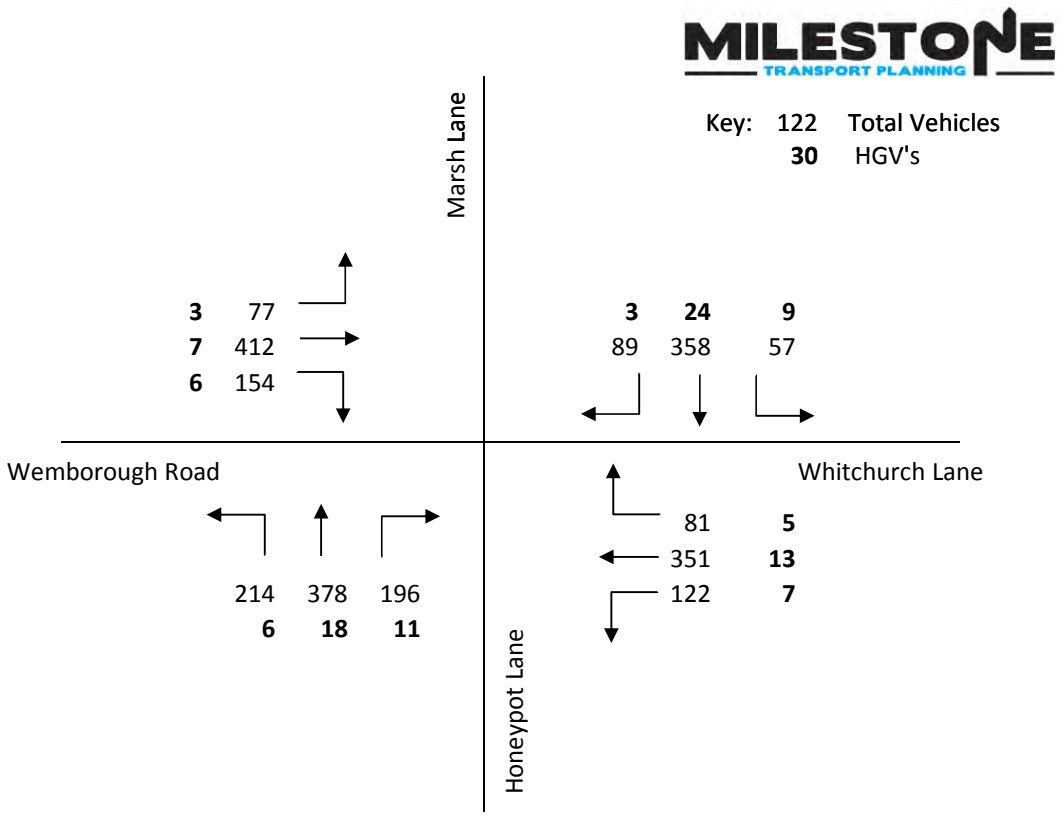


Figure 1.10 PM Peak 2020 + Committed Development Flows

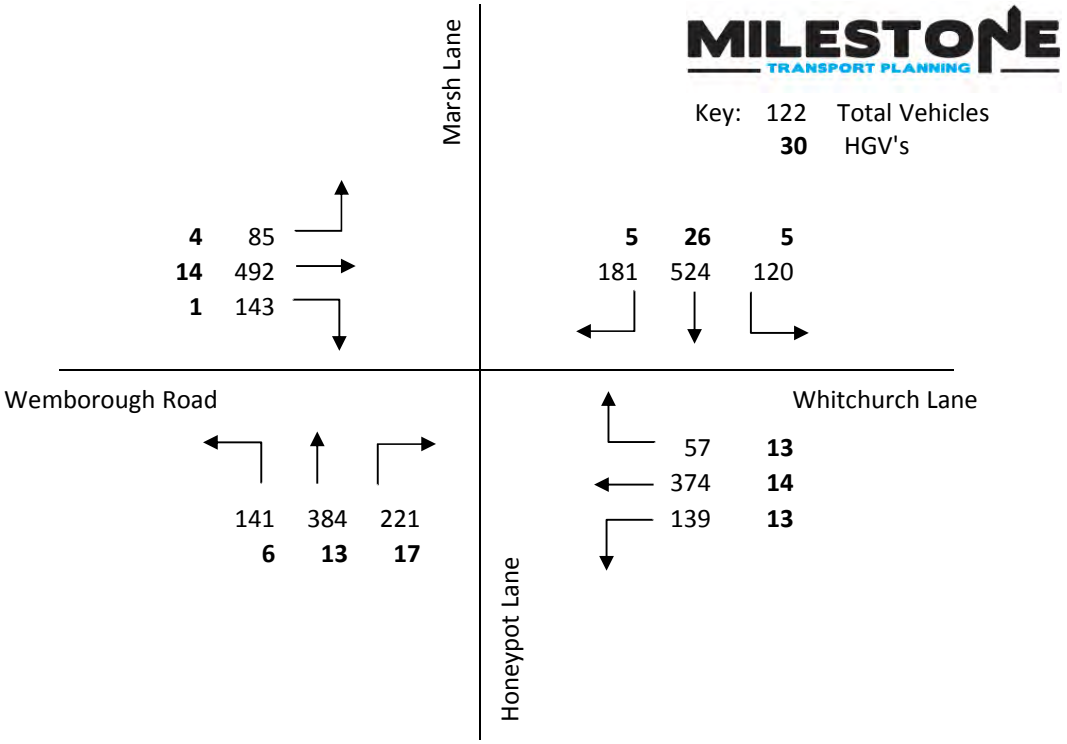


Figure 1.11 AM Peak 2020 + Committed Development + Development Flows

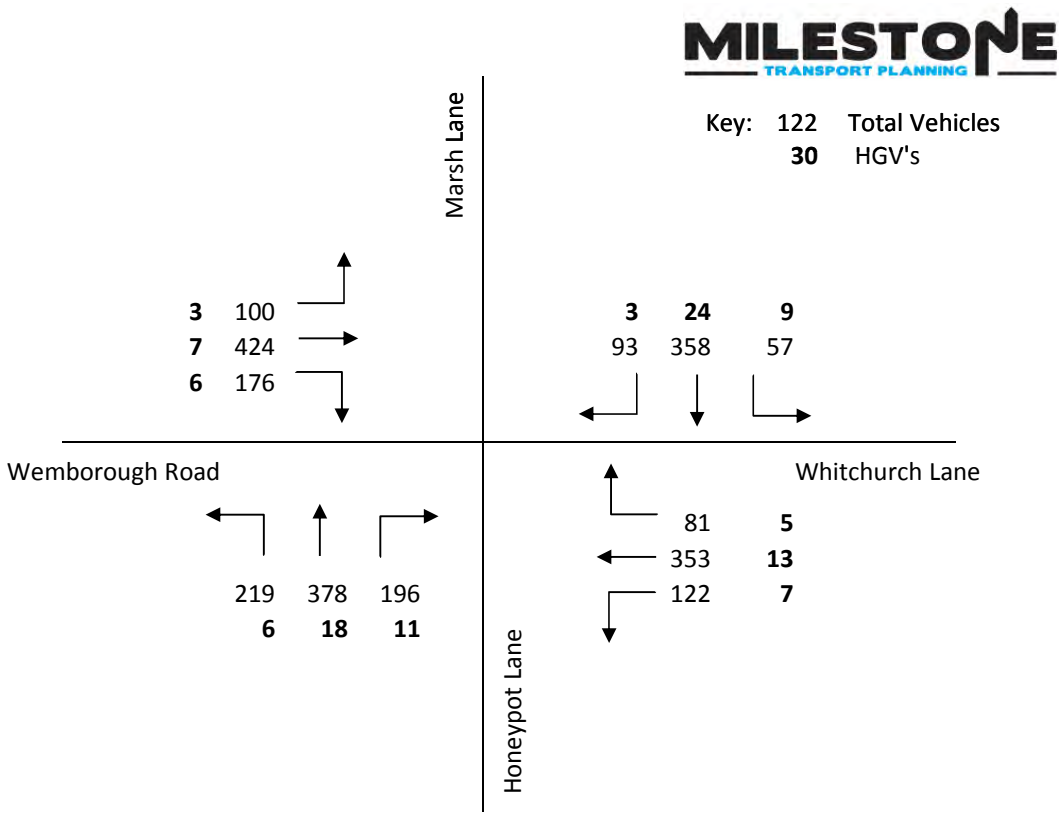


Figure 1.12 PM Peak 2020 + Committed Development + Development Flows

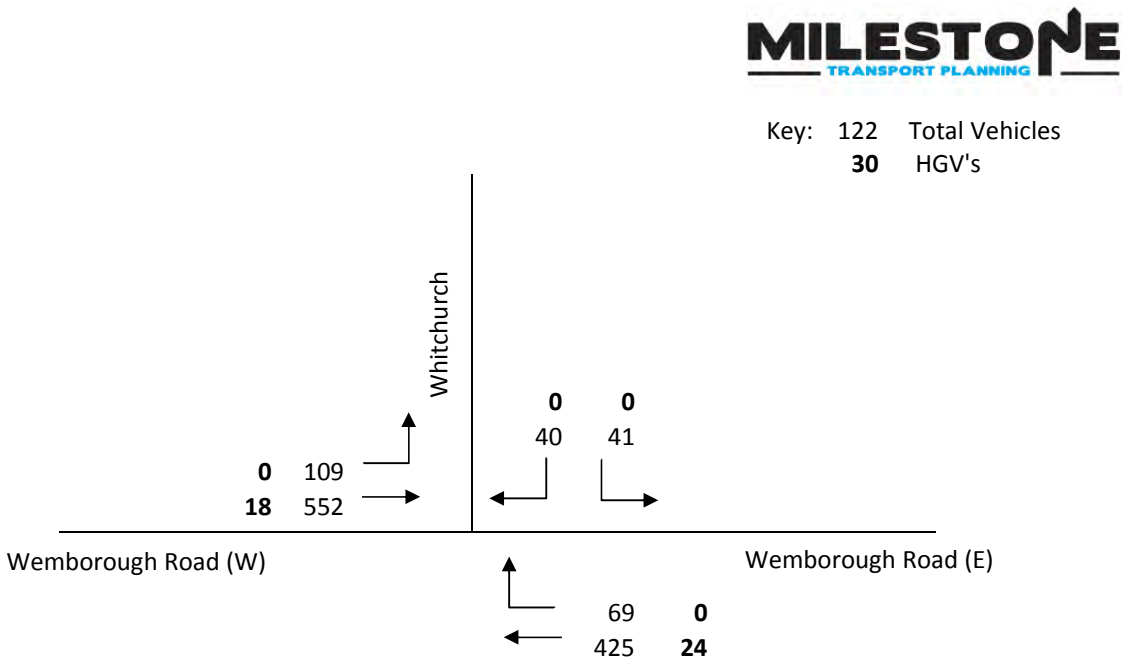


Figure 2.1 AM Peak 2014 Surveyed Flows (0745-0845)

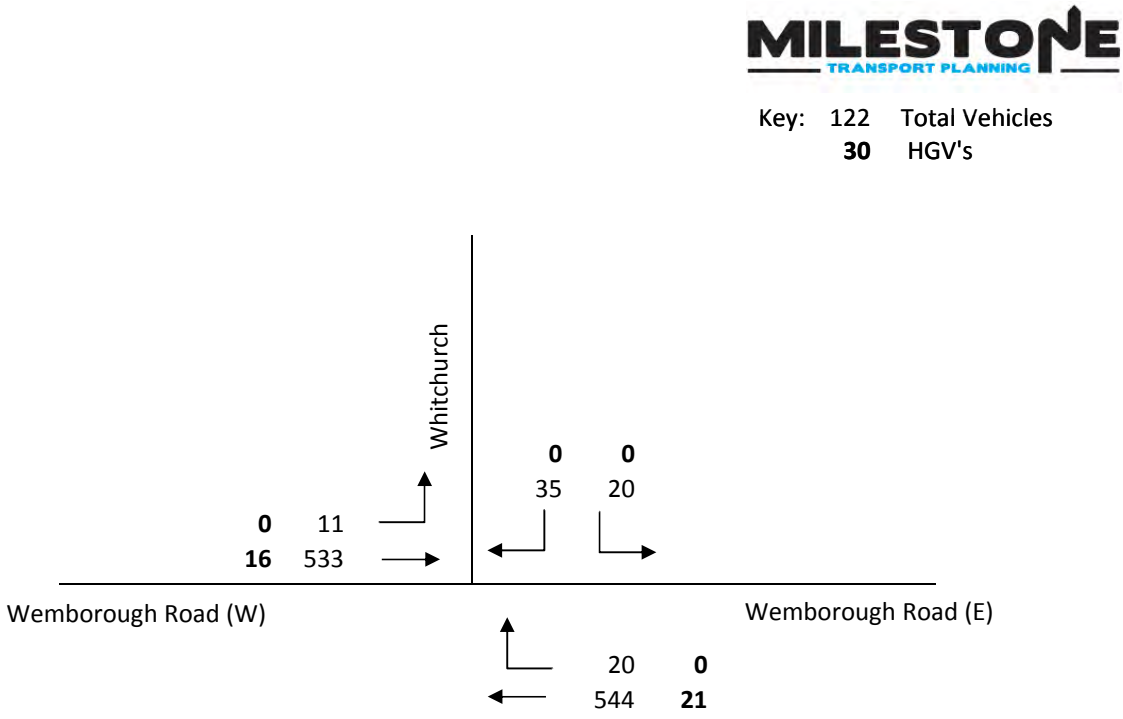


Figure 2.2 PM Peak 2014 Surveyed Flows (1615-1715)

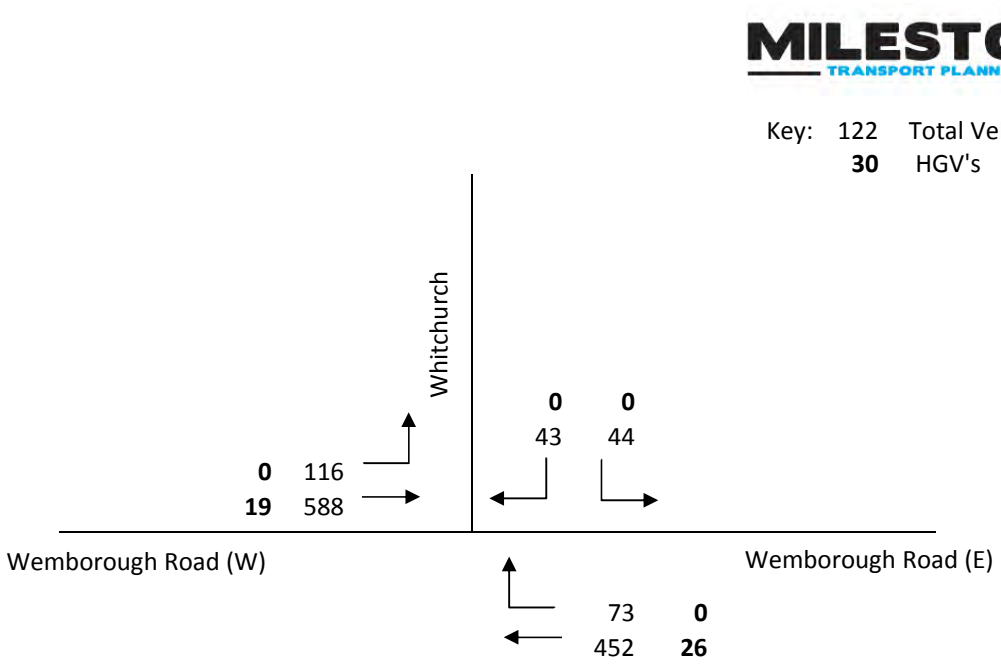


Figure 2.3 AM Peak 2020 Future Flows (x 1.0647)

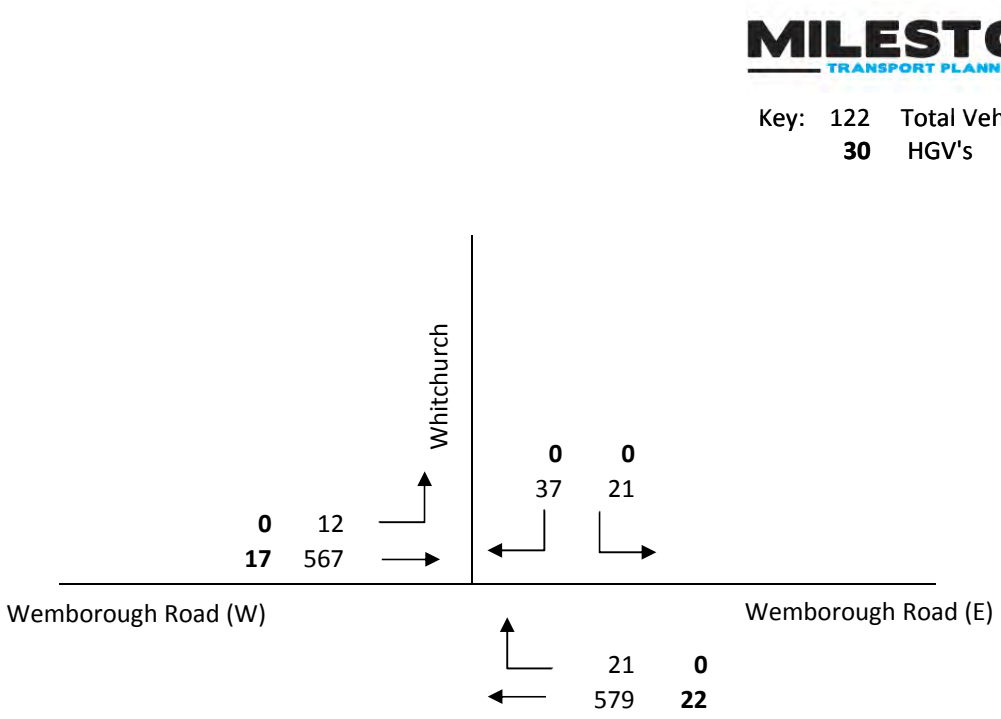


Figure 2.4 PM Peak 2020 Future Flows (x 1.0637)

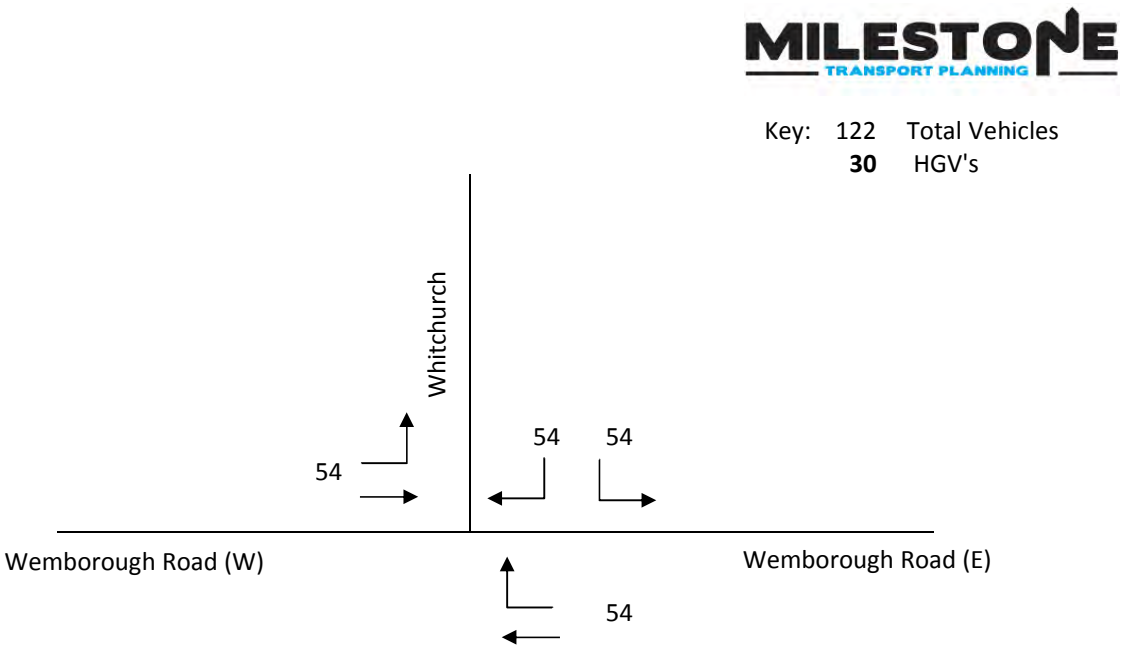


Figure 2.5 AM Peak Committed Development Flows

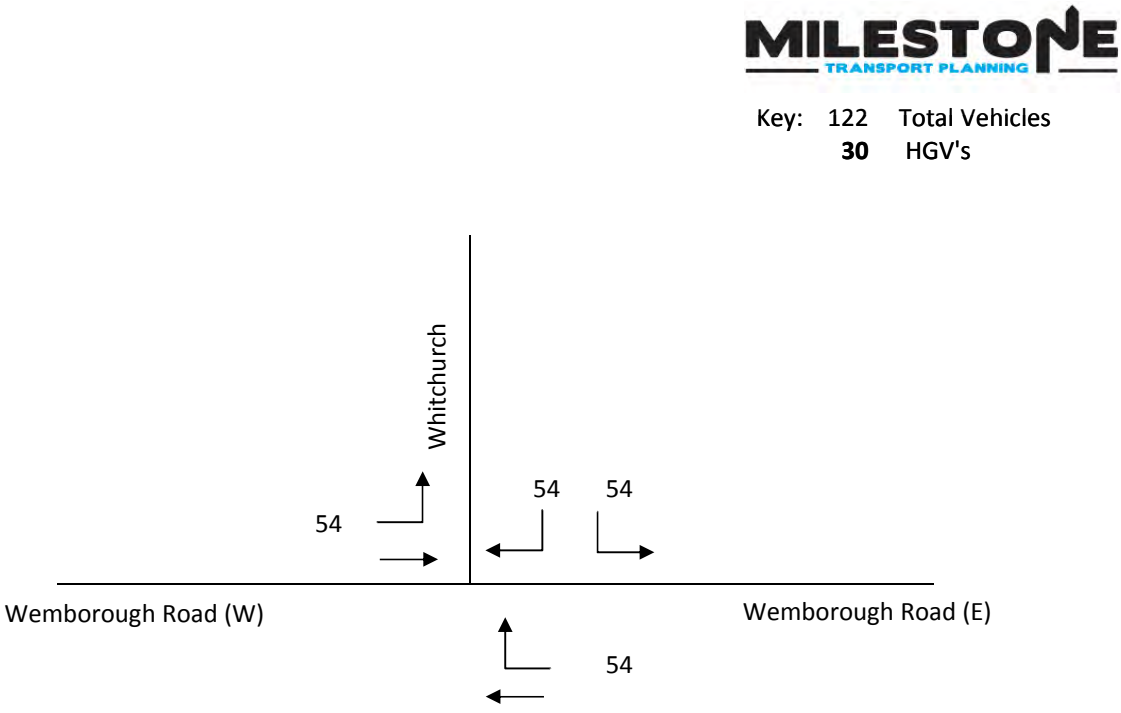


Figure 2.6 PM Peak Committed Development Flows

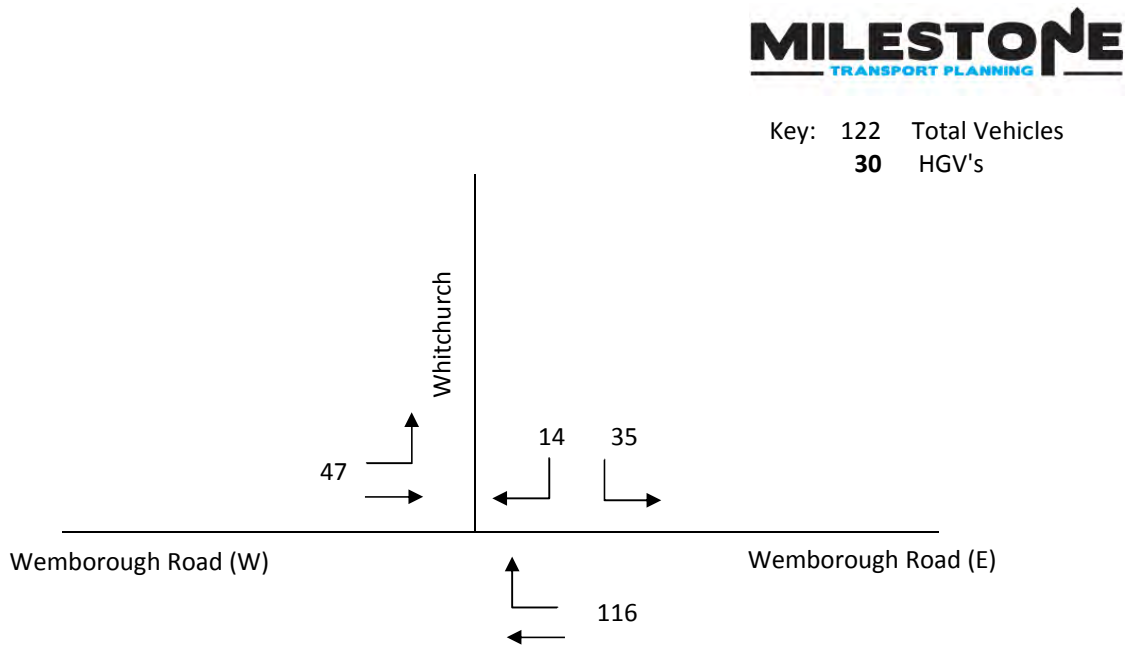


Figure 2.7 AM Peak Development Flows

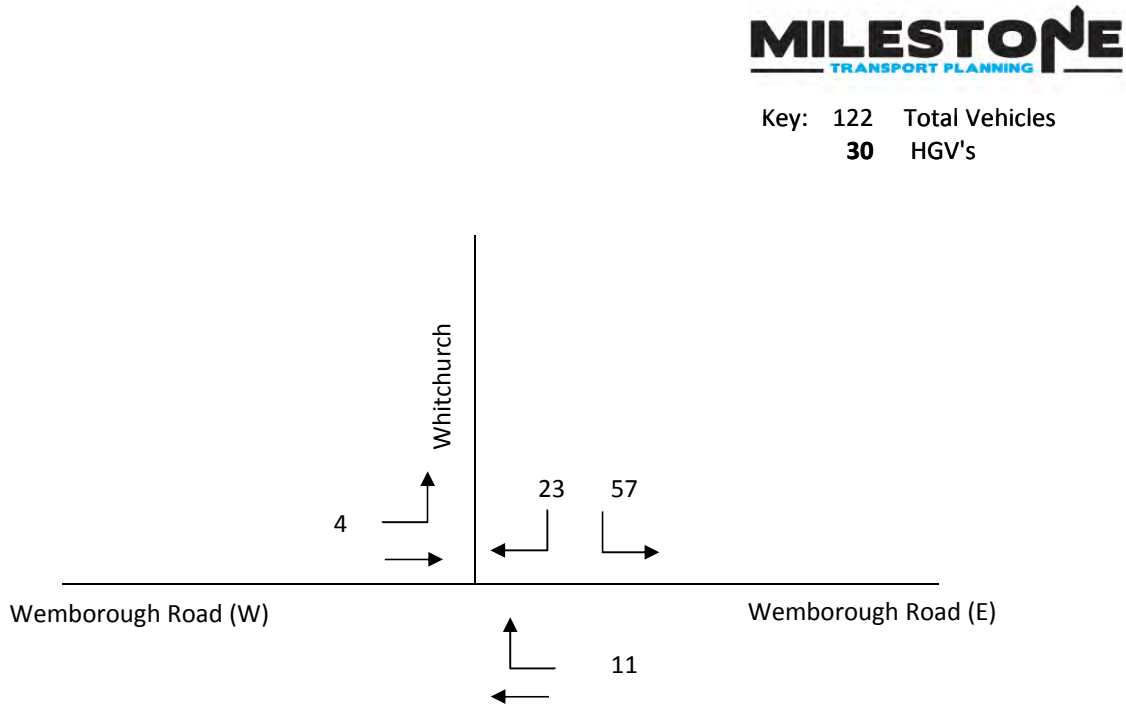


Figure 2.8 PM Peak Development Flows

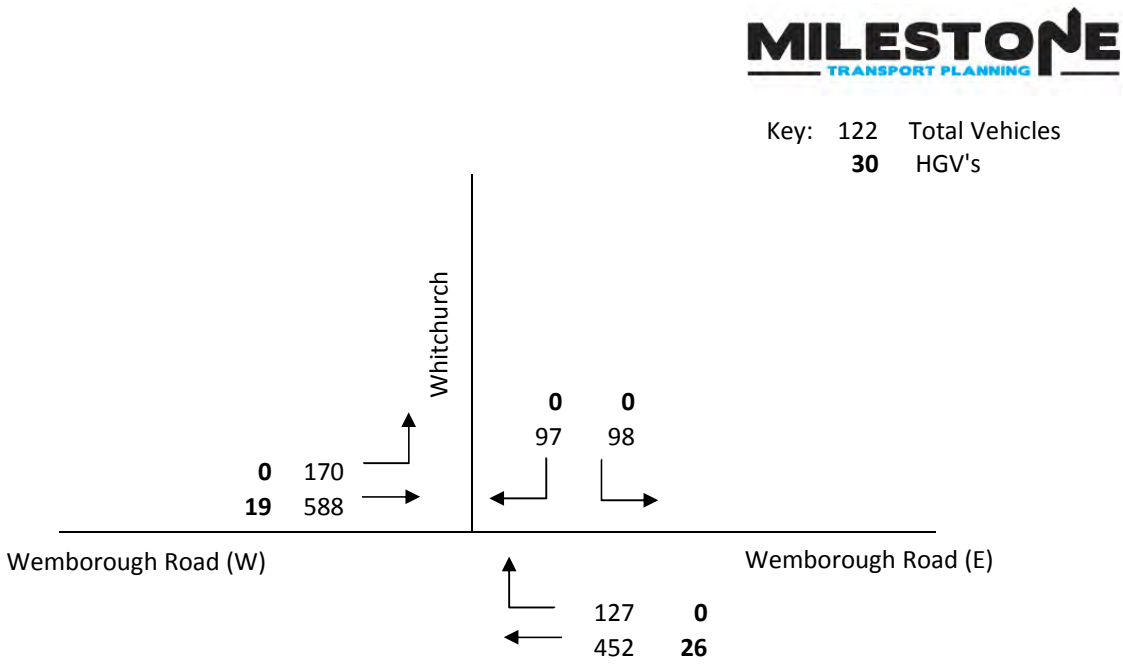


Figure 2.9 AM Peak 2020 + Committed Development Flows

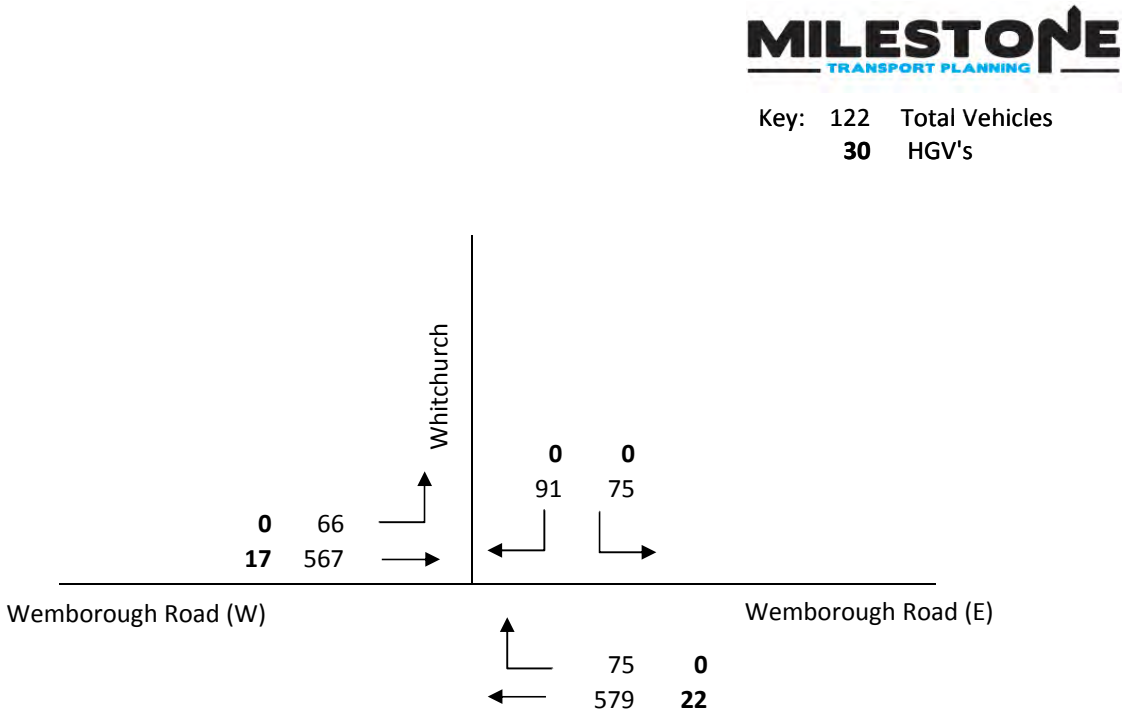


Figure 2.10 PM Peak 2020 + Committed Development Flows

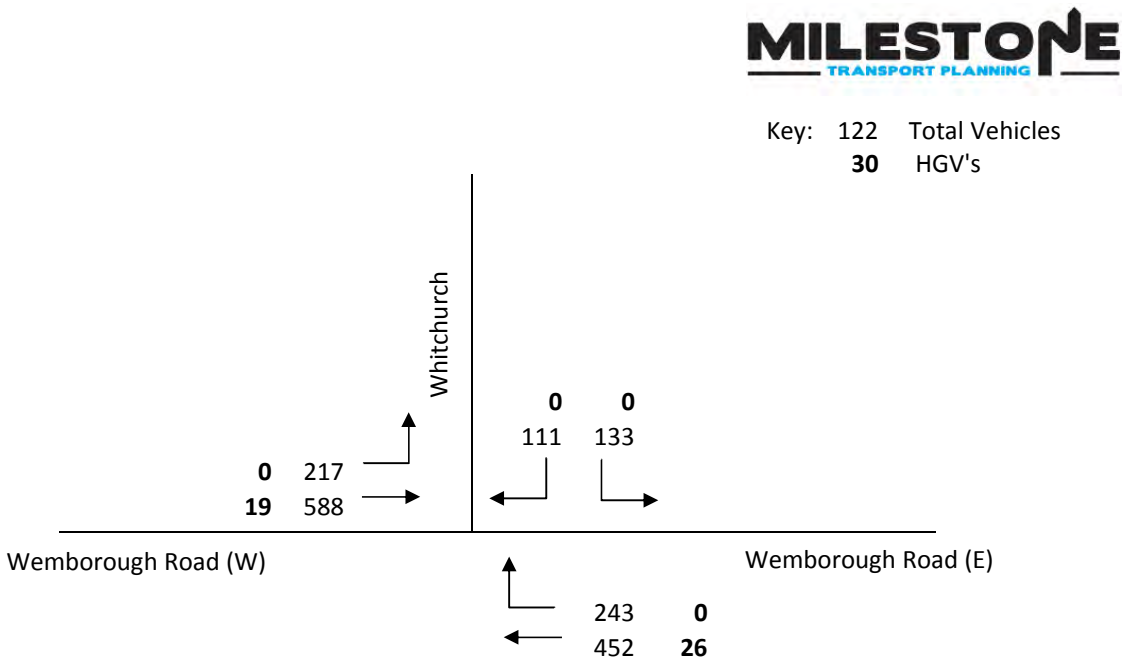


Figure 2.11 AM Peak 2020 + Committed Development + Development Flows

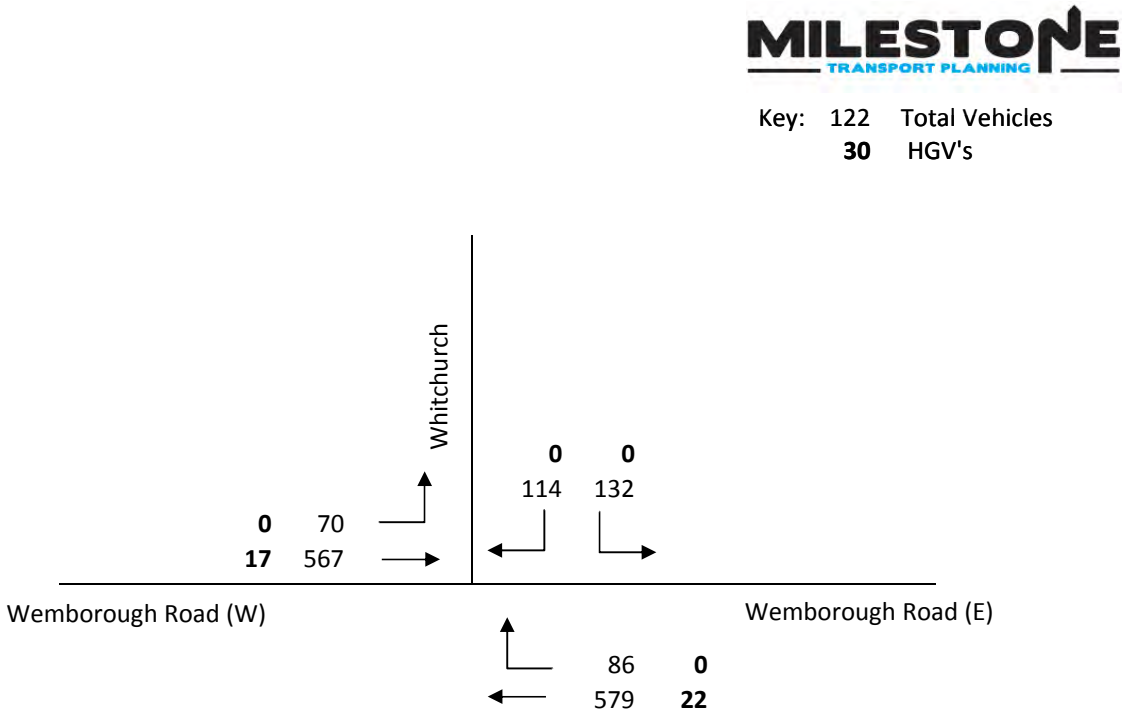


Figure 2.12 PM Peak 2020 + Committed Development + Development Flows

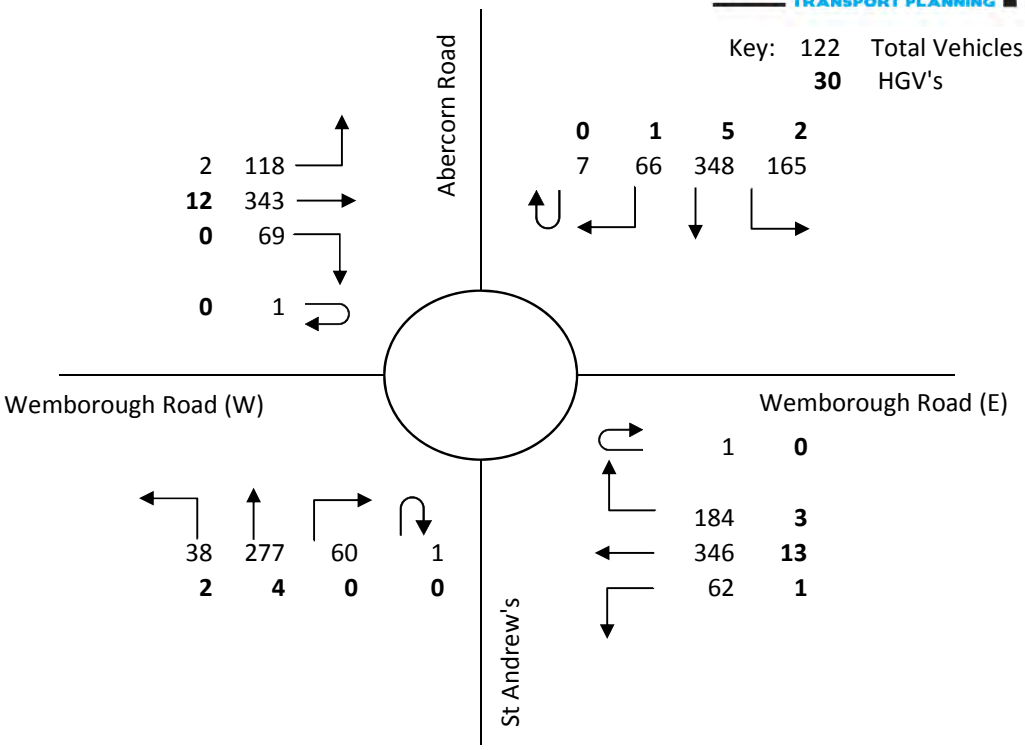


Figure 3.1 AM Peak 2014 Surveyed Flows (0745-0845)

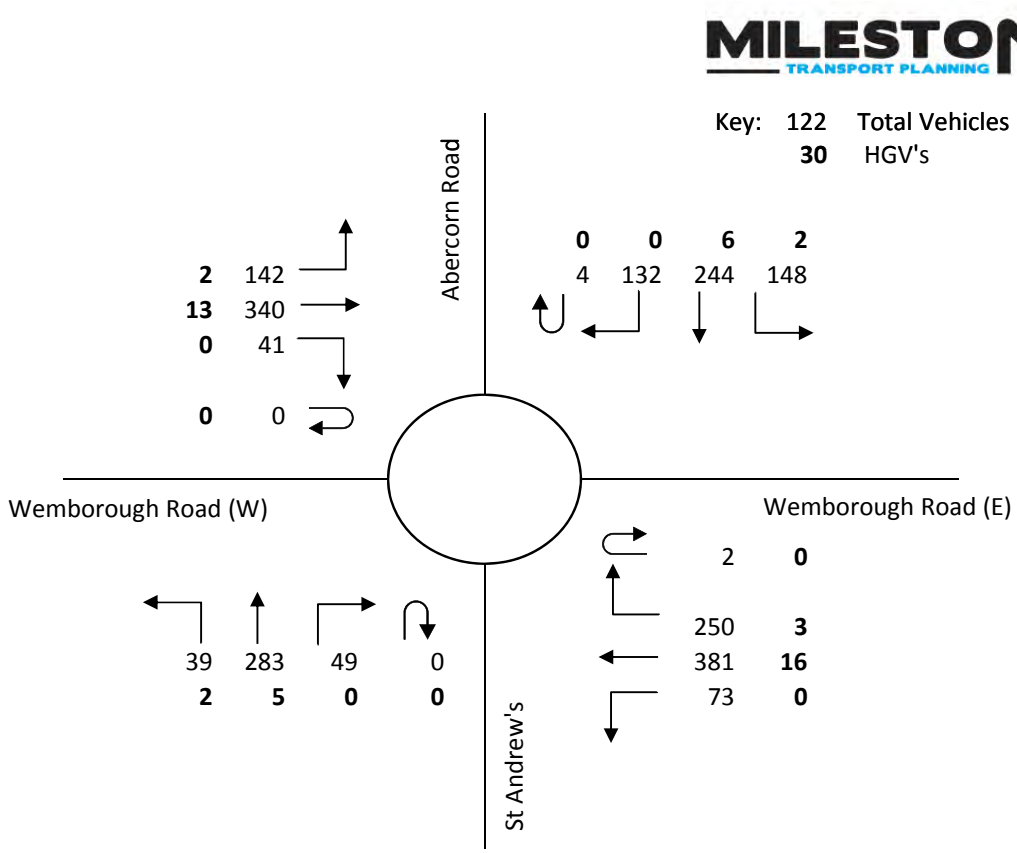


Figure 3.2 PM Peak 2014 Surveyed Flows (1615-1715)

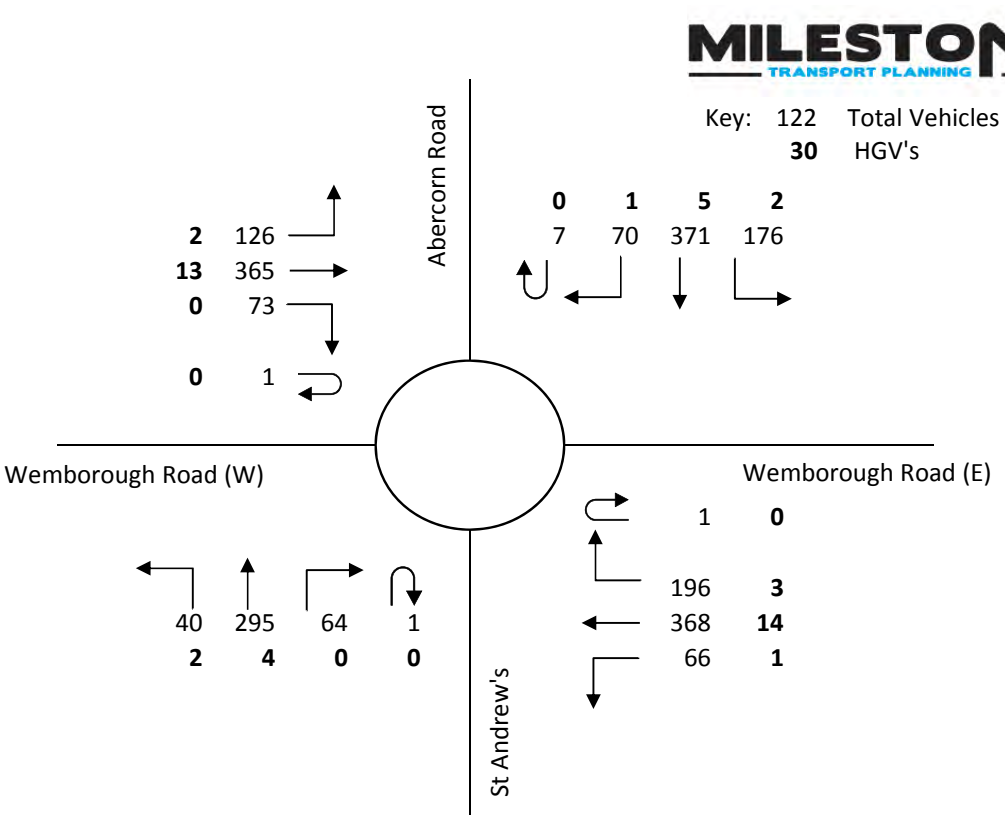


Figure 3.3 AM Peak 2020Future Flows (x 1.0647)

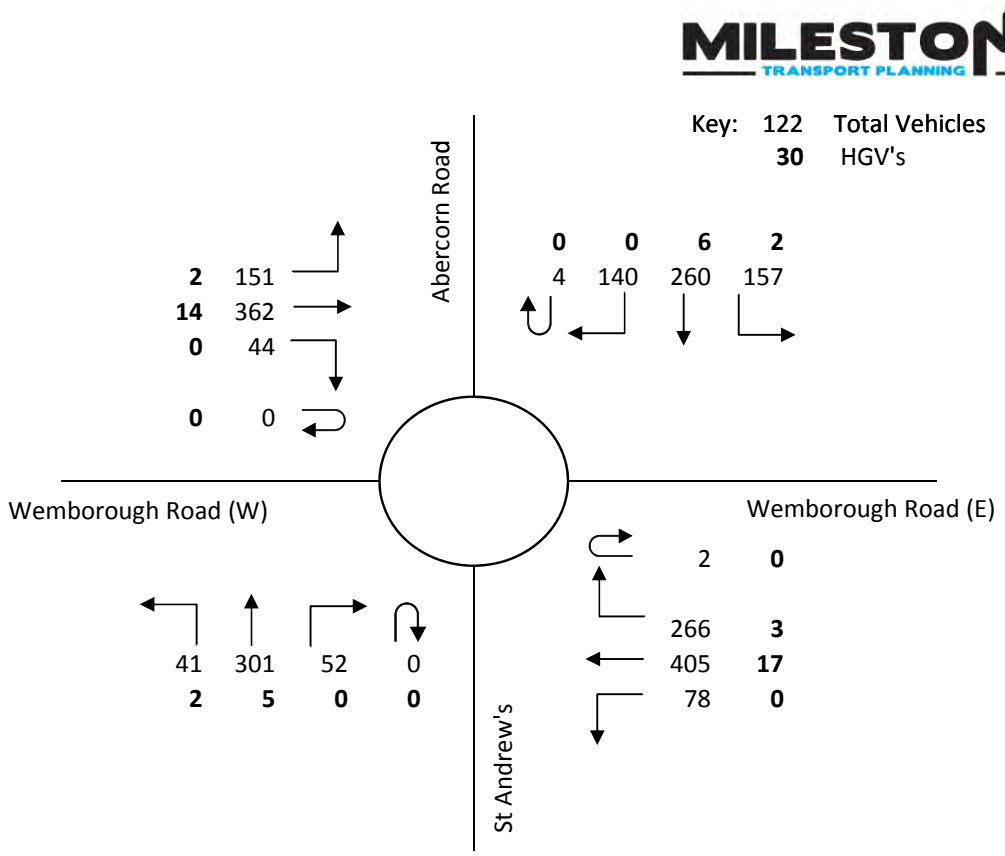


Figure 3.4 PM Peak 2020 Future Flows (x 1.0637)

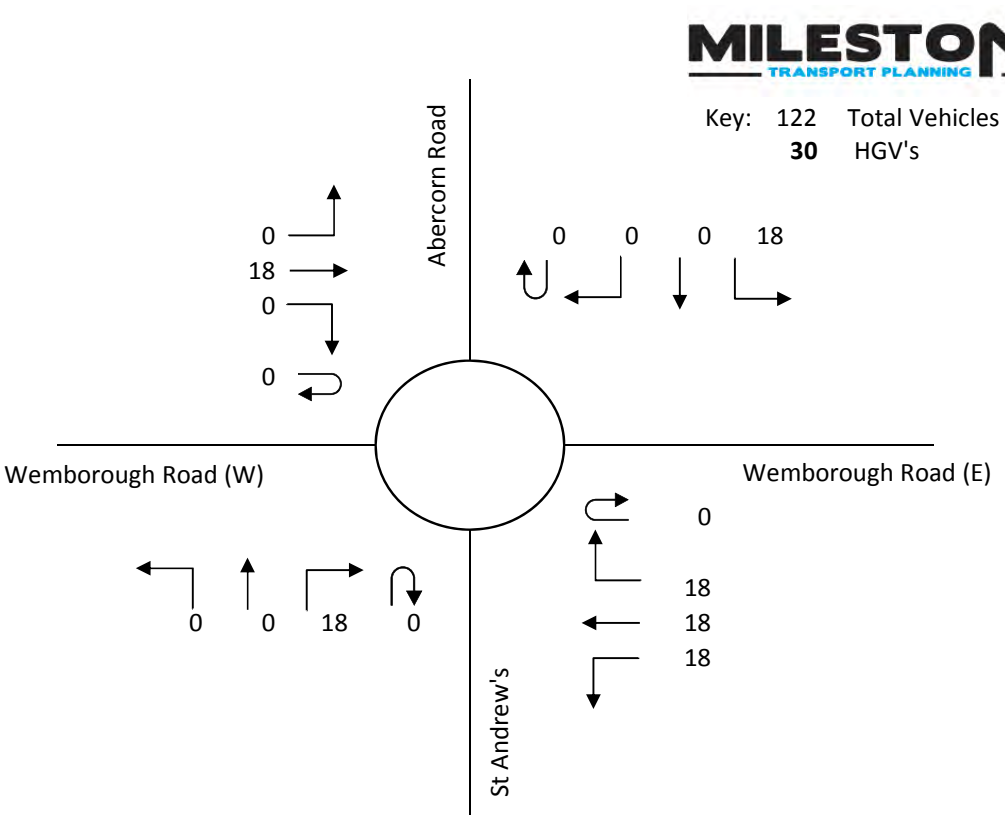


Figure 3.5 AM Peak Committed Development Flows

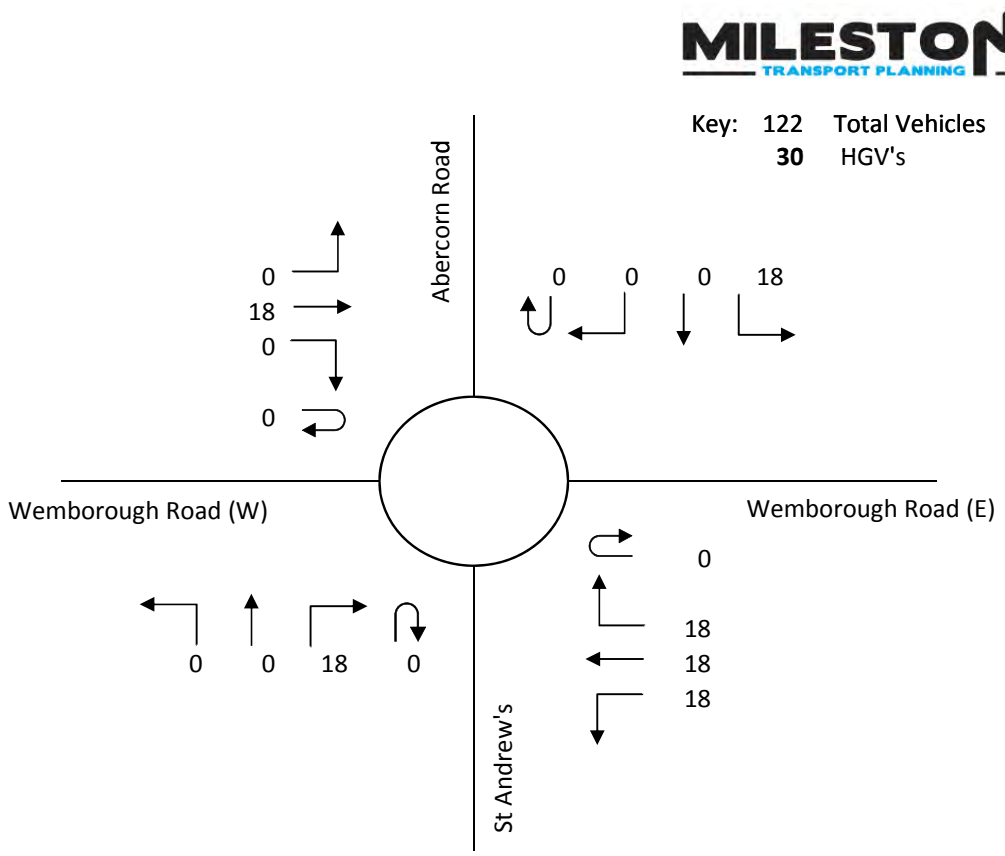


Figure 3.6 PM Peak Committed Development Flows

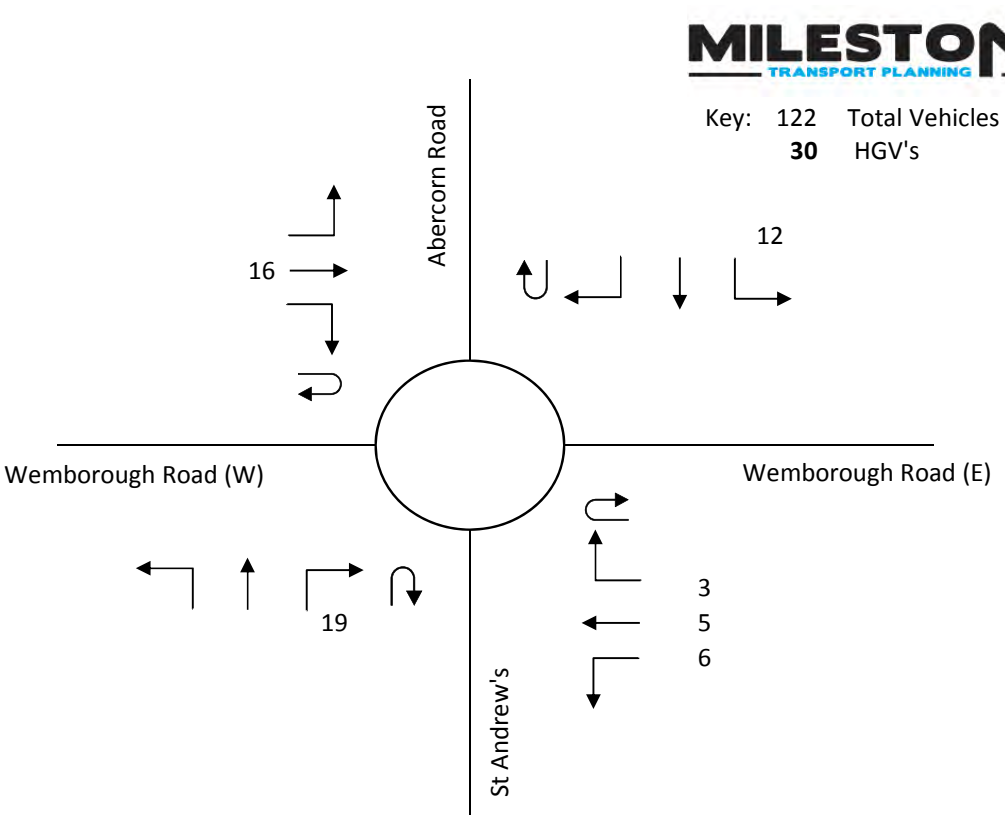


Figure 3.7 AM Peak Development Flows

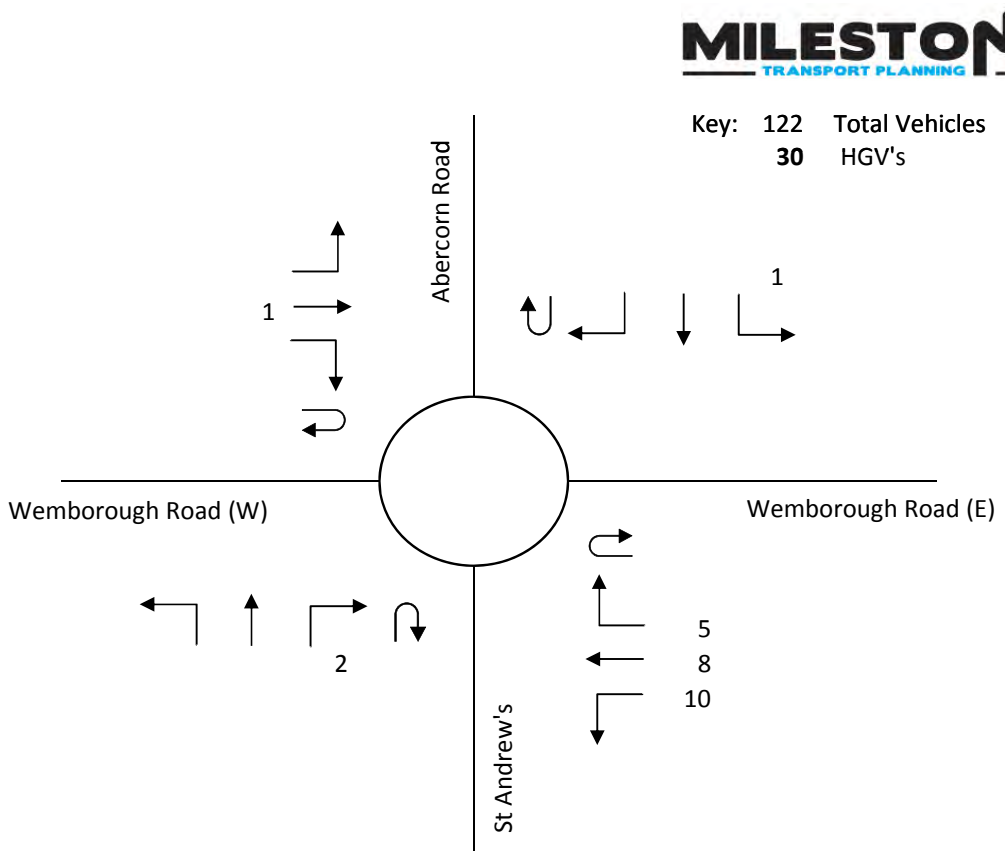


Figure 3.8 PM Peak Development Flows

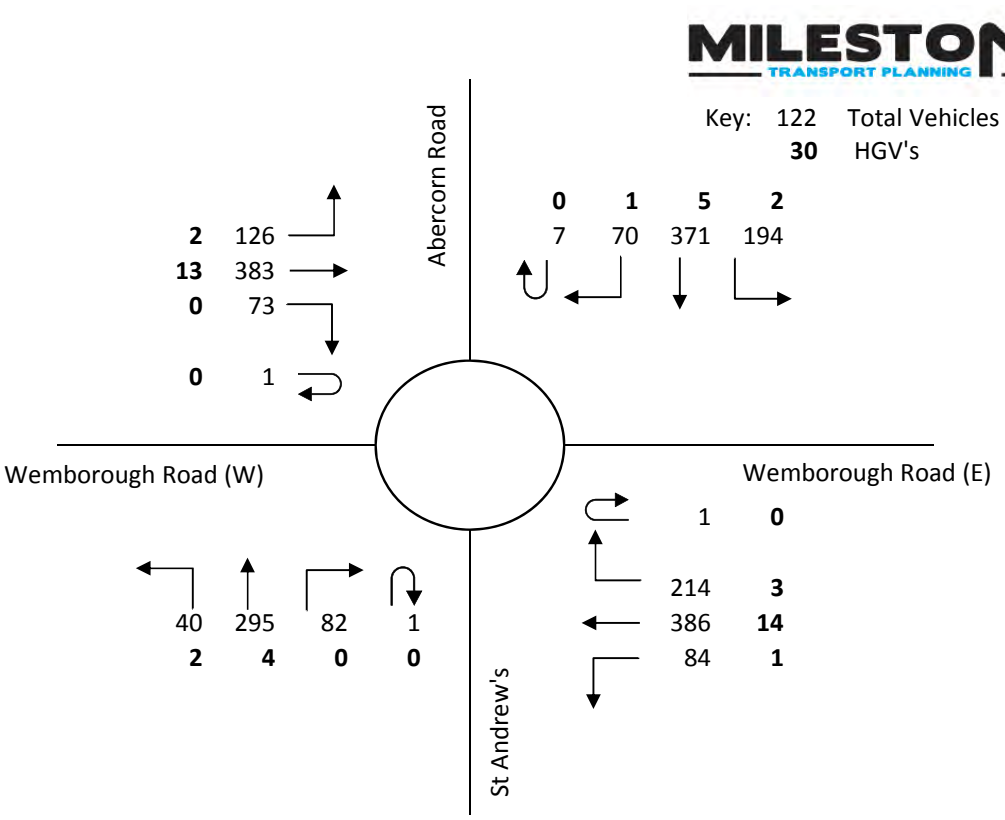


Figure 3.9 AM Peak 2020 + Committed Development Flows

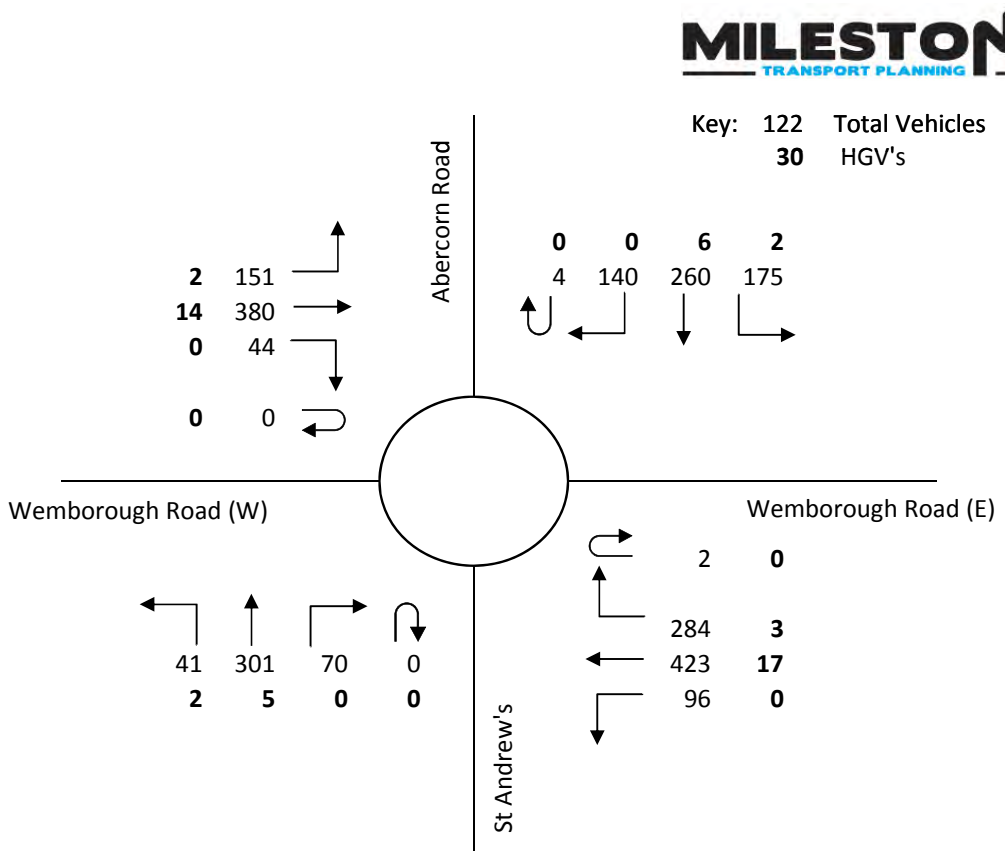


Figure 3.10 PM Peak 2020 + Committed Development Flows

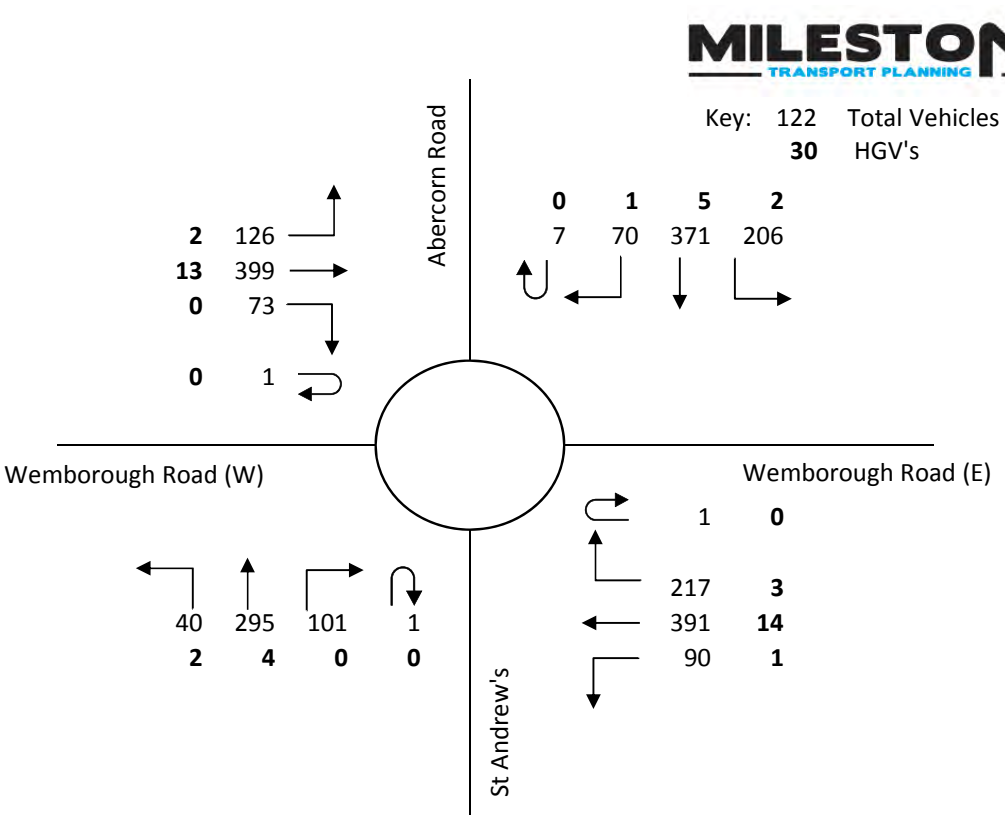


Figure 3.11 AM Peak 2020 + Committed Development + Development Flows

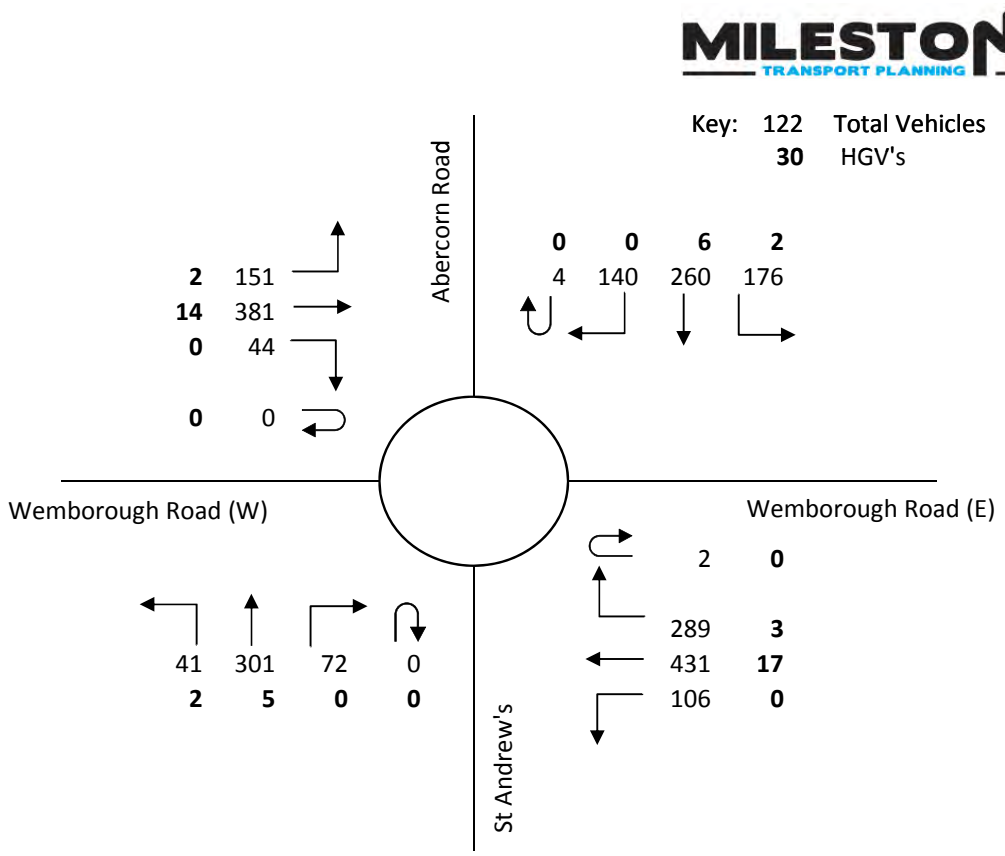


Figure 3.12 PM Peak 2020 + Committed Development + Development Flows

APPENDIX 1

Project:	Avanti House School, Whitchurch Playing Fields
File Ref:	14-042
Meeting Date:	13th January 2015 11:00hrs
Venue:	Harrow Council Offices
Present:	David Eaglesham — Harrow Council Highways (HCH) Barry Phillips — Harrow Council Highways (HCH) Toby Gosden — Milestone Transport Planning (MTP)
Apologies	
Circulation:	Harrow Council Highways; Avanti House Project Team

Points of discussion	**Action**
Trip Generation & Modal Split	
1. Method of trip generation was discussed, and considering that the school is not currently operational at the site MTP proposed using the TRICS database as opposed to 'first principles' data – HCH agreed that providing comparable TRICS sites were identified this would be acceptable.	
2. HCH noted that if the dominant transport mode is by foot, evidence will need to be provided in the form of catchment information to demonstrate that this proportion could reasonably travel to school on foot within a 15 min walk time.	MTP to analyse catchment data to confirm mode splits
3. MTP advised that at full capacity there is scope to provide a school bus service – HCH agreed that this could be incorporated into the projected trip generation / modal split data.	MTP to discuss bus service with EFA / Avanti
Impact of Development Related Trip Generation	
4. MTP outlined that junction turning counts have been undertaken at the school access and the roundabout / signal junctions to the west and east. HCH agreed that this scope of junction assessment was appropriate.	
5. MTP outlined proposals to test junction operation under 2020 future traffic year conditions incorporating 'committed' traffic from the expansion of the Whitchurch First and Junior Schools. HCH agreed with this approach.	

6. Distribution of school-related traffic was discussed. HCH proposed that turning proportions should be derived on the basis of postcode data for the Whitchurch First and Junior Schools, which could be obtained from Funmi Atolagbe (Harrow Council School Travel Plan Officer). MTP agreed with this approach.	MTP to obtain postcode data from Funmi and develop distribution model
Vehicular Access	
7. MTP outlined the general principle that parents should not enter the school and the vehicular access and circulation within the site is for use by staff, delivery / servicing vehicles and school buses.	
8. MTP raised the question of ownership over the car park, through which access will be required between the school and Wemborough Road. Details were provided of a contact in Corporate Estates (Phil Loveland-Cooper) who would be able to confirm ownership of the car park, rights of access and any scope to modify car park arrangements to allow access to the proposed school.	MTP / B&K to investigate ownership / rights of access
Pedestrian Access	
9. As noted at the Pre-App meeting on 19/12/14 pedestrian access will be limited to the main entrance off Wemborough Road. HCH consider than any additional pedestrian access points would encourage parents to set-down / pick-up on the public highway resulting in highway safety concerns / congestion.	
Highway Safety	
10. Highway safety records have already been obtained from Transport for London for a 5 year period, HCH confirmed that this would need to be analysed within the Transport Assessment submission.	
Parking	
11. MTP set out proposals to provide 92 on-site car parking spaces, which is considered appropriate to accommodate school staff parking demand and any 'out of hours' leisure use on site. HCH noted that further clarification will be required on leisure uses on site, to confirm the associated level of traffic / parking demand generation.	MTP to confirm intensity of leisure uses
12. HCH stated that they would rather vehicular set-down / pick-up trips (where necessary) were undertaken off the public highway and within the car park to the south of the school –it was suggested that a parking survey be undertaken to confirm current levels of use over proposed Avanti School set-down / pick-up periods. Parking demand within the car park should then be analysed to determine spare capacity and whether Avanti demand can be accommodated.	MTP to instruct parking survey

13. In respect of cycle parking HCH stated that they require cycle parking to the adopted London Plan standards (2011).

Deliveries / Servicing and Construction

14. HCH confirmed that they will require swept path analysis within the TA submission to demonstrate that the largest delivery / servicing and construction vehicles are able to access, turn within the site and exit in forward gear.

MTP to prepare tracking plans for TA submission

Mitigation and Travel Plan

15. HCH stated that there was limited scope for physical improvements to the local highway / transport networks, and mitigation should be targeted principally through the development of a robust Travel Plan.

16. MTP outlined initiatives to be developed within the School Travel Plan – including staggered start / finish times by key stage to avoid existing peak periods of congestion on the local highway network and existing set-down / pick-up periods for the neighbouring school.

17. Further initiatives that will form part of the Travel Plan will include cycle / scooter training, road safety seminars, setting up a school car-share scheme, provision of a dedicated school bus and use of public transport for school trips wherever possible.

18. HCH confirmed that any initiatives that promote travel by sustainable modes and reduce / dissipate the impact of vehicle trips would be welcomed. HCH suggested that subject to agreement with the Corporate Estates team, the implementation of a traffic marshalling system through the car park to the south of the school could aid traffic flow and allow for a smoother set-down / pick-up period.

MTP / Avanti / EFA / Funmi to meet to discuss and confirm Travel Plan initiatives (meeting 19.01.15 at Avanti House School, Common Road 08:30am)

19. It was noted that single yellow line parking restrictions are to be implemented on Wemborough Road in April 2015, over weekday periods 2-3pm. These restrictions aim to prevent commuters for parking over a daily period; however HCH noted that the proposed restriction would allow parents to park on Wemborough Road during set-down / pick-up periods. HCH want to actively discourage this practice and it was suggested that parents should be discouraged from parking on Wemborough Road through the School Travel Plan.

APPENDIX 2

48 The applicant should follow the energy hierarchy when considering the potential for CHP and renewable energy technologies.

49 If solar technologies are proposed, a plan showing the proposed location of the installation should be provided.

50 If air source heat pumps are being considered they need to be assessed against a gas baseline.

51 If considering biomass the applicant would need to provide an air quality assessment and ensure the system meets the minimum standards set out in the Sustainable Design & Construction SPG. Details should also be provided on how they would deal with fuel storage, delivery and the fuel supply chain.

52 Should it be demonstrated that the 35% carbon dioxide reduction target cannot be fully achieved for this particular site, the applicant should quantify the shortfall in carbon dioxide savings and liaise with the Council regarding agreeing an offset contribution.

Transport

53 TfL would expect a Transport Assessment (TA) report to be undertaken in accordance with TfL's 'Transport Assessment Best Practice Guidance', available at http://www.tfl.gov.uk/info-for/urban-planning-and-construction/transport-assessment-guidance. This should consider the impact of the development on all modes of transport at both the occupation and construction phases. This will enable TfL to get a better understanding of what measures (if any) may be required to mitigate the impact of the development on the transport network. The application should also be supported by a Travel Plan and a framework Construction Logistics Plan and Delivery and Servicing Plan and to this end it is welcomed that the council will require the school to be STARS (Sustainable Travel: Active, Responsible, Safe) accredited. TfL also operates its own pre-application service through which more detailed transport comments can be provided.

54 As part of a previous government spending review, money has been made available to TfL to mitigate the impact of free schools on bus services in the city. As such, it is not anticipated that TfL will require any funding for bus capacity enhancement to be secured through a Section 106 agreement. Nevertheless, in order to properly plan the bus network and to provide the best level of service for the school it will be necessary to understand both trip generation and the distribution of trips based on the school's likely catchment area. Currently it is not felt that the use of the TRICS database (including surveys of schools outside of London where free bus travel isn't available) reflects the likely trip characteristics of a faith school, which often have larger catchment areas and as a result lower levels of walking. However, the proposals to stagger start and finish times to minimise transport impact are welcomed.

55 It is also of some concern that the closest bus stops to the proposed school entrance are on Whitchurch Lane, requiring students to cross Marsh Lane. A signalised crossing is only provided on the southern side of the junction, which appears to have a poor accident record and a high proportion of collisions involving pedestrians. Although it is acknowledged that the introduction of controlled crossing facilities at the junction may have implications for general traffic, TfL feel that any application must consider such changes in order to allow a balanced decision to be made. Should the introduction of controlled crossing facilities not prove possible, consideration could be given to other measures such as the relocation of bus stops. Given that there will only be a single point of pedestrian access, shared with the adjacent First and Middle schools, evidence should also be provided that pedestrian routes are sufficiently wide to accommodate anticipated flows.

56 92 car parking spaces are proposed. As there are no London Plan standards related to car parking for schools, it is expected that this level of provision should be justified with reference to anticipated usage, bearing in mind the overarching goal of London Plan Policy 6.13 to strike an appropriate balance between promoting new development and preventing excessive car parking provision that can undermine cycling, walking and public transport use. TfL would expect a minimum

of 5% of the spaces to be suitable for blue badge users, and a 10% provision of Electric Vehicle Charing Points (EVCPs). The applicant should also be aware that with the adoption of the Further Alterations of the London Plan the cycle parking standards quoted within your submission have now been superseded, and a provision of long stay space per eight staff or students plus an additional short stay space for each 100 students is now required.

Conclusion

57 The proposed school development could be supported provided the matters raised above, particularly the concerns raised about the loss of playing fields and open space are taken into consideration and fully addressed before the application is submitted to the local planning authority. As the design of the school is at an early stage the GLA recommends a follow up meeting to discuss this element of the scheme further.

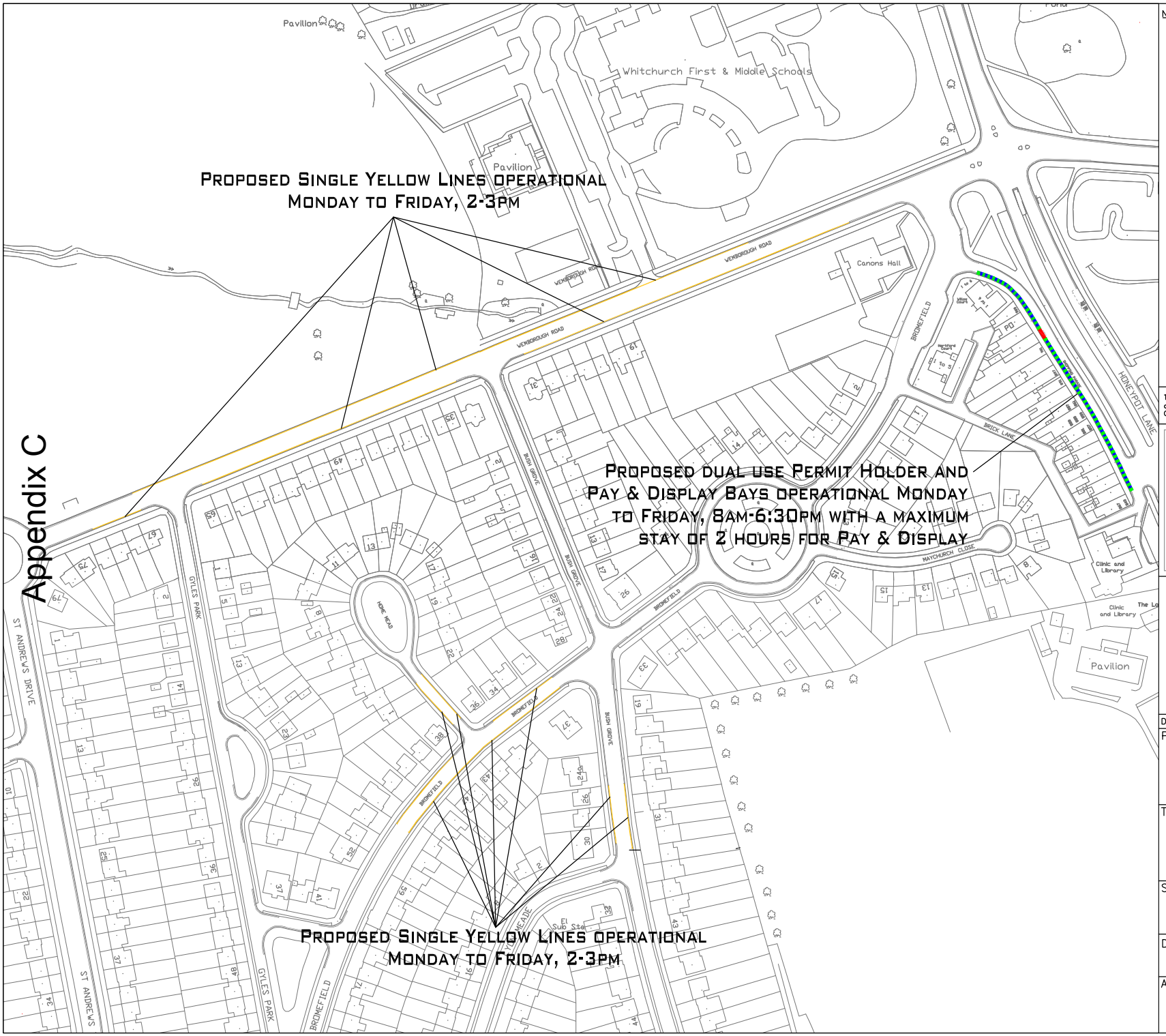
For further information, contact: GLA Planning Unit (Development & Projects Team):
Colin Wilson, Senior Manager – Planning Decisions
020 7983 4271 email: colin.wilson@london.gov.uk
Samantha Wells, Principal Strategic Planner
020 7983 4266 email: samantha.wells@london.gov.uk
Tefera Tibebe, Case Officer
020 7983 4312 email: tefera.tibebe@london.gov.uk

GLA Follow-Up Pre-Application Meeting Feedback 31.06.15

Transport

1. The proposed site is situated adjacent to the junction of Marsh Lane/ Honey Pot Lane/ Whitchurch Lane/ Wemborough Road; while this is part of the borough highway network, TfL understands it is very busy and congested during the peak hours.
2. As the school is likely to generate significant additional vehicular traffic, pedestrians trips as well as public transport trips, a full transport assessment with full trip generation and mode share assessment should be submitted to support the application. This needs to be done fully in accordance with the current TfL's Transport Assessment Best Practice Guidance. Junction capacity modelling shall also be undertaken for junctions in the vicinity, and should be done in accordance with TfL's modelling guidance.
3. TfL understands that the proposed school is a free school, therefore TfL will not seek additional financial contribution toward bus capacity. However, if this is no longer the case, TfL may seek contribution if it is deemed necessary.
4. It is proposed that 92 car parking spaces will be provided, justified based on a minimum requirement of 75 spaces, plus 10 electric vehicle charging spaces (EVCP)and 6 disabled spaces. TfL stresses that EVCP and Disabled Parking spaces should be considered as part of the overall number of parking spaces, not as additional elements of the overall parking provision. On the basis of this, TfL considers that 92 spaces would be excessive and should be moderately reduced.
5. TfL supports that access for the site will be from Wemborough Road, it recommends that cycle and pedestrians access should be separated from general vehicular access for safety reasons. All proposed/ modified vehicular access must be Stage 1 Road Safety Audited upon submission of the planning application.
6. There is no controlled crossing point on the north side of the Marsh Lane/ Honey Pot Lane/ Whitchurch Lane/ Wemborough Road junction, which is considered inadequate for large number of pupils undertaking West – East crossing movements before the school starting time in the morning and finishing in afternoon. TfL requests that the applicant to develop a robust solution to improve pedestrian facilities at the junction to enable safe and convenient movements between bus stops/ Cannons Park tube station and the school.
7. A full PERS and CERS audit is required to identify walking and cycle improvement needs in the vicinity of the site; Harrow Council should secure appropriate contribution towards the required improvements.
8. A school travel plan accredited by the STAR scheme would be required, this should be secured by appropriate condition/obligation.
9. A delivery & servicing plan (DSP) is required, and this should be secured by condition.
10. A construction management plan (CMP) and construction logistics plan (CLP), to be produced in accordance with TfL's CLP guidance and submitted accompanying the planning application and should be secured by conditions.

APPENDIX 3



NOTES:

Joint Permit Holder and Pay & Display Bays (Max stay 2hrs)

Harrow Council
London
ENVIRONMENT & ENTERPRISE
TRANSPORTATION
P.O. Box 39, Civic Centre,
Harrow, Middlesex. HA1 2XA
Tel: 020 8863 5611
Fax: 020 8420 9611

Designation	Details of Revision	Date	Sign
--	----------	-/-/-	--

Project

Canons Park Area
Follow Up Parking Review

Title

AREA 4

Scale	Drawn	Checked
NTS @ A3	EH	---
	Date 07/2014	

Drawing no

T/DWG/000729

Autocad file

O:\TRAFF\Proj\TPR0050HARCPZ CP\Parking Review 2\Drawings

APPENDIX 4

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

Summary of Accidents Selected

Site Reference and Description (zero accident counts shown in bold)	Date Period	Accidents
.001 GIS AREA Wemborough area (P)	60 MTS TO NOV-2013	48

The description of how the accident occurred and the contributory factors are the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

1 0108QA10450 MON 15/12/08 16:20 DARK WHITCHURCH LANE 70M W J/W LONGCROFT ROAD 29 LINK 104-108 517960 / 191200

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

PED RAN INTO PATH OF V1 MASKED BY STATIONARY VEHICLE.

CASUALTY 001 (001) (12 Yrs - M HA7) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) S BOUND FROM DRIVERS N/SIDE MSK

VEHICLE 001 (000) CAR (69 Yrs - F HA2) OVERTAKE STAT VEH O/S W TO E
BT - NEGATIVE FRONT HIT FIRST

C001 A 801 (CROSSED ROAD MASKED BY STATIONARY OR PARKED VEHICLE) C001 A 802 (FAILED TO LOOK PROPERLY)

---

2 0108QA10470 SAT 20/12/08 21:50 DARK WHITCHURCH LANE 55M W J/W DONNEFIELD AVENUE 29 LINK 104-108 518160 / 191220

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY PRIV DRIVE GIVE WAY/UNCONT ZEBRA

V1 PULLED OUT INTO THE PATH OF V2

CASUALTY 001 (002) (16 Yrs - M HA2) SERIOUS DRIVER/RIDER
Sch Attended : UNKNOWN

VEHICLE 001 (002) CAR (34 Yrs - M HA7) TURNING RIGHT N TO W JCT MID
BT - NEGATIVE O/S HIT FIRST

VEHICLE 002 (001) M/C 125-500CC (16 Yrs - M HA2) GOING AHEAD OTHER W TO E JCT MID
BT - NOT PROVD (MEDCL REASONS) FRONT HIT FIRST

V001 A 302 (DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS) V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 602 (CARELESS/RECKLESS/IN A HURRY)

---

3 0108QA10469 TUE 23/12/08 17:27 DARK WHITCHURCH LANE J/W DONNEFIELD AVENUE O/S CANONS PARK STATION 29 LINK 104-108 518200 / 191220

POLICE - AT SCENE ROAD-WET WEATHER-OTHER SINGLE CWY T/STAG JUN GIVE WAY/UNCONT PELICAN OR SIMILAR

V1 HAD GREEN LIGHT & PED DISOBEYED RED MAN ATS & RAN ACROSS ROAD PED CROSSING IN PATH V1

CASUALTY 001 (001) (25 Yrs - M CR0) SLIGHT PEDESTRIAN CROSSING ROAD ON PED XING S BOUND FROM DRIVERS N/SIDE

VEHICLE 001 (000) CAR (50 Yrs - M HA8) GOING AHEAD OTHER W TO E JCT MID
BT - NEGATIVE FRONT HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 803 (FAILED TO JUDGE VEHICLE'S PATH OR SPEED)
C001 A 804 (WRONG USE OF PEDESTRIAN CROSSING FACILITY) C001 A 808 (CARELESS/RECKLESS/IN A HURRY)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

4 0108QA10475 SAT 27/12/08 09:30 LIGHT HONEYPOT LANE 30M NW J/W BRICK LANE 29 LINK 104-672 517790 / 191070

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

DRIVER V1 COLLIDED WITH REAR OF STAT V2

CASUALTY 001 (001) (51 Yrs - M HA9) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (51 Yrs - M HA9) GOING AHEAD OTHER SE TO NW
BT - NOT REQUESTED FRONT HIT FIRST

VEHICLE 002 (001) GDS =< 3.5T (? Yrs - U PARKED) PARKED P TO P
BT - DRV NOT CONTACTED BACK HIT FIRST

V001 A 405 (FAILED TO LOOK PROPERLY) V001 A 706 (VISION AFFECTED - DAZZLING SUN)

---

5 0109QA10062 FRI 09/01/09 08:39 LIGHT WHITCHURCH LANE SERVICE ROAD 80M W J/W DONNEFIELD AVENUE 29 LINK 104-108 518140 / 191230

POLICE - AT SCENE ROAD-WET WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

PED RAN OUT INTO THE PATH OF V1

CASUALTY 001 (001) (36 Yrs - M HA8) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) S BOUND FROM DRIVERS N/SIDE

VEHICLE 001 (000) CAR (56 Yrs - F HA7) GOING AHEAD OTHER W TO E
BT - NEGATIVE FRONT HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 808 (CARELESS/RECKLESS/IN A HURRY)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

6 0109QA10159 TUE 28/04/09 08:17 LIGHT WEMBOROUGH ROAD J/W HONEYPOT LANE 29 NODE 104 517720 / 191190

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS

V2 STATIONARY IN TRAFFIC AT ATS, V2 STOPPED BEHIND, V3 COLLIDED WITH V1 PUSHING IT INTO V2 ; INJURIES CAUSED.

CASUALTY 001 (001) (42 Yrs - F UNKN) SLIGHT PASSENGER FRONT SEAT

CASUALTY 002 (003) (20 Yrs - F HA3) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (46 Yrs - M HA2) WAITING TO TURN LEFT SW TO NW TAKING PUPIL TO/FROM SC JCT APP
BT - NOT REQUESTED BACK HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - M UNKN) WAITING TO TURN LEFT SW TO NW JNY PART OF WORK JCT APP
BT - NOT REQUESTED FRONT HIT FIRST

VEHICLE 003 (001) CAR (20 Yrs - F HA3) SLOWING OR STOPPING SW TO NE JNY PART OF WORK JCT APP
BT - NOT REQUESTED FRONT HIT FIRST

V003 A 307 (TRAVELLING TOO FAST FOR CONDITIONS) V003 A 405 (FAILED TO LOOK PROPERLY)
V003 A 603 (NERVOUS/UNCERTAIN/ PANIC)

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7 0109QA10216 WED 10/06/09 10:45 LIGHT WEMBOROUGH ROAD J/W GYLES PARK 29 LINK 104-180 517350 / 191040

POLICE - AT SCENE ROAD-WET RAINING SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V2 COLLIDED WITH BACK OF V1 AS V1 WAITED TO TURN RIGHT

CASUALTY 001 (001) (44 Yrs - M WD23) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (44 Yrs - M WD23) TURNING RIGHT SW TO E JCT MID
BT - NOT REQUESTED BACK HIT FIRST

VEHICLE 002 (001) CAR (60 Yrs - F NW7) GOING AHEAD OTHER SW TO NE JCT MID
BT - NOT REQUESTED FRONT HIT FIRST

V002 A 308 (FOLLOWING TOO CLOSE) V002 A 307 (TRAVELLING TOO FAST FOR CONDITIONS)
V001 B 404 (FAILED TO SIGNAL/ MISLEADING SIGNAL)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

8 0109QA10383 WED 30/09/09 10:51 LIGHT WHITCHURCH LANE J/W DONNEFIELD AVENUE 29 LINK 104-108 518220 / 191230

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT ZEBRA

V1 COLLIDED WITH REAR OF TURNING RIGHT V2

CASUALTY 001 (002) (35 Yrs - F NW2) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NEGATIVE	(31 Yrs - F MK44)	GOING AHEAD OTHER	E TO W FRONT HIT FIRST	JCT MID
VEHICLE	002 (001)	CAR BT - NOT REQUESTED	(35 Yrs - F NW2)	TURNING RIGHT	E TO N BACK HIT FIRST	JCT MID

V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 307 (TRAVELLING TOO FAST FOR CONDITIONS)
V001 A 602 (CARELESS/RECKLESS/IN A HURRY)

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9 0109QA10406 SUN 25/10/09 17:58 DARK HONEYPOT LANE 120M S OF J/W WHITCHURCH LANE 29 LINK 104-672 517780 / 191080

POLICE - AT SCENE ROAD-DRY WEATHER-FINE DUAL CWY NO JUN IN 20M NO XING FACILITY IN 50M

V2 CROSSED INTO PATH OF V1

CASUALTY 001 (001) (61 Yrs - M HA7) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NOT REQUESTED	(61 Yrs - M HA7)	CHANGE LANE TO LEFT	S TO N N/S HIT FIRST	
VEHICLE	002 (001)	CAR BT - NEGATIVE	(22 Yrs - M LO3)	CHANGE LANE TO LEFT	S TO N N/S HIT FIRST	

V002 A 405 (FAILED TO LOOK PROPERLY)
V002 A 602 (CARELESS/RECKLESS/IN A HURRY)
V002 B 601 (AGGRESSIVE DRIVING)
V002 A 403 (POOR TURN OR MANOEUVRE)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

10 0109QA10436 TUE 10/11/09 06:30 DARK WHITCHURCH LANE J/W HOWBERRY ROAD 29 LINK 104-108 518030 / 191210

POLICE - AT SCENE ROAD-DRY WEATHER-OTHER SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 TURNED RIGHT INFRONT OF V2

CASUALTY 001 (002) (28 Yrs - M HA3) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	GDS =< 3.5T BT - NOT REQUESTED	(51 Yrs - M)	TURNING RIGHT	E TO N O/S HIT FIRST	LEAVING MAIN RD
VEHICLE	002 (001)	M/C 125-500CC BT - NOT PROVD (MEDCL REASONS)	(28 Yrs - M HA3)	GOING AHEAD OTHER	W TO E O/S HIT FIRST	JCT MID

V001 A 405 (FAILED TO LOOK PROPERLY) V001 A 602 (CARELESS/RECKLESS/IN A HURRY)

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11 0109QA10485 SUN 13/12/09 22:02 DARK HONEYPOT LANE J/W BRAMBLE CLOSE 29 LINK 104-672 517820 / 191030

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V2 DID A U TURN INFRONT OF V1, V1 HIT V2

CASUALTY 001 (001) (? Yrs - F) SLIGHT DRIVER/RIDER

CASUALTY 002 (002) (40 Yrs - M) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NOT REQUESTED	(? Yrs - F)	GOING AHEAD OTHER	N TO S FRONT HIT FIRST	ENTERING MAIN RD
VEHICLE	002 (001)	CAR BT - NOT REQUESTED	(40 Yrs - M)	U-TURNING	S TO S N/S HIT FIRST	ENTERING MAIN RD

V002 A 403 (POOR TURN OR MANOEUVRE) V002 A 405 (FAILED TO LOOK PROPERLY)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

12 0110QA10065 FRI 01/01/10 08:46 LIGHT HONEYPOT LANE J/W WEMBOROUGH ROAD 29 NODE 104 517730 / 191190
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS
V2 TURNED RIGHT ACROSS PATH ONCOMING V1

CASUALTY 001 (002) (36 Yrs - M HA7) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (19 Yrs - F HA3) GOING AHEAD OTHER S TO N JCT MID
BT - NEGATIVE FRONT HIT FIRST

VEHICLE 002 (001) CAR (36 Yrs - M HA7) TURNING RIGHT N TO SW JCT MID
BT - NEGATIVE FRONT HIT FIRST

V002 A 405 (FAILED TO LOOK PROPERLY) V002 A 602 (CARELESS/RECKLESS/IN A HURRY)

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13 0110QA10025 TUE 26/01/10 18:20 DARK NFL HONEYPOT LANE SERVICE ROAD 75M SE J/W BROMEFIELD 29 CELL 517500/191000 517770 / 191090
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M
PED STEPPED OUT INTO THE PATH OF V1

CASUALTY 001 (001) (38 Yrs - M HA7) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) NE BOUND FROM DRIVERS N/SIDE MSK

VEHICLE 001 (000) CAR (24 Yrs - F HA8) GOING AHEAD OTHER SE TO NW
BT - NOT REQUESTED N/S HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 808 (CARELESS/RECKLESS/IN A HURRY)

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14 0110QA10033 MON 01/02/10 00:07 DARK WHITCHURCH LANE J/W HOWBERRY ROAD. 29 LINK 104-108 518030 / 191210
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M
VEH.1 TURNED RIGHT, IN-FRONT OF ON-COMING VEH (VEH.2) CAUSING COLLISION.

CASUALTY 001 (002) (33 Yrs - M N11) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (52 Yrs - F HA8) TURNING RIGHT E TO N JCT MID
BT - DRV NOT CONTACTED FRONT HIT FIRST

VEHICLE 002 (001) M/C 50-125CC (33 Yrs - M N11) GOING AHEAD OTHER W TO E JCT MID
BT - DRV NOT CONTACTED FRONT HIT FIRST

V002 B 306 (EXCEEDING SPEED LIMIT) V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED) V001 A 602 (CARELESS/RECKLESS/IN A HURRY)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

15 0110QA10060 FRI 26/02/10 08:16 LIGHT NFL : STATION PARADE 33M W J/W WHITCHURCH LANE 29 CELL 518000/191000 518130 / 191230
POLICE - AT SCENE ROAD-WET RAINING ONE-WAY ST NO JUN IN 20M NO XING FACILITY IN 50M
C1 CROSSED FROM PARKED VEHICLES AND WAS HIT BY V1 WHICH FTS

CASUALTY 001 (001) (26 Yrs - F) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) S BOUND FROM DRIVERS N/SIDE

VEHICLE 001 (000) CAR (? Yrs - U 1) GOING AHEAD OTHER W TO E
BT - DRV NOT CONTACTED FRONT HIT FIRST
LAY-BY/HARD SHLDR

V001 A 407 (PASSING TOO CLOSE TO CYCLIST, HORSE RIDER OR PEDESTRIAN) V001 B 602 (CARELESS/RECKLESS/IN A HURRY)
V001 B 405 (FAILED TO LOOK PROPERLY)

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16 0110QA10061 SAT 27/02/10 14:00 LIGHT HONEY POT LANE J/W WHITCHURCH LANE 29 NODE 104 517750 / 191190
POLICE - AT SCENE ROAD-WET WEATHER-FINE SINGLE CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS
V1 INTENDED RIGHT TURN WHEN C1,C2 RAN INTO SIDE OF V1 FROM BETWEEN VEHS ON SOUTH SIDE

CASUALTY 001 (001) (6 Yrs - F HA7) SLIGHT PEDESTRIAN CROSSING ROAD WITHIN 50M XING N BOUND FROM DRIVERS N/SIDE
Sch Attended : N/K

CASUALTY 002 (001) (40 Yrs - F HA7) SLIGHT PEDESTRIAN CROSSING ROAD WITHIN 50M XING N BOUND FROM DRIVERS N/SIDE

VEHICLE 001 (000) CAR (61 Yrs - M HA7) SLOWING OR STOPPING E TO W JCT MID
BT - NOT REQUESTED N/S HIT FIRST

C001 A 801 (CROSSED ROAD MASKED BY STATIONARY OR PARKED VEHICLE) C002 A 801 (CROSSED ROAD MASKED BY STATIONARY OR PARKED VEHICLE)

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17 0110QA10139 TUE 27/04/10 14:40 LIGHT WHITCHURCH LANE J.W MARSH LANE 29 NODE 104 517750 / 191190
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS
PED RAN OUT INTO THE SIDE OF V1

CASUALTY 001 (001) (36 Yrs - M HA7) SLIGHT PEDESTRIAN CROSSING ROAD ON PED XING S BOUND FROM DRIVERS O/SIDE MSK

VEHICLE 001 (000) CAR (55 Yrs - F WD19) TURNING RIGHT E TO N JCT APP
BT - NOT REQUESTED O/S HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 808 (CARELESS/RECKLESS/IN A HURRY)
C001 A 801 (CROSSED ROAD MASKED BY STATIONARY OR PARKED VEHICLE)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

18 0110QA10144 TUE 11/05/10 15:35 LIGHT WHITCHURCH LANE J/W HONEYPOT LANE 29 NODE 104 517760 / 191190
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS
V1 HIT PED IN RD

CASUALTY 001 (001) (9 Yrs - M NW9) SLIGHT PEDESTRIAN CROSSING ROAD WITHIN 50M XING UNKNOWN
Sch Attended : N/K

VEHICLE 001 (000) CAR (40 Yrs - F HA3) GOING AHEAD OTHER W TO E JCT CLEARED
BT - NEGATIVE FRONT HIT FIRST

C001 A 804 (WRONG USE OF PEDESTRIAN CROSSING FACILITY) C001 A 802 (FAILED TO LOOK PROPERLY)

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19 0110QA10395 WED 25/08/10 15:42 LIGHT NFL WHITCHURCH LANE 40 M E J/W HONEYPOT LANE 29 LINK 104-108 517780 / 191190
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M
PED RAN INTO THE ROAD INFRONT OF V1

CASUALTY 001 (001) (? Yrs - F) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) S BOUND FROM DRIVERS N/SIDE

VEHICLE 001 (000) CAR (50 Yrs - M HA8) GOING AHEAD OTHER E TO W
BT - DRV NOT CONTACTED FRONT HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 808 (CARELESS/RECKLESS/IN A HURRY)

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20 0110QA10345 THU 09/09/10 18:20 LIGHT HONEYPOT LANE J/W BRAMBLE CLOSE 29 LINK 104-672 517830 / 191040
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M
V1 HIT V2, V1 WAS U TURNING WHEN HIT V2

CASUALTY 001 (001) (28 Yrs - F) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (28 Yrs - F) U-TURNING NW TO NW ENTERING MAIN RD
BT - DRV NOT CONTACTED N/S HIT FIRST

VEHICLE 002 (001) BUS/COACH (40 Yrs - M) GOING AHEAD OTHER SE TO NW ENTERING MAIN RD
BT - DRV NOT CONTACTED FRONT HIT FIRST

V001 A 403 (POOR TURN OR MANOEUVRE) V001 A 405 (FAILED TO LOOK PROPERLY)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

21 0110QA10410 WED 06/10/10 07:40 LIGHT MARSH LANE J/W HONEYPOT LANE 29 NODE 104 517730 / 191190

POLICE - OVER COU ROAD-WET WEATHER-FINE SINGLE CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS

V1 HIT THE REAR OF STATIONARY V2

CASUALTY 001 (002) (44 Yrs - F WD18) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR	(? Yrs - F HA7)	SLOWING OR STOPPING	N TO S	JCT MID
		BT - DRV NOT CONTACTED			FRONT HIT FIRST	
VEHICLE	002 (001)	CAR	(44 Yrs - F WD18)	GOING AHEAD HELD UP	N TO S	JCT MID
		BT - DRV NOT CONTACTED			BACK HIT FIRST	

V001 A 308 (FOLLOWING TOO CLOSE)
V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V001 A 602 (CARELESS/RECKLESS/IN A HURRY)

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22 0110QA10448 TUE 02/11/10 07:45 LIGHT MARSH LANE J/W OLD CHURCH LANE 29 LINK 104-105 517580 / 191560

POLICE - AT SCENE ROAD-WET WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT CENTRAL REFUGE

V2 TURNED RIGHT INTO PATH OF V1 (CAS1). V1 SWERVED, BUT COLLIDED WITH A BOLLARD AND LAMP POST.

CASUALTY 001 (001) (? Yrs - F NW10) SLIGHT DRIVER/RIDER

VEHICLE	001 (000)	CAR	(? Yrs - F NW10)	GOING AHEAD OTHER	SE TO NW COMM TO/FROM WORK	JCT CLEARED
		BT - NOT REQUESTED			FRONT HIT FIRST	
		LEFT CWY AHEAD AT JUNCTN		HIT BOLLARD	HIT LAMP POST	
VEHICLE	002 (000)	CAR	(29 Yrs - M HA7)	TURNING RIGHT	SW TO SE COMM TO/FROM WORK	ENTERING MAIN RD
		BT - NOT REQUESTED			DID NOT IMPACT	

V001 A 409 (SWERVED)
V001 A 410 (LOSS OF CONTROL)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

23 0110QA10464 THU 11/11/10 19:30 DARK NFL: WHITCHURCH LANE 56M W J/W DONNEFIELD AVENUE 29 LINK 104-108 518160 / 191220

POLICE - OVER COU ROAD-WET RAINING SINGLE CWY NO JUN IN 20M ZEBRA

V1 WAITED AT RED ATS, WAS SHUNTED BY V2

CASUALTY 001 (001) (38 Yrs - M NW4) SLIGHT DRIVER/RIDER

CASUALTY 002 (001) (36 Yrs - F NW4) SLIGHT PASSENGER FRONT SEAT

VEHICLE 001 (002) CAR (38 Yrs - M NW4) GOING AHEAD HELD UP W TO E
BT - DRV NOT CONTACTED BACK HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - M 1) U-TURNING W TO W
BT - DRV NOT CONTACTED FRONT HIT FIRST

V002 B 408 (SUDDEN BRAKING) V002 B 308 (FOLLOWING TOO CLOSE)

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24 0110QA10474 MON 15/11/10 17:52 DARK NFL: WHITCHURCH LANE 32M W J/W LONGCROFTE ROAD 29 LINK 104-108 517860 / 191190

POLICE - AT SCENE ROAD-WET WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

TRAFFIC MOVING EAST AND HEAVY; V3 SHUNTS V2 INTO V1

CASUALTY 001 (002) (59 Yrs - M HA3) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (47 Yrs - M HA7) SLOWING OR STOPPING W TO E
BT - NOT REQUESTED BACK HIT FIRST

VEHICLE 002 (003) CAR (59 Yrs - M HA3) SLOWING OR STOPPING W TO E
BT - NOT REQUESTED BACK HIT FIRST

VEHICLE 003 (002) BUS/COACH (35 Yrs - M UB3) GOING AHEAD OTHER W TO E JNY PART OF WORK
BT - NOT REQUESTED FRONT HIT FIRST

V003 A 405 (FAILED TO LOOK PROPERLY) V003 B 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V003 B 308 (FOLLOWING TOO CLOSE)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

25 0110QA10460 WED 24/11/10 15:45 LIGHT NFL: WEMBOROUGH ROAD 42M E J/W BUSH GROVE 29 LINK 104-180 517540 / 191110

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

CAS1 RAN INTO SLOW-MOVING TRAFFIC WITHOUT PAUSE, WAS STRUCK BY V1

CASUALTY 001 (001) (7 Yrs - M HA7) SLIGHT PEDESTRIAN ON FOOTPATH - VERGE S BOUND
JOURNEY TO/FROM SCHOOL Sch Attended : N/K

VEHICLE 001 (000) CAR (25 Yrs - M HA3) SLOWING OR STOPPING SW TO NE
BT - NOT REQUESTED FRONT HIT FIRST

C001 A 801 (CROSSED ROAD MASKED BY STATIONARY OR PARKED VEHICLE)
C001 A 802 (FAILED TO LOOK PROPERLY)
V001 B 701 (VISION AFFECTED - STATIONARY OR PARKED VEHICLE(S))
C001 B 808 (CARELESS/RECKLESS/IN A HURRY)

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26 0110QA10484 THU 02/12/10 18:05 DARK NFL WHITCHURCH LANE 35M W J.W LONGCROFTE ROAD 29 LINK 104-108 517850 / 191180

POLICE - AT SCENE ROAD-FROST/ICE WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

V1 MOUNTED PAVEMENT AND COLLIDED WITH PED THEN COLLIDED WITH STAT V2

CASUALTY 001 (001) (31 Yrs - M HA0) SLIGHT DRIVER/RIDER
CASUALTY 002 (001) (31 Yrs - F UNKN) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) STANDING

VEHICLE 001 (002) CAR (31 Yrs - M HA0) GOING AHEAD OTHER E TO W
BT - NEGATIVE FRONT HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - U PARKED) PARKED P TO P
BT - DRV NOT CONTACTED BACK HIT FIRST

V001 A 410 (LOSS OF CONTROL)
V001 A 503 (FATIGUE)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

27 0111QA10051 TUE 15/03/11 09:05 LIGHT WEMBOROUGH ROAD 80M NE J/W BUSH GROVE 29 LINK 104-180 517570 / 191130
POLICE - OVER COU ROAD-DRY WEATHER-FINE SINGLE CWY PRIV DRIVE GIVE WAY/UNCONT NO XING FACILITY IN 50M
V2 PULLED OUT OF JUNCTION INTO THE SIDE OF V1

CASUALTY 001 (001) (30 Yrs - F NW4) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (30 Yrs - F NW4) GOING AHEAD OTHER NE TO SW JCT MID
BT - DRV NOT CONTACTED O/S HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - M UNKN) TURNING RIGHT NW TO SW JCT MID
BT - DRV NOT CONTACTED FRONT HIT FIRST

V002 A 302 (DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS) V002 A 405 (FAILED TO LOOK PROPERLY)
V002 A 602 (CARELESS/RECKLESS/IN A HURRY)

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28 0111QA10104 FRI 22/04/11 09:30 LIGHT WHITCHURCH LANE 50M E J.W HONEYPOT LANE 29 LINK 104-108 517790 / 191190
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M PEDN PHASE AT ATS
PED STEPPED OUT INTO THE PATH OF V1

CASUALTY 001 (001) (55 Yrs - F HA7) SLIGHT PEDESTRIAN CROSSING ROAD WITHIN 50M XING N BOUND FROM DRIVERS N/SIDE MSK

VEHICLE 001 (000) CAR (35 Yrs - M UNKN) OVERTAKE STAT VEH O/S E TO W
BT - NEGATIVE FRONT HIT FIRST

C001 A 801 (CROSSED ROAD MASKED BY STATIONARY OR PARKED VEHICLE) C001 A 802 (FAILED TO LOOK PROPERLY)

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29 0111QA10125 SAT 07/05/11 18:00 LIGHT MARSH LANE J/W WHITCHURCH LANE 29 NODE 104 517730 / 191190
POLICE - OVER COU ROAD-DRY WEATHER-FINE SINGLE CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS
PED STEPPED OUT INTO PATH OF PASSING V1

CASUALTY 001 (001) (30 Yrs - F HA7) SLIGHT PEDESTRIAN CROSSING ROAD ON PED XING W BOUND FROM DRIVERS N/SIDE

VEHICLE 001 (000) CAR (? Yrs - U UNKN) GOING AHEAD OTHER N TO S JCT APP
BT - DRV NOT CONTACTED FRONT HIT FIRST

V001 A 405 (FAILED TO LOOK PROPERLY) V001 A 602 (CARELESS/RECKLESS/IN A HURRY)
C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 808 (CARELESS/RECKLESS/IN A HURRY)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

30 0111QA10135 MON 16/05/11 10:23 LIGHT NFL LONGCROFTE ROAD 40M N J/W WHITCHURCH LANE 29 CELL 517500/191000 517880 / 191230
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M
DETAILS NOT KNOWN

CASUALTY 001 (001) (19 Yrs - F NW11) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (19 Yrs - F NW11) GOING AHEAD OTHER S TO N
BT - NOT REQUESTED FRONT HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - U UNKN) PARKED P TO P
BT - DRV NOT CONTACTED FRONT HIT FIRST

V001 A 410 (LOSS OF CONTROL)

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31 0111QA10129 THU 19/05/11 16:57 LIGHT WEMBOROUGH ROAD 80M NE J/W BUSH GROVE 29 LINK 104-180 517570 / 191130
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M
V1 LOST CONTROL AND COLLIDED WITH STAT V2

CASUALTY 001 (001) (42 Yrs - F HA7) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) GDS =< 3.5T (42 Yrs - F HA7) GOING AHEAD OTHER SW TO NE
BT - NOT REQUESTED FRONT HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - U UNKN) PARKED P TO P
BT - DRV NOT CONTACTED FRONT HIT FIRST

V001 A 410 (LOSS OF CONTROL) V001 A 409 (SWERVED)

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32 0111QA10149 THU 26/05/11 09:00 LIGHT WEMBOROUGH ROAD 80M NE J/W BUSH GROVE 29 LINK 104-180 517570 / 191130
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY PRIV DRIVE GIVE WAY/UNCONT NO XING FACILITY IN 50M
V2 PULLED OUT INTO THE PATH OF V1 (CYCLIST)

CASUALTY 001 (001) (63 Yrs - M HA8) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) PEDAL CYCLE (63 Yrs - M HA8) GOING AHEAD OTHER SW TO NE JCT MID
BT - NOT APPLICABLE FRONT HIT FIRST

VEHICLE 002 (001) CAR (29 Yrs - F HA8) TURNING RIGHT NW TO SW JCT MID
BT - NOT REQUESTED O/S HIT FIRST

V002 A 405 (FAILED TO LOOK PROPERLY) V002 A 302 (DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

33 0111TB01130 MON 27/06/11 14:16 LIGHT WHITCHURCH LANE J/W HOWBERRY ROAD 29 LINK 104-108 518040 / 191210

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 WAS STATIONARY AT ATS WHEN V2 COLLIDED WITH REAR.

CASUALTY 001 (001) (29 Yrs - M UNKN) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NEGATIVE	(29 Yrs - M UNKN)	GOING AHEAD HELD UP	E TO W BACK HIT FIRST	JNY PART OF WORK	JCT MID
VEHICLE	002 (001)	CAR BT - NEGATIVE	(43 Yrs - F HA3)	GOING AHEAD OTHER	E TO W FRONT HIT FIRST		JCT MID

V002 A 405 (FAILED TO LOOK PROPERLY)
V002 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V002 A 602 (CARELESS/RECKLESS/IN A HURRY)

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34 0111QA10184 THU 07/07/11 19:49 LIGHT NFL WHITCHURCH LANE J.W LONGCROFTE ROAD 29 LINK 104-108 517890 / 191190

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 PULLED OUT INTO THE PATH OF V2

CASUALTY 001 (002) (29 Yrs - M UNKN) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NOT REQUESTED	(79 Yrs - M HA3)	TURNING RIGHT	N TO W FRONT HIT FIRST		JCT MID
VEHICLE	002 (001)	M/C 50-125CC BT - NOT REQUESTED	(29 Yrs - M UNKN)	GOING AHEAD OTHER	W TO E N/S HIT FIRST		JCT MID

V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 302 (DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) — 60 MTS TO NOV-2013 SORTED BY DATE

35 0111QA10284 MON 26/09/11 16:03 LIGHT MARSH LANE J/W HONEYPOT LANE 29 NODE 104 517740 / 191180
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS
V1 WAS REVERSING & V2 COLLIDED WITH REAR V1

CASUALTY 001 (002) (51 Yrs - M HA3) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) GDS 3.5-7.5T (56 Yrs - M W7) REVERSING NW TO SE JNY PART OF WORK JCT APP
BT - NOT REQUESTED BACK HIT FIRST

VEHICLE 002 (001) M/C > 500CC (51 Yrs - M HA3) GOING AHEAD OTHER SE TO NW JCT APP
BT - NOT REQUESTED FRONT HIT FIRST

V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED) V001 A 403 (POOR TURN OR MANOEUVRE)
V001 A 602 (CARELESS/RECKLESS/IN A HURRY) V002 A 405 (FAILED TO LOOK PROPERLY)

---

36 0112QA10180 THU 07/06/12 22:18 DARK ST ANDREWS DRIVE J/W WEMBOROUGH ROAD 29 NODE 180 517280 / 190990
POLICE - AT SCENE ROAD-WET WEATHER-FINE ROUNDABOUT ROUNDABOUT GIVE WAY/UNCONT NO XING FACILITY IN 50M
V1 PULLED OUT INTO THE SIDE OF V2

CASUALTY 001 (002) (21 Yrs - M HA3) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (73 Yrs - M HA7) TURNING LEFT S TO SW JCT MID
BT - NOT REQUESTED FRONT HIT FIRST

VEHICLE 002 (001) M/C 50-125CC (21 Yrs - M HA3) GOING AHEAD OTHER NE TO SW JNY PART OF WORK JCT MID
BT - NOT REQUESTED N/S HIT FIRST

V001 A 405 (FAILED TO LOOK PROPERLY) V001 A 302 (DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS)

---

37 0112QA10186 TUE 12/06/12 15:40 LIGHT ST ANDREWS DRIVE J/W WEMBOROUGH ROAD. 29 NODE 180 517280 / 190990
POLICE - AT SCENE ROAD-DRY WEATHER-FINE ROUNDABOUT ROUNDABOUT GIVE WAY/UNCONT CENTRAL REFUGE
A CHILD CROSSED THE ROAD & WALKED INTO THE SIDE OF ON-COMING V.1.

CASUALTY 001 (001) (5 Yrs - F HA7) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) W BOUND FROM DRIVERS N/SIDE
JOURNEY TO/FROM SCHOOL Sch Attended : WHITCHURCH PRIMARY

VEHICLE 001 (000) CAR (46 Yrs - M HA7) TURNING LEFT NE TO S TAKING PUPIL TO/FROM SC LEAVING R'ABOUT
BT - DRV NOT CONTACTED N/S HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 803 (FAILED TO JUDGE VEHICLE'S PATH OR SPEED)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

38 0112QA10199 FRI 15/06/12 08:34 LIGHT GYLES PARK J/W WEMBOROUGH ROAD. 29 LINK 104-180 517360 / 191020
POLICE - AT SCENE ROAD-WET RAINING SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M
V.1 TURNED LEFT, JUST A PED. RAN ACROSS THE ROAD. V.1 HIT PED.

CASUALTY 001 (001) (11 Yrs - M HA8) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) E BOUND FROM DRIVERS O/SIDE
JOURNEY TO/FROM SCHOOL Sch Attended : STANBURN SCHOOL

VEHICLE 001 (000) CAR (17 Yrs - M HA7) TURNING RIGHT W TO S PUPIL RIDING TO/FROM SCH JCT CLEARED
BT - DRV NOT CONTACTED FRONT HIT FIRST

V001 A 405 (FAILED TO LOOK PROPERLY) C001 A 802 (FAILED TO LOOK PROPERLY)

---

39 0112QA10213 THU 28/06/12 22:10 DARK HONEYPOT LANE J/W WHITCHURCH LANE. 29 NODE 104 517740 / 191190
POLICE - AT SCENE ROAD-DRY WEATHER-FINE DUAL CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS
V.1 TURNED RIGHT, IN PATH OF ON-COMING V.2 CAUSING COLLISION.

CASUALTY 001 (002) (21 Yrs - M HA3) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (27 Yrs - F HA0) TURNING RIGHT S TO E JCT MID
BT - NEGATIVE FRONT HIT FIRST

VEHICLE 002 (001) CAR (21 Yrs - M HA3) GOING AHEAD OTHER N TO S JCT MID
BT - NEGATIVE FRONT HIT FIRST

V001 A 405 (FAILED TO LOOK PROPERLY) V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V001 A 602 (CARELESS/RECKLESS/IN A HURRY)

---

40 0112QA10259 TUE 07/08/12 15:10 LIGHT HONEYPOT LANE J/W WHITCHURCH LANE. 29 NODE 104 517740 / 191170
POLICE - AT SCENE ROAD-DRY WEATHER-FINE DUAL CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS
V.2 BRAKED SUDDENLY DUE TO TRAFFIC AHEAD, V.1 TRAVELLING BEHIND HIT REAR OF V.2.

CASUALTY 001 (002) (20 Yrs - M NW2) SERIOUS PASSENGER FRONT SEAT

VEHICLE 001 (002) CAR (25 Yrs - F HA7) GOING AHEAD OTHER S TO N COMM TO/FROM WORK JCT APP
BT - DRV NOT CONTACTED FRONT HIT FIRST

VEHICLE 002 (001) CAR (54 Yrs - M NW2) GOING AHEAD OTHER S TO N JCT APP
BT - DRV NOT CONTACTED BACK HIT FIRST

V002 B 405 (FAILED TO LOOK PROPERLY) V002 A 408 (SUDDEN BRAKING)
V001 A 405 (FAILED TO LOOK PROPERLY) V001 A 308 (FOLLOWING TOO CLOSE)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

41 0112QA10315 WED 12/09/12 17:16 LIGHT NFL GREEN VERGES 35M SW J/W MARSH LANE 29 CELL 517500/191000 517650 / 191380
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M
PED STEPPED OUT INTO THE PATH OF V1

CASUALTY 001 (001) (24 Yrs - M HA7) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) SW BOUND FROM DRIVERS O/SIDE

VEHICLE 001 (000) CAR (? Yrs - M UNKN) GOING AHEAD OTHER S TO N
BT - DRV NOT CONTACTED FRONT HIT FIRST

V001 A 405 (FAILED TO LOOK PROPERLY) C001 A 802 (FAILED TO LOOK PROPERLY)

---

42 0112QA10325 WED 26/09/12 07:26 LIGHT HONEYPOT LANE SERVICE ROAD 45M NW J/W BRICK LANE 29 LINK 104-672 517780 / 191070
POLICE - AT SCENE ROAD-WET RAINING SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M
PED STEPPED OUT INTO THE PATH OF V1

CASUALTY 001 (001) (56 Yrs - M W7) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) NE BOUND FROM DRIVERS N/SIDE

VEHICLE 001 (000) CAR (50 Yrs - F NW9) GOING AHEAD OTHER SE TO NW
BT - NOT REQUESTED FRONT HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 808 (CARELESS/RECKLESS/IN A HURRY)

---

43 0113QA10077 SUN 17/02/13 21:03 DARK WEMBOROUGH ROAD J/W HONEYPOT LANE 29 NODE 104 517740 / 191190
POLICE - AT SCENE ROAD-DRY WEATHER-FINE DUAL CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS
VEH 1 TURNED RIGHT INTO THE PATH OF VEH 2 CAUSING COLLISION

CASUALTY 001 (002) (21 Yrs - F HA3) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (45 Yrs - M HA3) TURNING RIGHT W TO S JCT MID
BT - NOT REQUESTED FRONT HIT FIRST

VEHICLE 002 (001) CAR (21 Yrs - F HA3) GOING AHEAD OTHER E TO W JCT MID
BT - NOT REQUESTED O/S HIT FIRST

V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED) V001 B 602 (CARELESS/RECKLESS/IN A HURRY)
V001 A 405 (FAILED TO LOOK PROPERLY) V002 B 408 (SUDDEN BRAKING)

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) — 60 MTS TO NOV-2013 SORTED BY DATE

44 0113QA10080 MON 11/03/13 07:20 LIGHT MARSH LANE J/W WEMBOROUGH RD 29 NODE 104 517730 / 191190

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY CROSSROADS AUTO SIG PEDN PHASE AT ATS

V2 TURNED LEFT AS V1 ON N/S, CAUSING COLLISION.

CASUALTY 001 (001) (36 Yrs - F HA7) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) PEDAL CYCLE (36 Yrs - F HA7) GOING AHEAD OTHER SW TO NE ENTERING MAIN RD
BT - NOT APPLICABLE O/S HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - U UNKN) TURNING LEFT SW TO N ENTERING MAIN RD
BT - DRV NOT CONTACTED N/S HIT FIRST

V002 A 403 (POOR TURN OR MANOEUVRE) V002 A 405 (FAILED TO LOOK PROPERLY)
V002 A 407 (PASSING TOO CLOSE TO CYCLIST, HORSE RIDER OR PEDESTRIAN)

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45 0113QA10177 MON 13/05/13 17:38 LIGHT WHITCHURCH LANE J/W HOWBERRY RD 29 LINK 104-108 518030 / 191210

POLICE - OVER COU ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

AS V1 TURNED RIGHT V2 MOVED OFF INTO V1'S PATH, CAUSING COLLISION.

CASUALTY 001 (001) (27 Yrs - M HA7) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (27 Yrs - M HA7) TURNING RIGHT E TO N LEAVING MAIN RD
BT - DRV NOT CONTACTED O/S HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - M UNKN) MOVING OFF N TO S ENTERING MAIN RD
BT - DRV NOT CONTACTED FRONT HIT FIRST

V002 A 402 (JUNCTION RESTART) V002 A 405 (FAILED TO LOOK PROPERLY)

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46 0113QA10180 FRI 24/05/13 16:53 LIGHT NFL - WHITCHURCH LANE, 74M WEST OF JUNCTION WITH LONGCROFTE ROAD 29 LINK 104-108 517820 / 191190

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M CENTRAL REFUGE

V1 WAS OVERTAKING A PARKED BUS ON IT'S OFFSIDE WHEN C1 STARTED TO CROSS THE ROAD IN FRONT OF THE BUS & WAS HIT BY V1

CASUALTY 001 (001) (11 Yrs - F HA7) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) S BOUND FROM DRIVERS N/SIDE

VEHICLE 001 (000) CAR (37 Yrs - F HA8) OVERTAKE STAT VEH O/S W TO E
BT - NOT REQUESTED FRONT HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 B 803 (FAILED TO JUDGE VEHICLE'S PATH OR SPEED)
V001 B 405 (FAILED TO LOOK PROPERLY) V001 A 701 (VISION AFFECTED - STATIONARY OR PARKED VEHICLE(S))

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

47 0113QA10313 TUE 03/09/13 17:55 LIGHT NFL - ST ANDREWS DRIVE 35M SOUTH OF J/W WEMBOROUGH RD 29 LINK 180-651 517280 / 190970
POLICE - OVER COU ROAD-DRY WEATHER-FINE ONE-WAY ST NO JUN IN 20M NO XING FACILITY IN 50M
V2 COLLIDED WITH REAR OF V1.

CASUALTY 001 (001) (22 Yrs - M HA7) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (22 Yrs - M HA7) SLOWING OR STOPPING S TO N
BT - DRV NOT CONTACTED BACK HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - M UNKN) SLOWING OR STOPPING S TO N
BT - DRV NOT CONTACTED SKIDDED FRONT HIT FIRST

V002 A 308 (FOLLOWING TOO CLOSE)
V002 A 405 (FAILED TO LOOK PROPERLY)

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48 0113QA10361 FRI 04/10/13 08:43 LIGHT ABERCORN ROAD, 60 METRES NORTH EAST OF WEMBOROUGH ROAD. 29 LINK 179-180 517260 / 191060
POLICE - OVER COU ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M ZEBRA
PED. WAS CROSSING THE ROAD ON ZEBRA CROSSING & WAS HIT BY ON-COMING V.1.

CASUALTY 001 (001) (9 Yrs - M HA7) SLIGHT PEDESTRIAN CROSSING ROAD ON PED XING W BOUND FROM DRIVERS O/SIDE
JOURNEY TO/FROM SCHOOL Sch Attended : STANBURN SCHOOL

VEHICLE 001 (000) CAR (? Yrs - F UNKN) GOING AHEAD OTHER S TO N
BT - DRV NOT CONTACTED FRONT HIT FIRST

V001 A 304 (DISOBEYED PEDESTRIAN CROSSING FACILITY)
V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 602 (CARELESS/RECKLESS/IN A HURRY)
V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)

End of Accidents for .001 GIS AREA Wemborough area (P)

End of Report

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

Summary of Accidents Selected

Site Reference and Description (zero accident counts shown in bold)	Date Period	Accidents
.001 GIS AREA Wemborough area (P)	60 MTS TO NOV-2013	48

The description of how the accident occurred and the contributory factors are the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) — 60 MTS TO NOV-2013 SORTED BY DATE

	1	2	3	4	5	6	7	8	9	10
Accident Reference	0108QA10450	0108QA10470	0108QA10469	0108QA10475	0109QA10062	0109QA10159	0109QA10216	0109QA10383	0109QA10406	0109QA10436
Day	MONDAY	SATURDAY	TUESDAY	SATURDAY	FRIDAY	TUESDAY	WEDNESDAY	WEDNESDAY	SUNDAY	TUESDAY
Date	15/12/2008	20/12/2008	23/12/2008	27/12/2008	09/01/2009	28/04/2009	10/06/2009	30/09/2009	25/10/2009	10/11/2009
Time	16:20	21:50	17:27	09:30	08:39	08:17	10:45	10:51	17:58	06:30
Light Conditions	DARK	DARK	DARK	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT	DARK	DARK
Road Surface	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	DRY
Severity	SLIGHT	SERIOUS	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT
Conflict										
Pedestrian Location	0		X		0					
Contributory Factors (* denotes pre 2005)	801 C001 A 802 C001 A	302 V001 A 405 V001 A 602 V001 A	802 C001 A 803 C001 A 804 C001 A 808 C001 A	405 V001 A 706 V001 A	802 C001 A 808 C001 A	307 V003 A 405 V003 A 603 V003 A	308 V002 A 307 V002 A 404 V001 B	405 V001 A 307 V001 A 602 V001 A	405 V002 A 602 V002 A 601 V002 B 403 V002 A	405 V001 A 602 V001 A
Easting/Northing	517960 191200	518160 191220	518200 191220	517790 191070	518140 191230	517720 191190	517350 191040	518220 191230	517780 191080	518030 191210

Pedestrian	19	40 %
Wet	12	25 %
Dark	14	29 %

Site Diagram

Severity / Months To	12 11/2009	12 11/2010	12 11/2011	12 11/2012	12 11/2013	Total	Pct
Fatal	0	0	0	0	0	**0**	**0.0 %**
Serious	1	0	0	1	0	**2**	**4.2 %**
Slight	9	15	10	6	6	**46**	**95.8 %**
Total	**10**	**15**	**10**	**7**	**6**	**48**	
Pct	**20.8 %**	**31.3 %**	**20.8 %**	**14.6 %**	**12.5 %**		

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

	11	12	13	14	15	16	17	18	19	20
Accident Reference	0109QA10485	0110QA10065	0110QA10025	0110QA10033	0110QA10060	0110QA10061	0110QA10139	0110QA10144	0110QA10395	0110QA10345
Day	SUNDAY	FRIDAY	TUESDAY	MONDAY	FRIDAY	SATURDAY	TUESDAY	TUESDAY	WEDNESDAY	THURSDAY
Date	13/12/2009	01/01/2010	26/01/2010	01/02/2010	26/02/2010	27/02/2010	27/04/2010	11/05/2010	25/08/2010	09/09/2010
Time	22:02	08:46	18:20	00:07	08:16	14:00	14:40	15:35	15:42	18:20
Light Conditions	DARK	LIGHT	DARK	DARK	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT
Road Surface	DRY	DRY	DRY	DRY	WET	WET	DRY	DRY	DRY	DRY
Severity	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT
Conflict										
Pedestrian Location			0		0	50M	X	50M	0	
Contributory Factors (* denotes pre 2005)	403 V002 A 405 V002 A	405 V002 A 602 V002 A	802 C001 A 808 C001 A	306 V002 B 405 V001 A 406 V001 A 602 V001 A	407 V001 A 602 V001 B 405 V001 B	801 C001 A 801 C002 A	802 C001 A 808 C001 A 801 C001 A	804 C001 A 802 C001 A	802 C001 A 808 C001 A	403 V001 A 405 V001 A
Easting/Northing	517820 191030	517730 191190	517770 191090	518030 191210	518130 191230	517750 191190	517750 191190	517760 191190	517780 191190	517830 191040

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) — 60 MTS TO NOV-2013 SORTED BY DATE

	21	22	23	24	25	26	27	28	29	30
Accident Reference	0110QA10410	0110QA10448	0110QA10464	0110QA10474	0110QA10460	0110QA10484	0111QA10051	0111QA10104	0111QA10125	0111QA10135
Day	WEDNESDAY	TUESDAY	THURSDAY	MONDAY	WEDNESDAY	THURSDAY	TUESDAY	FRIDAY	SATURDAY	MONDAY
Date	06/10/2010	02/11/2010	11/11/2010	15/11/2010	24/11/2010	02/12/2010	15/03/2011	22/04/2011	07/05/2011	16/05/2011
Time	07:40	07:45	19:30	17:52	15:45	18:05	09:05	09:30	18:00	10:23
Light Conditions	LIGHT	LIGHT	DARK	DARK	LIGHT	DARK	LIGHT	LIGHT	LIGHT	LIGHT
Road Surface	WET	WET	WET	WET	DRY	FROST/ICE	DRY	DRY	DRY	DRY
Severity	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT
Conflict										
Pedestrian Location					0	0		50M	X	
Contributory Factors (* denotes pre 2005)	308 V001 A 405 V001 A 406 V001 A 602 V001 A	409 V001 A 410 V001 A	408 V002 B 308 V002 B	405 V003 A 406 V003 B 308 V003 B	801 C001 A 701 V001 B 802 C001 A 808 C001 B	410 V001 A 503 V001 A	302 V002 A 405 V002 A 602 V002 A	801 C001 A 802 C001 A	405 V001 A 602 V001 A 802 C001 A 808 C001 A	410 V001 A
Easting/Northing	517730 191190	517580 191560	518160 191220	517860 191190	517540 191110	517850 191180	517570 191130	517790 191190	517730 191190	517880 191230

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

	31	32	33	34	35	36	37	38	39	40
Accident Reference	0111QA10129	0111QA10149	0111TB01130	0111QA10184	0111QA10284	0112QA10180	0112QA10186	0112QA10199	0112QA10213	0112QA10259
Day	THURSDAY	THURSDAY	MONDAY	THURSDAY	MONDAY	THURSDAY	TUESDAY	FRIDAY	THURSDAY	TUESDAY
Date	19/05/2011	26/05/2011	27/06/2011	07/07/2011	26/09/2011	07/06/2012	12/06/2012	15/06/2012	28/06/2012	07/08/2012
Time	16:57	09:00	14:16	19:49	16:03	22:18	15:40	08:34	22:10	15:10
Light Conditions	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT	DARK	LIGHT	LIGHT	DARK	LIGHT
Road Surface	DRY	DRY	DRY	DRY	DRY	WET	DRY	WET	DRY	DRY
Severity	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SERIOUS
Conflict										
Pedestrian Location							0	0		
Contributory Factors (* denotes pre 2005)	410 V001 A 409 V001 A	405 V002 A 302 V002 A	405 V002 A 406 V002 A 602 V002 A	405 V001 A 302 V001 A	406 V001 A 403 V001 A 602 V001 A 405 V002 A	405 V001 A 302 V001 A	802 C001 A 803 C001 A	405 V001 A 802 C001 A	405 V001 A 406 V001 A 602 V001 A	405 V002 B 408 V002 A 405 V001 A 308 V001 A
Easting/Northing	517570 191130	517570 191130	518040 191210	517890 191190	517740 191180	517280 190990	517280 190990	517360 191020	517740 191190	517740 191170

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

.001 GIS AREA Wemborough area (P) 60 MTS TO NOV-2013 SORTED BY DATE

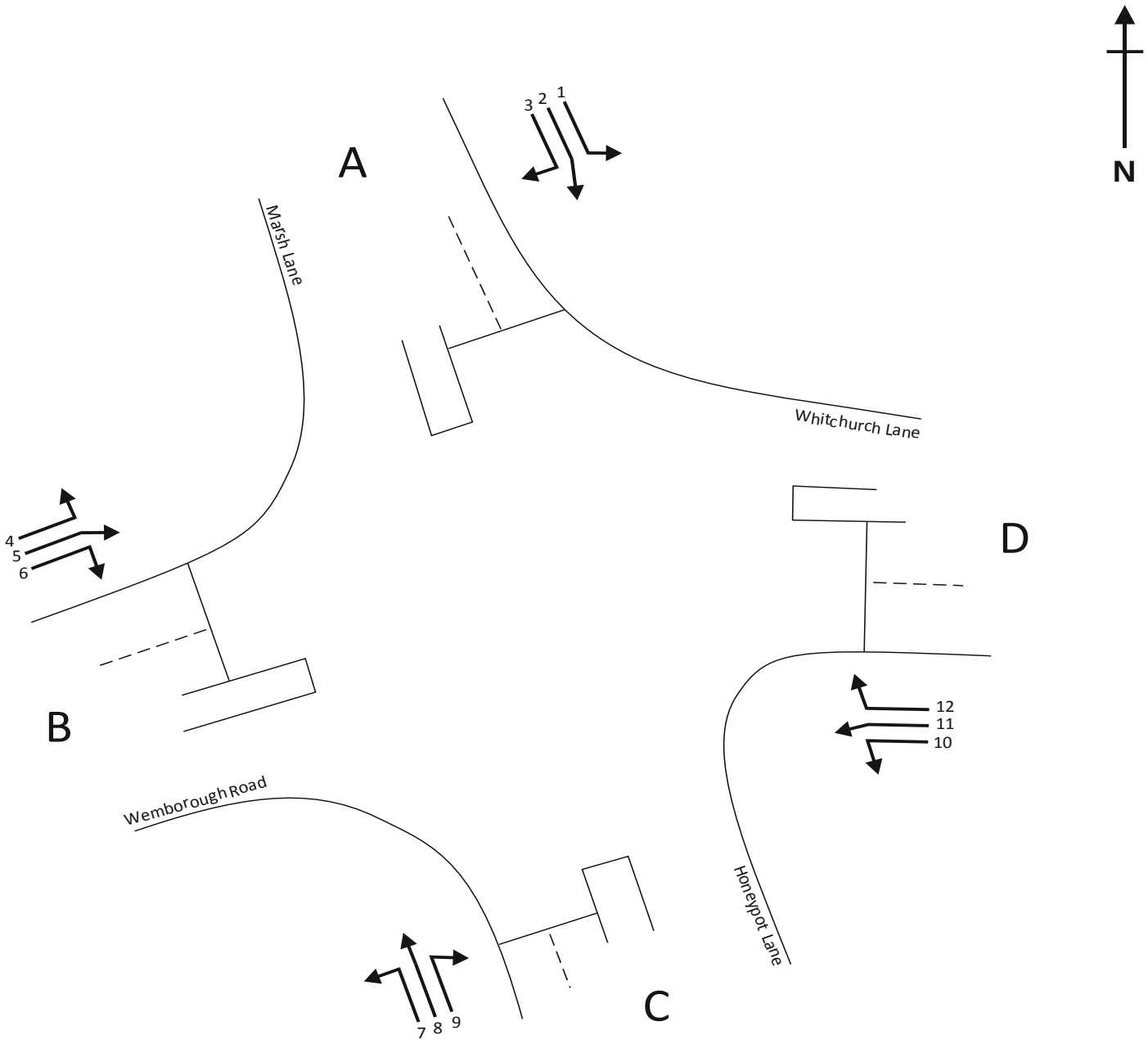
	41	42	43	44	45	46	47	48
Accident Reference	0112QA10315	0112QA10325	0113QA10077	0113QA10080	0113QA10177	0113QA10180	0113QA10313	0113QA10361
Day	WEDNESDAY	WEDNESDAY	SUNDAY	MONDAY	MONDAY	FRIDAY	TUESDAY	FRIDAY
Date	12/09/2012	26/09/2012	17/02/2013	11/03/2013	13/05/2013	24/05/2013	03/09/2013	04/10/2013
Time	17:16	07:26	21:03	07:20	17:38	16:53	17:55	08:43
Light Conditions	LIGHT	LIGHT	DARK	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT
Road Surface	DRY	WET	DRY	DRY	DRY	DRY	DRY	DRY
Severity	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT
Conflict								
Pedestrian Location	0	0				0		X
Contributory Factors (* denotes pre 2005)	405 V001 A 802 C001 A	802 C001 A 808 C001 A	406 V001 A 602 V001 B 405 V001 A 408 V002 B	403 V002 A 405 V002 A 407 V002 A	402 V002 A 405 V002 A	802 C001 A 803 C001 B 405 V001 B 701 V001 A	308 V002 A 405 V002 A	304 V001 A 405 V001 A 602 V001 A 406 V001 A
Easting/Northing	517650 191380	517780 191070	517740 191190	517730 191190	518030 191210	517820 191190	517280 190970	517260 191060

Personal injury collisions 60 months to 30 Nov 2013 for Whitchurch First and Middle Schools area, (PROVISIONAL)

Scale : 1:3500

Created: 17-MAR-2014

APPENDIX 5



AXIOM Traffic Limited

For and on behalf of:

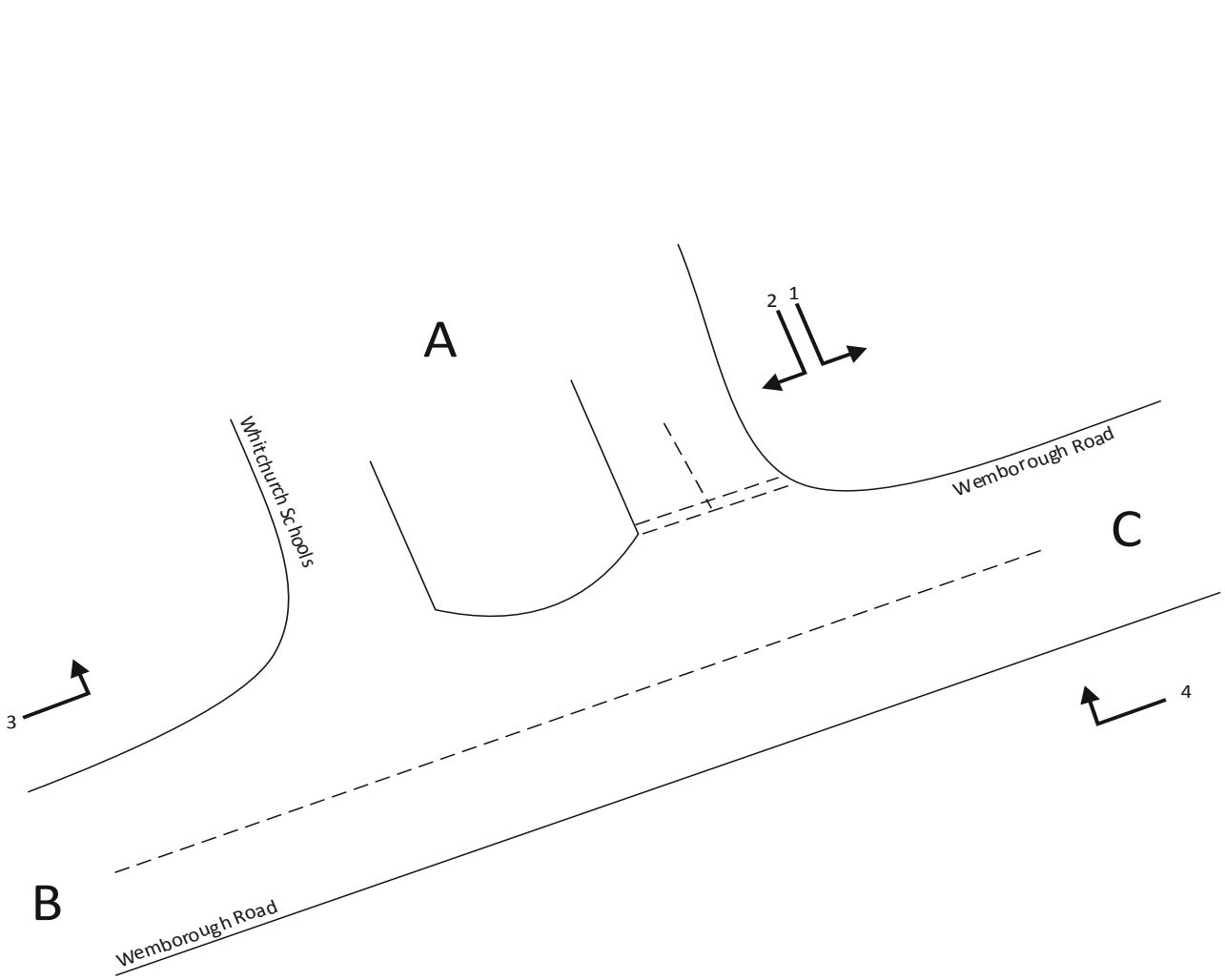
MILESTONE TRANSPORT PLANNING

WHITCHURCH FIELDS

Wednesday 18 June 2014

0700-1000
1600-1900

Drawing N°:	**17658 - 01**
Site:	**1**
Location:	**Marsh Lane / Wemborough Road / Honeypot Lane / Whitchurch Lane**



AXIOM Traffic Limited

For and on behalf of:

MILESTONE TRANSPORT PLANNING

WHITCHURCH FIELDS

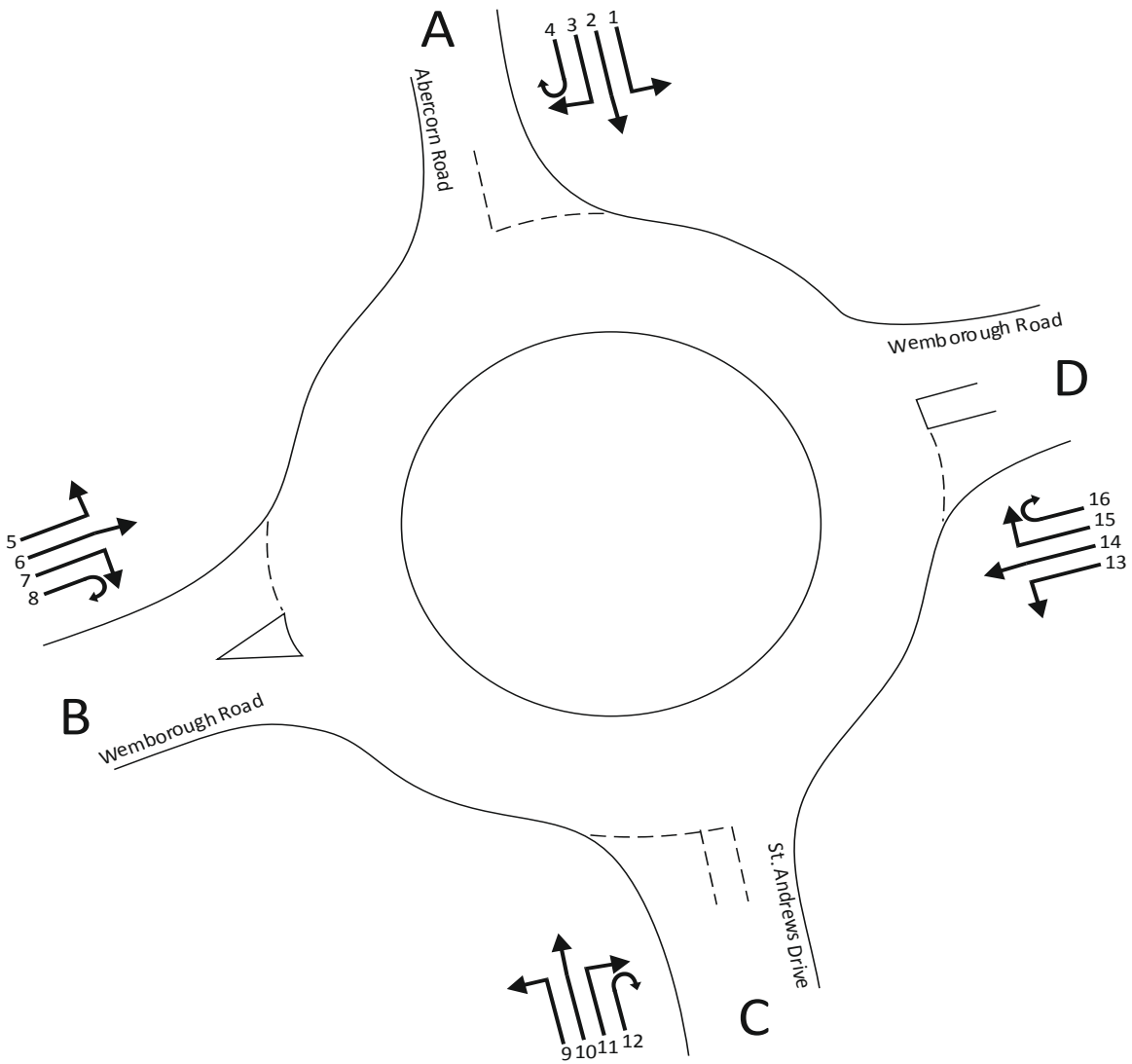
Wednesday 18 June 2014

0700-1000
1600-1900

Drawing N°: **17658 - 02**

Site: **2**

Location: **Whitchurch Schools / Wemborough Road**



AXIOM Traffic Limited

For and on behalf of:

MILESTONE TRANSPORT PLANNING

WHITCHURCH FIELDS

Wednesday 18 June 2014

0700-1000
1600-1900

Drawing N°: **17658 - 03**

Site: **3**

Location: **Abercorn Road / Wemborough Road / St. Andrews Drive**

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 1 FROM MARSH LANE TO WHITCHURCH LANE							MOVEMENT 2 FROM MARSH LANE TO HONEYPOT LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	12	1	2	1	0	1	17	61	18	4	1	1	2	87
7:15	11	6	0	2	1	1	21	82	18	3	3	1	1	108
7:30	18	3	0	1	0	1	23	83	7	5	0	3	1	99
7:45	33	1	0	2	0	0	36	104	16	4	3	0	0	127
H/TOT	74	11	2	6	1	3	97	330	59	16	7	5	4	421
8:00	23	0	0	0	0	0	23	95	13	4	3	0	1	116
8:15	27	3	0	2	0	0	32	115	16	4	0	1	1	137
8:30	19	2	0	1	0	0	22	100	9	4	2	0	0	115
8:45	19	0	0	4	0	0	23	107	15	0	1	0	0	123
H/TOT	88	5	0	7	0	0	100	417	53	12	6	1	2	491
9:00	13	3	0	0	0	0	16	79	14	1	1	0	0	95
9:15	17	3	1	2	0	1	24	104	15	3	4	0	0	126
9:30	15	2	0	2	0	0	19	61	16	6	0	0	0	83
9:45	14	1	0	1	0	1	17	80	16	4	0	1	0	101
H/TOT	59	9	1	5	0	2	76	324	61	14	5	1	0	405
P/TOT	221	25	3	18	1	5	273	1071	173	42	18	7	6	1317

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 1 FROM MARSH LANE TO WHITCHURCH LANE							MOVEMENT 2 FROM MARSH LANE TO HONEYPOT LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	15	3	0	2	0	0	20	57	5	3	0	1	0	66
16:15	10	1	0	1	0	0	12	74	9	6	1	0	0	90
16:30	6	2	0	2	0	0	10	48	4	9	1	0	0	62
16:45	13	1	0	3	1	0	18	64	10	6	0	2	1	83
H/TOT	44	7	0	8	1	0	60	243	28	24	2	3	1	301
17:00	10	3	0	2	0	0	15	92	13	0	0	0	0	105
17:15	17	2	0	2	0	0	21	72	14	3	0	2	0	91
17:30	8	2	0	1	1	0	12	81	9	3	0	1	0	94
17:45	6	2	0	1	0	0	9	85	8	4	1	1	0	99
H/TOT	41	9	0	6	1	0	57	330	44	10	1	4	0	389
18:00	11	2	0	2	0	0	15	77	5	2	1	0	0	85
18:15	9	1	0	1	0	0	11	88	5	3	0	2	2	100
18:30	12	0	0	2	0	0	14	84	7	1	0	0	3	95
18:45	9	1	0	2	0	0	12	76	4	3	0	3	0	86
H/TOT	41	4	0	7	0	0	52	325	21	9	1	5	5	366
P/TOT	126	20	0	21	2	0	169	898	93	43	4	12	6	1056

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 3 FROM MARSH LANE TO WEMBOROUGH ROAD							MOVEMENT 4 FROM WEMBOROUGH ROAD TO MARSH LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	10	0	2	1	1	0	14	5	1	1	0	0	0	7
7:15	5	1	0	0	0	0	6	14	3	0	0	0	0	17
7:30	17	2	0	0	0	0	19	11	2	0	0	0	0	13
7:45	18	1	0	0	0	0	19	10	0	0	1	0	1	12
H/TOT	50	4	2	1	1	0	58	40	6	1	1	0	1	49
8:00	13	2	0	0	0	0	15	10	3	1	1	0	0	15
8:15	25	8	2	0	0	1	36	7	0	1	0	0	0	8
8:30	34	3	2	1	0	0	40	14	1	0	0	0	0	15
8:45	17	1	0	1	1	0	20	11	1	0	0	0	0	12
H/TOT	89	14	4	2	1	1	111	42	5	2	1	0	0	50
9:00	15	2	1	0	0	0	18	16	0	0	0	0	0	16
9:15	21	1	1	0	1	0	24	12	2	2	0	0	0	16
9:30	12	4	1	0	0	0	17	6	4	1	0	0	0	11
9:45	20	4	0	0	0	0	24	17	2	0	1	0	0	20
H/TOT	68	11	3	0	1	0	83	51	8	3	1	0	0	63
P/TOT	207	29	9	3	3	1	252	133	19	6	3	0	1	162

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 3 FROM MARSH LANE TO WEMBOROUGH ROAD							MOVEMENT 4 FROM WEMBOROUGH ROAD TO MARSH LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	29	9	0	0	1	0	39	9	3	1	0	0	0	13
16:15	19	1	0	0	0	0	20	8	3	1	0	0	0	12
16:30	19	2	2	1	0	0	24	14	3	0	0	0	0	17
16:45	13	0	0	0	0	0	13	15	2	1	0	0	0	18
H/TOT	80	12	2	1	1	0	96	46	11	3	0	0	0	60
17:00	9	1	0	0	0	0	10	7	0	1	0	1	0	9
17:15	17	3	0	0	0	0	20	19	1	0	1	0	0	21
17:30	10	0	2	0	0	0	12	17	0	0	0	1	0	18
17:45	19	1	0	0	0	0	20	19	4	0	0	0	0	23
H/TOT	55	5	2	0	0	0	62	62	5	1	1	2	0	71
18:00	17	0	0	0	0	0	17	14	1	0	0	0	0	15
18:15	14	1	0	0	0	0	15	24	0	0	0	0	0	24
18:30	22	2	1	0	1	0	26	14	3	0	0	1	0	18
18:45	17	3	0	0	1	0	21	8	4	0	0	0	0	12
H/TOT	70	6	1	0	2	0	79	60	8	0	0	1	0	69
P/TOT	205	23	5	1	3	0	237	168	24	4	1	3	0	200

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 5 FROM WEMBOROUGH ROAD TO WHITCHURCH LANE							MOVEMENT 6 FROM WEMBOROUGH ROAD TO HONEYPOT LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	76	13	2	1	1	4	97	24	12	1	1	0	0	38
7:15	115	17	1	1	0	0	134	27	5	0	0	0	0	32
7:30	96	9	2	5	1	1	114	24	11	1	0	0	0	36
7:45	108	8	1	1	2	1	121	18	2	0	0	1	0	21
H/TOT	395	47	6	8	4	6	466	93	30	2	1	1	0	127
8:00	121	6	1	3	1	0	132	22	3	0	1	0	0	26
8:15	94	5	1	2	1	1	104	26	3	0	0	0	0	29
8:30	78	6	1	3	0	1	89	30	0	0	0	0	0	30
8:45	77	2	0	2	0	1	82	19	3	1	0	0	0	23
H/TOT	370	19	3	10	2	3	407	97	9	1	1	0	0	108
9:00	106	11	1	1	3	0	122	24	4	0	0	0	0	28
9:15	72	5	1	1	1	0	80	23	3	1	0	0	0	27
9:30	64	8	1	1	2	0	76	25	4	2	0	1	0	32
9:45	63	10	1	2	0	0	76	24	3	1	1	0	0	29
H/TOT	305	34	4	5	6	0	354	96	14	4	1	1	0	116
P/TOT	1070	100	13	23	12	9	1227	286	53	7	3	2	0	351

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 5 FROM WEMBOROUGH ROAD TO WHITCHURCH LANE							MOVEMENT 6 FROM WEMBOROUGH ROAD TO HONEYPOT LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	77	5	1	3	1	1	88	22	4	0	1	0	0	27
16:15	72	11	0	1	0	0	84	23	1	2	0	1	0	27
16:30	84	14	2	1	0	1	102	30	7	3	0	0	0	40
16:45	87	8	0	1	1	1	98	27	8	1	0	0	0	36
H/TOT	320	38	3	6	2	3	372	102	20	6	1	1	0	130
17:00	83	4	0	2	1	0	90	23	3	0	0	0	0	26
17:15	97	10	1	1	1	0	110	18	6	0	0	1	0	25
17:30	106	11	0	1	0	2	120	24	6	1	0	0	0	31
17:45	89	6	1	1	0	1	98	26	3	0	0	0	0	29
H/TOT	375	31	2	5	2	3	418	91	18	1	0	1	0	111
18:00	78	8	1	2	1	0	90	22	5	0	0	0	0	27
18:15	87	3	1	1	0	0	92	23	1	2	1	0	0	27
18:30	77	2	0	1	0	2	82	23	2	0	0	0	0	25
18:45	78	6	0	1	3	0	88	27	2	0	0	0	0	29
H/TOT	320	19	2	5	4	2	352	95	10	2	1	0	0	108
P/TOT	1015	88	7	16	8	8	1142	288	48	9	2	2	0	349

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 7 FROM HONEYPOT LANE TO WEMBOROUGH ROAD							MOVEMENT 8 FROM HONEYPOT LANE TO MARSH LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	4	3	0	0	0	0	7	42	11	5	1	1	0	60
7:15	8	3	0	0	0	0	11	58	18	0	1	0	1	78
7:30	8	5	1	0	0	0	14	57	7	6	3	2	1	76
7:45	16	7	2	0	0	0	25	76	9	2	1	1	1	90
H/TOT	36	18	3	0	0	0	57	233	45	13	6	4	3	304
8:00	14	0	1	0	0	0	15	68	8	0	1	0	0	77
8:15	14	1	1	0	0	0	16	82	12	6	0	0	0	100
8:30	14	2	1	1	0	0	18	83	11	2	0	1	0	97
8:45	13	2	0	0	0	0	15	86	14	4	0	0	0	104
H/TOT	55	5	3	1	0	0	64	319	45	12	1	1	0	378
9:00	17	4	0	0	0	0	21	72	13	3	0	0	1	89
9:15	13	4	3	0	0	0	20	63	5	3	0	1	0	72
9:30	22	5	1	0	0	0	28	55	16	2	1	0	1	75
9:45	13	2	1	0	0	0	16	52	6	5	0	1	0	64
H/TOT	65	15	5	0	0	0	85	242	40	13	1	2	2	300
P/TOT	156	38	11	1	0	0	206	794	130	38	8	7	5	982

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 7 FROM HONEYPOT LANE TO WEMBOROUGH ROAD							MOVEMENT 8 FROM HONEYPOT LANE TO MARSH LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	28	10	3	0	1	0	42	77	19	5	3	2	0	106
16:15	29	5	1	0	0	0	35	67	11	4	1	1	0	84
16:30	42	6	1	0	0	0	49	78	14	5	1	2	0	100
16:45	41	7	1	1	0	0	50	60	12	1	0	4	0	77
H/TOT	140	28	6	1	1	0	176	282	56	15	5	9	0	367
17:00	43	5	1	1	2	1	53	83	13	4	1	0	1	102
17:15	50	7	0	0	2	0	59	74	15	3	0	2	0	94
17:30	30	5	1	0	0	0	36	85	11	0	0	4	0	100
17:45	43	7	0	0	0	1	51	68	13	0	0	1	1	83
H/TOT	166	24	2	1	4	2	199	310	52	7	1	7	2	379
18:00	42	2	2	1	1	0	48	87	18	1	0	0	1	107
18:15	41	6	0	0	1	0	48	79	5	1	0	0	0	85
18:30	40	5	0	0	1	0	46	67	12	2	0	1	1	83
18:45	31	5	0	0	0	0	36	85	7	0	0	2	0	94
H/TOT	154	18	2	1	3	0	178	318	42	4	0	3	2	369
P/TOT	460	70	10	3	8	2	553	910	150	26	6	19	4	1115

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 9 FROM HONEYPOT LANE TO WHITCHURCH LANE							MOVEMENT 10 FROM WHITCHURCH LANE TO HONEYPOT LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	20	2	1	2	0	0	25	9	2	2	1	0	0	14
7:15	25	6	0	1	0	0	32	17	7	1	2	1	1	29
7:30	33	5	1	0	0	0	39	19	5	2	1	1	1	29
7:45	47	2	2	5	0	0	56	21	5	1	1	0	1	29
H/TOT	125	15	4	8	0	0	152	66	19	6	5	2	3	101
8:00	42	7	0	2	0	0	51	25	4	1	1	0	0	31
8:15	46	5	1	1	0	0	53	34	1	1	3	2	0	41
8:30	39	4	2	3	1	0	49	24	5	3	1	0	1	34
8:45	39	3	2	2	0	0	46	35	6	1	1	0	0	43
H/TOT	166	19	5	8	1	0	199	118	16	6	6	2	1	149
9:00	43	8	1	2	0	1	55	18	4	2	2	0	0	26
9:15	22	6	1	1	0	0	30	23	2	1	1	1	0	28
9:30	28	4	3	1	0	0	36	20	7	1	2	0	0	30
9:45	19	5	2	2	2	0	30	19	6	3	2	1	0	31
H/TOT	112	23	7	6	2	1	151	80	19	7	7	2	0	115
P/TOT	403	57	16	22	3	1	502	264	54	19	18	6	4	365

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 9 FROM HONEYPOT LANE TO WHITCHURCH LANE							MOVEMENT 10 FROM WHITCHURCH LANE TO HONEYPOT LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	35	7	0	1	0	0	43	22	5	1	1	1	0	30
16:15	39	6	2	2	1	0	50	27	6	0	1	0	0	34
16:30	38	3	2	2	0	0	45	19	2	0	1	1	0	23
16:45	30	6	0	1	0	0	37	30	4	0	1	1	0	36
H/TOT	142	22	4	6	1	0	175	98	17	1	4	3	0	123
17:00	45	7	0	1	0	0	53	18	2	2	2	0	0	24
17:15	36	3	0	1	0	0	40	21	4	0	1	0	0	26
17:30	28	5	0	2	0	0	35	37	6	1	1	0	0	45
17:45	40	4	2	0	0	0	46	13	3	0	1	0	0	17
H/TOT	149	19	2	4	0	0	174	89	15	3	5	0	0	112
18:00	46	8	0	2	0	0	56	25	1	1	1	0	0	28
18:15	29	3	1	1	0	0	34	28	4	2	2	0	0	36
18:30	39	1	0	1	0	0	41	27	2	0	1	0	0	30
18:45	23	3	0	1	1	0	28	19	2	0	1	0	0	22
H/TOT	137	15	1	5	1	0	159	99	9	3	5	0	0	116
P/TOT	428	56	7	15	2	0	508	286	41	7	14	3	0	351

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 11 FROM WHITCHURCH LANE TO WEMBOROUGH ROAD							MOVEMENT 12 FROM WHITCHURCH LANE TO MARSH LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	33	7	0	3	0	0	43	5	1	0	1	0	0	7
7:15	58	16	1	1	0	0	76	5	2	0	2	1	0	10
7:30	73	10	0	1	0	1	85	12	2	1	2	0	0	17
7:45	65	6	1	3	1	0	76	6	2	1	5	0	0	14
H/TOT	229	39	2	8	1	1	280	28	7	2	10	1	0	48
8:00	77	11	3	0	2	1	94	11	1	2	1	0	1	16
8:15	62	7	1	1	0	2	73	9	1	0	2	0	0	12
8:30	65	5	0	4	1	2	77	11	1	0	1	0	0	13
8:45	58	7	3	2	1	0	71	14	1	1	1	1	0	18
H/TOT	262	30	7	7	4	5	315	45	4	3	5	1	1	59
9:00	54	13	0	6	1	0	74	12	1	1	1	0	0	15
9:15	40	7	3	2	0	0	52	7	0	0	0	0	0	7
9:30	39	9	1	2	0	0	51	9	5	0	2	0	0	16
9:45	36	9	2	5	0	1	53	5	2	0	1	0	0	8
H/TOT	169	38	6	15	1	1	230	33	8	1	4	0	0	46
P/TOT	660	107	15	30	6	7	825	106	19	6	19	2	1	153

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	MOVEMENT 11 FROM WHITCHURCH LANE TO WEMBOROUGH ROAD							MOVEMENT 12 FROM WHITCHURCH LANE TO MARSH LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	68	11	1	1	0	0	81	23	1	0	2	1	0	27
16:15	71	12	2	3	1	1	90	13	1	0	1	0	0	15
16:30	65	12	0	1	0	0	78	19	1	0	1	0	0	21
16:45	62	5	0	1	1	1	70	25	1	0	1	0	0	27
H/TOT	266	40	3	6	2	2	319	80	4	0	5	1	0	90
17:00	64	10	2	3	1	1	81	11	0	0	2	0	0	13
17:15	90	6	0	0	1	1	98	16	2	0	1	1	0	20
17:30	77	12	1	2	0	2	94	22	0	0	1	0	0	23
17:45	69	10	2	0	1	1	83	13	2	0	2	0	0	17
H/TOT	300	38	5	5	3	5	356	62	4	0	6	1	0	73
18:00	67	12	2	2	1	1	85	18	1	0	1	0	1	21
18:15	83	12	0	0	1	0	96	13	2	0	2	1	1	19
18:30	65	10	0	2	0	0	77	21	0	1	1	0	1	24
18:45	88	8	0	1	0	2	99	17	1	0	1	0	0	19
H/TOT	303	42	2	5	2	3	357	69	4	1	5	1	3	83
P/TOT	869	120	10	16	7	10	1032	211	12	1	16	3	3	246

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	TO ARM A MARSH LANE							FROM ARM A MARSH LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	52	13	6	2	1	0	74	83	19	8	3	2	3	118
7:15	77	23	0	3	1	1	105	98	25	3	5	2	2	135
7:30	80	11	7	5	2	1	106	118	12	5	1	3	2	141
7:45	92	11	3	7	1	2	116	155	18	4	5	0	0	182
H/TOT	301	58	16	17	5	4	401	454	74	20	14	7	7	576
8:00	89	12	3	3	0	1	108	131	15	4	3	0	1	154
8:15	98	13	7	2	0	0	120	167	27	6	2	1	2	205
8:30	108	13	2	1	1	0	125	153	14	6	4	0	0	177
8:45	111	16	5	1	1	0	134	143	16	0	6	1	0	166
H/TOT	406	54	17	7	2	1	487	594	72	16	15	2	3	702
9:00	100	14	4	1	0	1	120	107	19	2	1	0	0	129
9:15	82	7	5	0	1	0	95	142	19	5	6	1	1	174
9:30	70	25	3	3	0	1	102	88	22	7	2	0	0	119
9:45	74	10	5	2	1	0	92	114	21	4	1	1	1	142
H/TOT	326	56	17	6	2	2	409	451	81	18	10	2	2	564
P/TOT	1033	168	50	30	9	7	1297	1499	227	54	39	11	12	1842

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	TO ARM A MARSH LANE							FROM ARM A MARSH LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
11:00	109	23	6	5	3	0	146	101	17	3	2	2	0	125
16:15	88	15	5	2	1	0	111	103	11	6	2	0	0	122
16:30	111	18	5	2	2	0	138	73	8	11	4	0	0	96
16:45	100	15	2	1	4	0	122	90	11	6	3	3	1	114
H/TOT	408	71	18	10	10	0	517	367	47	26	11	5	1	457
17:00	101	13	5	3	1	1	124	111	17	0	2	0	0	130
17:15	109	18	3	2	3	0	135	106	19	3	2	2	0	132
17:30	124	11	0	1	5	0	141	99	11	5	1	2	0	118
17:45	100	19	0	2	1	1	123	110	11	4	2	1	0	128
H/TOT	434	61	8	8	10	2	523	426	58	12	7	5	0	508
18:00	119	20	1	1	0	2	143	105	7	2	3	0	0	117
18:15	116	7	1	2	1	1	128	111	7	3	1	2	2	126
18:30	102	15	3	1	2	2	125	118	9	2	2	1	3	135
18:45	110	12	0	1	2	0	125	102	8	3	2	4	0	119
H/TOT	447	54	5	5	5	5	521	436	31	10	8	7	5	497
P/TOT	1289	186	31	23	25	7	1561	1229	136	48	26	17	6	1462

TO ARM A IS TOTAL OF MOVEMENTS 4, 8, 12

FROM ARM A IS TOTAL OF MOVEMENTS 1, 2, 3

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	TO ARM B WEMBOROUGH ROAD							FROM ARM B WEMBOROUGH ROAD						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	47	10	2	4	1	0	64	105	26	4	2	1	4	142
7:15	71	20	1	1	0	0	93	156	25	1	1	0	0	183
7:30	98	17	1	1	0	1	118	131	22	3	5	1	1	163
7:45	99	14	3	3	1	0	120	136	10	1	2	3	2	154
H/TOT	315	61	7	9	2	1	395	528	83	9	10	5	7	642
8:00	104	13	4	0	2	1	124	153	12	2	5	1	0	173
8:15	101	16	4	1	0	3	125	127	8	2	2	1	1	141
8:30	113	10	3	6	1	2	135	122	7	1	3	0	1	134
8:45	88	10	3	3	2	0	106	107	6	1	2	0	1	117
H/TOT	406	49	14	10	5	6	490	509	33	6	12	2	3	565
9:00	86	19	1	6	1	0	113	146	15	1	1	3	0	166
9:15	74	12	7	2	1	0	96	107	10	4	1	1	0	123
9:30	73	18	3	2	0	0	96	95	16	4	1	3	0	119
9:45	69	15	3	5	0	1	93	104	15	2	4	0	0	125
H/TOT	302	64	14	15	2	1	398	452	56	11	7	7	0	533
P/TOT	1023	174	35	34	9	8	1283	1489	172	26	29	14	10	1740

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	TO ARM B WEMBOROUGH ROAD							FROM ARM B WEMBOROUGH ROAD						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	125	30	4	1	2	0	162	108	12	2	4	1	1	128
16:15	119	18	3	3	1	1	145	103	15	3	1	1	0	123
16:30	126	20	3	2	0	0	151	128	24	5	1	0	1	159
16:45	116	12	1	2	1	1	133	129	18	2	1	1	1	152
H/TOT	486	80	11	8	4	2	591	468	69	12	7	3	3	562
17:00	116	16	3	4	3	2	144	113	7	1	2	2	0	125
17:15	157	16	0	0	3	1	177	134	17	1	2	2	0	156
17:30	117	17	4	2	0	2	142	147	17	1	1	1	2	169
17:45	131	18	2	0	1	2	154	134	13	1	1	0	1	150
H/TOT	521	67	9	6	7	7	617	528	54	4	6	5	3	600
18:00	126	14	4	3	2	1	150	114	14	1	2	1	0	132
18:15	138	19	0	0	2	0	159	134	4	3	2	0	0	143
18:30	127	17	1	2	2	0	149	114	7	0	1	1	2	125
18:45	136	16	0	1	1	2	156	113	12	0	1	3	0	129
H/TOT	527	66	5	6	7	3	614	475	37	4	6	5	2	529
P/TOT	1534	213	25	20	18	12	1822	1471	160	20	19	13	8	1691

TO ARM B IS TOTAL OF MOVEMENTS 3, 7, 11

FROM ARM B IS TOTAL OF MOVEMENTS 4, 5, 6

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	TO ARM C HONEYPOT LANE							FROM ARM C HONEYPOT LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	94	32	7	3	1	2	139	66	16	6	3	1	0	92
7:15	126	30	4	5	2	2	169	91	27	0	2	0	1	121
7:30	126	23	8	1	4	2	164	98	17	8	3	2	1	129
7:45	143	23	5	4	1	1	177	139	18	6	6	1	1	171
H/TOT	489	108	24	13	8	7	649	394	78	20	14	4	3	513
8:00	142	20	5	5	0	1	173	124	15	1	3	0	0	143
8:15	175	20	5	3	3	1	207	142	18	8	1	0	0	169
8:30	154	14	7	3	0	1	179	136	17	5	4	2	0	164
8:45	161	24	2	2	0	0	189	138	19	6	2	0	0	165
H/TOT	632	78	19	13	3	3	748	540	69	20	10	2	0	641
9:00	121	22	3	3	0	0	149	132	25	4	2	0	2	165
9:15	150	20	5	5	1	0	181	98	15	7	1	1	0	122
9:30	106	27	9	2	1	0	145	105	25	6	2	0	1	139
9:45	123	25	8	3	2	0	161	84	13	8	2	3	0	110
H/TOT	500	94	25	13	4	0	636	419	78	25	7	4	3	536
P/TOT	1621	280	68	39	15	10	2033	1353	225	65	31	10	6	1690

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	TO ARM C HONEYPOT LANE							FROM ARM C HONEYPOT LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	101	14	4	2	2	0	123	140	36	8	4	3	0	191
16:15	124	16	8	2	1	0	151	135	22	7	3	2	0	169
16:30	97	13	12	2	1	0	125	158	23	8	3	2	0	194
16:45	121	22	7	1	3	1	155	131	25	2	2	4	0	164
H/TOT	443	65	31	7	7	1	554	564	106	25	12	11	0	718
17:00	133	18	2	2	0	0	155	171	25	5	3	2	2	208
17:15	111	24	3	1	3	0	142	160	25	3	1	4	0	193
17:30	142	21	5	1	1	0	170	143	21	1	2	4	0	171
17:45	124	14	4	2	1	0	145	151	24	2	0	1	2	180
H/TOT	510	77	14	6	5	0	612	625	95	11	6	11	4	752
18:00	124	11	3	2	0	0	140	175	28	3	3	1	1	211
18:15	139	10	7	3	2	2	163	149	14	2	1	1	0	167
18:30	134	11	1	1	0	3	150	146	18	2	1	2	1	170
18:45	122	8	3	1	3	0	137	139	15	0	1	3	0	158
H/TOT	519	40	14	7	5	5	590	609	75	7	6	7	2	706
P/TOT	1472	182	59	20	17	6	1756	1798	276	43	24	29	6	2176

TO ARM C IS TOTAL OF MOVEMENTS 2, 6, 10

FROM ARM C IS TOTAL OF MOVEMENTS 7, 8, 9

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	TO ARM D WHITCHURCH LANE							FROM ARM D WHITCHURCH LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	108	16	5	4	1	5	139	47	10	2	5	0	0	64
7:15	151	29	1	4	1	1	187	80	25	2	5	2	1	115
7:30	147	17	3	6	1	2	176	104	17	3	4	1	2	131
7:45	188	11	3	8	2	1	213	92	13	3	9	1	1	119
H/TOT	594	73	12	22	5	9	715	323	65	10	23	4	4	429
8:00	186	13	1	5	1	0	206	113	16	6	2	2	2	141
8:15	167	13	2	5	1	1	189	105	9	2	6	2	2	126
8:30	136	12	3	7	1	1	160	100	11	3	6	1	3	124
8:45	135	5	2	8	0	1	151	107	14	5	4	2	0	132
H/TOT	624	43	8	25	3	3	706	425	50	16	18	7	7	523
9:00	162	22	2	3	3	1	193	84	18	3	9	1	0	115
9:15	111	14	3	4	1	1	134	70	9	4	3	1	0	87
9:30	107	14	4	4	2	0	131	68	21	2	6	0	0	97
9:45	96	16	3	5	2	1	123	60	17	5	8	1	1	92
H/TOT	476	66	12	16	8	3	581	282	65	14	26	3	1	391
P/TOT	1694	182	32	63	16	15	2002	1030	180	40	67	14	12	1343

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 1 **DATE:** 18-06-14

LOCATION: MARSH LANE / WEMBOROUGH ROAD / HONEYPOT LANE / WHITCHURCH LANE **DAY:** WEDNESDAY

TIME	TO ARM D WHITCHURCH LANE							FROM ARM D WHITCHURCH LANE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	127	15	1	6	1	1	151	113	17	2	4	2	0	138
16:15	121	18	2	4	1	0	146	111	19	2	5	1	1	139
16:30	128	19	4	5	0	1	157	103	15	0	3	1	0	122
16:45	130	15	0	5	2	1	153	117	10	0	3	2	1	133
H/TOT	506	67	7	20	4	3	607	444	61	4	15	6	2	532
17:00	138	14	0	5	1	0	158	93	12	4	7	1	1	118
17:15	150	15	1	4	1	0	171	127	12	0	2	2	1	144
17:30	142	18	0	4	1	2	167	136	18	2	4	0	2	162
17:45	135	12	3	2	0	1	153	95	15	2	3	1	1	117
H/TOT	565	59	4	15	3	3	649	451	57	8	16	4	5	541
18:00	135	18	1	6	1	0	161	110	14	3	4	1	2	134
18:15	125	7	2	3	0	0	137	124	18	2	4	2	1	151
18:30	128	3	0	4	0	2	137	113	12	1	4	0	1	131
18:45	110	10	0	4	4	0	128	124	11	0	3	0	2	140
H/TOT	498	38	3	17	5	2	563	471	55	6	15	3	6	556
P/TOT	1569	164	14	52	12	8	1819	1366	173	18	46	13	13	1629

TO ARM D IS TOTAL OF MOVEMENTS 1, 5, 9

FROM ARM D IS TOTAL OF MOVEMENTS 10, 11, 12

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 2 **DATE:** 18/06/2014

LOCATION: WHITCHURCH SCHOOLS / WEMBOROUGH ROAD **DAY:** WEDNESDAY

TIME	MOVEMENT 1 FROM WHITCHURCH SCHOOLS TO WEMBOROUGH ROAD (E)							MOVEMENT 2 FROM WHITCHURCH SCHOOLS TO WEMBOROUGH ROAD (W)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	1	1	0	0	0	0	2	4	0	0	0	0	0	4
H/TOT	1	1	0	0	0	0	2	4	0	0	0	0	0	4
8:00	2	0	0	0	0	0	2	4	0	0	0	0	0	4
8:15	12	0	0	0	0	0	12	9	0	0	0	0	0	9
8:30	24	1	0	0	0	0	25	22	1	0	0	0	0	23
8:45	30	0	0	0	0	1	31	45	1	0	0	0	0	46
H/TOT	68	1	0	0	0	1	70	80	2	0	0	0	0	82
9:00	21	0	0	0	0	0	21	16	0	0	0	0	0	16
9:15	2	0	0	0	0	0	2	3	0	0	0	0	0	3
9:30	1	0	0	0	0	0	1	0	0	0	0	0	0	0
9:45	2	0	0	0	0	0	2	3	0	0	0	0	0	3
H/TOT	26	0	0	0	0	0	26	22	0	0	0	0	0	22
P/TOT	95	2	0	0	0	1	98	106	2	0	0	0	0	108

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 2 **DATE:** 18/06/2014

LOCATION: WHITCHURCH SCHOOLS / WEMBOROUGH ROAD **DAY:** WEDNESDAY

TIME	MOVEMENT 1 FROM WHITCHURCH SCHOOLS TO WEMBOROUGH ROAD (E)							MOVEMENT 2 FROM WHITCHURCH SCHOOLS TO WEMBOROUGH ROAD (W)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	2	0	0	0	0	0	2	6	0	0	0	0	0	6
16:15	5	0	0	0	0	0	5	2	0	0	0	0	0	2
16:30	10	0	0	0	0	0	10	22	0	0	0	0	1	23
16:45	4	0	0	0	0	0	4	5	0	0	0	0	0	5
H/TOT	21	0	0	0	0	0	21	35	0	0	0	0	1	36
17:00	1	0	0	0	0	0	1	6	0	0	0	0	0	6
17:15	1	0	0	0	0	0	1	2	0	0	0	0	0	2
17:30	5	1	0	0	0	0	6	10	0	0	0	0	0	10
17:45	6	0	0	0	0	0	6	14	0	0	0	0	0	14
H/TOT	13	1	0	0	0	0	14	32	0	0	0	0	0	32
18:00	2	0	0	1	0	0	3	2	0	0	0	0	0	2
18:15	0	0	0	0	0	0	0	3	0	0	0	0	0	3
18:30	2	0	0	0	0	0	2	1	0	0	0	0	0	1
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	4	0	0	1	0	0	5	6	0	0	0	0	0	6
P/TOT	38	1	0	1	0	0	40	73	0	0	0	0	1	74

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 2 **DATE:** 18/06/2014

LOCATION: WHITCHURCH SCHOOLS / WEMBOROUGH ROAD **DAY:** WEDNESDAY

TIME	MOVEMENT 3 FROM WEMBOROUGH ROAD (W) TO WHITCHURCH SCHOOLS							MOVEMENT 4 FROM WEMBOROUGH ROAD (E) TO WHITCHURCH SCHOOLS						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	5	0	0	0	1	0	6	1	0	0	0	0	0	1
7:30	2	1	0	0	0	0	3	0	0	0	0	0	0	0
7:45	8	1	0	0	0	0	9	4	0	0	0	0	0	4
H/TOT	15	2	0	0	1	0	18	5	0	0	0	0	0	5
8:00	12	0	0	0	0	0	12	12	0	0	0	0	0	12
8:15	42	1	0	0	0	0	43	12	0	0	0	0	0	12
8:30	45	0	0	0	0	0	45	40	1	0	0	0	2	43
8:45	23	1	0	0	0	0	24	33	1	0	0	0	0	34
H/TOT	122	2	0	0	0	0	124	97	2	0	0	0	2	101
9:00	2	0	0	0	0	0	2	3	0	0	0	0	0	3
9:15	12	0	0	0	0	0	12	7	0	0	0	0	0	7
9:30	8	0	0	0	0	0	8	8	0	0	0	0	0	8
9:45	1	0	0	0	0	0	1	9	0	0	0	0	0	9
H/TOT	23	0	0	0	0	0	23	27	0	0	0	0	0	27
P/TOT	160	4	0	0	1	0	165	129	2	0	0	0	2	133

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 2 **DATE:** 18/06/2014

LOCATION: WHITCHURCH SCHOOLS / WEMBOROUGH ROAD **DAY:** WEDNESDAY

TIME	MOVEMENT 3 FROM WEMBOROUGH ROAD (W) TO WHITCHURCH SCHOOLS							MOVEMENT 4 FROM WEMBOROUGH ROAD (E) TO WHITCHURCH SCHOOLS						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	2	0	0	0	0	0	2	3	0	0	0	0	0	3
16:15	7	0	0	0	0	0	7	8	0	0	0	0	0	8
16:30	1	0	0	0	0	0	1	8	0	0	0	0	0	8
16:45	0	0	0	0	0	0	0	2	0	0	0	0	0	2
H/TOT	10	0	0	0	0	0	10	21	0	0	0	0	0	21
17:00	3	0	0	0	0	0	3	2	0	0	0	0	0	2
17:15	3	0	0	0	0	0	3	5	0	0	0	0	0	5
17:30	3	0	0	0	0	0	3	1	1	0	0	0	0	2
17:45	3	0	0	0	0	0	3	1	0	0	0	0	0	1
H/TOT	12	0	0	0	0	0	12	9	1	0	0	0	0	10
18:00	3	0	0	0	0	0	3	1	0	0	0	0	0	1
18:15	1	0	0	0	0	0	1	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	4	0	0	0	0	0	4	1	0	0	0	0	0	1
P/TOT	26	0	0	0	0	0	26	31	1	0	0	0	0	32

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 1 FROM ABERCORN ROAD TO WEMBOROUGH ROAD (E)							MOVEMENT 2 FROM ABERCORN ROAD TO ST. ANDREWS DRIVE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	30	7	0	0	0	0	37	44	5	0	0	0	0	49
7:15	32	3	1	0	0	1	37	59	7	0	1	0	0	67
7:30	28	5	0	1	0	1	35	88	9	0	1	0	1	99
7:45	29	6	0	0	0	0	35	84	10	0	1	0	0	95
H/TOT	119	21	1	1	0	2	144	275	31	0	3	0	1	310
8:00	37	4	0	1	0	0	42	108	1	1	2	0	0	112
8:15	42	0	0	1	1	1	45	84	2	0	0	0	1	87
8:30	45	0	0	0	0	0	45	50	4	0	1	0	0	55
8:45	34	2	0	0	0	0	36	57	4	0	1	0	0	62
H/TOT	158	6	0	2	1	1	168	299	11	1	4	0	1	316
9:00	26	1	0	0	0	0	27	87	6	0	0	2	0	95
9:15	28	2	0	0	0	0	30	55	5	0	1	0	0	61
9:30	19	3	1	0	0	0	23	38	4	0	0	0	0	42
9:45	38	3	0	1	0	0	42	41	4	1	2	0	0	48
H/TOT	111	9	1	1	0	0	122	221	19	1	3	2	0	246
P/TOT	388	36	2	4	1	3	434	795	61	2	10	2	2	872

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 1 FROM ABERCORN ROAD TO WEMBOROUGH ROAD (E)							MOVEMENT 2 FROM ABERCORN ROAD TO ST. ANDREWS DRIVE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	30	2	2	1	0	1	36	38	4	0	1	1	0	44
16:15	35	0	0	0	1	0	36	46	6	0	0	1	0	53
16:30	30	5	2	0	0	0	37	45	8	0	1	1	0	55
16:45	33	6	0	0	0	0	39	63	6	0	1	0	1	71
H/TOT	128	13	4	1	1	1	148	192	24	0	3	3	1	223
17:00	33	4	0	0	0	0	37	59	5	2	2	0	0	68
17:15	37	3	0	0	1	0	41	68	2	0	0	0	0	70
17:30	30	5	0	0	0	0	35	69	3	1	2	0	1	76
17:45	39	5	0	0	0	0	44	62	4	0	1	0	0	67
H/TOT	139	17	0	0	1	0	157	258	14	3	5	0	1	281
18:00	37	3	0	0	0	0	40	69	4	0	1	2	0	76
18:15	45	5	1	0	0	0	51	61	3	0	1	1	0	66
18:30	40	4	0	0	0	0	44	59	4	0	0	0	0	63
18:45	38	1	1	0	0	0	40	59	1	0	1	0	0	61
H/TOT	160	13	2	0	0	0	175	248	12	0	3	3	0	266
P/TOT	427	43	6	1	2	1	480	698	50	3	11	6	2	770

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 3 FROM ABERCORN ROAD TO WEMBOROUGH ROAD (W)							MOVEMENT 4 FROM ABERCORN ROAD TO ABERCORN ROAD						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	16	2	0	0	0	0	18	1	0	0	0	0	0	1
7:15	10	2	0	2	1	0	15	0	0	0	0	0	0	0
7:30	17	1	1	0	0	1	20	0	0	0	0	0	0	0
7:45	10	4	1	0	0	0	15	1	0	0	0	0	0	1
H/TOT	53	9	2	2	1	1	68	2	0	0	0	0	0	2
8:00	14	0	0	0	0	0	14	0	0	0	0	0	0	0
8:15	19	2	0	0	0	0	21	1	0	0	0	0	0	1
8:30	15	1	0	0	0	1	17	5	0	0	0	0	0	5
8:45	21	1	1	0	1	1	25	5	0	1	0	0	0	6
H/TOT	69	4	1	0	1	2	77	11	0	1	0	0	0	12
9:00	13	2	0	0	1	0	16	0	0	0	0	0	0	0
9:15	28	1	0	1	0	0	30	0	0	0	0	0	0	0
9:30	15	6	0	1	0	0	22	0	0	0	0	0	0	0
9:45	19	0	0	0	0	1	20	0	0	0	0	0	0	0
H/TOT	75	9	0	2	1	1	88	0	0	0	0	0	0	0
P/TOT	197	22	3	4	3	4	233	13	0	1	0	0	0	14

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 3 FROM ABERCORN ROAD TO WEMBOROUGH ROAD (W)							MOVEMENT 4 FROM ABERCORN ROAD TO ABERCORN ROAD						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	15	3	0	1	0	0	19	0	0	0	0	0	0	0
16:15	26	4	0	0	0	1	31	2	0	0	0	0	0	2
16:30	30	1	0	0	0	0	31	2	0	0	0	0	0	2
16:45	33	3	0	0	1	4	41	0	0	0	0	0	0	0
H/TOT	104	11	0	1	1	5	122	4	0	0	0	0	0	4
17:00	31	4	0	0	0	0	35	0	0	0	0	0	0	0
17:15	24	4	0	0	0	0	28	0	0	0	0	0	0	0
17:30	41	3	0	0	0	0	44	0	0	0	0	0	0	0
17:45	36	4	0	0	0	2	42	1	0	0	0	0	0	1
H/TOT	132	15	0	0	0	2	149	1	0	0	0	0	0	1
18:00	28	2	0	0	1	0	31	1	0	0	0	0	0	1
18:15	24	3	0	0	0	0	27	0	0	0	0	0	0	0
18:30	39	0	1	0	1	0	41	1	0	0	0	0	0	1
18:45	37	4	0	0	2	0	43	2	0	0	0	0	0	2
H/TOT	128	9	1	0	4	0	142	4	0	0	0	0	0	4
P/TOT	364	35	1	1	5	7	413	9	0	0	0	0	0	9

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 5 FROM WEMBOROUGH ROAD (W) TO ABERCORN ROAD							MOVEMENT 6 FROM WEMBOROUGH ROAD (W) TO WEMBOROUGH ROAD (E)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	18	1	0	0	0	0	19	68	17	4	2	1	4	96
7:15	30	5	0	1	0	1	37	96	15	1	2	0	0	114
7:30	30	8	1	0	0	0	39	105	17	2	3	3	1	131
7:45	31	2	0	0	0	1	34	87	6	1	4	0	0	98
H/TOT	109	16	1	1	0	2	129	356	55	8	11	4	5	439
8:00	40	6	1	0	0	0	47	87	8	2	2	1	0	100
8:15	20	0	0	0	0	0	20	91	9	1	2	0	0	103
8:30	16	1	0	1	0	1	19	37	6	0	0	0	0	43
8:45	16	4	1	0	1	0	22	81	6	0	2	1	0	90
H/TOT	92	11	2	1	1	1	108	296	29	3	6	2	0	336
9:00	39	0	1	1	0	0	41	70	12	3	1	2	0	88
9:15	35	3	0	1	1	0	40	62	10	1	2	0	1	76
9:30	25	1	0	0	0	1	27	77	10	2	1	2	1	93
9:45	20	1	2	0	0	1	24	60	8	3	2	0	0	73
H/TOT	119	5	3	2	1	2	132	269	40	9	6	4	2	330
P/TOT	320	32	6	4	2	5	369	921	124	20	23	10	7	1105

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 5 FROM WEMBOROUGH ROAD (W) TO ABERCORN ROAD							MOVEMENT 6 FROM WEMBOROUGH ROAD (W) TO WEMBOROUGH ROAD (E)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	26	4	1	0	1	0	32	64	7	3	1	1	0	76
16:15	29	1	1	0	2	0	33	65	13	2	1	0	0	81
16:30	31	7	0	0	0	0	38	64	15	3	1	0	1	84
16:45	32	2	1	0	0	0	35	77	11	2	1	1	1	93
H/TOT	118	14	3	0	3	0	138	270	46	10	4	2	2	334
17:00	35	3	0	0	0	0	38	77	5	1	2	2	0	87
17:15	37	2	0	0	0	0	39	95	16	1	2	1	0	115
17:30	24	0	0	0	1	0	25	75	6	0	1	0	2	84
17:45	29	4	0	0	0	0	33	86	6	0	1	0	1	94
H/TOT	125	9	0	0	1	0	135	333	33	2	6	3	3	380
18:00	26	1	0	0	1	0	28	77	9	2	2	1	0	91
18:15	35	2	0	0	1	0	38	76	4	1	1	0	0	82
18:30	30	2	1	0	1	1	35	65	2	0	1	2	1	71
18:45	44	2	0	0	2	0	48	70	8	0	1	2	0	81
H/TOT	135	7	1	0	5	1	149	288	23	3	5	5	1	325
P/TOT	378	30	4	0	9	1	422	891	102	15	15	10	6	1039

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 7 FROM WEMBOROUGH ROAD (W) TO ST. ANDREWS DRIVE							MOVEMENT 8 FROM WEMBOROUGH ROAD (W) TO WEMBOROUGH ROAD (W)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	12	0	1	0	0	0	13	0	0	0	0	0	0	0
7:15	12	3	0	0	0	0	15	0	0	0	0	0	0	0
7:30	17	4	1	0	0	0	22	0	0	0	0	0	0	0
7:45	14	3	0	0	0	0	17	0	0	0	0	0	0	0
H/TOT	55	10	2	0	0	0	67	0	0	0	0	0	0	0
8:00	14	1	0	0	0	0	15	0	0	0	0	0	0	0
8:15	20	4	0	0	0	0	24	0	0	0	0	0	0	0
8:30	12	1	0	0	0	0	13	0	0	0	0	0	0	0
8:45	10	0	0	0	0	0	10	1	0	0	0	0	0	1
H/TOT	56	6	0	0	0	0	62	1	0	0	0	0	0	1
9:00	14	1	0	0	0	0	15	1	0	0	0	0	0	1
9:15	7	2	0	0	0	0	9	0	0	0	0	0	0	0
9:30	12	1	0	0	0	0	13	1	0	0	0	0	0	1
9:45	6	1	0	0	0	0	7	0	0	0	0	0	0	0
H/TOT	39	5	0	0	0	0	44	2	0	0	0	0	0	2
P/TOT	150	21	2	0	0	0	173	3	0	0	0	0	0	3

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 7 FROM WEMBOROUGH ROAD (W) TO ST. ANDREWS DRIVE							MOVEMENT 8 FROM WEMBOROUGH ROAD (W) TO WEMBOROUGH ROAD (W)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	10	1	0	0	0	0	11	0	0	0	0	0	0	0
16:15	7	1	0	0	0	0	8	0	0	0	0	0	0	0
16:30	8	3	0	0	0	0	11	0	0	0	0	0	0	0
16:45	9	1	0	0	0	0	10	0	0	0	0	0	0	0
H/TOT	34	6	0	0	0	0	40	0	0	0	0	0	0	0
17:00	10	2	0	0	0	0	12	0	0	0	0	0	0	0
17:15	11	2	0	0	0	0	13	0	0	0	0	0	0	0
17:30	8	1	0	0	0	0	9	0	0	0	0	0	0	0
17:45	17	0	0	1	0	0	18	0	0	0	0	0	0	0
H/TOT	46	5	0	1	0	0	52	0	0	0	0	0	0	0
18:00	13	1	0	0	0	0	14	0	0	0	0	0	0	0
18:15	12	3	0	0	0	0	15	0	0	0	0	0	0	0
18:30	10	1	0	0	0	0	11	0	0	0	0	0	0	0
18:45	14	0	0	0	0	0	14	0	0	0	0	0	0	0
H/TOT	49	5	0	0	0	0	54	0	0	0	0	0	0	0
P/TOT	129	16	0	1	0	0	146	0	0	0	0	0	0	0

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 9 FROM ST. ANDREWS DRIVE TO WEMBOROUGH ROAD (W)							MOVEMENT 10 FROM ST. ANDREWS DRIVE TO ABERCORN ROAD						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	3	0	0	0	0	0	3	17	2	0	0	0	1	20
7:15	3	0	0	0	0	0	3	46	4	1	0	0	0	51
7:30	6	1	0	0	0	0	7	53	23	0	1	0	0	77
7:45	11	0	0	0	0	0	11	57	3	0	2	0	0	62
H/TOT	23	1	0	0	0	0	24	173	32	1	3	0	1	210
8:00	3	0	0	1	0	0	4	69	2	0	1	0	0	72
8:15	13	1	0	1	0	0	15	64	3	0	0	0	0	67
8:30	7	1	0	0	0	0	8	71	4	0	1	0	0	76
8:45	9	1	0	0	0	0	10	62	3	0	1	0	0	66
H/TOT	32	3	0	2	0	0	37	266	12	0	3	0	0	281
9:00	7	3	0	0	0	0	10	40	1	0	1	0	0	42
9:15	3	0	1	0	0	0	4	47	1	0	1	1	0	50
9:30	3	1	0	0	0	0	4	33	2	0	1	0	0	36
9:45	6	0	0	0	0	0	6	46	0	1	1	0	0	48
H/TOT	19	4	1	0	0	0	24	166	4	1	4	1	0	176
P/TOT	74	8	1	2	0	0	85	605	48	2	10	1	1	667

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 9 FROM ST. ANDREWS DRIVE TO WEMBOROUGH ROAD (W)							MOVEMENT 10 FROM ST. ANDREWS DRIVE TO ABERCORN ROAD						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	10	0	0	0	0	0	10	73	3	0	1	0	0	77
16:15	11	1	1	0	0	0	13	66	3	1	1	0	0	71
16:30	5	2	0	0	0	0	7	53	9	1	1	1	0	65
16:45	10	1	1	0	0	0	12	65	2	0	0	0	0	67
H/TOT	36	4	2	0	0	0	42	257	17	2	3	1	0	280
17:00	7	0	0	0	0	0	7	76	4	0	1	0	0	81
17:15	9	2	0	0	0	0	11	72	4	0	1	0	0	77
17:30	13	2	0	0	0	0	15	64	1	0	1	0	1	67
17:45	12	0	0	0	0	0	12	67	2	0	0	0	0	69
H/TOT	41	4	0	0	0	0	45	279	11	0	3	0	1	294
18:00	10	2	0	0	0	1	13	55	4	0	1	0	0	60
18:15	15	1	0	0	0	0	16	51	4	1	1	0	0	57
18:30	8	0	0	0	0	0	8	59	3	0	1	0	0	63
18:45	6	1	0	0	0	0	7	50	3	0	0	0	0	53
H/TOT	39	4	0	0	0	1	44	215	14	1	3	0	0	233
P/TOT	116	12	2	0	0	1	131	751	42	3	9	1	1	807

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 11 FROM ST. ANDREWS DRIVE TO WEMBOROUGH ROAD (E)							MOVEMENT 12 FROM ST. ANDREWS DRIVE TO ST. ANDREWS DRIVE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	14	3	0	0	0	0	17	0	0	0	0	0	0	0
7:15	14	2	0	1	1	0	18	0	0	0	0	0	0	0
7:30	14	0	0	0	0	0	14	0	0	0	0	0	0	0
7:45	20	2	0	0	0	0	22	0	0	0	0	0	0	0
H/TOT	62	7	0	1	1	0	71	0	0	0	0	0	0	0
8:00	9	0	0	0	0	0	9	1	0	0	0	0	0	1
8:15	13	0	0	0	0	0	13	0	0	0	0	0	0	0
8:30	16	0	0	0	0	0	16	0	0	0	0	0	0	0
8:45	9	0	1	0	0	0	10	1	0	0	0	0	0	1
H/TOT	47	0	1	0	0	0	48	2	0	0	0	0	0	2
9:00	9	1	0	0	0	0	10	0	0	0	0	0	0	0
9:15	7	1	0	0	0	0	8	1	0	0	0	0	0	1
9:30	6	1	0	0	0	0	7	0	0	0	0	0	0	0
9:45	11	2	1	0	0	0	14	0	0	0	0	0	0	0
H/TOT	33	5	1	0	0	0	39	1	0	0	0	0	0	1
P/TOT	142	12	2	1	1	0	158	3	0	0	0	0	0	3

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 11 FROM ST. ANDREWS DRIVE TO WEMBOROUGH ROAD (E)							MOVEMENT 12 FROM ST. ANDREWS DRIVE TO ST. ANDREWS DRIVE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	19	2	0	0	0	0	21	0	0	0	0	0	0	0
16:15	17	3	0	0	0	0	20	0	0	0	0	0	0	0
16:30	12	0	0	0	0	0	12	0	0	0	0	0	0	0
16:45	10	0	0	0	0	0	10	0	0	0	0	0	0	0
H/TOT	58	5	0	0	0	0	63	0	0	0	0	0	0	0
17:00	6	1	0	0	0	0	7	0	0	0	0	0	0	0
17:15	10	2	0	0	0	0	12	0	0	0	0	0	0	0
17:30	18	1	0	0	0	0	19	0	0	0	0	0	0	0
17:45	13	1	2	0	0	0	16	0	0	0	0	0	0	0
H/TOT	47	5	2	0	0	0	54	0	0	0	0	0	0	0
18:00	16	2	0	0	0	0	18	0	0	0	0	0	0	0
18:15	11	1	0	0	0	0	12	0	0	0	0	0	0	0
18:30	10	0	0	0	0	0	10	0	0	0	0	0	0	0
18:45	13	1	0	0	0	0	14	1	0	0	0	0	0	1
H/TOT	50	4	0	0	0	0	54	1	0	0	0	0	0	1
P/TOT	155	14	2	0	0	0	171	1	0	0	0	0	0	1

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 13 FROM WEMBOROUGH ROAD (E) TO ST. ANDREWS DRIVE							MOVEMENT 14 FROM WEMBOROUGH ROAD (E) TO WEMBOROUGH ROAD (W)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	11	1	0	0	0	1	13	26	4	1	3	1	2	37
7:15	9	2	0	0	0	0	11	47	10	2	2	0	0	61
7:30	21	1	0	0	0	0	22	59	16	0	1	0	0	76
7:45	9	0	0	0	0	0	9	60	13	2	0	1	1	77
H/TOT	50	4	0	0	0	1	55	192	43	5	6	2	3	251
8:00	13	1	1	0	0	1	16	90	10	1	2	1	1	105
8:15	18	0	0	0	0	1	19	83	8	3	1	0	4	99
8:30	18	2	0	0	0	0	20	63	6	1	3	1	0	74
8:45	22	1	0	0	0	0	23	61	5	4	3	1	1	75
H/TOT	71	4	1	0	0	2	78	297	29	9	9	3	6	353
9:00	17	1	0	0	0	0	18	84	13	3	5	0	0	105
9:15	16	2	0	0	0	0	18	46	6	5	2	1	0	60
9:30	16	2	0	0	0	0	18	49	9	2	1	0	0	61
9:45	14	3	0	0	0	0	17	43	9	3	5	0	1	61
H/TOT	63	8	0	0	0	0	71	222	37	13	13	1	1	287
P/TOT	184	16	1	0	0	3	204	711	109	27	28	6	10	891

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 13 FROM WEMBOROUGH ROAD (E) TO ST. ANDREWS DRIVE							MOVEMENT 14 FROM WEMBOROUGH ROAD (E) TO WEMBOROUGH ROAD (W)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	13	2	0	0	0	0	15	90	9	2	3	1	1	106
16:15	22	1	0	0	0	1	24	69	13	2	4	1	2	91
16:30	18	1	0	0	0	0	19	93	12	2	1	1	1	110
16:45	20	0	0	0	1	1	22	78	9	1	1	3	4	96
H/TOT	73	4	0	0	1	2	80	330	43	7	9	6	8	403
17:00	11	0	0	0	0	0	11	81	10	2	3	1	1	98
17:15	15	1	0	0	0	0	16	103	12	1	1	1	3	121
17:30	18	0	0	0	0	0	18	96	14	2	1	1	3	117
17:45	6	2	0	0	0	0	8	97	11	1	1	0	0	110
H/TOT	50	3	0	0	0	0	53	377	47	6	6	3	7	446
18:00	15	0	0	0	0	0	15	85	8	2	1	0	4	100
18:15	23	1	0	0	0	0	24	103	15	1	1	1	2	123
18:30	15	1	0	0	0	0	16	92	11	1	3	1	0	108
18:45	22	0	0	0	0	0	22	109	13	0	1	1	4	128
H/TOT	75	2	0	0	0	0	77	389	47	4	6	3	10	459
P/TOT	198	9	0	0	1	2	210	1096	137	17	21	12	25	1308

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 15 FROM WEMBOROUGH ROAD (E) TO ABERCORN ROAD							MOVEMENT 16 FROM WEMBOROUGH ROAD (E) TO WEMBOROUGH ROAD (E)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	14	7	0	0	0	0	21	0	0	0	0	0	0	0
7:15	25	6	1	0	1	0	33	0	1	0	0	0	0	1
7:30	42	7	0	0	0	0	49	1	0	0	0	0	0	1
7:45	56	1	0	0	0	0	57	0	0	0	0	0	0	0
H/TOT	137	21	1	0	1	0	160	1	1	0	0	0	0	2
8:00	38	0	2	0	0	0	40	0	0	0	0	0	0	0
8:15	45	5	0	0	0	0	50	0	1	0	0	0	0	1
8:30	33	3	0	1	0	0	37	0	0	0	0	0	0	0
8:45	39	2	0	1	0	0	42	0	0	0	0	0	0	0
H/TOT	155	10	2	2	0	0	169	0	1	0	0	0	0	1
9:00	43	5	0	0	0	0	48	0	1	0	0	0	0	1
9:15	19	3	0	0	0	1	23	2	0	1	0	0	0	3
9:30	17	4	1	0	0	0	22	2	0	0	0	0	0	2
9:45	23	2	0	0	0	0	25	0	1	0	0	0	0	1
H/TOT	102	14	1	0	0	1	118	4	2	1	0	0	0	7
P/TOT	394	45	4	2	1	1	447	5	4	1	0	0	0	10

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	MOVEMENT 15 FROM WEMBOROUGH ROAD (E) TO ABERCORN ROAD							MOVEMENT 16 FROM WEMBOROUGH ROAD (E) TO WEMBOROUGH ROAD (E)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	53	3	0	0	1	0	57	0	0	0	0	0	0	0
16:15	51	5	1	0	0	0	57	1	0	0	0	0	0	1
16:30	52	10	0	1	0	0	63	0	0	0	0	0	0	0
16:45	45	5	0	1	0	0	51	1	0	0	0	0	0	1
H/TOT	201	23	1	2	1	0	228	2	0	0	0	0	0	2
17:00	73	6	0	0	1	0	80	0	0	0	0	0	0	0
17:15	56	4	0	0	1	0	61	0	0	0	0	0	0	0
17:30	52	3	0	0	0	0	55	0	0	0	0	0	0	0
17:45	43	3	0	0	0	1	47	0	0	0	0	0	0	0
H/TOT	224	16	0	0	2	1	243	0	0	0	0	0	0	0
18:00	72	4	1	0	1	0	78	0	0	0	0	0	0	0
18:15	52	3	1	0	1	0	57	0	0	0	0	0	0	0
18:30	54	4	0	0	0	0	58	0	0	0	0	0	0	0
18:45	46	3	0	0	0	0	49	0	0	0	0	0	0	0
H/TOT	224	14	2	0	2	0	242	0	0	0	0	0	0	0
P/TOT	649	53	3	2	5	1	713	2	0	0	0	0	0	2

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	TO ARM A ABERCORN ROAD							FROM ARM A ABERCORN ROAD						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	50	10	0	0	0	1	61	91	14	0	0	0	0	105
7:15	101	15	2	1	1	1	121	101	12	1	3	1	1	119
7:30	125	38	1	1	0	0	165	133	15	1	2	0	3	154
7:45	145	6	0	2	0	1	154	124	20	1	1	0	0	146
H/TOT	421	69	3	4	1	3	501	449	61	3	6	1	4	524
8:00	147	8	3	1	0	0	159	159	5	1	3	0	0	168
8:15	130	8	0	0	0	0	138	146	4	0	1	1	2	154
8:30	125	8	0	3	0	1	137	115	5	0	1	0	1	122
8:45	122	9	2	2	1	0	136	117	7	2	1	1	1	129
H/TOT	524	33	5	6	1	1	570	537	21	3	6	2	4	573
9:00	122	6	1	2	0	0	131	126	9	0	0	3	0	138
9:15	101	7	0	2	2	1	113	111	8	0	2	0	0	121
9:30	75	7	1	1	0	1	85	72	13	1	1	0	0	87
9:45	89	3	3	1	0	1	97	98	7	1	3	0	1	110
H/TOT	387	23	5	6	2	3	426	407	37	2	6	3	1	456
P/TOT	1332	125	13	16	4	7	1497	1393	119	8	18	6	9	1553

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	TO ARM A ABERCORN ROAD							FROM ARM A ABERCORN ROAD						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	152	10	1	1	2	0	166	83	9	2	3	1	1	99
16:15	148	9	3	1	2	0	163	109	10	0	0	2	1	122
16:30	138	26	1	2	1	0	168	107	14	2	1	1	0	125
16:45	142	9	1	1	0	0	153	129	15	0	1	1	5	151
H/TOT	580	54	6	5	5	0	650	428	48	4	5	5	7	497
17:00	184	13	0	1	1	0	199	123	13	2	2	0	0	140
17:15	165	10	0	1	1	0	177	129	9	0	0	1	0	139
17:30	140	4	0	1	1	1	147	140	11	1	2	0	1	155
17:45	140	9	0	0	0	1	150	138	13	0	1	0	2	154
H/TOT	629	36	0	3	3	2	673	530	46	3	5	1	3	588
18:00	154	9	1	1	2	0	167	135	9	0	1	3	0	148
18:15	138	9	2	1	2	0	152	130	11	1	1	1	0	144
18:30	144	9	1	1	1	1	157	139	8	1	0	1	0	149
18:45	142	8	0	0	2	0	152	136	6	1	1	2	0	146
H/TOT	578	35	4	3	7	1	628	540	34	3	3	7	0	587
P/TOT	1787	125	10	11	15	3	1951	1498	128	10	13	13	10	1672

TO ARM A IS TOTAL OF MOVEMENTS 4, 5, 10, 15
FROM ARM A IS TOTAL OF MOVEMENTS 1, 2, 3, 4

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	TO ARM B WEMBOROUGH ROAD (W)							FROM ARM B WEMBOROUGH ROAD (W)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	45	6	1	3	1	2	58	98	18	5	2	1	4	128
7:15	60	12	2	4	1	0	79	138	23	1	3	0	1	166
7:30	82	18	1	1	0	1	103	152	29	4	3	3	1	192
7:45	81	17	3	0	1	1	103	132	11	1	4	0	1	149
H/TOT	268	53	7	8	3	4	343	520	81	11	12	4	7	635
8:00	107	10	1	3	1	1	123	141	15	3	2	1	0	162
8:15	115	11	3	2	0	4	135	131	13	1	2	0	0	147
8:30	85	8	1	3	1	1	99	65	8	0	1	0	1	75
8:45	92	7	5	3	2	2	111	108	10	1	2	2	0	123
H/TOT	399	36	10	11	4	8	468	445	46	5	7	3	1	507
9:00	105	18	3	5	1	0	132	124	13	4	2	2	0	145
9:15	77	7	6	3	1	0	94	104	15	1	3	1	1	125
9:30	68	16	2	2	0	0	88	115	12	2	1	2	2	134
9:45	68	9	3	5	0	2	87	86	10	5	2	0	1	104
H/TOT	318	50	14	15	2	2	401	429	50	12	8	5	4	508
P/TOT	985	139	31	34	9	14	1212	1394	177	28	27	12	12	1650

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	TO ARM B WEMBOROUGH ROAD (W)							FROM ARM B WEMBOROUGH ROAD (W)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	115	12	2	4	1	1	135	100	12	4	1	2	0	119
16:15	106	18	3	4	1	3	135	101	15	3	1	2	0	122
16:30	128	15	2	1	1	1	148	103	25	3	1	0	1	133
16:45	121	13	2	1	4	8	149	118	14	3	1	1	1	138
H/TOT	470	58	9	10	7	13	567	422	66	13	4	5	2	512
17:00	119	14	2	3	1	1	140	122	10	1	2	2	0	137
17:15	136	18	1	1	1	3	160	143	20	1	2	1	0	167
17:30	150	19	2	1	1	3	176	107	7	0	1	1	2	118
17:45	145	15	1	1	0	2	164	132	10	0	2	0	1	145
H/TOT	550	66	6	6	3	9	640	504	47	2	7	4	3	567
18:00	123	12	2	1	1	5	144	116	11	2	2	2	0	133
18:15	142	19	1	1	1	2	166	123	9	1	1	1	0	135
18:30	139	11	2	3	2	0	157	105	5	1	1	3	2	117
18:45	152	18	0	1	3	4	178	128	10	0	1	4	0	143
H/TOT	556	60	5	6	7	11	645	472	35	4	5	10	2	528
P/TOT	1576	184	20	22	17	33	1852	1398	148	19	16	19	7	1607

TO ARM B IS TOTAL OF MOVEMENTS 3, 8, 9, 14
FROM ARM B IS TOTAL OF MOVEMENTS 5, 6, 7, 8

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	TO ARM C ST. ANDREWS DRIVE							FROM ARM C ST. ANDREWS DRIVE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	67	6	1	0	0	1	75	34	5	0	0	0	1	40
7:15	80	12	0	1	0	0	93	63	6	1	1	1	0	72
7:30	126	14	1	1	0	1	143	73	24	0	1	0	0	98
7:45	107	13	0	1	0	0	121	88	5	0	2	0	0	95
H/TOT	380	45	2	3	0	2	432	258	40	1	4	1	1	305
8:00	136	3	2	2	0	1	144	82	2	0	2	0	0	86
8:15	122	6	0	0	0	2	130	90	4	0	1	0	0	95
8:30	80	7	0	1	0	0	88	94	5	0	1	0	0	100
8:45	90	5	0	1	0	0	96	81	4	1	1	0	0	87
H/TOT	428	21	2	4	0	3	458	347	15	1	5	0	0	368
9:00	118	8	0	0	2	0	128	56	5	0	1	0	0	62
9:15	79	9	0	1	0	0	89	58	2	1	1	1	0	63
9:30	66	7	0	0	0	0	73	42	4	0	1	0	0	47
9:45	61	8	1	2	0	0	72	63	2	2	1	0	0	68
H/TOT	324	32	1	3	2	0	362	219	13	3	4	1	0	240
P/TOT	1132	98	5	10	2	5	1252	824	68	5	13	2	1	913

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	TO ARM C ST. ANDREWS DRIVE							FROM ARM C ST. ANDREWS DRIVE						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	61	7	0	1	1	0	70	102	5	0	1	0	0	108
16:15	75	8	0	0	1	1	85	94	7	2	1	0	0	104
16:30	71	12	0	1	1	0	85	70	11	1	1	1	0	84
16:45	92	7	0	1	1	2	103	85	3	1	0	0	0	89
H/TOT	299	34	0	3	4	3	343	351	26	4	3	1	0	385
17:00	80	7	2	2	0	0	91	89	5	0	1	0	0	95
17:15	94	5	0	0	0	0	99	91	8	0	1	0	0	100
17:30	95	4	1	2	0	1	103	95	4	0	1	0	1	101
17:45	85	6	0	2	0	0	93	92	3	2	0	0	0	97
H/TOT	354	22	3	6	0	1	386	367	20	2	3	0	1	393
18:00	97	5	0	1	2	0	105	81	8	0	1	0	1	91
18:15	96	7	0	1	1	0	105	77	6	1	1	0	0	85
18:30	84	6	0	0	0	0	90	77	3	0	1	0	0	81
18:45	96	1	0	1	0	0	98	70	5	0	0	0	0	75
H/TOT	373	19	0	3	3	0	398	305	22	1	3	0	1	332
P/TOT	1026	75	3	12	7	4	1127	1023	68	7	9	1	2	1110

TO ARM C IS TOTAL OF MOVEMENTS 2, 7, 12, 13
FROM ARM C IS TOTAL OF MOVEMENTS 9, 10, 11, 12

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	TO ARM D WEMBOROUGH ROAD (E)							FROM ARM D WEMBOROUGH ROAD (E)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
7:00	112	27	4	2	1	4	150	51	12	1	3	1	3	71
7:15	142	21	2	3	1	1	170	81	19	3	2	1	0	106
7:30	148	22	2	4	3	2	181	123	24	0	1	0	0	148
7:45	136	14	1	4	0	0	155	125	14	2	0	1	1	143
H/TOT	538	84	9	13	5	7	656	380	69	6	6	3	4	468
8:00	133	12	2	3	1	0	151	141	11	4	2	1	2	161
8:15	146	10	1	3	1	1	162	146	14	3	1	0	5	169
8:30	98	6	0	0	0	0	104	114	11	1	4	1	0	131
8:45	124	8	1	2	1	0	136	122	8	4	4	1	1	140
H/TOT	501	36	4	8	3	1	553	523	44	12	11	3	8	601
9:00	105	15	3	1	2	0	126	144	20	3	5	0	0	172
9:15	99	13	2	2	0	1	117	83	11	6	2	1	1	104
9:30	104	14	3	1	2	1	125	84	15	3	1	0	0	103
9:45	109	14	4	3	0	0	130	80	15	3	5	0	1	104
H/TOT	417	56	12	7	4	2	498	391	61	15	13	1	2	483
P/TOT	1456	176	25	28	12	10	1707	1294	174	33	30	7	14	1552

MANUAL CLASSIFIED COUNTS

JOB REF: 17658

JOB NAME: WHITCHURCH FIELDS

SITE: 3 **DATE:** 18/06/2014

LOCATION: ABERCORN ROAD / WEMBOROUGH ROAD / ST. ANDREWS DRIVE **DAY:** WEDNESDAY

TIME	TO ARM D WEMBOROUGH ROAD (E)							FROM ARM D WEMBOROUGH ROAD (E)						
	CAR	LGV	HGV	PSV	MCL	PCL	TOT	CAR	LGV	HGV	PSV	MCL	PCL	TOT
16:00	113	11	5	2	1	1	133	156	14	2	3	2	1	178
16:15	118	16	2	1	1	0	138	143	19	3	4	1	3	173
16:30	106	20	5	1	0	1	133	163	23	2	2	1	1	192
16:45	121	17	2	1	1	1	143	144	14	1	2	4	5	170
H/TOT	458	64	14	5	3	3	547	606	70	8	11	8	10	713
17:00	116	10	1	2	2	0	131	165	16	2	3	2	1	189
17:15	142	21	1	2	2	0	168	174	17	1	1	2	3	198
17:30	123	12	0	1	0	2	138	166	17	2	1	1	3	190
17:45	138	12	2	1	0	1	154	146	16	1	1	0	1	165
H/TOT	519	55	4	6	4	3	591	651	66	6	6	5	8	742
18:00	130	14	2	2	1	0	149	172	12	3	1	1	4	193
18:15	132	10	2	1	0	0	145	178	19	2	1	2	2	204
18:30	115	6	0	1	2	1	125	161	16	1	3	1	0	182
18:45	121	10	1	1	2	0	135	177	16	0	1	1	4	199
H/TOT	498	40	5	5	5	1	554	688	63	6	6	5	10	778
P/TOT	1475	159	23	16	12	7	1692	1945	199	20	23	18	28	2233

TO ARM D IS TOTAL OF MOVEMENTS 1, 6, 11, 16
FROM ARM D IS TOTAL OF MOVEMENTS 13, 14, 15, 16

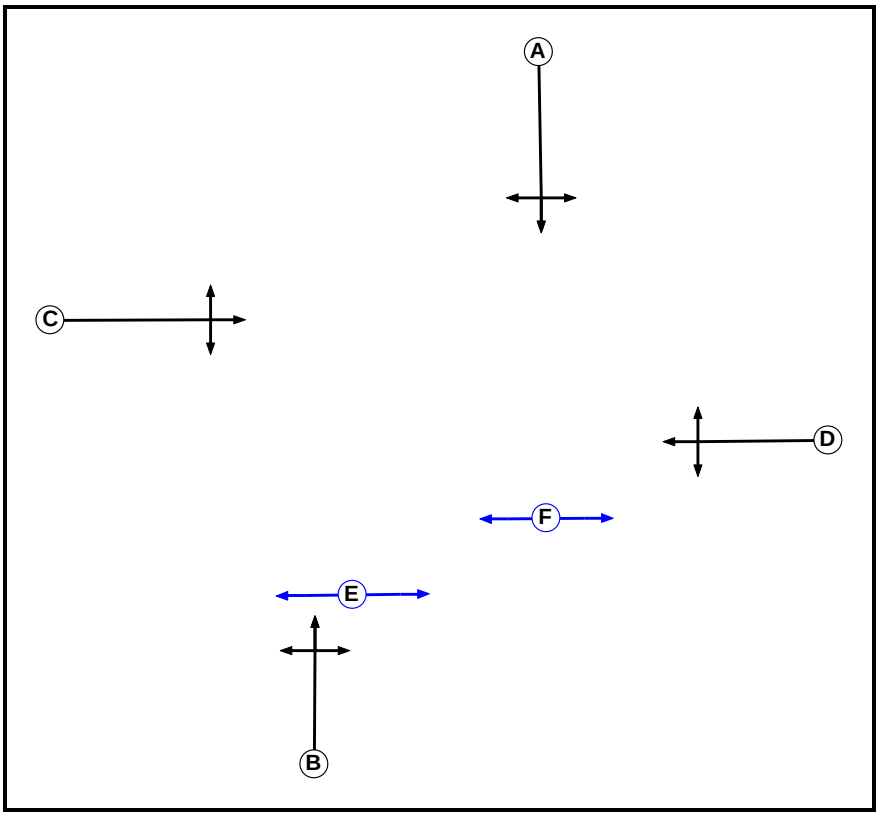
APPENDIX 6

MTP Results Summary

User and Project Details

Project:	
Title:	
Location:	
File name:	2015-06 Whitchurch Lane - Wemborough Road - Honeypot Lane - Marsh Lane 14-042.lsg3x
Author:	
Company:	
Address:	
Notes:	

Phase Diagram



Phase Input Data

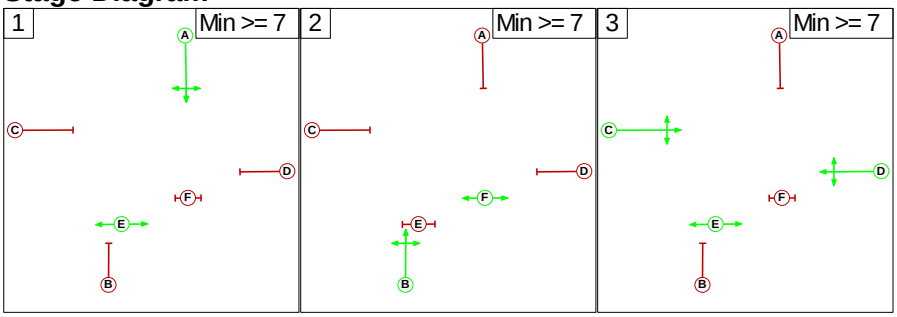
Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		7	7
F	Pedestrian		7	7

MTP Results Summary

Phase Intergreens Matrix

Terminating Phase	Starting Phase					
	A	B	C	D	E	F
A		6	7	7	-	9
B	7		8	8	5	-
C	8	8		-	-	10
D	8	8	-		-	7
E	-	8	-	-		-
F	8	-	8	8	-	

Stage Diagram

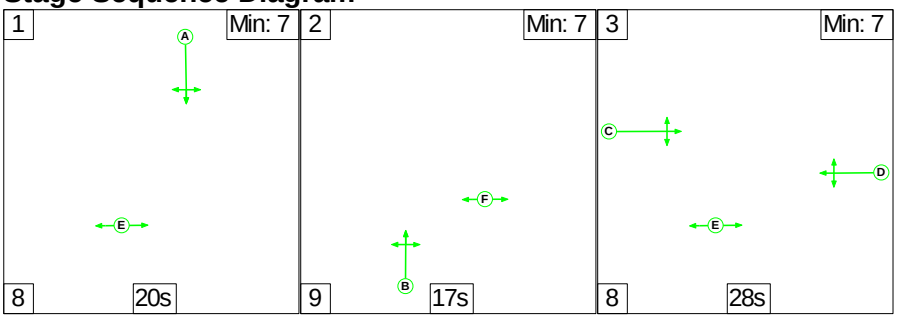


Phase Delays

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

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

Stage Sequence Diagram



Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Whitchurch Lane)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	10.70
											Arm 7 Ahead	Inf
1/2 (Whitchurch Lane)	O	D	2	3	7.0	Geom	-	2.80	0.00	N	Arm 8 Right	21.80
2/1 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 7 Left	14.50
											Arm 8 Ahead	Inf
2/2 (Honeypot Lane)	O	B	2	3	60.0	Geom	-	2.90	0.00	N	Arm 5 Right	16.90
											Arm 8 Ahead	Inf
3/1 (Wemborough Road)	U	C	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	14.70
3/2 (Wemborough Road)	O	C	2	3	2.0	Geom	-	2.60	0.00	N	Arm 6 Right	20.10
4/1 (Marsh Lane)	U	A	2	3	60.0	Geom	-	2.35	0.00	Y	Arm 5 Left	18.10
											Arm 6 Ahead	Inf
4/2 (Marsh Lane)	O	A	2	3	3.0	Geom	-	2.70	0.00	N	Arm 6 Ahead	Inf
											Arm 7 Right	18.40
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	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: Unnamed Junction

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 (Whitchurch Lane)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
2/2 (Honeypot Lane)	5/1 (Right)	1439	0	4/1	1.09	All	2.00	2.00	0.50	2	2.00
				4/2	1.09	All					
3/2 (Wemborough Road)	6/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
4/2 (Marsh Lane)	7/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00
				2/2	1.09	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Peak Surveyed'	07:45	08:45	01:00	

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	143	324	66	533
	B	224	0	80	373	677
	C	452	106	0	53	611
	D	118	516	114	0	748
	Tot.	794	765	518	492	2569

MTP Results Summary

Network Results

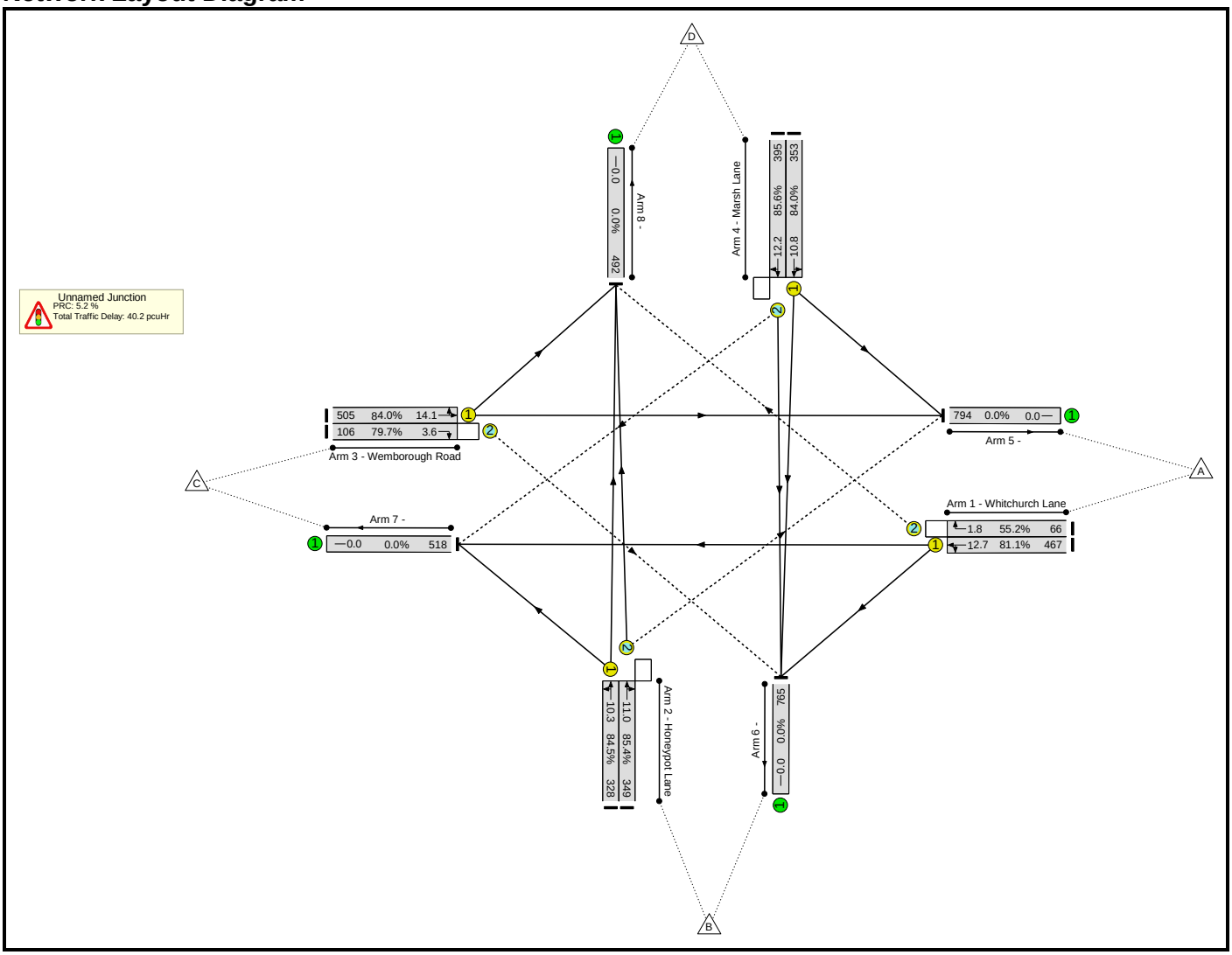
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**85.6%**	**133**	**330**	**47**	**40.2**	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**85.6%**	**133**	**330**	**47**	**40.2**	-
1/1	Whitchurch Lane Left Ahead	U	D		1	28	-	467	1788	576	81.1%	-	-	-	5.7	12.7
1/2	Whitchurch Lane Right	O	D		1	28	-	66	1904	119	55.2%	59	0	7	1.4	1.8
2/1	Honeypot Lane Left Ahead	U	B		1	18	-	328	1839	388	84.5%	-	-	-	5.6	10.3
2/2	Honeypot Lane Right Ahead	O	B		1	18	-	349	1935	408	85.4%	0	219	5	6.0	11.0
3/1	Wemborough Road Ahead Left	U	C		1	28	-	505	1865	601	84.0%	-	-	-	6.5	14.1
3/2	Wemborough Road Right	O	C		1	28	-	106	1875	133	79.7%	74	0	32	3.0	3.6
4/1	Marsh Lane Left Ahead	U	A		1	20	-	353	1800	420	84.0%	-	-	-	5.7	10.8
4/2	Marsh Lane Ahead Right	O	A		1	20	-	395	1978	462	85.6%	0	111	3	6.4	12.2

C1 PRC for Signalled Lanes (%): 5.2 Total Delay for Signalled Lanes (pcuHr): 40.22 Cycle Time (s): 90

PRC Over All Lanes (%): 5.2 Total Delay Over All Lanes(pcuHr): 40.22

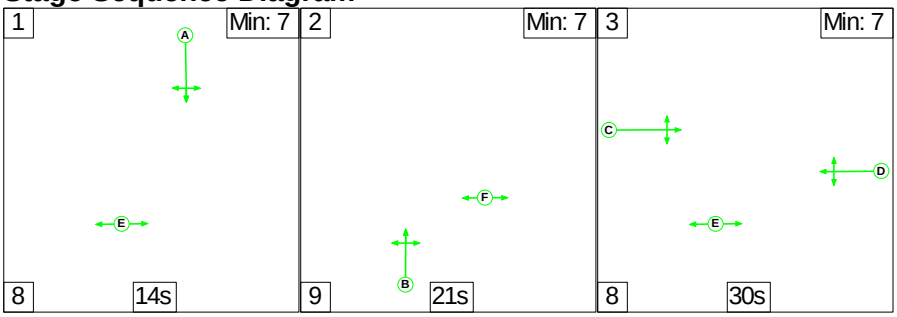
MTP Results Summary

Network Layout Diagram



Scenario 2: 'PM Peak Surveyed' (FG2: 'PM Peak Surveyed', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Whitchurch Lane)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	10.70
											Arm 7 Ahead	Inf
1/2 (Whitchurch Lane)	O	D	2	3	7.0	Geom	-	2.80	0.00	N	Arm 8 Right	21.80
2/1 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 7 Left	14.50
											Arm 8 Ahead	Inf
2/2 (Honeypot Lane)	O	B	2	3	60.0	Geom	-	2.90	0.00	N	Arm 5 Right	16.90
											Arm 8 Ahead	Inf
3/1 (Wemborough Road)	U	C	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	14.70
3/2 (Wemborough Road)	O	C	2	3	2.0	Geom	-	2.60	0.00	N	Arm 6 Right	20.10
4/1 (Marsh Lane)	U	A	2	3	60.0	Geom	-	2.35	0.00	Y	Arm 5 Left	18.10
											Arm 6 Ahead	Inf
4/2 (Marsh Lane)	O	A	2	3	3.0	Geom	-	2.70	0.00	N	Arm 6 Ahead	Inf
											Arm 7 Right	18.40
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	-	-	-	-	-	-

MTP Results Summary

Give-Way Lane Input Data

Junction: Unnamed Junction

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 (Whitchurch Lane)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
2/2 (Honeypot Lane)	5/1 (Right)	1439	0	4/1	1.09	All	2.00	2.00	0.50	2	2.00
				4/2	1.09	All					
3/2 (Wemborough Road)	6/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
4/2 (Marsh Lane)	7/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00
				2/2	1.09	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
2: 'PM Peak Surveyed'	16:15	17:15	01:00	

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	122	325	81	528
	B	194	0	190	372	756
	C	377	134	0	58	569
	D	62	350	70	0	482
	Tot.	633	606	585	511	2335

MTP Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**79.8%**	**199**	**258**	**22**	**30.8**	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**79.8%**	**199**	**258**	**22**	**30.8**	-
1/1	Whitchurch Lane Left Ahead	U	D		1	30	-	447	1796	619	72.3%	-	-	-	4.5	11.0
1/2	Whitchurch Lane Right	O	D		1	30	-	81	1904	198	41.0%	81	0	0	1.2	1.7
2/1	Honeypot Lane Left Ahead	U	B		1	22	-	356	1786	456	78.0%	-	-	-	4.8	9.9
2/2	Honeypot Lane Right Ahead	O	B		1	22	-	400	1961	501	79.8%	0	190	4	5.4	11.2
3/1	Wemborough Road Ahead Left	U	C		1	30	-	435	1860	641	67.9%	-	-	-	4.1	10.4
3/2	Wemborough Road Right	O	C		1	30	-	134	1875	177	75.8%	118	0	16	3.0	4.6
4/1	Marsh Lane Left Ahead	U	A		1	14	-	227	1809	302	75.3%	-	-	-	3.7	6.8
4/2	Marsh Lane Ahead Right	O	A		1	14	-	255	1981	330	77.2%	0	68	2	4.2	7.7

C1

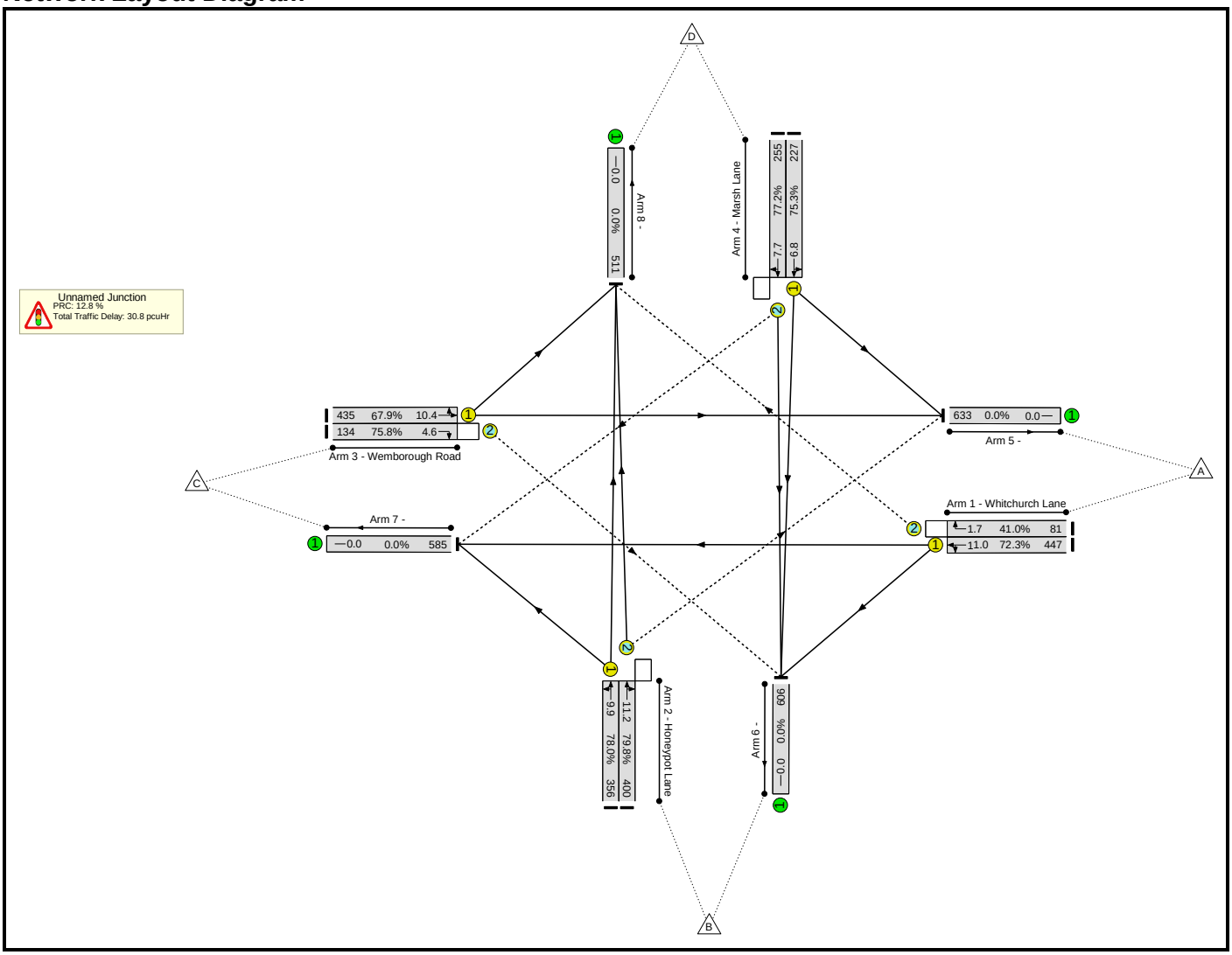
PRC for Signalled Lanes (%): 12.8
PRC Over All Lanes (%): 12.8

Total Delay for Signalled Lanes (pcuHr): 30.76
Total Delay Over All Lanes(pcuHr): 30.76

Cycle Time (s): 90

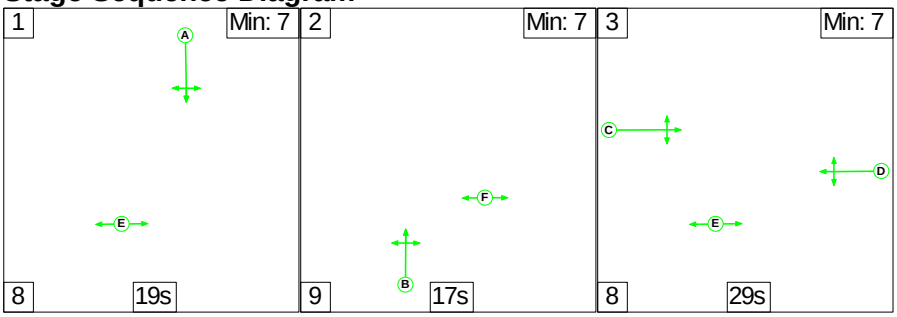
MTP Results Summary

Network Layout Diagram



Scenario 3: 'AM Peak Base' (FG3: 'AM Peak Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Whitchurch Lane)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	10.70
											Arm 7 Ahead	Inf
1/2 (Whitchurch Lane)	O	D	2	3	7.0	Geom	-	2.80	0.00	N	Arm 8 Right	21.80
2/1 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 7 Left	14.50
											Arm 8 Ahead	Inf
2/2 (Honeypot Lane)	O	B	2	3	60.0	Geom	-	2.90	0.00	N	Arm 5 Right	16.90
											Arm 8 Ahead	Inf
3/1 (Wemborough Road)	U	C	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	14.70
3/2 (Wemborough Road)	O	C	2	3	2.0	Geom	-	2.60	0.00	N	Arm 6 Right	20.10
4/1 (Marsh Lane)	U	A	2	3	60.0	Geom	-	2.35	0.00	Y	Arm 5 Left	18.10
											Arm 6 Ahead	Inf
4/2 (Marsh Lane)	O	A	2	3	3.0	Geom	-	2.70	0.00	N	Arm 6 Ahead	Inf
											Arm 7 Right	18.40
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	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: Unnamed Junction

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 (Whitchurch Lane)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
2/2 (Honeypot Lane)	5/1 (Right)	1439	0	4/1	1.09	All	2.00	2.00	0.50	2	2.00
				4/2	1.09	All					
3/2 (Wemborough Road)	6/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
4/2 (Marsh Lane)	7/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00
				2/2	1.09	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
3: 'AM Peak Base'	07:45	08:45	01:00	

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	152	345	70	567
	B	238	0	85	397	720
	C	481	113	0	56	650
	D	125	550	121	0	796
	Tot.	844	815	551	523	2733

MTP Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**95.1%**	**121**	**347**	**74**	**53.2**	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**95.1%**	**121**	**347**	**74**	**53.2**	-
1/1	Whitchurch Lane Left Ahead	U	D		1	29	-	497	1788	596	83.4%	-	-	-	6.2	13.9
1/2	Whitchurch Lane Right	O	D		1	29	-	70	1904	114	61.6%	53	0	17	1.6	2.0
2/1	Honeypot Lane Left Ahead	U	B		1	18	-	350	1839	388	90.2%	-	-	-	7.2	12.3
2/2	Honeypot Lane Right Ahead	O	B		1	18	-	370	1935	408	90.6%	0	233	5	7.5	12.9
3/1	Wemborough Road Ahead Left	U	C		1	29	-	537	1865	622	86.4%	-	-	-	7.2	15.5
3/2	Wemborough Road Right	O	C		1	29	-	113	1875	128	88.1%	68	0	45	4.1	5.5
4/1	Marsh Lane Left Ahead	U	A		1	19	-	378	1801	400	94.4%	-	-	-	9.3	14.9
4/2	Marsh Lane Ahead Right	O	A		1	19	-	418	1978	440	95.1%	0	115	6	10.2	16.4

C1

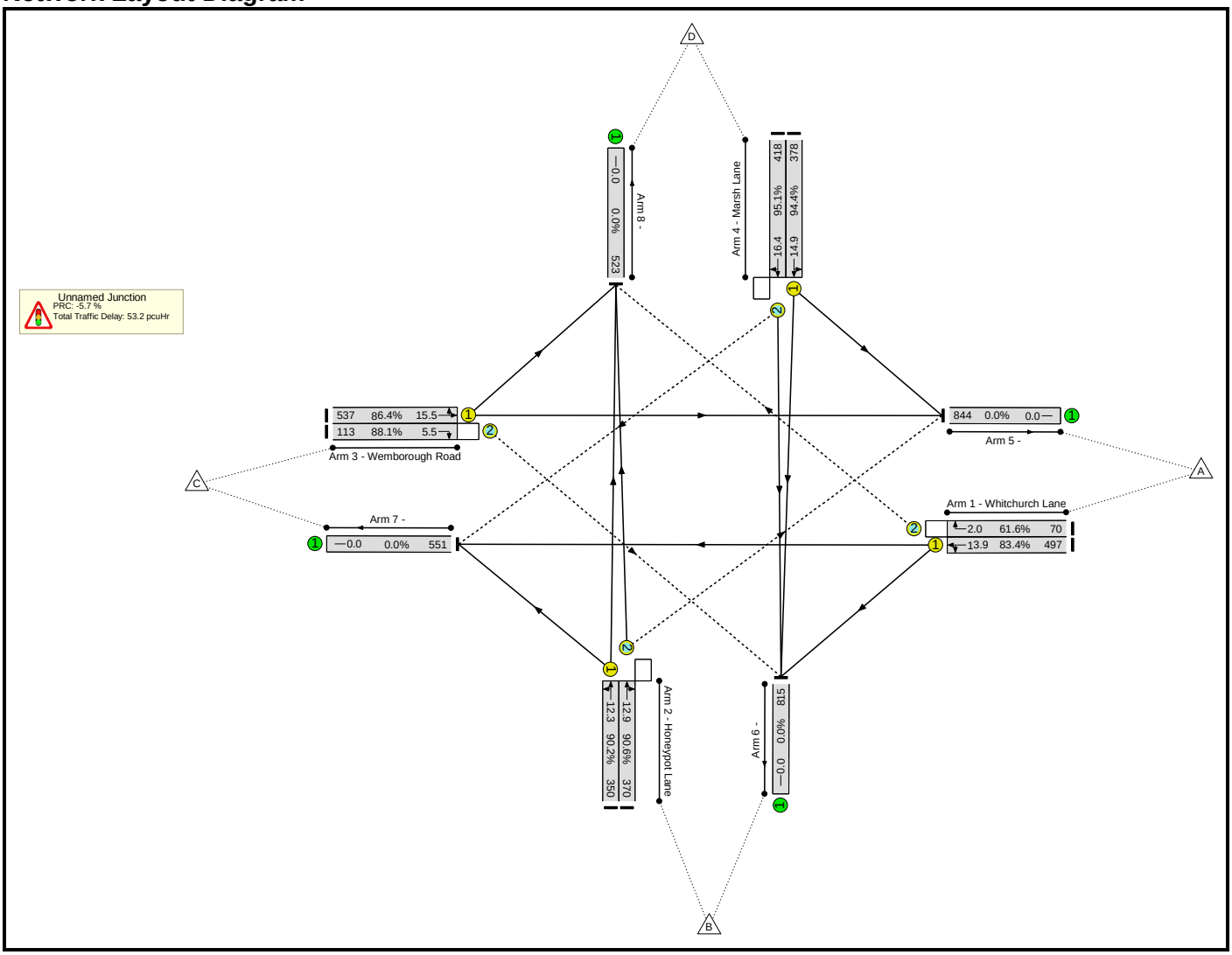
PRC for Signalled Lanes (%): -5.7
PRC Over All Lanes (%): -5.7

Total Delay for Signalled Lanes (pcuHr): 53.22
Total Delay Over All Lanes(pcuHr): 53.22

Cycle Time (s): 90

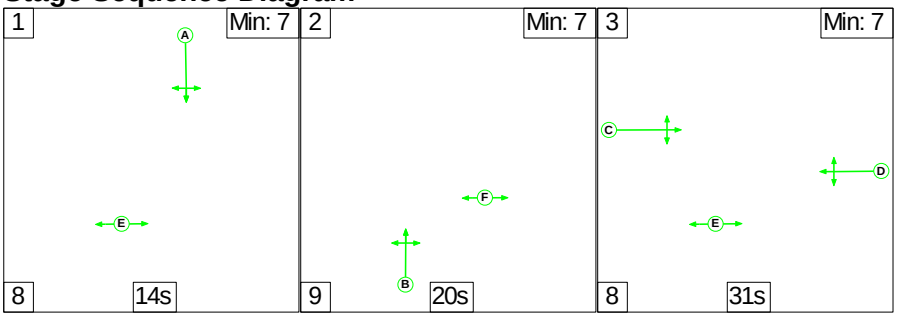
MTP Results Summary

Network Layout Diagram



Scenario 4: 'PM Peak Base' (FG4: 'PM Peak Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Whitchurch Lane)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	10.70
											Arm 7 Ahead	Inf
1/2 (Whitchurch Lane)	O	D	2	3	7.0	Geom	-	2.80	0.00	N	Arm 8 Right	21.80
2/1 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 7 Left	14.50
											Arm 8 Ahead	Inf
2/2 (Honeypot Lane)	O	B	2	3	60.0	Geom	-	2.90	0.00	N	Arm 5 Right	16.90
											Arm 8 Ahead	Inf
3/1 (Wemborough Road)	U	C	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	14.70
3/2 (Wemborough Road)	O	C	2	3	2.0	Geom	-	2.60	0.00	N	Arm 6 Right	20.10
4/1 (Marsh Lane)	U	A	2	3	60.0	Geom	-	2.35	0.00	Y	Arm 5 Left	18.10
											Arm 6 Ahead	Inf
4/2 (Marsh Lane)	O	A	2	3	3.0	Geom	-	2.70	0.00	N	Arm 6 Ahead	Inf
											Arm 7 Right	18.40
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	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: Unnamed Junction

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 (Whitchurch Lane)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
2/2 (Honeypot Lane)	5/1 (Right)	1439	0	4/1	1.09	All	2.00	2.00	0.50	2	2.00
				4/2	1.09	All					
3/2 (Wemborough Road)	6/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
4/2 (Marsh Lane)	7/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00
				2/2	1.09	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
4: 'PM Peak Base'	16:15	17:15	01:00	

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	129	346	86	561
	B	207	0	202	396	805
	C	401	142	0	62	605
	D	66	382	74	0	522
	Tot.	674	653	622	544	2493

MTP Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**88.5%**	**199**	**275**	**36**	**37.6**	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**88.5%**	**199**	**275**	**36**	**37.6**	-
1/1	Whitchurch Lane Left Ahead	U	D		1	31	-	475	1797	639	74.3%	-	-	-	4.8	11.7
1/2	Whitchurch Lane Right	O	D		1	31	-	86	1904	190	45.2%	86	0	0	1.3	1.8
2/1	Honeypot Lane Left Ahead	U	B		1	21	-	381	1787	437	87.2%	-	-	-	6.5	12.2
2/2	Honeypot Lane Right Ahead	O	B		1	21	-	424	1960	479	88.5%	0	202	5	7.3	13.6
3/1	Wemborough Road Ahead Left	U	C		1	31	-	463	1860	661	70.0%	-	-	-	4.4	11.1
3/2	Wemborough Road Right	O	C		1	31	-	142	1875	172	82.5%	113	0	29	3.7	5.5
4/1	Marsh Lane Left Ahead	U	A		1	14	-	247	1810	302	81.9%	-	-	-	4.6	8.0
4/2	Marsh Lane Ahead Right	O	A		1	14	-	275	1982	330	83.2%	0	72	2	5.1	8.9

C1

PRC for Signalled Lanes (%): 1.7

PRC Over All Lanes (%): 1.7

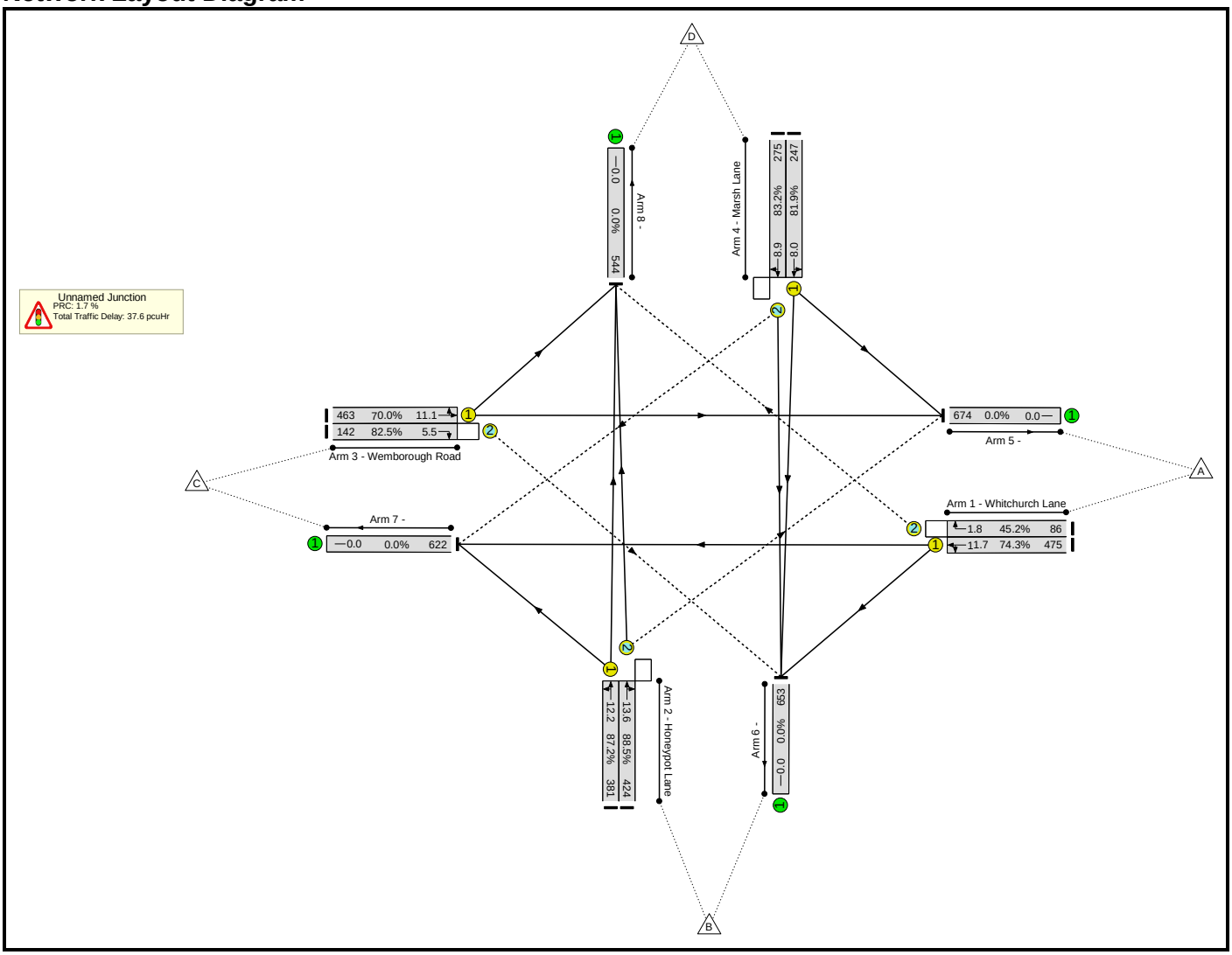
Total Delay for Signalled Lanes (pcuHr): 37.56

Total Delay Over All Lanes(pcuHr): 37.56

Cycle Time (s): 90

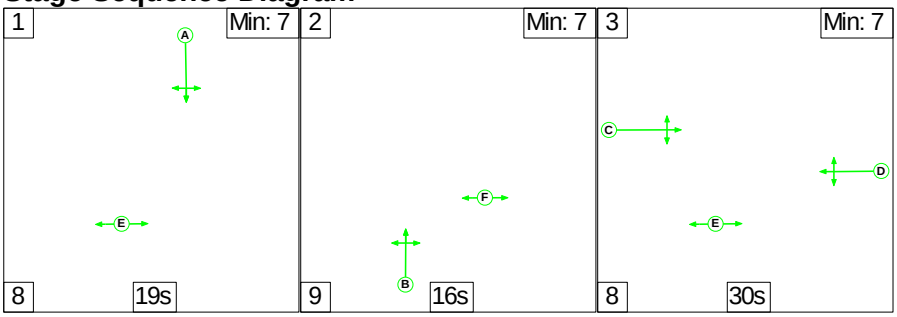
MTP Results Summary

Network Layout Diagram



Scenario 5: 'AM Peak Base + CD' (FG5: 'AM Peak Base + CD', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Whitchurch Lane)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	10.70
											Arm 7 Ahead	Inf
1/2 (Whitchurch Lane)	O	D	2	3	7.0	Geom	-	2.80	0.00	N	Arm 8 Right	21.80
2/1 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 7 Left	14.50
											Arm 8 Ahead	Inf
2/2 (Honeypot Lane)	O	B	2	3	60.0	Geom	-	2.90	0.00	N	Arm 5 Right	16.90
											Arm 8 Ahead	Inf
3/1 (Wemborough Road)	U	C	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	14.70
3/2 (Wemborough Road)	O	C	2	3	2.0	Geom	-	2.60	0.00	N	Arm 6 Right	20.10
4/1 (Marsh Lane)	U	A	2	3	60.0	Geom	-	2.35	0.00	Y	Arm 5 Left	18.10
											Arm 6 Ahead	Inf
4/2 (Marsh Lane)	O	A	2	3	3.0	Geom	-	2.70	0.00	N	Arm 6 Ahead	Inf
											Arm 7 Right	18.40
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	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: Unnamed Junction

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 (Whitchurch Lane)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
2/2 (Honeypot Lane)	5/1 (Right)	1439	0	4/1	1.09	All	2.00	2.00	0.50	2	2.00
				4/2	1.09	All					
3/2 (Wemborough Road)	6/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
4/2 (Marsh Lane)	7/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00
				2/2	1.09	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
5: 'AM Peak Base + CD'	07:45	08:45	01:00	

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	152	363	70	585
	B	238	0	103	397	738
	C	499	131	0	74	704
	D	125	550	139	0	814
	Tot.	862	833	605	541	2841

MTP Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**101.7%**	**109**	**344**	**122**	**70.3**	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**101.7%**	**109**	**344**	**122**	**70.3**	-
1/1	Whitchurch Lane Left Ahead	U	D		1	30	-	515	1791	617	83.5%	-	-	-	6.3	14.1
1/2	Whitchurch Lane Right	O	D		1	30	-	70	1904	101	69.2%	41	0	29	1.9	2.2
2/1	Honeypot Lane Left Ahead	U	B		1	17	-	358	1831	366	97.8%	-	-	-	11.2	16.5
2/2	Honeypot Lane Right Ahead	O	B		1	17	-	380	1937	387	98.1%	0	216	22	11.9	17.5
3/1	Wemborough Road Ahead Left	U	C		1	30	-	573	1860	641	89.4%	-	-	-	8.3	17.3
3/2	Wemborough Road Right	O	C		1	30	-	131	1875	129	101.7%	68	0	60	8.0	9.6
4/1	Marsh Lane Left Ahead	U	A		1	19	-	387	1802	400	96.6%	-	-	-	10.8	16.6
4/2	Marsh Lane Ahead Right	O	A		1	19	-	427	1973	438	97.4%	0	128	11	12.0	18.4

C1

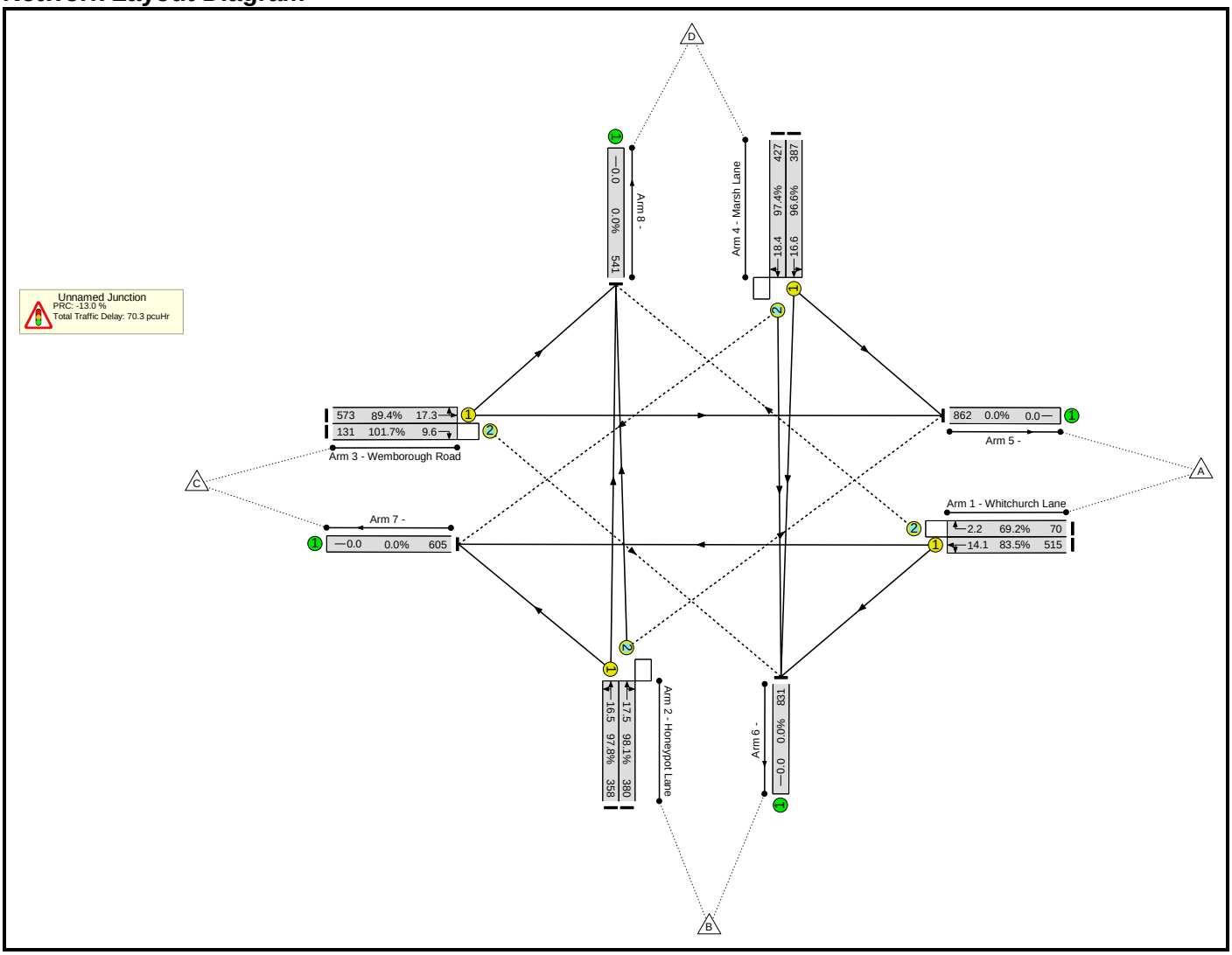
PRC for Signalled Lanes (%): -13.0
PRC Over All Lanes (%): -13.0

Total Delay for Signalled Lanes (pcuHr): 70.26
Total Delay Over All Lanes(pcuHr): 70.26

Cycle Time (s): 90

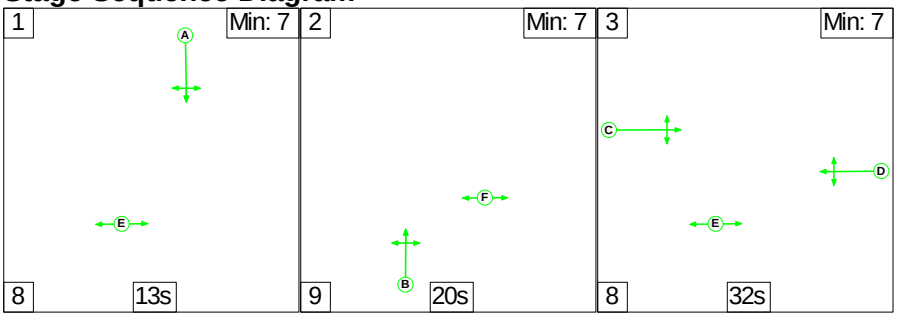
MTP Results Summary

Network Layout Diagram



Scenario 6: 'PM Peak Base + CD' (FG6: 'PM Peak Base + CD', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Whitchurch Lane)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	10.70
											Arm 7 Ahead	Inf
1/2 (Whitchurch Lane)	O	D	2	3	7.0	Geom	-	2.80	0.00	N	Arm 8 Right	21.80
2/1 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 7 Left	14.50
											Arm 8 Ahead	Inf
2/2 (Honeypot Lane)	O	B	2	3	60.0	Geom	-	2.90	0.00	N	Arm 5 Right	16.90
											Arm 8 Ahead	Inf
3/1 (Wemborough Road)	U	C	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	14.70
3/2 (Wemborough Road)	O	C	2	3	2.0	Geom	-	2.60	0.00	N	Arm 6 Right	20.10
4/1 (Marsh Lane)	U	A	2	3	60.0	Geom	-	2.35	0.00	Y	Arm 5 Left	18.10
											Arm 6 Ahead	Inf
4/2 (Marsh Lane)	O	A	2	3	3.0	Geom	-	2.70	0.00	N	Arm 6 Ahead	Inf
											Arm 7 Right	18.40
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	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: Unnamed Junction

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 (Whitchurch Lane)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
2/2 (Honeypot Lane)	5/1 (Right)	1439	0	4/1	1.09	All	2.00	2.00	0.50	2	2.00
				4/2	1.09	All					
3/2 (Wemborough Road)	6/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
4/2 (Marsh Lane)	7/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00
				2/2	1.09	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
6: 'PM Peak Base + CD'	16:15	17:15	01:00	

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	129	364	86	579
	B	207	0	220	396	823
	C	419	160	0	80	659
	D	66	382	92	0	540
	Tot.	692	671	676	562	2601

MTP Results Summary

Network Results

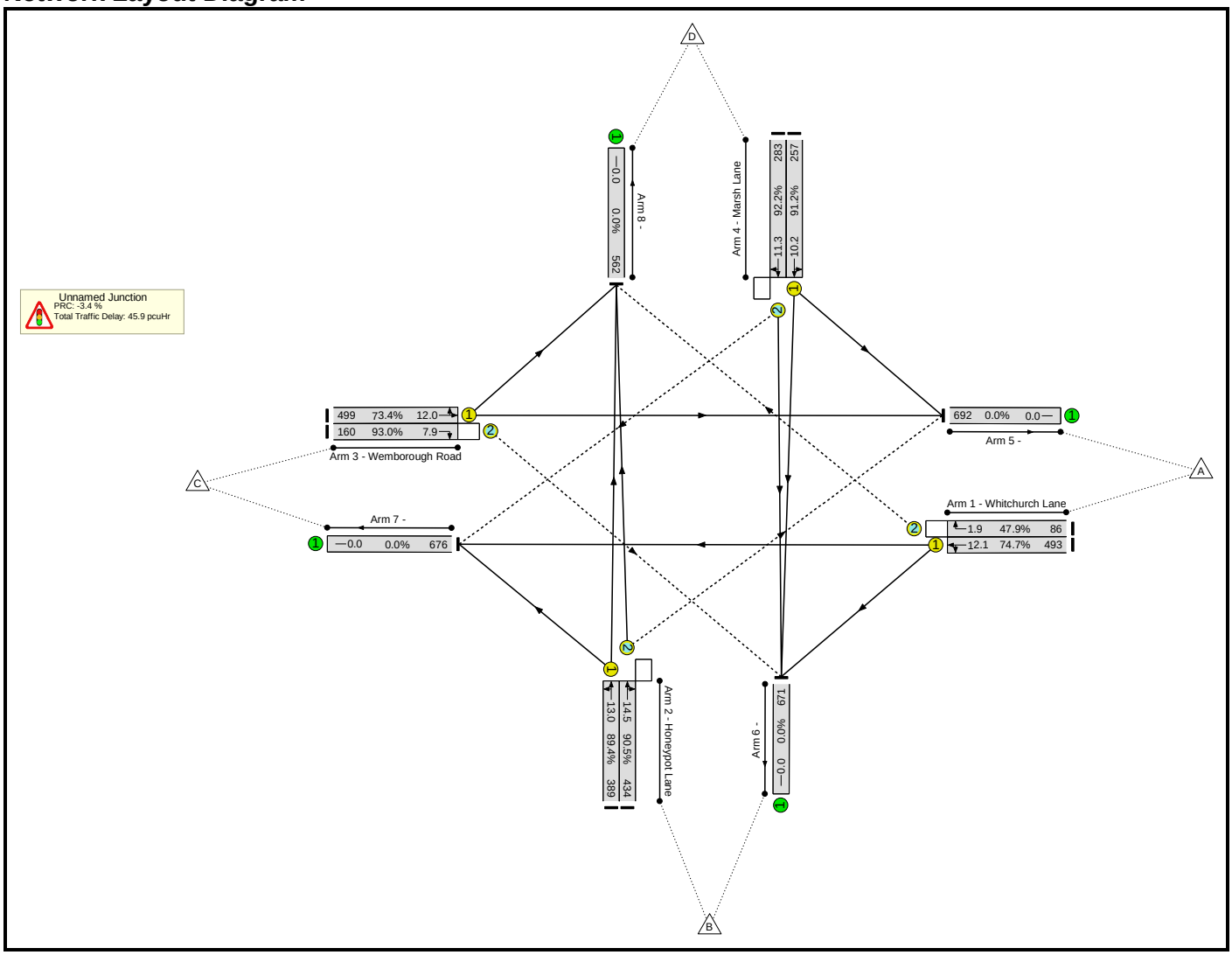
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**93.0%**	**198**	**288**	**59**	**45.9**	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**93.0%**	**198**	**288**	**59**	**45.9**	-
1/1	Whitchurch Lane Left Ahead	U	D		1	32	-	493	1799	660	74.7%	-	-	-	4.9	12.1
1/2	Whitchurch Lane Right	O	D		1	32	-	86	1904	179	47.9%	86	0	0	1.3	1.9
2/1	Honeypot Lane Left Ahead	U	B		1	21	-	389	1781	435	89.4%	-	-	-	7.2	13.0
2/2	Honeypot Lane Right Ahead	O	B		1	21	-	434	1962	480	90.5%	0	202	5	8.0	14.5
3/1	Wemborough Road Ahead Left	U	C		1	32	-	499	1855	680	73.4%	-	-	-	4.8	12.0
3/2	Wemborough Road Right	O	C		1	32	-	160	1875	172	93.0%	112	0	48	5.8	7.9
4/1	Marsh Lane Left Ahead	U	A		1	13	-	257	1811	282	91.2%	-	-	-	6.6	10.2
4/2	Marsh Lane Ahead Right	O	A		1	13	-	283	1973	307	92.2%	0	86	6	7.3	11.3

C1 PRC for Signalled Lanes (%): -3.4 Total Delay for Signalled Lanes (pcuHr): 45.93 Cycle Time (s): 90

PRC Over All Lanes (%): -3.4 Total Delay Over All Lanes(pcuHr): 45.93

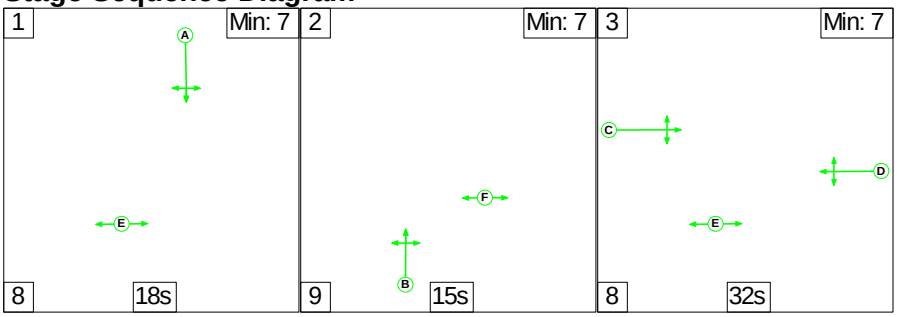
MTP Results Summary

Network Layout Diagram



Scenario 7: 'AM Peak Base + CD + Dev' (FG7: 'AM Peak Base + CD + Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Whitchurch Lane)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	10.70
											Arm 7 Ahead	Inf
1/2 (Whitchurch Lane)	O	D	2	3	7.0	Geom	-	2.80	0.00	N	Arm 8 Right	21.80
2/1 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 7 Left	14.50
											Arm 8 Ahead	Inf
2/2 (Honeypot Lane)	O	B	2	3	60.0	Geom	-	2.90	0.00	N	Arm 5 Right	16.90
											Arm 8 Ahead	Inf
3/1 (Wemborough Road)	U	C	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	14.70
3/2 (Wemborough Road)	O	C	2	3	2.0	Geom	-	2.60	0.00	N	Arm 6 Right	20.10
4/1 (Marsh Lane)	U	A	2	3	60.0	Geom	-	2.35	0.00	Y	Arm 5 Left	18.10
											Arm 6 Ahead	Inf
4/2 (Marsh Lane)	O	A	2	3	3.0	Geom	-	2.70	0.00	N	Arm 6 Ahead	Inf
											Arm 7 Right	18.40
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	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: Unnamed Junction

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 (Whitchurch Lane)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
2/2 (Honeypot Lane)	5/1 (Right)	1439	0	4/1	1.09	All	2.00	2.00	0.50	2	2.00
				4/2	1.09	All					
3/2 (Wemborough Road)	6/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
4/2 (Marsh Lane)	7/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00
				2/2	1.09	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
7: 'AM Peak Base + CD + Dev'	07:45	08:45	01:00	

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	152	388	70	610
	B	238	0	147	397	782
	C	506	144	0	89	739
	D	125	550	186	0	861
	Tot.	869	846	721	556	2992

MTP Results Summary

Network Results

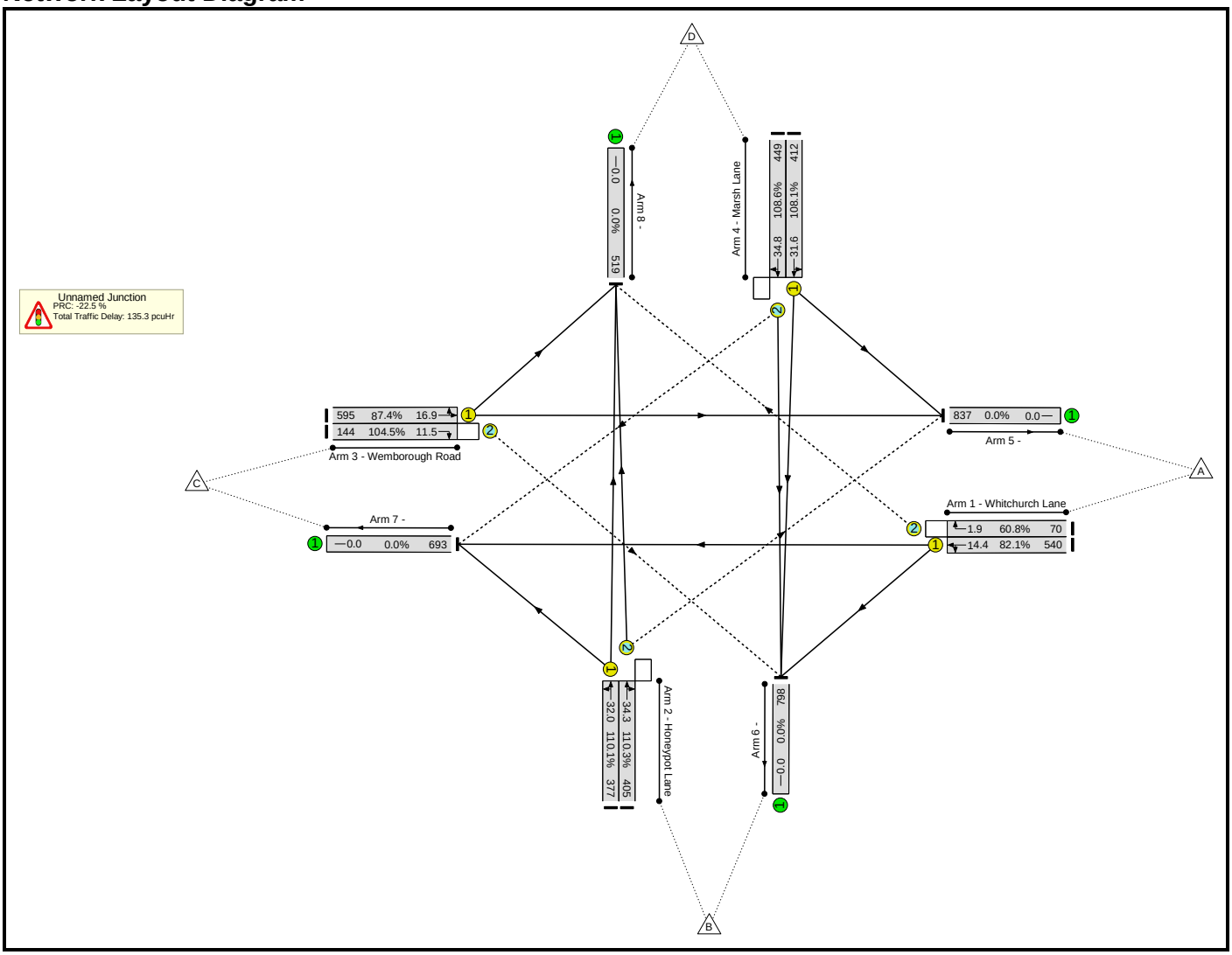
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**110.3%**	**129**	**344**	**122**	**135.3**	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**110.3%**	**129**	**344**	**122**	**135.3**	-
1/1	Whitchurch Lane Left Ahead	U	D		1	32	-	540	1794	658	82.1%	-	-	-	6.1	14.4
1/2	Whitchurch Lane Right	O	D		1	32	-	70	1904	115	60.8%	53	0	17	1.6	1.9
2/1	Honeypot Lane Left Ahead	U	B		1	16	-	377	1812	342	110.1%	-	-	-	26.8	32.0
2/2	Honeypot Lane Right Ahead	O	B		1	16	-	405	1944	367	110.3%	0	190	25	28.8	34.3
3/1	Wemborough Road Ahead Left	U	C		1	32	-	595	1857	681	87.4%	-	-	-	7.6	16.9
3/2	Wemborough Road Right	O	C		1	32	-	144	1875	138	104.5%	77	0	61	9.8	11.5
4/1	Marsh Lane Left Ahead	U	A		1	18	-	412	1805	381	108.1%	-	-	-	25.9	31.6
4/2	Marsh Lane Ahead Right	O	A		1	18	-	449	1959	414	108.6%	0	153	18	28.7	34.8

C1 PRC for Signalled Lanes (%): -22.5 Total Delay for Signalled Lanes (pcuHr): 135.31 Cycle Time (s): 90

PRC Over All Lanes (%): -22.5 Total Delay Over All Lanes(pcuHr): 135.31

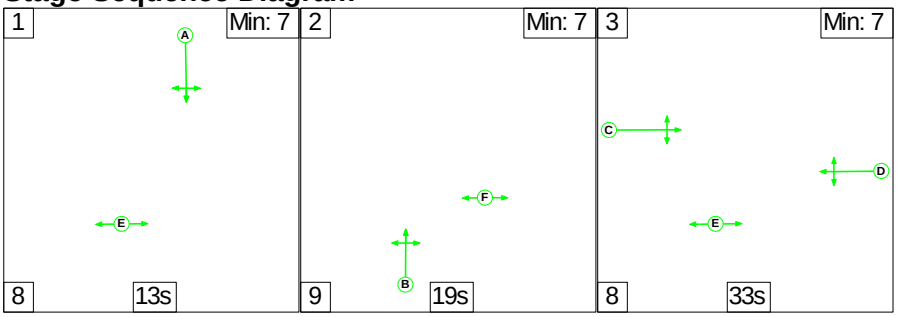
MTP Results Summary

Network Layout Diagram



Scenario 8: 'PM Peak Base + CD + Dev' (FG8: 'PM Peak Base + CD + Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Whitchurch Lane)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	10.70
											Arm 7 Ahead	Inf
1/2 (Whitchurch Lane)	O	D	2	3	7.0	Geom	-	2.80	0.00	N	Arm 8 Right	21.80
2/1 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 7 Left	14.50
											Arm 8 Ahead	Inf
2/2 (Honeypot Lane)	O	B	2	3	60.0	Geom	-	2.90	0.00	N	Arm 5 Right	16.90
											Arm 8 Ahead	Inf
3/1 (Wemborough Road)	U	C	2	3	60.0	Geom	-	2.70	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	14.70
3/2 (Wemborough Road)	O	C	2	3	2.0	Geom	-	2.60	0.00	N	Arm 6 Right	20.10
4/1 (Marsh Lane)	U	A	2	3	60.0	Geom	-	2.35	0.00	Y	Arm 5 Left	18.10
											Arm 6 Ahead	Inf
4/2 (Marsh Lane)	O	A	2	3	3.0	Geom	-	2.70	0.00	N	Arm 6 Ahead	Inf
											Arm 7 Right	18.40
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	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: Unnamed Junction

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 (Whitchurch Lane)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
2/2 (Honeypot Lane)	5/1 (Right)	1439	0	4/1	1.09	All	2.00	2.00	0.50	2	2.00
				4/2	1.09	All					
3/2 (Wemborough Road)	6/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
4/2 (Marsh Lane)	7/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00
				2/2	1.09	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
8: 'PM Peak Base + CD + Dev'	16:15	17:15	01:00	

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	129	366	86	581
	B	207	0	225	396	828
	C	431	182	0	103	716
	D	66	382	96	0	544
	Tot.	704	693	687	585	2669

MTP Results Summary

Network Results

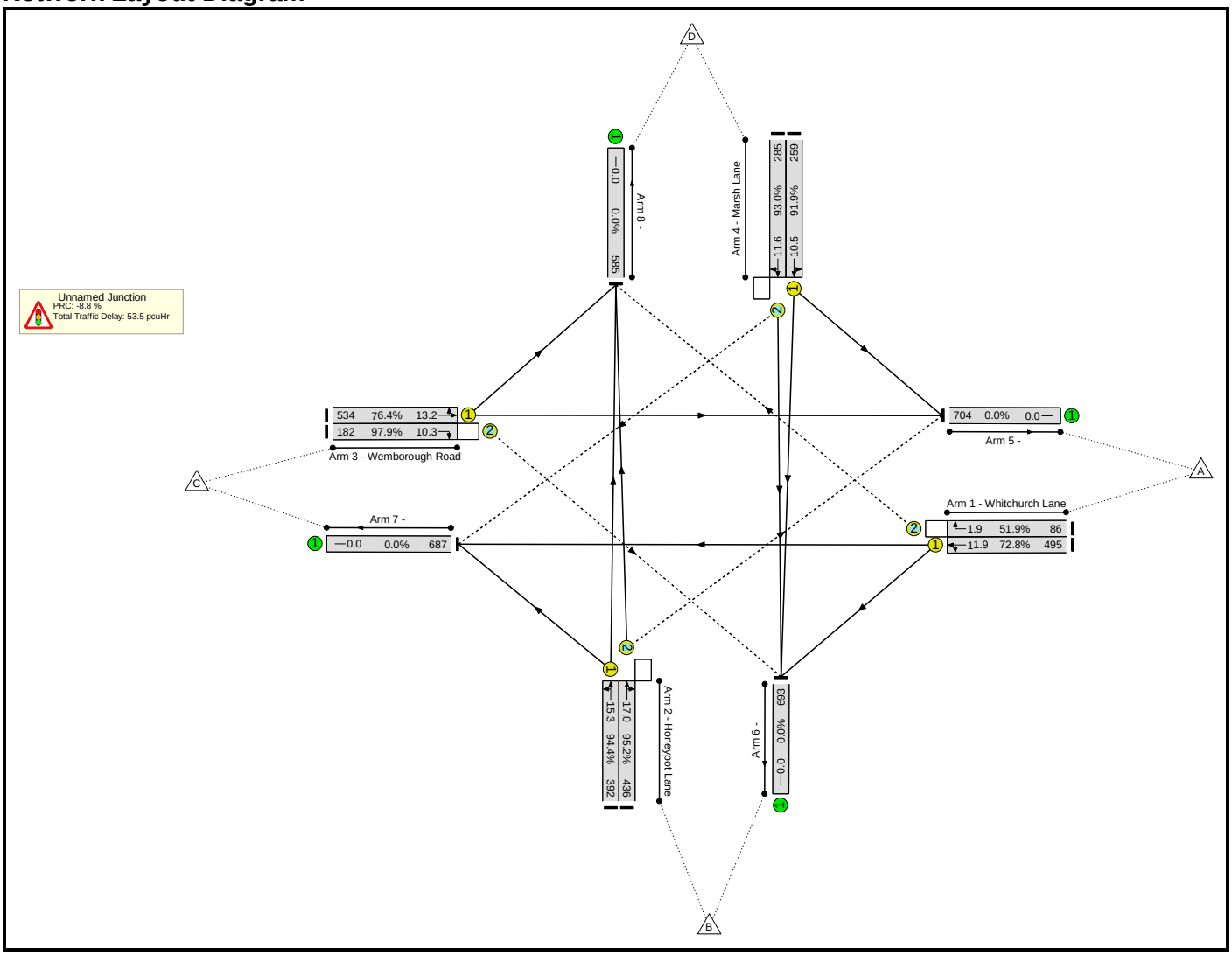
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**97.9%**	**212**	**285**	**74**	**53.5**	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**97.9%**	**212**	**285**	**74**	**53.5**	-
1/1	Whitchurch Lane Left Ahead	U	D		1	33	-	495	1799	680	72.8%	-	-	-	4.6	11.9
1/2	Whitchurch Lane Right	O	D		1	33	-	86	1904	166	51.9%	86	0	0	1.5	1.9
2/1	Honeypot Lane Left Ahead	U	B		1	20	-	392	1779	415	94.4%	-	-	-	9.4	15.3
2/2	Honeypot Lane Right Ahead	O	B		1	20	-	436	1962	458	95.2%	0	197	10	10.4	17.0
3/1	Wemborough Road Ahead Left	U	C		1	33	-	534	1849	699	76.4%	-	-	-	5.2	13.2
3/2	Wemborough Road Right	O	C		1	33	-	182	1875	186	97.9%	126	0	56	7.9	10.3
4/1	Marsh Lane Left Ahead	U	A		1	13	-	259	1812	282	91.9%	-	-	-	6.8	10.5
4/2	Marsh Lane Ahead Right	O	A		1	13	-	285	1971	307	93.0%	0	89	7	7.6	11.6

C1 PRC for Signalled Lanes (%): -8.8 Total Delay for Signalled Lanes (pcuHr): 53.50 Cycle Time (s): 90

PRC Over All Lanes (%): -8.8 Total Delay Over All Lanes(pcuHr): 53.50

MTP Results Summary

Network Layout Diagram



APPENDIX 7

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010) (Patch 15 Apr 2011)

FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE SALES
TEL: CROWTHORNE (01344) 770758, FAX: 770356
EMAIL: software@trl.co.uk

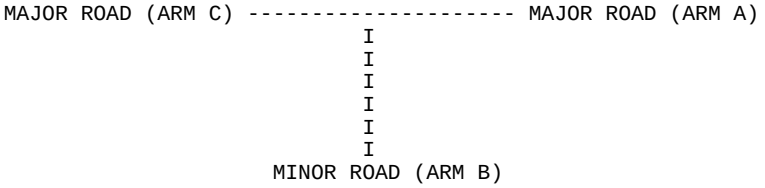
Run with file:-
"S:\14 jobs\042 Avanti House Secondary School, Whitchurch Playing Fields\Technical Assessments\PICADY\
Wemborough Road - Whitchurch Schools.vpi"
(drive-on-the-left) at 13:03:06 on Tuesday, 2 June 2015

RUN INFORMATION

RUN TITLE	: Wemborough Road / Whitchurch Schools
LOCATION	: Whitchurch Playing Fields, Harrow
DATE	: 20/04/15
CLIENT	: Education Funding Agency
ENUMERATOR	: Milestone4 - Newer [MILESTONE4-PC]
JOB NUMBER	: 14-042
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Wemborough Road (W)
ARM B IS Whitchurch Schools
ARM C IS Wemborough Road (E)

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM A-BC CONTAINS TRAFFIC GOING FROM ARM A TO ARM B AND TO ARM C
ETC.

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 9.30 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B)200.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (0)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 23.0 M.
- VISIBILITY TO RIGHT	(VB-A) 19.0 M.
- LANE 1 WIDTH	(WB-C) 5.00 M.
- LANE 2 WIDTH	(WB-A) 5.00 M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
763.23	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
593.39	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
689.79	0.23	0.23

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

Demand set: 2014 Surveyed AM

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	8.26	12.39	8.26
ARM B	15.00	45.00	75.00	1.01	1.52	1.01
ARM C	15.00	45.00	75.00	6.18	9.26	6.18

Demand set: 2014 Surveyed AM

TIME	FROM/TO	ARM A	ARM B	ARM C
07.30 - 09.00		TURNING PROPORTIONS		
		TURNING COUNTS		
		(PERCENTAGE OF H.V.S)		
	ARM A	0.000	0.165	0.835
		0.0	109.0	552.0
		(0.0)	(0.0)	(3.3)
	ARM B	0.494	0.000	0.506
		40.0	0.0	41.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.860	0.140	0.000
		425.0	69.0	0.0
		(5.6)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET 2014 Surveyed AM
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.30-07.45									
B-C	0.51	10.58	0.049		0.00	0.05	0.7		0.10
B-A	0.50	6.97	0.072		0.00	0.08	1.1		0.15
C-AB	1.45	13.07	0.111		0.00	0.21	3.2		0.09
C-A	4.75								
A-B	1.37								
A-C	6.93								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-C	0.61	10.15	0.061		0.05	0.06	0.9		0.10
B-A	0.60	6.40	0.094		0.08	0.10	1.5		0.17
C-AB	1.94	13.45	0.144		0.21	0.31	4.6		0.09
C-A	5.46								
A-B	1.63								
A-C	8.27								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-C	0.75	9.54	0.079		0.06	0.08	1.2		0.11
B-A	0.73	5.62	0.131		0.10	0.15	2.1		0.20
C-AB	2.83	14.06	0.202		0.31	0.49	7.4		0.09
C-A	6.23								
A-B	2.00								
A-C	10.13								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	0.75	9.54	0.079		0.08	0.09	1.3		0.11
B-A	0.73	5.61	0.131		0.15	0.15	2.2		0.21
C-AB	2.84	14.06	0.202		0.49	0.49	7.5		0.09
C-A	6.23								
A-B	2.00								
A-C	10.13								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	0.61	10.15	0.061		0.09	0.06	1.0		0.10
B-A	0.60	6.40	0.094		0.15	0.10	1.6		0.17
C-AB	1.95	13.46	0.145		0.49	0.32	4.8		0.09
C-A	5.46								
A-B	1.63								
A-C	8.27								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	0.51	10.57	0.049		0.06	0.05	0.8		0.10
B-A	0.50	6.97	0.072		0.10	0.08	1.2		0.15
C-AB	1.46	13.08	0.111		0.32	0.22	3.3		0.09
C-A	4.74								
A-B	1.37								
A-C	6.93								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.1
08.00	0.1
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.1
08.00	0.1
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.2
08.00	0.3
08.15	0.5
08.30	0.5
08.45	0.3
09.00	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	56.4	37.6	6.0	0.11	6.0	0.11
B-A	55.1	36.7	9.8	0.18	9.8	0.18
C-AB	187.0	124.7	30.7	0.16	30.7	0.16
C-A	492.9	328.6				
A-B	150.0	100.0				
A-C	759.8	506.5				
ALL	1701.3	1134.2	46.5	0.03	46.5	0.03

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
763.23	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
593.39	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
689.79	0.23	0.23

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

Demand set: 2014 Surveyed PM

TIME PERIOD BEGINS 16.00 AND ENDS 17.30

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	6.80	10.20	6.80
ARM B	15.00	45.00	75.00	0.69	1.03	0.69
ARM C	15.00	45.00	75.00	7.05	10.58	7.05

Demand set: 2014 Surveyed PM

TIME	FROM/TO	ARM A	ARM B	ARM C
16.00 - 17.30				
	ARM A	0.000	0.020	0.980
		0.0	11.0	533.0
		(0.0)	(0.0)	(3.0)
	ARM B	0.636	0.000	0.364
		35.0	0.0	20.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.965	0.035	0.000
		544.0	20.0	0.0
		(3.9)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET 2014 Surveyed PM
AND FOR TIME PERIOD 2

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.00-16.15									
B-C	0.25	10.79	0.023		0.00	0.02	0.3		0.09
B-A	0.44	7.14	0.062		0.00	0.06	0.9		0.15
C-AB	0.45	14.20	0.031		0.00	0.04	0.6		0.07
C-A	6.63								
A-B	0.14								
A-C	6.69								
16.15-16.30									
B-C	0.30	10.41	0.029		0.02	0.03	0.4		0.10
B-A	0.52	6.60	0.079		0.06	0.09	1.2		0.16
C-AB	0.59	14.72	0.040		0.04	0.06	0.9		0.07
C-A	7.86								
A-B	0.16								
A-C	7.99								
16.30-16.45									
B-C	0.37	9.87	0.037		0.03	0.04	0.6		0.11
B-A	0.64	5.86	0.110		0.09	0.12	1.8		0.19
C-AB	0.93	15.79	0.059		0.06	0.10	1.4		0.07
C-A	9.42								
A-B	0.20								
A-C	9.78								
16.45-17.00									
B-C	0.37	9.87	0.037		0.04	0.04	0.6		0.11
B-A	0.64	5.86	0.110		0.12	0.12	1.8		0.19
C-AB	0.93	15.79	0.059		0.10	0.10	1.4		0.07
C-A	9.42								
A-B	0.20								
A-C	9.78								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-C	0.30	10.41	0.029		0.04	0.03	0.5		0.10
B-A	0.52	6.60	0.079		0.12	0.09	1.3		0.16
C-AB	0.59	14.72	0.040		0.10	0.06	0.9		0.07
C-A	7.86								
A-B	0.16								
A-C	7.99								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-C	0.25	10.79	0.023		0.03	0.02	0.4		0.09
B-A	0.44	7.14	0.062		0.09	0.07	1.0		0.15
C-AB	0.45	14.20	0.031		0.06	0.04	0.6		0.07
C-A	6.63								
A-B	0.14								
A-C	6.69								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
16.15	0.0
16.30	0.0
16.45	0.0
17.00	0.0
17.15	0.0
17.30	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
16.15	0.1
16.30	0.1
16.45	0.1
17.00	0.1
17.15	0.1
17.30	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
16.15	0.0
16.30	0.1
16.45	0.1
17.00	0.1
17.15	0.1
17.30	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	27.5	18.4	2.7	0.10	2.7	0.10
B-A	48.2	32.1	8.1	0.17	8.1	0.17
C-AB	59.1	39.4	5.8	0.10	5.8	0.10
C-A	717.2	478.1				
A-B	15.1	10.1				
A-C	733.6	489.1				
ALL	1600.8	1067.2	16.7	0.01	16.7	0.01

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
763.23	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
593.39	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
689.79	0.23	0.23

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

Demand set: 2020 Base AM

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	8.80	13.20	8.80
ARM B	15.00	45.00	75.00	1.09	1.63	1.09
ARM C	15.00	45.00	75.00	6.56	9.84	6.56

Demand set: 2020 Base AM

TIME	FROM/TO	ARM A	ARM B	ARM C
07.30 - 09.00		TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S)		
	ARM A	0.000	0.165	0.835
		0.0	116.0	588.0
		(0.0)	(0.0)	(3.3)
	ARM B	0.494	0.000	0.506
		43.0	0.0	44.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.861	0.139	0.000
		452.0	73.0	0.0
		(5.6)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET 2020 Base AM
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.30-07.45									
B-C	0.55	10.43	0.053		0.00	0.06	0.8		0.10
B-A	0.54	6.78	0.080		0.00	0.09	1.2		0.16
C-AB	1.59	13.19	0.121		0.00	0.24	3.5		0.09
C-A	5.00								
A-B	1.46								
A-C	7.38								
07.45-08.00									
B-C	0.66	9.97	0.066		0.06	0.07	1.0		0.11
B-A	0.64	6.18	0.104		0.09	0.11	1.7		0.18
C-AB	2.15	13.60	0.158		0.24	0.35	5.2		0.09
C-A	5.72								
A-B	1.74								
A-C	8.81								
08.00-08.15									
B-C	0.81	9.32	0.087		0.07	0.09	1.4		0.12
B-A	0.79	5.34	0.148		0.11	0.17	2.5		0.22
C-AB	3.18	14.26	0.223		0.35	0.57	8.6		0.09
C-A	6.45								
A-B	2.13								
A-C	10.79								
08.15-08.30									
B-C	0.81	9.32	0.087		0.09	0.09	1.4		0.12
B-A	0.79	5.34	0.148		0.17	0.17	2.6		0.22
C-AB	3.19	14.27	0.223		0.57	0.58	8.7		0.09
C-A	6.44								
A-B	2.13								
A-C	10.79								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	0.66	9.97	0.066		0.09	0.07	1.1		0.11
B-A	0.64	6.17	0.104		0.17	0.12	1.8		0.18
C-AB	2.15	13.61	0.158		0.58	0.36	5.4		0.09
C-A	5.71								
A-B	1.74								
A-C	8.81								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	0.55	10.43	0.053		0.07	0.06	0.9		0.10
B-A	0.54	6.78	0.080		0.12	0.09	1.3		0.16
C-AB	1.60	13.20	0.121		0.36	0.25	3.7		0.09
C-A	4.99								
A-B	1.46								
A-C	7.38								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
07.45	0.1	
08.00	0.1	
08.15	0.1	
08.30	0.1	
08.45	0.1	
09.00	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
07.45	0.1	
08.00	0.1	
08.15	0.2	
08.30	0.2	
08.45	0.1	
09.00	0.1	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
07.45	0.2	
08.00	0.3	
08.15	0.6	*
08.30	0.6	*
08.45	0.4	
09.00	0.2	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	60.6	40.4	6.6	0.11	6.6	0.11
B-A	59.2	39.5	11.1	0.19	11.1	0.19
C-AB	207.9	138.6	35.2	0.17	35.2	0.17
C-A	514.8	343.2				
A-B	159.7	106.4				
A-C	809.3	539.6				
ALL	1811.4	1207.6	52.9	0.03	52.9	0.03

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
763.23	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
593.39	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
689.79	0.23	0.23

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

Demand set: 2020 Base PM

TIME PERIOD BEGINS 16.00 AND ENDS 17.30

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	7.24	10.86	7.24
ARM B	15.00	45.00	75.00	0.73	1.09	0.73
ARM C	15.00	45.00	75.00	7.50	11.25	7.50

Demand set: 2020 Base PM

TIME	FROM/TO	ARM A	ARM B	ARM C
16.00 - 17.30				
	ARM A	0.000	0.021	0.979
		0.0	12.0	567.0
		(0.0)	(0.0)	(3.0)
	ARM B	0.638	0.000	0.362
		37.0	0.0	21.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.965	0.035	0.000
		579.0	21.0	0.0
		(3.9)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET 2020 Base PM
AND FOR TIME PERIOD 2

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.00-16.15									
B-C	0.26	10.67	0.025		0.00	0.03	0.4		0.10
B-A	0.46	6.96	0.067		0.00	0.07	1.0		0.15
C-AB	0.48	14.37	0.034		0.00	0.05	0.7		0.07
C-A	7.04								
A-B	0.15								
A-C	7.11								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.15-16.30									
B-C	0.31	10.26	0.031		0.03	0.03	0.5		0.10
B-A	0.55	6.39	0.087		0.07	0.09	1.4		0.17
C-AB	0.70	15.18	0.046		0.05	0.07	1.0		0.07
C-A	8.28								
A-B	0.18								
A-C	8.50								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.30-16.45									
B-C	0.39	9.68	0.040		0.03	0.04	0.6		0.11
B-A	0.68	5.61	0.121		0.09	0.14	2.0		0.20
C-AB	1.04	16.08	0.065		0.07	0.11	1.6		0.07
C-A	9.97								
A-B	0.22								
A-C	10.40								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-C	0.39	9.68	0.040		0.04	0.04	0.6		0.11
B-A	0.68	5.61	0.121		0.14	0.14	2.0		0.20
C-AB	1.04	16.08	0.065		0.11	0.11	1.6		0.07
C-A	9.97								
A-B	0.22								
A-C	10.40								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-C	0.31	10.26	0.031		0.04	0.03	0.5		0.10
B-A	0.55	6.39	0.087		0.14	0.10	1.5		0.17
C-AB	0.71	15.18	0.047		0.11	0.07	1.0		0.07
C-A	8.28								
A-B	0.18								
A-C	8.50								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-C	0.26	10.67	0.025		0.03	0.03	0.4		0.10
B-A	0.46	6.96	0.067		0.10	0.07	1.1		0.15
C-AB	0.49	14.37	0.034		0.07	0.05	0.7		0.07
C-A	7.04								
A-B	0.15								
A-C	7.11								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
16.15	0.0
16.30	0.0
16.45	0.0
17.00	0.0
17.15	0.0
17.30	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
16.15	0.1
16.30	0.1
16.45	0.1
17.00	0.1
17.15	0.1
17.30	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
16.15	0.0
16.30	0.1
16.45	0.1
17.00	0.1
17.15	0.1
17.30	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	28.9	19.3	2.9	0.10	2.9	0.10
B-A	50.9	34.0	9.0	0.18	9.0	0.18
C-AB	66.9	44.6	6.7	0.10	6.7	0.10
C-A	758.9	506.0				
A-B	16.5	11.0				
A-C	780.4	520.3				
ALL	1702.6	1135.1	18.6	0.01	18.6	0.01

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
763.23	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
593.39	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
689.79	0.23	0.23

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

Demand set: Base + CD AM

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	9.48	14.21	9.48
ARM B	15.00	45.00	75.00	2.44	3.66	2.44
ARM C	15.00	45.00	75.00	7.24	10.86	7.24

Demand set: Base + CD AM

TIME	FROM/TO	ARM A	ARM B	ARM C
07.30 - 09.00				
	ARM A	0.000	0.224	0.776
		0.0	170.0	588.0
		(0.0)	(0.0)	(3.3)
	ARM B	0.497	0.000	0.503
		97.0	0.0	98.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.781	0.219	0.000
		452.0	127.0	0.0
		(5.6)	(0.0)	(0.0)

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET Base + CD AM
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.30-07.45									
B-C	1.23	10.08	0.122		0.00	0.14	2.0		0.11
B-A	1.22	6.50	0.187		0.00	0.23	3.2		0.19
C-AB	2.79	13.06	0.213		0.00	0.43	6.4		0.10
C-A	4.48								
A-B	2.13								
A-C	7.38								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-C	1.47	9.52	0.154		0.14	0.18	2.6		0.12
B-A	1.45	5.83	0.249		0.23	0.33	4.7		0.23
C-AB	3.82	13.50	0.283		0.43	0.66	10.0		0.10
C-A	4.85								
A-B	2.55								
A-C	8.81								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-C	1.80	8.71	0.207		0.18	0.26	3.8		0.14
B-A	1.78	4.91	0.362		0.33	0.55	7.8		0.32
C-AB	5.63	14.11	0.399		0.66	1.18	17.8		0.12
C-A	5.00								
A-B	3.12								
A-C	10.79								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	1.80	8.70	0.207		0.26	0.26	3.9		0.14
B-A	1.78	4.91	0.363		0.55	0.56	8.3		0.32
C-AB	5.65	14.13	0.400		1.18	1.20	18.3		0.12
C-A	4.98								
A-B	3.12								
A-C	10.79								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	1.47	9.51	0.154		0.26	0.18	2.8		0.12
B-A	1.45	5.82	0.250		0.56	0.34	5.3		0.23
C-AB	3.84	13.52	0.284		1.20	0.69	10.5		0.10
C-A	4.83								
A-B	2.55								
A-C	8.81								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	1.23	10.07	0.122		0.18	0.14	2.2		0.11
B-A	1.22	6.48	0.188		0.34	0.23	3.7		0.19
C-AB	2.80	13.08	0.214		0.69	0.45	6.8		0.10
C-A	4.46								
A-B	2.13								
A-C	7.38								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
07.45	0.1	
08.00	0.2	
08.15	0.3	
08.30	0.3	
08.45	0.2	
09.00	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
07.45	0.2	
08.00	0.3	
08.15	0.6	*
08.30	0.6	*
08.45	0.3	
09.00	0.2	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
07.45	0.4	
08.00	0.7	*
08.15	1.2	*
08.30	1.2	*
08.45	0.7	*
09.00	0.5	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	134.9	89.9	17.3	0.13	17.3	0.13
B-A	133.5	89.0	33.1	0.25	33.1	0.25
C-AB	367.9	245.3	69.7	0.19	69.7	0.19
C-A	429.1	286.0				
A-B	234.0	156.0				
A-C	809.3	539.6				
ALL	2108.7	1405.8	120.0	0.06	120.0	0.06

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
763.23	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
593.39	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
689.79	0.23	0.23

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

Demand set: Base + CD PM

TIME PERIOD BEGINS 16.00 AND ENDS 17.30

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	7.91	11.87	7.91
ARM B	15.00	45.00	75.00	2.08	3.11	2.08
ARM C	15.00	45.00	75.00	8.18	12.26	8.18

Demand set: Base + CD PM

TIME	FROM/TO	ARM A	ARM B	ARM C
16.00 - 17.30				
	ARM A	0.000	0.104	0.896
		0.0	66.0	567.0
		(0.0)	(0.0)	(3.0)
	ARM B	0.548	0.000	0.452
		91.0	0.0	75.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.885	0.115	0.000
		579.0	75.0	0.0
		(3.9)	(0.0)	(0.0)

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET Base + CD PM
AND FOR TIME PERIOD 2

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.00-16.15									
B-C	0.94	10.32	0.091		0.00	0.10	1.4		0.11
B-A	1.14	6.67	0.171		0.00	0.20	2.9		0.18
C-AB	1.85	14.42	0.129		0.00	0.28	4.2		0.08
C-A	6.35								
A-B	0.83								
A-C	7.11								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.15-16.30									
B-C	1.12	9.81	0.115		0.10	0.13	1.9		0.12
B-A	1.36	6.04	0.226		0.20	0.29	4.1		0.21
C-AB	2.61	15.13	0.173		0.28	0.42	6.4		0.08
C-A	7.19								
A-B	0.99								
A-C	8.50								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.30-16.45									
B-C	1.38	9.08	0.152		0.13	0.18	2.6		0.13
B-A	1.67	5.18	0.322		0.29	0.46	6.6		0.28
C-AB	3.95	16.09	0.245		0.42	0.70	10.6		0.08
C-A	8.06								
A-B	1.21								
A-C	10.40								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-C	1.38	9.07	0.152		0.18	0.18	2.7		0.13
B-A	1.67	5.18	0.323		0.46	0.47	7.0		0.28
C-AB	3.96	16.10	0.246		0.70	0.71	10.8		0.08
C-A	8.05								
A-B	1.21								
A-C	10.40								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-C	1.12	9.80	0.115		0.18	0.13	2.0		0.12
B-A	1.36	6.04	0.226		0.47	0.30	4.7		0.21
C-AB	2.62	15.15	0.173		0.71	0.44	6.6		0.08
C-A	7.17								
A-B	0.99								
A-C	8.50								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-C	0.94	10.31	0.091		0.13	0.10	1.5		0.11
B-A	1.14	6.67	0.171		0.30	0.21	3.3		0.18
C-AB	1.87	14.43	0.129		0.44	0.29	4.4		0.08
C-A	6.34								
A-B	0.83								
A-C	7.11								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
16.15	0.1	
16.30	0.1	
16.45	0.2	
17.00	0.2	
17.15	0.1	
17.30	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
16.15	0.2	
16.30	0.3	
16.45	0.5	
17.00	0.5	
17.15	0.3	
17.30	0.2	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
16.15	0.3	
16.30	0.4	
16.45	0.7	*
17.00	0.7	*
17.15	0.4	
17.30	0.3	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	103.2	68.8	12.1	0.12	12.1	0.12
B-A	125.3	83.5	28.6	0.23	28.6	0.23
C-AB	252.8	168.6	42.9	0.17	42.9	0.17
C-A	647.3	431.6				
A-B	90.8	60.6				
A-C	780.4	520.3				
ALL	1999.9	1333.3	83.6	0.04	83.6	0.04

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
763.23	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
593.39	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
689.79	0.23	0.23

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

Demand set: Base + CD + Dev AM

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	10.06	15.09	10.06
ARM B	15.00	45.00	75.00	3.05	4.57	3.05
ARM C	15.00	45.00	75.00	8.69	13.03	8.69

Demand set: Base + CD + Dev AM

TIME	FROM/TO	ARM A	ARM B	ARM C
07.30 - 09.00				
	ARM A	0.000	0.270	0.730
		0.0	217.0	588.0
		(0.0)%	(0.0)%	(3.3)%
	ARM B	0.455	0.000	0.545
		111.0	0.0	133.0
		(0.0)%	(0.0)%	(0.0)%
	ARM C	0.650	0.350	0.000
		452.0	243.0	0.0
		(5.6)%	(0.0)%	(0.0)%

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET Base + CD + Dev AM
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.30-07.45									
B-C	1.67	9.90	0.169		0.00	0.20	2.9		0.12
B-A	1.39	5.95	0.234		0.00	0.30	4.2		0.22
C-AB	5.41	12.97	0.417		0.00	1.04	15.1		0.13
C-A	3.32								
A-B	2.72								
A-C	7.38								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-C	1.99	9.27	0.215		0.20	0.27	4.0		0.14
B-A	1.66	5.17	0.322		0.30	0.46	6.6		0.28
C-AB	7.39	13.38	0.552		1.04	1.84	27.7		0.17
C-A	3.02								
A-B	3.25								
A-C	8.81								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-C	2.44	8.30	0.294		0.27	0.41	5.9		0.17
B-A	2.04	4.10	0.496		0.46	0.93	12.7		0.47
C-AB	11.04	14.02	0.787		1.84	5.25	75.8		0.31
C-A	1.72								
A-B	3.98								
A-C	10.79								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	2.44	8.27	0.295		0.41	0.41	6.2		0.17
B-A	2.04	4.05	0.502		0.93	0.97	14.4		0.49
C-AB	11.20	14.12	0.793		5.25	5.74	90.2		0.36
C-A	1.55								
A-B	3.98								
A-C	10.79								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	1.99	9.24	0.216		0.41	0.28	4.3		0.14
B-A	1.66	5.10	0.326		0.97	0.50	8.0		0.30
C-AB	7.54	13.52	0.557		5.74	2.03	34.3		0.18
C-A	2.88								
A-B	3.25								
A-C	8.81								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	1.67	9.88	0.169		0.28	0.21	3.2		0.12
B-A	1.39	5.92	0.235		0.50	0.31	4.9		0.22
C-AB	5.46	13.02	0.420		2.03	1.10	16.8		0.14
C-A	3.26								
A-B	2.72								
A-C	7.38								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
07.45	0.2	
08.00	0.3	
08.15	0.4	
08.30	0.4	
08.45	0.3	
09.00	0.2	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
07.45	0.3	
08.00	0.5	
08.15	0.9	*
08.30	1.0	*
08.45	0.5	
09.00	0.3	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
07.45	1.0	*
08.00	1.8	**
08.15	5.3	*****
08.30	5.7	******
08.45	2.0	**
09.00	1.1	*

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	183.1	122.0	26.5	0.14	26.5	0.14
B-A	152.8	101.9	50.8	0.33	50.8	0.33
C-AB	720.6	480.4	259.9	0.36	259.9	0.36
C-A	236.1	157.4				
A-B	298.7	199.1				
A-C	809.3	539.6				
ALL	2400.5	1600.3	337.1	0.14	337.2	0.14

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
763.23	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
593.39	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
689.79	0.23	0.23

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

Demand set: Base + CD + Dev PM

TIME PERIOD BEGINS 16.00 AND ENDS 17.30

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	7.96	11.94	7.96
ARM B	15.00	45.00	75.00	3.08	4.61	3.08
ARM C	15.00	45.00	75.00	8.31	12.47	8.31

Demand set: Base + CD + Dev PM

TIME	FROM/TO	ARM A	ARM B	ARM C
16.00 - 17.30				
	ARM A	0.000	0.110	0.890
		0.0	70.0	567.0
		(0.0)	(0.0)	(3.0)
	ARM B	0.463	0.000	0.537
		114.0	0.0	132.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.871	0.129	0.000
		579.0	86.0	0.0
		(3.9)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET Base + CD + Dev PM
AND FOR TIME PERIOD 2

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.00-16.15									
B-C	1.66	10.19	0.162		0.00	0.19	2.8		0.12
B-A	1.43	6.62	0.216		0.00	0.27	3.9		0.19
C-AB	2.13	14.41	0.148		0.00	0.32	4.8		0.08
C-A	6.22								
A-B	0.88								
A-C	7.11								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.15-16.30									
B-C	1.98	9.65	0.205		0.19	0.26	3.7		0.13
B-A	1.71	5.98	0.285		0.27	0.39	5.6		0.23
C-AB	3.00	15.12	0.198		0.32	0.49	7.3		0.08
C-A	6.96								
A-B	1.05								
A-C	8.50								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.30-16.45									
B-C	2.42	8.85	0.274		0.26	0.37	5.4		0.16
B-A	2.09	5.10	0.410		0.39	0.67	9.4		0.33
C-AB	4.53	16.08	0.282		0.49	0.82	12.4		0.09
C-A	7.67								
A-B	1.28								
A-C	10.40								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-C	2.42	8.84	0.274		0.37	0.37	5.6		0.16
B-A	2.09	5.10	0.410		0.67	0.68	10.2		0.33
C-AB	4.54	16.09	0.282		0.82	0.83	12.6		0.09
C-A	7.66								
A-B	1.28								
A-C	10.40								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-C	1.98	9.64	0.205		0.37	0.26	4.0		0.13
B-A	1.71	5.98	0.286		0.68	0.41	6.5		0.24
C-AB	3.01	15.14	0.199		0.83	0.50	7.6		0.08
C-A	6.95								
A-B	1.05								
A-C	8.50								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-C	1.66	10.18	0.163		0.26	0.20	3.0		0.12
B-A	1.43	6.61	0.216		0.41	0.28	4.4		0.19
C-AB	2.14	14.42	0.148		0.50	0.33	5.0		0.08
C-A	6.20								
A-B	0.88								
A-C	7.11								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
16.15	0.2	
16.30	0.3	
16.45	0.4	
17.00	0.4	
17.15	0.3	
17.30	0.2	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
16.15	0.3	
16.30	0.4	
16.45	0.7	*
17.00	0.7	*
17.15	0.4	
17.30	0.3	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
16.15	0.3	
16.30	0.5	
16.45	0.8	*
17.00	0.8	*
17.15	0.5	*
17.30	0.3	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	181.7	121.1	24.6	0.14	24.6	0.14
B-A	156.9	104.6	39.9	0.25	39.9	0.25
C-AB	290.3	193.5	49.7	0.17	49.7	0.17
C-A	625.1	416.7				
A-B	96.3	64.2				
A-C	780.4	520.3				
ALL	2130.7	1420.5	114.2	0.05	114.2	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

========== end of file ==========

Printed at 13:03:15 on 02/06/2015]

APPENDIX 8

ARCADY 7

Version: 7.1.1.245 [9th June 2011]

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk

File: S:\14 jobs\042 Avanti House Secondary School, Whitchurch Playing Fields\Technical Assessments\ARCADY\Abercorn Rd-Wmborough Rd-St Andrews Drive.arc7
Report generation date: 02/06/2015 13:13:33

Summary of roundabout performance

	AM				PM			
	Queue (Veh)	Delay (min)	RFC	LOS	Queue (Veh)	Delay (min)	RFC	LOS
	(Default Analysis Set) - 2014 Surveyed Flows							
Arm A	2.80	0.26	0.74	C	4.90	0.40	0.84	C
Arm B	1.38	0.20	0.58	B	1.91	0.29	0.66	C
Arm C	1.74	0.18	0.64	B	1.86	0.20	0.65	B
Arm D	3.52	0.34	0.79	C	2.17	0.23	0.69	B
	(Default Analysis Set) - 2020 Base Flows							
Arm A	3.94	0.36	0.81	C	8.47	0.66	0.91	E
Arm B	1.74	0.24	0.64	B	2.65	0.38	0.74	C
Arm C	2.22	0.22	0.70	B	2.44	0.25	0.72	B
Arm D	5.38	0.50	0.86	D	2.86	0.29	0.75	C
	(Default Analysis Set) - Base + CD							
Arm A	6.07	0.51	0.87	D	16.08	1.13	0.98	F
Arm B	2.13	0.29	0.69	C	3.44	0.48	0.79	D
Arm C	2.67	0.26	0.73	C	2.95	0.29	0.76	C
Arm D	7.65	0.70	0.90	E	3.59	0.35	0.79	C
	(Default Analysis Set) - Base + CD + Dev							

Arm A	6.82	0.57	0.89	D	21.27	1.41	1.00	F
Arm B	2.50	0.32	0.72	C	3.56	0.49	0.80	D
Arm C	3.12	0.29	0.77	C	2.99	0.29	0.76	C
Arm D	10.91	0.97	0.95	F	3.62	0.35	0.79	C

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

2014 Surveyed Flows - AM runs from 07:45:00 to 09:15:00
2014 Surveyed Flows - PM runs from 16:45:00 to 18:15:00
2020 Base Flows - AM runs from 07:45:00 to 09:15:00
2020 Base Flows - PM runs from 16:45:00 to 18:15:00
Base + CD - AM runs from 07:45:00 to 09:15:00
Base + CD - PM runs from 16:45:00 to 18:15:00
Base + CD + Dev - AM runs from 07:45:00 to 09:15:00
Base + CD + Dev - PM runs from 16:45:00 to 18:15:00

File summary

File Description

Title	Wemborough Road/Abrecorn Road/ St Andrew's Drive
Location	
Site Number	
Date	14/10/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	14-042
Enumerator	Milestone4-PC\Milestone4 - Newer
Description	

Analysis Options

RFC Threshold	Vehicle Length (m)	Do Queue Variations
0.85	5.75	

Sorting and Display

Show Arm Names	Arm Grouping	Sorting Direction	Sorting Type	Data Matrix Style	Time Style
	Order	Ascending	Numerical	By Destination	Absolute Time

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perHour	min	-Min	perMin

A1 - (Default Analysis Set) - D1 - 2014 Surveyed Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
2014 Surveyed Flows, AM	2014 Surveyed Flows	AM			Yes			07:45	09:15	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	A,B,C,D	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
A	Wemborough Road (E)	
B	St Andrew's Drive	
C	Wemborough Road (W)	
D	Abercorn Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.70	4.50	3.40	7.00	19.00	16.50	
B	3.45	4.10	2.10	6.00	19.00	15.00	
C	4.20	4.45	2.80	6.00	19.00	10.00	
D	3.35	4.80	2.60	6.30	19.00	14.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		((calculated))	((calculated))	0.548	1204.008
B		((calculated))	((calculated))	0.516	1073.293
C		((calculated))	((calculated))	0.562	1271.998
D		((calculated))	((calculated))	0.528	1113.227

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
A	ONE HOUR	Yes	593.00	100.000	N/A
B	ONE HOUR	Yes	376.00	100.000	N/A
C	ONE HOUR	Yes	531.00	100.000	N/A
D	ONE HOUR	Yes	586.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	A	446.44	459.30	N/A	N/A
1	B	283.07	287.51	N/A	N/A
1	C	399.76	410.31	N/A	N/A
1	D	441.17	447.08	N/A	N/A
2	A	533.09	548.45	N/A	N/A
2	B	338.02	343.31	N/A	N/A
2	C	477.36	489.95	N/A	N/A
2	D	526.80	533.85	N/A	N/A
3	A	652.91	671.72	N/A	N/A
3	B	413.98	420.47	N/A	N/A
3	C	584.64	600.07	N/A	N/A
3	D	645.20	653.83	N/A	N/A
4	A	652.91	671.72	N/A	N/A
4	B	413.98	420.47	N/A	N/A
4	C	584.64	600.07	N/A	N/A
4	D	645.20	653.83	N/A	N/A
5	A	533.09	548.45	N/A	N/A
5	B	338.02	343.31	N/A	N/A
5	C	477.36	489.95	N/A	N/A
5	D	526.80	533.85	N/A	N/A
6	A	446.44	459.30	N/A	N/A
6	B	283.07	287.51	N/A	N/A
6	C	399.76	410.31	N/A	N/A
6	D	441.17	447.08	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	62.000	346.000	184.000
	B	60.000	1.000	38.000	277.000
	C	343.000	69.000	1.000	118.000
	D	165.000	348.000	66.000	7.000

Turning Proportions (Veh) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.10	0.58	0.31
	B	0.16	0.00	0.10	0.74
	C	0.65	0.13	0.00	0.22
	D	0.28	0.59	0.11	0.01

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.016	1.038	1.016
	B	1.000	1.000	1.053	1.014
	C	1.035	1.000	1.000	1.017
	D	1.012	1.014	1.015	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.600	3.800	1.600
	B	0.000	0.000	5.300	1.400
	C	3.500	0.000	0.000	1.700
	D	1.200	1.400	1.500	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
A	0.74	0.26	2.80	C	544.15	816.22	144.26	0.18	1.60	144.28	0.18	0.548	1204.008
B	0.58	0.20	1.38	B	345.02	517.54	78.89	0.15	0.88	78.90	0.15	0.516	1073.293
C	0.64	0.18	1.74	B	487.25	730.88	98.21	0.13	1.09	98.22	0.13	0.562	1271.998
D	0.79	0.34	3.52	C	537.73	806.59	171.50	0.21	1.91	171.53	0.21	0.528	1113.227

Main Results

Main results: (07:45-08:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	446.44	111.61	443.09	425.34	367.40	0.00	972.09	834.91	0.459	0.00	0.84
B	283.07	70.77	280.99	358.48	452.01	0.00	820.70	618.64	0.345	0.00	0.52
C	399.76	99.94	397.21	336.95	396.05	0.00	1019.52	781.43	0.392	0.00	0.64
D	441.17	110.29	437.46	437.98	355.27	0.00	908.90	719.93	0.485	0.00	0.93

Main results: (08:00-08:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	533.09	133.27	531.22	509.94	440.53	0.00	932.64	834.91	0.572	0.84	1.31
B	338.02	84.50	337.04	429.82	541.92	0.00	773.75	618.65	0.437	0.52	0.76

C	477.36	119.34	476.14	403.99	474.98	0.00	975.72	781.43	0.489	0.64	0.94
D	526.80	131.70	524.56	525.20	425.91	0.00	871.20	719.93	0.605	0.93	1.49

Main results: (08:15-08:30)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	652.90	163.23	647.36	622.04	535.94	0.00	881.17	834.91	0.741	1.31	2.69
B	413.98	103.50	411.65	523.08	660.21	0.00	711.98	618.65	0.581	0.76	1.35
C	584.64	146.16	581.61	492.24	579.62	0.00	917.65	781.43	0.637	0.94	1.70
D	645.20	161.30	637.74	640.99	520.23	0.00	820.85	719.93	0.786	1.49	3.35

Main results: (08:30-08:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	652.90	163.23	652.49	626.19	541.22	0.00	878.32	834.91	0.743	2.69	2.80
B	413.98	103.50	413.86	528.04	665.66	0.00	709.14	618.65	0.584	1.35	1.38
C	584.64	146.16	584.50	496.23	583.30	0.00	915.61	781.43	0.639	1.70	1.74
D	645.20	161.30	644.55	644.95	522.86	0.00	819.45	719.93	0.787	3.35	3.52

Main results: (08:45-09:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	533.09	133.27	538.76	516.03	448.26	0.00	928.46	834.91	0.574	2.80	1.38
B	338.02	84.50	340.34	437.10	549.92	0.00	769.58	618.65	0.439	1.38	0.80
C	477.36	119.34	480.38	409.86	480.41	0.00	972.71	781.43	0.491	1.74	0.98
D	526.80	131.70	534.54	531.04	429.76	0.00	869.14	719.93	0.606	3.52	1.58

Main results: (09:00-09:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	446.44	111.61	448.50	430.08	372.36	0.00	969.41	834.91	0.461	1.38	0.87
B	283.07	70.77	284.11	363.23	457.63	0.00	817.77	618.64	0.346	0.80	0.54
C	399.76	99.94	401.06	341.12	400.62	0.00	1016.98	781.43	0.393	0.98	0.65
D	441.17	110.29	443.65	442.90	358.79	0.00	907.02	719.93	0.486	1.58	0.96

Queueing Delay Results

Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.01	0.80	0.113	A	A
B	7.51	0.50	0.111	A	A
C	9.23	0.62	0.096	A	A
D	13.24	0.88	0.126	A	A

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total	Queueing Rate Of	Average Delay Per	Unsignalised Level	Signalised Level

	Delay (Veh-min)	Delay (Veh-min/min)	Arriving Vehicle (min)	Of Service	Of Service
A	18.71	1.25	0.149	A	A
B	11.06	0.74	0.137	A	A
C	13.67	0.91	0.120	A	A
D	21.17	1.41	0.172	B	B

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	36.77	2.45	0.251	C	B
B	19.06	1.27	0.198	B	B
C	24.03	1.60	0.177	B	B
D	44.63	2.98	0.315	C	B

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	41.33	2.76	0.265	C	B
B	20.50	1.37	0.203	B	B
C	25.84	1.72	0.181	B	B
D	51.78	3.45	0.340	C	C

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.96	1.46	0.156	A	A
B	12.47	0.83	0.141	A	A
C	15.32	1.02	0.123	A	A
D	25.62	1.71	0.183	B	B

Queueing Delay results: (09:00-09:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.48	0.90	0.116	A	A
B	8.28	0.55	0.113	A	A
C	10.11	0.67	0.098	A	A
D	15.06	1.00	0.130	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
A	3.70	4.50	3.40	7.00	19.00	16.50		0.548	1204.008
B	3.45	4.10	2.10	6.00	19.00	15.00		0.516	1073.293
C	4.20	4.45	2.80	6.00	19.00	10.00		0.562	1271.998
D	3.35	4.80	2.60	6.30	19.00	14.00		0.528	1113.227

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	A	446.44	972.09	0.459	0.00	0.00	0.84	12.01	(0.02)	0.113
1	B	283.07	820.70	0.345	0.00	0.00	0.52	7.51	(0.02)	0.111
1	C	399.76	1019.52	0.392	0.00	0.00	0.64	9.23	(0.02)	0.096
1	D	441.17	908.90	0.485	0.00	0.00	0.93	13.24	(0.02)	0.126
2	A	533.09	932.64	0.572	0.00	0.84	1.31	18.71	(0.02)	0.149
2	B	338.02	773.75	0.437	0.00	0.52	0.76	11.06	(0.02)	0.137
2	C	477.36	975.72	0.489	0.00	0.64	0.94	13.67	(0.02)	0.120
2	D	526.80	871.20	0.605	0.00	0.93	1.49	21.17	(0.02)	0.172
3	A	652.90	881.17	0.741	0.00	1.31	2.69	36.77	(0.02)	0.251
3	B	413.98	711.98	0.581	0.00	0.76	1.35	19.06	(0.02)	0.198
3	C	584.64	917.65	0.637	0.00	0.94	1.70	24.03	(0.02)	0.177
3	D	645.20	820.85	0.786	0.00	1.49	3.35	44.63	(0.02)	0.315
4	A	652.90	878.32	0.743	0.00	2.69	2.80	41.33	(0.02)	0.265
4	B	413.98	709.14	0.584	0.00	1.35	1.38	20.50	(0.02)	0.203
4	C	584.64	915.61	0.639	0.00	1.70	1.74	25.84	(0.02)	0.181
4	D	645.20	819.45	0.787	0.00	3.35	3.52	51.78	(0.02)	0.340
5	A	533.09	928.46	0.574	0.00	2.80	1.38	21.96	(0.02)	0.156
5	B	338.02	769.58	0.439	0.00	1.38	0.80	12.47	(0.02)	0.141
5	C	477.36	972.71	0.491	0.00	1.74	0.98	15.32	(0.02)	0.123
5	D	526.80	869.14	0.606	0.00	3.52	1.58	25.62	(0.02)	0.183
6	A	446.44	969.41	0.461	0.00	1.38	0.87	13.48	(0.02)	0.116
6	B	283.07	817.77	0.346	0.00	0.80	0.54	8.28	(0.02)	0.113
6	C	399.76	1016.98	0.393	0.00	0.98	0.65	10.11	(0.02)	0.098
6	D	441.17	907.02	0.486	0.00	1.58	0.96	15.06	(0.02)	0.130

A1 - (Default Analysis Set) - D2 - 2014 Surveyed Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
2014 Surveyed Flows, PM	2014 Surveyed Flows	PM			Yes			16:45	18:15	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	A,B,C,D	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
A	Wemborough Road (E)	
B	St Andrew's Drive	
C	Wemborough Road (W)	
D	Abercorn Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.70	4.50	3.40	7.00	19.00	16.50	
B	3.45	4.10	2.10	6.00	19.00	15.00	
C	4.20	4.45	2.80	6.00	19.00	10.00	
D	3.35	4.80	2.60	6.30	19.00	14.00	

Pedestrian Crossings

Arm	Crossing Type

A	None
B	None
C	None
D	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		((calculated))	((calculated))	0.548	1204.008
B		((calculated))	((calculated))	0.516	1073.293
C		((calculated))	((calculated))	0.562	1271.998
D		((calculated))	((calculated))	0.528	1113.227

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
A	ONE HOUR	Yes	704.00	100.000	N/A
B	ONE HOUR	Yes	371.00	100.000	N/A
C	ONE HOUR	Yes	523.00	100.000	N/A
D	ONE HOUR	Yes	528.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	**A**	530.01	544.31	N/A	N/A
1	**B**	279.31	284.64	N/A	N/A
1	**C**	393.74	404.97	N/A	N/A
1	**D**	397.51	403.66	N/A	N/A
2	**A**	632.88	649.96	N/A	N/A
2	**B**	333.52	339.89	N/A	N/A

2	C	470.17	483.57	N/A	N/A
2	D	474.66	482.01	N/A	N/A
3	A	775.12	796.04	N/A	N/A
3	B	408.48	416.28	N/A	N/A
3	C	575.83	592.25	N/A	N/A
3	D	581.34	590.34	N/A	N/A
4	A	775.12	796.04	N/A	N/A
4	B	408.48	416.28	N/A	N/A
4	C	575.83	592.25	N/A	N/A
4	D	581.34	590.34	N/A	N/A
5	A	632.88	649.96	N/A	N/A
5	B	333.52	339.89	N/A	N/A
5	C	470.17	483.57	N/A	N/A
5	D	474.66	482.01	N/A	N/A
6	A	530.01	544.31	N/A	N/A
6	B	279.31	284.64	N/A	N/A
6	C	393.74	404.97	N/A	N/A
6	D	397.51	403.66	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	73.000	381.000	250.000
	B	49.000	0.000	39.000	283.000
	C	340.000	41.000	0.000	142.000
	D	148.000	244.000	132.000	4.000

Turning Proportions (Veh) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.10	0.54	0.36
	B	0.13	0.00	0.11	0.76
	C	0.65	0.08	0.00	0.27
	D	0.28	0.46	0.25	0.01

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.042	1.012
	B	1.000	1.000	1.051	1.018
	C	1.038	1.000	1.000	1.014

	D	1.014	1.025	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.000	4.200	1.200
	B	0.000	0.000	5.100	1.800
	C	3.800	0.000	0.000	1.400
	D	1.400	2.500	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
A	0.84	0.40	4.90	C	646.00	969.01	222.87	0.23	2.48	222.91	0.23	0.548	1204.008
B	0.66	0.29	1.91	C	340.44	510.65	99.11	0.19	1.10	99.12	0.19	0.516	1073.293
C	0.65	0.20	1.86	B	479.92	719.87	102.70	0.14	1.14	102.71	0.14	0.562	1271.998
D	0.69	0.23	2.17	B	484.50	726.75	118.82	0.16	1.32	118.84	0.16	0.528	1113.227

Main Results

Main results: (16:45-17:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	530.01	132.50	525.60	401.45	314.60	0.00	1001.91	846.80	0.529	0.00	1.10
B	279.31	69.83	277.00	267.48	572.71	0.00	756.13	559.82	0.369	0.00	0.58
C	393.74	98.44	391.15	412.20	437.51	0.00	994.24	789.17	0.396	0.00	0.65
D	397.51	99.38	394.53	507.13	321.53	0.00	924.19	749.04	0.430	0.00	0.74

Main results: (17:00-17:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	632.88	158.22	629.98	481.32	377.29	0.00	967.95	846.80	0.654	1.10	1.83
B	333.52	83.38	332.24	320.74	686.53	0.00	697.10	559.82	0.478	0.58	0.90
C	470.17	117.54	468.87	494.16	524.61	0.00	945.96	789.17	0.497	0.65	0.97
D	474.66	118.66	473.16	608.03	385.45	0.00	889.99	749.04	0.533	0.74	1.12

Main results: (17:15-17:30)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	775.12	193.78	764.12	587.47	460.41	0.00	922.91	846.79	0.840	1.83	4.58
B	408.48	102.12	404.76	390.93	833.60	0.00	620.83	559.82	0.658	0.90	1.83

C	575.84	143.96	572.49	600.43	637.93	0.00	883.15	789.17	0.652	0.97	1.81
D	581.34	145.33	577.37	739.91	470.51	0.00	844.47	749.04	0.688	1.12	2.11

Main results: (17:30-17:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	775.12	193.78	773.84	591.02	463.36	0.00	921.31	846.79	0.841	4.58	4.90
B	408.48	102.12	408.17	393.92	843.28	0.00	615.80	559.82	0.663	1.83	1.91
C	575.84	143.96	575.65	606.99	644.46	0.00	879.53	789.17	0.655	1.81	1.86
D	581.34	145.33	581.12	746.85	473.26	0.00	843.00	749.04	0.690	2.11	2.17

Main results: (17:45-18:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	632.88	158.22	644.62	486.56	381.60	0.00	965.61	846.80	0.655	4.90	1.97
B	333.52	83.38	337.33	325.15	701.06	0.00	689.55	559.82	0.484	1.91	0.96
C	470.17	117.54	473.53	503.98	534.40	0.00	940.54	789.17	0.500	1.86	1.02
D	474.66	118.66	478.64	618.42	389.51	0.00	887.82	749.04	0.535	2.17	1.17

Main results: (18:00-18:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	530.01	132.50	533.28	405.83	318.23	0.00	999.95	846.80	0.530	1.97	1.15
B	279.31	69.83	280.74	270.72	580.79	0.00	751.94	559.82	0.371	0.96	0.60
C	393.74	98.44	395.14	417.90	443.63	0.00	990.85	789.17	0.397	1.02	0.67
D	397.51	99.38	399.12	513.83	324.93	0.00	922.37	749.04	0.431	1.17	0.77

Queueing Delay Results

Queueing Delay results: (16:45-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.70	1.05	0.125	A	A
B	8.30	0.55	0.125	A	A
C	9.37	0.62	0.099	A	A
D	10.70	0.71	0.113	A	A

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	25.87	1.72	0.176	B	B
B	12.92	0.86	0.164	A	A
C	14.07	0.94	0.125	A	A
D	16.13	1.08	0.143	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service

A	59.18	3.95	0.355	C	C
B	25.21	1.68	0.273	C	B
C	25.41	1.69	0.191	B	B
D	29.36	1.96	0.221	B	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	71.57	4.77	0.399	C	C
B	28.18	1.88	0.288	C	B
C	27.59	1.84	0.197	B	B
D	32.19	2.15	0.229	B	B

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	32.53	2.17	0.193	B	B
B	15.17	1.01	0.172	B	B
C	15.95	1.06	0.129	A	A
D	18.51	1.23	0.148	A	A

Queueing Delay results: (18:00-18:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.02	1.20	0.129	A	A
B	9.32	0.62	0.128	A	A
C	10.31	0.69	0.101	A	A
D	11.92	0.79	0.115	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
A	3.70	4.50	3.40	7.00	19.00	16.50		0.548	1204.008
B	3.45	4.10	2.10	6.00	19.00	15.00		0.516	1073.293
C	4.20	4.45	2.80	6.00	19.00	10.00		0.562	1271.998
D	3.35	4.80	2.60	6.30	19.00	14.00		0.528	1113.227

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	**A**	530.01	1001.91	0.529	0.00	0.00	1.10	15.70	(0.02)	0.125

1	B	279.31	756.13	0.369	0.00	0.00	0.58	8.30	(0.02)	0.125
1	C	393.74	994.24	0.396	0.00	0.00	0.65	9.37	(0.02)	0.099
1	D	397.51	924.19	0.430	0.00	0.00	0.74	10.70	(0.02)	0.113
2	A	632.88	967.95	0.654	0.00	1.10	1.83	25.87	(0.02)	0.176
2	B	333.52	697.10	0.478	0.00	0.58	0.90	12.92	(0.02)	0.164
2	C	470.17	945.96	0.497	0.00	0.65	0.97	14.07	(0.02)	0.125
2	D	474.66	889.99	0.533	0.00	0.74	1.12	16.13	(0.02)	0.143
3	A	775.12	922.91	0.840	0.00	1.83	4.58	59.18	(0.02)	0.355
3	B	408.48	620.83	0.658	0.00	0.90	1.83	25.21	(0.02)	0.273
3	C	575.84	883.15	0.652	0.00	0.97	1.81	25.41	(0.02)	0.191
3	D	581.34	844.47	0.688	0.00	1.12	2.11	29.36	(0.02)	0.221
4	A	775.12	921.31	0.841	0.00	4.58	4.90	71.57	(0.02)	0.399
4	B	408.48	615.80	0.663	0.00	1.83	1.91	28.18	(0.02)	0.288
4	C	575.84	879.53	0.655	0.00	1.81	1.86	27.59	(0.02)	0.197
4	D	581.34	843.00	0.690	0.00	2.11	2.17	32.19	(0.02)	0.229
5	A	632.88	965.61	0.655	0.00	4.90	1.97	32.53	(0.02)	0.193
5	B	333.52	689.55	0.484	0.00	1.91	0.96	15.17	(0.02)	0.172
5	C	470.17	940.54	0.500	0.00	1.86	1.02	15.95	(0.02)	0.129
5	D	474.66	887.82	0.535	0.00	2.17	1.17	18.51	(0.02)	0.148
6	A	530.01	999.95	0.530	0.00	1.97	1.15	18.02	(0.02)	0.129
6	B	279.31	751.94	0.371	0.00	0.96	0.60	9.32	(0.02)	0.128
6	C	393.74	990.85	0.397	0.00	1.02	0.67	10.31	(0.02)	0.101
6	D	397.51	922.37	0.431	0.00	1.17	0.77	11.92	(0.02)	0.115

A1 - (Default Analysis Set) - D3 - 2020 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
2020 Base Flows, AM	2020 Base Flows	AM			Yes			07:45	09:15	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	A,B,C,D	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
A	Wemborough Road (E)	
B	St Andrew's Drive	
C	Wemborough Road (W)	
D	Abercorn Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.70	4.50	3.40	7.00	19.00	16.50	
B	3.45	4.10	2.10	6.00	19.00	15.00	
C	4.20	4.45	2.80	6.00	19.00	10.00	
D	3.35	4.80	2.60	6.30	19.00	14.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		((calculated))	((calculated))	0.548	1204.008

B		((calculated))	((calculated))	0.516	1073.293
C		((calculated))	((calculated))	0.562	1271.998
D		((calculated))	((calculated))	0.528	1113.227

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
A	ONE HOUR	Yes	631.00	100.000	N/A
B	ONE HOUR	Yes	400.00	100.000	N/A
C	ONE HOUR	Yes	565.00	100.000	N/A
D	ONE HOUR	Yes	624.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	**A**	475.05	488.73	N/A	N/A
1	**B**	301.14	305.85	N/A	N/A
1	**C**	425.36	436.59	N/A	N/A
1	**D**	469.78	476.07	N/A	N/A
2	**A**	567.26	583.60	N/A	N/A
2	**B**	359.59	365.21	N/A	N/A
2	**C**	507.92	521.33	N/A	N/A
2	**D**	560.96	568.48	N/A	N/A
3	**A**	694.74	714.76	N/A	N/A
3	**B**	440.41	447.29	N/A	N/A
3	**C**	622.08	638.50	N/A	N/A
3	**D**	687.04	696.24	N/A	N/A
4	**A**	694.74	714.76	N/A	N/A
4	**B**	440.41	447.29	N/A	N/A
4	**C**	622.08	638.50	N/A	N/A
4	**D**	687.04	696.24	N/A	N/A

5	A	567.26	583.60	N/A	N/A
5	B	359.59	365.21	N/A	N/A
5	C	507.92	521.33	N/A	N/A
5	D	560.96	568.48	N/A	N/A
6	A	475.05	488.73	N/A	N/A
6	B	301.14	305.85	N/A	N/A
6	C	425.36	436.59	N/A	N/A
6	D	469.78	476.07	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	66.000	368.000	196.000
	B	64.000	1.000	40.000	295.000
	C	365.000	73.000	1.000	126.000
	D	176.000	371.000	70.000	7.000

Turning Proportions (Veh) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.10	0.58	0.31
	B	0.16	0.00	0.10	0.74
	C	0.65	0.13	0.00	0.22
	D	0.28	0.59	0.11	0.01

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.016	1.038	1.016
	B	1.000	1.000	1.053	1.014
	C	1.035	1.000	1.000	1.017
	D	1.012	1.014	1.015	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.600	3.800	1.600
	B	0.000	0.000	5.300	1.400
	C	3.500	0.000	0.000	1.700
	D	1.200	1.400	1.500	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
A	0.81	0.36	3.94	C	579.01	868.52	185.92	0.21	2.07	185.95	0.21	0.548	1204.008
B	0.64	0.24	1.74	B	367.05	550.57	94.78	0.17	1.05	94.79	0.17	0.516	1073.293
C	0.70	0.22	2.22	B	518.45	777.68	119.21	0.15	1.32	119.23	0.15	0.562	1271.998
D	0.86	0.50	5.38	D	572.59	858.89	232.49	0.27	2.58	232.53	0.27	0.528	1113.227

Main Results

Main results: (07:45-08:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	475.05	118.76	471.19	452.76	390.26	0.00	959.75	835.37	0.495	0.00	0.96
B	301.14	75.28	298.78	381.36	480.09	0.00	806.06	618.92	0.374	0.00	0.59
C	425.36	106.34	422.46	357.64	421.24	0.00	1005.53	781.02	0.423	0.00	0.72
D	469.78	117.45	465.47	466.15	377.55	0.00	896.99	720.35	0.524	0.00	1.08

Main results: (08:00-08:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	567.25	141.81	564.82	542.75	467.81	0.00	917.91	835.37	0.618	0.96	1.57
B	359.59	89.90	358.39	457.14	575.49	0.00	756.25	618.92	0.475	0.59	0.89
C	507.92	126.98	506.40	428.73	505.15	0.00	958.97	781.02	0.530	0.72	1.11
D	560.96	140.24	557.97	558.94	452.60	0.00	856.93	720.35	0.655	1.08	1.83

Main results: (08:15-08:30)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	694.74	173.69	686.26	660.48	566.37	0.00	864.74	835.37	0.803	1.57	3.69
B	440.41	110.10	437.24	553.81	698.82	0.00	691.84	618.92	0.637	0.89	1.68
C	622.08	155.52	617.86	520.73	615.34	0.00	897.82	781.02	0.693	1.11	2.16
D	687.04	171.76	674.64	680.99	552.21	0.00	803.76	720.35	0.855	1.83	4.93

Main results: (08:30-08:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	694.74	173.69	693.76	666.52	574.51	0.00	860.35	835.37	0.808	3.69	3.94
B	440.41	110.10	440.19	561.42	706.86	0.00	687.65	618.92	0.640	1.68	1.74
C	622.08	155.52	621.83	526.59	620.45	0.00	894.98	781.02	0.695	2.16	2.22
D	687.04	171.76	685.24	686.49	555.78	0.00	801.86	720.35	0.857	4.93	5.38

Main results: (08:45-09:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	567.25	141.81	576.21	551.88	480.46	0.00	911.08	835.37	0.623	3.94	1.70
B	359.59	89.90	362.78	468.93	587.75	0.00	749.85	618.92	0.480	1.74	0.94
C	507.92	126.98	512.18	437.68	512.85	0.00	954.69	781.02	0.532	2.22	1.16
D	560.96	140.24	574.52	567.20	457.82	0.00	854.15	720.35	0.657	5.38	1.99

Main results: (09:00-09:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	475.05	118.76	477.83	458.48	396.44	0.00	956.42	835.37	0.497	1.70	1.00
B	301.14	75.28	302.46	387.26	487.00	0.00	802.45	618.92	0.375	0.94	0.61
C	425.36	106.34	427.01	362.76	426.71	0.00	1002.49	781.02	0.424	1.16	0.75
D	469.78	117.45	473.22	472.03	381.69	0.00	894.78	720.35	0.525	1.99	1.13

Queueing Delay Results

Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.77	0.92	0.122	A	A
B	8.47	0.56	0.118	A	A
C	10.44	0.70	0.102	A	A
D	15.30	1.02	0.138	A	A

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	22.36	1.49	0.169	B	B
B	12.83	0.86	0.150	A	A
C	15.95	1.06	0.132	A	A
D	25.72	1.71	0.199	B	B

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	48.77	3.25	0.322	C	B
B	23.47	1.56	0.233	B	B
C	30.02	2.00	0.211	B	B
D	62.23	4.15	0.429	D	C

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	57.65	3.84	0.355	C	C
B	25.75	1.72	0.242	B	B
C	32.98	2.20	0.219	B	B
D	77.89	5.19	0.498	D	C

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.66	1.84	0.184	B	B
B	14.81	0.99	0.156	A	A
C	18.26	1.22	0.137	A	A
D	33.60	2.24	0.224	B	B

Queueing Delay results: (09:00-09:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.70	1.05	0.126	A	A
B	9.44	0.63	0.120	A	A
C	11.56	0.77	0.105	A	A
D	17.75	1.18	0.143	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
A	3.70	4.50	3.40	7.00	19.00	16.50		0.548	1204.008
B	3.45	4.10	2.10	6.00	19.00	15.00		0.516	1073.293
C	4.20	4.45	2.80	6.00	19.00	10.00		0.562	1271.998
D	3.35	4.80	2.60	6.30	19.00	14.00		0.528	1113.227

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	A	475.05	959.75	0.495	0.00	0.00	0.96	13.77	(0.02)	0.122
1	B	301.14	806.06	0.374	0.00	0.00	0.59	8.47	(0.02)	0.118
1	C	425.36	1005.53	0.423	0.00	0.00	0.72	10.44	(0.02)	0.102
1	D	469.78	896.99	0.524	0.00	0.00	1.08	15.30	(0.02)	0.138
2	A	567.25	917.91	0.618	0.00	0.96	1.57	22.36	(0.02)	0.169
2	B	359.59	756.25	0.475	0.00	0.59	0.89	12.83	(0.02)	0.150
2	C	507.92	958.97	0.530	0.00	0.72	1.11	15.95	(0.02)	0.132
2	D	560.96	856.93	0.655	0.00	1.08	1.83	25.72	(0.02)	0.199
3	A	694.74	864.74	0.803	0.00	1.57	3.69	48.77	(0.02)	0.322
3	B	440.41	691.84	0.637	0.00	0.89	1.68	23.47	(0.02)	0.233
3	C	622.08	897.82	0.693	0.00	1.11	2.16	30.02	(0.02)	0.211
3	D	687.04	803.76	0.855	0.00	1.83	4.93	62.23	(0.02)	0.429
4	A	694.74	860.35	0.808	0.00	3.69	3.94	57.65	(0.02)	0.355

4	B	440.41	687.65	0.640	0.00	1.68	1.74	25.75	(0.02)	0.242
4	C	622.08	894.98	0.695	0.00	2.16	2.22	32.98	(0.02)	0.219
4	D	687.04	801.86	0.857	0.00	4.93	5.38	77.89	(0.02)	0.498
5	A	567.25	911.08	0.623	0.00	3.94	1.70	27.66	(0.02)	0.184
5	B	359.59	749.85	0.480	0.00	1.74	0.94	14.81	(0.02)	0.156
5	C	507.92	954.69	0.532	0.00	2.22	1.16	18.26	(0.02)	0.137
5	D	560.96	854.15	0.657	0.00	5.38	1.99	33.60	(0.02)	0.224
6	A	475.05	956.42	0.497	0.00	1.70	1.00	15.70	(0.02)	0.126
6	B	301.14	802.45	0.375	0.00	0.94	0.61	9.44	(0.02)	0.120
6	C	425.36	1002.49	0.424	0.00	1.16	0.75	11.56	(0.02)	0.105
6	D	469.78	894.78	0.525	0.00	1.99	1.13	17.75	(0.02)	0.143

A1 - (Default Analysis Set) - D4 - 2020 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
2020 Base Flows, PM	2020 Base Flows	PM			Yes			16:45	18:15	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	A,B,C,D	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
A	Wemborough Road (E)	
B	St Andrew's Drive	
C	Wemborough Road (W)	
D	Abercorn Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.70	4.50	3.40	7.00	19.00	16.50	
B	3.45	4.10	2.10	6.00	19.00	15.00	
C	4.20	4.45	2.80	6.00	19.00	10.00	
D	3.35	4.80	2.60	6.30	19.00	14.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		((calculated))	((calculated))	0.548	1204.008
B		((calculated))	((calculated))	0.516	1073.293
C		((calculated))	((calculated))	0.562	1271.998
D		((calculated))	((calculated))	0.528	1113.227

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies	Vehicle Mix Varies	Vehicle Mix Varies	Vehicle Mix Source	PCU Factor for a	Default Turning Proportions	Estimate from entry/exit	Turning Proportions Vary Over	Turning Proportions Vary Over	Turning Proportions Vary Over

	Over Time	Over Turn	Over Entry		HV (PCU)		counts	Time	Turn	Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
A	ONE HOUR	Yes	751.00	100.000	N/A
B	ONE HOUR	Yes	394.00	100.000	N/A
C	ONE HOUR	Yes	557.00	100.000	N/A
D	ONE HOUR	Yes	561.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	A	565.39	580.60	N/A	N/A
1	B	296.62	302.28	N/A	N/A
1	C	419.34	431.29	N/A	N/A
1	D	422.35	428.90	N/A	N/A
2	A	675.13	693.29	N/A	N/A
2	B	354.20	360.95	N/A	N/A
2	C	500.73	515.00	N/A	N/A
2	D	504.33	512.15	N/A	N/A
3	A	826.87	849.11	N/A	N/A
3	B	433.80	442.07	N/A	N/A
3	C	613.27	630.74	N/A	N/A
3	D	617.67	627.25	N/A	N/A
4	A	826.87	849.11	N/A	N/A
4	B	433.80	442.07	N/A	N/A
4	C	613.27	630.74	N/A	N/A
4	D	617.67	627.25	N/A	N/A
5	A	675.13	693.29	N/A	N/A
5	B	354.20	360.95	N/A	N/A
5	C	500.73	515.00	N/A	N/A
5	D	504.33	512.15	N/A	N/A
6	A	565.39	580.60	N/A	N/A
6	B	296.62	302.28	N/A	N/A
6	C	419.34	431.29	N/A	N/A
6	D	422.35	428.90	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	2.000	78.000	405.000	266.000
	B	52.000	0.000	41.000	301.000
	C	362.000	44.000	0.000	151.000
	D	157.000	260.000	140.000	4.000

Turning Proportions (Veh) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.10	0.54	0.35
	B	0.13	0.00	0.10	0.76
	C	0.65	0.08	0.00	0.27
	D	0.28	0.46	0.25	0.01

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.042	1.012
	B	1.000	1.000	1.051	1.018
	C	1.038	1.000	1.000	1.014
	D	1.014	1.025	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.000	4.200	1.200
	B	0.000	0.000	5.100	1.800
	C	3.800	0.000	0.000	1.400
	D	1.400	2.500	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
A	0.91	0.66	8.47	E	689.13	1033.70	326.28	0.32	3.63	326.33	0.32	0.548	1204.008
B	0.74	0.38	2.65	C	361.54	542.31	126.55	0.23	1.41	126.57	0.23	0.516	1073.293
C	0.72	0.25	2.44	B	511.11	766.67	126.88	0.17	1.41	126.90	0.17	0.562	1271.998
D	0.75	0.29	2.86	C	514.79	772.18	146.94	0.19	1.63	146.97	0.19	0.528	1113.227

Main Results

Main results: (16:45-17:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	565.39	141.35	560.19	428.14	334.60	0.00	991.16	846.83	0.570	0.00	1.30
B	296.62	74.16	293.97	285.24	609.55	0.00	737.07	560.38	0.402	0.00	0.66
C	419.34	104.83	416.38	437.24	466.27	0.00	978.32	787.94	0.429	0.00	0.74
D	422.35	105.59	418.96	538.86	343.79	0.00	912.29	748.16	0.463	0.00	0.85

Main results: (17:00-17:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	675.13	168.78	671.11	513.28	401.24	0.00	955.05	846.82	0.707	1.30	2.31
B	354.20	88.55	352.54	341.98	730.37	0.00	674.40	560.38	0.525	0.66	1.08
C	500.73	125.18	499.09	523.98	558.92	0.00	926.97	787.94	0.540	0.74	1.15
D	504.33	126.08	502.42	645.91	412.10	0.00	875.74	748.16	0.576	0.85	1.33

Main results: (17:15-17:30)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	826.87	206.72	806.72	625.41	488.77	0.00	907.62	846.82	0.911	2.31	7.34
B	433.80	108.45	428.28	415.47	880.02	0.00	596.81	560.38	0.727	1.08	2.46
C	613.27	153.32	608.51	632.34	675.96	0.00	862.09	787.94	0.711	1.15	2.34
D	617.68	154.42	611.96	782.26	502.22	0.00	827.52	748.16	0.746	1.33	2.75

Main results: (17:30-17:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	826.87	206.72	822.37	630.40	492.92	0.00	905.37	846.82	0.913	7.34	8.47
B	433.80	108.45	433.05	419.89	895.39	0.00	588.82	560.38	0.737	2.46	2.65
C	613.27	153.32	612.88	642.59	685.86	0.00	856.61	787.94	0.716	2.34	2.44
D	617.68	154.42	617.24	792.66	506.07	0.00	825.46	748.16	0.748	2.75	2.86

Main results: (17:45-18:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	675.13	168.78	698.76	520.74	407.33	0.00	951.75	846.82	0.709	8.47	2.56
B	354.20	88.55	360.03	348.95	757.13	0.00	660.48	560.38	0.536	2.65	1.19
C	500.73	125.18	505.59	541.60	575.56	0.00	917.75	787.94	0.546	2.44	1.23
D	504.33	126.08	510.16	663.25	417.91	0.00	872.64	748.16	0.578	2.86	1.40

Main results: (18:00-18:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	565.39	141.35	570.18	433.44	338.93	0.00	988.81	846.83	0.572	2.56	1.36

B	296.62	74.16	298.61	289.21	619.92	0.00	731.68	560.38	0.405	1.19	0.69
C	419.34	104.83	421.18	444.49	474.04	0.00	974.02	787.94	0.431	1.23	0.77
D	422.35	105.59	424.45	547.29	347.93	0.00	910.08	748.16	0.464	1.40	0.88

Queueing Delay Results

Queueing Delay results: (16:45-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.36	1.22	0.138	A	A
B	9.49	0.63	0.135	A	A
C	10.66	0.71	0.106	A	A
D	12.15	0.81	0.121	A	A

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	32.15	2.14	0.208	B	B
B	15.39	1.03	0.185	B	B
C	16.57	1.10	0.140	A	A
D	18.96	1.26	0.160	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	87.70	5.85	0.515	D	C
B	32.99	2.20	0.345	C	C
C	32.29	2.15	0.232	B	B
D	37.41	2.49	0.271	C	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	119.87	7.99	0.658	E	D
B	38.67	2.58	0.382	C	C
C	36.06	2.40	0.245	B	B
D	42.29	2.82	0.287	C	B

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	46.61	3.11	0.257	C	B
B	19.19	1.28	0.203	B	B
C	19.41	1.29	0.147	A	A
D	22.41	1.49	0.168	B	B

Queueing Delay results: (18:00-18:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.59	1.44	0.145	A	A

B	10.83	0.72	0.139	A	A
C	11.89	0.79	0.109	A	A
D	13.71	0.91	0.124	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
A	3.70	4.50	3.40	7.00	19.00	16.50		0.548	1204.008
B	3.45	4.10	2.10	6.00	19.00	15.00		0.516	1073.293
C	4.20	4.45	2.80	6.00	19.00	10.00		0.562	1271.998
D	3.35	4.80	2.60	6.30	19.00	14.00		0.528	1113.227

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	**A**	565.39	991.16	0.570	0.00	0.00	1.30	18.36	(0.02)	0.138
1	**B**	296.62	737.07	0.402	0.00	0.00	0.66	9.49	(0.02)	0.135
1	**C**	419.34	978.32	0.429	0.00	0.00	0.74	10.66	(0.02)	0.106
1	**D**	422.35	912.29	0.463	0.00	0.00	0.85	12.15	(0.02)	0.121
2	**A**	675.13	955.05	0.707	0.00	1.30	2.31	32.15	(0.02)	0.208
2	**B**	354.20	674.40	0.525	0.00	0.66	1.08	15.39	(0.02)	0.185
2	**C**	500.73	926.97	0.540	0.00	0.74	1.15	16.57	(0.02)	0.140
2	**D**	504.33	875.74	0.576	0.00	0.85	1.33	18.96	(0.02)	0.160
3	**A**	826.87	907.62	0.911	0.00	2.31	7.34	87.70	(0.02)	0.515
3	**B**	433.80	596.81	0.727	0.00	1.08	2.46	32.99	(0.02)	0.345
3	**C**	613.27	862.09	0.711	0.00	1.15	2.34	32.29	(0.02)	0.232
3	**D**	617.68	827.52	0.746	0.00	1.33	2.75	37.41	(0.02)	0.271
4	**A**	826.87	905.37	0.913	0.00	7.34	8.47	119.87	(0.02)	0.658
4	**B**	433.80	588.82	0.737	0.00	2.46	2.65	38.67	(0.02)	0.382
4	**C**	613.27	856.61	0.716	0.00	2.34	2.44	36.06	(0.02)	0.245
4	**D**	617.68	825.46	0.748	0.00	2.75	2.86	42.29	(0.02)	0.287
5	**A**	675.13	951.75	0.709	0.00	8.47	2.56	46.61	(0.02)	0.257
5	**B**	354.20	660.48	0.536	0.00	2.65	1.19	19.19	(0.02)	0.203
5	**C**	500.73	917.75	0.546	0.00	2.44	1.23	19.41	(0.02)	0.147
5	**D**	504.33	872.64	0.578	0.00	2.86	1.40	22.41	(0.02)	0.168
6	**A**	565.39	988.81	0.572	0.00	2.56	1.36	21.59	(0.02)	0.145
6	**B**	296.62	731.68	0.405	0.00	1.19	0.69	10.83	(0.02)	0.139
6	**C**	419.34	974.02	0.431	0.00	1.23	0.77	11.89	(0.02)	0.109
6	**D**	422.35	910.08	0.464	0.00	1.40	0.88	13.71	(0.02)	0.124

A1 - (Default Analysis Set) - D5 - Base + CD, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Base + CD, AM	Base + CD	AM			Yes			07:45	09:15	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	A,B,C,D	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
A	Wemborough Road (E)	
B	St Andrew's Drive	
C	Wemborough Road (W)	
D	Abercorn Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00

B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.70	4.50	3.40	7.00	19.00	16.50	
B	3.45	4.10	2.10	6.00	19.00	15.00	
C	4.20	4.45	2.80	6.00	19.00	10.00	
D	3.35	4.80	2.60	6.30	19.00	14.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		((calculated))	((calculated))	0.548	1204.008
B		((calculated))	((calculated))	0.516	1073.293
C		((calculated))	((calculated))	0.562	1271.998
D		((calculated))	((calculated))	0.528	1113.227

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
A	ONE HOUR	Yes	685.00	100.000	N/A
B	ONE HOUR	Yes	418.00	100.000	N/A
C	ONE HOUR	Yes	583.00	100.000	N/A
D	ONE HOUR	Yes	642.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	A	515.70	529.40	N/A	N/A
1	B	314.69	319.40	N/A	N/A
1	C	438.91	450.04	N/A	N/A
1	D	483.33	489.64	N/A	N/A
2	A	615.80	632.16	N/A	N/A
2	B	375.77	381.39	N/A	N/A
2	C	524.11	537.39	N/A	N/A
2	D	577.14	584.68	N/A	N/A
3	A	754.20	774.24	N/A	N/A
3	B	460.23	467.11	N/A	N/A
3	C	641.89	658.17	N/A	N/A
3	D	706.86	716.08	N/A	N/A
4	A	754.20	774.24	N/A	N/A
4	B	460.23	467.11	N/A	N/A
4	C	641.89	658.17	N/A	N/A
4	D	706.86	716.08	N/A	N/A
5	A	615.80	632.16	N/A	N/A
5	B	375.77	381.39	N/A	N/A
5	C	524.11	537.39	N/A	N/A
5	D	577.14	584.68	N/A	N/A
6	A	515.70	529.40	N/A	N/A
6	B	314.69	319.40	N/A	N/A
6	C	438.91	450.04	N/A	N/A
6	D	483.33	489.64	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	84.000	386.000	214.000
	B	82.000	1.000	40.000	295.000
	C	383.000	73.000	1.000	126.000
	D	194.000	371.000	70.000	7.000

Turning Proportions (Veh) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.12	0.56	0.31
	B	0.20	0.00	0.10	0.71

	C	0.66	0.13	0.00	0.22
	D	0.30	0.58	0.11	0.01

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.013	1.036	1.015
	B	1.000	1.000	1.053	1.014
	C	1.033	1.000	1.000	1.017
	D	1.011	1.014	1.015	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.300	3.600	1.500
	B	0.000	0.000	5.300	1.400
	C	3.300	0.000	0.000	1.700
	D	1.100	1.400	1.500	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
A	0.87	0.51	6.07	D	628.57	942.85	254.48	0.27	2.83	254.53	0.27	0.548	1204.008
B	0.69	0.29	2.13	C	383.56	575.35	110.84	0.19	1.23	110.86	0.19	0.516	1073.293
C	0.73	0.26	2.67	C	534.97	802.46	136.65	0.17	1.52	136.67	0.17	0.562	1271.998
D	0.90	0.70	7.65	E	589.11	883.67	295.72	0.33	3.29	295.77	0.33	0.528	1113.227

Main Results

Main results: (07:45-08:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	515.70	128.93	511.17	492.88	390.04	0.00	961.96	851.60	0.536	0.00	1.13
B	314.69	78.67	312.10	394.57	506.64	0.00	793.13	622.51	0.397	0.00	0.65
C	438.91	109.73	435.78	370.84	447.89	0.00	991.91	775.44	0.442	0.00	0.78
D	483.33	120.83	478.60	479.35	404.31	0.00	883.41	708.56	0.547	0.00	1.18

Main results: (08:00-08:15)

Arm	Demand	Arrivals	Entry	Exit	Circulating	Pedestrian	Capacity	Saturation	RFC	Start	End

	(Veh/hr)	(Veh)	Flow (Veh/hr)	Flow (Veh/hr)	Flow (Veh/hr)	Demand (Ped/hr)	(Veh/hr)	Capacity (Veh/hr)		Queue (Veh)	Queue (Veh)
A	615.80	153.95	612.53	590.77	467.39	0.00	920.14	851.60	0.669	1.13	1.95
B	375.77	93.94	374.34	472.82	607.10	0.00	740.70	622.51	0.507	0.65	1.01
C	524.11	131.03	522.33	444.41	537.02	0.00	942.43	775.44	0.556	0.78	1.23
D	577.14	144.29	573.49	574.69	484.67	0.00	840.59	708.56	0.687	1.18	2.10

Main results: (08:15-08:30)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	754.20	188.55	740.32	716.85	562.46	0.00	868.75	851.60	0.868	1.95	5.42
B	460.23	115.06	456.13	569.56	733.23	0.00	674.89	622.51	0.682	1.01	2.03
C	641.90	160.47	636.55	537.01	652.35	0.00	878.41	775.44	0.731	1.23	2.56
D	706.86	176.71	688.67	698.27	590.63	0.00	784.12	708.56	0.901	2.10	6.64

Main results: (08:30-08:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	754.20	188.55	751.58	725.11	572.96	0.00	863.06	851.60	0.874	5.42	6.07
B	460.23	115.06	459.84	579.74	744.82	0.00	668.84	622.51	0.688	2.03	2.13
C	641.90	160.47	641.49	545.25	659.40	0.00	874.50	775.44	0.734	2.56	2.67
D	706.86	176.71	702.82	705.63	595.25	0.00	781.65	708.56	0.904	6.64	7.65

Main results: (08:45-09:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	615.80	153.95	631.38	604.20	485.72	0.00	910.22	851.60	0.677	6.07	2.18
B	375.77	93.94	379.96	490.46	626.64	0.00	730.51	622.51	0.514	2.13	1.08
C	524.11	131.03	529.58	458.30	548.30	0.00	936.17	775.44	0.560	2.67	1.30
D	577.14	144.29	598.42	586.38	491.49	0.00	836.95	708.56	0.690	7.65	2.33

Main results: (09:00-09:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	515.70	128.93	519.66	499.81	397.03	0.00	958.18	851.60	0.538	2.18	1.19
B	314.69	78.67	316.33	401.51	515.18	0.00	788.66	622.51	0.399	1.08	0.67
C	438.91	109.73	440.87	377.03	454.48	0.00	988.25	775.44	0.444	1.30	0.81
D	483.33	120.83	487.69	486.20	409.16	0.00	880.83	708.56	0.549	2.33	1.24

Queueing Delay Results

Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.09	1.07	0.132	A	A
B	9.31	0.62	0.124	A	A
C	11.27	0.75	0.107	A	A

D	16.69	1.11	0.147	A	A

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.41	1.83	0.193	B	B
B	14.47	0.96	0.163	A	A
C	17.63	1.18	0.142	A	A
D	29.21	1.95	0.222	B	B

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	67.90	4.53	0.427	D	C
B	27.96	1.86	0.269	C	B
C	35.12	2.34	0.243	B	B
D	79.54	5.30	0.547	D	C

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	87.14	5.81	0.514	D	C
B	31.42	2.09	0.286	C	B
C	39.42	2.63	0.256	C	B
D	108.36	7.22	0.696	E	D

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	37.21	2.48	0.226	B	B
B	17.20	1.15	0.173	B	B
C	20.64	1.38	0.149	A	A
D	42.24	2.82	0.272	C	B

Queueing Delay results: (09:00-09:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.72	1.25	0.138	A	A
B	10.48	0.70	0.127	A	A
C	12.58	0.84	0.110	A	A
D	19.67	1.31	0.154	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
A	3.70	4.50	3.40	7.00	19.00	16.50		0.548	1204.008

B	3.45	4.10	2.10	6.00	19.00	15.00		0.516	1073.293
C	4.20	4.45	2.80	6.00	19.00	10.00		0.562	1271.998
D	3.35	4.80	2.60	6.30	19.00	14.00		0.528	1113.227

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	A	515.70	961.96	0.536	0.00	0.00	1.13	16.09	(0.02)	0.132
1	B	314.69	793.13	0.397	0.00	0.00	0.65	9.31	(0.02)	0.124
1	C	438.91	991.91	0.442	0.00	0.00	0.78	11.27	(0.02)	0.107
1	D	483.33	883.41	0.547	0.00	0.00	1.18	16.69	(0.02)	0.147
2	A	615.80	920.14	0.669	0.00	1.13	1.95	27.41	(0.02)	0.193
2	B	375.77	740.70	0.507	0.00	0.65	1.01	14.47	(0.02)	0.163
2	C	524.11	942.43	0.556	0.00	0.78	1.23	17.63	(0.02)	0.142
2	D	577.14	840.59	0.687	0.00	1.18	2.10	29.21	(0.02)	0.222
3	A	754.20	868.75	0.868	0.00	1.95	5.42	67.90	(0.02)	0.427
3	B	460.23	674.89	0.682	0.00	1.01	2.03	27.96	(0.02)	0.269
3	C	641.90	878.41	0.731	0.00	1.23	2.56	35.12	(0.02)	0.243
3	D	706.86	784.12	0.901	0.00	2.10	6.64	79.54	(0.02)	0.547
4	A	754.20	863.06	0.874	0.00	5.42	6.07	87.14	(0.02)	0.514
4	B	460.23	668.84	0.688	0.00	2.03	2.13	31.42	(0.02)	0.286
4	C	641.90	874.50	0.734	0.00	2.56	2.67	39.42	(0.02)	0.256
4	D	706.86	781.65	0.904	0.00	6.64	7.65	108.36	(0.02)	0.696
5	A	615.80	910.22	0.677	0.00	6.07	2.18	37.21	(0.02)	0.226
5	B	375.77	730.51	0.514	0.00	2.13	1.08	17.20	(0.02)	0.173
5	C	524.11	936.17	0.560	0.00	2.67	1.30	20.64	(0.02)	0.149
5	D	577.14	836.95	0.690	0.00	7.65	2.33	42.24	(0.02)	0.272
6	A	515.70	958.18	0.538	0.00	2.18	1.19	18.72	(0.02)	0.138
6	B	314.69	788.66	0.399	0.00	1.08	0.67	10.48	(0.02)	0.127
6	C	438.91	988.25	0.444	0.00	1.30	0.81	12.58	(0.02)	0.110
6	D	483.33	880.83	0.549	0.00	2.33	1.24	19.67	(0.02)	0.154

A1 - (Default Analysis Set) - D6 - Base + CD, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor	Network Capacity Scaling	Reason For Scaling

						(%)	Factor (%)	Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Base + CD, PM	Base + CD	PM			Yes			16:45	18:15	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	A,B,C,D	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
A	Wemborough Road (E)	
B	St Andrew's Drive	
C	Wemborough Road (W)	
D	Abercorn Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.70	4.50	3.40	7.00	19.00	16.50	
B	3.45	4.10	2.10	6.00	19.00	15.00	
C	4.20	4.45	2.80	6.00	19.00	10.00	

D	3.35	4.80	2.60	6.30	19.00	14.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		((calculated))	((calculated))	0.548	1204.008
B		((calculated))	((calculated))	0.516	1073.293
C		((calculated))	((calculated))	0.562	1271.998
D		((calculated))	((calculated))	0.528	1113.227

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
A	ONE HOUR	Yes	805.00	100.000	N/A
B	ONE HOUR	Yes	412.00	100.000	N/A
C	ONE HOUR	Yes	575.00	100.000	N/A
D	ONE HOUR	Yes	579.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	A	606.05	621.14	N/A	N/A
1	B	310.18	315.83	N/A	N/A

1	C	432.89	444.78	N/A	N/A
1	D	435.90	442.38	N/A	N/A
2	A	723.68	741.70	N/A	N/A
2	B	370.38	377.13	N/A	N/A
2	C	516.91	531.11	N/A	N/A
2	D	520.51	528.24	N/A	N/A
3	A	886.32	908.39	N/A	N/A
3	B	453.62	461.89	N/A	N/A
3	C	633.09	650.48	N/A	N/A
3	D	637.49	646.96	N/A	N/A
4	A	886.32	908.39	N/A	N/A
4	B	453.62	461.89	N/A	N/A
4	C	633.09	650.48	N/A	N/A
4	D	637.49	646.96	N/A	N/A
5	A	723.68	741.70	N/A	N/A
5	B	370.38	377.13	N/A	N/A
5	C	516.91	531.11	N/A	N/A
5	D	520.51	528.24	N/A	N/A
6	A	606.05	621.14	N/A	N/A
6	B	310.18	315.83	N/A	N/A
6	C	432.89	444.78	N/A	N/A
6	D	435.90	442.38	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	2.000	96.000	423.000	284.000
	B	70.000	0.000	41.000	301.000
	C	380.000	44.000	0.000	151.000
	D	175.000	260.000	140.000	4.000

Turning Proportions (Veh) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.12	0.53	0.35
	B	0.17	0.00	0.10	0.73
	C	0.66	0.08	0.00	0.26
	D	0.30	0.45	0.24	0.01

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

	To

		A	B	C	D
From	A	1.000	1.000	1.040	1.011
	B	1.000	1.000	1.051	1.018
	C	1.036	1.000	1.000	1.014
	D	1.012	1.025	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.000	4.000	1.100
	B	0.000	0.000	5.100	1.800
	C	3.600	0.000	0.000	1.400
	D	1.200	2.500	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
A	0.98	1.13	16.08	F	738.68	1108.02	513.33	0.46	5.70	513.41	0.46	0.548	1204.008
B	0.79	0.48	3.44	D	378.06	567.09	154.36	0.27	1.72	154.38	0.27	0.516	1073.293
C	0.76	0.29	2.95	C	527.63	791.44	146.49	0.19	1.63	146.51	0.19	0.562	1271.998
D	0.79	0.35	3.59	C	531.30	796.95	173.19	0.22	1.92	173.22	0.22	0.528	1113.227

Main Results

Main results: (16:45-17:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	606.05	151.51	599.94	468.28	334.45	0.00	993.18	863.40	0.610	0.00	1.53
B	310.17	77.54	307.23	298.51	635.89	0.00	724.39	565.24	0.428	0.00	0.74
C	432.89	108.22	429.68	450.33	492.79	0.00	964.81	782.86	0.449	0.00	0.80
D	435.90	108.98	432.20	551.94	370.53	0.00	899.00	736.12	0.485	0.00	0.93

Main results: (17:00-17:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	723.68	180.92	718.13	561.34	401.01	0.00	957.03	863.41	0.756	1.53	2.91
B	370.38	92.59	368.35	357.77	761.38	0.00	659.33	565.24	0.562	0.74	1.24
C	516.91	129.23	514.99	539.32	590.41	0.00	910.69	782.86	0.568	0.80	1.28
D	520.51	130.13	518.25	661.28	444.12	0.00	859.69	736.12	0.605	0.93	1.49

Main results: (17:15-17:30)

Arm	Demand	Arrivals	Entry	Exit	Circulating	Pedestrian	Capacity	Saturation	RFC	Start	End

	(Veh/hr)	(Veh)	Flow (Veh/hr)	Flow (Veh/hr)	Flow (Veh/hr)	Demand (Ped/hr)	(Veh/hr)	Capacity (Veh/hr)		Queue (Veh)	Queue (Veh)
A	886.32	221.58	849.64	682.72	487.48	0.00	910.09	863.40	0.974	2.91	12.09
B	453.62	113.40	446.26	432.15	904.96	0.00	584.94	565.24	0.776	1.24	3.08
C	633.09	158.27	627.07	643.16	708.06	0.00	845.46	782.86	0.749	1.28	2.79
D	637.49	159.37	629.88	794.80	540.33	0.00	808.29	736.12	0.789	1.49	3.40

Main results: (17:30-17:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	886.32	221.58	870.34	689.40	492.68	0.00	907.27	863.40	0.977	12.09	16.08
B	453.62	113.40	452.20	438.11	924.91	0.00	574.57	565.24	0.789	3.08	3.44
C	633.09	158.27	632.44	656.30	720.81	0.00	838.40	782.86	0.755	2.79	2.95
D	637.49	159.37	636.73	807.91	545.35	0.00	805.62	736.12	0.791	3.40	3.59

Main results: (17:45-18:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	723.68	180.92	774.34	571.62	408.76	0.00	952.83	863.41	0.760	16.08	3.41
B	370.38	92.59	378.28	369.67	813.43	0.00	632.26	565.24	0.586	3.44	1.46
C	516.91	129.23	523.10	572.31	619.40	0.00	894.64	782.86	0.578	2.95	1.40
D	520.51	130.13	528.46	690.57	451.93	0.00	855.53	736.12	0.608	3.59	1.60

Main results: (18:00-18:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	606.05	151.51	613.23	474.80	339.23	0.00	990.58	863.40	0.612	3.41	1.62
B	310.17	77.54	312.94	303.32	649.15	0.00	717.51	565.24	0.432	1.46	0.77
C	432.89	108.22	435.16	459.39	502.69	0.00	959.32	782.86	0.451	1.40	0.83
D	435.90	108.98	438.45	562.28	375.58	0.00	896.31	736.12	0.486	1.60	0.96

Queueing Delay Results

Queueing Delay results: (16:45-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.39	1.43	0.150	A	A
B	10.49	0.70	0.143	A	A
C	11.53	0.77	0.111	A	A
D	13.20	0.88	0.128	A	A

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	39.87	2.66	0.245	B	B
B	17.63	1.18	0.205	B	B
C	18.38	1.23	0.151	A	A
D	21.22	1.41	0.175	B	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	130.53	8.70	0.735	E	D
B	40.33	2.69	0.412	C	C
C	37.82	2.52	0.268	C	B
D	45.09	3.01	0.323	C	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	213.72	14.25	1.129	F	E
B	49.61	3.31	0.480	D	C
C	43.35	2.89	0.289	C	B
D	52.67	3.51	0.351	C	C

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	81.89	5.46	0.407	C	C
B	24.12	1.61	0.243	B	B
C	22.42	1.49	0.164	A	A
D	25.94	1.73	0.188	B	B

Queueing Delay results: (18:00-18:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	25.93	1.73	0.162	A	A
B	12.18	0.81	0.149	A	A
C	12.99	0.87	0.115	A	A
D	15.07	1.00	0.132	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
A	3.70	4.50	3.40	7.00	19.00	16.50		0.548	1204.008
B	3.45	4.10	2.10	6.00	19.00	15.00		0.516	1073.293
C	4.20	4.45	2.80	6.00	19.00	10.00		0.562	1271.998
D	3.35	4.80	2.60	6.30	19.00	14.00		0.528	1113.227

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving

										Vehicle (min)
1	A	606.05	993.18	0.610	0.00	0.00	1.53	21.39	(0.02)	0.150
1	B	310.17	724.39	0.428	0.00	0.00	0.74	10.49	(0.02)	0.143
1	C	432.89	964.81	0.449	0.00	0.00	0.80	11.53	(0.02)	0.111
1	D	435.90	899.00	0.485	0.00	0.00	0.93	13.20	(0.02)	0.128
2	A	723.68	957.03	0.756	0.00	1.53	2.91	39.87	(0.02)	0.245
2	B	370.38	659.33	0.562	0.00	0.74	1.24	17.63	(0.02)	0.205
2	C	516.91	910.69	0.568	0.00	0.80	1.28	18.38	(0.02)	0.151
2	D	520.51	859.69	0.605	0.00	0.93	1.49	21.22	(0.02)	0.175
3	A	886.32	910.09	0.974	0.00	2.91	12.09	130.53	(0.02)	0.735
3	B	453.62	584.94	0.776	0.00	1.24	3.08	40.33	(0.02)	0.412
3	C	633.09	845.46	0.749	0.00	1.28	2.79	37.82	(0.02)	0.268
3	D	637.49	808.29	0.789	0.00	1.49	3.40	45.09	(0.02)	0.323
4	A	886.32	907.27	0.977	0.00	12.09	16.08	213.72	(0.02)	1.129
4	B	453.62	574.57	0.789	0.00	3.08	3.44	49.61	(0.02)	0.480
4	C	633.09	838.40	0.755	0.00	2.79	2.95	43.35	(0.02)	0.289
4	D	637.49	805.62	0.791	0.00	3.40	3.59	52.67	(0.02)	0.351
5	A	723.68	952.83	0.760	0.00	16.08	3.41	81.89	(0.02)	0.407
5	B	370.38	632.26	0.586	0.00	3.44	1.46	24.12	(0.02)	0.243
5	C	516.91	894.64	0.578	0.00	2.95	1.40	22.42	(0.02)	0.164
5	D	520.51	855.53	0.608	0.00	3.59	1.60	25.94	(0.02)	0.188
6	A	606.05	990.58	0.612	0.00	3.41	1.62	25.93	(0.02)	0.162
6	B	310.17	717.51	0.432	0.00	1.46	0.77	12.18	(0.02)	0.149
6	C	432.89	959.32	0.451	0.00	1.40	0.83	12.99	(0.02)	0.115
6	D	435.90	896.31	0.486	0.00	1.60	0.96	15.07	(0.02)	0.132

A1 - (Default Analysis Set) - D7 - Base + CD + Dev, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type

Base + CD + Dev, AM	Base + CD + Dev	AM			Yes			07:45	09:15	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	A,B,C,D	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
A	Wemborough Road (E)	
B	St Andrew's Drive	
C	Wemborough Road (W)	
D	Abercorn Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.70	4.50	3.40	7.00	19.00	16.50	
B	3.45	4.10	2.10	6.00	19.00	15.00	
C	4.20	4.45	2.80	6.00	19.00	10.00	
D	3.35	4.80	2.60	6.30	19.00	14.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		((calculated))	((calculated))	0.548	1204.008
B		((calculated))	((calculated))	0.516	1073.293
C		((calculated))	((calculated))	0.562	1271.998
D		((calculated))	((calculated))	0.528	1113.227

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
A	ONE HOUR	Yes	699.00	100.000	N/A
B	ONE HOUR	Yes	437.00	100.000	N/A
C	ONE HOUR	Yes	599.00	100.000	N/A
D	ONE HOUR	Yes	654.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	A	526.24	539.81	N/A	N/A
1	B	329.00	333.70	N/A	N/A
1	C	450.96	462.18	N/A	N/A
1	D	492.37	498.62	N/A	N/A
2	A	628.39	644.59	N/A	N/A
2	B	392.85	398.47	N/A	N/A
2	C	538.49	551.89	N/A	N/A
2	D	587.93	595.40	N/A	N/A
3	A	769.61	789.45	N/A	N/A
3	B	481.15	488.03	N/A	N/A
3	C	659.51	675.93	N/A	N/A

3	D	720.07	729.21	N/A	N/A
4	A	769.61	789.45	N/A	N/A
4	B	481.15	488.03	N/A	N/A
4	C	659.51	675.93	N/A	N/A
4	D	720.07	729.21	N/A	N/A
5	A	628.39	644.59	N/A	N/A
5	B	392.85	398.47	N/A	N/A
5	C	538.49	551.89	N/A	N/A
5	D	587.93	595.40	N/A	N/A
6	A	526.24	539.81	N/A	N/A
6	B	329.00	333.70	N/A	N/A
6	C	450.96	462.18	N/A	N/A
6	D	492.37	498.62	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	90.000	391.000	217.000
	B	101.000	1.000	40.000	295.000
	C	399.000	73.000	1.000	126.000
	D	206.000	371.000	70.000	7.000

Turning Proportions (Veh) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.13	0.56	0.31
	B	0.23	0.00	0.09	0.68
	C	0.67	0.12	0.00	0.21
	D	0.31	0.57	0.11	0.01

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.012	1.035	1.015
	B	1.000	1.000	1.053	1.014
	C	1.032	1.000	1.000	1.017
	D	1.010	1.014	1.015	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

	To				
From		A	B	C	D

	A	0.000	1.200	3.500	1.500
	B	0.000	0.000	5.300	1.400
	C	3.200	0.000	0.000	1.700
	D	1.000	1.400	1.500	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
A	0.89	0.57	6.82	D	641.41	962.12	276.98	0.29	3.08	277.03	0.29	0.548	1204.008
B	0.72	0.32	2.50	C	401.00	601.50	125.48	0.21	1.39	125.50	0.21	0.516	1073.293
C	0.77	0.29	3.12	C	549.65	824.48	153.50	0.19	1.71	153.52	0.19	0.562	1271.998
D	0.95	0.97	10.91	F	600.12	900.18	375.89	0.42	4.18	375.95	0.42	0.528	1113.227

Main Results

Main results: (07:45-08:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	526.24	131.56	521.52	527.78	389.84	0.00	962.81	863.36	0.547	0.00	1.18
B	329.00	82.25	326.19	398.87	512.49	0.00	790.72	622.11	0.416	0.00	0.70
C	450.96	112.74	447.62	374.48	464.20	0.00	983.40	773.77	0.459	0.00	0.84
D	492.36	123.09	487.27	481.47	430.34	0.00	870.11	696.08	0.566	0.00	1.27

Main results: (08:00-08:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	628.39	157.10	624.86	632.49	466.95	0.00	921.09	863.36	0.682	1.18	2.06
B	392.85	98.21	391.21	477.79	614.01	0.00	737.74	622.11	0.533	0.70	1.11
C	538.49	134.62	536.48	448.70	556.53	0.00	932.14	773.77	0.578	0.84	1.34
D	587.93	146.98	583.60	577.17	515.84	0.00	824.58	696.08	0.713	1.27	2.36

Main results: (08:15-08:30)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	769.61	192.40	754.03	764.81	557.43	0.00	872.14	863.36	0.882	2.06	5.96
B	481.15	120.29	476.16	571.67	739.79	0.00	672.10	622.11	0.716	1.11	2.36
C	659.51	164.88	652.98	540.78	675.17	0.00	866.27	773.77	0.761	1.34	2.97
D	720.07	180.02	694.39	700.31	627.85	0.00	764.94	696.08	0.941	2.36	8.78

Main results: (08:30-08:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow	Exit Flow	Circulating Flow	Pedestrian Demand	Capacity (Veh/hr)	Saturation Capacity	RFC	Start Queue	End Queue

			(Veh/hr)	(Veh/hr)	(Veh/hr)	(Ped/hr)		(Veh/hr)		(Veh)	(Veh)
A	769.61	192.40	766.16	775.20	569.90	0.00	865.39	863.36	0.889	5.96	6.82
B	481.15	120.29	480.60	583.68	752.39	0.00	665.53	622.11	0.723	2.36	2.50
C	659.51	164.88	658.91	549.82	683.17	0.00	861.83	773.77	0.765	2.97	3.12
D	720.07	180.02	711.52	708.50	633.58	0.00	761.88	696.08	0.945	8.78	10.91

Main results: (08:45-09:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	628.39	157.10	646.22	651.65	493.53	0.00	906.68	863.36	0.693	6.82	2.36
B	392.85	98.21	398.00	502.74	637.02	0.00	725.75	622.11	0.541	2.50	1.21
C	538.49	134.62	545.25	465.27	569.76	0.00	924.79	773.77	0.582	3.12	1.43
D	587.93	146.98	620.81	590.63	524.38	0.00	820.03	696.08	0.717	10.91	2.69

Main results: (09:00-09:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	526.24	131.56	530.72	535.92	397.72	0.00	958.54	863.36	0.549	2.36	1.24
B	329.00	82.25	330.91	406.69	521.75	0.00	785.89	622.11	0.419	1.21	0.73
C	450.96	112.74	453.21	381.19	471.47	0.00	979.36	773.77	0.460	1.43	0.87
D	492.36	123.09	497.76	488.81	435.87	0.00	867.16	696.08	0.568	2.69	1.34

Queueing Delay Results

Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.74	1.12	0.135	A	A
B	10.05	0.67	0.128	A	A
C	11.99	0.80	0.111	A	A
D	17.90	1.19	0.155	A	A

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	28.91	1.93	0.200	B	B
B	15.91	1.06	0.172	B	B
C	19.13	1.28	0.151	A	A
D	32.52	2.17	0.245	B	B

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	73.57	4.90	0.457	D	C
B	32.05	2.14	0.299	C	B
C	40.09	2.67	0.273	C	B
D	99.24	6.62	0.684	E	D

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	97.03	6.47	0.568	D	C
B	36.70	2.45	0.322	C	B
C	45.93	3.06	0.294	C	B
D	149.53	9.97	0.968	F	E

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	41.11	2.74	0.245	B	B
B	19.36	1.29	0.186	B	B
C	22.88	1.53	0.161	A	A
D	55.27	3.68	0.344	C	C

Queueing Delay results: (09:00-09:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.61	1.31	0.142	A	A
B	11.41	0.76	0.132	A	A
C	13.48	0.90	0.115	A	A
D	21.42	1.43	0.165	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
A	3.70	4.50	3.40	7.00	19.00	16.50		0.548	1204.008
B	3.45	4.10	2.10	6.00	19.00	15.00		0.516	1073.293
C	4.20	4.45	2.80	6.00	19.00	10.00		0.562	1271.998
D	3.35	4.80	2.60	6.30	19.00	14.00		0.528	1113.227

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	A	526.24	962.81	0.547	0.00	0.00	1.18	16.74	(0.02)	0.135
1	B	329.00	790.72	0.416	0.00	0.00	0.70	10.05	(0.02)	0.128
1	C	450.96	983.40	0.459	0.00	0.00	0.84	11.99	(0.02)	0.111
1	D	492.36	870.11	0.566	0.00	0.00	1.27	17.90	(0.02)	0.155
2	A	628.39	921.09	0.682	0.00	1.18	2.06	28.91	(0.02)	0.200
2	B	392.85	737.74	0.533	0.00	0.70	1.11	15.91	(0.02)	0.172

2	C	538.49	932.14	0.578	0.00	0.84	1.34	19.13	(0.02)	0.151
2	D	587.93	824.58	0.713	0.00	1.27	2.36	32.52	(0.02)	0.245
3	A	769.61	872.14	0.882	0.00	2.06	5.96	73.57	(0.02)	0.457
3	B	481.15	672.10	0.716	0.00	1.11	2.36	32.05	(0.02)	0.299
3	C	659.51	866.27	0.761	0.00	1.34	2.97	40.09	(0.02)	0.273
3	D	720.07	764.94	0.941	0.00	2.36	8.78	99.24	(0.02)	0.684
4	A	769.61	865.39	0.889	0.00	5.96	6.82	97.03	(0.02)	0.568
4	B	481.15	665.53	0.723	0.00	2.36	2.50	36.70	(0.02)	0.322
4	C	659.51	861.83	0.765	0.00	2.97	3.12	45.93	(0.02)	0.294
4	D	720.07	761.88	0.945	0.00	8.78	10.91	149.53	(0.02)	0.968
5	A	628.39	906.68	0.693	0.00	6.82	2.36	41.11	(0.02)	0.245
5	B	392.85	725.75	0.541	0.00	2.50	1.21	19.36	(0.02)	0.186
5	C	538.49	924.79	0.582	0.00	3.12	1.43	22.88	(0.02)	0.161
5	D	587.93	820.03	0.717	0.00	10.91	2.69	55.27	(0.02)	0.344
6	A	526.24	958.54	0.549	0.00	2.36	1.24	19.61	(0.02)	0.142
6	B	329.00	785.89	0.419	0.00	1.21	0.73	11.41	(0.02)	0.132
6	C	450.96	979.36	0.460	0.00	1.43	0.87	13.48	(0.02)	0.115
6	D	492.36	867.16	0.568	0.00	2.69	1.34	21.42	(0.02)	0.165

A1 - (Default Analysis Set) - D8 - Base + CD + Dev, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Base + CD + Dev, PM	Base + CD + Dev	PM			Yes			16:45	18:15	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	A,B,C,D	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
A	Wemborough Road (E)	
B	St Andrew's Drive	
C	Wemborough Road (W)	
D	Abercorn Road	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.70	4.50	3.40	7.00	19.00	16.50	
B	3.45	4.10	2.10	6.00	19.00	15.00	
C	4.20	4.45	2.80	6.00	19.00	10.00	
D	3.35	4.80	2.60	6.30	19.00	14.00	

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		((calculated))	((calculated))	0.548	1204.008
B		((calculated))	((calculated))	0.516	1073.293
C		((calculated))	((calculated))	0.562	1271.998
D		((calculated))	((calculated))	0.528	1113.227

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
A	ONE HOUR	Yes	826.00	100.000	N/A
B	ONE HOUR	Yes	414.00	100.000	N/A
C	ONE HOUR	Yes	576.00	100.000	N/A
D	ONE HOUR	Yes	580.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	A	621.86	636.90	N/A	N/A
1	B	311.68	317.33	N/A	N/A
1	C	433.64	445.56	N/A	N/A
1	D	436.65	443.14	N/A	N/A
2	A	742.56	760.53	N/A	N/A
2	B	372.18	378.93	N/A	N/A
2	C	517.81	532.04	N/A	N/A
2	D	521.41	529.15	N/A	N/A
3	A	909.44	931.45	N/A	N/A
3	B	455.82	464.09	N/A	N/A
3	C	634.19	651.62	N/A	N/A
3	D	638.59	648.07	N/A	N/A
4	A	909.44	931.45	N/A	N/A
4	B	455.82	464.09	N/A	N/A
4	C	634.19	651.62	N/A	N/A
4	D	638.59	648.07	N/A	N/A
5	A	742.56	760.53	N/A	N/A
5	B	372.18	378.93	N/A	N/A
5	C	517.81	532.04	N/A	N/A
5	D	521.41	529.15	N/A	N/A
6	A	621.86	636.90	N/A	N/A

6	B	311.68	317.33	N/A	N/A
6	C	433.64	445.56	N/A	N/A
6	D	436.65	443.14	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	106.000	431.000	289.000
	B	72.000	0.000	41.000	301.000
	C	381.000	44.000	0.000	151.000
	D	176.000	260.000	140.000	4.000

Turning Proportions (Veh) - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.13	0.52	0.35
	B	0.17	0.00	0.10	0.73
	C	0.66	0.08	0.00	0.26
	D	0.30	0.45	0.24	0.01

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.039	1.011
	B	1.000	1.000	1.051	1.018
	C	1.036	1.000	1.000	1.014
	D	1.012	1.025	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.000	3.900	1.100
	B	0.000	0.000	5.100	1.800
	C	3.600	0.000	0.000	1.400
	D	1.200	2.500	0.000	0.000

Results

Results Summary

Arm	Max	Max	Max	Max	Total	Total	Total	Average	Rate Of	Inclusive	Inclusive	Slope	Intercept

	RFC	Delay (min)	Queue (Veh)	LOS	Demand (Veh/hr)	Arrivals (Veh)	Queueing Delay (Veh-min)	Queueing Delay (min)	Queueing Delay (Veh-min/min)	Queueing Total Delay (Veh-min)	Queueing Average Delay (min)		(PCU/hr)
A	1.00	1.41	21.27	F	757.95	1136.93	636.91	0.56	7.08	637.00	0.56	0.548	1204.008
B	0.80	0.49	3.56	D	379.89	569.84	159.65	0.28	1.77	159.67	0.28	0.516	1073.293
C	0.76	0.29	2.99	C	528.55	792.82	148.23	0.19	1.65	148.25	0.19	0.562	1271.998
D	0.79	0.35	3.62	C	532.22	798.33	174.55	0.22	1.94	174.58	0.22	0.528	1113.227

Main Results

Main results: (16:45-17:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	621.86	155.46	615.35	469.76	334.44	0.00	993.86	864.78	0.626	0.00	1.63
B	311.68	77.92	308.68	305.92	643.87	0.00	720.43	569.18	0.433	0.00	0.75
C	433.64	108.41	430.41	456.16	496.40	0.00	962.80	783.06	0.450	0.00	0.81
D	436.65	109.16	432.93	555.55	371.26	0.00	898.61	735.43	0.486	0.00	0.93

Main results: (17:00-17:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	742.56	185.64	736.22	563.11	401.00	0.00	957.69	864.78	0.775	1.63	3.21
B	372.18	93.04	370.07	366.60	770.62	0.00	654.74	569.18	0.568	0.75	1.28
C	517.81	129.45	515.86	546.11	594.59	0.00	908.37	783.06	0.570	0.81	1.30
D	521.41	130.35	519.12	665.46	444.98	0.00	859.23	735.43	0.607	0.93	1.50

Main results: (17:15-17:30)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	909.44	227.36	862.83	684.85	487.41	0.00	910.75	864.78	0.999	3.21	14.86
B	455.82	113.96	448.22	441.51	908.73	0.00	583.22	569.18	0.782	1.28	3.18
C	634.19	158.55	628.10	646.89	710.07	0.00	844.34	783.06	0.751	1.30	2.82
D	638.59	159.65	630.87	796.78	541.39	0.00	807.72	735.43	0.791	1.50	3.43

Main results: (17:30-17:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	909.44	227.36	883.80	691.60	492.66	0.00	907.89	864.78	1.002	14.86	21.27
B	455.82	113.96	454.31	447.73	928.73	0.00	572.83	569.18	0.796	3.18	3.56
C	634.19	158.55	633.52	660.11	722.94	0.00	837.21	783.06	0.758	2.82	2.99
D	638.59	159.65	637.81	810.01	546.45	0.00	805.02	735.43	0.793	3.43	3.62

Main results: (17:45-18:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	742.56	185.64	812.07	573.40	408.84	0.00	953.44	864.78	0.779	21.27	3.90

B	372.18	93.04	380.14	381.59	839.32	0.00	619.01	569.18	0.601	3.56	1.57
C	517.81	129.45	524.03	589.18	630.27	0.00	888.61	783.06	0.583	2.99	1.43
D	521.41	130.35	529.47	701.53	452.76	0.00	855.08	735.43	0.610	3.62	1.61

Main results: (18:00-18:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
A	621.86	155.46	630.51	476.43	339.25	0.00	991.25	864.78	0.627	3.90	1.73
B	311.68	77.92	314.78	311.11	658.65	0.00	712.76	569.18	0.437	1.57	0.79
C	433.64	108.41	436.01	466.19	507.24	0.00	956.79	783.06	0.453	1.43	0.84
D	436.65	109.16	439.22	566.80	376.45	0.00	895.84	735.43	0.487	1.61	0.97

Queueing Delay Results

Queueing Delay results: (16:45-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	22.71	1.51	0.156	A	A
B	10.67	0.71	0.145	A	A
C	11.60	0.77	0.112	A	A
D	13.26	0.88	0.128	A	A

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	43.55	2.90	0.263	C	B
B	18.07	1.20	0.209	B	B
C	18.55	1.24	0.152	A	A
D	21.33	1.42	0.175	B	B

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	153.68	10.25	0.849	F	D
B	41.40	2.76	0.422	D	C
C	38.20	2.55	0.270	C	B
D	45.48	3.03	0.326	C	B

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	273.68	18.25	1.409	F	F
B	51.21	3.41	0.494	D	C
C	43.86	2.92	0.293	C	B
D	53.22	3.55	0.355	C	C

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service

A	115.27	7.68	0.561	D	C
B	25.85	1.72	0.259	C	B
C	22.90	1.53	0.167	B	B
D	26.12	1.74	0.189	B	B

Queueing Delay results: (18:00-18:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
A	28.01	1.87	0.170	B	B
B	12.45	0.83	0.152	A	A
C	13.10	0.87	0.116	A	A
D	15.14	1.01	0.132	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
A	3.70	4.50	3.40	7.00	19.00	16.50		0.548	1204.008
B	3.45	4.10	2.10	6.00	19.00	15.00		0.516	1073.293
C	4.20	4.45	2.80	6.00	19.00	10.00		0.562	1271.998
D	3.35	4.80	2.60	6.30	19.00	14.00		0.528	1113.227

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	**A**	621.86	993.86	0.626	0.00	0.00	1.63	22.71	(0.02)	0.156
1	**B**	311.68	720.43	0.433	0.00	0.00	0.75	10.67	(0.02)	0.145
1	**C**	433.64	962.80	0.450	0.00	0.00	0.81	11.60	(0.02)	0.112
1	**D**	436.65	898.61	0.486	0.00	0.00	0.93	13.26	(0.02)	0.128
2	**A**	742.56	957.69	0.775	0.00	1.63	3.21	43.55	(0.02)	0.263
2	**B**	372.18	654.74	0.568	0.00	0.75	1.28	18.07	(0.02)	0.209
2	**C**	517.81	908.37	0.570	0.00	0.81	1.30	18.55	(0.02)	0.152
2	**D**	521.41	859.23	0.607	0.00	0.93	1.50	21.33	(0.02)	0.175
3	**A**	909.44	910.75	0.999	0.00	3.21	14.86	153.68	(0.02)	0.849
3	**B**	455.82	583.22	0.782	0.00	1.28	3.18	41.40	(0.02)	0.422
3	**C**	634.19	844.34	0.751	0.00	1.30	2.82	38.20	(0.02)	0.270
3	**D**	638.59	807.72	0.791	0.00	1.50	3.43	45.48	(0.02)	0.326
4	**A**	909.44	907.89	1.002	0.00	14.86	21.27	273.68	(0.02)	1.409
4	**B**	455.82	572.83	0.796	0.00	3.18	3.56	51.21	(0.02)	0.494
4	**C**	634.19	837.21	0.758	0.00	2.82	2.99	43.86	(0.02)	0.293
4	**D**	638.59	805.02	0.793	0.00	3.43	3.62	53.22	(0.02)	0.355

5	**A**	742.56	953.44	0.779	0.00	21.27	3.90	115.27	(0.02)	0.561
5	**B**	372.18	619.01	0.601	0.00	3.56	1.57	25.85	(0.02)	0.259
5	**C**	517.81	888.61	0.583	0.00	2.99	1.43	22.90	(0.02)	0.167
5	**D**	521.41	855.08	0.610	0.00	3.62	1.61	26.12	(0.02)	0.189
6	**A**	621.86	991.25	0.627	0.00	3.90	1.73	28.01	(0.02)	0.170
6	**B**	311.68	712.76	0.437	0.00	1.57	0.79	12.45	(0.02)	0.152
6	**C**	433.64	956.79	0.453	0.00	1.43	0.84	13.10	(0.02)	0.116
6	**D**	436.65	895.84	0.487	0.00	1.61	0.97	15.14	(0.02)	0.132

APPENDIX 9

PTAI Study Report File Summary

PTAI Run Parameters

PTAI Run	20142305144724
Description	20142305144724
Run by user	PTAL web application
Date and time	23/05/2014 14:47

Walk File Parameters

Walk File	PLSQLTest
Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
BUS Walk Access Time (mins)	8
BUS Reliability Factor	2.0
LU LRT Walk Access Time (mins)	12
LU LRT Reliability Factor	0.75
NATIONAL_RAIL Walk Access Time (mins)	12
NATIONAL_RAIL Reliability Factor	0.75

Coordinates: 517579, 191147

Mode	Stop	Route	Distance (metres)	Frequency (vph)	Weight	Walk time (mins)	SWT (mins)	TAT (mins)	EDF	AI
BUS	WEMBOROUGH RD ABERCORN R	186	251.47	3.0	0.5	3.14	12.0	15.14	1.98	0.99

BUS	WHITCHURCH LANE MARSH LN	79	263.33	5.0	1.0	3.29	8.0	11.29	2.66	2.66
BUS	WHITCHURCH LANE MARSH LN	340	263.33	5.0	0.5	3.29	8.0	11.29	2.66	1.33
BUS	ABERCORN ROAD	324	421.63	3.0	0.5	5.27	12.0	17.27	1.74	0.87
LU LRT	Canons Park	Jubilee Line Stanmore to Stratford	639.9	17.8	1.0	8.0	2.44	10.43	2.88	2.88

NR SAP Points Not Found

Total AI for this POI is 8.73.

PTAL Rating is 2.

APPENDIX 10

2015 Avanti House School

School Travel Plan

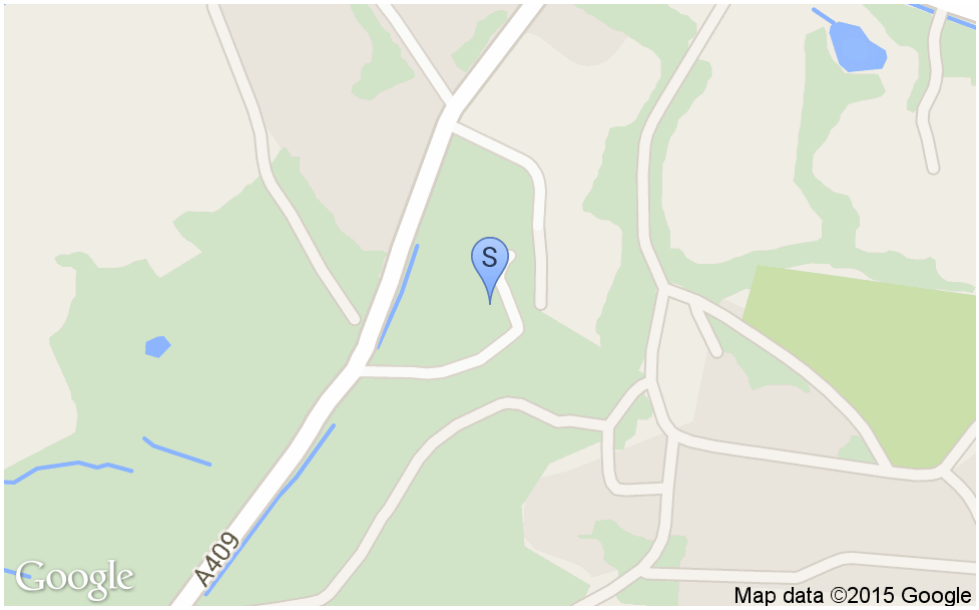
Introduction

Description of the school	
School Name*:	Avanti House School
School Address*:	Common Road, Stanmore, HA7 3JB
Travel Plan Coordinator*:	Nadira Morris
Telephone Number*:	020 8249 6830
Email Address:	nadira.morris@avanti.org.uk
Website Address:	http://harrowtp.org/teachers/www.avanti.org.uk
DcSF Number*:	310/4000
Type of School	Secondary
Location of the school*:	School is situated to the east of the A409 Common Road and southwest of the redeveloped Bentley Priory estate site, which provides 93 residential units and a museum.
Pedestrian and school entrances*:	The main school entrance is located on Common Road, Stanmore. The A409 Common Road benefits from street lighting, wide footway on its northwestern side and existing school signage alerting drivers to the fact that there may be children crossing the road. This section of the road is subject to a

Description of the school

40mph speed limit. A pedestrian refuge island is provided across the A409 Common Road adjacent to the school access, facilitating pedestrian access from footway on the northwestern side of the road.
Uncontrolled pedestrian crossing facilities are provided at the A409 Magpie Hall Road/A4140. North and South of the crossroads continous footways are provided on both sides of the carriageway connecting to Stanmore and Bushey local centres.

School Map



Catchment area*: The catchment area of Avanti House (Secondary School element) shows a geographical spread of current Year 7 students as well as those enrolled to start in September 2014, reasonable proportion of which 53% reside within the adjourning postcode areas of HA3, HA7, HA8, HA5, HA1, HA2, HA9 and would have the opportunity to walk and cycle to school.

Facilities		
	Description	Numbers
Car Park	No. of staff parking spaces	20
	No. of visitor spaces:	1
	No. of disables spaces:	1
Cycle Storage	Received free Cycle Storage (Mayor's Scheme):	
	Covered Sheffield Stands	nil
	Sheffield Stands	nil
	Cycle Racks	
	Cycle Pod / Mini Pod	nil
	Other Cycle Spaces	nil
	Scooter Parking Available	nil
If storage is available, how secure is it?		
Storage Lockers:	No. of staff storage lockers:	18
	No. of pupils storage lockers:	nil

Facilities		
Shower Facilities:	Are staff shower facilities available:	
	Are pupil shower facilities available:	

School opening and closing times*:

	Start Time:	Finish Time:
School Site:	07.00	18.00
Pupils official school time:	08:00	15:20
Breakfast Club (if applicable)	07:30	08:00
After school Club (if applicable)	15:30	17:00

Transportation Links	
Buses*: Map	Bus service 258 runs from Watford Junction station to South Harrow station. Bus stops are located at regular intervals along the A409 Common Road of which the nearest is located 50m southwest of the school access for services in both directions. Each stop is provided with a bus shelter. this route provides four services per hour through daytime hours, Monday - Saturday. Bus 142 service runs from Watford Junction Station, Stanmore Underground to Brent Cross centre and stops at the High Road (A4140), 500m northeast of the school. Service 142 operates 5 hourly services through weekday daytime periods, reducing to 3-4 hourly services through evenings and Sundays. This service provided an opportunity, particularly for secondary school children to access the school from the Stanmore area, completing the journey on foot.
Trains / Tubes*:	Stanmore London Underground station is the northern terminus of the Jubilee Line which runs into central London. Stanmore LU is located approximately 4 kilometres to the east of the school site. From this station, direct access can be gained to the school site using bus route 142 followed by a 500m walk. Bushey rail station is located approximately 4.6 kilometres to the north-west of the application site. Bus route 258 stops outside Bushey rail station and connects directly with the school site.
Roads*:	Within 5 kilometres of Avanti House school there is a comprehensive network of on and off-road cycle routes, the London Outer Orbital Path runs along the southern boundary of the Bentley Priory Estate.

Transportation Links	
	The A409 Common Road benefits from street lighting, wide footway on its northwestern side and existing school signage alerting drivers to the fact that there may be children crossing the road. This section of the A409 is subject to a 40mph speed limit. A pedestrian refuge island is provided across the A409 Common Road adjacent to the school access, facilitating pedestrian access from footway on the northwestern side of the road.

Pupils and staff numbers	
Pupils roll*:	316
Age range of pupils*:	11-13
Number of pupils entitled to SEN transportation and how their needs are taken into account*:	nil
Full - Time Staff roll*:	32
Part - Time Staff roll:	3
Support Staff roll:	9

About our Pupils and Staff

Pupils roll*: 316

Age range of pupils*: 11-13

Other information about the pupils who attend our school:

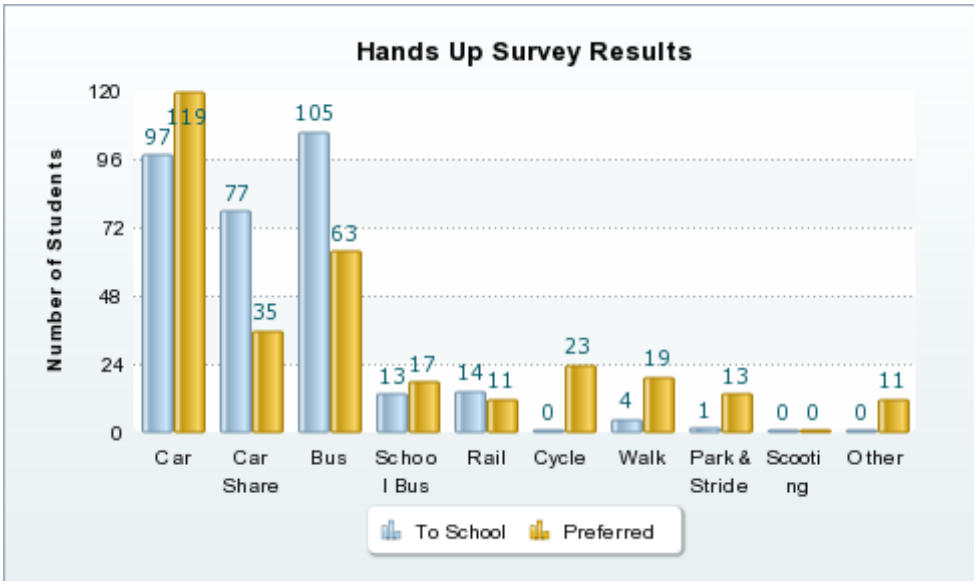
Staff roll*: 44

Other information about the people who work at our school:

Survey Results

Pupils Hands Up Results

Responses: *311*
Response Rate: *98 %*
Data Collection Date: *Monday 01st December 2014*

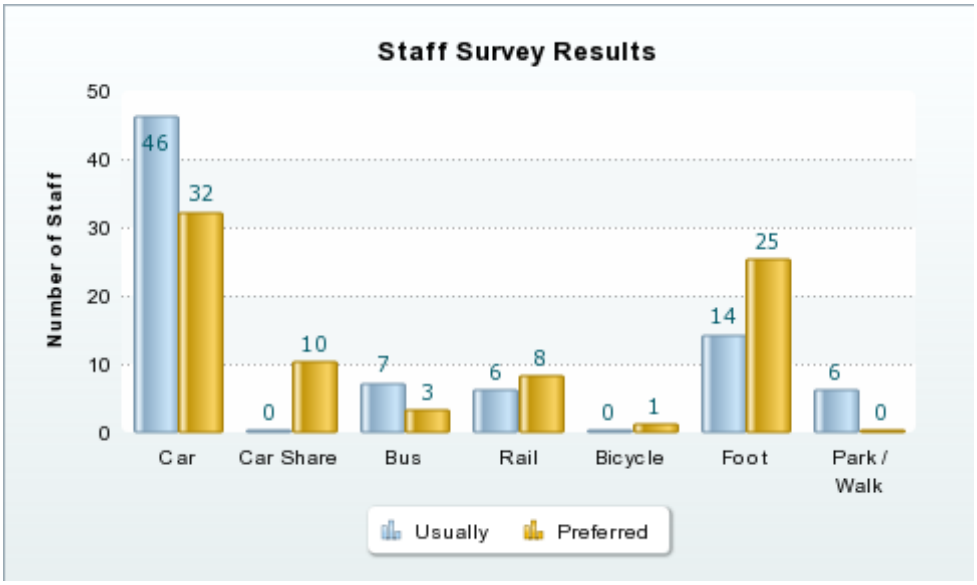


	Actual Mode of Travel									
	Bus	School Bus	Car	Car Share	Cycle	Park / Stride	Rail	Scooting	Walk	Other
Total 2015 Responses: *311*	105	13	97	77	0	1	14	0	4	0
%	34%	4%	31%	25%	0%	0%	5%	0%	1%	0%
Total 2014 Responses: *184*	51	1	69	43	0	0	17	0	3	0
%	28%	1%	38%	23%	0%	0%	9%	0%	2%	0%

	Preferred Mode of Travel									
	Bus	School Bus	Car	Car Share	Cycle	Park / Stride	Rail	Scooting	Walk	Other
Total 2015	63	17	119	35	23	13	11	0	19	11
%	20%	5%	38%	11%	7%	4%	4%	0%	6%	4%
Total 2014	44	3	57	21	23	0	12	0	3	21
%	24%	2%	31%	11%	13%	0%	7%	0%	2%	11%

Staff survey Results

Responses: *34*
Response Rate: *77%*
Data Collection Date: *Monday 05th January 2015*



	Actual Mode of of Travel							
	Bus	Car	Car Share	Cycle	Park / Walk	Rail	Walk	Other
Total 2015 Responses: *34*	4	18	8	0	0	4	0	0
%	12%	53%	24%	0%	0%	12%	0%	0%
Total 2014 Responses: *55*	18	6	4	0	0	18	9	0
%	33%	11%	7%	0%	0%	33%	16%	0%

	Preferred Mode of Travel							
	Bus	Car	Car Share	Cycle	Park / Walk	Rail	Walk	Other
Total 2015	3	14	14	0	0	3	0	0
%	9%	41%	41%	0%	0%	9%	0%	0%
Total 2014	9	15	4	0	0	9	0	0
%	16%	27%	7%	0%	0%	16%	0%	0%

Working Group and Involvement

Working Group	
Nadira Morris	School Travel Plan Advisor
Upendra Kalan	Bursar / School Office
Mark Bennison	Headteacher
Toby Gosden	Assistant
Nadira Morris	Deputy Head teacher
Funmi Atolagbe	Travel Planner (Harrow Council)

Travel and Transport Issues – Toby to complete/update

Original Travel and Transportation Issues

Details of the issue/concern	Photo	Is this still an issue?	Please Explain:

New Travel and Transport Issues

Objectives and Targets

Modal Shift

		Car	Car Share	Bus	Dedicated Bus	Rail	Cycle	Walk	Park Then Walk	Scooting	Other	Total
2015	**Number**	97	77	105	13	14	0	4	1	0	0	311
	%	31%	25%	34%	4%	5%	0%	1%	0%	0%	0%	
2014	**Number**	69	43	51	1	17	0	3	0	0	0	184
	%	38%	23%	28%	1%	9%	0%	2%	0%	0%	0%	
2013	**Number**											0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
2012	**Number**											0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
2011	**Number**											0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
2010	**Number**											0
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

New Objectives

S1. Committed to ensuring that everyone travelling to and from the school can do so as safely as possible - The school will encourage staff and students to make transport choices that demonstrate absolute regard for the need to minimise potential damage to the environment.

S2. To raise awareness of road safety and environmental issues relating to mode of travel choices.

AO1. Ensure that staff and students travel to and from the school by foot, bicycle and/or public transport and that they are offered assistance in identifying routes by which they can travel by these modes.

AO2. To maximise opportunities for the use of alternative modes of travel.

H1. Aim to provide a focus for a range of initiatives to encourage journeys to the school by sustainable modes of transport and to inform the targets that in turn will assist in identifying and evaluating its success or otherwise.

H2. To increase awareness of the health benefits of walking and sycling to the school

E1. To reduce congestion on surrounding roads thereby improving road safety and minimising the effects in terms of emissions.

New Targets

T1. To reduce the percentage of journeys by cars to and from the school by 2% by September 2015

T2. To increase the percentage of students using sustainable modes of travel by walking/cycling or public transport by 5% by September 2015.

Consultation and Collaboration

Code	Activity	Details
 S1	The school has an STP working group (should include student representatives)	Use the 'Working Group & Involvement' tab above to complete this action
 S2	Conducted consultation with parents: Evidence of questionnaires, survey results	
 S3	Whole school community involvement: Evidence of minutes of meetings with governors, staff, management team and school council	
 S4	Pupil involvement: evidence of pupils work relating to the plan (e.g. updating plan, run travel initiatives, survey analysis, posters, monitoring of WoW)	
 S5	The school has carried out in depth research/alternative consultation methods (e.g. walking/cycling audits with pupils, mapping exercises)	
 G1	Residents and neighbours are aware of the schools plans to promote more safe and active travel	
 G2	The travel plan is an agenda item on at least one governors/ senior management meeting a year	
 G3	Safe and active travel is part of the School Improvement Plan/ School Development Plan.	
	Further Information: Use this section to state what other	

Code	Activity	Details
	consultation your school is doing or why your school has not been able to meet one of the criteria above.	
Details are included on how any funding allocation of the capital grant has been spent		
If applicable, provide information or evidence on how the school has spent other funding from the Local Authority (Small Claim grants...)		
The school has identified and obtained other sources of funding aside from that available from the local authority		

Initiatives – Action Plan

Planned Initiatives

Initiative	Details	Reporting	Evidence (where required)
Walking			
W3 Walk to school week	TPC May 2015	Publicise local pedestrian routes on school website and promote participation in 'Walk to School Week' in May every year.	
Cycling			
C4 Cycle training for pupils (E.g. Bikeability)	TPC May 2015	Provide cycle training through the Government-supported 'Bikeability' scheme (www.dft.gov.uk/bikeability).	
Smarter Driving			
SD1 School promotes car sharing/has a car pool scheme	TPC May 2015	Encourage car-sharing by directing parents towards websites such as http:www.school-carshare.co.uk where they can register to find other local people travelling to the school.	
SD7 Other Smarter Driving Initiatives	TPC May 2015	Set up list of marshalls, rota and 'back up' marshalls for both AM and PM drop-off / pick-up periods on every school day – ensuring 4-5 marshalls are on-site to manage traffic flow. Marshalls should be provided with a strategy document for effective traffic management.	

Initiative	Details	Reporting	Evidence (where required)
Walking			
Public Transportation			
PT2 School promotes public transport	TPC May 2015		
Promotion			
PR1 Newsletter	TPC May 2015	Re-engage parents through website and newsletters on demand for mini-bus facility. Pupils / parents could be surveyed to identify strategic collection / drop-off locations. Within newsletter also provide updates on Travel Plan, survey results and new initiatives.	
PR2 Notice Board	TPC May 2015	Notice boards to be placed in a communal area near the entrance of the main building and in the staff room. Notice boards will display information related to the Travel Plan and sustainable transport. They will display details of existing facilities such as bus routes and the locations of the nearby underground and rail stations, in addition to cycle routes in the vicinity of the school.	
PR6 Information on website	TPC May 2015	Update school website to provide page on travel, including information on walk / cycle initiatives, public transport, and updates on the Travel Plan.	
PR8 Within the Prospectus	TPC May 2015	Update school prospectus to include statement on Travel Planning and expectation that wherever possible students should travel to school by sustainable modes.	

Initiative	Details	Reporting	Evidence (where required)
Walking			
PR14 Distributing cycling and public transport maps	TPC	Publicise improvements to local cycle routes and public transport information via school website / newsletters	
PR15 Other promotion method	TPC May 2015	Investigate potential to provide additional stagger to start / finish times ie. separate start and finish times for Years 7 , 8 and 9.	
Road Safety			
R4 Other Road Safety Initiatives	MTP / TPC May 2015	Investigate potential for physical works to improve school access way and road safety within school site eg. Localised widening to allow for drop-offs / pick-ups on both sides of school access whilst still facilitating two-way traffic flow.	

Sign off and Formal Approval

Our next hands up surveys be on: October 2015

Our Annual Progress review will be completed in: January 2016, 2017, 2018, 2019, 2020, 2021 and 2022

The person responsible for ensuring that the annual review will be actioned is : Nadira Morris

When reviewing our School travel Plan we will take into consideration any issues arising from new developments in education and transport since the original STP was completed with specific emphasis on the proposed school expansion.

Sign off and formal approval of STP

School Name: Avanti House School
School travel plan champion Nadira Morris
Year of school travel plan document 2015

School signatures

Approval of the school travel plan by the school travel plan champion confirms the schools management (including but not limited to the Head Teacher and Governors) have read, understood and agreed to the contents of this document. Avanti House School further acknowledges that they have committed to achieving all targets highlighted in their action plan and to the annual review and monitoring of the plan.

School Travel Plan Champion*	Nadira Morris	
Head Teacher's Name*:	Mark Bennison	
Chair of Governors Name*:	Yuraj Rana	
Pupil Representatives (Optional):		
Parent Governors (Optional):		
Other Stakeholders involved (Optional): e.g. Police, bus operators etc.		

Council signatures

The following signatures confirm that the document has been Quality Assessed checked by representatives from The London Borough of Harrow.

School Travel Plan Officer:

APPENDIX 11

Calculation Reference: AUDIT-740101-150330-0303

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION
Category : B - SECONDARY
MULTI-MODAL CYCLISTS

Selected regions and areas:

01	GREATER LONDON		
	BN	BARNET	1 days
	HM	HAMMERSMITH AND FULHAM	1 days
	IS	ISLINGTON	1 days

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

Filtering Stage 2 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 pupils
Actual Range:	610 to 1200 (units:)
Range Selected by User:	610 to 1200 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 25/11/09

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

Selected survey days:

Wednesday	3 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3

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

Selected Location Sub Categories:

Residential Zone	3

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

Filtering Stage 3 selection:

Use Class:

D1	3 days

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

Population within 1 mile:

25,001 to 50,000	1 days
50,001 to 100,000	2 days

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

Population within 5 miles:

500,001 or More	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days

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

Travel Plan:

Not Known	1 days
No	2 days

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

LIST OF SITES relevant to selection parameters

1 BN-04-B-01 SECONDARY SCHOOL BARNET
CHESTNUT GROVE

EAST BARNET
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 1200
Survey date: WEDNESDAY 19/10/05 Survey Type: MANUAL

2 HM-04-B-01 SECONDARY SCHOOL HAMMERSMITH AND FULHAM
KINGWOOD ROAD

FULHAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 610
Survey date: WEDNESDAY 04/12/02 Survey Type: MANUAL

3 IS-04-B-01 SECONDARY SCH. ISLINGTON
TURLE ROAD

FINSBURY PARK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 850
Survey date: WEDNESDAY 25/11/09 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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
LB-04-B-01	Too Central

TRIP RATE for Land Use 04 - EDUCATION/B - SECONDARY
MULTI-MODAL CYCLISTS
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	3	887	0.002	3	887	0.000	3	887	0.002
08:00 - 09:00	3	887	0.008	3	887	0.000	3	887	0.008
09:00 - 10:00	3	887	0.000	3	887	0.000	3	887	0.000
10:00 - 11:00	3	887	0.001	3	887	0.000	3	887	0.001
11:00 - 12:00	3	887	0.000	3	887	0.000	3	887	0.000
12:00 - 13:00	3	887	0.000	3	887	0.000	3	887	0.000
13:00 - 14:00	3	887	0.000	3	887	0.000	3	887	0.000
14:00 - 15:00	3	887	0.000	3	887	0.002	3	887	0.002
15:00 - 16:00	3	887	0.002	3	887	0.006	3	887	0.008
16:00 - 17:00	3	887	0.000	3	887	0.005	3	887	0.005
17:00 - 18:00	3	887	0.000	3	887	0.001	3	887	0.001
18:00 - 19:00	2	1025	0.000	2	1025	0.000	2	1025	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.013			0.014			0.027

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:	610 - 1200 (units:)
Survey date date range:	01/01/00 - 25/11/09
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	1

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 04 - EDUCATION/B - SECONDARY
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	3	887	0.029	3	887	0.003	3	887	0.032
08:00 - 09:00	3	887	0.129	3	887	0.039	3	887	0.168
09:00 - 10:00	3	887	0.031	3	887	0.012	3	887	0.043
10:00 - 11:00	3	887	0.022	3	887	0.017	3	887	0.039
11:00 - 12:00	3	887	0.008	3	887	0.011	3	887	0.019
12:00 - 13:00	3	887	0.019	3	887	0.013	3	887	0.032
13:00 - 14:00	3	887	0.011	3	887	0.009	3	887	0.020
14:00 - 15:00	3	887	0.011	3	887	0.027	3	887	0.038
15:00 - 16:00	3	887	0.012	3	887	0.063	3	887	0.075
16:00 - 17:00	3	887	0.007	3	887	0.044	3	887	0.051
17:00 - 18:00	3	887	0.008	3	887	0.017	3	887	0.025
18:00 - 19:00	2	1025	0.012	2	1025	0.012	2	1025	0.024
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.299			0.267			0.566

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:	610 - 1200 (units:)
Survey date date range:	01/01/00 - 25/11/09
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	1

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 04 - EDUCATION/B - SECONDARY
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	3	887	0.039	3	887	0.005	3	887	0.044
08:00 - 09:00	3	887	0.358	3	887	0.006	3	887	0.364
09:00 - 10:00	3	887	0.053	3	887	0.005	3	887	0.058
10:00 - 11:00	3	887	0.017	3	887	0.027	3	887	0.044
11:00 - 12:00	3	887	0.016	3	887	0.012	3	887	0.028
12:00 - 13:00	3	887	0.008	3	887	0.020	3	887	0.028
13:00 - 14:00	3	887	0.024	3	887	0.020	3	887	0.044
14:00 - 15:00	3	887	0.021	3	887	0.014	3	887	0.035
15:00 - 16:00	3	887	0.024	3	887	0.393	3	887	0.417
16:00 - 17:00	3	887	0.008	3	887	0.027	3	887	0.035
17:00 - 18:00	3	887	0.004	3	887	0.011	3	887	0.015
18:00 - 19:00	2	1025	0.003	2	1025	0.003	2	1025	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.575			0.543			1.118

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:	610 - 1200 (units:)
Survey date date range:	01/01/00 - 25/11/09
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	1

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 04 - EDUCATION/B - SECONDARY
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	3	887	0.036	3	887	0.000	3	887	0.036
08:00 - 09:00	3	887	0.233	3	887	0.000	3	887	0.233
09:00 - 10:00	3	887	0.064	3	887	0.011	3	887	0.075
10:00 - 11:00	3	887	0.005	3	887	0.001	3	887	0.006
11:00 - 12:00	3	887	0.002	3	887	0.000	3	887	0.002
12:00 - 13:00	3	887	0.003	3	887	0.002	3	887	0.005
13:00 - 14:00	3	887	0.011	3	887	0.000	3	887	0.011
14:00 - 15:00	3	887	0.002	3	887	0.019	3	887	0.021
15:00 - 16:00	3	887	0.037	3	887	0.322	3	887	0.359
16:00 - 17:00	3	887	0.007	3	887	0.024	3	887	0.031
17:00 - 18:00	3	887	0.000	3	887	0.023	3	887	0.023
18:00 - 19:00	2	1025	0.012	2	1025	0.015	2	1025	0.027
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.412			0.417			0.829

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:	610 - 1200 (units:)
Survey date date range:	01/01/00 - 25/11/09
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	1

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 04 - EDUCATION/B - SECONDARY
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	3	887	0.105	3	887	0.008	3	887	0.113
08:00 - 09:00	3	887	0.729	3	887	0.045	3	887	0.774
09:00 - 10:00	3	887	0.148	3	887	0.028	3	887	0.176
10:00 - 11:00	3	887	0.044	3	887	0.045	3	887	0.089
11:00 - 12:00	3	887	0.026	3	887	0.024	3	887	0.050
12:00 - 13:00	3	887	0.030	3	887	0.034	3	887	0.064
13:00 - 14:00	3	887	0.046	3	887	0.029	3	887	0.075
14:00 - 15:00	3	887	0.035	3	887	0.062	3	887	0.097
15:00 - 16:00	3	887	0.076	3	887	0.785	3	887	0.861
16:00 - 17:00	3	887	0.022	3	887	0.100	3	887	0.122
17:00 - 18:00	3	887	0.011	3	887	0.052	3	887	0.063
18:00 - 19:00	2	1025	0.027	2	1025	0.031	2	1025	0.058
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.299			1.243			2.542

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.

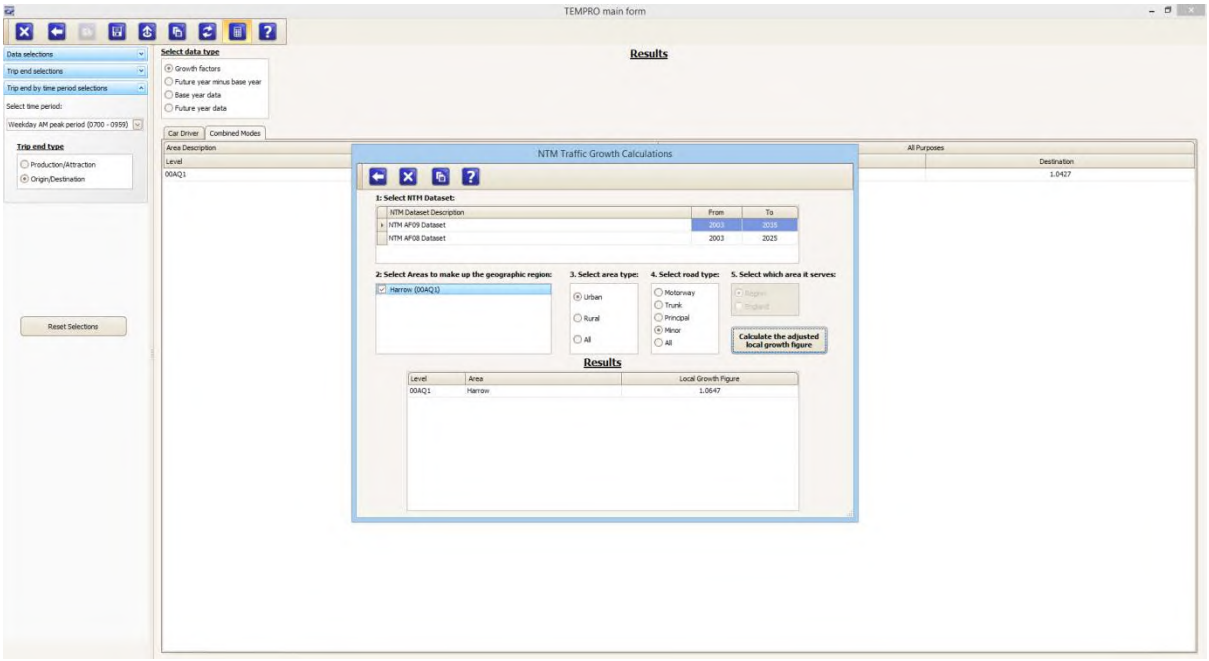
Parameter summary

Trip rate parameter range selected:	610 - 1200 (units:)
Survey date date range:	01/01/00 - 25/11/09
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	1

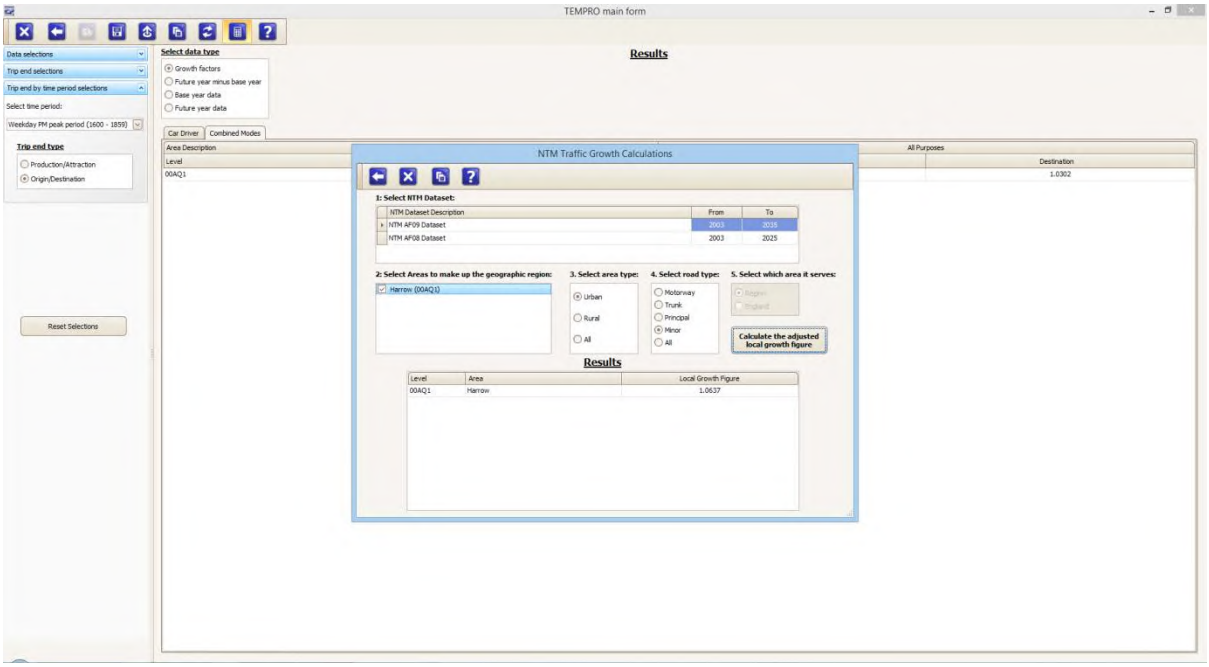
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

APPENDIX 12

2014 -> 2020 AM Peak: x 1.0647



2014 -> 2020 PM Peak: x 1.0637



APPENDIX 13

MAYOR OF LONDON

PEDESTRIAN COMFORT ASSESSMENT: FOOTWAY COMFORT

Transport for London

Sign Off	**Assessed By**	Toby Gosden	**Date**	05.06.15
	Reviewed By	Kevin Chaney	**Date**	05.06.15

Summary Info	**Location Name**	**Wemborough Road**		
	Location Type	**Full Footway Width**		
	Area Type	**Residential**		
	Average Flow (PPH)			
	Peak Hour Flow (PPH)	**1,650**		
	Total Footway Width	**2.6m**		
	Clear Footway Width	**2.4m**		
	Total Street Furniture Impact	**0m**	**0m**	**0m**

Pedestrian Comfort (At peak hour flow levels)	**Pedestrian Comfort Level (PCL)**	**B+ : 11 ppmm**		
	Total Width Required for PCL B+	2.50		
	Clear Width Required For PCL B+	2.30		

Pedestrian Comfort (Average of Maximum Activity)	**Pedestrian Comfort Level (PCL)**	**A+ : 0 ppmm**		
	Total Width Required for PCL B+	1.70		
	Clear Width Required For PCL B+	1.50		

Impact	**Pedestrian Comfort at Peak Hour Flow**	The footway on this site should be comfortable for its intended use at most times. However, you may need to reassess the site in future.	#VALUE!	#VALUE!
Impact	**Pedestrian Comfort at Average of Maximum Activity**	Even when under additional stress, the footway on this site should be comfortable.	#VALUE!	#VALUE!
Impact	**Notes**			
Impact	**Mitigation**			

APPENDIX 14

PARKING BEATS

PARKING BEATS

JOB REF: 18420 **DATE:** 20/01/2015

JOB NAME: HARROW **DAY:** TUESDAY

TIME	ZONE								
	1		2			3			
	STANDARD	ILLEGAL	STANDARD	DISABLED	ILLEGAL	STANDARD	DISABLED	DROP OFF ONLY	ILLEGAL
TOTAL SPACES	28	N/A	64	3	N/A	10	2	N/A	N/A
7:00	0	0	1	0	0	0	0	0	0
7:15	0	0	1	0	0	0	0	0	0
7:30	1	0	2	0	0	4	1	0	0
7:45	0	0	4	0	0	8	2	3	0
8:00	5	0	4	0	0	8	2	1	0
8:15	11	0	7	0	0	10	2	1	0
8:30	22	5	20	0	0	10	2	4	0
8:45	28	5	64	3	0	10	2	6	0
9:00	24	3	40	1	0	10	1	2	0
9:15	23	0	28	1	0	10	1	0	0
9:30	23	0	28	1	0	9	0	1	0
9:45	23	1	28	1	0	9	0	1	0
10:00	24	1	28	1	0	8	0	1	0
15:00	28	5	64	2	6	10	2	3	0
15:15	28	5	64	3	8	10	2	4	0
15:30	28	5	50	1	0	10	2	4	0
15:45	24	2	20	1	0	9	0	0	0
16:00	22	1	19	1	0	9	0	0	0
16:15	28	5	16	1	0	9	1	4	0
16:30	25	2	14	1	0	4	0	4	0
16:45	17	1	11	1	0	4	0	3	0
17:00	14	1	9	1	0	4	0	2	0
17:15	11	1	5	1	0	2	0	3	0
17:30	11	1	4	1	0	3	0	4	0
17:45	9	0	4	1	0	1	0	3	0
18:00	2	0	0	0	0	0	0	1	0

NOTE: THE VEHICLES PARKED ILLEGALLY IN ZONE 1, PARKED IN AN AREA RESERVED FOR COACH PARKING.
(NO COACHES WERE OBSEREVD, ONLY CARS USED THIS AREA WHICH COULD HOLD APPROXIMATELY 5 CARS).
THE VEHICLES PARKED ILLEGALLY IN ZONE 2 WERE NOT PARKED IN DESIGNATED BAYS.
THREE POLICE OFFICERS WERE ON SITE BETWEEN 14:55 TO 15:55 MOVING ON VEHICLES WHICH WERE PARKED ILLEGALLY.

APPENDIX 15

Avanti House Secondary School: Whitchurch Playing Fields
Parking Accumulation Calculations

Period and School Activity		Surveyed Spare Capacity in Public Car Park	Committed Parking Demand (Whichurch Schools Expansion) *	No. AHFS Pupils Arrive / Depart	TRICS Derived AHFS Parking Accumulation**	Resultant Spare Capacity
AM PEAK						
07:00-07:15	AHFS Breakfast Club	101	0	30	6	95
07:15-07:30		44	0	110	21	23
07:30-07:45	AHFS KS4 Start	95	0	240	45	50
07:45-08:00		90	0	130	25	65
08:00-08:15	AHFS KS3 Start	85	0	390	74	11
08:15-08:30		74	0	0	0	74
08:30-08:45	Whitchurch Drop-Off	50	54	0	0	-4
08:45-09:00	Whitchurch Drop-Off	0	54	0	0	-54
0900-09:15		58	0	0	0	58
09:15-09:30		41	0	90	17	24
09:30-09:45	AHFS KS5 Start	42	0	270	51	-9
09:45-10:00		42	0	0	0	42
PM PEAK						
15:00-15:15	Whitchurch Pick-Up	0	54	0	0	-54
15:15-15:30	Whitchurch Pick-Up	0	54	0	0	-54
15:30-15:45		14	0	50	6	8
15:45-16:00	AHFS KS3&4 Finish	49	0	350	43	6
16:00-16:15		52	0	0	0	52
16:15-16:30		49	0	0	0	49
16:30-16:45		59	0	125	16	44
16:45-17:00	AHFS KS3/4 Clubs Finish	70	0	375	47	24
17:00-17:15		75	0	0	0	75
17:15-17:30		84	0	90	11	73
17:30-17:45	AHFS KS5 Finish	84	0	270	33	51

Notes:

* Committed Whitchurch Schools expansion vehicle trip generation taken from approved Mott MacDonalds Transport Assessment (March 2014)
** AHFS Parking accumulation derived from total TRICS vehicle arrival / departure trip rates over AM / PM periods (broken down by start / finish times - assumed 75% pupils arrive/exit school in 15 minutes before or after school start/ finish time. 25% pupils arrive/exit school 15-30 minutes before or after school start/ finish time).

APPENDIX 16

Recreation Site

MARSH LANE

condary School

WHITCHURCH LANE

WEMBOROUGH ROAD

HONEYPOT LANE

Willow Court

909

907

3.10

3.10

2.60

2.60

3.00

3.00

3.00

Key

Carriageway / Footway Works

- Topographical survey base
- Junction Improvement Proposals
- Tactile paving

Shading

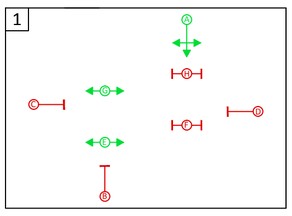
- Carriageway
- Footway
- Verge

Traffic / Pedestrian Signals

- Primary signal head
- Secondary signal head
- Pedestrian / cyclist signal
- Pedestrian / cyclist push button
- Signal controller

Proposed Junction Staging

1



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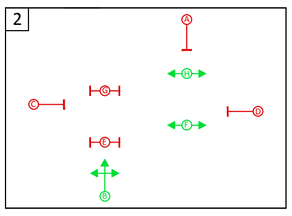
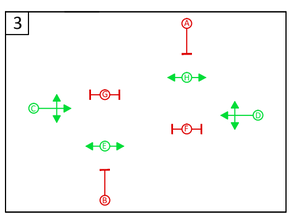


3



N

NW NE W E SW SE S

Drawing Revisions

Rev	Date	Details

Client

EDUCATION FUNDING AGENCY

Project

AVANTI HOUSE SCHOOL, WHITCHURCH PLAYING FIELDS

Title

PROPOSED JUNCTION IMPROVEMENT SCHEME: MARSH LN / WHITCHURCH LN WEMBOROUGH RD / HONEYPOT LN

MILESTONE TRANSPORT PLANNING

Heritage House, 7 Wey Court, Mary Road
Guildford, Surrey, GU1 4QU
Tel: 01483 397888
web: www.milestonetp.co.uk

Status	Scale
FOR DISCUSSION	1:250 @ A1

Drawn	Checked	Date
TG		Aug 2015

Drawing Number	Revision
14042/01	-

APPENDIX 17

Recreation Site

MARSH LANE

Secondary School

WHITCHURCH LANE

WEMBOROUGH ROAD

HONEYPOT LANE

Willow Court

909

907

Key

Carriageway / Footway Works

Topographical survey base

Junction Improvement Proposals

Tactile paving

Shading

Extent of Highway Boundary

N NE E SE S SW W NW

Drawing Revisions

Rev	Date	Details

Client

EDUCATION FUNDING AGENCY

Project

AVANTI HOUSE SCHOOL, WHITCHURCH PLAYING FIELDS

Title

PROPOSED JUNCTION IMPROVEMENT SCHEME HIGHWAY BOUNDARY OVERLAY: WEMBOROUGH RD / HONEYPOT LN MARSH LN / WHITCHURCH LN

MILESTONE TRANSPORT PLANNING
Heritage House, 7 Wey Court, Mary Road
Guildford, Surrey, GU1 4QU
Tel: 01483 397888
web: www.milestonetp.co.uk

Status	Scale
FOR DISCUSSION	1:250 @ A1

Drawn	Checked	Date
TG		Aug 2015

Drawing Number	Revision
14042/02	-

APPENDIX 18

MARSH LANE

WHITCHURCH LANE

WEMBOROUGH ROAD

HONEYPOT LANE

School

Willow Court

Hertford Court

909

907

905

903

901

Max Left Articulated Vehicle (16.5m)

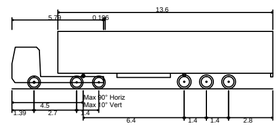
Max Left Articulated Vehicle (16.5m)

Max Left Articulated Vehicle (16.5m)

Max Left Articulated Vehicle (16.5m)

Max Left Articulated Vehicle (16.5m)

Autotrack vehicle profile:



Max Legal Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.500m
Overall Body Height	3.632m
Min Body Ground Clearance	0.396m
Max Track Width	2.500m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	6.870m

N

NW NE

W E

SW SE

S

Drawing Revisions

Rev	Date	Details

Client

EDUCATION FUNDING AGENCY

Project

AVANTI HOUSE SCHOOL, WHITCHURCH PLAYING FIELDS

Title

PROPOSED JUNCTION IMPROVEMENT SCHEME SWEPT PATH ANALYSIS: MARSH LN / WHITCHURCH LN WEMBOROUGH RD / HONEYPOT LN

MILESTONE TRANSPORT PLANNING

Heritage House, 7 Wey Court, Mary Road
Guildford, Surrey, GU1 4QU
Tel: 01483 397888
web: www.milestonetp.co.uk

Status	Scale
FOR DISCUSSION	1:250 @ A1

Drawn	Checked	Date
TG		Aug 2015

Drawing Number	Revision
14042/TK01	-

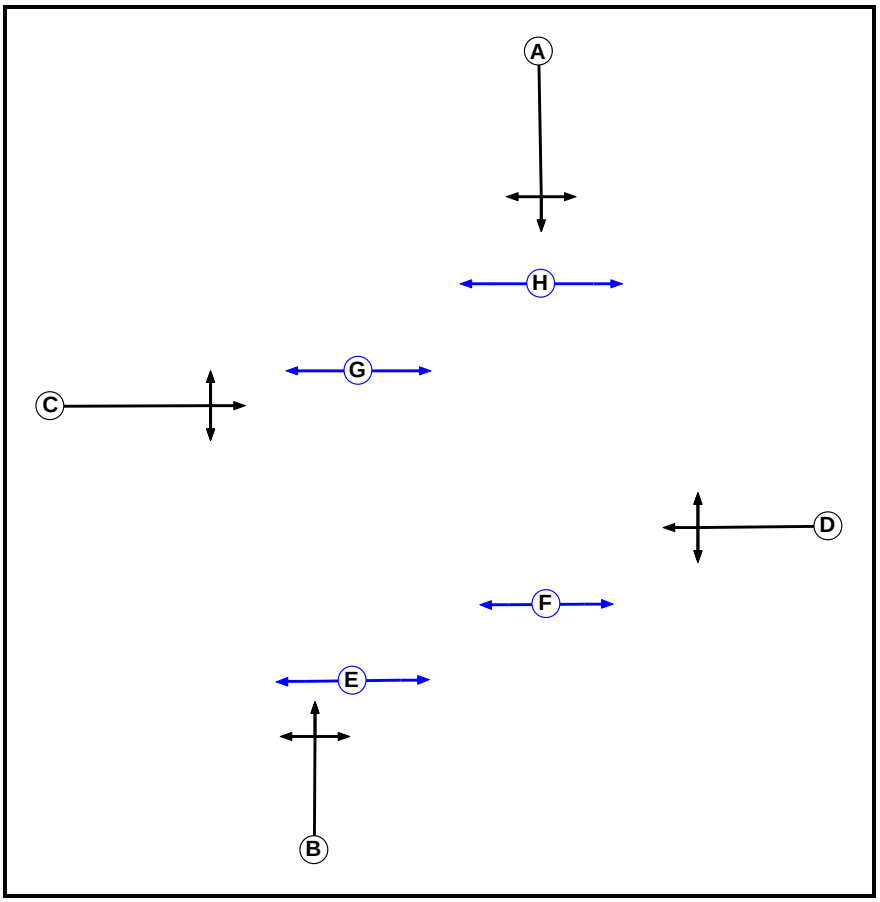
APPENDIX 19

MTP Results Summary

User and Project Details

Project:	
Title:	
Location:	
File name:	2015-06 Whitchurch Lane - Wemborough Road - Honeypot Lane - Marsh Lane MITIGATION V2 14-042.lsg3x
Author:	
Company:	
Address:	
Notes:	

Phase Diagram



MTP Results Summary

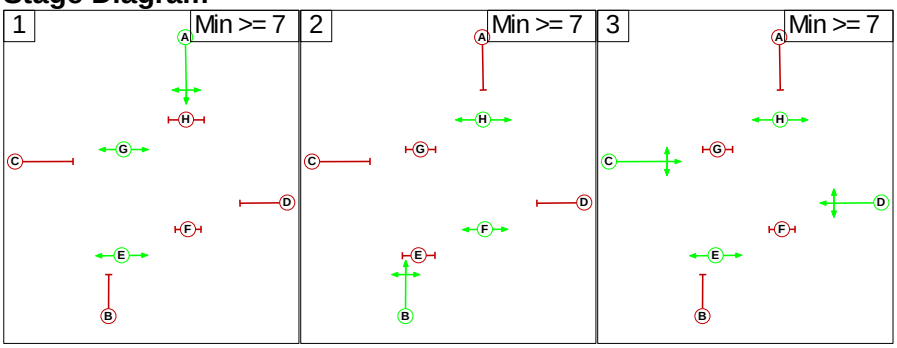
Phase Input Data

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

Phase Intergreens Matrix

		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A		6	7	7	-	9	-	5
	B	7		8	8	5	-	9	-
	C	8	8		-	-	10	6	-
	D	8	8	-		-	7	9	-
	E	-	9	-	-		-	-	-
	F	7	-	7	7	-		-	-
	G	-	8	8	8	-	-		-
	H	7	-	-	-	-	-	-	

Stage Diagram



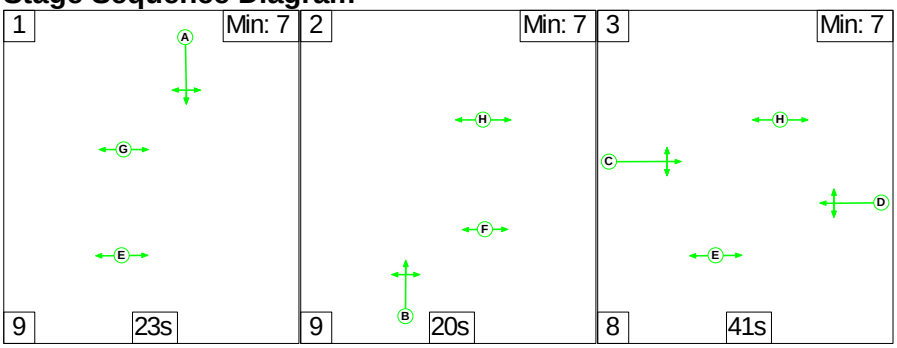
Phase Delays

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

MTP Results Summary

Scenario 1: 'AM Peak Base + CD + Dev' (FG2: 'PM Peak Base + CD + Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Whitchurch Lane)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	10.70
											Arm 7 Ahead	Inf
1/2 (Whitchurch Lane)	O	D	2	3	7.0	Geom	-	2.80	0.00	N	Arm 8 Right	21.80
2/1 (Honeypot Lane)	U	B	2	3	5.0	Geom	-	3.00	0.00	Y	Arm 7 Left	14.50
2/2 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	3.00	0.00	N	Arm 8 Ahead	Inf
2/3 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	3.00	0.00	N	Arm 5 Right	16.90
											Arm 8 Ahead	Inf
3/1 (Wemborough Road)	U	C	2	3	60.0	Geom	-	2.60	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	18.00
3/2 (Wemborough Road)	O	C	2	3	3.0	Geom	-	2.60	0.00	N	Arm 6 Right	20.10
4/1 (Marsh Lane)	U	A	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 5 Left	26.50
											Arm 6 Ahead	Inf
4/2 (Marsh Lane)	U	A	2	3	3.0	Geom	-	3.10	0.00	N	Arm 6 Ahead	Inf
											Arm 7 Right	18.40
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2	U		2	3	60.0	Inf	-	-	-	-	-	-

MTP Results Summary

Give-Way Lane Input Data

Junction: Unnamed Junction

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 (Whitchurch Lane)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
	8/2 (Right)	1439	0	3/1	1.09	All					
3/2 (Wemborough Road)	6/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
	6/2 (Right)	1439	0	1/1	1.09	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
2: 'PM Peak Base + CD + Dev'	16:15	17:15	01:00	

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	152	388	70	610
	B	238	0	147	397	782
	C	506	144	0	89	739
	D	125	550	186	0	861
	Tot.	869	846	721	556	2992

MTP Results Summary

Network Results

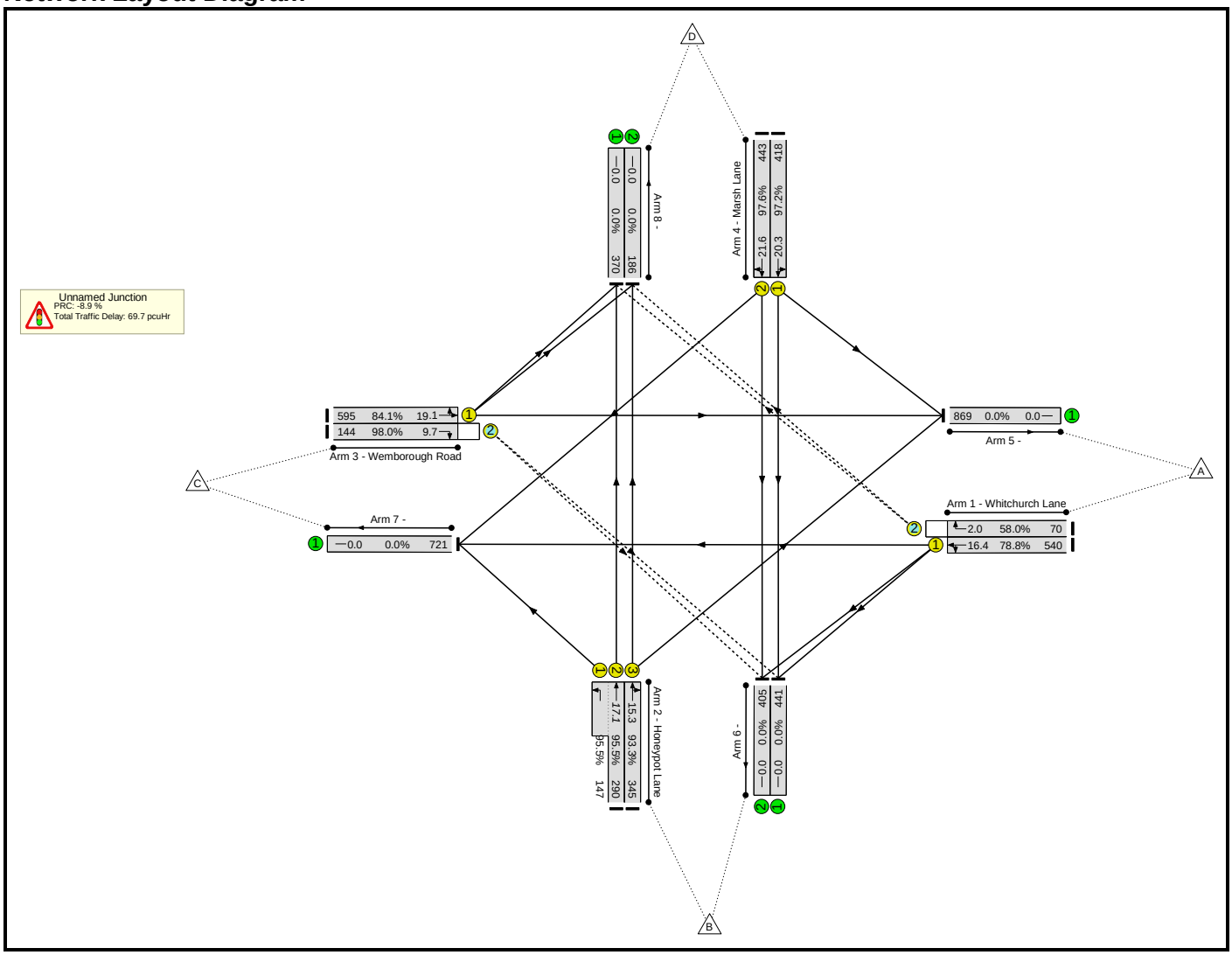
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**98.0%**	**166**	**0**	**48**	**69.7**	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**98.0%**	**166**	**0**	**48**	**69.7**	-
1/1	Whitchurch Lane Left Ahead	U	D		1	41	-	540	1794	685	78.8%	-	-	-	6.3	16.4
1/2	Whitchurch Lane Right	O	D		1	41	-	70	1904	121	58.0%	70	0	0	1.6	2.0
2/2+2/1	Honeypot Lane Left Ahead	U	B		1	20	-	437	2055:1735	304+154	95.5 : 95.5%	-	-	-	11.7	17.1
2/3	Honeypot Lane Right Ahead	U	B		1	20	-	345	1936	370	93.3%	-	-	-	9.2	15.3
3/1	Wemborough Road Ahead Left	U	C		1	41	-	595	1852	707	84.1%	-	-	-	7.7	19.1
3/2	Wemborough Road Right	O	C		1	41	-	144	1875	147	98.0%	97	0	47	7.4	9.7
4/1	Marsh Lane Left Ahead	U	A		1	24	-	418	1893	430	97.2%	-	-	-	12.5	20.3
4/2	Marsh Lane Ahead Right	U	A		1	24	-	443	1997	454	97.6%	-	-	-	13.3	21.6

C1 PRC for Signalled Lanes (%): -8.9 Total Delay for Signalled Lanes (pcuHr): 69.68 Cycle Time (s): 110

PRC Over All Lanes (%): -8.9 Total Delay Over All Lanes(pcuHr): 69.68

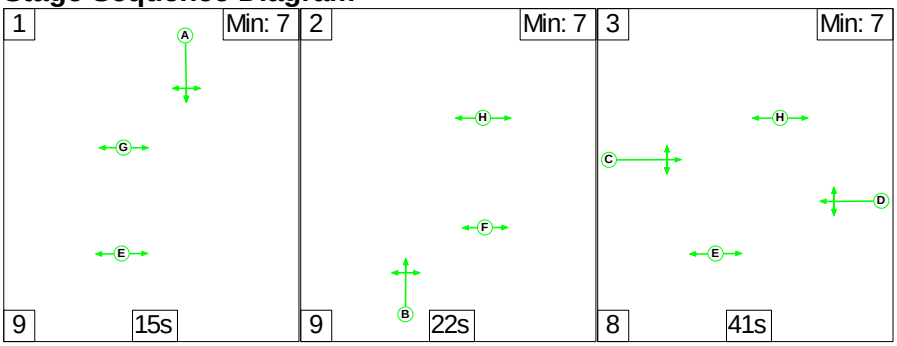
MTP Results Summary

Network Layout Diagram



Scenario 2: 'PM Peak Base + CD + Dev' (FG2: 'PM Peak Base + CD + Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Whitchurch Lane)	U	D	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	10.70
											Arm 7 Ahead	Inf
1/2 (Whitchurch Lane)	O	D	2	3	7.0	Geom	-	2.80	0.00	N	Arm 8 Right	21.80
2/1 (Honeypot Lane)	U	B	2	3	5.0	Geom	-	3.00	0.00	Y	Arm 7 Left	14.50
2/2 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	3.00	0.00	N	Arm 8 Ahead	Inf
2/3 (Honeypot Lane)	U	B	2	3	60.0	Geom	-	3.00	0.00	N	Arm 5 Right	16.90
											Arm 8 Ahead	Inf
3/1 (Wemborough Road)	U	C	2	3	60.0	Geom	-	2.60	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	18.00
3/2 (Wemborough Road)	O	C	2	3	3.0	Geom	-	2.60	0.00	N	Arm 6 Right	20.10
4/1 (Marsh Lane)	U	A	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 5 Left	26.50
											Arm 6 Ahead	Inf
4/2 (Marsh Lane)	U	A	2	3	3.0	Geom	-	3.10	0.00	N	Arm 6 Ahead	Inf
											Arm 7 Right	18.40
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2	U		2	3	60.0	Inf	-	-	-	-	-	-

MTP Results Summary

Give-Way Lane Input Data

Junction: Unnamed Junction

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 (Whitchurch Lane)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
	8/2 (Right)	1439	0	3/1	1.09	All					
3/2 (Wemborough Road)	6/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
	6/2 (Right)	1439	0	1/1	1.09	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
2: 'PM Peak Base + CD + Dev'	16:15	17:15	01:00	

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	129	366	86	581
	B	207	0	225	396	828
	C	431	182	0	103	716
	D	66	382	96	0	544
	Tot.	704	693	687	585	2669

MTP Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**87.1%**	**243**	**0**	**25**	**40.7**	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**87.1%**	**243**	**0**	**25**	**40.7**	-
1/1	Whitchurch Lane Left Ahead	U	D		1	41	-	495	1799	727	68.1%	-	-	-	4.6	12.7
1/2	Whitchurch Lane Right	O	D		1	41	-	86	1904	189	45.4%	86	0	0	1.4	1.9
2/2+2/1	Honeypot Lane Left Ahead	U	B		1	22	-	490	2055:1735	311+264	85.2 : 85.2%	-	-	-	7.7	11.7
2/3	Honeypot Lane Right Ahead	U	B		1	22	-	338	1949	431	78.4%	-	-	-	5.3	10.9
3/1	Wemborough Road Ahead Left	U	C		1	41	-	534	1845	745	71.7%	-	-	-	5.1	14.2
3/2	Wemborough Road Right	O	C		1	41	-	182	1875	209	87.1%	157	0	25	5.0	7.9
4/1	Marsh Lane Left Ahead	U	A		1	16	-	263	1898	310	84.8%	-	-	-	5.6	9.8
4/2	Marsh Lane Ahead Right	U	A		1	16	-	281	2009	328	85.6%	-	-	-	6.0	10.5

C1 PRC for Signalled Lanes (%): 3.3 Total Delay for Signalled Lanes (pcuHr): 40.72 Cycle Time (s): 104

PRC Over All Lanes (%): 3.3 Total Delay Over All Lanes(pcuHr): 40.72

MTP Results Summary

Network Layout Diagram