## Land to the South East of Moreton Station

High Level Transport Statement

## Document Control Sheet

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## 1 Introduction

### 1.1 Background

1.1.1 Peter Brett Associates LLP (PBA) has been commissioned by The Moreton Estate to provide highway and transport advice in support of a mixed use development on land to the south east of Moreton Station, which currently comprises a caravan site and Redbridge Pit Quarry.
1.1.2 This High Level Transport Statement (HLTS) provides an overview of the proposed development, sets out an assessment of the transport issues associated with the site and identifies an indicative package of transport measures which are considered suitable to encourage sustainable travel on this site.
1.1.3 This HLTS is prepared, in order to identify the traffic and transport impacts of the site and to demonstrate the suitability of the site for future allocation within the Purbeck Local Plan Partial Review.
1.1.4 The scope of this HLTS has been informed by Dorset County Council (DCC) in their role as Local Highway Authority and Highways England (HE) in their role as Strategic Highway Authority. A copy of the various inputs to the HLTS scope provided by these three organisations is provided at Appendix A.
1.1.5 Whilst this document provides a high level assessment of the anticipated transport opportunities presented by the site and a possible mitigation strategy, it is recognised that any planning application for development of the site will need to be supported by a detailed Transport Assessment and corresponding accurately evidenced and detailed mitigation package.

### 1.2 Development Proposals

1.2.1 The potential development site is located on the border of Purbeck District and West Dorset, immediately east of the village of Crossways and south east of Moreton rail station. The village of Moreton is approximately 2 km to the north east. The B3390 Station Road lies along the site's western edge and Redbridge Road along its southern edge. The proposals under consideration comprise the following mix of uses:

- Up to 600 residential units;
- Employment ;
- Additional Car Parking provision for Moreton rail station (circa 20 spaces);
- A Suitable Alternative Natural Greenspace (SANG); and
- Primary School.
1.2.2 The site is identified as part of a potential large housing site within the Partial Review of the Purbeck Local Plan 'Issues and Options Consultation', January 2015 Option 4e. This Option also considers land to the north of Moreton Station, however this is not the focus of this HLTS; this report considers land identified to the south of Moreton Station only.
1.2.3 A copy of the Partial Review of the Purbeck Local Plan Part 1 - Issues and Options, Option 4e: "consider new development around Moreton Station (including Redbridge Pit)" is contained at Appendix B.
1.2.4 The site currently comprises of Redbridge Pit, which is a quarry under restoration and a caravan park.


### 1.3 Content of High Level Transport Statement

1.3.1 This Statement includes the following sections:

- Section 2 - Policy Review, sets out both the relevant national and local policies as they relate to the transport implications of the proposed development.
- Section 3 - Existing Transport Conditions, considers the existing transport conditions within the vicinity of the site, its proximity to local facilities and amenities and accessibility by walking, cycling and public transport as well as a review of the operation and safety of the local road network.
- Section 4 - Development Proposals, summarises the development proposals considered as part of this assessment.
- Section 5 - Access and Movement Strategy, sets out a balanced package of measures which have been developed to maximise the potential for sustainable travel and mitigate the residual traffic impacts of the proposed development.
- Section 6 - Development Travel Demand, quantifies the vehicular traffic generation of the development proposals.
- Section 7 - Traffic Impact Assessment, considers the vehicular traffic impacts of the proposed development on the local road network and identifies locations where mitigation measures may be required and will need to be explored in more detail at the planning application stage,
- Section 8 - Summary and Conclusions, provides a summary of the Transport Statement and the conclusions which can be drawn in considering the site for allocation within the Purbeck Local Plan Partial Review.


## 2 Policy Review

### 2.1 Introduction - National Planning and Transport Policy Context

2.1.1 A review has been undertaken of the relevant national and local transport policy documents in order to inform the development proposals. This section of the report sets out the key relevant policies and demonstrates how the development proposals accord and comply with these policies.

### 2.2 National Planning Policy Framework (NPPF)

2.2.1 The National Planning Policy Framework (NPPF, Department for Communities and Local Government, 2012) sets out the Government's economic, environmental and social planning policies for the country. Taken together, these policies articulate the Government's vision of sustainable development, which should be interpreted and applied locally to meet local aspirations.
2.2.2 The NPPF sets out the Government's commitment to ensuring that the planning system does everything it can to support sustainable economic growth. A positive planning system is essential because, without growth, a sustainable future cannot be achieved. Planning must operate to encourage growth and not act as an impediment. Therefore, significant weight should be placed on the need to support economic growth through the planning system.
2.2.3 The NPPF sets out 12 Core Planning Principles at paragraph 17. These are the principles that underpin plan-making and decision-taking and state that planning should:

> "3. Pro-actively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs. Every effort should be made objectively to identify and then meet the housing, business, and other development needs of an area, and respond positively to wider opportunities for growth.
> 9. Promote mixed use developments, and encourage multiple benefits from the use of land in urban and rural areas
11. 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".
2.2.4 With regards to preparing Local Plans, paragraph 30 states that "Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport".
2.2.1 The NPPF recognises the importance transport policies have in facilitating development but also in contributing to wider sustainability and health objectives. The Framework identifies at paragraph 32, that "all developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment... Plans and decisions should take account of whether:

- The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
- Safe and suitable access to the site can be achieved for all people; and
- Improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe".
2.2.2 NPPF, in paragraphs 34 to 36, identifies that "Local Authority plans and decisions should ensure developments that generate significant movements are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised... Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods and people. Therefore, developments should be located and designed where practical to:
- "Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
- Create safe and secure layouts which minimise the 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."
2.2.3 NPPF recognises that a key tool to facilitate this will be a Travel Plan such that all developments which generate significant amounts of movement should be required to provide a Travel Plan.


### 2.3 NPPG - Transport Assessment

2.3.1 The National Planning Practice Guidance provides the overarching framework within which the transport implications of development should be considered. It provides advice on the preparation of Transport Assessments, Transport Statements and Travel Plans. The key advice is as follows:
"Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements."
2.3.2 The key principles within which Transport Assessments should be undertaken are detailed as follows:
"Travel Plans, Transport Assessments and Statements should be:

- proportionate to the size and scope of the proposed development to which they relate and build on existing information wherever possible,
- $\quad$ established at the earliest practicable possible stage of a development proposal;
- be tailored to particular local circumstances (other locally-determined factors and information beyond those which are set out in this guidance may need to be considered in these studies provided there is robust evidence for doing so locally);
- be brought forward through collaborative ongoing working between the Local Planning Authority/ Transport Authority, transport operators, Rail Network Operators, Highways Agency where there may be implications for the network and other relevant bodies. Engaging communities and local businesses in Travel Plans, Transport Assessments and Statements can be beneficial in positively supporting higher levels of walking and cycling (which in turn can encourage greater social inclusion, community cohesion and healthier communities)".
2.3.3 The guidance emphasises the importance to consult the relevant local authority at the outset in order to scope the transport assessment work, on the basis of the principles highlighted above.


### 2.4 Local Planning and Transport Policy Context

The Bournemouth, Poole and Dorset Local Transport Plan
2.4.1 The Bournemouth, Poole and Dorset Local Transport Plan 3 (LTP 3) sets out the objectives, policies and targets for improving transport for the period 2011-2026. The LTP3 sets out seven key strategy measures which aim to overcome the key challenge for transport across the Plan area. They are:

- Reducing the need to travel;
- Managing and maintaining the existing network more efficiently;
- Active travel and 'greener' travel choices;
- Public Transport Alternatives to the car;
- Car parking measures;
- Travel Safety measures; and
- Strategic infrastructure improvements.
2.4.2 These measures seek to deliver "a safe, reliable, accessible low carbon transport system that assists in the development of a strong low carbon economy, maximises the opportunities for sustainable transport and respects and protects the area's unique environmental assets".


## Purbeck Local Plan

2.4.3 The Purbeck Local Plan Part 1 (PLP1) sets out the strategic vision and policies for Purbeck for the period 2006-2027. It was adopted in November 2012 to guide new development and determine planning applications.
2.4.4 The Local Plan contains the vision for the spatial distribution of development. Development in Moreton and Moreton Station lies within Policy SW: South West Purbeck.
2.4.5 The aims of transport improvements under Policy SW are to provide "alternative forms of transport to the car, reducing carbon emissions and traffic congestion and to improve and help minimise air quality impacts upon protected heathland".
2.4.6 Policy SW also states that "the role Moreton Station plays in facilitating strategic growth at Crossways will be explored with West Dorset District Council".
2.4.7 Spatial Objective 9 of the Local Plan is to "Provide an integrated transport system and better accessibility to services from everyday needs". Two policies support this objective: Policy IAT - Improving Accessibility \& Transport and Policy ATS: Implementing an Appropriate Transport Strategy for Purbeck.
2.4.8 Policy IAT sets out the following criteria against which development proposals are to be assessed:

- The development should be located in the most accessible location and reduce the need to travel;
- The development should maximise the use of alternative and sustainable forms of travel;
- The development, where it is likely to result in significant transport implications, should be supported by a detailed transport assessment and a travel plan;
- The development should provide for improved safety and convenience of travel, including improved access to local services and facilities by foot, cycle and public transport;
- The development should provide safe access to the highway, and/or should provide towards new/improved access to the highway and improvement of the local highway.
- The development should provide for adequate parking levels in line with the Bournemouth, Poole and Dorset Residential Car Parking Strategy.
2.4.9 Policy ATS states that "the cumulative impact of additional road trips from new development will be mitigated through financial contributions towards the implementation of the Purbeck Transportation Strategy". In the vicinity of the site, the Purbeck Transport Strategy includes Moreton Rail Station interchange improvements to encourage travel by rail, bus, cycling and walking.
2.4.10 A review of the Purbeck Local Plan has been initiated to fully explore all housing growth potential in the district. The Issue and Options Consultation document of the PLP1 Partial Review was published in January 2015, and the Consultation Report in June 2015.
2.4.11 Option 4 e of the Consultation document considers new development around Moreton Station. The area of land identified for potential development goes beyond that first identified within PLP1 with the potential to deliver 200-900 new homes and other facilities. The focus of the document continues to be on the delivery of sustainable development within Purbeck.


### 2.5 Relevance to the Proposed Development

2.5.1 The proposed development takes full account of the planning and transport policies identified above and the rest of this Statement demonstrates how the proposed development responds positively to these policies.

## 3 Existing Transport Conditions

### 3.1 Introduction

3.1.1 This section considers the existing transport conditions in the vicinity of the development site. It provides details of the site's location, its proximity to local facilities and amenities and its accessibility by walking, cycling and public transport. Finally, it provides an overview of the operation of the local highway network and a review of local Personal Injury Collision data.

### 3.2 Site Location and Description

3.2.1 The site is located within Purbeck district on its border with West Dorset, immediately east of the village of Crossways and south east of Moreton rail station. The village of Moreton is approximately 2 km to the north east. It lies approximately 9 km east of Dorchester.
3.2.2 The site currently comprises of Redbridge Pit, which is a quarry under restoration, and a caravan park.
3.2.3 The site's location is illustrated in Figure 3.1

### 3.3 Local Highway Network

3.3.1 The site is bordered by B3390 Station Road to the west and Redbridge Road to the south.
3.3.2 Redbridge Road is single carriageway without road markings. It is approximately 6 m in width and subject to the national (de-restricted) speed limit. Redbridge Road connects the site to the village of Moreton to the east.
3.3.3 The B3390 Station Road is also a single carriageway road subject to a 40mph speed limit in the area of the site frontage. B3390 Station Road is approximately 6 m in width.
3.3.4 The B3390 continues north of the site to the A35, approximately 7.5 km away, and south to the A352 and A353, approximately 4km away, which form key routes between Dorchester, Weymouth, Poole, and Bournemouth.

### 3.4 Existing Traffic Flows

3.4.1 In order to establish the baseline traffic conditions and to enable junction capacity analysis to be carried out, traffic flow information has been obtained.
3.4.2 Automatic Traffic Count (ATC) data for the following local links have been obtained from Dorset County Council (DCC) or via the Traffic Flow Data System (TRADS). Where available, data from a neutral month was requested for a period of two weeks, as identified below:

- A35 - 15th - 26th September 2014 (TRADS)
- B3390 North of Waddock Cross - 22nd April 2009 (DCC)
- B3390 South of Moreton Station - 30th September - 13th October 2014 (DCC)
- B3390 Warmwell Road - 29th September - 9th October 2014 (DCC)
- Dick O' Th' Banks - 29th May - 11th June 2015 (DCC)
- A352 East 30th September - 13th October 2014 (DCC)
- A353 3rd - 16th November 2014 (DCC)
- A352 West - 21st - 27th October 2014, 2nd - 8th December 2014 (DCC).
3.4.3 The surveys confirmed the following peak periods 0800-0900 (AM Peak) and 1700-1800 (PM Peak).
3.4.4 Where available, average midweek (Tuesday-Thursday) peak hour traffic flows have been calculated from the data supplied by DCC. These peak hour traffic flows are shown on Figures 3.2 to 3.3.


### 3.5 Local Facilities and Amenities

Local Amenities
3.5.1 The nearest GP surgery, which is within 1 km of the site, is the Atrium Health Centre in Crossways. Crossways also has a public library and village hall.

## Employment

3.5.2 Hybris Business Park is in Crossways within 1 km of the site. It is home to a range of companies in services such as car mechanics, water, security, air conditioning, carpentry, fashion and baby products.

## Education

3.5.3 Frome Valley First School in Crossways is a Church of England primary school with children currently in years Reception to Year 4. The school is within 1 km of the site.

## Leisure

3.5.4 Approximately 2.5 km east of the site are the Moreton Gardens, Tea Rooms and Manor House. The Moreton Stables and Equestrian Centre are also nearby.
3.5.5 Immediately north of the development is the Frampton Arms public house and the Moreton Camping and Caravan site.
3.5.6 Within 1 km of the site is the Crossways Youth \& Community Centre providing social development support for 12-21 year olds.
3.5.7 The location of these local facilities and amenities is illustrated in Figure 3.4.

## Distances to Key Facilities

3.5.8 In considering the proximity of these key facilities and amenities with regards to walking distances, the most recent transport statistics are set out within the DfT's 'National Travel Survey: 2014' (NTS). This indicates that $22 \%$ of all journeys and $76 \%$ of journeys under one mile ( 1.6 km ) are made on foot. Table NTS0306 within the NTS also indicates that the average walking trip length is 0.7 miles $(1.1 \mathrm{~km})$.
3.5.9 The NPPF now supersedes the Planning Policy Guidance (PPG), however PPG13 states that:
"Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres."
3.5.10 In addition, the most recent guidance on this issue is provided by Manual for Streets (MfS) which, at Paragraph 4.4.1, states that:
"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' [up to about 800m] walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPG13 states that walking offers the greatest potential to replace short car trips, particularly those under 2km."
3.5.11 Again, this is reiterated and substantiated in the recent NTS, which identifies that the average trip length by bicycle is 3.1 miles ( 5 km ). Furthermore, Table NTS0308 identifies that $88 \%$ of all cycle trips are over 1 mile ( 1.6 km ) and $52 \%$ over 2 miles ( 3.2 km ). A total of $77 \%$ of all cycle journeys are made over distances less than 5 miles ( 8 km ).
3.5.12 These thresholds are recognised within the latest local transport policy. For example the Bournemouth Poole and Dorset LTP3 Policy LTP E-1 states that "authorities will prioritise and promote walking for trips under 2 km , and cycling for trips under 5 km , for people of all ages".
3.5.13 These statistics would indicate that trips to the majority of these facilities could reasonably be expected to be undertaken on foot or by bicycle, except where car use is an obvious prerequisite or indeed the reason for the trip.

### 3.6 Site Accessibility by Non-Car Modes

## Walking and Cycling

3.6.1 There is currently no provision for pedestrians and cyclists along Redbridge Road.
3.6.2 There is a footway provided along the western side of the carriageway on the B3390 Station Road between Crossways and Moreton rail station. No footway is provided on the eastern side of the carriageway.
3.6.3 Crossing the B3390 Station Road, approximately 700m north of Moreton Station is National Cycle Route (NCR) 2. NCR 2, when complete, will link Dover in Kent with St. Austell in Cornwall. The route between Moreton and Dorchester is on a mixture of traffic free paths and quiet on-road schemes. Works are near completion to upgrade the NCR 2 along the West Stafford Bypass. Works include improvements such as cutting back of vegetation, erecting reflective markers and introducing cycleway symbols.

## Public Transport

## Bus

3.6.4 Crossways is served by two bus routes, both operated by Damory Coaches:

- Service 101: Dorchester to Crossways, operates hourly Monday to Saturday; and
- Service 103: Dorchester to Bovington via Crossways, Lulworth and Wool, operates one return journey on Wednesdays
3.6.5 Table 3.1 provides further information on these bus services.

Table 3.1: Local Bus Route Summary

| Bus <br> Route/Operator | Frequency Mon- <br> Sat | First/Last service Mon-Sat | Evening/ <br> Sunday |
| :---: | :---: | :---: | :---: |
| 101, Damory <br> Coaches | Hourly, | First service <br> Dorchester to <br> Crossways | Crossways - Dorchester 0739 <br> Dorchester - Crossways 0829 <br> Last service |
| 103, Damory <br> Coaches <br> Dorchester to <br> Bovington via <br> Crossways, <br> Lulworth and <br> Wool | One returnester - Crossways 1750 <br> journey <br> Wednesday only | Higher Woodsford - Dorchester 1013 <br> Dorchester - Higher Woodsford 1307 | No service |

3.6.6 Table 3.1 shows that there is some potential for commuting from the site to Dorchester on route 101 with a morning service running Monday-Saturday from Crossways at 0739. This journey would take approximately 20-30 minutes to the centre of Dorchester. The final return journey leaves Dorchester at 1750.
3.6.7 Both services are operated under contract to Dorset County Council. The nearest stop to the development on service 101, as listed on the timetable information, is at Fiveways junction; there are no stop facilities on either side of the B3390 nor footway provision to the stop on the east side of the B3390. The nearest stop with footway provision is located on Dick O' Th' Banks approximately 620 m west of the southern site boundary on Redbridge Road. The nearest stop on service 103 is at Higher Woodsford.
3.6.8 At the Dorchester end of the route, most journeys start or finish at Poundbury with some commencing from the Dorset County Hospital. At the Crossways end of the route, buses operate in a clockwise loop via Dick O' Th' Banks Road, Warmwell Road and Mount Skippet Way, except one bus per day which continues to/from Owermoigne.

## Rail

3.6.9 Moreton rail station is located immediately north of the site. The southernmost point of the site, which is furthest from the station, lies within 700 m of the station. Moreton rail station provides a direct rail service to key destinations including Dorchester (in approx. 8 minutes), Weymouth, Poole, Bournemouth, Southampton and London Waterloo (2hrs, 30 mins ). A summary of the service frequency is shown in Table 3.1 below.

Table 3.1 - Local Rail Services and Frequencies

| Operator | Route | Frequency |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Mon-Fri | Sat | Sun and Bank <br> Holidays |
| South <br> West <br> Trains | Weymouth - Dorchester <br> South - Moreton - Poole - <br> Bournemouth - Southampton <br> Central - London Waterloo | Every 30 <br> minutes 6-8AM. <br> Hourly <br> thereafter. | Hourly | Hourly |

Note: Rail service information correct as at August 2015.
3.6.10 Moreton station is unstaffed but ticket machines are available. There is step free access to both platforms. There is a level crossing across B3390 Station Road, south of the rail station vehicular entrance.
3.6.11 There is limited parking at the station with 8 spaces in total, including 1 accessible space, and 3 Sheffield type cycle stands providing parking for 6 bikes.
3.6.12 The station currently has no direct bus link with Crossways however there is a footway along the western edge of the B3390 between the station and the village.

### 3.7 Personal Injury Collision Data

3.7.1 In order to establish the existing highway safety record within the study area identified by DCC, an assessment has been carried out of Personal Injury Collision (PIC) data.
3.7.2 PIC data was obtained from DCC for the latest available five year period, this spanned from 01/06/2010 to 31/05/2015. The study area covers four distinct areas, as shown on Figure 3.5, and includes the local road network surrounding the site along with other locations on the wider network which were highlighted by DCC and which this HLTS indicates could see a material increase in traffic flows. The following section summarises the PIC data analysis.
3.7.3 The unrestricted set of PIC data received is available at Appendix C. When issuing the PIC data DCC stipulates that information relating specifically to an identifiable individual must not be made publicly available. This includes the likely contributory factor of each collision. Therefore this detailed information has been omitted from the following analysis of data.
3.7.4 The PIC data received shows that within the five year study period a total of 19 collisions were recorded. The following analysis has been split into the four areas of search, as shown on Figure 3.5.

## B3390 Station Road/Redbridge Road and B3390 south of Railway Line

3.7.5 The nature of collisions at this location and the vehicles involved are summarised in Table 3.2.

Table 3.2 - Summary of PICs to the south of Railway Line

| Modes Involved | Collision Severity |  | Total |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Fatal | Serious |  |  |
| Cars or other 4-wheeled vehicles <br> only |  |  | 1 | 1 |
| Cars and Pedal Cycles | 1 |  | 1 | 2 |
| Total | $\mathbf{1}$ |  | $\mathbf{2}$ | $\mathbf{3}$ |

3.7.1 There were three collisions recorded on the B3390 to the south of the Railway Line within the five year review period. As shown in Table 3.2 there were two incidents involving pedal cycles, one of which was fatal. The two incidents involving cyclists were different in nature and both were caused by different human factors, they do not present a pattern in this location. A single collision was recorded involving only cars and resulted in slight severity.

## B3390 Hurst Bridge

3.7.2 The nature of collisions at this location and the vehicles involved are summarised in Table 3.3.

Table 3.3 - Summary of PICs on B3390 around Hurst Bridge

| Modes Involved | Collision Severity |  |  | Total |
| :--- | :--- | :--- | :--- | :--- |
|  | Fatal | Serious | Slight |  |
| Cars and Pedal Cycles |  |  | 2 | 2 |
| Total | 1 |  | 1 |  |

3.7.3 There were two slight and one serious collision recorded on B3390 between Moreton Rail Station and Hurst Bridge. The serious collision involved a pedal cyclist and did not occur for reasons relating to highway safety. The slight collisions were caused by different human and environmental factors and do not present a pattern in this location.

## B3390 Waddock Cross

3.7.4 The nature of collisions at this location and the vehicles involved are summarised in Table 3.4.

Table 3.4 - Summary of PICs B3390 Waddock Cross

| Modes Involved | Collision Severity |  |  | Total |
| :--- | :---: | :---: | :---: | :---: |
|  | Fatal | Serious | Slight |  |
| Cars or other 4-wheeled vehicles |  | 1 | 6 | 7 |
| Total |  | $\mathbf{1}$ | $\mathbf{6}$ | $\mathbf{7}$ |

3.7.5 There were a total of seven collisions recorded at Waddock Cross involving 13 vehicles, all of which were cars. One collision was serious in severity and six slight. Two collisions were caused by environmental factors, while the others were due to human error, most notably a failure to give way at the junction. There is therefore no pattern of accidents at this location which could be attributed to unsafe highway design.

## A353 / A352 Wareham Road / B3390 Roundabout

3.7.6 The nature of collisions at this location and the vehicles involved are summarised in Table 3.5.

Table 3.5 - Summary of PICs A353 / A352 Wareham Road / B3390 Roundabout

| Modes Involved | Collision Severity |  |  | Total |
| :--- | :---: | :---: | :---: | :---: |
|  | Fatal | Serious | Slight |  |
| Cars or other 4-wheeled vehicles |  | 1 | 2 | 3 |
| 2-wheeled motor vehicles |  | 2 |  | 2 |
| Cars and Pedal Cycles |  |  | 1 | 1 |
| Total |  | $\mathbf{3}$ | $\mathbf{3}$ | $\mathbf{6}$ |

3.7.7 Six collisions occurred at this location, involving 8 vehicles. Three collisions were serious in severity and three slight. One pedal cyclist was involved in a slight collision. The collisions were all caused by different human error and environmental factors. There is therefore no pattern of accidents at this location which could be attributed to unsafe highway design.

## Conclusion

3.7.8 It is concluded that the local PIC records, which identified 19 incidents in the five year review period, do not indicate that there is any material highway safety pattern in the study area. Most of the collisions were due to environmental conditions or human error and there is no apparent pattern to the nature or location of these collisions.
3.7.9 Additional development traffic within the study area is not therefore anticipated to present a safety risk.

## 4 Development Proposals

### 4.1 The Proposals

4.1.1 The site is identified as part of a potential housing site within the Partial Review Purbeck Local Plan 'Issues and Options Consultation', January 2015 Option 4e.
4.1.2 The proposals under consideration for this site comprise the following mix of uses:

- Up to 600 residential units;
- Employment;
- Car Parking provision for Moreton rail station of 20+ spaces;
- A Suitable Alternative Natural Greenspace (SANG); and
- Primary School.
4.1.3 Detailed design and assessment of the development proposals will be required, in consultation with Purbeck District Council and DCC, at the planning application stage.


## 5 Access and Movement Strategy

### 5.1 Site Access and Sustainable Transport Proposals

5.1.1 A set of transport proposals has been developed to demonstrate how development at the proposed site could maximise the potential for travel by modes other than the private car and hence limit the potential traffic impacts arising from the development. The transport proposals consist of the following packages of measures that are discussed in more detail within this section:

- Residential, Workplace and School Travel Plans;
- Walking and Cycling Proposals;
- Public Transport Proposals;
- Vehicle Access Proposals; and
- Vehicle Parking Proposals.
5.1.2 The sustainable transport proposals are summarised on Figure 5.1.


### 5.2 Vehicular Access Strategy

5.2.1 A detailed site access strategy is not required to be explored in detail at this stage, however it is considered likely that two points of access would be appropriate to serve a development of this scale. These could be provided onto the B3390 Station Road and Redbridge Road, as the site benefits from having frontage onto both.
5.2.2 Site frontage onto Redbridge Road is broadly straight for almost 1 km , which subject to design and assessment would allow sufficient land to deliver a viable access with visibilities up to 120 m in either direction based on DMRB standards for a 40 mph design speed.
5.2.3 Site frontage onto Station Road is broadly straight for approximately 300 m , which subject to design and assessment would allow sufficient land to deliver a viable access with visibilities up to 120 m in either direction based on DMRB standards for a 40 mph design speed.
5.2.4 At application stage the site accesses should be designed in accordance with relevant guidance, to be determined in consultation with DCC as the Local Highway Authority.

### 5.3 Walking and Cycling Strategy

5.3.1 Pedestrian and cycle accessibility should be given a high priority in the proposed development. An appropriate strategy for the site would likely include the following:

- Pedestrian and cycle access to the site via B3390 Station Road and Redbridge Road, likely to be at the locations of the vehicular accesses;
- A new footway on the eastern side of the B3390 along the site frontage could be provided subject to involvement of third parties, however it is not considered that this would provide any real benefit to pedestrians as desire lines towards Moreton Station and Crossways both require crossing of the B3390 to the western footway. Therefore, instead of incorporating an eastern footway across a relatively limited length for no discernible benefit, informal crossing points including dropped kerbs and tactile paving at key
locations across the B3390 should be prioritised. This would likely include a crossing point immediately south of the railway line to allow access to Moreton Station and another south of the Station Road site access to provide a connection to Crossways; and
- Off-site cycling improvements should be considered to link the site with NCR 2. Cyclists to Dorchester would most likely join the NCR 2 route west of the site at Lewell, where the route continues via the newly upgraded West Stafford Bypass.
5.3.2 'Residential Car Parking Provision Local Guidance for Dorset' sets out that the level of cycle parking spaces for residential dwellings should be guided by Section 8.2 of Manual for Streets, March 2007. Cycle parking should be provided in secure and convenient locations and together with adequate storage facilities.
5.3.3 For non-residential land uses the cycle parking standards shown in Table 5.1 should be applied, these have been taken from DCC's 'Non-Residential Parking Guidance'.
5.3.4 A selection of land uses are shown based on the uses currently under consideration for the development. The full list of land uses and parking standards can be found at Appendix D:

Table 5.1: Cycle parking standards non-residential uses

| Use Class |  | Cycle Parking |
| :---: | :---: | :---: |
| B1 | Business Offices | 1 per $125 \mathrm{~m}^{2}$ |
| B2 | General Industrial | 1 per $500 \mathrm{~m}^{2}$ |
| D1 e \& f | Schools | Individual assessment |
| A1 Retail | Food and non-food <br> retail $<500 \mathrm{~m}^{2}$ | 1 per $250 \mathrm{~m}^{2}$ |

### 5.4 Public Transport Strategy

5.4.1 As previously set out in Section 3, Crossways to the south west of the site, is served by two bus routes offering connections to Dorchester. The hourly Crossways to Dorchester service provides a sustainable travel opportunity for commuters, whilst there may be an opportunity to enhance the less frequent Dorchester to Bovington service if it is identified this would be of benefit to new residents or workers.
5.4.2 The nearest stop to the development on the hourly service 101, as listed on the timetable information, is at Fiveways junction approximately 400 m from the southern site boundary on Redbridge Road. However there are no physical stop facilities or footway provision to the stop.
5.4.3 Subject to further works and consultation with third parties, it is proposed that an extension to service 101 be investigated. This could involve a spur into the site via Redbridge Road or an additional loop clockwise or anti-clockwise travelling through the site between the two site accesses; making a triangle with the Fiveways junction by utilising both the A3390 north of the junction and Redbridge Road east of the junction.
5.4.4 Whilst a route extension would result in some additional journey time for those boarding elsewhere in Crossways, there is the potential that a new stop located centrally within the site would have the greatest draw for new passengers.
5.4.5 If detailed work in support of an application does not conclude a route extension is necessary then improvement, and possible relocation, of stops on the existing route could be undertaken to provide a more attractive option than the existing facilities.
5.4.6 Notwithstanding the public transport service or routes solution for the site, bus stop facilities should be provided, such as flag and poles and timetable information, possibly with shelters (dependent on directional flow). The stops should also be linked to the pedestrian network by footpaths/ways and linked to the site by way of pedestrian crossings if off site. Details of the design and delivery of such improvements are subject to discussions with DCC and third parties at the planning application stage.
5.4.7 Moreton rail station, which is located immediately north west of the site, provides an opportunity for travel by train to key destinations including Dorchester, Weymouth, Poole, Bournemouth, Southampton and London Waterloo. Access to westbound trains, to Dorchester and Weymouth, would require crossing the B3390 only while access to eastbound trains would also require use of the level crossing.
5.4.8 The southernmost point of the site lies within 700 m of the station, ensuring that rail travel will be a viable option for those living and working on site.

### 5.5 Vehicular Parking Strategy

5.5.1 Vehicular parking should be provided in accordance with the local car parking standards as set out in 'Residential Car Parking Provision Local Guidance for Dorset' and 'NonResidential Parking Guidance'.

## Residential Parking

5.5.2 With regards to residential land use, the car parking requirements which are set out in the guidance relate to the level of unallocated parking that must be provided by the development. The developer should determine the level of allocated parking provision for each dwelling type, this is not prescribed by the Local Planning or Local Highway, authorities.
5.5.3 The level of allocated parking set by the developer influences the level of unallocated parking to be provided, in accordance with the standards for houses and flats in Purbeck District (Appendix C Table B11 \& B12), as illustrated in Tables 5.2 and 5.2.

Table 5.2: Unallocated Car parking standards Purbeck District Houses

| Purbeck Houses | Allocated spaces set by developer |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 0 | 1 | 2 |
|  | Unallocated demand figures |  |  |  |  |  |
| No. bedrooms | Hamlet \& Isolated Dwellings |  |  | Village |  |  |
| 1 | 1.5 | 0.6 |  | 1.2 | 0.3 |  |
| 2 | 1.5 | 0.6 | 0.1 | 1.2 | 0.3 | 0.1 |


| 3 | 1.9 | 1.0 | 0.3 | 1.7 | 0.7 | 0.2 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $4+$ | 2.5 | 1.5 | 0.5 | 2.2 | 1.3 | 0.4 |

Table 5.3: Unallocated Car parking standards Purbeck District Flats

| Purbeck Flats | Allocated spaces set by developer |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 0 | 1 | 2 |
|  | Unallocated demand figures |  |  |  |  |  |
| No. bedrooms | Hamlet \& Isolated Dwellings |  |  | Village |  |  |
| 1 | 1.1 | 0.3 |  | 1.0 | 0.1 |  |
| 2 | 1.0 | 0.3 | 0.2 | 1.5 | 0.6 | 0.2 |
| 3+ | 1.9 | 1.0 | 0.6 | 1.7 | 0.7 | 0.2 |

Note: the site is identified in the 'Residential Car Parking Provision Local Guidance for Dorset' as being located within the 'Hamlet \& Isolated Dwellings' category, however the standards for 'Village' have been provided for information. The standards which are applied to the development will be determined following consultation with DCC and PDC at the planning application stage.
5.5.4 At this stage the number, type and size of dwellings is unknown and will be determined at the planning application stage, along with the level of allocated and unallocated parking spaces.

## Non-Residential Parking

5.5.5 For non-residential land uses the car parking standards shown in Table 5.4 and taken from DCC's 'Non-Residential Parking Guidance' should be used. As set out within the guidance, the specific level of parking provision should be agreed through joint discussions with the DCC and Purbeck District Council. A selection of land uses are shown based on the uses currently under consideration for the development. The full list of land uses and parking standards can be found at Appendix D:

Table 5.4: Car parking standards non-residential uses

| Use Class |  | Car \& HGV Parking |
| :---: | :---: | :---: |
| B1 | Business Offices | 1 per $30 \mathrm{~m}^{2}$ |
| B2 | General Industrial | 1 per $30 \mathrm{~m}^{2}+1 \mathrm{HGV}$ <br> space per $250 \mathrm{~m}^{2}$ |
| D1 e \& f | Schools | 1 per 2 full-time staff + <br> visitor + disabled <br> provision |


| A1 Retail | Food and non-food <br> retail $<500 \mathrm{~m}^{2}$ | 1 per $20 \mathrm{~m}^{2}+1$ per <br> $100 \mathrm{~m}^{2}$ for staff |
| :---: | :---: | :---: |

5.5.6 The parking strategy for the site should be developed to both meet PDC standards and cater for demand, to avoid parking blight within the new development, and to mitigate any overspill parking which might otherwise occur on the adjacent highway network.

### 5.6 Travel Plan

5.6.1 In the context of the above transport strategy, it is anticipated that site access can be achieved and that sustainable travel opportunities can be maximised. New residents and workers on the site will need to be made aware of, and encouraged to use, the sustainable travel modes which will be facilitated through the transport strategy. It is anticipated this could be achieved through planning conditions and or obligations for the site to deliver Travel Plans.
5.6.2 Residential, Workplace and School Travel Plans (TP) for the site should be developed in accordance with appropriate guidance such as the NPPG, the DfT's 'Good Practice Guidelines: Delivering Travel Plans through the Planning Process' and 'Making Residential Travel Plans Work: Good Practice Guidelines for New Development' (DfT, 2005)].
5.6.3 The key aim of the TPs will be to:
"Reduce the need to travel by car, focusing on single occupancy car trips associated with the development, by promoting more sustainable alternatives such as car sharing, public transport and walking and cycling."
5.6.4 This objective will be achieved through a combination of hard and soft measures aimed at discouraging single occupancy car use and facilitating the use of alternative modes of transport.
5.6.5 The result of the various Travel Plans will therefore be to increase the mode share of sustainable travel options, which will in turn have the benefit of reducing single occupancy car trips and the resultant traffic impact of the development; this will be achieved by ensuring the sustainable travel options, which will be available to new residents, pupils and workers, are well known to them.

## 6 Development Travel Demand

### 6.1 Introduction

6.1.1 This section provides an overview of the likely travel demand resulting from the proposed development. The predicted vehicle trip generation has been generated by land use.
6.1.2 The 0800-0900 (AM Peak) and 1700-1800 (PM Peak) hours have been assessed and, whilst it is recognised that these periods do not represent the entire travel demand resulting from development proposals, they do provide a recognised benchmark from which to consider the vehicular impacts of the site.

### 6.2 Development Proposals

6.2.1 The proposals under consideration for this site comprise the following mix of uses:

- Up to 600 residential units;
- Employment;
- Car Parking provision for Moreton rail station of 20+ spaces;
- A Suitable Alternative Natural Greenspace (SANG); and
- Primary School.
6.2.2 Detailed design of development proposals will be required, in consultation with PDC and DCC, at the planning application stage. At this stage, the client team has advised that we incorporate the following development assumptions in this assessment:
- 600 residential units;
- $7,000 m^{2}$ B1 Office Employment ;
- 20 Car Parking spaces for Moreton rail station; and
- Primary School.


### 6.3 Development Vehicle Trip Generation

6.3.1 The TRICS database has been interrogated in order to derive vehicular trip rates for the residential and employment elements of the proposed development. Sites in the database were selected on the basis of a set of criteria that best reflect the development type, size and location.
6.3.2 Outputs from the TRICS database used in the assessment are presented in Appendix E.
6.3.3 The residential and employment peak hour trip rates are shown in Table 6.1 below.

Table 6.1: Residential and Employment Vehicular Trip Rates

| Land Use | AM Peak |  |  | PM Peak |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In | Out | Total | In | Out | Total |
| Residential | 0.1910 | 0.4490 | 0.6400 | 0.4090 | 0.2240 | 0.6330 |
| B1 Office | 1.8540 | 0.1870 | 2.0410 | 0.1330 | 1.6950 | 1.8280 |

6.3.4 In addition to residential and employment trips, and in order to provide a robust assessment, it has been assumed that 20 vehicles will enter the proposed rail station car park during the AM peak and exit during the PM peak.
6.3.5 It has been assumed that trips associated with the primary school will predominantly be internal to the development or incorporated within the residential trip generation. Separate trip generation for the school has not therefore been included in the trip generation calculations for this high level assessment.
6.3.6 Table 6.2 provides the resulting vehicular trip generation predicted to arise from the development.

Table 6.2: Development Vehicular Trip Generation

| Land <br> Use | Units <br> GFA $\left(\mathbf{m}^{2}\right)$ | AM Peak |  |  | PM Peak |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Arrivals | Departures | Two-way | Arrivals | Departures | Two-way |  |
| Resi | 600 | 115 | 269 | 384 | 245 | 134 | 380 |
| B1 | $7,000 \mathrm{~m}^{2}$ | 130 | 13 | 143 | 9 | 119 | 128 |
| Car <br> Park | 20 spaces | 20 | 0 | 20 | 0 | 20 | 20 |
| Total |  | $\mathbf{2 6 4}$ | $\mathbf{2 8 2}$ | 547 | $\mathbf{2 5 5}$ | $\mathbf{2 7 3}$ | 528 |

6.3.7 The proposed development would be supported by Travel Plans which will aim to reduce private vehicle trips generated by the development and will set targets for modal shift away from the private car. The vehicular trip generation identified in Table 6.2, and the capacity assessment presented in Section 7, do not take account of the potential for reduced vehicular trip generation that the Travel Plans could lead to. In this respect the assessment presented is considered robust.

## 7 Traffic Impact Assessment

### 7.1 Introduction

7.1.1 This section of the TA considers the vehicular traffic impact of the proposed development on the local highway network. The assessment will quantify the severity of the traffic impact and identify locations which may require mitigation measures to be considered as part of more detailed study at planning application stage.

### 7.2 Turning Movements

7.2.1 The traffic flow data obtained from DCC and TRADS, as detailed within Section 3 of this HLTS, are link counts rather than turning movement surveys. To undertake a traffic impact assessment it has therefore been necessary to estimate turning movements at junctions based on the available link data.
7.2.2 Where available, the two-way link count data has been used to determine movements 'in to' and 'out of' a particular arm at a junction. Where no data is available for a given link, for example along Redbridge Road and Moreton Road at Fiveways junction, the flows have been estimated to balance the total volume of vehicles travelling 'in to' and 'out of' of the junction, taking into account all of the arms for which data is available.
7.2.3 At the A35 data is available for the mainline only. Since no information is available for the slip roads, these flows have been estimated, using the link count along the B3390 Waddock Drove as a logic check.
7.2.4 For a robust assessment at planning application stage, full traffic count surveys will need to be undertaken at the necessary junctions. However, for the purpose of this high level assessment it is considered that the approach set out above is sufficient to provide a broad indication of the traffic impact of the development on the local highway network.

### 7.3 Assessment Years and Traffic Growth

7.3.1 The following assessment years have been used for traffic impact assessments:

- 2015 - base situation for comparison purposes;
- 2027 - This assessment year has been taken to account for the final year of the current Purbeck Local Plan. It is recognised that the emerging Local Plan will have a later final date however this has not yet been determined.
7.3.2 Background traffic growth factors have been derived using TEMPRO v6.2 which has been adjusted with National Road Traffic Forecasts (NRTF). The following criteria have been used in the analysis:
- Tempro zone 19UG0 Rural Purbeck
- Weekday AM peak period and Weekday PM peak period
- All journey purposes
7.3.3 Since the raw data received from DCC and TRADS came from a range of years, growth factors were derived from TEMPRO to estimate the 2015 base year and a separate factor to growth to the 2027 future year.
7.3.4 The calculated growth factors are detailed in Table 7.1 below.

Table 7.1: Tempro Growth Factors for Background Traffic

| Base Year | Forecast Year | Growth Factors |  |
| :---: | :---: | :---: | :---: |
|  |  | AM | PM |
| 2009 | 2015 | 1.008 | 1.014 |
| 2013 | 2015 | 1.0003 | 1.002 |
| 2014 | 2015 | 1.0002 | 1.001 |
| 2015 | 2027 | 1.1929 | 1.2093 |

7.3.5 Figures 7.1 to 7.2 show the peak hour traffic flows with turning movements estimated as described in Section 7.2 and growthed to 2015. These have been adjusted using the growth factors above to form the base traffic flows for future year assessments. The resultant 2027 traffic flows are shown on Figures 7.3 to 7.4.

### 7.4 Committed Development

7.4.1 At this stage of high level analysis only one committed development has been incorporated in the analysis, this is the additional 500 dwellings which could come forward in Crossways. We have assumed this would be located south of Warmwell Road.
7.4.2 In order to incorporate the additional traffic which could be expected on the network as a result of the additional 500 houses at Crossways, development trip generation and distribution has been developed following the same methodology for the Land at Moreton site. This committed traffic has been added to the 2027 baseline traffic to form the future year reference case against which the impact of development should be considered.
7.4.3 The 2027 reference case traffic flows are shown on Figures 7.5 to 7.6.
7.4.4 At planning application stage full consideration would need to be taken of West Dorset District Council's proposals for development around Crossways should this progress through the planning process.
7.4.5 The extent of committed development sites to be included in a future traffic impact assessment would therefore be agreed with DCC in advance of the application.

### 7.5 Development Traffic Assignment and Distribution

7.5.1 The proposed residential and employment development traffic has been distributed across the local highway network based on the 2011 Census Journey to Work Data for the district authority of Purbeck.
7.5.2 Considering the high level nature of this assessment, prior to the availability of detailed development proposals and traffic flow information, the use of data from Purbeck district i.e. at local authority level, is considered appropriate. At detailed assessment stage a smaller sample at Middle Super Output Area (MSOA) level may be used.
7.5.3 For residential traffic, resident origin data has been used; and for employment traffic, worker origin data has been used.
7.5.4 The following assignment methodologies have been used in conjunction with the census data.

- The employment land use is assumed to be located in the south of the site so that drivers access the site via Redbridge Road;
- Residential trips have been split between the two accesses based on a 30:70 split between the B3390 Station Road and Redbridge Road;
- Trips have been assigned to the notional centre of each local authority;
- Drivers to destinations beyond the borders of Purbeck district have been assigned to the route which will take the shortest time; and
- Since the level of Census data used is too high to determine the origin/destination of trips within Purbeck district, drivers to destinations within the district have been assigned from the site to the local highway network as shown in Table 7.2. This is based on an indicative gravity model using the broad location of towns/villages.

Table 7.2: Assignment of trips within Purbeck District

| Assignment | Percentage |
| :---: | :---: |
| Unnamed road towards Clouds Hill via <br> Waddock Cross and Bovington | $40 \%$ |
| A35 East | $30 \%$ |
| A352 East | $15 \%$ |
| Redbridge Road | $15 \%$ |
| Total | $100 \%$ |

7.5.5 Station car park trips have been assigned taking account of the location of other rail stations and the likely walk/cycle distance to the rail station. This results in the following assignment:

Table 7.3: Assignment of Station car park trips

| Assignment | Percentage |
| :---: | :---: |
| North of Waddock Cross | $60 \%$ |
| West of Waddock Cross | $5 \%$ |
| A352 East | $10 \%$ |
| A352 West | $25 \%$ |
| Total | $\mathbf{1 0 0 \%}$ |

7.5.6 The distribution of the development traffic is illustrated on Figures 7.7 to 7.9 for residential, employment and station car park traffic respectively.
7.5.7 Applying these distributions to the estimated vehicular development traffic set out in Section 6 results in the total predicted development flows shown on Figures 7.10 and 7.11 for the AM and PM peak periods, respectively.
7.5.8 The predicted development traffic flows have been added to the 2027 reference case traffic flows to derive 'with development' traffic scenario. Figures 7.12 to 7.13 detail the 'with development' traffic flows in the AM and PM peak hours, respectively.

### 7.6 Quantification of Development Impact

7.6.1 This section of the TS considers the net change in traffic resulting from the development proposals and how that development is predicted to impact upon local routes and junctions within the study area. The study area is shown at Figure 7.14.
7.6.2 DCC has requested that the traffic impacts of the development be considered at the following local junctions/links:

- A35 / B3390 priority junctions;
- Fiveways priority junction - B3390 Station Road / Dick O' Th' Banks / Redbridge Road / Moreton Road;
- A352 Wareham Road / A353 / B3390 roundabout;
- Dick O' Th' Banks Road;
- B3390 through Affpuddle;
- B3390 through Warmwell;
- B3390 Hurst Bridge; and
- Highgate Lane under Lewell Bridge.
7.6.3 A summary of development traffic impact at each of these locations is shown in Table 7.4.

Table 7.4: Development Traffic Impact Across Study Area

| Junction / Two Way <br> Link | 2027 <br> Reference <br> Case | Dev <br> Flows | $\%$ <br> Impact | 2027 <br> Reference <br> Case | Dev <br> Flows | $\%$ <br> Impact |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2767 | 314 | $11 \%$ | 3035 | 304 | $10 \%$ |
| A35 West of B3390 | 2422 | 0 | $0 \%$ | 2660 | 0 | $0 \%$ |
| Fiveways priority junction | 977 | 418 | $43 \%$ | 990 | 401 | $41 \%$ |
| A352 Wareham Road / <br> A353 / B3390 roundabout | 1515 | 54 | $4 \%$ | 1625 | 52 | $3 \%$ |
| Dick O' Th' Banks Road | 247 | 50 | $20 \%$ | 273 | 48 | $18 \%$ |
| B3390 through Affpuddle | 447 | 350 | $78 \%$ | 462 | 337 | $73 \%$ |
| B3390 through Warmwell | 466 | 55 | $12 \%$ | 557 | 51 | $9 \%$ |
| B3390 Hurst Bridge | 718 | 411 | $57 \%$ | 793 | 399 | $50 \%$ |
| Highgate Lane under | 500 | 50 | $10 \%$ | 483 | 48 | $10 \%$ |

7.6.4 In order to consider whether additional development traffic is likely to have an impact at the locations identified above the following approach has been taken:

- Fiveways priority junction - B3390 Station Road / Dick O' Th' Banks / Redbridge Road / Moreton Road - has been capacity tested using the Picady software programme, for nonsignalised priority junctions;
- A352 Wareham Road / A353 / B3390 roundabout - has been capacity tested using the Arcady software programme, for non-signalised roundabouts;
- A35 / B3390 - A merge/diverge assessment has been undertaken to establish the suitability of the existing A35 arrangement to accommodate additional development traffic; and
- B3390 Links - Have been tested against national average link capacity figures to identify whether these routes will be reaching capacity as a result of development traffic. The review of accident data has also been used to identify whether there are any existing safety issues caused by design which could be exacerbated as a result of the proposals.


### 7.7 Junction Capacity Assessment

7.7.1 The traffic impact assessment has identified that, due to the volume of development traffic anticipated to have an impact, both the Fiveways Junction and A352 Wareham Road Roundabout should be given further consideration in this assessment. This section therefore presents the results of capacity assessment of these junctions.

## Fiveways Junction - B3390 / Redbridge Rd/ Dick O' Th' Banks Road

7.7.2 The junction arrangement is non-standard, taking the form of a crossroad and a priority junction on B3390, with Dick O' Th' Banks Road and Redbridge Road forming a crossroads with the B3390 and Moreton Road forming a priority junction with B3390 immediately south of the crossroads.
7.7.3 The observed traffic flows on Moreton Road are low, the Moreton Road junction with B3390 has not therefore been separately modelled. The crossroad junction between B3390, Redbridge Road and Dick O' Th' Banks Road has been assessed using the industry standard Picady module in the Junctions 9 software, observing that Junctions 9 can only accommodate junctions with up to 4 arms. However, traffic flows to and from Moreton Road are added to the respective turning movements along B3390 South arm on a crossroad junction, to represent a robust assessment.
7.7.4 The above approach is considered appropriate for this high level assessment, to give an indication of future operating capacity, particularly as the assessment is based on limited link flow data and assumed traffic movements. For the purposes of full transport assessment at application stage it is therefore advised that a traffic movement survey, with queue survey, be undertaken in order to validate the base model; the use of more complex modelling software such as TRANSYT may also be required to reflect the combined junctions if flows on Moreton Road are proven to warrant this.
7.7.5 Since observed traffic flow data is not available at this junction it is not possible to calibrate the model. Nonetheless, a high level model has been prepared using Ordnance Survey (OS) mapping to estimate geometries.
7.7.6 The impact of the proposed development on the operation of the junction has been tested. Model results for the base case and 'with development' scenarios are presented in Table 7.5 with detailed modelling reports attached at Appendix F.

Table 7.5 B3390 / A352 /A353 Roundabout Junction

|  | AM Peak (08:00-09:00) |  |  | PM Peak (17:00-18:00) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Max } \\ & \text { RFC } \end{aligned}$ | MMQ | Delay (Secs) | Max RFC | MMQ | Delay (Secs) |
| 2015 Base Year |  |  |  |  |  |  |
| Redbridge Rd | 0.08 | 0.1 | 9.16 | 0.06 | 0.1 | 9.67 |
| B3390 N | 0.06 | 0.1 | 5.17 | 0.16 | 0.3 | 5.29 |
| Dick O' Th' Banks | 0.13 | 0.2 | 9.47 | 0.10 | 0.1 | 9.48 |
| B3390 S | 0.05 | 0.1 | 4.83 | 0.03 | 0.0 | 5.19 |
| 2027 Reference Case |  |  |  |  |  |  |
| Redbridge Rd | 0.13 | 0.1 | 13.40 | 0.13 | 0.1 | 15.14 |
| B3390 N | 0.10 | 0.2 | 5.90 | 0.28 | 0.7 | 5.87 |
| Dick O' Th' Banks | 0.21 | 0.3 | 15.25 | 0.15 | 0.2 | 14.71 |
| B3390 S | 0.12 | 0.3 | 4.87 | 0.06 | 0.1 | 5.66 |
| 2027 Reference case + Development Flows |  |  |  |  |  |  |
| Redbridge Rd | 0.81 | 3.5 | 67.35 | 0.90 | 5.3 | 118.89 |
| B3390 N | 0.13 | 0.3 | 5.29 | 0.34 | 1.0 | 5.72 |
| Dick O' Th' Banks | 0.29 | 0.4 | 19.30 | 0.21 | 0.3 | 17.91 |
| B3390 S | 0.20 | 0.5 | 5.40 | 0.11 | 0.2 | 6.30 |

RFC = Ratio of Flow to Capacity, MMQ = Maximum Mean Queue
7.7.7 Table 7.5, shows that the junction operates below capacity in the 2015 base and 2027 reference case, with no RFC's exceeding 0.85 , the industry standard threshold for determining whether an arm is operating within capacity on a priority junction.
7.7.8 In the 2027 with development scenario, the junction is forecast to continue operate broadly within capacity, although on Redbridge Road a maximum RFC is recorded of 0.90 in the PM peak, meaning this arm is operating at capacity in this one scenario.
7.7.9 Given that the RFC exceeds 0.85 slightly on only one arm, in one peak hour, and that the traffic flows used to develop the model are estimates based on incomplete link flows it is advised that the junction be considered in more detail at application stage. It may be that capacity improvements are required on the Redbridge Road arm, or that through movements on site could be restricted to reduce the volume of traffic using Redbridge Road.

## A352 Wareham Road / A353 / B3390 Roundabout

7.7.10 The A352 Wareham Road / A353 / B3390 junction is a 4-arm roundabout which has therefore been assessed using the industry standard Arcady module in the Junctions 9 software.
7.7.11 Since observed traffic flow data is not available at this junction it is not possible to calibrate the model. Nonetheless, a high level model has been prepared using Ordnance Survey (OS) mapping to estimate geometries.
7.7.12 The outputs of the 2015 base model are detailed in Table 7.6 and detailed report is attached in Appendix F.

Table 7.6 A352 Wareham Road / A353 / B3390 Roundabout Junction

| B3390/A352/A353 Roundabout Junction |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AM Peak (08:00-09:00) |  |  | PM Peak (17:00-18:00) |  |  |
|  | $\begin{aligned} & \text { Max } \\ & \text { RFC } \end{aligned}$ | MMQ | Delay (Secs) | Max RFC | MMQ | Delay (Secs) |
| 2015 Base Year |  |  |  |  |  |  |
| A352 E | 0.17 | 0.2 | 2.22 | 0.32 | 0.5 | 2.88 |
| A353 | 0.33 | 0.5 | 3.32 | 0.15 | 0.2 | 2.76 |
| A352 W | 0.24 | 0.3 | 4.14 | 0.23 | 0.3 | 3.64 |
| B3390 | 0.20 | 0.3 | 3.76 | 0.27 | 0.4 | 3.72 |
| 2027 Future Base Flows |  |  |  |  |  |  |
| A352 E | 0.21 | 0.3 | 2.38 | 0.41 | 0.7 | 3.43 |
| A353 | 0.40 | 0.7 | 3.86 | 0.19 | 0.2 | 3.05 |
| A352 W | 0.30 | 0.4 | 4.76 | 0.29 | 0.4 | 4.06 |
| B3390 | 0.27 | 0.4 | 4.39 | 0.34 | 0.5 | 4.32 |
| 2027 Future Base + Development Flows |  |  |  |  |  |  |
| A352 E | 0.22 | 0.3 | 2.41 | 0.42 | 0.7 | 3.53 |
| A353 | 0.41 | 0.7 | 3.97 | 0.19 | 0.2 | 3.10 |
| A352 W | 0.31 | 0.4 | 4.92 | 0.29 | 0.4 | 4.12 |
| B3390 | 0.29 | 0.4 | 4.51 | 0.37 | 0.6 | 4.51 |

RFC = Ratio of Flow to Capacity, MMQ = Maximum Mean Queue
7.7.13 Table 7.6 demonstrates that the junction operates well within capacity in the base and reference case scenarios, with negligible queues and delays on all the approach arms.
7.7.14 In the 2027 with development scenario, the junction is forecast to operate with a maximum RFC of 0.41 on A353 approach arm during the AM peak and with a maximum RFC of 0.42 for A352 E during the PM peak period.

### 7.8 A35 Assessment

## A35/B3390

7.8.1 The A35 / B3390 junction comprises east and west bound on and off slips linked by an underbridge on the local highway network. Merge Diverge analysis has been undertaken based on DMRB TD 22/06 'Layout of Grade Separated Junctions' using the TRADS mainline data growthed to 2027 along with committed and development traffic.
7.8.2 This analysis has been used to indicate whether the existing arrangement can be expected to accommodate forecast traffic levels in the future year with development.
7.8.3 As shown in Figures 7.12 and 7.13, the development is broadly anticipated to assign traffic to and from the A35 east only at this junction. Therefore, the analysis has considered the eastbound merge and westbound diverge only at this stage.
7.8.4 The merge/diverge analysis is shown in Appendix G. In summary the existing arrangement is anticipated to have sufficient capacity to accommodate forecast flows, with development, in 2027. In the worst case scenario (2027 Reference Case + Development PM peak) for both the eastbound merge and westbound diverge the requirement identified in DMRB, based on the forecast flows, is for one mainline lane through the junction and two mainline lanes upstream (diverge) and downstream (merge). At present there are two mainline lanes through, and either side of, the junction; such that the junction is predicted to operate within design capacity in 2027. For indicative purposes, the slip roads or mainline would need to receive in the order of 700 or 1500 more vehicles, respectively, to necessitate a change in the current slip road arrangement.

## A35/A352

7.8.5 In scoping discussions with Highways England it was requested that impacts of the development be considered at the Max Gate A35/A352 junction. The two-way flow of development traffic estimated to reach this junction is 50 in the AM peak and 48 in the PM peak, with no more than 26 vehicles in any one direction. Since this is less than one vehicle every two minutes in any one direction, the impact is considered to be negligible at this location. However, when more detailed traffic flow and development quantum information is known at the stage of preparing a full transport assessment this impact could be reassessed.
7.8.6 It is considered that the above analysis provides sufficient evidence that the strategic network can accommodate the additional traffic generated by the development and that the proposals are unlikely to require any mitigation on the A35 junctions. Highways England may require additional or more detailed assessment at application stage, possibly including surveyed traffic flows on the slip roads.

### 7.9 Link Capacity Assessment

7.9.1 DCC has identified locations along the B3390 north of the site for consideration in this assessment. It has been identified that development traffic along this route could represent a proportional increase in two-way flows in 2027 of up to $57 \%$ at Hurst Bridge and $78 \%$ at Affpuddle, both in the AM peak. This would increase two-way traffic flow from approximately 447 vehicles to 797 at Affpuddle and from approximately 718 to 1,129 at Hurst Bridge between 0800 and 0900hrs.
7.9.2 The capacity of urban roads is identified in the Design Manual for Roads and Bridges TA79/99 based on road type, carriageway width and the number of lanes. The B3390 is a rural road, however, the same detailed classification is not provided for such a road and therefore TA79/99 has been used to provide an indication of the capacity of the aforementioned links along the B3390.
7.9.3 The road type classification which most closely matches the B3390 is 'UAP1' which is an urban all-purpose road "carrying predominantly through traffic with limited access". The B3390 is a two lane single carriageway which is approximately 6 m in width along most of its length, therefore the capacity has been tested against figures given in DMRB for a 6.1 m wide carriageway (the closest width for which capacity figures are identified) .
7.9.4 The capacity of the appropriate classification under UAP1 is provided in Table 7.7 below. It suggests a capacity of 1,020 for the busiest direction of flow, assuming a 60/40 directional split. Consequently the two-way flow capacity is 1,700 vehicles.

Table 7.7 TA 79/99 Urban Road Capacity UAP1, 6.1m

| Road Type | Two-way Single Carriageway - busiest direction flow <br> (assumes a 60/40 directional split) |
| :---: | :---: |
| UAP1 | 1,020 |

7.9.5 Estimated 2027 Reference Case + Development peak hour flows along the B3390 corridor at Hurst Bridge and through Affpuddle are shown in Table 7.8.

Table 7.82027 Reference Case + Development flows along B3390

| Road Type | AM Peak |  |  | PM peak |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Northbound | Southbound | Two-way | Northbound | Southbound | Two-way |
| B3390 Hurst <br> Bridge | 682 | 448 | 1,130 | 481 | 709 | 1,190 |
| B3390 Affpuddle | 475 | 322 | 797 | 367 | 433 | 800 |

7.9.6 Table 7.8 shows that at both locations along the B3390 and in both peak periods the estimated traffic flows lie well within the one-way capacity of 1,020 and two-way capacity of 1,700 vehicles. The introduction of development traffic is not therefore anticipated to present a capacity issue along this link in the future year.
7.9.7 It is recognised that the width of the B3390 over Hurst Bridge narrows to approximately 4 m , which would likely reduce the capacity of the road from that set out in Table 7.7 above, although specific figures are not provided in DMRB for roads of this width. It is suggested that more detailed assessment could be undertaken at the time of application, possibly including observations of existing traffic movements at this location, to enable a more thorough analysis of capacity; which could inform mitigation measures if necessary. It should be noted that forward visibility in this location appears good, allowing vehicles to stop in good time, this is supported by the analysis of PIC data at Section 3, which confirms that there is no pattern in collisions relating to highway safety at Hurst Bridge.
7.9.8 At Highgate Lane, under Lewell Bridge, traffic flows are only anticipated to increase by around 50 vehicles two-way in each peak hour. Whilst this does represent a $10 \%$ increase, it equates to fewer than one additional vehicle per minute on this link (fewer than one vehicle every two minutes in one direction), which is considered will have a negligible impact on the operation of the traffic signals which control the flow of traffic under the Bridge.
7.9.9 Furthermore the PIC data analysis set out in Section 3 showed that no collisions have been recorded in the vicinity of Lewell Bridge in the last five years of available data, such that there are no highway safety concerns at this location.

### 7.10 Summary

7.10.1 This section has shown that there are not predicted to be any vehicular capacity issues at the junctions in the study area, such that no significant off-site highway mitigation is anticipated to be required to support development of the site.
7.10.2 One arm of the Fiveways junction indicates a possible capacity constraint which may need to be addressed through off-site design and/or on site development distribution and access strategy, depending on the results of more detailed investigation as part of the full Transport Assessment.
7.10.3 The traffic impact at the A35 and the A352 Wareham Road / A353 / B3390 junction is considered to be minimal, in the context that these locations have significant capacity, such that they will be unlikely to warrant more detailed investigation at the time of application. However, it is recognised the highway authorities may require more detailed analysis to be undertaken using full survey information, to corroborate the findings of this high level analysis.
7.10.4 Other links assessed in this study have proven to operate well within their theoretical capacity in the future, with development, and with no evidence of existing safety issues which might otherwise have been exacerbated.
7.10.5 None of the assessment presented in this section has benefitted from trip reductions which will be achieved through the sustainable transport strategy, site design linking to off-site sustainable networks and the Travel Plans. The impact of development is therefore anticipated to be lower than the negligible impacts identified in this assessment.
7.10.6 With the exception of site accesses, which will need to be designed and assessed, it is not therefore anticipated that development of this site would give rise to a need for any substantial off-site highway mitigation to address traffic impacts

## 8 Summary and Conclusions

### 8.1 Summary

8.1.1 This High Level Transport Statement (HLTS) has been prepared by Peter Brett Associates LLP on behalf of the Moreton Estate and presents a high level review of transport issues, constraints and opportunities associated with the potential development site at Redbridge Pit.
8.1.2 The scope of the HLTS has been informed by input from Dorset County Council and Highways England in their respective roles as Local and Strategic Highways Authorities.
8.1.3 The HLTS provides a review of local and national policy and of the surrounding area from a transport perspective, in order to determine baseline transport conditions and parameters for future transport mitigation.
8.1.4 The baseline review includes accident data analysis across the study area, which established that there is no pattern of accidents in the reviewed network which would indicate any highway design safety issues nor any recognisable safety problems in the vicinity of the site.
8.1.5 For a rural location, the site is very well located for encouraging sustainable travel, with all parts of the site falling within 700 m of Moreton Station, local bus stops being located nearby in Crossways, the National Cycle Network passing close to the site and the pedestrian footway network linking to Moreton Station to the north and Crossways to the south.
8.1.6 Existing traffic link flow data has been used to estimate baseline and future baseline traffic conditions in the study area, including estimating traffic movements at key junctions.
8.1.7 The TRICS database has been used to establish development trip generation and Census data has been used to assign development traffic throughout the study area.
8.1.8 Capacity testing has been undertaken of those junctions which are anticipated to see an increase in traffic as a result of the development. The strategic A35 junction to the north has been assessed using merge and diverge assessment, whilst the A35 junction to the west is anticipated to be used by only a negligible volume of development traffic. Other links on the local highway network have been considered for capacity against national averages.
8.1.9 The result of the capacity analysis indicates that the only junction which may suffer a minor capacity issue could be the Fiveways junction, specifically on the Redbridge Road arm. It is anticipated that this could be addressed either through highway design or through onsite site layout design, to discourage or restrict traffic from using Redbridge Road.
8.1.10 No other locations on the local or strategic network are anticipated to suffer capacity issues, although more detailed analysis at application stage with the benefit of a defined development mix and traffic movement and queue surveys may be necessary to confirm this position
8.1.11 The HLTS identifies a sustainable transport strategy which includes a proposed approach to encouraging pedestrian, cycle and public transport use. This includes facilitating pedestrian connections between the site and Crossways village and public transport facilities including Moreton Station; providing for cyclists throughout the development and to connect to NCR 2; and improving public transport facilities by increasing Station parking and cycle parking and possibly extending local bus services to route through the development or alternatively enhancing existing provision.
8.1.12 Development of the site would also need to be supported by Travel Plans, likely to include Residential, Employment and School Travel Plans, all of which would serve to raise awareness of the sustainable transport opportunities and to encourage their uptake by future users of the site.
8.1.13 The Travel Plans have not been developed as part of the HLTS and a Travel Plan trip reduction has not therefore been assumed in the traffic impact analysis. It is anticipated that at application stage, with the benefit of greater detail of proposed development mix and more accurate baseline traffic data, the benefits of Travel Planning would be quantified and used to demonstrate that the already negligible traffic impact of the proposals would be further mitigated.

### 8.2 Conclusion

8.2.1 The analysis set out in this HLTS indicates that the traffic impacts of the proposed development on the local and strategic highway networks would be negligible and could be further mitigated through the development and implementation of Travel Plans.
8.2.2 The development could result in the need for design changes at the Fiveways junction, although it is anticipated that this issue might alternatively be mitigated through site layout design with restrictions built into the street network to limit the extent of through traffic movements.
8.2.3 An increase in traffic flows along the B3390 to the north of the development may result in the desire for contributions to improved pedestrian amenity or traffic calming in Affpuddle, although this is not considered a requirement in traffic capacity terms.
8.2.4 The site is very well located for encouraging the uptake of sustainable travel, being within a reasonable walking distance of Crossway's village, and the facilities therein, and significant public transport options, including Moreton Rail Station. A package of sustainable transport measures, including offsite pedestrian crossing/s of the B3390 Station Road, would facilitate movement to and from these key locations to the north west and south west via the existing footway along the northbound carriageway of Station Road.
8.2.5 As established earlier in this report, Local Plan Policy IAT sets out the following criteria against which development proposals are to be assessed:

- The development should be located in the most accessible location and reduce the need to travel;
- The development should maximise the use of alternative and sustainable forms of travel;
- The development, where it is likely to result in significant transport implications, should be supported by a detailed transport assessment and a travel plan;
- The development should provide for improved safety and convenience of travel, including improved access to local services and facilities by foot, cycle and public transport;
- The development should provide safe access to the highway, and/or should provide towards new/improved access to the highway and improvement of the local highway.
- The development should provide for adequate parking levels in line with the Bournemouth, Poole and Dorset Residential Car Parking Strategy.
8.2.6 The analysis in this report indicates that the site would satisfy all of these criteria, indeed the site responds particularly strongly to a number of points, especially those relating to
maximising the use of alternative and sustainable forms of travel and convenience of travel and improved access to local services and facilities.
8.2.7 Also as established earlier in this report, policy ATS of the Local Plan states that "the cumulative impact of additional road trips from new development will be mitigated through financial contributions towards the implementation of the Purbeck Transportation Strategy". In the vicinity of the site the Purbeck Transport Strategy includes Moreton Rail Station interchange improvements to encourage travel by rail, bus, cycling and walking. It is therefore anticipated that delivery of this site would require a financial contribution to facilitate delivery of these improvements.
8.2.8 On balance it is therefore considered that the transport impact of development at this location is unlikely to be severe and the site therefore provides a good opportunity for development.
8.2.9 From a transport perspective the site presents a good sustainable opportunity for a residential-led mixed-use development, which Purbeck District Council could allocate within their Local Plan.


## Figures






















## Appendix A Highway Authority Scoping Information

| From: | Elizabeth Keen |
| :--- | :--- |
| Sent: | 21 September 2015 13:01 |
| To: | Elizabeth Keen |
| Subject: | FW: Moreton / Redbridge Pit |

From: Elizabeth Keen
Sent: 21 September 2015 12:59
To: Elizabeth Keen
Subject: FW: Moreton / Redbridge Pit
From: "Tunks, Katherine" [k.tunks@dorsetcc.gov.uk](mailto:k.tunks@dorsetcc.gov.uk)
Date: Friday, 17 July 2015 10:04
To: Martin Miller [martin.miller@torltd.co.uk](mailto:martin.miller@torltd.co.uk), "Brown, Dave" [d.s.brown@dorsetcc.gov.uk](mailto:d.s.brown@dorsetcc.gov.uk)
Cc: Anthony Fortescue [awf@fowlerfortescue.co.uk](mailto:awf@fowlerfortescue.co.uk)
Subject: RE: Moreton / Redbridge Pit - Request for a meeting

Hi Martin,

This is what I'm sending to all consultants in response to queries regarding the sort of information we need from you.

We are also happy to meet with you, how about the afternoon of the 23 rd or anytime on the 24 th July?

We need a high level / strategic Transport Assessment for your development proposals. A good guide to the type of information required is contained in the old Guidance on Transport Assessment. It has been superseded officially by the National Planning Policy Framework and the accompanying National Planning Practice Guidance, but alongside this new guidance it still gives a good idea of the issues you need to consider. I include a list (not exhaustive) of the topic areas which you need to address (broadly at this stage) and the links to the guidance:

Development proposal and planning policy framework
Existing conditions
Proposed development - how sustainable is the location?
Appraising the impact of the proposed development
Development trip generation
Environmental impact issues
Promoting smarter choices via travel plans
Transport impacts and mitigation measures
https://www.gov.uk/government/uploads/system/uploads/attachment data/file/263054/guidance-transportassessment.pdf
http://planningguidance.planningportal.gov.uk/blog/guidance/transport-evidence-bases-in-plan-making/ https://www.gov.uk/government/uploads/system/uploads/attachment data/file/6077/2116950.pdf

I hope this helps.

Regards

Kate

Kate Tunks
Transport Planning Team Leader
Economy, Planning \& Transport Group
Dorset County Council

01305228534
07920503447

From: Martin Miller [mailto:martin.miller@torltd.co.uk]
Sent: 16 July 2015 10:09
To: Tunks, Kate; Brown, Dave
Cc: Anthony Fortescue
Subject: Moreton / Redbridge Pit - Request for a meeting
Hi Kate / David

We understand that the West Dorset Local Plan Examination Inspector's report is due to be sent to WDDC/WPBC for fact checking at some point later this month, so the earliest that it will be made public will be mid to late August. Given that Steve Tapscott at Purbeck DC has given all site promoters a deadline of 21 September to provide him with sufficient information on transport impacts / mitigation / sustainable travel measures etc to enable PDC officers to choose which sites to allocate in a draft local plan, if we wait until late August to meet with you, we will not meet Steve's deadline.

Please could we meet on the assumption that the Crossways allocation has been found sound, but also consider how your advice and what we might need to do would be different if it hasn't?

Regards
Martin

Martin Miller
Technical Director
07770945519


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From:
Elizabeth Keen
Sent:
To:
Subject:

21 September 2015 13:00
Elizabeth Keen
FW: Redbridge Pit - Quote for a high level transport statement

From: Elizabeth Keen
Sent: 21 September 2015 12:59
To: Elizabeth Keen
Subject: FW: Redbridge Pit - Quote for a high level transport statement
From: Martin Miller [mailto:martin.miller@torltd.co.uk]
Sent: 29 July 2015 12:56
To: Neil Thorne
Subject: Redbridge Pit - Quote for a high level transport statement
Hi Neil
Please find attached:

1) a copy of the Issues and Options report published earlier this year by Purbeck DC
2) a copy of Dorset County Council's response to it which sets out the scope of a potential TA, which will be required in due course.

We are acting (confidentially) on behalf of the landowner of option 4 e . To date, he has been prepared to fund a number of surveys / studies that have been necessary to persuade Purbeck DC to identify the site in the attached issues and options report. On the whole, its potential redevelopment has not proved to be massively controversial given that it is currently a quarry under restoration (the public think it is brownfield), it sits at the far end of Purbeck DC away from significant levels of population within Purbeck and also lies adjacent to a mainline railway station that lacks facilities (such as car parking) that we can provide. We are also anticipating the West Dorset District Council examination inspector allocating land for 500 dwellings and some employment land just down the road at Crossways (the allocation is to the south of Warmwell Road on the attached CRS1 plan - the other two sites have been rejected to date but may still come forward speculatively).

The traffic and transport impacts of the site's development (in conjunction with the 500 at Crossways) need to be understood by mid September in order to give Purbeck DC the confidence to confirm its allocation in the next draft plan, and to identify the range and cost of mitigation measures associated with the site's development. There will also be some interesting negotiations with Network Rail concerning development close to the line and a potential footbridge over it.

Dorset CC seem relatively happy for the option 4 e sites to be developed subject to an analysis of development on the junctions set out in their representation (attached). We met with Kate Tunks, David Brown and Colin Graham of Dorset County Highways last Thursday, the main points of which were as follows:

- DCC is positive about the sustainability benefits that could arise from the development of this site because of the opportunity that exists to increase rail patronage. We were advised to incorporate land within our site master plan for a railway car park comprising 20+ cars, which will encourage people from Crossways to park at the site and take the train in either direction. DCC consider it likely that Network Rail (as part of the site's development) will ask for full safety barriers across the level crossing, and/or a footbridge over the railway line to discourage people from walking / driving around the existing half barriers when they are down.
- David Brown confirmed that the deliverability of vehicular accesses into the caravan site from Station Road and into Redbridge Pit from Redbridge Road should not be complicated given that both roads were straight. However, there was a noticeable difference in ground levels between Station Road and the caravan site which would need to be considered, along with any retained trees. CG confirmed that

DCC was likely to reduce the speed limit along Station Road from 40 mph to 30 mph should the site be allocated for development.

- There is an existing footway running alongside the west side of Station Road which links Crossways to Moreton Station. However, in order to enhance links between the station, the proposed development and Crossways, DCC would be looking for a three metre wide footpath / cycle path along the eastern side of Station Road. It was accepted that the Moreton Estate did not own all of the land adjoining the highway and that some third party land was likely to be involved. MM was advised to contact the county Highways Information Unit (HIU@dorsetcc.gov.uk) and Stephen Metham (Community Highway Officer) to try and establish the extent of the highway verge along Station Road.
- Apart from the railway station car park, DCC confirmed that they would wish to see mixed-use development provided, which was likely to include housing, employment, a SANG, a primary school and potentially a local centre. Whilst the Issues and Options Report indicated development of up to 900 units split to the north and south of the railway line, in practice, Natural England was currently only onboard with 500 (600 at a push) in total, and by the time that land at the caravan site and pit was given over to the car park, primary school and employment uses, there may only be sufficient land for a lesser number of houses in any case.
- KT indicated that from a strategic master planning perspective, early contact should be made with the owner of the Crossways allocation (General Bond) to understand his development objectives and plans for disposing of the land and progressing a planning application. It was essential that the Redbridge Pit site was master planned in conjunction with plans at Crossways and that sustainable transport objectives (including bus routes) were incorporated into both.
- KT does not require a full-blown Transport Assessment by 21 September, just a high level in-principle transport statement setting out the likely highways impacts associated with the site's development on the junctions already identified, and a range of potential mitigation measures where necessary. Strategically, the assessment would need to consider the impacts on the junction of the B3390 with the A35 north of Affpuddle, and so Highways England would need to be invited to comment. DCC might also be seeking an off-site highways contribution towards the delivery of the West Stafford bypass, land for which has been safeguarded as part of the Silverlake planning permission. The completion of this road would potentially enable the Lewell level crossing west of Crossways to be closed, which was likely to be welcomed by Network Rail.

If you wish me to point out on a map the location of the junctions that DCC is interested in, please let me know. Otherwise, I hope that the above sets out what we need to do over the next 5 weeks and is sufficient for you to provide me with a quote. We will be looking to appoint consultants next week.

Any questions, please contact me.
Regards

## Martin

Martin Miller
Technical Director
07770945519


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02036646755

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From:
Sent:
To:
Cc:
Subject:

Follow Up Flag:
Flag Status:

Hellier, Steve [Steve.Hellier@highwaysengland.co.uk](mailto:Steve.Hellier@highwaysengland.co.uk)
15 September 2015 11:31
Elizabeth Keen
Roberts, Andrew; Gallacher, Gaynor
HE Scope - Redbridge Pit Moreton

Follow up
Flagged

Elizabeth,
Many thanks for your email of 9 September and your subsequent phone call yesterday.
I note that you are currently concerned with the southern part of the site at Moreton Station (including Redbridge Pit) shown under Option 4 e which has the potential to deliver up to 600 residential units, employment, a primary school and other facilities.

This is one of a number of sites in the Purbeck Local Plan Partial Review Issues and Options Consultation, January 2015. Although some distance from the strategic road network, it is of a size that could potentially have an impact on the A35 trunk road. We are aware that not all sites will come forward and a number of sites are identified as being large but development will only take place on a small part of the site. In order to make further comments on this site more surety about the specific development needs to be identified in terms of size, numbers, and trip rates and distribution.

Notwithstanding this, a number of sites are located outside of built up areas and we have some concerns as to the sustainability of the sites and the assumed reliance on the use of the private car. Where appropriate, as a number of sites are in relative close proximity and not insignificant in size, where possible we would encourage developers to work together in the formulation of sustainable transport strategies and provision for new development coming forward.

We are not aware of any capacity issues at A35/B3390 junction and for now are happy with your approach to use TRADS data.

However, within the scope of the proposed works, your Transport Statement should also consider the impacts at the Max Gate junction (the A35/A352 junction). We are aware of a development at the Warmwell Quarry site that has planning consent for 1000 holiday units, a hotel and leisure club which has a Grampian condition for an improvement to the junction. This scheme includes banning right turning movements at the A35 Max Gate Junction.

In terms of capacity, Circular 02/2013 requires two assessment scenarios to be considered. The first is the initial opening year of the development, which is assumed to be the year when the first part of the development is open for occupation. This assessment must include traffic associated with the FULL development proposals, taking account of background traffic (TEMPRO NTEM), the potential for trip netting associated with extant land uses, travel planning and committed development traffic. The opening year test will determine whether the impact of the development on the SRN would be severe and if mitigating measures are warranted. A second opening year assessment which includes mitigation measures may also be necessary in order to demonstrate the suitability of the measures in rendering the development acceptable.

There is also a requirement to test a future horizon period of 10 years following the registration of the planning application, or the end of the relevant local plan review period, whichever is greater. There is however no requirement to provide mitigation for this assessment, as the information is to be used by Highways England for information purposes only.

The assessments will identify what mitigation is required to support the whole development site. Options for a phased mitigation approach is a consideration over a limited period, and no later than the end of the assessment horizon (10 years after registration of the application or the end of the Local Plan period whichever is greater).

I trust this helps but do contact me if there is anything you wish to discuss.

## Best regards

## Steve

Steve Hellier, Asset Manager Somerset and Dorset
Highways England | Ash House | Falcon Road, Sowton Ind. Estate | Exeter | EX2 7LB
Tel: 01392312502 | Mobile: 07917068800
Web: http://www.highwaysengland.co.uk
GTN: 13652502
Safe roads, reliable journeys, informed travellers
Highways England Company Limited | Registered Office: Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ | Registered in England and Wales No. 9346363

From: Elizabeth Keen [mailto:ekeen@peterbrett.com]
Sent: 09 September 2015 13:44
To: Hellier, Steve
Subject: HE Scope - Redbridge Pit Moreton

Steve,

We are in the process of preparing a high level transport statement in support of a large mixed-use development on the border of Purbeck district with West Dorset. The site is immediately south of Moreton rail station and included within the Partial Review of Purbeck Local Plan Part 1 Issues and Options under Option 4e. I have attached this for your information.

We are currently concerned with the southern part of the site shown under Option 4e only which has the potential to deliver up to 600 residential units, employment, a primary school and other facilities. The developer wishes to see this site allocated within the final Local Plan and we are working to this end.

We would appreciate your comments regarding any capacity issues you are aware of on the strategic highway network in the vicinity of the site - namely the A35, which you would like us to consider in the scope of our works.

A large proportion of our development traffic is predicted to join the A35 (eastbound) at the A35/B3390 junction. Due to the timescales of the work we have been unable to undertake our own traffic surveys so are reliant on TRADS data. We have undertaken a high level merge/diverge analysis of the A35/B3390 slips. Would you consider this approach appropriate in principle?

I spoke to your colleague Andy Roberts today and he said that you produced some feedback for the Issues and Options consultation. If you have any comments on this site it would be greatly appreciated.

We are working under very tight timescales so any comments you are able to provide on your return to work will be most appreciated.

I will not be in the office on Friday $11^{\text {th }}$ but will return on Monday $14^{\text {th }}$ if you wish to discuss this over the phone. My number is below.

## Kind Regards,

## Elizabeth Keen <br> Engineer

For and on behalf of Peter Brett Associates LLP
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## Appendix B Partial Review of the Purbeck Local Plan Part 1 - Issues and Options, Option 4e

## Option 4e: consider new development around Moreton Station (including Redbridge Pit)

Developers consider that land at Redbridge Pit and land to the north of Moreton Station could potentially accommodate between 200 and 900 new homes, plus employment, open space, SANG and community facilities.

Facilities and services are limited at Moreton Station, but development here would be on the edge of Crossways. Therefore, with masterplanning in conjunction with West Dorset District Council, it may be able to link in with existing facilities and new development planned at Crossways. Development would not involve developing green belt or AONB land and it could tie in with investment at Dorset Green Technology Park.


## Appendix C Personal Injury Collision Data





C1 PEDAL CYCLIST WAS STRUCK BY V2 FORD KA. C1 FATAL. D2 POSITIVE BT. Occurred on B3390 APPROX 400M SW UC QUEENS DRIVE, WARMWELL ROAD, CROSSWAYS, DORCHESTER.



## V1 OVERSHOT JUNCTION DUE TO SUN AND HIT V2 TRAVELLING ON MAJOR ROAD. Occurred on B3930 AT C80, WADDOCK CROSS,



| Casualty Reference: | 1 | Vehicle: | 2 | Age: | 55 | Male | Driver/rider | Severity: | Slight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Not a pupil |  |  |  |  |  |  |  | Seatbelt |  |
| Casualty Reference: | 2 | Vehicle: | 2 | Age: | 46 | Male | Passenger | Severity: | Slight |
| Not a pupil |  |  |  |  |  |  |  |  |  |
| Front seat |  |  |  |  |  |  |  |  |  |
| Casualty Reference: | 3 | Vehicle: | 2 | Age: | 17 | Male | Passenger | Severity: | Slight |
| Not a pupil |  |  |  |  |  |  |  |  |  |
| Back seat |  |  |  |  |  |  |  |  |  |
| Casualty Reference: | 4 | Vehicle: | 2 | Age: | 20 | Female | Passenger | Severity: | Slight |
| Not a pupil |  |  |  |  |  |  |  |  |  |
| Back seat |  |  |  |  |  |  |  |  |  |



## D1 STRUCK RECENTLY DECEASED DEER LAYING IN THE ROAD AND FELL OFF V1 BICYCLE. V2 SWERVED TO AVOID V1 AND LEFT ROAD TO THE OFFSIDE. Occurred on B3390 STATION ROAD APPROX 345M NE OF HURST CROSSROADS, MORETON.




V1 LHD CAR COLLIDED WITH A LOW WALL OFFSIDE WHILST OVERTAKING V2 TRACTOR WHICH WAS SLOWING TO TURN LEFT.
Occurred on B3390 STATION ROAD APPROX 50M SW UC HURST ROAD, DORCHESTER.



V1 AND V2 TRAVELLING SOUTH V1 SLOWED DOWN AND STOPPED TO GIVE WAY TO ONCOMING TRAFFIC AT NARROW BRIDGE V2 BRAKED SKIDDED ON WET ROAD AND COLLIDED WITH THE REAR OF V1 Occurred on B3390 AT NARROW BRIDGE ON WADDOCK DRIVE, PURBECK.


| Casualty Reference: 1 | Vehicle: 1 | Age: 8 | Female | Passenger | Severity: Slight |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not a pupil |  |  |  |  |  |  |  | Seatbelt |

Back seat
Casualty Reference: 3 Vehicle: $1 \quad$ Age: 33 Male Driver/rider Severity: Slight

Not a pupil Seatbelt

Casualty Reference: 2 Vehicle: 2 Age: 44 Male Driver/rider Severity: Slight

Not a pupil Seatbelt


## VI FAILED TO STOP AT JUNCTION FOR CROSSROADS AND HIT V2 TRAVELLING THROUGH Occurred on B3390 WADDOCK CROSS ROADS AT JCN WITH C80 S WADDOCK DROVE WADDOCK DORCHESTER




| Casualty Reference: 1 | Vehicle: 2 | Age: 58 | Male | Driver/rider | Severity: Slight |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not a pupil |  |  |  |  |  |  | Seatbelt |



## V2 WAS AT A GIVEWAY JUNCTION FAILED TO SEE V1 ON-COMING SUBSEQUENTLY PULLED OUT INTO PATHWAY OF V1XXXVALIDATED UNSEEN AWAITING T1XXX Occurred on B3390 WADDOCK CROSS AT JUNCTION WITH C80 DORCHESTER




## V1 WAS TRAVELLING SW FAILED TO NOTICE CYCLIST TRAVELLING NE TURNED ACROSS CYCLIST PATH INTO JUNCTION CAUSING COLLISION <br> Occurred on B3390 WARMWELL ROAD AT JUNCTION WITH UC DICK 'O' THE BANKS ROAD CROSSWAYS DORCHESTER


Casualty Reference: $1 \quad$ Vehicle: $2 \quad$ Age: 37 Male $\quad$ Driver/rider $\quad$ Severity: Slight


## V1 SWERVED TO AVOID DEER COLLIDED WITH VERGE <br> Occurred on B3390 250M N OF WADDOCK CROSS DORCHESTER



| Casualty Reference: 1 | Vehicle: 1 | Age: 35 | Male | Driver/rider | Severity: Slight |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not a pupil |  |  |  |  |  |  | Seatbelt |  |



V1 WAS PULLING OUT OF WADDOCK FARM ENTRANCE TURNING TOWARDS AFFPUDDLE V2 WAS ON THE B3390 TOWARDS CROSSWAYS AS V1 PULLED OUT IT WAS HIT BY V2
Occurred on B3390 WADDOCK DROVE OUTSIDE WADDOCK FARM DORCHESTER


| Casualty Reference: 2 | Vehicle: 2 | Age: 25 | Male | Driver/rider | Severity: Slight |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not a pupil |  |  |  |  | Seatbelt |  |



## V1 FAILS TO GIVE WAY AT JUNCTION COLLIDING WITH V2 <br> Occurred on B3390 WADDOCK CROSS AT JUNCTION WITH C80 MORETON DORCHESTER




| Casualty Reference: 1 | Vehicle: 2 | Age: 73 | Female | Driver/rider | Severity: Slight |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not a pupil |  |  |  |  |  | Seatbelt |  |


| A14D047883 | 17/11/2014 | Time | 1145 | Vehicles | 3 | Casualties |  | , | Slight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E:377879 N: | 88995 | First Road: |  | 0 Road Typ |  | - Single carriageway |  |  |  |
| Speed limit: 40 | Junction Detail: | Not wi | 20 | unction |  | Not applicable |  |  |  |
| Crossing: Control | None |  | Facilit | None with | 50m |  |  | Road surface | Wet/Damp |
| Daylight: no stree | tighting |  |  |  |  | Raining without |  | winds |  |
| Special Conditions | at Site None |  |  |  |  | Carriageway | d | s: None |  |
| Place accident repo | rted: At sc | ene |  | DfT Special | ојес |  |  |  |  |

V1 AND V2 STATIONARY IN TRAFFIC AT LEVEL CROSSING V3 CAME UP OVER BROW OF HILL UNABLE TO BRAKE IN TIME HITTING REAR OF V2 WHICH IN TURN HIT V1XXXXVALIDATED UNSEENXXXX Occurred on B3390 137M SW MORTON LEVEL CROSSING MORETON DORCHESTER



## V2 TRAVELLING SOUTH ON B3390 AS IT HAS PASSED JUNCTION V1 HAS SHOT ACROSS JUNCTION WITHOUT STOPPING CAUSING V2 TO HIT V1XXXXVALIDATED UNSEENXXXX Occurred on B3390 WADDOCK CROSS JUNCTION WITH C80 DORCHESTER




| Casualty Reference: 2 | Vehicle: 2 | Age: 67 | Female | Driver/rider | Severity: Slight |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not a pupil |  |  |  |  |  | Seatbelt |  |

Accidents between dates 01/06/2010 and 31/05/2015 (60) months

## Selection:

Accidents involving:

|  | Fatal | Serious | Slight | Total |
| :--- | ---: | ---: | ---: | ---: |
| Motor vehicles <br> only (excluding <br> 2-wheels) | 0 | 1 | 9 | 10 |
| 2-wheeled motor <br> vehicles | 0 | 0 | 0 | 0 |
| Pedal cycles | 1 | 1 | 1 | 3 |
| Horses \& other | 0 | 0 | 0 | 0 |
| Total | 1 | 2 | 10 | 13 |

Casualties:

|  | Fatal | Serious | Slight | Total |
| :--- | ---: | ---: | ---: | ---: |
| Vehicle driver | 0 | 0 | 14 | 14 |
| Passenger | 0 | 1 | 7 | 8 |
| Motorcycle rider | 0 | 0 | 0 | 0 |
| Cyclist | 1 | 1 | 1 | 3 |
| Pedestrian | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |
| Total | 1 | 2 | 22 | 25 |

## Selection:

Notes:
Selected using Manual Selection

| A11D033644 | 25/07/2011 | Time | 2035 | Vehicles | 1 | Casualties | Serious |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E:375329 N: | 85345 | First Road: | A | Road Typ |  | e Dual carria |  |
| Speed limit: 60 | Junction Detail: | Not withi | n 20 m o | unction |  | Not applicable |  |
| Crossing: Control | None |  | Facilitie | None with | 50m |  | Dry |
| Daylight: no street lighting |  |  |  | Fine without high wind |  |  |  |
| Special Conditions at Site None |  |  |  |  |  | Carriageway Hazards |  |
| Place accident rep | orted: At sc | ene |  | DfT Special | ojec |  |  |

V1 IN LANE TWO OF DUAL CARRIAGE LOST CONTROL AND WENT INTO NEARSIDE VERGE ON RE-ENTERING ROAD BIKE DROPPED BOTH SUSTAINED SERIOUS INJURY
Occurred on A352 335 EAST OF A353. DORCHESTER.


## Selection:

Notes:
Selected using Manual Selection


Crossing: Control None Facilities: None within 50m Road surface Frost/Ice

Daylight: no street lighting Special Conditions at Site None

Fine without high winds
Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

DRIVER LOST CONTROL ON ICY ROAD
Occurred on A353 300M SOUTH WARMWELL CROSS RAB DORCHESTER


| Casualty Reference: 1 | Vehicle: 1 | Age: 36 | Male | Driver/rider | Severity: Slight |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Not a pupil |  |  |  |  |  |  | Seatbelt |

## Selection:

## Notes:

Selected using Manual Selection



| Casualty Reference: | 1 | Vehicle: | 1 | Age: | 47 | Male | Driver/rider | Severity: | Slight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Not a pupil |  |  |  |  |  |  | Seatbelt |  |  |
| Casualty Reference: | 2 | Vehicle: | 1 | Age: | 29 | Female | Passenger | Severity: | Serious |
| Not a pupil |  |  |  |  |  |  |  |  |  |
| Back seat |  |  |  |  |  |  |  |  |  |

## Selection:

Notes:
Selected using Manual Selection


V1 HGV FOR UNKNOWN REASON HAS VEERED NEARSIDE INTO VERGE STRUCK TELEGRAPH POLE STRUCK HEDGEROW ENTERED FIELD AND OVERTURNED Occurred on A352 500 M W OF A353 BROADMAYNE DORCHESTER

Casualty Reference: $1 \quad$ Vehicle: $1 \quad$ Age: 41 Male $\quad$ Driver/rider $\quad$ Severity: Serious

Not a pupil Seatbelt

## Selection:

Notes:
Selected using Manual Selection

| A14D033864 | 29/07/2014 | Time | 2055 |  | Vehicles |  | 2 |  | Casualties | 5 | Slight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E:375034 N: | 85497 | First Road: |  | B 3390 |  |  |  |  | Single carri |  |  |
| Speed limit: 60 | Junction Detail: | Not within | n 20m | of junc | ction |  |  |  | ot applicable |  |  |

Crossing: Control None Facilities: None within 50m Road surface Dry

Daylight: no street lighting Special Conditions at Site None

Place accident reported:
Elsewhere
Facilities: None within 50 m Road surface Dry
Fine without high winds
Carriageway Hazards: None
DfT Special Projects:

V1 V2 COLLIDED BUT UNKNOWN EXACTLY WHERE OR HOW THERE WERE 3 X REPORTS OF DANGEROUS DRIVING IN RELATION TO V1 V2 FTS V1 APPEARS TO BE GIVING A DISHONEST ACCOUNT
Occurred on B3390 70M NE A352 WARMWELL CROSS DORCHESTER


| Accidents between dates | $\mathbf{0 1 / 0 6} / 2010$ | and | 31/05/2015 |
| :--- | :--- | :--- | :--- |

Selected using Manual Selection


## V1 COLLIDED WITH CYCLIST ON ROUNDABOUT <br> Occurred on A352 WARMWELL CROSS RAB JUNCTION WITH A352 BY-PASS DORCHESTER



Casualty Reference: $1 \quad$ Vehicle: $2 \quad$ Age: 53 Male Driver/rider $\quad$ Severity: Slight

Accidents between dates 01/06/2010 and 31/05/2015 (60) months

## Selection:

Selected using Manual Selection

Accidents involving:

|  | Fatal | Serious | Slight | Total |
| :--- | ---: | ---: | ---: | ---: |
| Motor vehicles <br> only (excluding <br> 2-wheels) | 0 | 1 | 2 | 3 |
| 2-wheeled motor <br> vehicles | 0 | 2 | 0 | 2 |
| Pedal cycles | 0 | 0 | 1 | 1 |
| Horses \& other | 0 | 0 | 0 | 0 |
| Total | 0 | 3 | 3 | 6 |

Casualties:

|  | Fatal | Serious | Slight | Total |
| :--- | ---: | ---: | ---: | ---: |
| Vehicle driver | 0 | 1 | 2 | 3 |
| Passenger | 0 | 2 | 4 | 6 |
| Motorcycle rider | 0 | 1 | 1 | 2 |
| Cyclist | 0 | 0 | 1 | 1 |
| Pedestrian | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |
| Total | 0 | 4 | 8 | 12 |

## Appendix D DCC Non-residential Parking Standards

## NON-RESIDENTIAL PARKING GUIDANCE

These are the suggested car and cycle parking guidelines that will meet the likely and operational requirements of various establishments and business uses.

The figures should be interpreted as an initial, pragmatic, County-wide guide. The specific level of parking provision included in any development proposal should be agreed through joint discussions between the Local Highway Authority, Local Planning Authority, developer and his/her consultants. The agreed level of provision will take account of, amongst other things:

- The location of the proposed development and the area that it serves.
- The travel demand that is likely to be generated as a result.
- Off-site constraints and opportunities that influence the functionality of the site for the use(s) proposed.
- Mitigation measures proposed, including the delivery and implementation of Travel Planning and provisions.
[For larger sites, these factors should be explored and quantified in the transport appraisal or assessment submitted as part of the planning application for the proposed development.]

| Use Class |  | Car and HGV Parking | Cycle Parking |
| :---: | :---: | :---: | :---: |
| A1 Retail | Food and non-Food Retail $<500 \mathrm{~m}^{2} \mathrm{GFA}$ | $\begin{aligned} & 1 \text { per } 20 \mathrm{~m}^{2} \\ & +1 \text { per } 100 \mathrm{~m}^{2} \text { for staff } \end{aligned}$ | 1 per $250 \mathrm{~m}^{2}$ |
| A1a | Non-Food Retail > 500m² GFA | $\begin{aligned} & 1 \text { per } 20 \mathrm{~m}^{2} \\ & +1 \text { per } 2 \text { Full-time staff } \\ & +1 \mathrm{HGV} \text { space per } 1000 \mathrm{~m}^{2} \end{aligned}$ | First $500 \mathrm{~m}^{2}$ at 1 per $250 \mathrm{~m}^{2}$, then 1 per $1000 \mathrm{~m}^{2}$ |
| A1b | Food Retail > 500m² GFA | $\begin{array}{\|l\|} \hline 1 \text { per } 14 \mathrm{~m}^{2} \\ +1 \text { per } 2 \text { Full-time staff } \\ +1 \text { HGV space per } 1000 \mathrm{~m}^{2} \\ \hline \end{array}$ | 1 per $350 \mathrm{~m}^{2}$ |
| A2 | Financial \& Professional Services/Banks/Estate Agents/Building Societies | 1 per 30m² | 1 per $125 \mathrm{~m}^{2}$ |
| A3/A4/A5 <br> Food and Drink | Restaurants/Cafes/Public Houses/Bars/Takeaways | $\begin{aligned} & 1 \text { per } 15 \mathrm{~m}^{2} \\ & +1 \text { per } 2 \text { Full-time staff } \end{aligned}$ | 1 per $100 \mathrm{~m}^{2}$ |
| B1 | Business Offices | 1 per 30m ${ }^{2}$ | 1 per $125 \mathrm{~m}^{2}$ |
| B2 | General Industrial | $\begin{aligned} & 1 \text { per } 30 \mathrm{~m}^{2} \\ & +1 \mathrm{HGV} \text { space per } 250 \mathrm{~m}^{2} \end{aligned}$ | 1 per 500m² |
| B8 | General Warehouse and Distribution | $\begin{aligned} & 1 \text { per } 200 \mathrm{~m}^{2} \\ & +1 \mathrm{HGV} \text { space per } 250 \mathrm{~m}^{2} \end{aligned}$ | 1 per 500m² |


| Use Class |  | Car and HGV Parking | Cycle Parking |
| :---: | :---: | :---: | :---: |
| C1 | Hotels and Hostels | 1 per bedroom <br> + 1 per 2 Full-time staff | Individual assessment |
| $\begin{aligned} & \text { C2 } \\ & \text { C2a } \end{aligned}$ | Residential Institutions and Hospitals | $\begin{aligned} & 1 \text { per } 4 \text { staff } \\ & +1 \text { per } 3 \text { visitors } \end{aligned}$ | Individual assessment |
| C2b | Nursing Homes/Care Homes | 1 per 4 beds <br> + 1 per 2 Full-time staff | Individual assessment |
| $\begin{aligned} & \text { D1 } \\ & \text { D1a } \end{aligned}$ | Non-Residential Institutions/Places of Worship/Church Halls/Public Halls | 1 per $5 \mathrm{~m}^{2}$ | Individual assessment |
| D1b | Clinics/Health Centres/Surgeries | 2 per consulting room <br> + 1 for every Full-time staff | Individual assessment |
| D1c | Libraries | 1 per $25 \mathrm{~m}^{2}$ | Individual assessment |
| D1d | Art Galleries and Museums | 1 per 40m² | Individual assessment |
| D1e \& f | Schools | 1 per 2 Full-time staff <br> + visitor + disabled provision | Individual assessment |
| $\begin{aligned} & \text { D2 } \\ & \text { D2a } \end{aligned}$ | Assembly and Leisure Cinemas/Conference Halls | 1 per 5 seats | Individual assessment |
| D2c | Function Rooms | 1 per $20 \mathrm{~m}^{2}$ | Individual assessment |
|  | Service stations | $\begin{aligned} & 1 \text { per } 2 \text { staff } \\ & +1 \text { per } 3 \text { service bays } \end{aligned}$ | Individual assessment |
|  | Car Dealerships (with external display) | 1 per 2 staff <br> + 1 per 10 forecourt cars <br> (+ consider transporter provision) | Individual assessment |
|  | Commercial Display Showrooms | $\begin{aligned} & 1 \text { per } 100 m^{2} \\ & +1 \text { per } 2 \text { Full-time staff } \end{aligned}$ | Individual assessment |

Motorcycle parking should be carefully considered in line with recommendations in Manual for Streets [Section 8.4 pages 112 and 113] - particularly in recognition of various accessibility initiatives of motor scooters for young people, etc.

## PLEASE NOTE

This guidance does not cover every potential use type or combination of mixed use development and the Highway Authority reserves the right to change, amend, or adjust these, or any other guidance figures to provide a sensible parking strategy.

## Appendix E TRICS Outputs

## TRIP RATE CALCULATI ON SELECTI ON PARAMETERS:

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

$\frac{\text { Selected regions and areas: }}{}$
02 SOUTH EAST
EX ESSEX
WS WEST SUSSEX
04 EAST ANGLIA
SF SUFFOLK
05 EAST MI DLANDS
LN LINCOLNSHIRE

```
1 days
1 days
1 days
1 days
```


## Filtering Stage $\mathbf{2}$ selection:

| Parameter: | Number of dwellings |
| :--- | :--- |
| Actual Range: | 150 to 237 (units: ) |
| Range Selected by User: | 150 to 491 (units: ) |
|  |  |
| Public Transport Provision: |  |
| Selection by: |  |

[^0]Date Range: $\quad 01 / 01 / 07$ to $11 / 12 / 14$

| Selected survey days: |
| :--- |
| Tuesday 2 days |


| Tuesday | 2 days |
| :--- | :--- |
| Thursday | 2 days |

Selected survey types:
Manual count 4 days

Directional ATC Count 0 days
Selected Locations:
Edge of Town
Selected Location Sub Categories:
Residential Zone

## Filtering Stage 3 selection:

| Use Class: |  |
| :---: | :---: |
| C3 | 4 days |
| Population within 1 mile: |  |
| 10,001 to 15,000 | 1 days |
| 15,001 to 20,000 | 2 days |
| 20,001 to 25,000 | 1 days |
| Population within 5 miles: |  |
| 75,001 to 100,000 | 1 days |
| 100,001 to 125,000 | 1 days |
| 125,001 to 250,000 | 2 days |
| Car ownership within 5 miles: |  |
| 0.6 to 1.0 | 1 days |
| 1.1 to 1.5 | 3 days |

## Filtering Stage 3 selection (Cont.):

Travel Plan:

| Yes | 1 days |
| :--- | :--- |
| 3 days |  |

## LIST OF SITES relevant to selection parameters

| 1 | EX-03-A-01 SEMI-DET. | ESSEX |
| :--- | :--- | :--- |
| MILTON ROAD |  |  |
|  | CORRINGHAM |  |
|  | STANFORD-LE-HOPE |  |
|  | Edge of Town |  |

Edge of Town
Residential Zone
Total Number of dwellings: 237
Survey date: TUESDAY 13/05/08
2 LN-03-A-01
MI XED HOUSES
BRANT ROAD
BRACEBRIDGE
LINCOLN
Edge of Town
Residential Zone
Total Number of dwellings: 150 Survey date: TUESDAY 15/05/07
3 SF-03-A-02
SEMI DET./TERRACED
STOKE PARK DRIVE
MAIDENHALL
IPSWICH
Edge of Town
Residential Zone
Total Number of dwellings: 230
Survey date: THURSDAY 24/05/07
4 WS-03-A-04 MI XED HOUSES
HILLS FARM LANE
BROADBRIDGE HEATH
HORSHAM
Edge of Town
Residential Zone
Total Number of dwellings: 151
Survey date: THURSDAY 11/12/14 Survey Type: MANUAL

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

|  | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time Range | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 4 | 192 | 0.109 | 4 | 192 | 0.322 | 4 | 192 | 0.431 |
| 08:00-09:00 | 4 | 192 | 0.191 | 4 | 192 | 0.449 | 4 | 192 | 0.640 |
| 09:00-10:00 | 4 | 192 | 0.185 | 4 | 192 | 0.206 | 4 | 192 | 0.391 |
| 10:00-11:00 | 4 | 192 | 0.152 | 4 | 192 | 0.221 | 4 | 192 | 0.373 |
| 11:00-12:00 | 4 | 192 | 0.199 | 4 | 192 | 0.174 | 4 | 192 | 0.373 |
| 12:00-13:00 | 4 | 192 | 0.184 | 4 | 192 | 0.193 | 4 | 192 | 0.377 |
| 13:00-14:00 | 4 | 192 | 0.201 | 4 | 192 | 0.169 | 4 | 192 | 0.370 |
| 14:00-15:00 | 4 | 192 | 0.190 | 4 | 192 | 0.186 | 4 | 192 | 0.376 |
| 15:00-16:00 | 4 | 192 | 0.365 | 4 | 192 | 0.250 | 4 | 192 | 0.615 |
| 16:00-17:00 | 4 | 192 | 0.307 | 4 | 192 | 0.202 | 4 | 192 | 0.509 |
| 17:00-18:00 | 4 | 192 | 0.409 | 4 | 192 | 0.224 | 4 | 192 | 0.633 |
| 18:00-19:00 | 4 | 192 | 0.262 | 4 | 192 | 0.210 | 4 | 192 | 0.472 |
| 19:00-20:00 |  |  |  |  |  |  |  |  |  |
| 20:00-21:00 |  |  |  |  |  |  |  |  |  |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 2.754 |  |  | 2.806 |  |  | 5.560 |

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys manually removed from selection:

150-237 (units: )
01/01/07-11/12/14
4
0
0 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 4 | 192 | 0.009 | 4 | 192 | 0.007 | 4 | 192 | 0.016 |
| 08:00-09:00 | 4 | 192 | 0.001 | 4 | 192 | 0.003 | 4 | 192 | 0.004 |
| 09:00-10:00 | 4 | 192 | 0.003 | 4 | 192 | 0.001 | 4 | 192 | 0.004 |
| 10:00-11:00 | 4 | 192 | 0.001 | 4 | 192 | 0.004 | 4 | 192 | 0.005 |
| 11:00-12:00 | 4 | 192 | 0.000 | 4 | 192 | 0.001 | 4 | 192 | 0.001 |
| 12:00-13:00 | 4 | 192 | 0.004 | 4 | 192 | 0.005 | 4 | 192 | 0.009 |
| 13:00-14:00 | 4 | 192 | 0.005 | 4 | 192 | 0.007 | 4 | 192 | 0.012 |
| 14:00-15:00 | 4 | 192 | 0.001 | 4 | 192 | 0.003 | 4 | 192 | 0.004 |
| 15:00-16:00 | 4 | 192 | 0.003 | 4 | 192 | 0.001 | 4 | 192 | 0.004 |
| 16:00-17:00 | 4 | 192 | 0.001 | 4 | 192 | 0.000 | 4 | 192 | 0.001 |
| 17:00-18:00 | 4 | 192 | 0.000 | 4 | 192 | 0.001 | 4 | 192 | 0.001 |
| 18:00-19:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 19:00-20:00 |  |  |  |  |  |  |  |  |  |
| 20:00-21:00 |  |  |  |  |  |  |  |  |  |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.028 |  |  | 0.033 |  |  | 0.061 |

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys manually removed from selection:

150-237 (units: )
01/01/07-11/12/14
4
0
0 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

|  | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time Range | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 08:00-09:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 09:00-10:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 10:00-11:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 11:00-12:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 12:00-13:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 13:00-14:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 14:00-15:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 15:00-16:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 16:00-17:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 17:00-18:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 18:00-19:00 | 4 | 192 | 0.000 | 4 | 192 | 0.000 | 4 | 192 | 0.000 |
| 19:00-20:00 |  |  |  |  |  |  |  |  |  |
| 20:00-21:00 |  |  |  |  |  |  |  |  |  |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.000 |  |  | 0.000 |  |  | 0.000 |

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys manually removed from selection:

150-237 (units: )
01/01/07-11/12/14
4
0
0 0

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

## MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

## BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 4 | 192 | 0.007 | 4 | 192 | 0.005 | 4 | 192 | 0.012 |
| 08:00-09:00 | 4 | 192 | 0.005 | 4 | 192 | 0.014 | 4 | 192 | 0.019 |
| 09:00-10:00 | 4 | 192 | 0.004 | 4 | 192 | 0.003 | 4 | 192 | 0.007 |
| 10:00-11:00 | 4 | 192 | 0.003 | 4 | 192 | 0.007 | 4 | 192 | 0.010 |
| 11:00-12:00 | 4 | 192 | 0.004 | 4 | 192 | 0.005 | 4 | 192 | 0.009 |
| 12:00-13:00 | 4 | 192 | 0.010 | 4 | 192 | 0.005 | 4 | 192 | 0.015 |
| 13:00-14:00 | 4 | 192 | 0.004 | 4 | 192 | 0.005 | 4 | 192 | 0.009 |
| 14:00-15:00 | 4 | 192 | 0.003 | 4 | 192 | 0.003 | 4 | 192 | 0.006 |
| 15:00-16:00 | 4 | 192 | 0.033 | 4 | 192 | 0.027 | 4 | 192 | 0.060 |
| 16:00-17:00 | 4 | 192 | 0.016 | 4 | 192 | 0.014 | 4 | 192 | 0.030 |
| 17:00-18:00 | 4 | 192 | 0.022 | 4 | 192 | 0.020 | 4 | 192 | 0.042 |
| 18:00-19:00 | 4 | 192 | 0.022 | 4 | 192 | 0.014 | 4 | 192 | 0.036 |
| 19:00-20:00 |  |  |  |  |  |  |  |  |  |
| 20:00-21:00 |  |  |  |  |  |  |  |  |  |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.133 |  |  | 0.122 |  |  | 0.255 |

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys manually removed from selection:

150-237 (units: )
01/01/07-11/12/14
4
0
0 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHI CLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

|  | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time Range | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 4 | 192 | 0.120 | 4 | 192 | 0.398 | 4 | 192 | 0.518 |
| 08:00-09:00 | 4 | 192 | 0.246 | 4 | 192 | 0.730 | 4 | 192 | 0.976 |
| 09:00-10:00 | 4 | 192 | 0.229 | 4 | 192 | 0.270 | 4 | 192 | 0.499 |
| 10:00-11:00 | 4 | 192 | 0.195 | 4 | 192 | 0.289 | 4 | 192 | 0.484 |
| 11:00-12:00 | 4 | 192 | 0.238 | 4 | 192 | 0.216 | 4 | 192 | 0.454 |
| 12:00-13:00 | 4 | 192 | 0.242 | 4 | 192 | 0.237 | 4 | 192 | 0.479 |
| 13:00-14:00 | 4 | 192 | 0.280 | 4 | 192 | 0.221 | 4 | 192 | 0.501 |
| 14:00-15:00 | 4 | 192 | 0.249 | 4 | 192 | 0.233 | 4 | 192 | 0.482 |
| 15:00-16:00 | 4 | 192 | 0.583 | 4 | 192 | 0.355 | 4 | 192 | 0.938 |
| 16:00-17:00 | 4 | 192 | 0.404 | 4 | 192 | 0.281 | 4 | 192 | 0.685 |
| 17:00-18:00 | 4 | 192 | 0.514 | 4 | 192 | 0.289 | 4 | 192 | 0.803 |
| 18:00-19:00 | 4 | 192 | 0.357 | 4 | 192 | 0.320 | 4 | 192 | 0.677 |
| 19:00-20:00 |  |  |  |  |  |  |  |  |  |
| 20:00-21:00 |  |  |  |  |  |  |  |  |  |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 3.657 |  |  | 3.839 |  |  | 7.496 |

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys manually removed from selection:

150-237 (units: )
01/01/07-11/12/14
4
0
0 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

|  | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time Range | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 4 | 192 | 0.049 | 4 | 192 | 0.077 | 4 | 192 | 0.126 |
| 08:00-09:00 | 4 | 192 | 0.072 | 4 | 192 | 0.186 | 4 | 192 | 0.258 |
| 09:00-10:00 | 4 | 192 | 0.055 | 4 | 192 | 0.078 | 4 | 192 | 0.133 |
| 10:00-11:00 | 4 | 192 | 0.052 | 4 | 192 | 0.043 | 4 | 192 | 0.095 |
| 11:00-12:00 | 4 | 192 | 0.039 | 4 | 192 | 0.051 | 4 | 192 | 0.090 |
| 12:00-13:00 | 4 | 192 | 0.035 | 4 | 192 | 0.030 | 4 | 192 | 0.065 |
| 13:00-14:00 | 4 | 192 | 0.036 | 4 | 192 | 0.033 | 4 | 192 | 0.069 |
| 14:00-15:00 | 4 | 192 | 0.064 | 4 | 192 | 0.059 | 4 | 192 | 0.123 |
| 15:00-16:00 | 4 | 192 | 0.270 | 4 | 192 | 0.086 | 4 | 192 | 0.356 |
| 16:00-17:00 | 4 | 192 | 0.112 | 4 | 192 | 0.076 | 4 | 192 | 0.188 |
| 17:00-18:00 | 4 | 192 | 0.064 | 4 | 192 | 0.073 | 4 | 192 | 0.137 |
| 18:00-19:00 | 4 | 192 | 0.072 | 4 | 192 | 0.074 | 4 | 192 | 0.146 |
| 19:00-20:00 |  |  |  |  |  |  |  |  |  |
| 20:00-21:00 |  |  |  |  |  |  |  |  |  |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.920 |  |  | 0.866 |  |  | 1.786 |

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys manually removed from selection:

150-237 (units: )
01/01/07-11/12/14
4
0
0 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 4 | 192 | 0.000 | 4 | 192 | 0.008 | 4 | 192 | 0.008 |
| 08:00-09:00 | 4 | 192 | 0.005 | 4 | 192 | 0.016 | 4 | 192 | 0.021 |
| 09:00-10:00 | 4 | 192 | 0.005 | 4 | 192 | 0.013 | 4 | 192 | 0.018 |
| 10:00-11:00 | 4 | 192 | 0.003 | 4 | 192 | 0.009 | 4 | 192 | 0.012 |
| 11:00-12:00 | 4 | 192 | 0.001 | 4 | 192 | 0.012 | 4 | 192 | 0.013 |
| 12:00-13:00 | 4 | 192 | 0.009 | 4 | 192 | 0.009 | 4 | 192 | 0.018 |
| 13:00-14:00 | 4 | 192 | 0.009 | 4 | 192 | 0.000 | 4 | 192 | 0.009 |
| 14:00-15:00 | 4 | 192 | 0.008 | 4 | 192 | 0.001 | 4 | 192 | 0.009 |
| 15:00-16:00 | 4 | 192 | 0.010 | 4 | 192 | 0.010 | 4 | 192 | 0.020 |
| 16:00-17:00 | 4 | 192 | 0.026 | 4 | 192 | 0.004 | 4 | 192 | 0.030 |
| 17:00-18:00 | 4 | 192 | 0.021 | 4 | 192 | 0.013 | 4 | 192 | 0.034 |
| 18:00-19:00 | 4 | 192 | 0.004 | 4 | 192 | 0.001 | 4 | 192 | 0.005 |
| 19:00-20:00 |  |  |  |  |  |  |  |  |  |
| 20:00-21:00 |  |  |  |  |  |  |  |  |  |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.101 |  |  | 0.096 |  |  | 0.197 |

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys manually removed from selection:

150-237 (units: )
01/01/07-11/12/14
4
0
0 0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 4 | 192 | 0.176 | 4 | 192 | 0.488 | 4 | 192 | 0.664 |
| 08:00-09:00 | 4 | 192 | 0.328 | 4 | 192 | 0.947 | 4 | 192 | 1.275 |
| 09:00-10:00 | 4 | 192 | 0.293 | 4 | 192 | 0.363 | 4 | 192 | 0.656 |
| 10:00-11:00 | 4 | 192 | 0.253 | 4 | 192 | 0.348 | 4 | 192 | 0.601 |
| 11:00-12:00 | 4 | 192 | 0.283 | 4 | 192 | 0.284 | 4 | 192 | 0.567 |
| 12:00-13:00 | 4 | 192 | 0.297 | 4 | 192 | 0.281 | 4 | 192 | 0.578 |
| 13:00-14:00 | 4 | 192 | 0.329 | 4 | 192 | 0.259 | 4 | 192 | 0.588 |
| 14:00-15:00 | 4 | 192 | 0.323 | 4 | 192 | 0.296 | 4 | 192 | 0.619 |
| 15:00-16:00 | 4 | 192 | 0.896 | 4 | 192 | 0.479 | 4 | 192 | 1.375 |
| 16:00-17:00 | 4 | 192 | 0.557 | 4 | 192 | 0.375 | 4 | 192 | 0.932 |
| 17:00-18:00 | 4 | 192 | 0.621 | 4 | 192 | 0.395 | 4 | 192 | 1.016 |
| 18:00-19:00 | 4 | 192 | 0.454 | 4 | 192 | 0.410 | 4 | 192 | 0.864 |
| 19:00-20:00 |  |  |  |  |  |  |  |  |  |
| 20:00-21:00 |  |  |  |  |  |  |  |  |  |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 4.810 |  |  | 4.925 |  |  | 9.735 |

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys manually removed from selection:

150-237 (units: )
01/01/07-11/12/14
4
0
0 0

```
TRICS 7.2.2 160615 B17.20 \(\quad\) (C) 2015 TRICS Consortium Ltd

\section*{TRI P RATE CALCULATI ON SELECTI ON PARAMETERS:}

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
MULTI-MODAL VEHICLES

\section*{Selected regions and areas:}

\section*{02 SOUTH EAST}
\begin{tabular}{ll} 
HC HAMPSHIRE & 1 days \\
KC KENT & 3 days \\
SC SURREY & 1 days \\
NORTH & 1 days \\
DH DURHAM & 2 days \\
TW TYNE \& WEAR & \\
SCOTLAND & 1 days
\end{tabular}

\section*{Filtering Stage 2 selection:}
\begin{tabular}{ll} 
Parameter: & Gross floor area \\
Actual Range: & 2000 to 19974 (units: sqm) \\
Range Selected by User: & 1000 to 20000 (units: sqm) \\
& \\
Public Transport Provision: & \\
Selection by: &
\end{tabular}

\footnotetext{
Include all surveys
}

Date Range: \(\quad 01 / 01 / 07\) to \(27 / 02 / 14\)
Selected survey days:
\begin{tabular}{ll}
\hline Monday & 3 days \\
Tuesday & 4 days \\
Wednesday & 1 days \\
Thursday & 1 days
\end{tabular}

Selected survey types:
Manual count 9 days
Directional ATC Count 0 days
Selected Locations:
Edge of Town 9
Selected Location Sub Categories:
Industrial Zone 3
Commercial Zone 4
Development Zone 1
Residential Zone 1

Filtering Stage \(\mathbf{3}\) selection:
Use Class:
9 days

Population within 1 mile:
Not Known 1 days

5,001 to \(10,000 \quad 2\) days
10,001 to \(15,000 \quad 4\) days
15,001 to \(20,000 \quad 1\) days
25,001 to \(50,000 \quad 1\) days

\section*{Filtering Stage 3 selection (Cont.):}

Population within 5 miles:
Not Known 1 days

75,001 to \(100,000 \quad 3\) days
100,001 to 125,000
125,001 to 250,000
1 days
1 days
250,001 to 500,000
3 days
Car ownership within 5 miles:
0.6 to 1.0

5 days
1.1 to 1.5

4 days

Travel Plan:
Yes 5 days
No 4 days

\section*{LIST OF SITES relevant to selection parameters}

1 DH-02-A-02
CONSTRUCTI ON COMPANY
DURHAM ROAD
BOWBURN
NEAR DURHAM
Edge of Town
Industrial Zone
Total Gross floor area: 2000 sqm
Survey date: TUESDAY 27/11/12
2 HC-02-A-10 DIY CO. HQ
TEMPLAR'S WAY
HAMPSHIRE CORP. PARK
CHANDLER'S FORD
Edge of Town
Commercial Zone
Total Gross floor area: Survey date: MONDAY 20/10/08
3 HI-02-A-03 OFFICE
HIGHLANDER WAY
INVERNESS
Edge of Town
Development Zone
Total Gross floor area: 5400 sqm Survey date: WEDNESDAY 20/05/09
4 KC-02-A-06
LAND REGI STRY
FOREST ROAD
CAMDEN PARK
TUNBRIDGE WELLS
Edge of Town
Residential Zone
Total Gross floor area: 5677 sqm
Survey date: TUESDAY 01/12/09
5 KC-02-A-07
KCC HI GHWAYS REG.
KAVELIN WAY
HENWOOD IND. ESTATE
ASHFORD
Edge of Town
Commercial Zone
Total Gross floor area: 2525 sqm
Survey date: MONDAY 05/12/11
6 KC-02-A-08
KCC HI GHWAYS REG. OFFI CE
ST MICHAEL'S CLOSE
CLAY WOOD
AYLESFORD
Edge of Town
Industrial Zone
Total Gross floor area:
Survey date: MONDAY
3168 sqm 28/11/11

DURHAM

Survey Type: MANUAL HAMPSHI RE

Survey Type: MANUAL

\section*{HI GHLAND}

Survey Type: MANUAL

\section*{KENT}

Survey Type: MANUAL

\section*{KENT}

Survey Type: MANUAL

\section*{KENT}

Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

7 SC-02-A-14 UNI LEVER
SPRINGFIELD DRIVE
LEATHERHEAD
Edge of Town
Commercial Zone
Total Gross floor area: 19974 sqm Survey date: TUESDAY 10/03/09
8 TW-02-A-03 DEVELOPMENT AGENCY
KINGFISHER BOULEVARD
LEMINGTON
NEWCASTLE UPON TYNE
Edge of Town
Commercial Zone
Total Gross floor area:
Survey date: THURSDAY
6480 sqm 11/12/08
9 TW-02-A-04 HOUSING CO.
EARLSWAY
TEAM VALLEY TRAD. EST.
GATESHEAD
Edge of Town
Industrial Zone
Total Gross floor area: 2500 sqm Survey date: TUESDAY 29/09/09

SURREY

Survey Type: MANUAL TYNE \& WEAR

Survey Type: MANUAL TYNE \& WEAR

Survey Type: MANUAL

\section*{TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE}

MULTI-MODAL VEHI CLES
Calculation factor: \(\mathbf{1 0 0}\) sqm
BOLD print indicates peak (busiest) period
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Time Range} & \multicolumn{3}{|c|}{ARRIVALS} & \multicolumn{3}{|c|}{DEPARTURES} & \multicolumn{3}{|c|}{TOTALS} \\
\hline & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate \\
\hline 00:00-01:00 & & & & & & & & & \\
\hline 01:00-02:00 & & & & & & & & & \\
\hline 02:00-03:00 & & & & & & & & & \\
\hline 03:00-04:00 & & & & & & & & & \\
\hline 04:00-05:00 & & & & & & & & & \\
\hline 05:00-06:00 & 1 & 19974 & 0.020 & 1 & 19974 & 0.010 & 1 & 19974 & 0.030 \\
\hline 06:00-07:00 & 1 & 19974 & 0.175 & 1 & 19974 & 0.030 & 1 & 19974 & 0.205 \\
\hline 07:00-08:00 & 9 & 7078 & 0.871 & 9 & 7078 & 0.102 & 9 & 7078 & 0.973 \\
\hline 08:00-09:00 & 9 & 7078 & 1.854 & 9 & 7078 & 0.187 & 9 & 7078 & 2.041 \\
\hline 09:00-10:00 & 9 & 7078 & 0.882 & 9 & 7078 & 0.184 & 9 & 7078 & 1.066 \\
\hline 10:00-11:00 & 9 & 7078 & 0.330 & 9 & 7078 & 0.187 & 9 & 7078 & 0.517 \\
\hline 11:00-12:00 & 9 & 7078 & 0.193 & 9 & 7078 & 0.207 & 9 & 7078 & 0.400 \\
\hline 12:00-13:00 & 9 & 7078 & 0.259 & 9 & 7078 & 0.389 & 9 & 7078 & 0.648 \\
\hline 13:00-14:00 & 9 & 7078 & 0.429 & 9 & 7078 & 0.256 & 9 & 7078 & 0.685 \\
\hline 14:00-15:00 & 9 & 7078 & 0.245 & 9 & 7078 & 0.265 & 9 & 7078 & 0.510 \\
\hline 15:00-16:00 & 9 & 7078 & 0.218 & 9 & 7078 & 0.462 & 9 & 7078 & 0.680 \\
\hline 16:00-17:00 & 9 & 7078 & 0.179 & 9 & 7078 & 0.981 & 9 & 7078 & 1.160 \\
\hline 17:00-18:00 & 9 & 7078 & 0.133 & 9 & 7078 & 1.695 & 9 & 7078 & 1.828 \\
\hline 18:00-19:00 & 9 & 7078 & 0.049 & 9 & 7078 & 0.677 & 9 & 7078 & 0.726 \\
\hline 19:00-20:00 & & & & & & & & & \\
\hline 20:00-21:00 & & & & & & & & & \\
\hline 21:00-22:00 & & & & & & & & & \\
\hline 22:00-23:00 & & & & & & & & & \\
\hline 23:00-24:00 & & & & & & & & & \\
\hline Total Rates: & & & 5.837 & & & 5.632 & & & 11.469 \\
\hline
\end{tabular}

\section*{Parameter summary}
\begin{tabular}{ll} 
Trip rate parameter range selected: & 2000-19974 (units: sqm) \\
Survey date date range: & \(01 / 01 / 07-27 / 02 / 14\) \\
Number of weekdays (Monday-Friday): & 9 \\
Number of Saturdays: & 0 \\
Number of Sundays: & 0 \\
Surveys manually removed from selection: & 0
\end{tabular}

\section*{TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE}

\section*{MULTI-MODAL PSVS}

\section*{Calculation factor: \(\mathbf{1 0 0} \mathbf{~ s q m}\)}

BOLD print indicates peak (busiest) period
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Time Range} & \multicolumn{3}{|c|}{ARRIVALS} & \multicolumn{3}{|c|}{DEPARTURES} & \multicolumn{3}{|c|}{TOTALS} \\
\hline & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate \\
\hline 00:00-01:00 & & & & & & & & & \\
\hline 01:00-02:00 & & & & & & & & & \\
\hline 02:00-03:00 & & & & & & & & & \\
\hline 03:00-04:00 & & & & & & & & & \\
\hline 04:00-05:00 & & & & & & & & & \\
\hline 05:00-06:00 & 1 & 19974 & 0.000 & 1 & 19974 & 0.000 & 1 & 19974 & 0.000 \\
\hline 06:00-07:00 & 1 & 19974 & 0.010 & 1 & 19974 & 0.010 & 1 & 19974 & 0.020 \\
\hline 07:00-08:00 & 9 & 7078 & 0.008 & 9 & 7078 & 0.006 & 9 & 7078 & 0.014 \\
\hline 08:00-09:00 & 9 & 7078 & 0.014 & 9 & 7078 & 0.013 & 9 & 7078 & 0.027 \\
\hline 09:00-10:00 & 9 & 7078 & 0.016 & 9 & 7078 & 0.014 & 9 & 7078 & 0.030 \\
\hline 10:00-11:00 & 9 & 7078 & 0.013 & 9 & 7078 & 0.013 & 9 & 7078 & 0.026 \\
\hline 11:00-12:00 & 9 & 7078 & 0.009 & 9 & 7078 & 0.009 & 9 & 7078 & 0.018 \\
\hline 12:00-13:00 & 9 & 7078 & 0.014 & 9 & 7078 & 0.014 & 9 & 7078 & 0.028 \\
\hline 13:00-14:00 & 9 & 7078 & 0.016 & 9 & 7078 & 0.014 & 9 & 7078 & 0.030 \\
\hline 14:00-15:00 & 9 & 7078 & 0.013 & 9 & 7078 & 0.014 & 9 & 7078 & 0.027 \\
\hline 15:00-16:00 & 9 & 7078 & 0.016 & 9 & 7078 & 0.016 & 9 & 7078 & 0.032 \\
\hline 16:00-17:00 & 9 & 7078 & 0.011 & 9 & 7078 & 0.016 & 9 & 7078 & 0.027 \\
\hline 17:00-18:00 & 9 & 7078 & 0.013 & 9 & 7078 & 0.009 & 9 & 7078 & 0.022 \\
\hline 18:00-19:00 & 9 & 7078 & 0.006 & 9 & 7078 & 0.011 & 9 & 7078 & 0.017 \\
\hline 19:00-20:00 & & & & & & & & & \\
\hline 20:00-21:00 & & & & & & & & & \\
\hline 21:00-22:00 & & & & & & & & & \\
\hline 22:00-23:00 & & & & & & & & & \\
\hline 23:00-24:00 & & & & & & & & & \\
\hline Total Rates: & & & 0.159 & & & 0.159 & & & 0.318 \\
\hline
\end{tabular}

\section*{Parameter summary}
\begin{tabular}{ll} 
Trip rate parameter range selected: & 2000-19974 (units: sqm) \\
Survey date date range: & \(01 / 01 / 07-27 / 02 / 14\) \\
Number of weekdays (Monday-Friday): & 9 \\
Number of Saturdays: & 0 \\
Number of Sundays: & 0 \\
Surveys manually removed from selection: & 0
\end{tabular}

\section*{TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE}

MULTI-MODAL CYCLISTS
Calculation factor: \(\mathbf{1 0 0}\) sqm
BOLD print indicates peak (busiest) period
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Time Range} & \multicolumn{3}{|c|}{ARRIVALS} & \multicolumn{3}{|c|}{DEPARTURES} & \multicolumn{3}{|c|}{TOTALS} \\
\hline & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate \\
\hline 00:00-01:00 & & & & & & & & & \\
\hline 01:00-02:00 & & & & & & & & & \\
\hline 02:00-03:00 & & & & & & & & & \\
\hline 03:00-04:00 & & & & & & & & & \\
\hline 04:00-05:00 & & & & & & & & & \\
\hline 05:00-06:00 & 1 & 19974 & 0.000 & 1 & 19974 & 0.000 & 1 & 19974 & 0.000 \\
\hline 06:00-07:00 & 1 & 19974 & 0.005 & 1 & 19974 & 0.000 & 1 & 19974 & 0.005 \\
\hline 07:00-08:00 & 9 & 7078 & 0.025 & 9 & 7078 & 0.005 & 9 & 7078 & 0.030 \\
\hline 08:00-09:00 & 9 & 7078 & 0.058 & 9 & 7078 & 0.000 & 9 & 7078 & 0.058 \\
\hline 09:00-10:00 & 9 & 7078 & 0.016 & 9 & 7078 & 0.000 & 9 & 7078 & 0.016 \\
\hline 10:00-11:00 & 9 & 7078 & 0.000 & 9 & 7078 & 0.000 & 9 & 7078 & 0.000 \\
\hline 11:00-12:00 & 9 & 7078 & 0.000 & 9 & 7078 & 0.000 & 9 & 7078 & 0.000 \\
\hline 12:00-13:00 & 9 & 7078 & 0.000 & 9 & 7078 & 0.005 & 9 & 7078 & 0.005 \\
\hline 13:00-14:00 & 9 & 7078 & 0.006 & 9 & 7078 & 0.000 & 9 & 7078 & 0.006 \\
\hline 14:00-15:00 & 9 & 7078 & 0.000 & 9 & 7078 & 0.002 & 9 & 7078 & 0.002 \\
\hline 15:00-16:00 & 9 & 7078 & 0.000 & 9 & 7078 & 0.008 & 9 & 7078 & 0.008 \\
\hline 16:00-17:00 & 9 & 7078 & 0.002 & 9 & 7078 & 0.011 & 9 & 7078 & 0.013 \\
\hline 17:00-18:00 & 9 & 7078 & 0.000 & 9 & 7078 & 0.047 & 9 & 7078 & 0.047 \\
\hline 18:00-19:00 & 9 & 7078 & 0.000 & 9 & 7078 & 0.019 & 9 & 7078 & 0.019 \\
\hline 19:00-20:00 & & & & & & & & & \\
\hline 20:00-21:00 & & & & & & & & & \\
\hline 21:00-22:00 & & & & & & & & & \\
\hline 22:00-23:00 & & & & & & & & & \\
\hline 23:00-24:00 & & & & & & & & & \\
\hline Total Rates: & & & 0.112 & & & 0.097 & & & 0.209 \\
\hline
\end{tabular}

\section*{Parameter summary}
\begin{tabular}{ll} 
Trip rate parameter range selected: & 2000-19974 (units: sqm) \\
Survey date date range: & \(01 / 01 / 07-27 / 02 / 14\) \\
Number of weekdays (Monday-Friday): & 9 \\
Number of Saturdays: & 0 \\
Number of Sundays: & 0 \\
Surveys manually removed from selection: & 0
\end{tabular}

\section*{TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE}

MULTI-MODAL VEHI CLE OCCUPANTS

\section*{Calculation factor: \(\mathbf{1 0 0}\) sqm}

BOLD print indicates peak (busiest) period
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Time Range} & \multicolumn{3}{|c|}{ARRIVALS} & \multicolumn{3}{|c|}{DEPARTURES} & \multicolumn{3}{|c|}{TOTALS} \\
\hline & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate \\
\hline 00:00-01:00 & & & & & & & & & \\
\hline 01:00-02:00 & & & & & & & & & \\
\hline 02:00-03:00 & & & & & & & & & \\
\hline 03:00-04:00 & & & & & & & & & \\
\hline 04:00-05:00 & & & & & & & & & \\
\hline 05:00-06:00 & 1 & 19974 & 0.035 & 1 & 19974 & 0.015 & 1 & 19974 & 0.050 \\
\hline 06:00-07:00 & 1 & 19974 & 0.200 & 1 & 19974 & 0.030 & 1 & 19974 & 0.230 \\
\hline 07:00-08:00 & 9 & 7078 & 0.948 & 9 & 7078 & 0.082 & 9 & 7078 & 1.030 \\
\hline 08:00-09:00 & 9 & 7078 & 2.008 & 9 & 7078 & 0.144 & 9 & 7078 & 2.152 \\
\hline 09:00-10:00 & 9 & 7078 & 0.931 & 9 & 7078 & 0.190 & 9 & 7078 & 1.121 \\
\hline 10:00-11:00 & 9 & 7078 & 0.367 & 9 & 7078 & 0.204 & 9 & 7078 & 0.571 \\
\hline 11:00-12:00 & 9 & 7078 & 0.228 & 9 & 7078 & 0.234 & 9 & 7078 & 0.462 \\
\hline 12:00-13:00 & 9 & 7078 & 0.279 & 9 & 7078 & 0.446 & 9 & 7078 & 0.725 \\
\hline 13:00-14:00 & 9 & 7078 & 0.502 & 9 & 7078 & 0.283 & 9 & 7078 & 0.785 \\
\hline 14:00-15:00 & 9 & 7078 & 0.292 & 9 & 7078 & 0.289 & 9 & 7078 & 0.581 \\
\hline 15:00-16:00 & 9 & 7078 & 0.231 & 9 & 7078 & 0.510 & 9 & 7078 & 0.741 \\
\hline 16:00-17:00 & 9 & 7078 & 0.199 & 9 & 7078 & 1.075 & 9 & 7078 & 1.274 \\
\hline 17:00-18:00 & 9 & 7078 & 0.116 & 9 & 7078 & 1.878 & 9 & 7078 & 1.994 \\
\hline 18:00-19:00 & 9 & 7078 & 0.047 & 9 & 7078 & 0.752 & 9 & 7078 & 0.799 \\
\hline 19:00-20:00 & & & & & & & & & \\
\hline 20:00-21:00 & & & & & & & & & \\
\hline 21:00-22:00 & & & & & & & & & \\
\hline 22:00-23:00 & & & & & & & & & \\
\hline 23:00-24:00 & & & & & & & & & \\
\hline Total Rates: & & & 6.383 & & & 6.132 & & & 12.515 \\
\hline
\end{tabular}

\section*{Parameter summary}
\begin{tabular}{ll} 
Trip rate parameter range selected: & 2000-19974 (units: sqm) \\
Survey date date range: & \(01 / 01 / 07-27 / 02 / 14\) \\
Number of weekdays (Monday-Friday): & 9 \\
Number of Saturdays: & 0 \\
Number of Sundays: & 0 \\
Surveys manually removed from selection: & 0
\end{tabular}

\section*{TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE}

\section*{MULTI-MODAL PEDESTRI ANS}

\section*{Calculation factor: \(\mathbf{1 0 0}\) sqm}

BOLD print indicates peak (busiest) period
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Time Range} & \multicolumn{3}{|c|}{ARRIVALS} & \multicolumn{3}{|c|}{DEPARTURES} & \multicolumn{3}{|c|}{TOTALS} \\
\hline & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate \\
\hline 00:00-01:00 & & & & & & & & & \\
\hline 01:00-02:00 & & & & & & & & & \\
\hline 02:00-03:00 & & & & & & & & & \\
\hline 03:00-04:00 & & & & & & & & & \\
\hline 04:00-05:00 & & & & & & & & & \\
\hline 05:00-06:00 & 1 & 19974 & 0.000 & 1 & 19974 & 0.000 & 1 & 19974 & 0.000 \\
\hline 06:00-07:00 & 1 & 19974 & 0.020 & 1 & 19974 & 0.000 & 1 & 19974 & 0.020 \\
\hline 07:00-08:00 & 9 & 7078 & 0.042 & 9 & 7078 & 0.003 & 9 & 7078 & 0.045 \\
\hline 08:00-09:00 & 9 & 7078 & 0.132 & 9 & 7078 & 0.009 & 9 & 7078 & 0.141 \\
\hline 09:00-10:00 & 9 & 7078 & 0.066 & 9 & 7078 & 0.036 & 9 & 7078 & 0.102 \\
\hline 10:00-11:00 & 9 & 7078 & 0.055 & 9 & 7078 & 0.074 & 9 & 7078 & 0.129 \\
\hline 11:00-12:00 & 9 & 7078 & 0.066 & 9 & 7078 & 0.100 & 9 & 7078 & 0.166 \\
\hline 12:00-13:00 & 9 & 7078 & 0.237 & 9 & 7078 & 0.322 & 9 & 7078 & 0.559 \\
\hline 13:00-14:00 & 9 & 7078 & 0.276 & 9 & 7078 & 0.143 & 9 & 7078 & 0.419 \\
\hline 14:00-15:00 & 9 & 7078 & 0.122 & 9 & 7078 & 0.078 & 9 & 7078 & 0.200 \\
\hline 15:00-16:00 & 9 & 7078 & 0.046 & 9 & 7078 & 0.072 & 9 & 7078 & 0.118 \\
\hline 16:00-17:00 & 9 & 7078 & 0.024 & 9 & 7078 & 0.121 & 9 & 7078 & 0.145 \\
\hline 17:00-18:00 & 9 & 7078 & 0.016 & 9 & 7078 & 0.094 & 9 & 7078 & 0.110 \\
\hline 18:00-19:00 & 9 & 7078 & 0.009 & 9 & 7078 & 0.014 & 9 & 7078 & 0.023 \\
\hline 19:00-20:00 & & & & & & & & & \\
\hline 20:00-21:00 & & & & & & & & & \\
\hline 21:00-22:00 & & & & & & & & & \\
\hline 22:00-23:00 & & & & & & & & & \\
\hline 23:00-24:00 & & & & & & & & & \\
\hline Total Rates: & & & 1.111 & & & 1.066 & & & 2.177 \\
\hline
\end{tabular}

\section*{Parameter summary}
\begin{tabular}{ll} 
Trip rate parameter range selected: & 2000-19974 (units: sqm) \\
Survey date date range: & \(01 / 01 / 07-27 / 02 / 14\) \\
Number of weekdays (Monday-Friday): & 9 \\
Number of Saturdays: & 0 \\
Number of Sundays: & 0 \\
Surveys manually removed from selection: & 0
\end{tabular}

\section*{TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE}

MULTI-MODAL PUBLIC TRANSPORT USERS

\section*{Calculation factor: \(\mathbf{1 0 0}\) sqm}

BOLD print indicates peak (busiest) period
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Time Range} & \multicolumn{3}{|c|}{ARRIVALS} & \multicolumn{3}{|c|}{DEPARTURES} & \multicolumn{3}{|c|}{TOTALS} \\
\hline & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate & \begin{tabular}{l}
No. \\
Days
\end{tabular} & Ave. GFA & Trip Rate \\
\hline 00:00-01:00 & & & & & & & & & \\
\hline 01:00-02:00 & & & & & & & & & \\
\hline 02:00-03:00 & & & & & & & & & \\
\hline 03:00-04:00 & & & & & & & & & \\
\hline 04:00-05:00 & & & & & & & & & \\
\hline 05:00-06:00 & 1 & 19974 & 0.000 & 1 & 19974 & 0.000 & 1 & 19974 & 0.000 \\
\hline 06:00-07:00 & 1 & 19974 & 0.025 & 1 & 19974 & 0.005 & 1 & 19974 & 0.030 \\
\hline 07:00-08:00 & 9 & 7078 & 0.063 & 9 & 7078 & 0.002 & 9 & 7078 & 0.065 \\
\hline 08:00-09:00 & 9 & 7078 & 0.265 & 9 & 7078 & 0.000 & 9 & 7078 & 0.265 \\
\hline 09:00-10:00 & 9 & 7078 & 0.140 & 9 & 7078 & 0.003 & 9 & 7078 & 0.143 \\
\hline 10:00-11:00 & 9 & 7078 & 0.017 & 9 & 7078 & 0.000 & 9 & 7078 & 0.017 \\
\hline 11:00-12:00 & 9 & 7078 & 0.014 & 9 & 7078 & 0.005 & 9 & 7078 & 0.019 \\
\hline 12:00-13:00 & 9 & 7078 & 0.019 & 9 & 7078 & 0.031 & 9 & 7078 & 0.050 \\
\hline 13:00-14:00 & 9 & 7078 & 0.025 & 9 & 7078 & 0.013 & 9 & 7078 & 0.038 \\
\hline 14:00-15:00 & 9 & 7078 & 0.006 & 9 & 7078 & 0.030 & 9 & 7078 & 0.036 \\
\hline 15:00-16:00 & 9 & 7078 & 0.027 & 9 & 7078 & 0.025 & 9 & 7078 & 0.052 \\
\hline 16:00-17:00 & 9 & 7078 & 0.000 & 9 & 7078 & 0.162 & 9 & 7078 & 0.162 \\
\hline 17:00-18:00 & 9 & 7078 & 0.005 & 9 & 7078 & 0.237 & 9 & 7078 & 0.242 \\
\hline 18:00-19:00 & 9 & 7078 & 0.000 & 9 & 7078 & 0.116 & 9 & 7078 & 0.116 \\
\hline 19:00-20:00 & & & & & & & & & \\
\hline 20:00-21:00 & & & & & & & & & \\
\hline 21:00-22:00 & & & & & & & & & \\
\hline 22:00-23:00 & & & & & & & & & \\
\hline 23:00-24:00 & & & & & & & & & \\
\hline Total Rates: & & & 0.606 & & & 0.629 & & & 1.235 \\
\hline
\end{tabular}

\section*{Parameter summary}
\begin{tabular}{ll} 
Trip rate parameter range selected: & 2000-19974 (units: sqm) \\
Survey date date range: & \(01 / 01 / 07-27 / 02 / 14\) \\
Number of weekdays (Monday-Friday): & 9 \\
Number of Saturdays: & 0 \\
Number of Sundays: & 0 \\
Surveys manually removed from selection: & 0
\end{tabular}

\section*{TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE}

\section*{MULTI-MODAL TOTAL PEOPLE}

\section*{Calculation factor: \(\mathbf{1 0 0} \mathbf{~ s q m}\)}

BOLD print indicates peak (busiest) period
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Time Range} & \multicolumn{3}{|c|}{ARRIVALS} & \multicolumn{3}{|c|}{DEPARTURES} & \multicolumn{3}{|c|}{TOTALS} \\
\hline & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate & No. Days & Ave. GFA & Trip Rate \\
\hline 00:00-01:00 & & & & & & & & & \\
\hline 01:00-02:00 & & & & & & & & & \\
\hline 02:00-03:00 & & & & & & & & & \\
\hline 03:00-04:00 & & & & & & & & & \\
\hline 04:00-05:00 & & & & & & & & & \\
\hline 05:00-06:00 & 1 & 19974 & 0.035 & 1 & 19974 & 0.015 & 1 & 19974 & 0.050 \\
\hline 06:00-07:00 & 1 & 19974 & 0.250 & 1 & 19974 & 0.035 & 1 & 19974 & 0.285 \\
\hline 07:00-08:00 & 9 & 7078 & 1.079 & 9 & 7078 & 0.091 & 9 & 7078 & 1.170 \\
\hline 08:00-09:00 & 9 & 7078 & 2.463 & 9 & 7078 & 0.154 & 9 & 7078 & 2.617 \\
\hline 09:00-10:00 & 9 & 7078 & 1.152 & 9 & 7078 & 0.229 & 9 & 7078 & 1.381 \\
\hline 10:00-11:00 & 9 & 7078 & 0.440 & 9 & 7078 & 0.278 & 9 & 7078 & 0.718 \\
\hline 11:00-12:00 & 9 & 7078 & 0.308 & 9 & 7078 & 0.339 & 9 & 7078 & 0.647 \\
\hline 12:00-13:00 & 9 & 7078 & 0.535 & 9 & 7078 & 0.804 & 9 & 7078 & 1.339 \\
\hline 13:00-14:00 & 9 & 7078 & 0.810 & 9 & 7078 & 0.438 & 9 & 7078 & 1.248 \\
\hline 14:00-15:00 & 9 & 7078 & 0.421 & 9 & 7078 & 0.399 & 9 & 7078 & 0.820 \\
\hline 15:00-16:00 & 9 & 7078 & 0.303 & 9 & 7078 & 0.615 & 9 & 7078 & 0.918 \\
\hline 16:00-17:00 & 9 & 7078 & 0.224 & 9 & 7078 & 1.369 & 9 & 7078 & 1.593 \\
\hline 17:00-18:00 & 9 & 7078 & 0.137 & 9 & 7078 & 2.256 & 9 & 7078 & 2.393 \\
\hline 18:00-19:00 & 9 & 7078 & 0.057 & 9 & 7078 & 0.901 & 9 & 7078 & 0.958 \\
\hline 19:00-20:00 & & & & & & & & & \\
\hline 20:00-21:00 & & & & & & & & & \\
\hline 21:00-22:00 & & & & & & & & & \\
\hline 22:00-23:00 & & & & & & & & & \\
\hline 23:00-24:00 & & & & & & & & & \\
\hline Total Rates: & & & 8.214 & & & 7.923 & & & 16.137 \\
\hline
\end{tabular}

\section*{Parameter summary}
\begin{tabular}{ll} 
Trip rate parameter range selected: & 2000-19974 (units: sqm) \\
Survey date date range: & \(01 / 01 / 07-27 / 02 / 14\) \\
Number of weekdays (Monday-Friday): & 9 \\
Number of Saturdays: & 0 \\
Number of Sundays: & 0 \\
Surveys manually removed from selection: & 0
\end{tabular}

\section*{Appendix F Junction Capacity Test Outputs}

\section*{Junctions 9}

\section*{ARCADY 9 - Roundabout Module}

Version: 9.0.0.4211 []
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Filename: Import of A352_A353 RAB.j9
Path: J:\35340 Land at Moreton, Dorchester\Technical\TransportlJunction Assessments\ARCADY
Report generation date: 16/09/2015 17:22:41
"(Default Analysis Set) - 2015, AM
"(Default Analysis Set) - 2015, PM
"(Default Analysis Set) - 2027 Ref Case, AM
"(Default Analysis Set) - 2027 Ref Case, PM
"(Default Analysis Set) - 2027 Ref Case + Dev, AM
"(Default Analysis Set) - 2027 Ref Case + Dev, PM

\section*{Summary of junction performance}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & \multicolumn{4}{|c|}{AM} & \multicolumn{4}{|c|}{PM} \\
\hline & Queue (Veh) & Delay (s) & RFC & Los & Queue (Veh) & Delay (s) & RFC & LOS \\
\hline & \multicolumn{8}{|c|}{A1-2015} \\
\hline 1-A352 E & 0.2 & 2.22 & 0.17 & A & 0.5 & 2.88 & 0.32 & A \\
\hline 2-A353 & 0.5 & 3.32 & 0.33 & A & 0.2 & 2.76 & 0.15 & A \\
\hline 3-A352 W & 0.3 & 4.14 & 0.24 & A & 0.3 & 3.64 & 0.23 & A \\
\hline 4-B3390 & 0.3 & 3.76 & 0.20 & A & 0.4 & 3.72 & 0.27 & A \\
\hline \multicolumn{9}{|c|}{A1-2027 Ref Case} \\
\hline 1-A352 E & 0.3 & 2.38 & 0.21 & A & 0.7 & 3.43 & 0.41 & A \\
\hline 2-A353 & 0.7 & 3.86 & 0.40 & A & 0.2 & 3.05 & 0.19 & A \\
\hline 3-A352 W & 0.4 & 4.76 & 0.30 & A & 0.4 & 4.06 & 0.29 & A \\
\hline 4-B3390 & 0.4 & 4.39 & 0.27 & A & 0.5 & 4.32 & 0.34 & A \\
\hline \multicolumn{9}{|c|}{A1-2027 Ref Case + Dev} \\
\hline 1-A352 E & 0.3 & 2.41 & 0.22 & A & 0.7 & 3.53 & 0.42 & A \\
\hline 2-A353 & 0.7 & 3.97 & 0.41 & A & 0.2 & 3.10 & 0.19 & A \\
\hline 3-A352 W & 0.4 & 4.92 & 0.31 & A & 0.4 & 4.12 & 0.29 & A \\
\hline 4-B3390 & 0.4 & 4.51 & 0.29 & A & 0.6 & 4.51 & 0.37 & A \\
\hline
\end{tabular}

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

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

File summary
File Description
\begin{tabular}{|l|c|}
\hline Title & A352 / A353 \\
\hline Location & Redbridge Pit Moreton \\
\hline Site number & \\
\hline Date & \(28 / 08 / 2015\) \\
\hline Version & \\
\hline Status & (new file) \\
\hline Identifier & \\
\hline Client & \\
\hline Jobnumber & 35340 \\
\hline Enumerator & PBA"ekeen \\
\hline Description & \\
\hline
\end{tabular}

\section*{Units}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline Distance units & Speed units & Traffic units input & Traffic units results & Flow units & Average delay units & Total delay units & Rate of delay units \\
\hline m & kph & Veh & Veh & perHour & s & -Min & perMin \\
\hline
\end{tabular}

\section*{Analysis Options}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \begin{tabular}{c} 
Vehicle length \\
\((\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
Calculate Queue \\
Percentiles
\end{tabular} & \begin{tabular}{c} 
Calculate detailed queueing \\
delay
\end{tabular} & \begin{tabular}{c} 
Calculate residual \\
capacity
\end{tabular} & \begin{tabular}{c} 
RFC \\
Threshold
\end{tabular} & \begin{tabular}{c} 
Average Delay \\
threshold (s)
\end{tabular} & \begin{tabular}{c} 
Queue threshold \\
\((\) PCU \()\)
\end{tabular} \\
\hline 5.75 & & & & 0.85 & 36.00 & 20.00 \\
\hline
\end{tabular}

Demand Set Summary
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Scenario name & Time Period name & Traffic profile type & Model start time (HH:mm) & Model finish time (HH:mm) & \(\underset{(\mathrm{min})}{\text { Time segment length }}\) & Run automatically \\
\hline 2015 & AM & ONE HOUR & 07:45 & 09:15 & 15 & \(\checkmark\) \\
\hline 2015 & PM & ONE HOUR & 16:45 & 18:15 & 15 & \(\checkmark\) \\
\hline 2027 & AM & ONE HOUR & 07:45 & 09:15 & 15 & \(\checkmark\) \\
\hline 2027 & PM & ONE HOUR & 16:45 & 18:15 & 15 & \(\checkmark\) \\
\hline 2027 + Dev & AM & ONE HOUR & 07:45 & 09:15 & 15 & \(\checkmark\) \\
\hline 2027 + Dev & PM & ONE HOUR & 16:45 & 18:15 & 15 & \(\checkmark\) \\
\hline 2027 Ref Case & AM & ONE HOUR & 07:45 & 09:15 & 15 & \(\checkmark\) \\
\hline 2027 Ref Case & PM & ONE HOUR & 16:45 & 18:15 & 15 & \(\checkmark\) \\
\hline 2027 Ref Case + Dev & AM & ONE HOUR & 07:45 & 09:15 & 15 & \(\checkmark\) \\
\hline 2027 Ref Case + Dev & PM & ONE HOUR & 16:45 & 18:15 & 15 & \(\checkmark\) \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2015, AM}

Data Errors and Warnings
\begin{tabular}{|l|c|c|l|}
\hline Severity & Area & Item & \multicolumn{1}{c|}{ Description } \\
\hline Warning & Geometry & \begin{tabular}{c}
\(2-\) A353- \\
Roundabout \\
Geometry
\end{tabular} & \begin{tabular}{l} 
Effective flare length is over 30m, which is outside the normal range. Treat capacities with \\
increasing caution.
\end{tabular} \\
\hline
\end{tabular}

\section*{Analysis Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
(\%)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
(\%)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Arm order & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - A 3 5 2 / A 3 5 3 / B 3 3 9 0 ~}\) & A352/A353/B3390 & Standard Roundabout & \(1,2,3,4\) & 3.29 & A \\
\hline
\end{tabular}

\section*{Junction Network Options}
\begin{tabular}{|c|c|}
\hline Driving side & Lighting \\
\hline Left & Normal/unknown \\
\hline
\end{tabular}

\section*{Arms}

\section*{Arms}
\begin{tabular}{|c|c|l|}
\hline Arm & Name & Description \\
\hline \(\mathbf{1}\) & A352 E & \\
\hline \(\mathbf{2}\) & A353 & \\
\hline \(\mathbf{3}\) & A352 W & \\
\hline \(\mathbf{4}\) & B3390 & \\
\hline
\end{tabular}

\section*{Capacity Options}
\begin{tabular}{|c|c|c|c|c|}
\hline Arm & Minimum capacity (PCU/hr) & Maximum capacity (PCU/hr) & Assume flat start profile & Initial queue (PCU) \\
\hline 1-A352 E & 0.00 & 99999.00 & & 0.00 \\
\hline 2-A353 & 0.00 & 99999.00 & & 0.00 \\
\hline 3-A352 W & 0.00 & 99999.00 & & 0.00 \\
\hline 4-B3390 & 0.00 & 99999.00 & & 0.00 \\
\hline
\end{tabular}

Roundabout Geometry
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline Arm & \begin{tabular}{c} 
V-Approach road half- \\
width (m)
\end{tabular} & \begin{tabular}{c} 
E-Entry \\
width \((\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
I' - Effective flare \\
length \((\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
R - Entry \\
radius \((\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
D - Inscribed circle \\
diameter (m)
\end{tabular} & \begin{tabular}{c} 
PHI - Conflict (entry) \\
angle (deg)
\end{tabular} & \begin{tabular}{c} 
Exit \\
only
\end{tabular} \\
\hline \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & 7.10 & 7.13 & 0.1 & 33.8 & 38.2 & 9.0 \\
\hline 2-A353 & 3.68 & 6.86 & 34.5 & 24.9 & 38.2 & 10.0 \\
\hline \begin{tabular}{c} 
3-A352 \\
W
\end{tabular} & 3.15 & 6.50 & 10.8 & 16.6 & 38.2 & 7.5 \\
\hline 4-B3390 & 3.56 & 7.64 & 9.2 & 20.8 & 38.2 & \\
\hline
\end{tabular}

\section*{Slope / Intercept / Capacity}

Roundabout Slope and Intercept used in model
\begin{tabular}{|c|c|c|}
\hline Arm & Final slope & Final intercept (PCU/hr) \\
\hline 1- A352 E & 0.806 & 2356.029 \\
\hline 2- A353 & 0.731 & 2005.994 \\
\hline 3-A352 W & 0.639 & 1562.477 \\
\hline 4- B3390 & 0.678 & 1728.661 \\
\hline
\end{tabular}

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

\section*{Traffic Demand}

\section*{Demand Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & \begin{tabular}{c} 
Scenario \\
name
\end{tabular} & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D1 & 2015 & AM & ONE HOUR & \(07: 45\) & \(09: 15\) & 15 & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline 1-A352 E & & ONE HOUR & \(\checkmark\) & 310.00 & 100.000 \\
\hline 2-A353 & & ONE HOUR & \(\checkmark\) & 475.00 & 100.000 \\
\hline 3-A352 W & & ONE HOUR & \(\checkmark\) & 243.00 & 100.000 \\
\hline 4-B3390 & & ONE HOUR & \(\checkmark\) & 222.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 -}\) \\
A353
\end{tabular} & \begin{tabular}{c}
\(\mathbf{3 - A 3 5 2}\) \\
\(\mathbf{W}\)
\end{tabular} & \begin{tabular}{c}
\(\mathbf{4 -}\) \\
B3390
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
E A352
\end{tabular} & 0.000 & 102.000 & 111.000 & 97.000 \\
\cline { 2 - 6 } & 2-A353 & 275.000 & 0.000 & 169.000 & 31.000 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
3-A352 \\
\(\mathbf{W}\)
\end{tabular} & 141.000 & 80.000 & 0.000 & 22.000 \\
\cline { 2 - 6 } & 4- B3390 & 102.000 & 58.000 & 62.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 -}\) \\
A353
\end{tabular} & \begin{tabular}{c}
\(\mathbf{3 - A 3 5 2}\) \\
\(\mathbf{W}\)
\end{tabular} & \begin{tabular}{c}
\(\mathbf{4 -}\) \\
B3390
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
E A352
\end{tabular} & 0.00 & 0.33 & 0.36 & 0.31 \\
\cline { 2 - 6 } & 2-A353 & 0.58 & 0.00 & 0.36 & 0.07 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
3-A352 \\
\(\mathbf{W}\)
\end{tabular} & 0.58 & 0.33 & 0.00 & 0.09 \\
\cline { 2 - 6 } & \(\mathbf{4 - B 3 3 9 0}\) & 0.46 & 0.26 & 0.28 & 0.00 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline & 2-A353 & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline & \[
\begin{gathered}
3-\mathrm{A} 352 \\
\mathrm{~W}
\end{gathered}
\] & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline & 4-B3390 & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

Results Summary for whole modelled period
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Arm & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline 1-A352 E & 0.17 & 2.22 & 0.2 & A & 284.46 & 426.69 \\
\hline 2-A353 & 0.33 & 3.32 & 0.5 & A & 435.87 & 653.80 \\
\hline 3-A352 W & 0.24 & 4.14 & 0.3 & A & 222.98 & 334.47 \\
\hline 4- B3390 & 0.20 & 3.76 & 0.3 & A & 203.71 & 305.57 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (07:45-08:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 233.38 & 58.35 & 150.03 & 2020.94 & 0.115 & 232.86 & 388.68 & 0.0 & 0.1 & 2.013 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 357.60 & 89.40 & 202.76 & 1675.34 & 0.213 & 356.52 & 180.13 & 0.0 & 0.3 & 2.727 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 182.94 & 45.74 & 302.54 & 1227.15 & 0.149 & 182.25 & 256.74 & 0.0 & 0.2 & 3.444 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 167.13 & 41.78 & 372.15 & 1319.17 & 0.127 & 166.56 & 112.63 & 0.0 & 0.1 & 3.121 & A \\
\hline
\end{tabular}

Main results: (08:00-08:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 278.68 & 69.67 & 179.64 & 1997.08 & 0.140 & 278.56 & 465.30 & 0.1 & 0.2 & 2.094 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 427.02 & 106.75 & 242.59 & 1646.21 & 0.259 & 426.70 & 215.61 & 0.3 & 0.3 & 2.952 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 218.45 & 54.61 & 362.05 & 1189.13 & 0.184 & 218.25 & 307.25 & 0.2 & 0.2 & 3.707 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 199.57 & 49.89 & 445.53 & 1269.41 & 0.157 & 199.41 & 134.77 & 0.1 & 0.2 & 3.364 & A \\
\hline
\end{tabular}

Main results: (08:15-08:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 341.32 & 85.33 & 219.95 & 1964.60 & 0.174 & 341.12 & 569.71 & 0.2 & 0.2 & 2.217 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 522.98 & 130.75 & 297.07 & 1606.37 & 0.326 & 522.46 & 264.00 & 0.3 & 0.5 & 3.319 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 267.55 & 66.89 & 443.31 & 1137.21 & 0.235 & 267.22 & 376.22 & 0.2 & 0.3 & 4.137 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 244.43 & 61.11 & 545.50 & 1201.63 & 0.203 & 244.15 & 165.03 & 0.2 & 0.3 & 3.760 & A \\
\hline
\end{tabular}

Main results: (08:30-08:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 341.32 & 85.33 & 220.20 & 1964.39 & 0.174 & 341.32 & 570.32 & 0.2 & 0.2 & 2.217 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 522.98 & 130.75 & 297.27 & 1606.22 & 0.326 & 522.98 & 264.24 & 0.5 & 0.5 & 3.322 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 267.55 & 66.89 & 443.71 & 1136.96 & 0.235 & 267.54 & 376.55 & 0.3 & 0.3 & 4.140 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 244.43 & 61.11 & 546.10 & 1201.22 & 0.203 & 244.42 & 165.15 & 0.3 & 0.3 & 3.761 & A \\
\hline
\end{tabular}

Main results: (08:45-09:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 278.68 & 69.67 & 180.05 & 1996.75 & 0.140 & 278.87 & 466.28 & 0.2 & 0.2 & 2.097 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 427.02 & 106.75 & 242.93 & 1645.97 & 0.259 & 427.53 & 215.99 & 0.5 & 0.4 & 2.955 & A \\
\hline \[
\begin{array}{|c|}
\hline \text { 3- } \\
\text { A352 W }
\end{array}
\] & 218.45 & 54.61 & 362.68 & 1188.73 & 0.184 & 218.77 & 307.78 & 0.3 & 0.2 & 3.711 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 199.57 & 49.89 & 446.49 & 1268.76 & 0.157 & 199.84 & 134.97 & 0.3 & 0.2 & 3.370 & A \\
\hline
\end{tabular}

Main results: (09:00-09:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 233.38 & 58.35 & 150.73 & 2020.38 & 0.116 & 233.51 & 390.35 & 0.2 & 0.1 & 2.014 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 357.60 & 89.40 & 203.40 & 1674.87 & 0.214 & 357.92 & 180.84 & 0.4 & 0.3 & 2.733 & A \\
\hline \[
\begin{array}{|c|}
\hline \text { 3- } \\
\text { A352 W }
\end{array}
\] & 182.94 & 45.74 & 303.64 & 1226.44 & 0.149 & 183.14 & 257.68 & 0.2 & 0.2 & 3.453 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 167.13 & 41.78 & 373.78 & 1318.06 & 0.127 & 167.30 & 113.01 & 0.2 & 0.1 & 3.128 & A \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2015, PM}

Data Errors and Warnings
\begin{tabular}{|l|c|c|l|}
\hline Severity & Area & Item & \multicolumn{1}{c|}{ Description } \\
\hline Warning & Geometry & \begin{tabular}{c}
\(2-\) A353 - \\
Roundabout \\
Geometry
\end{tabular} & \begin{tabular}{l} 
Effective flare length is over 30m, which is outside the normal range. Treat capacities with \\
increasing caution.
\end{tabular} \\
\hline
\end{tabular}

Analysis Set Details
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
\((\%)\)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
\((\%)\)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

Junctions
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Arm order & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - A 3 5 2 / A 3 5 3 / B 3 3 9 0 ~}\) & A352/A353/B3390 & Standard Roundabout & \(1,2,3,4\) & 3.22 & A \\
\hline
\end{tabular}

\section*{Junction Network Options}
[same as above]

\section*{Arms}

\section*{Arms}
[same as above]

\section*{Capacity Options}
[same as above]

\section*{Roundabout Geometry}
[same as above]
Slope / Intercept / Capacity
[same as above]

\section*{Traffic Demand}

\section*{Demand Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & \begin{tabular}{c} 
Scenario \\
name
\end{tabular} & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D2 & 2015 & RM & ONE HOUR & \(16: 45\) & \(18: 15\) & 15 & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

\section*{Demand overview (Traffic)}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline 1-A352 E & & ONE HOUR & \(\checkmark\) & 534.00 & 100.000 \\
\hline 2- A353 & & ONE HOUR & \(\checkmark\) & 205.00 & 100.000 \\
\hline 3- A352 W & & ONE HOUR & \(\checkmark\) & 268.00 & 100.000 \\
\hline 4-B3390 & & ONE HOUR & \(\checkmark\) & 318.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
\hline 3-\text { A352 } \\
\text { W }
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 0.000 & 260.000 & 205.000 & 69.000 \\
\hline & 2-A353 & 90.000 & 0.000 & 79.000 & 36.000 \\
\hline & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & 118.000 & 131.000 & 0.000 & 19.000 \\
\hline & 4-B3390 & 107.000 & 118.000 & 93.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-A_{E} 352 \\
\hline
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
\hline 3-\text { A352 } \\
W
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 0.00 & 0.49 & 0.38 & 0.13 \\
\hline & 2-A353 & 0.44 & 0.00 & 0.39 & 0.18 \\
\hline & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & 0.44 & 0.49 & 0.00 & 0.07 \\
\hline & 4-B3390 & 0.34 & 0.37 & 0.29 & 0.00 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 -}\) \\
A353
\end{tabular} & \begin{tabular}{c}
\(\mathbf{3 - A 3 5 2}\) \\
\(\mathbf{W}\)
\end{tabular} & \begin{tabular}{c}
\(\mathbf{4 -}\) \\
B3390
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & 2-A353 & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
3-A352 \\
\(\mathbf{W}\)
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & 4- B3390 & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

\section*{Results Summary for whole modelled period}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Arm & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline 1-A352 E & 0.32 & 2.88 & 0.5 & A & 490.01 & 735.01 \\
\hline 2-A353 & 0.15 & 2.76 & 0.2 & A & 188.11 & 282.17 \\
\hline 3-A352 W & 0.23 & 3.64 & 0.3 & A & 245.92 & 368.88 \\
\hline 4- B3390 & 0.27 & 3.72 & 0.4 & A & 291.80 & 437.70 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (16:45-17:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 402.02 & 100.51 & 256.58 & 1935.08 & 0.208 & 400.98 & 236.37 & 0.0 & 0.3 & 2.346 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 154.33 & 38.58 & 275.52 & 1622.13 & 0.095 & 153.92 & 382.04 & 0.0 & 0.1 & 2.452 & A \\
\hline \[
\begin{array}{|c|}
\hline 3- \\
\text { A352 W }
\end{array}
\] & 201.76 & 50.44 & 146.41 & 1326.89 & 0.152 & 201.05 & 283.02 & 0.0 & 0.2 & 3.196 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 239.41 & 59.85 & 254.37 & 1399.03 & 0.171 & 238.58 & 93.09 & 0.0 & 0.2 & 3.101 & A \\
\hline
\end{tabular}

Main results: (17:00-17:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 480.06 & 120.01 & 307.21 & 1894.28 & 0.253 & 479.75 & 282.97 & 0.3 & 0.3 & 2.545 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 184.29 & 46.07 & 329.70 & 1582.51 & 0.116 & 184.18 & 457.25 & 0.1 & 0.1 & 2.574 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 240.93 & 60.23 & 175.20 & 1308.51 & 0.184 & 240.74 & 338.69 & 0.2 & 0.2 & 3.371 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 285.88 & 71.47 & 304.54 & 1365.02 & 0.209 & 285.64 & 111.40 & 0.2 & 0.3 & 3.335 & A \\
\hline
\end{tabular}

Main results: (17:15-17:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline A352 E & 587.94 & 146.99 & 376.15 & 1838.72 & 0.320 & 587.43 & 346.49 & 0.3 & 0.5 & 2.875 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 225.71 & 56.43 & 403.70 & 1528.39 & 0.148 & 225.54 & 559.88 & 0.1 & 0.2 & 2.762 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 295.07 & 73.77 & 214.53 & 1283.38 & 0.230 & 294.78 & 414.71 & 0.2 & 0.3 & 3.641 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 350.12 & 87.53 & 372.90 & 1318.66 & 0.266 & 349.74 & 136.41 & 0.3 & 0.4 & 3.713 & A \\
\hline
\end{tabular}

Main results: (17:30-17:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 587.94 & 146.99 & 376.54 & 1838.40 & 0.320 & 587.94 & 346.82 & 0.5 & 0.5 & 2.878 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 225.71 & 56.43 & 404.07 & 1528.11 & 0.148 & 225.71 & 560.41 & 0.2 & 0.2 & 2.763 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 295.07 & 73.77 & 214.70 & 1283.27 & 0.230 & 295.07 & 415.08 & 0.3 & 0.3 & 3.642 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 350.12 & 87.53 & 373.24 & 1318.43 & 0.266 & 350.12 & 136.53 & 0.4 & 0.4 & 3.716 & A \\
\hline
\end{tabular}

Main results: (17:45-18:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 480.06 & 120.01 & 307.84 & 1893.77 & 0.253 & 480.57 & 283.50 & 0.5 & 0.3 & 2.547 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 184.29 & 46.07 & 330.30 & 1582.07 & 0.116 & 184.45 & 458.11 & 0.2 & 0.1 & 2.575 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 240.93 & 60.23 & 175.47 & 1308.33 & 0.184 & 241.21 & 339.29 & 0.3 & 0.2 & 3.373 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 285.88 & 71.47 & 305.09 & 1364.64 & 0.209 & 286.25 & 111.59 & 0.4 & 0.3 & 3.338 & A \\
\hline
\end{tabular}

Main results: (18:00-18:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 402.02 & 100.51 & 257.72 & 1934.16 & 0.208 & 402.33 & 237.36 & 0.3 & 0.3 & 2.350 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 154.33 & 38.58 & 276.52 & 1621.39 & 0.095 & 154.44 & 383.53 & 0.1 & 0.1 & 2.453 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 201.76 & 50.44 & 146.91 & 1326.58 & 0.152 & 201.95 & 284.05 & 0.2 & 0.2 & 3.200 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 239.41 & 59.85 & 255.44 & 1398.31 & 0.171 & 239.64 & 93.43 & 0.3 & 0.2 & 3.106 & A \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2027 Ref Case, AM}

Data Errors and Warnings
\begin{tabular}{|l|c|c|l|}
\hline Severity & Area & Item & \multicolumn{1}{c|}{ Description } \\
\hline Warning & Geometry & \begin{tabular}{c}
\(2-\) A353 - \\
Roundabout \\
Geometry
\end{tabular} & \begin{tabular}{l} 
Effective flare length is over 30m, which is outside the normal range. Treat capacities with \\
increasing caution.
\end{tabular} \\
\hline
\end{tabular}

\section*{Analysis Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
\((\%)\)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
\((\%)\)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Arm order & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - A 3 5 2 / A 3 5 3 / B 3 3 9 0 ~}\) & A352/A353/B3390 & Standard Roundabout & \(1,2,3,4\) & 3.76 & A \\
\hline
\end{tabular}

\section*{Junction Network Options}
[same as above]

\section*{Arms}

\section*{Arms}
[same as above]

\section*{Capacity Options}
[same as above]

\section*{Roundabout Geometry}
[same as above]
Slope / Intercept / Capacity
[same as above]

\section*{Traffic Demand}

Demand Set Details
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & Scenario name & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D7 & \begin{tabular}{c}
2027 Ref \\
Case
\end{tabular} & AM & ONE HOUR & \(07: 45\) & \(09: 15\) & 15 & \(\checkmark\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline 1-A352 E & & ONE HOUR & \(\checkmark\) & 376.00 & 100.000 \\
\hline 2- A353 & & ONE HOUR & \(\checkmark\) & 568.00 & 100.000 \\
\hline 3-A352 W & & ONE HOUR & \(\checkmark\) & 291.00 & 100.000 \\
\hline 4- B3390 & & ONE HOUR & \(\checkmark\) & 280.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 0.000 & 122.000 & 132.000 & 122.000 \\
\hline & 2-A353 & 328.000 & 0.000 & 202.000 & 38.000 \\
\hline & \[
\begin{gathered}
3 \text { - A352 } \\
\text { W }
\end{gathered}
\] & 169.000 & 96.000 & 0.000 & 26.000 \\
\hline & 4-B3390 & 134.000 & 71.000 & 75.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
3-\text { A352 } \\
W
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 0.00 & 0.32 & 0.35 & 0.32 \\
\hline & 2-A353 & 0.58 & 0.00 & 0.36 & 0.07 \\
\hline & \[
\begin{gathered}
3 \text { - A352 } \\
\text { W }
\end{gathered}
\] & 0.58 & 0.33 & 0.00 & 0.09 \\
\hline & 4-B3390 & 0.48 & 0.25 & 0.27 & 0.00 \\
\hline
\end{tabular}

\section*{Vehicle Mix}

Heavy Vehicle proportion
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 10 & 10 & 10 & 10 \\
\hline & 2-A353 & 10 & 10 & 10 & 10 \\
\hline & \[
\begin{gathered}
3-\mathrm{A} 352 \\
\mathrm{~W}
\end{gathered}
\] & 10 & 10 & 10 & 10 \\
\hline & 4-B3390 & 10 & 10 & 10 & 10 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 -}\) \\
A353
\end{tabular} & \begin{tabular}{c}
\(\mathbf{3 - A 3 5 2}\) \\
\(\mathbf{W}\)
\end{tabular} & \begin{tabular}{c}
\(\mathbf{4 -}\) \\
B3390
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
E A352 \\
E
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & 2-A353 & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
3-A352 \\
\(\mathbf{W}\)
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & 4- B3390 & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

Results Summary for whole modelled period
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Arm & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline 1-A352 E & 0.21 & 2.38 & 0.3 & A & 345.02 & 517.54 \\
\hline 2-A353 & 0.40 & 3.86 & 0.7 & A & 521.21 & 781.81 \\
\hline 3-A352 W & 0.30 & 4.76 & 0.4 & A & 267.03 & 400.54 \\
\hline 4- B3390 & 0.27 & 4.39 & 0.4 & A & 256.93 & 385.40 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (07:45-08:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 283.07 & 70.77 & 181.48 & 1995.60 & 0.142 & 282.41 & 473.34 & 0.0 & 0.2 & 2.101 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 427.62 & 106.91 & 247.03 & 1642.97 & 0.260 & 426.22 & 216.86 & 0.0 & 0.4 & 2.956 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 219.08 & 54.77 & 366.28 & 1186.43 & 0.185 & 218.18 & 306.97 & 0.0 & 0.2 & 3.714 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 210.80 & 52.70 & 444.81 & 1269.90 & 0.166 & 210.01 & 139.64 & 0.0 & 0.2 & 3.395 & A \\
\hline
\end{tabular}

Main results: (08:00-08:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 338.02 & 84.50 & 217.33 & 1966.71 & 0.172 & 337.85 & 566.71 & 0.2 & 0.2 & 2.210 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 510.62 & 127.66 & 295.58 & 1607.46 & 0.318 & 510.17 & 259.59 & 0.4 & 0.5 & 3.278 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 261.60 & 65.40 & 438.36 & 1140.38 & 0.229 & 261.32 & 367.40 & 0.2 & 0.3 & 4.094 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 251.71 & 62.93 & 532.58 & 1210.39 & 0.208 & 251.46 & 167.10 & 0.2 & 0.3 & 3.754 & A \\
\hline
\end{tabular}

Main results: (08:15-08:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 413.98 & 103.50 & 266.05 & 1927.45 & 0.215 & 413.72 & 693.77 & 0.2 & 0.3 & 2.378 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 625.38 & 156.34 & 361.94 & 1558.93 & 0.401 & 624.57 & 317.83 & 0.5 & 0.7 & 3.849 & A \\
\hline \[
\begin{array}{|c|}
\hline 3- \\
\text { A352 W }
\end{array}
\] & 320.40 & 80.10 & 536.69 & 1077.56 & 0.297 & 319.90 & 449.82 & 0.3 & 0.4 & 4.748 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 308.29 & 77.07 & 651.99 & 1129.42 & 0.273 & 307.84 & 204.61 & 0.3 & 0.4 & 4.380 & A \\
\hline
\end{tabular}

Main results: (08:30-08:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 413.98 & 103.50 & 266.44 & 1927.13 & 0.215 & 413.98 & 694.73 & 0.3 & 0.3 & 2.378 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 625.38 & 156.34 & 362.23 & 1558.71 & 0.401 & 625.37 & 318.19 & 0.7 & 0.7 & 3.856 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 320.40 & 80.10 & 537.29 & 1077.17 & 0.297 & 320.39 & 450.31 & 0.4 & 0.4 & 4.756 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 308.29 & 77.07 & 652.89 & 1128.81 & 0.273 & 308.28 & 204.79 & 0.4 & 0.4 & 4.387 & A \\
\hline
\end{tabular}

Main results: (08:45-09:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 338.02 & 84.50 & 217.94 & 1966.21 & 0.172 & 338.28 & 568.21 & 0.3 & 0.2 & 2.211 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 510.62 & 127.66 & 296.06 & 1607.11 & 0.318 & 511.42 & 260.16 & 0.7 & 0.5 & 3.287 & A \\
\hline \[
\begin{array}{|c|}
\hline 3- \\
\text { A352 W }
\end{array}
\] & 261.60 & 65.40 & 439.30 & 1139.78 & 0.230 & 262.09 & 368.18 & 0.4 & 0.3 & 4.103 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 251.71 & 62.93 & 534.00 & 1209.43 & 0.208 & 252.16 & 167.39 & 0.4 & 0.3 & 3.761 & A \\
\hline
\end{tabular}

Main results: (09:00-09:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 283.07 & 70.77 & 182.42 & 1994.84 & 0.142 & 283.24 & 475.60 & 0.2 & 0.2 & 2.104 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 427.62 & 106.91 & 247.87 & 1642.35 & 0.260 & 428.08 & 217.79 & 0.5 & 0.4 & 2.965 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 219.08 & 54.77 & 367.74 & 1185.49 & 0.185 & 219.37 & 308.21 & 0.3 & 0.2 & 3.726 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 210.80 & 52.70 & 446.97 & 1268.44 & 0.166 & 211.05 & 140.14 & 0.3 & 0.2 & 3.404 & A \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2027 Ref Case, PM}

Data Errors and Warnings
\begin{tabular}{|l|l|c|l|}
\hline Severity & Area & Item & \multicolumn{1}{c|}{ Description } \\
\hline Warning & Geometry & \begin{tabular}{c}
\(2-\) A353 - \\
Roundabout \\
Geometry
\end{tabular} & \begin{tabular}{l} 
Effective flare length is over 30m, which is outside the normal range. Treat capacities with \\
increasing caution.
\end{tabular} \\
\hline
\end{tabular}

Analysis Set Details
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
\((\%)\)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
\((\%)\)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Arm order & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - A 3 5 2 / A 3 5 3 / B 3 3 9 0 ~}\) & A352/A353/B3390 & Standard Roundabout & \(1,2,3,4\) & 3.71 & A \\
\hline
\end{tabular}

\section*{Junction Network Options}
[same as above]

\section*{Arms}

\section*{Arms}
[same as above]

\section*{Capacity Options}
[same as above]

\section*{Roundabout Geometry}
[same as above]
Slope / Intercept / Capacity
[same as above]

\section*{Traffic Demand}

Demand Set Details
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & Scenario name & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D8 & \begin{tabular}{c}
2027 Ref \\
Case
\end{tabular} & PM & ONE HOUR & \(16: 45\) & \(18: 15\) & 15 & \(\checkmark\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline 1-A352 E & & ONE HOUR & \(\checkmark\) & 659.00 & 100.000 \\
\hline 2- A353 & & ONE HOUR & \(\checkmark\) & 250.00 & 100.000 \\
\hline 3-A352 W & & ONE HOUR & \(\checkmark\) & 324.00 & 100.000 \\
\hline 4- B3390 & & ONE HOUR & \(\checkmark\) & 392.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 -}\) \\
A353
\end{tabular} & \begin{tabular}{c}
\(\mathbf{3 - A 3 5 2}\) \\
\(\mathbf{W}\)
\end{tabular} & \begin{tabular}{c}
\(\mathbf{4 -}\) \\
B3390
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
E A352
\end{tabular} & 0.000 & 315.000 & 248.000 & 96.000 \\
\cline { 2 - 6 } & 2-A353 & 109.000 & 0.000 & 95.000 & 46.000 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
3-A352 \\
\(\mathbf{W}\)
\end{tabular} & 143.000 & 158.000 & 0.000 & 23.000 \\
\cline { 2 - 6 } & \(\mathbf{4 - B 3 3 9 0}\) & 136.000 & 144.000 & 112.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
\hline 3-\text { A352 } \\
W
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 0.00 & 0.48 & 0.38 & 0.15 \\
\hline & 2-A353 & 0.44 & 0.00 & 0.38 & 0.18 \\
\hline & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & 0.44 & 0.49 & 0.00 & 0.07 \\
\hline & 4-B3390 & 0.35 & 0.37 & 0.29 & 0.00 \\
\hline
\end{tabular}

\section*{Vehicle Mix}

Heavy Vehicle proportion
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 10 & 10 & 10 & 10 \\
\hline & 2-A353 & 10 & 10 & 10 & 10 \\
\hline & \[
\begin{gathered}
3-\mathrm{A} 352 \\
\mathrm{~W}
\end{gathered}
\] & 10 & 10 & 10 & 10 \\
\hline & 4-B3390 & 10 & 10 & 10 & 10 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 -}\) \\
A353
\end{tabular} & \begin{tabular}{c}
\(\mathbf{3 - A 3 5 2}\) \\
\(\mathbf{W}\)
\end{tabular} & \begin{tabular}{c}
\(\mathbf{4 -}\) \\
B3390
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
( A352 \\
E
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & 2-A353 & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
3-A352 \\
\(\mathbf{W}\)
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & 4- B3390 & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

Results Summary for whole modelled period
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Arm & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline 1-A352 E & 0.41 & 3.43 & 0.7 & A & 604.71 & 907.06 \\
\hline 2-A353 & 0.19 & 3.05 & 0.2 & A & 229.40 & 344.11 \\
\hline 3-A352 W & 0.29 & 4.06 & 0.4 & A & 297.31 & 445.96 \\
\hline 4- B3390 & 0.34 & 4.32 & 0.5 & A & 359.71 & 539.56 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (16:45-17:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 496.13 & 124.03 & 310.51 & 1891.61 & 0.262 & 494.71 & 291.08 & 0.0 & 0.4 & 2.575 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 188.21 & 47.05 & 342.25 & 1573.33 & 0.120 & 187.67 & 462.98 & 0.0 & 0.1 & 2.598 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 243.92 & 60.98 & 188.42 & 1300.06 & 0.188 & 243.00 & 341.49 & 0.0 & 0.2 & 3.402 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 295.12 & 73.78 & 307.58 & 1362.95 & 0.217 & 294.02 & 123.85 & 0.0 & 0.3 & 3.365 & A \\
\hline
\end{tabular}

Main results: (17:00-17:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 592.43 & 148.11 & 371.83 & 1842.20 & 0.322 & 591.96 & 348.51 & 0.4 & 0.5 & 2.879 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 224.74 & 56.19 & 409.59 & 1524.08 & 0.147 & 224.60 & 554.19 & 0.1 & 0.2 & 2.770 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 291.27 & 72.82 & 225.48 & 1276.38 & 0.228 & 291.01 & 408.70 & 0.2 & 0.3 & 3.653 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 352.40 & 88.10 & 368.28 & 1321.79 & 0.267 & 352.05 & 148.22 & 0.3 & 0.4 & 3.712 & A \\
\hline
\end{tabular}

Main results: (17:15-17:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 725.57 & 181.39 & 455.22 & 1775.00 & 0.409 & 724.71 & 426.69 & 0.5 & 0.7 & 3.424 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 275.26 & 68.81 & 501.44 & 1456.90 & 0.189 & 275.02 & 678.49 & 0.2 & 0.2 & 3.045 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 356.73 & 89.18 & 276.08 & 1244.05 & 0.287 & 356.31 & 500.38 & 0.3 & 0.4 & 4.053 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 431.60 & 107.90 & 450.92 & 1265.76 & 0.341 & 430.99 & 181.47 & 0.4 & 0.5 & 4.310 & A \\
\hline
\end{tabular}

Main results: (17:30-17:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & \begin{tabular}{l}
Start
queue
(Ven) \\
(Veh)
\end{tabular} & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 725.57 & 181.39 & 455.81 & 1774.52 & 0.409 & 725.56 & 427.19 & 0.7 & 0.7 & 3.431 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 275.26 & 68.81 & 502.06 & 1456.45 & 0.189 & 275.25 & 679.32 & 0.2 & 0.2 & 3.047 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 356.73 & 89.18 & 276.35 & 1243.88 & 0.287 & 356.73 & 500.96 & 0.4 & 0.4 & 4.057 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 431.60 & 107.90 & 451.41 & 1265.42 & 0.341 & 431.59 & 181.67 & 0.5 & 0.5 & 4.317 & A \\
\hline
\end{tabular}

Main results: (17:45-18:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 592.43 & 148.11 & 372.77 & 1841.44 & 0.322 & 593.28 & 349.30 & 0.7 & 0.5 & 2.887 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 224.74 & 56.19 & 410.55 & 1523.38 & 0.148 & 224.98 & 555.50 & 0.2 & 0.2 & 2.772 & A \\
\hline \[
\begin{array}{|c|}
\hline \text { 3- } \\
\text { A352 W }
\end{array}
\] & 291.27 & 72.82 & 225.91 & 1276.10 & 0.228 & 291.68 & 409.62 & 0.4 & 0.3 & 3.657 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 352.40 & 88.10 & 369.07 & 1321.26 & 0.267 & 353.00 & 148.53 & 0.5 & 0.4 & 3.722 & A \\
\hline
\end{tabular}

Main results: (18:00-18:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 496.13 & 124.03 & 312.04 & 1890.39 & 0.262 & 496.61 & 292.41 & 0.5 & 0.4 & 2.583 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 188.21 & 47.05 & 343.65 & 1572.30 & 0.120 & 188.36 & 464.99 & 0.2 & 0.1 & 2.601 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 243.92 & 60.98 & 189.13 & 1299.61 & 0.188 & 244.18 & 342.88 & 0.3 & 0.2 & 3.410 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 295.12 & 73.78 & 308.98 & 1362.01 & 0.217 & 295.47 & 124.34 & 0.4 & 0.3 & 3.378 & A \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2027 Ref Case + Dev, AM}

Data Errors and Warnings
\begin{tabular}{|l|l|c|l|}
\hline Severity & Area & Item & \multicolumn{1}{c|}{ Description } \\
\hline Warning & Geometry & \begin{tabular}{c}
\(2-\) A353 - \\
Roundabout \\
Geometry
\end{tabular} & \begin{tabular}{l} 
Effective flare length is over 30m, which is outside the normal range. Treat capacities with \\
increasing caution.
\end{tabular} \\
\hline
\end{tabular}

Analysis Set Details
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
\((\%)\)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
\((\%)\)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Arm order & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - A 3 5 2 / A 3 5 3 / B 3 3 9 0 ~}\) & A352/A353/B3390 & Standard Roundabout & \(1,2,3,4\) & 3.86 & A \\
\hline
\end{tabular}

\section*{Junction Network Options}
[same as above]

\section*{Arms}

\section*{Arms}
[same as above]

\section*{Capacity Options}
[same as above]

\section*{Roundabout Geometry}
[same as above]
Slope / Intercept / Capacity
[same as above]

\section*{Traffic Demand}

Demand Set Details
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & Scenario name & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D9 & \begin{tabular}{c}
2027 Ref Case + \\
Dev
\end{tabular} & AM & ONE HOUR & \(07: 45\) & \(09: 15\) & 15 & \(\checkmark\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline 1-A352 E & & ONE HOUR & \(\checkmark\) & 393.00 & 100.000 \\
\hline 2-A353 & & ONE HOUR & \(\checkmark\) & 579.00 & 100.000 \\
\hline 3-A352 W & & ONE HOUR & \(\checkmark\) & 296.00 & 100.000 \\
\hline 4- B3390 & & ONE HOUR & \(\checkmark\) & 301.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 0.000 & 122.000 & 132.000 & 139.000 \\
\hline & 2-A353 & 328.000 & 0.000 & 202.000 & 49.000 \\
\hline & \[
\begin{gathered}
3 \text { - A352 } \\
\text { W }
\end{gathered}
\] & 169.000 & 96.000 & 0.000 & 31.000 \\
\hline & 4-B3390 & 151.000 & 75.000 & 75.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
\hline 1-A_{E} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
\hline 3-\text { A352 } \\
W
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 0.00 & 0.31 & 0.34 & 0.35 \\
\hline & 2-A353 & 0.57 & 0.00 & 0.35 & 0.08 \\
\hline & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & 0.57 & 0.32 & 0.00 & 0.10 \\
\hline & 4-B3390 & 0.50 & 0.25 & 0.25 & 0.00 \\
\hline
\end{tabular}

\section*{Vehicle Mix}

Heavy Vehicle proportion
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 10 & 10 & 10 & 10 \\
\hline & 2-A353 & 10 & 10 & 10 & 10 \\
\hline & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & 10 & 10 & 10 & 10 \\
\hline & 4-B3390 & 10 & 10 & 10 & 10 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 -}\) \\
A353
\end{tabular} & \begin{tabular}{c}
\(\mathbf{3 - A 3 5 2}\) \\
\(\mathbf{W}\)
\end{tabular} & \begin{tabular}{c}
\(\mathbf{4 -}\) \\
B3390
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
( A352 \\
E
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & 2-A353 & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
3-A352 \\
\(\mathbf{W}\)
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & 4- B3390 & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

Results Summary for whole modelled period
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Arm & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline 1-A352 E & 0.22 & 2.41 & 0.3 & A & 360.62 & 540.94 \\
\hline 2-A353 & 0.41 & 3.97 & 0.7 & A & 531.30 & 796.95 \\
\hline 3-A352 W & 0.31 & 4.92 & 0.4 & A & 271.61 & 407.42 \\
\hline 4- B3390 & 0.29 & 4.51 & 0.4 & A & 276.20 & 414.30 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (07:45-08:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 295.87 & 73.97 & 184.47 & 1993.19 & 0.148 & 295.18 & 486.06 & 0.0 & 0.2 & 2.119 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 435.90 & 108.98 & 259.79 & 1633.63 & 0.267 & 434.45 & 219.85 & 0.0 & 0.4 & 2.997 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 222.84 & 55.71 & 387.28 & 1173.01 & 0.190 & 221.91 & 306.96 & 0.0 & 0.2 & 3.781 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 226.61 & 56.65 & 444.79 & 1269.92 & 0.178 & 225.74 & 164.41 & 0.0 & 0.2 & 3.444 & A \\
\hline
\end{tabular}

Main results: (08:00-08:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 353.30 & 88.32 & 220.91 & 1963.82 & 0.180 & 353.12 & 581.96 & 0.2 & 0.2 & 2.234 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 520.51 & 130.13 & 310.85 & 1596.29 & 0.326 & 520.03 & 263.18 & 0.4 & 0.5 & 3.342 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 266.10 & 66.52 & 463.50 & 1124.32 & 0.237 & 265.80 & 367.39 & 0.2 & 0.3 & 4.192 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 270.59 & 67.65 & 532.56 & 1210.40 & 0.224 & 270.31 & 196.74 & 0.2 & 0.3 & 3.829 & A \\
\hline
\end{tabular}

Main results: (08:15-08:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 432.70 & 108.18 & 270.43 & 1923.92 & 0.225 & 432.42 & 712.41 & 0.2 & 0.3 & 2.413 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 637.49 & 159.37 & 380.63 & 1545.26 & 0.413 & 636.63 & 322.21 & 0.5 & 0.7 & 3.959 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 325.90 & 81.48 & 567.46 & 1057.90 & 0.308 & 325.37 & 449.80 & 0.3 & 0.4 & 4.911 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 331.41 & 82.85 & 651.94 & 1129.46 & 0.293 & 330.90 & 240.89 & 0.3 & 0.4 & 4.505 & A \\
\hline
\end{tabular}

Main results: (08:30-08:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 432.70 & 108.18 & 270.85 & 1923.58 & 0.225 & 432.70 & 713.45 & 0.3 & 0.3 & 2.414 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 637.49 & 159.37 & 380.95 & 1545.02 & 0.413 & 637.48 & 322.59 & 0.7 & 0.7 & 3.966 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 325.90 & 81.48 & 568.12 & 1057.48 & 0.308 & 325.89 & 450.31 & 0.4 & 0.4 & 4.920 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 331.41 & 82.85 & 652.89 & 1128.81 & 0.294 & 331.40 & 241.12 & 0.4 & 0.4 & 4.514 & A \\
\hline
\end{tabular}

Main results: (08:45-09:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 353.30 & 88.32 & 221.57 & 1963.29 & 0.180 & 353.58 & 583.57 & 0.3 & 0.2 & 2.238 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 520.51 & 130.13 & 311.36 & 1595.92 & 0.326 & 521.36 & 263.78 & 0.7 & 0.5 & 3.352 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 266.10 & 66.52 & 464.53 & 1123.66 & 0.237 & 266.62 & 368.20 & 0.4 & 0.3 & 4.204 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 270.59 & 67.65 & 534.05 & 1209.39 & 0.224 & 271.09 & 197.10 & 0.4 & 0.3 & 3.837 & A \\
\hline
\end{tabular}

Main results: (09:00-09:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 295.87 & 73.97 & 185.44 & 1992.40 & 0.149 & 296.05 & 488.44 & 0.2 & 0.2 & 2.122 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 435.90 & 108.98 & 260.68 & 1632.98 & 0.267 & 436.39 & 220.81 & 0.5 & 0.4 & 3.009 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 222.84 & 55.71 & 388.85 & 1172.01 & 0.190 & 223.15 & 308.22 & 0.3 & 0.2 & 3.794 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 226.61 & 56.65 & 446.99 & 1268.42 & 0.179 & 226.89 & 165.01 & 0.3 & 0.2 & 3.456 & A \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2027 Ref Case + Dev, PM}

Data Errors and Warnings
\begin{tabular}{|l|c|c|l|}
\hline Severity & Area & Item & \multicolumn{1}{c|}{ Description } \\
\hline Warning & Geometry & \begin{tabular}{c}
\(2-\) A353- \\
Roundabout \\
Geometry
\end{tabular} & \begin{tabular}{l} 
Effective flare length is over 30m, which is outside the normal range. Treat capacities with \\
increasing caution.
\end{tabular} \\
\hline
\end{tabular}

\section*{Analysis Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
\((\mathbf{s})\)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
\((\%)\)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
\((\%)\)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Arm order & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - A 3 5 2 / A 3 5 3 / B 3 3 9 0 ~}\) & A352/A353/B3390 & Standard Roundabout & \(1,2,3,4\) & 3.83 & A \\
\hline
\end{tabular}

\section*{Junction Network Options}
[same as above]

\section*{Arms}

\section*{Arms}
[same as above]

\section*{Capacity Options}
[same as above]

\section*{Roundabout Geometry}
[same as above]
Slope / Intercept / Capacity
[same as above]

\section*{Traffic Demand}

Demand Set Details
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & Scenario name & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D10 & \begin{tabular}{c}
2027 Ref Case + \\
Dev
\end{tabular} & PM & ONE HOUR & \(16: 45\) & \(18: 15\) & 15 & \(\checkmark\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline 1-A352 E & & ONE HOUR & \(\checkmark\) & 673.00 & 100.000 \\
\hline 2- A353 & & ONE HOUR & \(\checkmark\) & 254.00 & 100.000 \\
\hline 3-A352 W & & ONE HOUR & \(\checkmark\) & 324.00 & 100.000 \\
\hline 4- B3390 & & ONE HOUR & \(\checkmark\) & 425.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
3-\text { A352 } \\
\text { W }
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & 0.000 & 315.000 & 248.000 & 110.000 \\
\hline & 2-A353 & 109.000 & 0.000 & 95.000 & 50.000 \\
\hline & \[
\begin{gathered}
3 \text { - A352 } \\
\text { W }
\end{gathered}
\] & 143.000 & 158.000 & 0.000 & 23.000 \\
\hline & 4-B3390 & 153.000 & 155.000 & 117.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
1-\mathrm{A} 352 \\
E
\end{gathered}
\] & \[
\begin{array}{r}
2- \\
\text { A353 }
\end{array}
\] & \[
\begin{gathered}
3-\text { A352 } \\
W
\end{gathered}
\] & \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] \\
\hline & \[
\begin{gathered}
1-\text { A3 }_{E} \\
\hline
\end{gathered}
\] & 0.00 & 0.47 & 0.37 & 0.16 \\
\hline & 2-A353 & 0.43 & 0.00 & 0.37 & 0.20 \\
\hline & \[
\begin{gathered}
3 \text { - A352 } \\
\text { W }
\end{gathered}
\] & 0.44 & 0.49 & 0.00 & 0.07 \\
\hline & 4-B3390 & 0.36 & 0.36 & 0.28 & 0.00 \\
\hline
\end{tabular}

\section*{Vehicle Mix}

Heavy Vehicle proportion
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline & & \begin{tabular}{c}
\(\mathbf{1 - A 3 5 2}\) \\
\(\mathbf{E}\)
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 -}\) \\
A353
\end{tabular} & \begin{tabular}{c}
\(\mathbf{3 - A 3 5 2}\) \\
\(\mathbf{W}\)
\end{tabular} & \begin{tabular}{c}
\(\mathbf{4 -}\) \\
B3390
\end{tabular} \\
\cline { 2 - 6 } From & \begin{tabular}{c} 
1-A352 \\
\(\mathbf{E}\)
\end{tabular} & 10 & 10 & 10 & 10 \\
\cline { 2 - 6 } & 2-A353 & 10 & 10 & 10 & 10 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
3-A352 \\
\(\mathbf{W}\)
\end{tabular} & 10 & 10 & 10 & 10 \\
\cline { 2 - 6 } & 4- B3390 & 10 & 10 & 10 & 10 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline & & \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & \begin{tabular}{c}
\(\mathbf{2 -}\) \\
A353
\end{tabular} & \begin{tabular}{c}
\(\mathbf{3 - A 3 5 2}\) \\
\(\mathbf{W}\)
\end{tabular} & \begin{tabular}{c}
\(\mathbf{4 -}\) \\
B3390
\end{tabular} \\
\cline { 2 - 6 } From & \begin{tabular}{c} 
1-A352 \\
E
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & 2-A353 & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
3-A352 \\
\(\mathbf{W}\)
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & 4- B3390 & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

Results Summary for whole modelled period
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Arm & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline 1-A352 E & 0.42 & 3.53 & 0.7 & A & 617.56 & 926.33 \\
\hline 2-A353 & 0.19 & 3.10 & 0.2 & A & 233.07 & 349.61 \\
\hline 3-A352 W & 0.29 & 4.12 & 0.4 & A & 297.31 & 445.96 \\
\hline 4- B3390 & 0.37 & 4.51 & 0.6 & A & 389.99 & 584.98 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (16:45-17:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 506.67 & 126.67 & 322.49 & 1881.96 & 0.269 & 505.20 & 303.82 & 0.0 & 0.4 & 2.613 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 191.22 & 47.81 & 356.49 & 1562.91 & 0.122 & 190.67 & 471.21 & 0.0 & 0.1 & 2.621 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 243.92 & 60.98 & 201.93 & 1291.43 & 0.189 & 243.00 & 345.23 & 0.0 & 0.2 & 3.430 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 319.96 & 79.99 & 307.57 & 1362.96 & 0.235 & 318.74 & 137.36 & 0.0 & 0.3 & 3.445 & A \\
\hline
\end{tabular}

Main results: (17:00-17:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 605.01 & 151.25 & 386.18 & 1830.64 & 0.330 & 604.52 & 363.76 & 0.4 & 0.5 & 2.934 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 228.34 & 57.09 & 426.64 & 1511.61 & 0.151 & 228.19 & 564.05 & 0.1 & 0.2 & 2.804 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 291.27 & 72.82 & 241.65 & 1266.05 & 0.230 & 291.01 & 413.18 & 0.2 & 0.3 & 3.692 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 382.07 & 95.52 & 368.27 & 1321.80 & 0.289 & 381.67 & 164.38 & 0.3 & 0.4 & 3.826 & A \\
\hline
\end{tabular}

Main results: (17:15-17:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 740.99 & 185.25 & 472.77 & 1760.86 & 0.421 & 740.06 & 445.36 & 0.5 & 0.7 & 3.523 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 279.66 & 69.91 & 522.30 & 1441.65 & 0.194 & 279.41 & 690.54 & 0.2 & 0.2 & 3.097 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 356.73 & 89.18 & 295.87 & 1231.41 & 0.290 & 356.30 & 505.84 & 0.3 & 0.4 & 4.112 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 467.93 & 116.98 & 450.91 & 1265.77 & 0.370 & 467.22 & 201.26 & 0.4 & 0.6 & 4.504 & A \\
\hline
\end{tabular}

Main results: (17:30-17:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & \begin{tabular}{l}
Start
queue
(Ven) \\
(Veh)
\end{tabular} & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 740.99 & 185.25 & 473.43 & 1760.33 & 0.421 & 740.98 & 445.91 & 0.7 & 0.7 & 3.530 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 279.66 & 69.91 & 522.98 & 1441.15 & 0.194 & 279.66 & 691.43 & 0.2 & 0.2 & 3.098 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 356.73 & 89.18 & 296.17 & 1231.22 & 0.290 & 356.73 & 506.46 & 0.4 & 0.4 & 4.116 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 467.93 & 116.98 & 451.41 & 1265.43 & 0.370 & 467.92 & 201.48 & 0.6 & 0.6 & 4.513 & A \\
\hline
\end{tabular}

Main results: (17:45-18:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 605.01 & 151.25 & 387.22 & 1829.80 & 0.331 & 605.93 & 364.63 & 0.7 & 0.5 & 2.945 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 228.34 & 57.09 & 427.69 & 1510.84 & 0.151 & 228.59 & 565.45 & 0.2 & 0.2 & 2.809 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 291.27 & 72.82 & 242.13 & 1265.74 & 0.230 & 291.69 & 414.15 & 0.4 & 0.3 & 3.699 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 382.07 & 95.52 & 369.08 & 1321.25 & 0.289 & 382.77 & 164.74 & 0.6 & 0.4 & 3.837 & A \\
\hline
\end{tabular}

Main results: (18:00-18:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & Total Demand (Veh/hr) & Junction Arrivals (Veh) & Circulating flow (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Throughput (exit side) (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline \[
\begin{gathered}
1- \\
\text { A352 E }
\end{gathered}
\] & 506.67 & 126.67 & 324.11 & 1880.65 & 0.269 & 507.17 & 305.23 & 0.5 & 0.4 & 2.623 & A \\
\hline \[
\begin{gathered}
2- \\
\text { A353 }
\end{gathered}
\] & 191.22 & 47.81 & 357.98 & 1561.82 & 0.122 & 191.38 & 473.30 & 0.2 & 0.1 & 2.628 & A \\
\hline \[
\begin{gathered}
3- \\
\text { A352 W }
\end{gathered}
\] & 243.92 & 60.98 & 202.70 & 1290.94 & 0.189 & 244.19 & 346.67 & 0.3 & 0.2 & 3.439 & A \\
\hline \[
\begin{gathered}
4- \\
\text { B3390 }
\end{gathered}
\] & 319.96 & 79.99 & 308.98 & 1362.00 & 0.235 & 320.36 & 137.90 & 0.4 & 0.3 & 3.459 & A \\
\hline
\end{tabular}

\section*{Junctions 9}

\section*{PICADY 9 - Priority Intersection Module}

Version: 9.0.0.4211 []
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Filename: Crossroads.j9
Path: J:\35340 Land at Moreton, Dorchester\Technical\Transport\Junction Assessments\PICADY
Report generation date: 16/09/2015 17:23:27
»(Default Analysis Set) - 2015, AM
»(Default Analysis Set) - 2015, PM
»(Default Analysis Set) - 2027 Ref Case + Dev, AM
»(Default Analysis Set) - 2027 Ref Case + Dev, PM
»(Default Analysis Set) - 2027 Ref Case, AM
»(Default Analysis Set) - 2027 Ref Case, PM

Summary of junction performance
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & \multicolumn{4}{|c|}{AM} & \multicolumn{4}{|c|}{PM} \\
\hline & Queue (Veh) & Delay (s) & RFC & LOS & Queue (Veh) & Delay (s) & RFC & LOS \\
\hline & \multicolumn{8}{|c|}{A1-2015} \\
\hline Stream B-CD & 0.1 & 7.86 & 0.09 & A & 0.1 & 7.46 & 0.07 & A \\
\hline Stream B-AD & 0.1 & 10.39 & 0.07 & B & 0.1 & 10.99 & 0.05 & B \\
\hline Stream A-BCD & 0.1 & 5.72 & 0.06 & A & 0.3 & 5.89 & 0.18 & A \\
\hline \multicolumn{9}{|l|}{Stream A-B} \\
\hline \multicolumn{9}{|l|}{Stream A-C} \\
\hline Stream D-AB & 0.2 & 7.79 & 0.15 & A & 0.1 & 6.91 & 0.11 & A \\
\hline Stream D-BC & 0.1 & 10.80 & 0.11 & B & 0.0 & 10.76 & 0.05 & B \\
\hline Stream C-ABD & 0.1 & 5.29 & 0.05 & A & 0.0 & 5.73 & 0.03 & A \\
\hline \multicolumn{9}{|l|}{Stream C-D} \\
\hline \multicolumn{9}{|l|}{Stream C-A} \\
\hline \multicolumn{9}{|c|}{A1-2027 Ref Case + Dev} \\
\hline Stream B-CD & 1.3 & 48.56 & 0.58 & E & 3.4 & 118.89 & 0.85 & F \\
\hline Stream B-AD & 3.5 & 67.35 & 0.81 & F & 5.3 & 107.85 & 0.90 & F \\
\hline Stream A-BCD & 0.3 & 5.29 & 0.13 & A & 1.0 & 5.72 & 0.34 & A \\
\hline \multicolumn{9}{|l|}{Stream A-B} \\
\hline \multicolumn{9}{|l|}{Stream A-C} \\
\hline Stream D-AB & 0.4 & 12.97 & 0.29 & B & 0.3 & 10.14 & 0.21 & B \\
\hline Stream D-BC & 0.3 & 19.30 & 0.26 & C & 0.2 & 17.91 & 0.18 & C \\
\hline Stream C-ABD & 0.5 & 5.40 & 0.20 & A & 0.2 & 6.30 & 0.11 & A \\
\hline \multicolumn{9}{|l|}{Stream C-D} \\
\hline \multicolumn{9}{|l|}{Stream C-A} \\
\hline \multicolumn{9}{|c|}{A1-2027 Ref Case} \\
\hline Stream B-CD & 0.1 & 8.96 & 0.13 & A & 0.1 & 8.85 & 0.13 & A \\
\hline Stream B-AD & 0.1 & 13.40 & 0.11 & B & 0.1 & 15.14 & 0.08 & C \\
\hline Stream A-BCD & 0.2 & 5.90 & 0.10 & A & 0.7 & 5.87 & 0.28 & A \\
\hline \multicolumn{9}{|l|}{Stream A-B} \\
\hline \multicolumn{9}{|l|}{Stream A-C} \\
\hline Stream D-AB & 0.3 & 9.92 & 0.21 & A & 0.2 & 8.28 & 0.15 & A \\
\hline Stream D-BC & 0.2 & 15.25 & 0.19 & C & 0.2 & 14.71 & 0.13 & B \\
\hline Stream C-ABD & 0.3 & 4.87 & 0.12 & A & 0.1 & 5.66 & 0.06 & A \\
\hline \multicolumn{9}{|l|}{Stream C-D} \\
\hline Stream C-A & & & & & & & & \\
\hline
\end{tabular}

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

File summary
File Description
\begin{tabular}{|l|c|}
\hline Title & Fiveways - Crossroads \\
\hline Location & Moreton \\
\hline Site number & \\
\hline Date & \(28 / 08 / 2015\) \\
\hline Version & \\
\hline Status & (new file) \\
\hline Identifier & \\
\hline Client & \\
\hline Jobnumber & 35340 \\
\hline Enumerator & PBA"ekeen \\
\hline Description & \\
\hline
\end{tabular}

\section*{Units}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline Distance units & Speed units & Traffic units input & Traffic units results & Flow units & Average delay units & Total delay units & Rate of delay units \\
\hline m & kph & Veh & Veh & perHour & s & - Min & perMin \\
\hline
\end{tabular}

\section*{Analysis Options}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \begin{tabular}{c} 
Vehicle length \\
\((\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
Calculate Queue \\
Percentiles
\end{tabular} & \begin{tabular}{c} 
Calculate detailed queueing \\
delay
\end{tabular} & \begin{tabular}{c} 
Calculate residual \\
capacity
\end{tabular} & \begin{tabular}{c} 
RFC \\
Threshold
\end{tabular} & \begin{tabular}{c} 
Average Delay \\
threshold (s)
\end{tabular} & \begin{tabular}{c} 
Queue threshold \\
\((\) PCU \()\)
\end{tabular} \\
\hline 5.75 & & & & 0.85 & 36.00 & 20.00 \\
\hline
\end{tabular}

Demand Set Summary
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Scenario name & Time Period name & Traffic profile type & Model start time (HH:mm) & Model finish time (HH:mm) & Time segment length (min) & Run automatically \\
\hline 2015 & AM & ONE HOUR & 07:45 & 09:15 & 15 & \(\checkmark\) \\
\hline 2015 & PM & ONE HOUR & 16:45 & 18:15 & 15 & \(\checkmark\) \\
\hline 2027 & AM & ONE HOUR & 07:45 & 09:15 & 15 & \(\checkmark\) \\
\hline 2027 & PM & ONE HOUR & 16:45 & 18:15 & 15 & \(\checkmark\) \\
\hline 2027 Base+ Dev & AM & ONE HOUR & 07:45 & 09:15 & 15 & \(\checkmark\) \\
\hline 2027 Base + Dev & PM & ONE HOUR & 16:45 & 18:15 & 15 & \(\checkmark\) \\
\hline 2027 Ref Case + Dev & AM & ONE HOUR & 07:45 & 09:15 & 15 & \(\checkmark\) \\
\hline 2027 Ref Case + Dev & PM & ONE HOUR & 16:45 & 18:15 & 15 & \(\checkmark\) \\
\hline 2027 Ref Case & AM & ONE HOUR & 07:45 & 09:15 & 15 & \(\checkmark\) \\
\hline 2027 Ref Case & PM & ONE HOUR & 16:45 & 18:15 & 15 & \(\checkmark\) \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2015, AM}

\section*{Data Errors and Warnings}

No errors or warnings
Analysis Set Details
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
(\%)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
(\%)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Major road direction & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - ( u n t i t l e d )}\) & (untitled) & Crossroads & Two-way & 3.58 & A \\
\hline
\end{tabular}

\section*{Junction Network Options}
\begin{tabular}{|c|c|}
\hline Driving side & Lighting \\
\hline Left & Normal/unknown \\
\hline
\end{tabular}

\section*{Arms}

\section*{Arms}
\begin{tabular}{|c|c|c|c|}
\hline Arm & Name & Description & Arm type \\
\hline A & B3390 N & & Major \\
\hline B & Redbridge Rd & & Minor \\
\hline C & B3390 S & & Major \\
\hline D & Dick O' Th' Banks & & Minor \\
\hline
\end{tabular}

\section*{Major Arm Geometry}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Arm & Width of carriageway (m) & Has kerbed central reserve & Has right turn bay & Visibility for right turn (m) & Blocks? & Blocking queue (PCU) \\
\hline A - B3390 N & 6.40 & & & 250.0 & \(\checkmark\) & \\
\hline C-B3390 S & 6.40 & & & 250.0 & \(\checkmark\) \\
\hline
\end{tabular}

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

\section*{Minor Arm Geometry}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline Arm & \begin{tabular}{c} 
Minor arm \\
type
\end{tabular} & \begin{tabular}{c} 
Width at \\
give-way \((\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
Width at \\
\(5 \mathbf{m}(\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
Width at \\
\(\mathbf{1 0 m}(\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
Width at \\
\(\mathbf{1 5 m}(\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
Width at \\
\(\mathbf{2 0 m}(\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
Estimate flare \\
length
\end{tabular} & \begin{tabular}{c} 
Flare \\
length \\
\((\mathbf{P C U})\)
\end{tabular} & \begin{tabular}{c} 
Visibility to \\
left \((\mathbf{m})\)
\end{tabular} & \begin{tabular}{c} 
Visibility to \\
right \((\mathbf{m})\)
\end{tabular} \\
\hline \begin{tabular}{c} 
B - Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
One lane \\
plus flare
\end{tabular} & 10.00 & 5.20 & 4.60 & 4.00 & 4.00 & & 1.00 & 25 & 18 \\
\hline \begin{tabular}{c} 
D- Dick O' Th' \\
Banks
\end{tabular} & \begin{tabular}{c} 
One lane \\
plus flare
\end{tabular} & 10.00 & 4.50 & 4.00 & 3.80 & 3.80 & & 1.00 & 27 & 14 \\
\hline
\end{tabular}

\section*{Slope / Intercept / Capacity}

Priority Intersection Slopes and Intercepts
\begin{tabular}{|l|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Junction & Stream & \begin{tabular}{c} 
Intercept \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
A-B
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
A-C
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
A-D
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
B-A
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
B-C
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
B-D
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
C-A
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
C-B
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
C-D
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
D-A
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
D-B
\end{tabular} & \begin{tabular}{c} 
Slope \\
for \\
D-C
\end{tabular} \\
\hline \(\mathbf{1}\) & A-D & 718.741 & - & - & - & - & - & - & 0.274 & 0.391 & 0.274 & - & - & - \\
\hline \(\mathbf{1}\) & B-A & 509.404 & 0.091 & 0.230 & 0.230 & - & - & - & 0.145 & 0.329 & - & 0.230 & 0.230 & 0.115 \\
\hline \(\mathbf{1}\) & B-C & 654.349 & 0.099 & 0.249 & - & - & - & - & - & - & - & - & - & - \\
\hline \(\mathbf{1}\) & B-D, nearside lane & 509.404 & 0.091 & 0.230 & 0.230 & - & - & - & 0.145 & 0.329 & 0.145 & - & - & - \\
\hline \(\mathbf{1}\) & B-D, offside lane & 509.404 & 0.091 & 0.230 & 0.230 & - & - & - & 0.145 & 0.329 & 0.145 & - & - & - \\
\hline \(\mathbf{1}\) & C-B & 718.741 & 0.274 & 0.274 & 0.391 & - & - & - & - & - & - & - & - & - \\
\hline \(\mathbf{1}\) & D-A & 687.838 & - & - & - & - & - & - & 0.262 & - & 0.104 & - & - & - \\
\hline \(\mathbf{1}\) & D-B, nearside lane & 536.170 & 0.153 & 0.153 & 0.346 & - & - & - & 0.243 & 0.243 & 0.096 & - & - & - \\
\hline \(\mathbf{1}\) & D-B, offside lane & 511.492 & 0.146 & 0.146 & 0.331 & - & - & - & 0.231 & 0.231 & 0.092 & - & - & - \\
\hline \(\mathbf{1}\) & D-C & 511.492 & - & 0.146 & 0.331 & 0.116 & 0.231 & 0.231 & 0.231 & 0.231 & 0.092 & - & - & - \\
\hline
\end{tabular}

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

\section*{Traffic Demand}

\section*{Demand Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & \begin{tabular}{c} 
Scenario \\
name
\end{tabular} & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D1 & 2015 & AM & ONE HOUR & \(07: 45\) & \(09: 15\) & 15 & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline A - B3390 N & & ONE HOUR & \(\checkmark\) & 153.00 & 100.000 \\
\hline B - Redbridge Rd & & ONE HOUR & \(\checkmark\) & 66.00 & 100.000 \\
\hline C - B3390 S & & ONE HOUR & \(\checkmark\) & 210.00 & 100.000 \\
\hline D- Dick O' Th' Banks & & ONE HOUR & \(\checkmark\) & 108.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \begin{tabular}{l}
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{l}
B - \\
Redbridge \\
Rd
\end{tabular} & \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{B} 3390 \\
\mathrm{~S}
\end{gathered}
\] & \begin{tabular}{l}
D - Dick \\
O' Th' \\
Banks
\end{tabular} \\
\hline & \[
\begin{gathered}
\text { A - B3390 } \\
\text { N }
\end{gathered}
\] & 0.000 & 15.000 & 107.000 & 31.000 \\
\hline & \begin{tabular}{l}
B - \\
Redbridge \\
Rd
\end{tabular} & 17.000 & 0.000 & 32.000 & 17.000 \\
\hline & \[
\begin{gathered}
C-B 3390 \\
S
\end{gathered}
\] & 155.000 & 26.000 & 0.000 & 29.000 \\
\hline & \[
\begin{aligned}
& \text { D - Dick O' } \\
& \text { Th' Banks }
\end{aligned}
\] & 66.000 & 11.000 & 31.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & &  & \[
\begin{gathered}
\text { B- } \\
\text { Redbridge } \\
\text { Rd }
\end{gathered}
\] & \[
\begin{gathered}
\text { C - } \\
\text { B3390 } \\
\text { S }
\end{gathered}
\] & \[
\begin{aligned}
& \text { D - Dick } \\
& \text { O' Th' } \\
& \text { Banks }
\end{aligned}
\] \\
\hline & \[
\begin{gathered}
\text { A - B3390 } \\
\mathbf{N}
\end{gathered}
\] & 0.00 & 0.10 & 0.70 & 0.20 \\
\hline & \begin{tabular}{l}
B - \\
Redbridge \\
Rd
\end{tabular} & 0.26 & 0.00 & 0.48 & 0.26 \\
\hline & \[
\begin{gathered}
C-B 3390 \\
S
\end{gathered}
\] & 0.74 & 0.12 & 0.00 & 0.14 \\
\hline & \[
\begin{aligned}
& \text { D - Dick O' } \\
& \text { Th' Banks }
\end{aligned}
\] & 0.61 & 0.10 & 0.29 & 0.00 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
O' Th' \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
A - B3390 N \\
Redbridge \\
Rd
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
B
\end{tabular} & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & C - B3390 S & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

\section*{Results Summary for whole modelled period}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Stream & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline B-CD & 0.09 & 7.86 & 0.1 & A & 37.49 & 56.24 \\
\hline B-AD & 0.07 & 10.39 & 0.1 & B & 23.07 & 34.60 \\
\hline A-BCD & 0.06 & 5.72 & 0.1 & A & 34.20 & 51.30 \\
\hline A-B & & & & & 13.06 & 19.58 \\
\hline A-C & & & & & 93.14 & 139.71 \\
\hline D-AB & 0.15 & 7.79 & 0.2 & A & 66.00 & 98.99 \\
\hline D-BC & 0.11 & 10.80 & 0.1 & B & 33.11 & 49.66 \\
\hline C-ABD & 0.05 & 5.29 & 0.1 & A & 31.09 & 46.63 \\
\hline C-D & & & & & 25.47 & 38.21 \\
\hline C-A & & & & & 136.14 & 204.21 \\
\hline
\end{tabular}

Main Results for each time segment
Main results: (07:45-08:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & \begin{tabular}{c} 
Total Demand \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Junction \\
demand (Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Junction \\
Arrivals (Veh)
\end{tabular} & \begin{tabular}{c} 
Bypass \\
demand \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Capacity \\
(Veh/hr)
\end{tabular} & RFC & \begin{tabular}{c} 
Throughput \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Start \\
queue \\
(Veh)
\end{tabular} & \begin{tabular}{c} 
End queue \\
(Veh)
\end{tabular} & \begin{tabular}{c} 
Delay \\
(s)
\end{tabular} \\
\hline B-CD & 30.70 & 30.70 & 7.67 & 0.00 & 522.54 & 0.059 & 30.45 & 0.0 & 0.1 & 7.312 \\
\hline LOS
\end{tabular}

Main results: (08:00-08:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 36.71 & 36.71 & 9.18 & 0.00 & 514.46 & 0.071 & 36.66 & 0.1 & 0.1 & 7.534 & A \\
\hline B-AD & 22.62 & 22.62 & 5.65 & 0.00 & 390.69 & 0.058 & 22.57 & 0.0 & 0.1 & 9.778 & A \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 33.21 & 33.21 & 8.30 & 0.00 & 668.19 & 0.050 & 33.15 & 0.1 & 0.1 & 5.668 & A \\
\hline A-B & 12.83 & 12.83 & 3.21 & 0.00 & & & 12.83 & & & & \\
\hline A-C & 91.51 & 91.51 & 22.88 & 0.00 & & & 91.51 & & & & \\
\hline D-AB & 64.63 & 64.63 & 16.16 & 0.00 & 555.02 & 0.116 & 64.53 & 0.1 & 0.1 & 7.337 & A \\
\hline D-BC & 32.46 & 32.46 & 8.11 & 0.00 & 390.25 & 0.083 & 32.38 & 0.1 & 0.1 & 10.057 & B \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 30.09 & 30.09 & 7.52 & 0.00 & 714.99 & 0.042 & 30.03 & 0.0 & 0.1 & 5.255 & A \\
\hline C-D & 25.01 & 25.01 & 6.25 & 0.00 & & & 25.01 & & & & \\
\hline C-A & 133.69 & 133.69 & 33.42 & 0.00 & & & 133.69 & & & & \\
\hline
\end{tabular}

Main results: (08:15-08:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline B-CD & 45.07 & 45.07 & 11.27 & 0.00 & 503.11 & 0.090 & 44.99 & 0.1 & 0.1 & 7.858 & A \\
\hline B-AD & 27.60 & 27.60 & 6.90 & 0.00 & 374.19 & 0.074 & 27.52 & 0.1 & 0.1 & 10.382 & B \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 42.38 & 42.38 & 10.59 & 0.00 & 672.35 & 0.063 & 42.29 & 0.1 & 0.1 & 5.713 & A \\
\hline A-B & 15.50 & 15.50 & 3.88 & 0.00 & & & 15.50 & & & & \\
\hline A-C & 110.58 & 110.58 & 27.64 & 0.00 & & & 110.58 & & & & \\
\hline D-AB & 79.28 & 79.28 & 19.82 & 0.00 & 541.20 & 0.146 & 79.12 & 0.1 & 0.2 & 7.788 & A \\
\hline D-BC & 39.63 & 39.63 & 9.91 & 0.00 & 372.89 & 0.106 & 39.52 & 0.1 & 0.1 & 10.795 & B \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 38.97 & 38.97 & 9.74 & 0.00 & 729.42 & 0.053 & 38.88 & 0.1 & 0.1 & 5.215 & A \\
\hline C-D & 30.30 & 30.30 & 7.57 & 0.00 & & & 30.30 & & & & \\
\hline C-A & 161.95 & 161.95 & 40.49 & 0.00 & & & 161.95 & & & & \\
\hline
\end{tabular}

Main results: (08:30-08:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 45.07 & 45.07 & 11.27 & 0.00 & 503.05 & 0.090 & 45.07 & 0.1 & 0.1 & 7.860 & A \\
\hline B-AD & 27.60 & 27.60 & 6.90 & 0.00 & 374.11 & 0.074 & 27.59 & 0.1 & 0.1 & 10.388 & B \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 42.39 & 42.39 & 10.60 & 0.00 & 672.34 & 0.063 & 42.39 & 0.1 & 0.1 & 5.715 & A \\
\hline A-B & 15.50 & 15.50 & 3.87 & 0.00 & & & 15.50 & & & & \\
\hline A-C & 110.56 & 110.56 & 27.64 & 0.00 & & & 110.56 & & & & \\
\hline D-AB & 79.28 & 79.28 & 19.82 & 0.00 & 541.11 & 0.147 & 79.28 & 0.2 & 0.2 & 7.794 & A \\
\hline D-BC & 39.63 & 39.63 & 9.91 & 0.00 & 372.82 & 0.106 & 39.62 & 0.1 & 0.1 & 10.803 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 38.99 & 38.99 & 9.75 & 0.00 & 729.42 & 0.053 & 38.99 & 0.1 & 0.1 & 5.215 & A \\
\hline C-D & 30.30 & 30.30 & 7.57 & 0.00 & & & 30.30 & & & & \\
\hline C-A & 161.93 & 161.93 & 40.48 & 0.00 & & & 161.93 & & & & \\
\hline
\end{tabular}

Main results: (08:45-09:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 36.72 & 36.72 & 9.18 & 0.00 & 514.37 & 0.071 & 36.80 & 0.1 & 0.1 & 7.538 & A \\
\hline B-AD & 22.62 & 22.62 & 5.65 & 0.00 & 390.55 & 0.058 & 22.68 & 0.1 & 0.1 & 9.789 & A \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 33.23 & 33.23 & 8.31 & 0.00 & 668.17 & 0.050 & 33.31 & 0.1 & 0.1 & 5.674 & A \\
\hline A-B & 12.83 & 12.83 & 3.21 & 0.00 & & & 12.83 & & & & \\
\hline A-C & 91.49 & 91.49 & 22.87 & 0.00 & & & 91.49 & & & & \\
\hline D-AB & 64.64 & 64.64 & 16.16 & 0.00 & 554.87 & 0.116 & 64.79 & 0.2 & 0.1 & 7.349 & A \\
\hline D-BC & 32.45 & 32.45 & 8.11 & 0.00 & 390.15 & 0.083 & 32.56 & 0.1 & 0.1 & 10.072 & B \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 30.12 & 30.12 & 7.53 & 0.00 & 714.98 & 0.042 & 30.20 & 0.1 & 0.1 & 5.258 & A \\
\hline C-D & 25.01 & 25.01 & 6.25 & 0.00 & & & 25.01 & & & & \\
\hline C-A & 133.66 & 133.66 & 33.42 & 0.00 & & & 133.66 & & & & \\
\hline
\end{tabular}

Main results: (09:00-09:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 30.70 & 30.70 & 7.67 & 0.00 & 522.38 & 0.059 & 30.76 & 0.1 & 0.1 & 7.325 & A \\
\hline B-AD & 18.99 & 18.99 & 4.75 & 0.00 & 402.46 & 0.047 & 19.04 & 0.1 & 0.1 & 9.389 & A \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 27.02 & 27.02 & 6.75 & 0.00 & 665.35 & 0.041 & 27.08 & 0.1 & 0.1 & 5.643 & A \\
\hline A-B & 10.84 & 10.84 & 2.71 & 0.00 & & & 10.84 & & & & \\
\hline A-C & 77.33 & 77.33 & 19.33 & 0.00 & & & 77.33 & & & & \\
\hline D-AB & 54.07 & 54.07 & 13.52 & 0.00 & 564.60 & 0.096 & 54.18 & 0.1 & 0.1 & 7.056 & A \\
\hline D-BC & 27.24 & 27.24 & 6.81 & 0.00 & 402.56 & 0.068 & 27.31 & 0.1 & 0.1 & 9.596 & A \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 24.21 & 24.21 & 6.05 & 0.00 & 704.63 & 0.034 & 24.27 & 0.1 & 0.0 & 5.291 & A \\
\hline C-D & 21.10 & 21.10 & 5.28 & 0.00 & & & 21.10 & & & & \\
\hline C-A & 112.79 & 112.79 & 28.20 & 0.00 & & & 112.79 & & & & \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2015, PM}

\section*{Data Errors and Warnings}

No errors or warnings
Analysis Set Details
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
(\%)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
\((\%)\)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Major road direction & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - ( \text { untitled) }}\) & (untitled) & Crossroads & Two-way & 3.22 & A \\
\hline
\end{tabular}

\section*{Junction Network Options}
[same as above]

\section*{Arms}

\section*{Arms}
[same as above]

\section*{Major Arm Geometry}
[same as above]

\section*{Minor Arm Geometry}
[same as above]
Slope / Intercept / Capacity
[same as above]

\section*{Traffic Demand}

\section*{Demand Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & \begin{tabular}{c} 
Scenario \\
name
\end{tabular} & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D2 & 2015 & AM & ONE HOUR & \(16: 45\) & \(18: 15\) & 15 & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline A - B3390 N & & ONE HOUR & \(\checkmark\) & 288.00 & 100.000 \\
\hline B - Redbridge Rd & & ONE HOUR & \(\checkmark\) & 50.00 & 100.000 \\
\hline C - B3390 S & & ONE HOUR & \(\checkmark\) & 142.00 & 100.000 \\
\hline D- Dick O' Th' Banks & & ONE HOUR & \(\checkmark\) & 74.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
\mathrm{A}- \\
\text { B3390 } \\
\mathrm{N}
\end{gathered}
\] & \begin{tabular}{l}
B - \\
Redbridge \\
Rd
\end{tabular} & \[
\begin{gathered}
\mathrm{C}- \\
\text { B3390 } \\
\mathrm{S}
\end{gathered}
\] & \[
\begin{aligned}
& \text { D - Dick } \\
& \text { O' Th' } \\
& \text { Banks }
\end{aligned}
\] \\
\hline & \[
\begin{gathered}
\text { A-B3390 } \\
N
\end{gathered}
\] & 0.000 & 8.000 & 193.000 & 87.000 \\
\hline & \begin{tabular}{l}
B - \\
Redbridge \\
Rd
\end{tabular} & 12.000 & 0.000 & 30.000 & 8.000 \\
\hline & \[
\begin{gathered}
C-B 3390 \\
S
\end{gathered}
\] & 93.000 & 14.000 & 0.000 & 35.000 \\
\hline & \[
\begin{aligned}
& \hline \text { D - Dick O' } \\
& \text { Th' Banks }
\end{aligned}
\] & 56.000 & 7.000 & 11.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{5}{*}{ From } & \begin{tabular}{c} 
A - \\
B3390 \\
\(\mathbf{N}\)
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B339 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
\(\mathbf{O}^{\prime}\) Th' \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
Redbridge \\
\(\mathbf{N}\)
\end{tabular} & 0.24 & 0.03 & 0.67 & 0.30 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
R -
\end{tabular} & \begin{tabular}{c} 
C - B3390 \\
\(\mathbf{S}\)
\end{tabular} & 0.65 & 0.10 & 0.00 \\
\hline & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 0.76 & 0.09 & 0.15 & 0.00 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
\text { A- } \\
\text { B3390 } \\
\text { N }
\end{gathered}
\] & \begin{tabular}{l}
B - \\
Redbridge Rd
\end{tabular} & \[
\begin{gathered}
\text { C- } \\
\text { B3390 } \\
\text { S }
\end{gathered}
\] & \begin{tabular}{l}
D - Dick \\
O' Th' \\
Banks
\end{tabular} \\
\hline & A-B3390 N & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline & \begin{tabular}{l}
B - \\
Redbridge Rd
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline & C - B3390 S & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline & \[
\begin{aligned}
& \text { D - Dick O' } \\
& \text { Th' Banks }
\end{aligned}
\] & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

\section*{Results Summary for whole modelled period}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Stream & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline B-CD & 0.07 & 7.46 & 0.1 & A & 31.32 & 46.98 \\
\hline B-AD & 0.05 & 10.99 & 0.1 & B & 14.56 & 21.85 \\
\hline A-BCD & 0.18 & 5.89 & 0.3 & A & 107.45 & 161.17 \\
\hline A-B & & & & & 6.24 & 9.36 \\
\hline A-C & & & & & 150.59 & 225.88 \\
\hline D-AB & 0.11 & 6.91 & 0.1 & A & 54.69 & 82.04 \\
\hline D-BC & 0.05 & 10.76 & 0.0 & B & 13.21 & 19.82 \\
\hline C-ABD & 0.03 & 5.73 & 0.0 & A & 15.72 & 23.57 \\
\hline C-D & & & & & 31.33 & 47.00 \\
\hline C-A & & & & & 83.25 & 124.88 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (16:45-17:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & \begin{tabular}{l}
Capacity \\
(Veh/hr)
\end{tabular} & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 25.67 & 25.67 & 6.42 & 0.00 & 544.54 & 0.047 & 25.47 & 0.0 & 0.0 & 6.934 & A \\
\hline B-AD & 11.97 & 11.97 & 2.99 & 0.00 & 377.97 & 0.032 & 11.84 & 0.0 & 0.0 & 9.830 & A \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 82.24 & 82.24 & 20.56 & 0.00 & 715.90 & 0.115 & 81.58 & 0.0 & 0.2 & 5.671 & A \\
\hline A-B & 5.36 & 5.36 & 1.34 & 0.00 & & & 5.36 & & & & \\
\hline A-C & 129.23 & 129.23 & 32.31 & 0.00 & & & 129.23 & & & & \\
\hline D-AB & 44.85 & 44.85 & 11.21 & 0.00 & 602.10 & 0.074 & 44.53 & 0.0 & 0.1 & 6.454 & A \\
\hline D-BC & 10.86 & 10.86 & 2.71 & 0.00 & 382.39 & 0.028 & 10.74 & 0.0 & 0.0 & 9.683 & A \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 12.33 & 12.33 & 3.08 & 0.00 & 648.02 & 0.019 & 12.24 & 0.0 & 0.0 & 5.662 & A \\
\hline C-D & 25.86 & 25.86 & 6.46 & 0.00 & & & 25.86 & & & & \\
\hline C-A & 68.71 & 68.71 & 17.18 & 0.00 & & & 68.71 & & & & \\
\hline
\end{tabular}

Main results: (17:00-17:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 30.67 & 30.67 & 7.67 & 0.00 & 534.43 & 0.057 & 30.63 & 0.0 & 0.1 & 7.145 & A \\
\hline B-AD & 14.28 & 14.28 & 3.57 & 0.00 & 364.07 & 0.039 & 14.24 & 0.0 & 0.0 & 10.291 & B \\
\hline ABCD & 103.98 & 103.98 & 25.99 & 0.00 & 729.48 & 0.143 & 103.77 & 0.2 & 0.2 & 5.754 & A \\
\hline A-B & 6.17 & 6.17 & 1.54 & 0.00 & & & 6.17 & & & & \\
\hline A-C & 148.76 & 148.76 & 37.19 & 0.00 & & & 148.76 & & & & \\
\hline D-AB & 53.57 & 53.57 & 13.39 & 0.00 & 595.49 & 0.090 & 53.50 & 0.1 & 0.1 & 6.642 & A \\
\hline D-BC & 12.95 & 12.95 & 3.24 & 0.00 & 368.89 & 0.035 & 12.92 & 0.0 & 0.0 & 10.113 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 15.24 & 15.24 & 3.81 & 0.00 & 647.57 & 0.024 & 15.21 & 0.0 & 0.0 & 5.692 & A \\
\hline C-D & 30.74 & 30.74 & 7.68 & 0.00 & & & 30.74 & & & & \\
\hline C-A & 81.68 & 81.68 & 20.42 & 0.00 & & & 81.68 & & & & \\
\hline
\end{tabular}

Main results: (17:15-17:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & \begin{tabular}{c} 
Total Demand \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Junction \\
demand (Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Junction \\
Arrivals (Veh)
\end{tabular} & \begin{tabular}{c} 
Bypass \\
demand \\
\((\) Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Capacity \\
\((\) Veh/hr)
\end{tabular} & RFC & \begin{tabular}{c} 
Throughput \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Start \\
queue \\
(Veh)
\end{tabular} & \begin{tabular}{c} 
End queue \\
(Veh)
\end{tabular} & \begin{tabular}{c} 
Delay \\
(s)
\end{tabular} & \begin{tabular}{c} 
Los
\end{tabular} \\
\hline B-CD & 37.61 & 37.61 & 9.40 & 0.00 & 520.44 & 0.072 & 37.54 & 0.1 & 0.1 & 7.455 & A \\
\hline B-AD & 17.44 & 17.44 & 4.36 & 0.00 & 345.00 & 0.051 & 17.40 & 0.0 & 0.1 & 10.987 & B \\
\hline \begin{tabular}{c} 
A- \\
BCD
\end{tabular} & 135.94 & 135.94 & 33.99 & 0.00 & 747.58 & 0.182 & 135.61 & 0.2 & 0.3 & 5.885 & A \\
\hline A-B & 7.21 & 7.21 & 1.80 & 0.00 & & & 7.21 & & & \\
\hline A-C & 173.94 & 173.94 & 43.49 & 0.00 & & & 173.94 & & & \\
\hline D-AB & 65.65 & 65.65 & 16.41 & 0.00 & 586.27 & 0.112 & 65.54 & 0.1 & 0.1 & 6.911 & A \\
\hline D-BC & 15.83 & 15.83 & 3.96 & 0.00 & 350.38 & 0.045 & 15.79 & 0.0 & 0.0 & 10.758 & B \\
\hline \begin{tabular}{c} 
C- \\
ABD
\end{tabular} & 19.56 & 19.56 & 4.89 & 0.00 & 647.59 & 0.030 & 19.52 & 0.0 & 0.0 & 5.731 & A \\
\hline C-D & 37.40 & 37.40 & 9.35 & 0.00 & & & 37.40 & & & & \\
\hline C-A & 99.38 & 99.38 & 24.85 & 0.00 & & & 99.38 & & & & \\
\hline
\end{tabular}

Main results: (17:30-17:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 37.61 & 37.61 & 9.40 & 0.00 & 520.33 & 0.072 & 37.61 & 0.1 & 0.1 & 7.456 & A \\
\hline B-AD & 17.44 & 17.44 & 4.36 & 0.00 & 344.92 & 0.051 & 17.44 & 0.1 & 0.1 & 10.992 & B \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 136.02 & 136.02 & 34.01 & 0.00 & 747.65 & 0.182 & 136.02 & 0.3 & 0.3 & 5.893 & A \\
\hline A-B & 7.21 & 7.21 & 1.80 & 0.00 & & & 7.21 & & & & \\
\hline A-C & 173.86 & 173.86 & 43.47 & 0.00 & & & 173.86 & & & & \\
\hline D-AB & 65.65 & 65.65 & 16.41 & 0.00 & 586.21 & 0.112 & 65.64 & 0.1 & 0.1 & 6.914 & A \\
\hline D-BC & 15.83 & 15.83 & 3.96 & 0.00 & 350.28 & 0.045 & 15.83 & 0.0 & 0.0 & 10.763 & B \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 19.57 & 19.57 & 4.89 & 0.00 & 647.50 & 0.030 & 19.56 & 0.0 & 0.0 & 5.733 & A \\
\hline C-D & 37.40 & 37.40 & 9.35 & 0.00 & & & 37.40 & & & & \\
\hline C-A & 99.38 & 99.38 & 24.84 & 0.00 & & & 99.38 & & & & \\
\hline
\end{tabular}

Main results: (17:45-18:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline B-CD & 30.67 & 30.67 & 7.67 & 0.00 & 534.25 & 0.057 & 30.74 & 0.1 & 0.1 & 7.149 & A \\
\hline B-AD & 14.27 & 14.27 & 3.57 & 0.00 & 363.94 & 0.039 & 14.32 & 0.1 & 0.0 & 10.299 & B \\
\hline ABCD & 104.08 & 104.08 & 26.02 & 0.00 & 729.59 & 0.143 & 104.40 & 0.3 & 0.2 & 5.764 & A \\
\hline A-B & 6.16 & 6.16 & 1.54 & 0.00 & & & 6.16 & & & & \\
\hline A-C & 148.66 & 148.66 & 37.16 & 0.00 & & & 148.66 & & & & \\
\hline D-AB & 53.58 & 53.58 & 13.39 & 0.00 & 595.39 & 0.090 & 53.68 & 0.1 & 0.1 & 6.648 & A \\
\hline D-BC & 12.95 & 12.95 & 3.24 & 0.00 & 368.74 & 0.035 & 12.99 & 0.0 & 0.0 & 10.122 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 15.25 & 15.25 & 3.81 & 0.00 & 647.41 & 0.024 & 15.29 & 0.0 & 0.0 & 5.697 & A \\
\hline C-D & 30.74 & 30.74 & 7.68 & 0.00 & & & 30.74 & & & & \\
\hline C-A & 81.67 & 81.67 & 20.42 & 0.00 & & & 81.67 & & & & \\
\hline
\end{tabular}

Main results: (18:00-18:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & \begin{tabular}{c} 
Total Demand \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Junction \\
demand (Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Junction \\
Arrivals (Veh)
\end{tabular} & \begin{tabular}{c} 
Bypass \\
demand \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Capacity \\
(Veh/hr)
\end{tabular} & RFC & \begin{tabular}{c} 
Throughput \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Start \\
queue \\
(Veh)
\end{tabular} & \begin{tabular}{c} 
End queue \\
(Veh)
\end{tabular} & \begin{tabular}{c} 
Delay \\
(s)
\end{tabular} & \begin{tabular}{c} 
Los
\end{tabular} \\
\hline B-CD & 25.67 & 25.67 & 6.42 & 0.00 & 544.24 & 0.047 & 25.72 & 0.1 & 0.0 & 6.942 & A \\
\hline B-AD & 11.97 & 11.97 & 2.99 & 0.00 & 377.75 & 0.032 & 12.01 & 0.0 & 0.0 & 9.843 & A \\
\hline \begin{tabular}{c} 
A- \\
BCD
\end{tabular} & 82.41 & 82.41 & 20.60 & 0.00 & 716.00 & 0.115 & 82.62 & 0.2 & 0.2 & 5.689 & A \\
\hline A-B & 5.35 & 5.35 & 1.34 & 0.00 & & & 5.35 & & & \\
\hline A-C & 129.06 & 129.06 & 32.27 & 0.00 & & & 129.06 & & & \\
\hline D-AB & 44.85 & 44.85 & 11.21 & 0.00 & 601.91 & 0.075 & 44.93 & 0.1 & 0.1 & 6.463 & A \\
\hline D-BC & 10.86 & 10.86 & 2.71 & 0.00 & 382.12 & 0.028 & 10.89 & 0.0 & 0.0 & 9.699 & A \\
\hline \begin{tabular}{c} 
C- \\
ABD
\end{tabular} & 12.35 & 12.35 & 3.09 & 0.00 & 647.73 & 0.019 & 12.38 & 0.0 & 0.0 & 5.668 & A \\
\hline C-D & 25.85 & 25.85 & 6.46 & 0.00 & & & 25.85 & & & & \\
\hline C-A & 68.70 & 68.70 & 17.17 & 0.00 & & & 68.70 & & & & \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2027 Ref Case + Dev, AM}

\section*{Data Errors and Warnings}

No errors or warnings
Analysis Set Details
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
(\%)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
\((\%)\)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Major road direction & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - ( u n t i t l e d )}\) & (untitled) & Crossroads & Two-way & 15.12 & C \\
\hline
\end{tabular}

\section*{Junction Network Options}
[same as above]

\section*{Arms}

\section*{Arms}
[same as above]

\section*{Major Arm Geometry}
[same as above]

\section*{Minor Arm Geometry}
[same as above]
Slope / Intercept / Capacity
[same as above]

\section*{Traffic Demand}

\section*{Demand Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & Scenario name & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D7 & \begin{tabular}{c}
2027 Ref Case + \\
Dev
\end{tabular} & AM & ONE HOUR & \(07: 45\) & \(09: 15\) & 15 & \(\checkmark\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline A - B3390 N & & ONE HOUR & \(\checkmark\) & 425.00 & 100.000 \\
\hline B - Redbridge Rd & & ONE HOUR & \(\checkmark\) & 274.00 & 100.000 \\
\hline C - B3390 S & & ONE HOUR & \(\checkmark\) & 492.00 & 100.000 \\
\hline D - Dick O' Th' Banks & & ONE HOUR & \(\checkmark\) & 162.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
\(\mathbf{O}^{\prime} \mathbf{T h}^{\prime}\) \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
A - B3390 \\
\(\mathbf{N}\)
\end{tabular} & 0.000 & 173.000 & 208.000 & 44.000 \\
\hline \begin{tabular}{c} 
B - \\
Rd
\end{tabular} & 179.000 & 0.000 & 58.000 & 37.000 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
C - B3390 \\
S
\end{tabular} & 371.000 & 68.000 & 0.000 & 53.000 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 81.000 & 36.000 & 45.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
\(\mathbf{N}\)
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
\(\mathbf{O}^{\prime}\) Th' \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
A - B3390 \\
N
\end{tabular} & 0.00 & 0.41 & 0.49 & 0.10 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
B - \\
Rd
\end{tabular} & 0.65 & 0.00 & 0.21 & 0.14 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
C - B3390 \\
S
\end{tabular} & 0.75 & 0.14 & 0.00 & 0.11 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 0.50 & 0.22 & 0.28 & 0.00 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
O' Th' \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
A - B3390 N \\
Redbridge \\
Rd
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
B
\end{tabular} & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & C - B3390 S & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D- Dick O' \\
Th' Banks
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

\section*{Results Summary for whole modelled period}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Stream & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline B-CD & 0.58 & 48.56 & 1.3 & E & 80.13 & 120.20 \\
\hline B-AD & 0.81 & 67.35 & 3.5 & F & 171.29 & 256.94 \\
\hline A-BCD & 0.13 & 5.29 & 0.3 & A & 75.88 & 113.83 \\
\hline A-B & & & & & 142.62 & 213.94 \\
\hline A-C & & & & & 171.48 & 257.22 \\
\hline D-AB & 0.29 & 12.97 & 0.4 & B & 93.37 & 140.06 \\
\hline D-BC & 0.26 & 19.30 & 0.3 & C & 55.28 & 82.92 \\
\hline C-ABD & 0.20 & 5.40 & 0.5 & A & 123.70 & 185.55 \\
\hline C-D & & & & & 40.97 & 61.46 \\
\hline C-A & & & & & 286.79 & 430.19 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (07:45-08:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 63.08 & 63.08 & 15.77 & 0.00 & 364.75 & 0.173 & 62.26 & 0.0 & 0.2 & 11.870 & B \\
\hline B-AD & 143.20 & 143.20 & 35.80 & 0.00 & 338.94 & 0.422 & 140.37 & 0.0 & 0.7 & 17.891 & C \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 53.87 & 53.87 & 13.47 & 0.00 & 736.31 & 0.073 & 53.35 & 0.0 & 0.1 & 5.270 & A \\
\hline A-B & 120.82 & 120.82 & 30.21 & 0.00 & & & 120.82 & & & & \\
\hline A-C & 145.27 & 145.27 & 36.32 & 0.00 & & & 145.27 & & & & \\
\hline D-AB & 75.94 & 75.94 & 18.98 & 0.00 & 462.36 & 0.164 & 75.16 & 0.0 & 0.2 & 9.279 & A \\
\hline D-BC & 46.02 & 46.02 & 11.51 & 0.00 & 328.29 & 0.140 & 45.38 & 0.0 & 0.2 & 12.698 & B \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 86.53 & 86.53 & 21.63 & 0.00 & 770.30 & 0.112 & 85.68 & 0.0 & 0.2 & 5.258 & A \\
\hline C-D & 35.48 & 35.48 & 8.87 & 0.00 & & & 35.48 & & & & \\
\hline C-A & 248.39 & 248.39 & 62.10 & 0.00 & & & 248.39 & & & & \\
\hline
\end{tabular}

Main results: (08:00-08:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline B-CD & 77.45 & 77.45 & 19.36 & 0.00 & 303.57 & 0.255 & 76.94 & 0.2 & 0.3 & 15.847 & C \\
\hline B-AD & 168.87 & 168.87 & 42.22 & 0.00 & 305.93 & 0.552 & 167.04 & 0.7 & 1.2 & 25.569 & D \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 71.64 & 71.64 & 17.91 & 0.00 & 755.99 & 0.095 & 71.39 & 0.1 & 0.2 & 5.263 & A \\
\hline A-B & 140.96 & 140.96 & 35.24 & 0.00 & & & 140.96 & & & & \\
\hline A-C & 169.47 & 169.47 & 42.37 & 0.00 & & & 169.47 & & & & \\
\hline D-AB & 91.23 & 91.23 & 22.81 & 0.00 & 434.44 & 0.210 & 90.96 & 0.2 & 0.3 & 10.472 & B \\
\hline D-BC & 54.40 & 54.40 & 13.60 & 0.00 & 297.37 & 0.183 & 54.17 & 0.2 & 0.2 & 14.787 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 115.59 & 115.59 & 28.90 & 0.00 & 796.23 & 0.145 & 115.24 & 0.2 & 0.3 & 5.291 & A \\
\hline C-D & 40.84 & 40.84 & 10.21 & 0.00 & & & 40.84 & & & & \\
\hline C-A & 285.87 & 285.87 & 71.47 & 0.00 & & & 285.87 & & & & \\
\hline
\end{tabular}

Main results: (08:15-08:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline B-CD & 99.18 & 99.18 & 24.79 & 0.00 & 187.03 & 0.530 & 96.37 & 0.3 & 1.0 & 38.620 & E \\
\hline B-AD & 202.50 & 202.50 & 50.63 & 0.00 & 253.49 & 0.799 & 194.91 & 1.2 & 3.1 & 55.453 & F \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 101.79 & 101.79 & 25.45 & 0.00 & 784.88 & 0.130 & 101.37 & 0.2 & 0.3 & 5.274 & A \\
\hline A-B & 166.25 & 166.25 & 41.56 & 0.00 & & & 166.25 & & & & \\
\hline A-C & 199.89 & 199.89 & 49.97 & 0.00 & & & 199.89 & & & & \\
\hline D-AB & 112.88 & 112.88 & 28.22 & 0.00 & 391.37 & 0.288 & 112.34 & 0.3 & 0.4 & 12.875 & B \\
\hline D-BC & 65.48 & 65.48 & 16.37 & 0.00 & 253.45 & 0.258 & 65.00 & 0.2 & 0.3 & 19.054 & C \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 168.42 & 168.42 & 42.11 & 0.00 & 836.93 & 0.201 & 167.73 & 0.3 & 0.5 & 5.389 & A \\
\hline C-D & 46.66 & 46.66 & 11.67 & 0.00 & & & 46.66 & & & & \\
\hline C-A & 326.62 & 326.62 & 81.66 & 0.00 & & & 326.62 & & & & \\
\hline
\end{tabular}

Main results: (08:30-08:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 99.74 & 99.74 & 24.94 & 0.00 & 171.63 & 0.581 & 98.82 & 1.0 & 1.3 & 48.564 & E \\
\hline B-AD & 201.94 & 201.94 & 50.48 & 0.00 & 250.39 & 0.806 & 200.20 & 3.1 & 3.5 & 67.352 & F \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 101.98 & 101.98 & 25.50 & 0.00 & 784.91 & 0.130 & 101.97 & 0.3 & 0.3 & 5.281 & A \\
\hline A-B & 166.17 & 166.17 & 41.54 & 0.00 & & & 166.17 & & & & \\
\hline A-C & 199.79 & 199.79 & 49.95 & 0.00 & & & 199.79 & & & & \\
\hline D-AB & 112.94 & 112.94 & 28.24 & 0.00 & 390.45 & 0.289 & 112.92 & 0.4 & 0.4 & 12.969 & B \\
\hline D-BC & 65.42 & 65.42 & 16.36 & 0.00 & 251.84 & 0.260 & 65.40 & 0.3 & 0.3 & 19.303 & C \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 168.73 & 168.73 & 42.18 & 0.00 & 837.16 & 0.202 & 168.71 & 0.5 & 0.5 & 5.401 & A \\
\hline C-D & 46.62 & 46.62 & 11.66 & 0.00 & & & 46.62 & & & & \\
\hline C-A & 326.35 & 326.35 & 81.59 & 0.00 & & & 326.35 & & & & \\
\hline
\end{tabular}

Main results: (08:45-09:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 78.05 & 78.05 & 19.51 & 0.00 & 288.02 & 0.271 & 81.59 & 1.3 & 0.4 & 17.720 & C \\
\hline B-AD & 168.28 & 168.28 & 42.07 & 0.00 & 303.56 & 0.554 & 176.96 & 3.5 & 1.3 & 30.094 & D \\
\hline ABCD & 71.87 & 71.87 & 17.97 & 0.00 & 756.02 & 0.095 & 72.27 & 0.3 & 0.2 & 5.275 & A \\
\hline A-B & 140.85 & 140.85 & 35.21 & 0.00 & & & 140.85 & & & & \\
\hline A-C & 169.35 & 169.35 & 42.34 & 0.00 & & & 169.35 & & & & \\
\hline D-AB & 91.28 & 91.28 & 22.82 & 0.00 & 433.39 & 0.211 & 91.81 & 0.4 & 0.3 & 10.557 & B \\
\hline D-BC & 54.35 & 54.35 & 13.59 & 0.00 & 295.08 & 0.184 & 54.81 & 0.3 & 0.2 & 15.011 & C \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 115.93 & 115.93 & 28.98 & 0.00 & 796.52 & 0.146 & 116.60 & 0.5 & 0.3 & 5.307 & A \\
\hline C-D & 40.80 & 40.80 & 10.20 & 0.00 & & & 40.80 & & & & \\
\hline C-A & 285.57 & 285.57 & 71.39 & 0.00 & & & 285.57 & & & & \\
\hline
\end{tabular}

Main results: (09:00-09:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 63.30 & 63.30 & 15.82 & 0.00 & 358.96 & 0.176 & 63.96 & 0.4 & 0.2 & 12.231 & B \\
\hline B-AD & 142.98 & 142.98 & 35.75 & 0.00 & 337.93 & 0.423 & 145.24 & 1.3 & 0.8 & 18.893 & C \\
\hline ABCD & 54.16 & 54.16 & 13.54 & 0.00 & 736.20 & 0.074 & 54.42 & 0.2 & 0.1 & 5.287 & A \\
\hline A-B & 120.69 & 120.69 & 30.17 & 0.00 & & & 120.69 & & & & \\
\hline A-C & 145.11 & 145.11 & 36.28 & 0.00 & & & 145.11 & & & & \\
\hline D-AB & 75.97 & 75.97 & 18.99 & 0.00 & 461.47 & 0.165 & 76.26 & 0.3 & 0.2 & 9.353 & A \\
\hline D-BC & 45.99 & 45.99 & 11.50 & 0.00 & 326.96 & 0.141 & 46.25 & 0.2 & 0.2 & 12.835 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 87.01 & 87.01 & 21.75 & 0.00 & 770.46 & 0.113 & 87.37 & 0.3 & 0.2 & 5.280 & A \\
\hline C-D & 35.42 & 35.42 & 8.86 & 0.00 & & & 35.42 & & & & \\
\hline C-A & 247.97 & 247.97 & 61.99 & 0.00 & & & 247.97 & & & & \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2027 Ref Case + Dev, PM}

\section*{Data Errors and Warnings}

No errors or warnings
Analysis Set Details
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
(\%)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
(\%)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Major road direction & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - ( \text { untitled } )}\) & (untitled) & Crossroads & Two-way & 25.09 & D \\
\hline
\end{tabular}

\section*{Junction Network Options}
[same as above]

\section*{Arms}

\section*{Arms}
[same as above]

\section*{Major Arm Geometry}
[same as above]

\section*{Minor Arm Geometry}
[same as above]
Slope / Intercept / Capacity
[same as above]

\section*{Traffic Demand}

\section*{Demand Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & Scenario name & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D8 & \begin{tabular}{c}
2027 Ref Case + \\
Dev
\end{tabular} & PM & ONE HOUR & \(16: 45\) & \(18: 15\) & 15 & \(\checkmark\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline A - B3390 N & & ONE HOUR & \(\checkmark\) & 667.00 & 100.000 \\
\hline B - Redbridge Rd & & ONE HOUR & \(\checkmark\) & 276.00 & 100.000 \\
\hline C - B3390 S & & ONE HOUR & \(\checkmark\) & 296.00 & 100.000 \\
\hline D - Dick O' Th' Banks & & ONE HOUR & \(\checkmark\) & 129.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
\(\mathbf{O}^{\prime} \mathbf{T h}^{\prime}\) \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
A - B3390 \\
N
\end{tabular} & 0.000 & 153.000 & 405.000 & 109.000 \\
\hline \begin{tabular}{c} 
B - \\
Rd
\end{tabular} & 172.000 & 0.000 & 72.000 & 32.000 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
C - B3390 \\
S
\end{tabular} & 206.000 & 37.000 & 0.000 & 53.000 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 74.000 & 25.000 & 30.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
\(\mathbf{N}\)
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
O' Th' \(^{\prime}\) \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
Redbridge \\
N
\end{tabular} & 0.62 & 0.00 & 0.26 & 0.12 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
Rd
\end{tabular} & 0.00 & 0.23 & 0.16 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
C - B3390 \\
S
\end{tabular} & 0.70 & 0.13 & 0.00 & 0.18 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 0.57 & 0.19 & 0.23 & 0.00 \\
\hline
\end{tabular}

\section*{Vehicle Mix}

Heavy Vehicle proportion
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & \begin{tabular}{c} 
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
\(\mathbf{O}^{\prime}\) Th' \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & A - B3390 N & 10 & 10 & 10 & 10 \\
\hline \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & 10 & 10 & 10 & 10 \\
\cline { 2 - 6 } & C - B3390 S & 10 & 10 & 10 & 10 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 10 & 10 & 10 & 10 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
O' Th' \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
A - B3390 N \\
Redbridge \\
Rd
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
B
\end{tabular} & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & C - B3390 S & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D- Dick O' \\
Th' Banks
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

\section*{Results Summary for whole modelled period}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Stream & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline B-CD & 0.85 & 118.89 & 3.4 & F & 89.80 & 134.70 \\
\hline B-AD & 0.90 & 107.85 & 5.3 & F & 163.46 & 245.20 \\
\hline A-BCD & 0.34 & 5.72 & 1.0 & A & 236.15 & 354.23 \\
\hline A-B & & & & & 103.07 & 154.60 \\
\hline A-C & & & & & 272.83 & 409.24 \\
\hline D-AB & 0.21 & 10.14 & 0.3 & B & 80.59 & 120.89 \\
\hline D-BC & 0.18 & 17.91 & 0.2 & C & 37.78 & 56.67 \\
\hline C-ABD & 0.11 & 6.30 & 0.2 & A & 54.82 & 82.23 \\
\hline C-D & & & & & 44.36 & 66.55 \\
\hline C-A & & & & & 172.43 & 258.65 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (16:45-17:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 71.06 & 71.06 & 17.77 & 0.00 & 356.89 & 0.199 & 70.08 & 0.0 & 0.2 & 12.510 & B \\
\hline B-AD & 136.73 & 136.73 & 34.18 & 0.00 & 319.95 & 0.427 & 133.85 & 0.0 & 0.7 & 19.069 & C \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 157.44 & 157.44 & 39.36 & 0.00 & 854.60 & 0.184 & 155.90 & 0.0 & 0.4 & 5.151 & A \\
\hline A-B & 94.52 & 94.52 & 23.63 & 0.00 & & & 94.52 & & & & \\
\hline A-C & 250.20 & 250.20 & 62.55 & 0.00 & & & 250.20 & & & & \\
\hline D-AB & 65.79 & 65.79 & 16.45 & 0.00 & 508.57 & 0.129 & 65.20 & 0.0 & 0.1 & 8.109 & A \\
\hline D-BC & 31.33 & 31.33 & 7.83 & 0.00 & 320.53 & 0.098 & 30.90 & 0.0 & 0.1 & 12.413 & B \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 39.36 & 39.36 & 9.84 & 0.00 & 639.34 & 0.062 & 38.96 & 0.0 & 0.1 & 5.994 & A \\
\hline C-D & 37.55 & 37.55 & 9.39 & 0.00 & & & 37.55 & & & & \\
\hline C-A & 145.94 & 145.94 & 36.48 & 0.00 & & & 145.94 & & & & \\
\hline
\end{tabular}

Main results: (17:00-17:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline B-CD & 86.83 & 86.83 & 21.71 & 0.00 & 289.36 & 0.300 & 86.14 & 0.2 & 0.4 & 17.652 & C \\
\hline B-AD & 161.29 & 161.29 & 40.32 & 0.00 & 282.96 & 0.570 & 159.21 & 0.7 & 1.2 & 28.594 & D \\
\hline ABCD & 219.55 & 219.55 & 54.89 & 0.00 & 899.90 & 0.244 & 218.80 & 0.4 & 0.6 & 5.296 & A \\
\hline A-B & 104.21 & 104.21 & 26.05 & 0.00 & & & 104.21 & & & & \\
\hline A-C & 275.86 & 275.86 & 68.96 & 0.00 & & & 275.86 & & & & \\
\hline D-AB & 78.83 & 78.83 & 19.71 & 0.00 & 486.90 & 0.162 & 78.66 & 0.1 & 0.2 & 8.814 & A \\
\hline D-BC & 37.14 & 37.14 & 9.28 & 0.00 & 290.23 & 0.128 & 36.99 & 0.1 & 0.1 & 14.206 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 52.16 & 52.16 & 13.04 & 0.00 & 641.91 & 0.081 & 51.97 & 0.1 & 0.1 & 6.104 & A \\
\hline C-D & 43.78 & 43.78 & 10.94 & 0.00 & & & 43.78 & & & & \\
\hline C-A & 170.16 & 170.16 & 42.54 & 0.00 & & & 170.16 & & & & \\
\hline
\end{tabular}

Main results: (17:15-17:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & \begin{tabular}{c} 
Total Demand \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Junction \\
demand (Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Junction \\
Arrivals (Veh)
\end{tabular} & \begin{tabular}{c} 
Bypass \\
demand \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Capacity \\
\((\) Veh/hr)
\end{tabular} & RFC & \begin{tabular}{c} 
Throughput \\
(Veh/hr)
\end{tabular} & \begin{tabular}{c} 
Start \\
queue \\
(Veh)
\end{tabular} & \begin{tabular}{c} 
End queue \\
(Veh)
\end{tabular} & \begin{tabular}{c} 
Delay \\
(s)
\end{tabular} & \begin{tabular}{c} 
Los
\end{tabular} \\
\hline B-CD & 110.52 & 110.52 & 27.63 & 0.00 & 156.77 & 0.705 & 104.52 & 0.4 & 1.9 & 63.235 & F \\
\hline B-AD & 193.36 & 193.36 & 48.34 & 0.00 & 222.01 & 0.871 & 182.06 & 1.2 & 4.1 & 75.231 & F \\
\hline \begin{tabular}{c} 
A- \\
BCD
\end{tabular} & 329.99 & 329.99 & 82.50 & 0.00 & 962.57 & 0.343 & 328.41 & 0.6 & 1.0 & 5.693 & A \\
\hline A-B & 110.88 & 110.88 & 27.72 & 0.00 & & & 110.88 & & & \\
\hline A-C & 293.51 & 293.51 & 73.38 & 0.00 & & & 293.51 & & & \\
\hline D-AB & 97.12 & 97.12 & 24.28 & 0.00 & 453.11 & 0.214 & 96.80 & 0.2 & 0.3 & 10.094 & B \\
\hline D-BC & 44.92 & 44.92 & 11.23 & 0.00 & 248.29 & 0.181 & 44.63 & 0.1 & 0.2 & 17.650 & C \\
\hline \begin{tabular}{c} 
C- \\
ABD
\end{tabular} & 72.69 & 72.69 & 18.17 & 0.00 & 645.77 & 0.113 & 72.37 & 0.1 & 0.2 & 6.285 & A \\
\hline C-D & 51.81 & 51.81 & 12.95 & 0.00 & & & 51.81 & & & & \\
\hline C-A & 201.39 & 201.39 & 50.35 & 0.00 & & & 201.39 & & & & \\
\hline
\end{tabular}

Main results: (17:30-17:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 111.33 & 111.33 & 27.83 & 0.00 & 130.48 & 0.853 & 105.39 & 1.9 & 3.4 & 118.893 & F \\
\hline B-AD & 192.55 & 192.55 & 48.14 & 0.00 & 214.93 & 0.896 & 187.59 & 4.1 & 5.3 & 107.849 & F \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 330.93 & 330.93 & 82.73 & 0.00 & 963.27 & 0.344 & 330.88 & 1.0 & 1.0 & 5.724 & A \\
\hline A-B & 110.62 & 110.62 & 27.66 & 0.00 & & & 110.62 & & & & \\
\hline A-C & 292.83 & 292.83 & 73.21 & 0.00 & & & 292.83 & & & & \\
\hline D-AB & 97.15 & 97.15 & 24.29 & 0.00 & 452.23 & 0.215 & 97.14 & 0.3 & 0.3 & 10.138 & B \\
\hline D-BC & 44.88 & 44.88 & 11.22 & 0.00 & 245.82 & 0.183 & 44.86 & 0.2 & 0.2 & 17.912 & C \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 72.84 & 72.84 & 18.21 & 0.00 & 645.51 & 0.113 & 72.83 & 0.2 & 0.2 & 6.296 & A \\
\hline C-D & 51.79 & 51.79 & 12.95 & 0.00 & & & 51.79 & & & & \\
\hline C-A & 201.28 & 201.28 & 50.32 & 0.00 & & & 201.28 & & & & \\
\hline
\end{tabular}

Main results: (17:45-18:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 87.75 & 87.75 & 21.94 & 0.00 & 261.07 & 0.336 & 99.27 & 3.4 & 0.5 & 23.710 & C \\
\hline B-AD & 160.36 & 160.36 & 40.09 & 0.00 & 275.80 & 0.581 & 175.55 & 5.3 & 1.5 & 40.168 & E \\
\hline ABCD & 220.51 & 220.51 & 55.13 & 0.00 & 900.89 & 0.245 & 222.06 & 1.0 & 0.6 & 5.331 & A \\
\hline A-B & 103.95 & 103.95 & 25.99 & 0.00 & & & 103.95 & & & & \\
\hline A-C & 275.16 & 275.16 & 68.79 & 0.00 & & & 275.16 & & & & \\
\hline D-AB & 78.87 & 78.87 & 19.72 & 0.00 & 485.81 & 0.162 & 79.17 & 0.3 & 0.2 & 8.860 & A \\
\hline D-BC & 37.10 & 37.10 & 9.28 & 0.00 & 285.86 & 0.130 & 37.38 & 0.2 & 0.2 & 14.506 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 52.32 & 52.32 & 13.08 & 0.00 & 641.49 & 0.082 & 52.63 & 0.2 & 0.2 & 6.121 & A \\
\hline C-D & 43.75 & 43.75 & 10.94 & 0.00 & & & 43.75 & & & & \\
\hline C-A & 170.03 & 170.03 & 42.51 & 0.00 & & & 170.03 & & & & \\
\hline
\end{tabular}

Main results: (18:00-18:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 71.29 & 71.29 & 17.82 & 0.00 & 349.91 & 0.204 & 72.34 & 0.5 & 0.3 & 13.019 & B \\
\hline B-AD & 136.50 & 136.50 & 34.12 & 0.00 & 318.68 & 0.428 & 139.42 & 1.5 & 0.8 & 20.387 & C \\
\hline ABCD & 158.49 & 158.49 & 39.62 & 0.00 & 855.25 & 0.185 & 159.27 & 0.6 & 0.4 & 5.187 & A \\
\hline A-B & 94.23 & 94.23 & 23.56 & 0.00 & & & 94.23 & & & & \\
\hline A-C & 249.43 & 249.43 & 62.36 & 0.00 & & & 249.43 & & & & \\
\hline D-AB & 65.81 & 65.81 & 16.45 & 0.00 & 507.72 & 0.130 & 65.99 & 0.2 & 0.2 & 8.154 & A \\
\hline D-BC & 31.31 & 31.31 & 7.83 & 0.00 & 319.03 & 0.098 & 31.47 & 0.2 & 0.1 & 12.528 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 39.54 & 39.54 & 9.89 & 0.00 & 638.80 & 0.062 & 39.73 & 0.2 & 0.1 & 6.015 & A \\
\hline C-D & 37.51 & 37.51 & 9.38 & 0.00 & & & 37.51 & & & & \\
\hline C-A & 145.79 & 145.79 & 36.45 & 0.00 & & & 145.79 & & & & \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2027 Ref Case, AM}

Data Errors and Warnings
No errors or warnings
Analysis Set Details
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
(\%)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
\((\%)\)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Major road direction & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - ( u n t i t l e d )}\) & (untitled) & Crossroads & Two-way & 3.44 & A \\
\hline
\end{tabular}

\section*{Junction Network Options}
[same as above]

\section*{Arms}

\section*{Arms}
[same as above]

\section*{Major Arm Geometry}
[same as above]

\section*{Minor Arm Geometry}
[same as above]
Slope / Intercept / Capacity
[same as above]

\section*{Traffic Demand}

\section*{Demand Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & Scenario name & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D9 & \begin{tabular}{c} 
2027 Ref \\
Case
\end{tabular} & AM & ONE HOUR & \(07: 45\) & \(09: 15\) & 15 & \(\checkmark\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline A - B3390 N & & ONE HOUR & \(\checkmark\) & 258.00 & 100.000 \\
\hline B - Redbridge Rd & & ONE HOUR & \(\checkmark\) & 83.00 & 100.000 \\
\hline C - B3390 S & & ONE HOUR & \(\checkmark\) & 459.00 & 100.000 \\
\hline D - Dick O' Th' Banks & & ONE HOUR & \(\checkmark\) & 136.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
\(\mathbf{O}^{\prime} \mathbf{T h}^{\prime}\) \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
A - B3390 \\
N
\end{tabular} & 0.000 & 18.000 & 202.000 & 38.000 \\
\hline \begin{tabular}{c} 
B - \\
Rd
\end{tabular} & 20.000 & 0.000 & 43.000 & 20.000 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
C - B3390 \\
S
\end{tabular} & 362.000 & 44.000 & 0.000 & 53.000 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 78.000 & 13.000 & 45.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
\(\mathbf{N}\)
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
O' Th' \(^{\prime}\) \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
A - B3390 \\
\(\mathbf{N}\)
\end{tabular} & 0.00 & 0.07 & 0.78 & 0.15 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
B - \\
Rd
\end{tabular} & 0.24 & 0.00 & 0.52 & 0.24 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
C - B3390 \\
S
\end{tabular} & 0.79 & 0.10 & 0.00 & 0.12 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 0.57 & 0.10 & 0.33 & 0.00 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
O' Th' \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
A - B3390 N \\
Redbridge \\
Rd
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
B
\end{tabular} & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & C - B3390 S & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D- Dick O' \\
Th' Banks
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

\section*{Results Summary for whole modelled period}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Stream & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline B-CD & 0.13 & 8.96 & 0.1 & A & 49.19 & 73.78 \\
\hline B-AD & 0.11 & 13.40 & 0.1 & B & 26.97 & 40.46 \\
\hline A-BCD & 0.10 & 5.90 & 0.2 & A & 50.23 & 75.35 \\
\hline A-B & & & & & 15.26 & 22.89 \\
\hline A-C & & & & & 171.25 & 256.88 \\
\hline D-AB & 0.21 & 9.92 & 0.3 & A & 78.35 & 117.53 \\
\hline D-BC & 0.19 & 15.25 & 0.2 & C & 46.44 & 69.66 \\
\hline C-ABD & 0.12 & 4.87 & 0.3 & A & 75.22 & 112.83 \\
\hline C-D & & & & & 44.18 & 66.28 \\
\hline C-A & & & & & 301.78 & 452.67 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (07:45-08:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 40.23 & 40.23 & 10.06 & 0.00 & 498.53 & 0.081 & 39.88 & 0.0 & 0.1 & 7.844 & A \\
\hline B-AD & 22.26 & 22.26 & 5.56 & 0.00 & 352.22 & 0.063 & 21.99 & 0.0 & 0.1 & 10.892 & B \\
\hline A-
\[
B C D
\] & 37.66 & 37.66 & 9.42 & 0.00 & 663.41 & 0.057 & 37.31 & 0.0 & 0.1 & 5.750 & A \\
\hline A-B & 12.81 & 12.81 & 3.20 & 0.00 & & & 12.81 & & & & \\
\hline A-C & 143.76 & 143.76 & 35.94 & 0.00 & & & 143.76 & & & & \\
\hline D-AB & 64.09 & 64.09 & 16.02 & 0.00 & 509.53 & 0.126 & 63.52 & 0.0 & 0.1 & 8.062 & A \\
\hline D-BC & 38.30 & 38.30 & 9.57 & 0.00 & 349.43 & 0.110 & 37.81 & 0.0 & 0.1 & 11.536 & B \\
\hline \begin{tabular}{l}
C- \\
ABD
\end{tabular} & 54.10 & 54.10 & 13.53 & 0.00 & 794.24 & 0.068 & 53.63 & 0.0 & 0.1 & 4.862 & A \\
\hline C-D & 37.22 & 37.22 & 9.31 & 0.00 & & & 37.22 & & & & \\
\hline C-A & 254.24 & 254.24 & 63.56 & 0.00 & & & 254.24 & & & & \\
\hline
\end{tabular}

Main results: (08:00-08:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline B-CD & 48.15 & 48.15 & 12.04 & 0.00 & 483.25 & 0.100 & 48.06 & 0.1 & 0.1 & 8.270 & A \\
\hline B-AD & 26.47 & 26.47 & 6.62 & 0.00 & 330.71 & 0.080 & 26.39 & 0.1 & 0.1 & 11.827 & B \\
\hline ABCD & 47.78 & 47.78 & 11.95 & 0.00 & 667.07 & 0.072 & 47.66 & 0.1 & 0.1 & 5.813 & A \\
\hline A-B & 15.07 & 15.07 & 3.77 & 0.00 & & & 15.07 & & & & \\
\hline A-C & 169.09 & 169.09 & 42.27 & 0.00 & & & 169.09 & & & & \\
\hline D-AB & 76.70 & 76.70 & 19.17 & 0.00 & 488.30 & 0.157 & 76.53 & 0.1 & 0.2 & 8.739 & A \\
\hline D-BC & 45.56 & 45.56 & 11.39 & 0.00 & 325.36 & 0.140 & 45.41 & 0.1 & 0.2 & 12.853 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 71.37 & 71.37 & 17.84 & 0.00 & 823.24 & 0.087 & 71.17 & 0.1 & 0.2 & 4.790 & A \\
\hline C-D & 43.58 & 43.58 & 10.90 & 0.00 & & & 43.58 & & & & \\
\hline C-A & 297.68 & 297.68 & 74.42 & 0.00 & & & 297.68 & & & & \\
\hline
\end{tabular}

Main results: (08:15-08:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline B-CD & 59.18 & 59.18 & 14.80 & 0.00 & 461.16 & 0.128 & 59.04 & 0.1 & 0.1 & 8.950 & A \\
\hline B-AD & 32.20 & 32.20 & 8.05 & 0.00 & 301.04 & 0.107 & 32.07 & 0.1 & 0.1 & 13.377 & B \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 65.13 & 65.13 & 16.28 & 0.00 & 675.69 & 0.096 & 64.91 & 0.1 & 0.2 & 5.896 & A \\
\hline A-B & 17.91 & 17.91 & 4.48 & 0.00 & & & 17.91 & & & & \\
\hline A-C & 201.02 & 201.02 & 50.26 & 0.00 & & & 201.02 & & & & \\
\hline D-AB & 94.26 & 94.26 & 23.56 & 0.00 & 457.29 & 0.206 & 93.97 & 0.2 & 0.3 & 9.900 & A \\
\hline D-BC & 55.48 & 55.48 & 13.87 & 0.00 & 291.70 & 0.190 & 55.20 & 0.2 & 0.2 & 15.203 & C \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 99.90 & 99.90 & 24.97 & 0.00 & 863.68 & 0.116 & 99.53 & 0.2 & 0.3 & 4.714 & A \\
\hline C-D & 51.78 & 51.78 & 12.95 & 0.00 & & & 51.78 & & & & \\
\hline C-A & 353.69 & 353.69 & 88.42 & 0.00 & & & 353.69 & & & & \\
\hline
\end{tabular}

Main results: (08:30-08:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 59.19 & 59.19 & 14.80 & 0.00 & 460.96 & 0.128 & 59.18 & 0.1 & 0.1 & 8.959 & A \\
\hline B-AD & 32.20 & 32.20 & 8.05 & 0.00 & 300.87 & 0.107 & 32.19 & 0.1 & 0.1 & 13.398 & B \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 65.19 & 65.19 & 16.30 & 0.00 & 675.67 & 0.096 & 65.19 & 0.2 & 0.2 & 5.903 & A \\
\hline A-B & 17.91 & 17.91 & 4.48 & 0.00 & & & 17.91 & & & & \\
\hline A-C & 200.96 & 200.96 & 50.24 & 0.00 & & & 200.96 & & & & \\
\hline D-AB & 94.27 & 94.27 & 23.57 & 0.00 & 456.97 & 0.206 & 94.26 & 0.3 & 0.3 & 9.925 & A \\
\hline D-BC & 55.47 & 55.47 & 13.87 & 0.00 & 291.51 & 0.190 & 55.46 & 0.2 & 0.2 & 15.250 & C \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 100.05 & 100.05 & 25.01 & 0.00 & 863.77 & 0.116 & 100.04 & 0.3 & 0.3 & 4.719 & A \\
\hline C-D & 51.76 & 51.76 & 12.94 & 0.00 & & & 51.76 & & & & \\
\hline C-A & 353.56 & 353.56 & 88.39 & 0.00 & & & 353.56 & & & & \\
\hline
\end{tabular}

Main results: (08:45-09:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 48.15 & 48.15 & 12.04 & 0.00 & 482.93 & 0.100 & 48.29 & 0.1 & 0.1 & 8.286 & A \\
\hline B-AD & 26.46 & 26.46 & 6.62 & 0.00 & 330.45 & 0.080 & 26.59 & 0.1 & 0.1 & 11.853 & B \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 47.86 & 47.86 & 11.96 & 0.00 & 667.01 & 0.072 & 48.06 & 0.2 & 0.1 & 5.823 & A \\
\hline A-B & 15.06 & 15.06 & 3.77 & 0.00 & & & 15.06 & & & & \\
\hline A-C & 169.02 & 169.02 & 42.25 & 0.00 & & & 169.02 & & & & \\
\hline D-AB & 76.71 & 76.71 & 19.18 & 0.00 & 487.83 & 0.157 & 76.98 & 0.3 & 0.2 & 8.769 & A \\
\hline D-BC & 45.56 & 45.56 & 11.39 & 0.00 & 325.10 & 0.140 & 45.82 & 0.2 & 0.2 & 12.904 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 71.56 & 71.56 & 17.89 & 0.00 & 823.37 & 0.087 & 71.91 & 0.3 & 0.2 & 4.798 & A \\
\hline C-D & 43.56 & 43.56 & 10.89 & 0.00 & & & 43.56 & & & & \\
\hline C-A & 297.51 & 297.51 & 74.38 & 0.00 & & & 297.51 & & & & \\
\hline
\end{tabular}

Main results: (09:00-09:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 40.23 & 40.23 & 10.06 & 0.00 & 498.09 & 0.081 & 40.32 & 0.1 & 0.1 & 7.865 & A \\
\hline B-AD & 22.25 & 22.25 & 5.56 & 0.00 & 351.86 & 0.063 & 22.33 & 0.1 & 0.1 & 10.927 & B \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 37.77 & 37.77 & 9.44 & 0.00 & 663.29 & 0.057 & 37.90 & 0.1 & 0.1 & 5.759 & A \\
\hline A-B & 12.80 & 12.80 & 3.20 & 0.00 & & & 12.80 & & & & \\
\hline A-C & 143.66 & 143.66 & 35.92 & 0.00 & & & 143.66 & & & & \\
\hline D-AB & 64.10 & 64.10 & 16.02 & 0.00 & 508.96 & 0.126 & 64.27 & 0.2 & 0.1 & 8.100 & A \\
\hline D-BC & 38.29 & 38.29 & 9.57 & 0.00 & 349.05 & 0.110 & 38.45 & 0.2 & 0.1 & 11.596 & B \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 54.35 & 54.35 & 13.59 & 0.00 & 794.30 & 0.068 & 54.56 & 0.2 & 0.1 & 4.871 & A \\
\hline C-D & 37.19 & 37.19 & 9.30 & 0.00 & & & 37.19 & & & & \\
\hline C-A & 254.02 & 254.02 & 63.50 & 0.00 & & & 254.02 & & & & \\
\hline
\end{tabular}

\section*{(Default Analysis Set) - 2027 Ref Case, PM}

Data Errors and Warnings
No errors or warnings
Analysis Set Details
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ID & Name & \begin{tabular}{c} 
Include in \\
report
\end{tabular} & \begin{tabular}{c} 
Use specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Specific Demand Set \\
(s)
\end{tabular} & \begin{tabular}{c} 
Network flow scaling factor \\
(\%)
\end{tabular} & \begin{tabular}{c} 
Network capacity scaling factor \\
\((\%)\)
\end{tabular} \\
\hline A1 & \begin{tabular}{c} 
(Default Analysis \\
Set)
\end{tabular} & \(\checkmark\) & \(\checkmark\) & D1,D2,D7,D8,D9,D10 & 100.000 & 100.000 \\
\hline
\end{tabular}

\section*{Junction Network}

\section*{Junctions}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Junction & Name & Junction Type & Major road direction & Junction Delay (s) & Junction LOS \\
\hline \(\mathbf{1 - ( \text { untitled) }}\) & (untitled) & Crossroads & Two-way & 3.34 & A \\
\hline
\end{tabular}

\section*{Junction Network Options}
[same as above]

\section*{Arms}

\section*{Arms}
[same as above]

\section*{Major Arm Geometry}
[same as above]

\section*{Minor Arm Geometry}
[same as above]
Slope / Intercept / Capacity
[same as above]

\section*{Traffic Demand}

\section*{Demand Set Details}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline ID & Scenario name & \begin{tabular}{c} 
Time Period \\
name
\end{tabular} & \begin{tabular}{c} 
Traffic profile \\
type
\end{tabular} & \begin{tabular}{c} 
Model start time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Model finish time \\
(HH:mm)
\end{tabular} & \begin{tabular}{c} 
Time segment length \\
(min)
\end{tabular} & \begin{tabular}{c} 
Run \\
automatically
\end{tabular} \\
\hline D10 & \begin{tabular}{c} 
2027 Ref \\
Case
\end{tabular} & PM & ONE HOUR & \(16: 45\) & \(18: 15\) & 15 & \(\checkmark\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Default vehicle mix & Vehicle mix varies over turn & Vehicle mix varies over entry & Vehicle mix source & PCU Factor for a HV (PCU) \\
\hline\(\checkmark\) & \(\checkmark\) & \(\checkmark\) & HV Percentages & 2.00 \\
\hline
\end{tabular}

Demand overview (Traffic)
\begin{tabular}{|c|c|c|c|c|c|}
\hline Arm & Linked arm & Profile type & Use O-D data & Average Demand (Veh/hr) & Scaling Factor (\%) \\
\hline A - B3390 N & & ONE HOUR & \(\checkmark\) & 510.00 & 100.000 \\
\hline B - Redbridge Rd & & ONE HOUR & \(\checkmark\) & 74.00 & 100.000 \\
\hline C - B3390 S & & ONE HOUR & \(\checkmark\) & 277.00 & 100.000 \\
\hline D - Dick O' Th' Banks & & ONE HOUR & \(\checkmark\) & 106.00 & 100.000 \\
\hline
\end{tabular}

\section*{Origin-Destination Data}

Demand (Veh/hr)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{To} \\
\hline \multirow{5}{*}{From} & & \[
\begin{gathered}
\text { A- } \\
\text { B3390 } \\
\text { N }
\end{gathered}
\] & \begin{tabular}{l}
B - \\
Redbridge Rd
\end{tabular} & \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{B} 3390 \\
\mathrm{~S}
\end{gathered}
\] & \[
\begin{aligned}
& \text { D - Dick } \\
& \text { O' Th' } \\
& \text { Banks }
\end{aligned}
\] \\
\hline & \[
\begin{gathered}
A-B 3390 \\
N
\end{gathered}
\] & 0.000 & 9.000 & 395.000 & 106.000 \\
\hline & \begin{tabular}{l}
B - \\
Redbridge \\
Rd
\end{tabular} & 15.000 & 0.000 & 49.000 & 10.000 \\
\hline & \[
\begin{gathered}
C-B 3390 \\
S
\end{gathered}
\] & 201.000 & 23.000 & 0.000 & 53.000 \\
\hline & D - Dick O'
Th' Banks & 67.000 & 9.000 & 30.000 & 0.000 \\
\hline
\end{tabular}

Proportions
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
\(\mathbf{N}\)
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
O' Th' \(^{\prime}\) \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
Redbridge \\
N
\end{tabular} & 0.20 & 0.00 & 0.66 & 0.14 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
Rd
\end{tabular} & 0.00 & 0.02 & 0.77 & 0.21 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
C - B3390 \\
S
\end{tabular} & 0.73 & 0.08 & 0.00 & 0.19 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 0.63 & 0.08 & 0.28 & 0.00 \\
\hline
\end{tabular}

\section*{Vehicle Mix}

Heavy Vehicle proportion
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
\(\mathbf{O}^{\prime}\) Th' \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & A - B3390 N & 10 & 10 & 10 & 10 \\
\hline \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & 10 & 10 & 10 & 10 \\
\cline { 2 - 6 } & C - B3390 S & 10 & 10 & 10 & 10 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D - Dick O' \\
Th' Banks
\end{tabular} & 10 & 10 & 10 & 10 \\
\hline
\end{tabular}

\section*{Average PCU Per Veh}
\begin{tabular}{|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{ To } \\
\hline \multirow{6}{*}{ From } & & \begin{tabular}{c} 
A - \\
B3390 \\
N
\end{tabular} & \begin{tabular}{c} 
B - \\
Redbridge \\
Rd
\end{tabular} & \begin{tabular}{c} 
C - \\
B3390 \\
S
\end{tabular} & \begin{tabular}{c} 
D - Dick \\
O' Th' \\
Banks
\end{tabular} \\
\cline { 2 - 6 } & \begin{tabular}{c} 
A - B3390 N \\
Redbridge \\
Rd
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
B
\end{tabular} & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & C - B3390 S & 1.100 & 1.100 & 1.100 & 1.100 \\
\cline { 2 - 6 } & \begin{tabular}{c} 
D- Dick O' \\
Th' Banks
\end{tabular} & 1.100 & 1.100 & 1.100 & 1.100 \\
\hline
\end{tabular}

\section*{Results}

\section*{Results Summary for whole modelled period}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Stream & Max RFC & Max delay (s) & Max Queue (Veh) & Max LOS & Average Demand (Veh/hr) & Total Junction Arrivals (Veh) \\
\hline B-CD & 0.13 & 8.85 & 0.1 & A & 49.79 & 74.68 \\
\hline B-AD & 0.08 & 15.14 & 0.1 & C & 18.12 & 27.17 \\
\hline A-BCD & 0.28 & 5.87 & 0.7 & A & 180.50 & 270.75 \\
\hline A-B & & & & & 6.40 & 9.61 \\
\hline A-C & & & & & 281.08 & 421.62 \\
\hline D-AB & 0.15 & 8.28 & 0.2 & A & 66.00 & 99.00 \\
\hline D-BC & 0.13 & 14.71 & 0.2 & B & 31.27 & 46.90 \\
\hline C-ABD & 0.06 & 5.66 & 0.1 & A & 32.04 & 48.05 \\
\hline C-D & & & & & 46.35 & 69.53 \\
\hline C-A & & & & & 175.79 & 263.69 \\
\hline
\end{tabular}

\section*{Main Results for each time segment}

Main results: (16:45-17:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 40.79 & 40.79 & 10.20 & 0.00 & 514.75 & 0.079 & 40.45 & 0.0 & 0.1 & 7.585 & A \\
\hline B-AD & 14.92 & 14.92 & 3.73 & 0.00 & 317.10 & 0.047 & 14.73 & 0.0 & 0.0 & 11.898 & B \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 128.97 & 128.97 & 32.24 & 0.00 & 786.98 & 0.164 & 127.78 & 0.0 & 0.3 & 5.460 & A \\
\hline A-B & 5.68 & 5.68 & 1.42 & 0.00 & & & 5.68 & & & & \\
\hline A-C & 249.31 & 249.31 & 62.33 & 0.00 & & & 249.31 & & & & \\
\hline D-AB & 54.05 & 54.05 & 13.51 & 0.00 & 551.33 & 0.098 & 53.62 & 0.0 & 0.1 & 7.227 & A \\
\hline D-BC & 25.75 & 25.75 & 6.44 & 0.00 & 340.37 & 0.076 & 25.43 & 0.0 & 0.1 & 11.419 & B \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 23.88 & 23.88 & 5.97 & 0.00 & 665.67 & 0.036 & 23.69 & 0.0 & 0.0 & 5.606 & A \\
\hline C-D & 38.53 & 38.53 & 9.63 & 0.00 & & & 38.53 & & & & \\
\hline C-A & 146.12 & 146.12 & 36.53 & 0.00 & & & 146.12 & & & & \\
\hline
\end{tabular}

Main results: (17:00-17:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline B-CD & 48.76 & 48.76 & 12.19 & 0.00 & 494.94 & 0.099 & 48.66 & 0.1 & 0.1 & 8.064 & A \\
\hline B-AD & 17.77 & 17.77 & 4.44 & 0.00 & 292.89 & 0.061 & 17.71 & 0.0 & 0.1 & 13.079 & B \\
\hline \begin{tabular}{l}
A- \\
BCD
\end{tabular} & 169.92 & 169.92 & 42.48 & 0.00 & 814.90 & 0.209 & 169.45 & 0.3 & 0.4 & 5.583 & A \\
\hline A-B & 6.43 & 6.43 & 1.61 & 0.00 & & & 6.43 & & & & \\
\hline A-C & 282.13 & 282.13 & 70.53 & 0.00 & & & 282.13 & & & & \\
\hline D-AB & 64.63 & 64.63 & 16.16 & 0.00 & 536.43 & 0.120 & 64.51 & 0.1 & 0.1 & 7.626 & A \\
\hline D-BC & 30.66 & 30.66 & 7.67 & 0.00 & 315.93 & 0.097 & 30.56 & 0.1 & 0.1 & 12.611 & B \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 30.64 & 30.64 & 7.66 & 0.00 & 670.06 & 0.046 & 30.57 & 0.0 & 0.1 & 5.631 & A \\
\hline C-D & 45.57 & 45.57 & 11.39 & 0.00 & & & 45.57 & & & & \\
\hline C-A & 172.81 & 172.81 & 43.20 & 0.00 & & & 172.81 & & & & \\
\hline
\end{tabular}

Main results: (17:15-17:30)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & \begin{tabular}{l}
Delay \\
(s)
\end{tabular} & LOS \\
\hline B-CD & 59.81 & 59.81 & 14.95 & 0.00 & 466.96 & 0.128 & 59.66 & 0.1 & 0.1 & 8.836 & A \\
\hline B-AD & 21.66 & 21.66 & 5.42 & 0.00 & 259.60 & 0.083 & 21.56 & 0.1 & 0.1 & 15.117 & C \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 241.88 & 241.88 & 60.47 & 0.00 & 856.91 & 0.282 & 240.95 & 0.4 & 0.6 & 5.854 & A \\
\hline A-B & 7.12 & 7.12 & 1.78 & 0.00 & & & 7.12 & & & & \\
\hline A-C & 312.52 & 312.52 & 78.13 & 0.00 & & & 312.52 & & & & \\
\hline D-AB & 79.31 & 79.31 & 19.83 & 0.00 & 514.40 & 0.154 & 79.13 & 0.1 & 0.2 & 8.267 & A \\
\hline D-BC & 37.40 & 37.40 & 9.35 & 0.00 & 282.30 & 0.132 & 37.22 & 0.1 & 0.2 & 14.679 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 41.49 & 41.49 & 10.37 & 0.00 & 677.46 & 0.061 & 41.35 & 0.1 & 0.1 & 5.662 & A \\
\hline C-D & 54.98 & 54.98 & 13.75 & 0.00 & & & 54.98 & & & & \\
\hline C-A & 208.52 & 208.52 & 52.13 & 0.00 & & & 208.52 & & & & \\
\hline
\end{tabular}

Main results: (17:30-17:45)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 59.81 & 59.81 & 14.95 & 0.00 & 466.64 & 0.128 & 59.81 & 0.1 & 0.1 & 8.848 & A \\
\hline B-AD & 21.66 & 21.66 & 5.42 & 0.00 & 259.35 & 0.084 & 21.66 & 0.1 & 0.1 & 15.144 & C \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 242.29 & 242.29 & 60.57 & 0.00 & 857.27 & 0.283 & 242.26 & 0.6 & 0.7 & 5.872 & A \\
\hline A-B & 7.11 & 7.11 & 1.78 & 0.00 & & & 7.11 & & & & \\
\hline A-C & 312.12 & 312.12 & 78.03 & 0.00 & & & 312.12 & & & & \\
\hline D-AB & 79.31 & 79.31 & 19.83 & 0.00 & 514.15 & 0.154 & 79.31 & 0.2 & 0.2 & 8.278 & A \\
\hline D-BC & 37.39 & 37.39 & 9.35 & 0.00 & 282.05 & 0.133 & 37.39 & 0.1 & 0.2 & 14.713 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 41.54 & 41.54 & 10.38 & 0.00 & 677.26 & 0.061 & 41.53 & 0.1 & 0.1 & 5.664 & A \\
\hline C-D & 54.97 & 54.97 & 13.74 & 0.00 & & & 54.97 & & & & \\
\hline C-A & 208.48 & 208.48 & 52.12 & 0.00 & & & 208.48 & & & & \\
\hline
\end{tabular}

Main results: (17:45-18:00)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 48.76 & 48.76 & 12.19 & 0.00 & 494.45 & 0.099 & 48.90 & 0.1 & 0.1 & 8.083 & A \\
\hline B-AD & 17.77 & 17.77 & 4.44 & 0.00 & 292.53 & 0.061 & 17.87 & 0.1 & 0.1 & 13.110 & B \\
\hline \[
\begin{gathered}
\mathrm{A}- \\
\mathrm{BCD}
\end{gathered}
\] & 170.38 & 170.38 & 42.59 & 0.00 & 815.41 & 0.209 & 171.28 & 0.7 & 0.4 & 5.607 & A \\
\hline A-B & 6.42 & 6.42 & 1.60 & 0.00 & & & 6.42 & & & & \\
\hline A-C & 281.68 & 281.68 & 70.42 & 0.00 & & & 281.68 & & & & \\
\hline D-AB & 64.63 & 64.63 & 16.16 & 0.00 & 536.06 & 0.121 & 64.80 & 0.2 & 0.1 & 7.644 & A \\
\hline D-BC & 30.66 & 30.66 & 7.67 & 0.00 & 315.56 & 0.097 & 30.83 & 0.2 & 0.1 & 12.652 & B \\
\hline \[
\begin{gathered}
\text { C- } \\
\text { ABD }
\end{gathered}
\] & 30.70 & 30.70 & 7.68 & 0.00 & 669.73 & 0.046 & 30.83 & 0.1 & 0.1 & 5.636 & A \\
\hline C-D & 45.55 & 45.55 & 11.39 & 0.00 & & & 45.55 & & & & \\
\hline C-A & 172.76 & 172.76 & 43.19 & 0.00 & & & 172.76 & & & & \\
\hline
\end{tabular}

Main results: (18:00-18:15)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stream & Total Demand (Veh/hr) & Junction demand (Veh/hr) & Junction Arrivals (Veh) & Bypass demand (Veh/hr) & Capacity (Veh/hr) & RFC & Throughput (Veh/hr) & Start queue (Veh) & End queue (Veh) & Delay (s) & LOS \\
\hline B-CD & 40.79 & 40.79 & 10.20 & 0.00 & 514.17 & 0.079 & 40.89 & 0.1 & 0.1 & 7.610 & A \\
\hline B-AD & 14.92 & 14.92 & 3.73 & 0.00 & 316.64 & 0.047 & 14.98 & 0.1 & 0.1 & 11.935 & B \\
\hline ABCD & 129.59 & 129.59 & 32.40 & 0.00 & 787.37 & 0.165 & 130.08 & 0.4 & 0.3 & 5.489 & A \\
\hline A-B & 5.67 & 5.67 & 1.42 & 0.00 & & & 5.67 & & & & \\
\hline A-C & 248.70 & 248.70 & 62.18 & 0.00 & & & 248.70 & & & & \\
\hline D-AB & 54.06 & 54.06 & 13.51 & 0.00 & 550.84 & 0.098 & 54.17 & 0.1 & 0.1 & 7.251 & A \\
\hline D-BC & 25.74 & 25.74 & 6.44 & 0.00 & 339.84 & 0.076 & 25.85 & 0.1 & 0.1 & 11.468 & B \\
\hline \[
\begin{gathered}
\mathrm{C}- \\
\mathrm{ABD}
\end{gathered}
\] & 23.96 & 23.96 & 5.99 & 0.00 & 665.21 & 0.036 & 24.04 & 0.1 & 0.0 & 5.617 & A \\
\hline C-D & 38.51 & 38.51 & 9.63 & 0.00 & & & 38.51 & & & & \\
\hline C-A & 146.06 & 146.06 & 36.52 & 0.00 & & & 146.06 & & & & \\
\hline
\end{tabular}

\section*{Appendix G Merge/Diverge Analysis}

\section*{Land at Moreton, Dorcheser, High Level Transport Statement, A35 Eastbound Merge}

\|BRI-PMFS-001\projects\35340 Land at Moreton, Dorchester\Technical\Transport\Excel\Merge diverge analysis.xlsx
Prepared by EK, Checked by PR, 16/09/15

Land at Moreton, Dorcheser, High Level Transport Statement, A35 Westbound Diverge


【IBRI-PMFS-001\projects\35340 Land at Moreton, Dorchester\Technical\Transport\Excel\Merge diverge analysis.xlsx
Prepared by EK, Checked by PR, 16/09/15```


[^0]:    Include all surveys

