Tay Lane, Rathcoole Age-Friendly Development, Newcastle Road, Rathcoole, Dublin 24

Traffic and Transport Assessment

Client: Riverside Projects Ltd

CORA Consulting Engineers

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Transport Planning Professional
Chartered Civil Engineer and Chartered Town Planner

March 2023

Martin Rogers Consulting Ltd

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APPENDICES

1.0 INTRODUCTION

1.1 GENERAL DESCRIPTION

The Riverside Projects Ltd have appointed Dr Martin Rogers, Transport Planning Professional, to provide a Traffic Impact Assessment for a retirement housing development on Newcastle Road, Rathcoole, Dublin 24.

The development will comprise 54 No. retirement housing units in total over four floors (16 No. 1B/2P and 38 No. 2B/3P units).

30 No. car parking spaces are proposed for the retirement housing development. This equates to 0.56 car parking spaces per dwelling unit.

A bike storage facility is included within the facility.

The vehicular access is onto Tay Lane, to the west of the site of the proposed development.

It is assumed that the proposed development will open in 2026.

The application was lodged with South Dublin County Council on 23 August 2022 (SD22A/0342).

On 20 October 2022 South Dublin County Council issed a request for further information comprising 16 No. items.

Item No. 5 referred to roads and requests that 'a Traffic and Transport assessment of the nearby junction(s), to confirm that the development will have no impact on the traffic flows on the Rathcoole main street'.

A traffic impact assessment was submitted to South Dublin County Council in response to this item. This submission was made on 20 December 2022.

On 26 January 2023, clarification of additional information was sought by South Dublin County Council in relation to the proposed development, comprising 6 No. items.

Item No. 1 referred to the Traffic and Transport Assessment submitted, and requested the applicant 'to submit a Traffic and Transport Assessment of the nearby junctions, to confirm that the development will have no impact on the traffic flows on the Rathcoole Main Street, showing the RFC results of all arms of the junction'.

In order to get clarification on the exact required scope of the revised traffic assessment, Dr Martin Rogers, Transport Planning Professional, and Mr John Piggott, Director, CORA Consulting Engineers, met with Mr Graham Murphy, Roads Engineer, South Dublin County Council, to ascertain the exact junctions on Main Street Rathcoole that were required to be analysed.

It was agreed that the Tay Lane / L2004 (Main Street) / Forest Hills staggered T-junction and the R120 / L2004 roundabout, 800 metres east of the staggered T-junction, would both be fully analysed based on new 2023 surveys.

This report contains the full analysis of both the above junctions, in response to Item No. 1 of the planning authority's request for clarification of additional information.

1.2 PURPOSE OF THE TRAFFIC AND TRANSPORT ASSESSMENT

The purpose of this Traffic and Transport Assessment is thus to assess the current operational efficiency of the existing transport environment, the scope of which has been agreed with the planning authority, and to provide details of the assessment undertaken to identify the level of transport impact resulting from the proposed residential development. The scope of the assessment covers both transport and related sustainability issues, including means of vehicular access, pedestrian, cyclist and local public transport connections. The principal objective of the report is to quantify any level of impact across the local road network and subsequently

ascertain both the existing and future operational performance of the local road network. This is done by means of expressing the ratio of flow to capacity (RFI) on all critical movements at the 2 No. junctions. Details of pre- and post-development RFI's were specifically requested within Item No. 1 of the planning authority's request for clarification of additional information.

1.3   METHODOLOGY USED WITHIN THE TRAFFIC AND TRANSPORT ASSESSMENT

This report was developed with guidance from the documents listed below;
- 'Traffic and Transport Assessment Guidelines' (May 2014) National Road Authority;
- 'Traffic Management Guidelines' Dublin Transportation Office & Department of the Environment and Local Government (May 2003);
- 'Guidelines for Traffic Impact Assessments' The Institution of Highways and Transportation; and
- South Dublin County Council Development Plan 2022-2028.

The methodology utilised can be divided into the following 5 No. phases, in compliance with the Traffic and Transport Assessment Guidelines referenced above:

The methodology utilised can be divided into the following 5 No. phases, in compliance with the Traffic and Transport Assessment Guidelines referenced above:

Audit of existing network
The report establishes the existing level of accessibility at present pertaining to the subject site in terms of the level of access available by walking, cycling and public transport.

Completion of Traffic Counts
The report details Junction traffic counts undertaken at the locations relevant to the proposed development, and analysed in order to assess existing operating efficiencies in the vicinity of the proposed development.

Estimation of Trip Generation Volumes
A trip generation exercise has been carried out to establish an estimate for the level of vehicle trips generated by the proposed residential development.

Distribution of Generated Trips
Based upon both the existing observed flow patterns in the local road network at the identified relevant junctions, the trips predicted to be generated by the proposed development are distributed / assigned onto the local road network.

Network Analysis detailing Impact of Generated Volumes
If requires, junction analysis models are utilised to analyse the impact of the estimated trip generation volumes on the operational efficiency of the junctions selected for detailed analysis.

This methodology within this report is thus consistent with the following sections required within a basic Traffic and Transport Assessment for compliance with the 2014 TTA Guidelines:
- Introduction / Existing conditions
- Extent of proposed development (including existing and future public transport and walking / cycling facilities)
- Vehicular Trip Generation
- Vehicular Trip Distribution / Assignment to network
- Impact on road network of trips generated by proposed development

1.4   SITE ACCESS TO ROAD NETWORK

Figure 1-1 indicates the location of the Tay Lane site relative to the local road network (Tay Lane / L2004 Main Street Rathcoole)
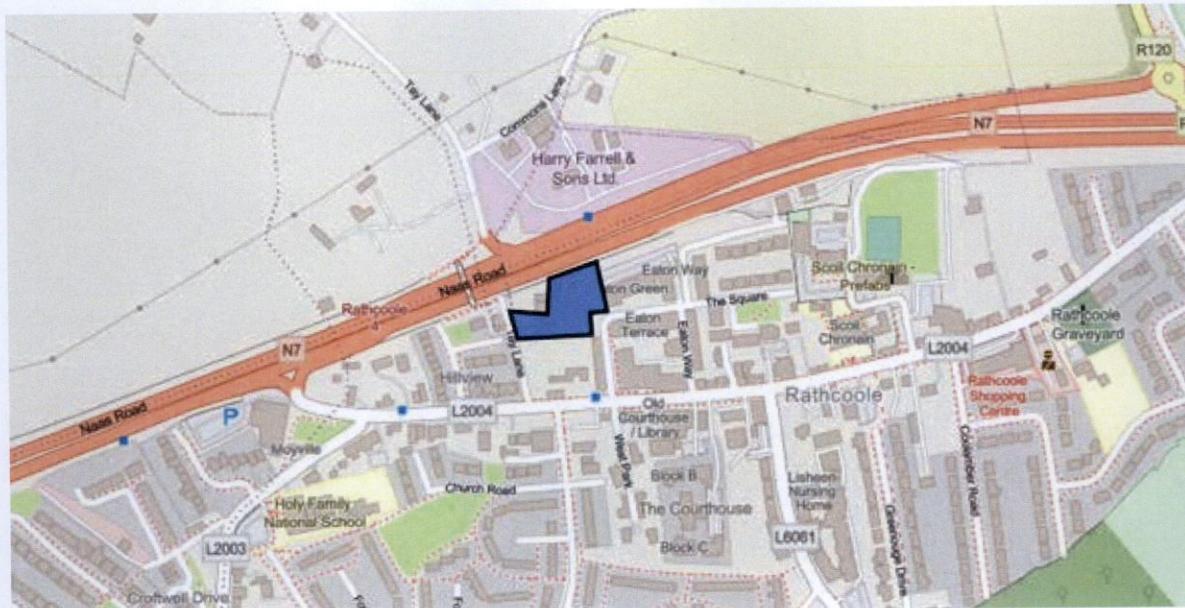
Figure 1-1: Location of site relative to local road network

A map indicating the location of the traffic surveys of the 2 No. critical junctions (Tay Lane / Main Street L2004) / Forest Hills staggered T-junction and R120 / Main Street (L2004) roundanout junction), providing access for development traffic to the external road network, is contained within Figure 1-2.
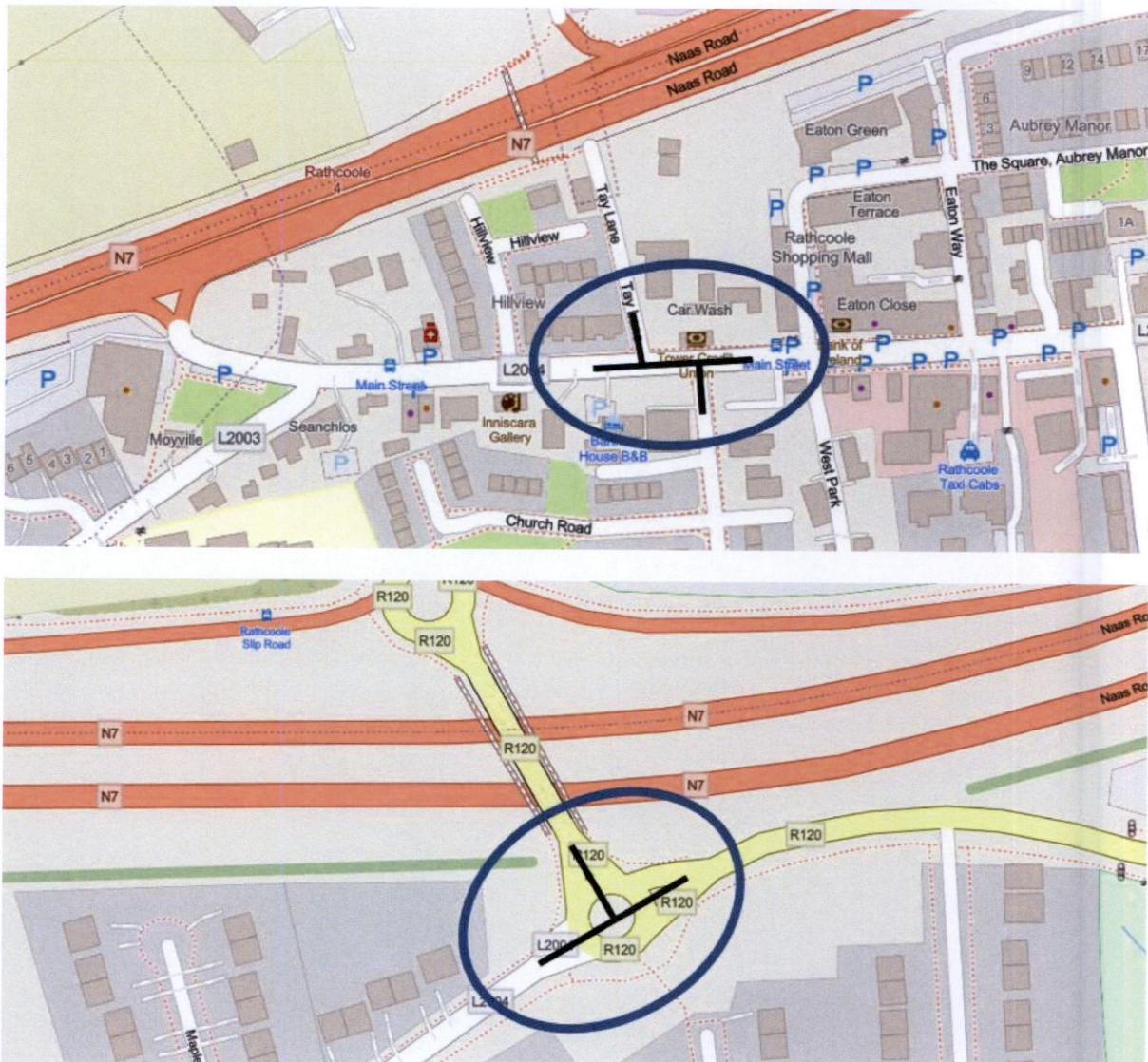
Figure 1-2: Map indicating locations of traffic survey sites where traffic generated by proposed development accesses external road network

These 2 No. junctions are thus assumed to provide direct entry to the local road network for traffic linking towards Dublin, from the west, and from Dublin. The assumption within this report, as detailed within section 4.2,, is that the majority of generated traffic will access the site via the development access with Main Street and the R120 / Main Street roundbout.

The remainder of the inbound and outbound traffic arriving from Dublin or exiting westwards will access the site via the N7 on/off ramp; located 250 metres west of the Tay Lane / Main Street access point.

1.5   SCOPE OF THE REPORT

Section 2 provides details of the receiving environment, detailing existing conditions pertaining at the site of the proposed development and the surrounding local road network (stage 1 of TTA methodology as stated in section 1.3);

Section 3 details the parking requirements for the proposed development and the proposed provision.

Section 4 details the extent of the development together with the trips generated by it, and the distribution / assignment of those estimated flows at the critical nearby junction chosen for analysis (stages 2, 3 and 4 of TTA methodology as stated in section 1.3). Trips generated by adjacent permitted developments and their

distributions are also detailed. The need for a traffic assessment based on the criteria within the 2014 Traffic and Transport Assessment Guidelines is also detailed;

Section 5 details an analysis of the traffic impact of the proposed and adjacent planned development on the nearby critical junctions for the existing situation, the estimated year of opening, and within the design year, fifteen years thereafter (stage 5 of TTA methodology as stated in section 1.3); and

Section 6 makes some concluding comments regarding the impact of the proposed project in traffic impact terms, the mitigating factors pertaining to it and its overall sustainability.

2.0 RECEIVING ENVIRONMENT

2.1 LOCATION OF PROPOSED DEVELOPMENT

The site is located centrally within Rathcoole village, 80 metres north of Main Street / L2004.

Main Street has direct links to the west Dublin suburbs and the N7 / Naas Road.

2.2 EXISTING PUBLIC TRANSPORT FACILITIES

Figure 2-1 contains details of the LUAS and public transport facilities close to the proposed development.

Figure 2-1: Existing bus and LUAS transport facilities close to subject site

The 69 and 69x routes from Rathcoole to Hawkins Street runs 3 times per hour during the morning peak, with the 39A along Prussia Street running 8 times per hour during the peak.

The frequency of each of the above routes during the morning peak is detailed within Table 2-1.

Route	Origin	Destination	AM Peak time Frequency
69	Rathcoole	Hawkins Street	2 PER HOUR
69X (express, peak only)	Rathcoole	Hawkins Street	1 PER HOUR
TOTAL	-	-	**3 PER HOUR**

Table 2-1: Route origins, destinations and frequencies

Route 69 provides a direct link to the LUAS Red Line which terminates at Teach Sagard, 3 km east of the subject site.

Figure 2-2 provides a map detailing the LUAS network, and the location of the Saggart stop within it:
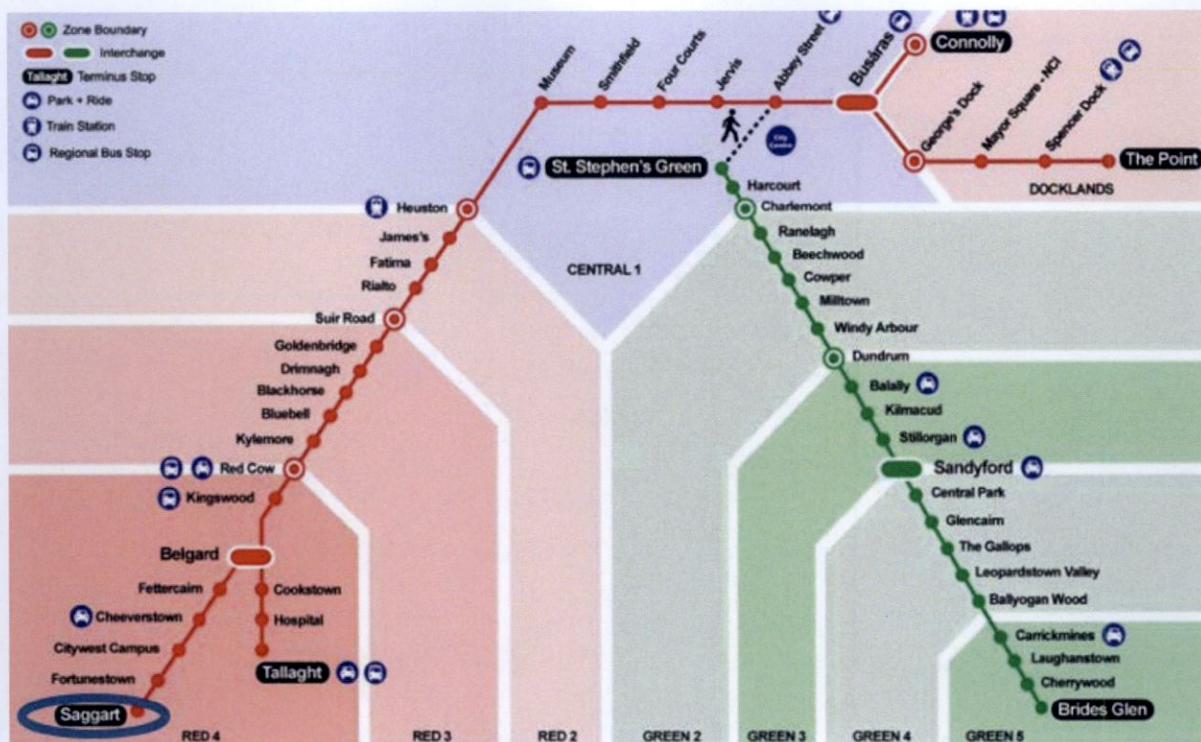
Figure 2-2: Location of the Saggart stop within the LUAS network

2.3 EXISTING CYCLING AND PEDESTRIAN FACILITIES

There are no cycle lanes in the vicinity of the proposed development.

The good quality footpath facilities within Rathcoole Village, and along one side of Tay Lane.

2.4 FUTURE PLANNED PUBLIC TRANSPORT AND CYCLING NETWORK IMPROVEMENTS

Greater Dublin Area Cycle Plan

Figure 2-3 details the network improvements proposed within the GDA cycle plan:
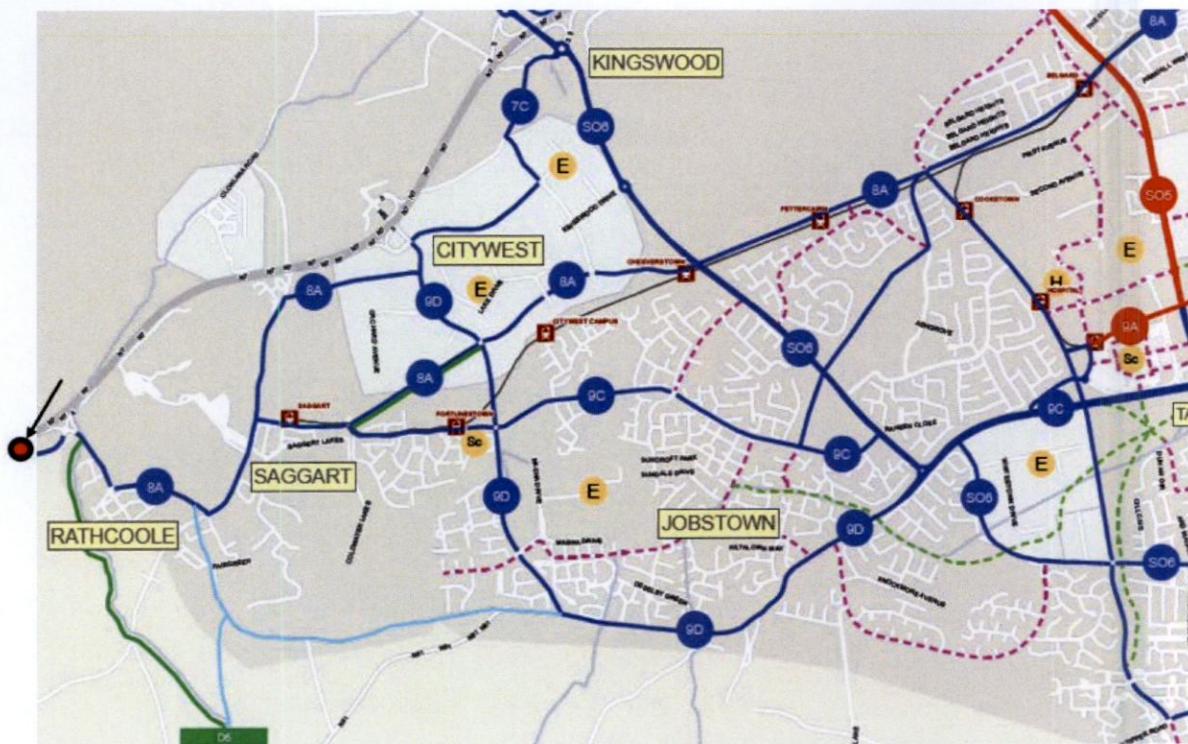
Figure 2-3: Proposed cycle facilities close to the subject site (GDA cycle plan) (primary routes in red, secondary in blue)

Radial Routes
Radial Route 8A
Route 8 runs from South Great George's Street via the Coombe area and Dolphin's Barn to the junction of Crumlin Road and Sundrive Road (Route SO2).

Route 8A follows Crumlin Road past the Children's Hospital, Bunting Road to Walkinstown, through Ballymount to cross the M50 at Junction 10 and out to Citywest / Fortunestown /Saggart via Belgard.

This route will run from the City Centre to the Navan Road via Grangegorman, Prussia Street, North Circular Road at Hanlon's Corner and Old Cabra Road

Bus Connects
In 2018, the National Transportation Agency (NTA) published the Core Bus Corridors Project Report ('Bus Connects Report'), a preliminary document outlining proposals for the delivery of a core bus corridor network within Dublin.

Figures 2-4 and 2-5 contains a map detailing the route of the proposed 93, 393 and W8 routes running close to the site.

Route 93 runs from Rathcoole to the Dublin Port area. It will be an all-day service, running every 60 minutes.

This route would start at the existing 69 terminus in Rathcoole, and connecting to Saggart, Citywest and Clondalkin, and onwards to the City Centre.

Route 393 runs from Rathcoole to the City Centre. It will be a peak-only express service, similar to the existing Route 69x, but with a second trip added in the morning in response to observed significant levels of demand.

The eastern sector of Rathcoole village would also be near the orbital Route W8, running from Maynooth to Tallaght. It will be an all-day service, every 30 minutes, and will provide a new regular link to Maynooth, Celbridge and Hazelhatch Station to the north, and to Saggart, Citywest and Tallaght to the south.

Figure 2-4: Proposed routes to the west of Rathcoole Village

Figure 2-5: Proposed routes to the east of Rathcoole Village

2.5 BASELINE TRAFFIC FLOWS AT TAY LANE/ L2004 (MAIN STREET) / FOREST HILLS STAGGERED PRIORITY JUNCTION AND R120 / L2004 (MAIN STREET) ROUNDABOUT JUNCTION

On the network, peak flows typically occur on weekdays, with peak hourly flows typically occurring between 7am and 9am in the morning and between 4pm and 7pm in the evening.

24-hour Traffic surveys at the 2 No. critical junctions were carried out on Tuesday 21 February 2023.

The surveys indicated that the weekday morning peak occurred between 0800 and 0900 with the evening peak occurring between 1700 and 1800 - these were observed to be the timeframes during which the junctions were most heavily loaded. The following analysis is based on these peak periods.

Full details of all surveys utilised within this report are contained within Appendix 1.

It is assumed that the proposed development will open in 2026.

The analysis within this report is undertaken based on 1.7% annual growth in network traffic over the period 2022 to 2030 period, decreasing to 0.6% in the 2030 to 2041 period. These rates are consistent with the 'medium sensitivity' assumption for the four planning authorities within the Dublin metropolitan area as detailed within the 2019 Transport Infrastructure Ireland document 'Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections', PE-PAG-02017-2, May 2019.

The February 2023 flows at the critical junctions in the vicinity of the proposed development are as follows:

Morning peak
Tay Lane / L2004 (Main Street) / Forest Hills: 676 No. passenger car units (PCU)
R120 East / L2004 (Main Street) / R120 North: 850 No. passenger car units (PCU)

Evening peak
Tay Lane / L2004 (Main Street) / Forest Hills: 1967 No. passenger car units (PCU)
R120 East / L2004 (Main Street) / R120 North: 2141 No. passenger car units (PCU)

24-hours
Tay Lane / L2004 (Main Street) / Forest Hills: 9858 No. passenger car units (PCU)
R120 East / L2004 (Main Street) / R120 North: 27952 No. passenger car units (PCU)

One can see that the Tay Lane / Main Street / Forest Hills junction is relatively busy during both peaks, with much heavier flows at the R120 / Main Street roundabout.

In the case of the Tay Lane / Main Street T-junction, the overwhelming proportion of flows at the junction are through-flows along Main Street. With the R120 / Main Street roundabout.

With the R120 / Main Street roundabout, approximately 70% of outbound flows in the morning exit onto R120 north, with inbound flows onto Main Street in the evening peak split approximately 50:50 between R120 east and R120 north.

Figures 2-6, 2-7, 2-8 and 2-9 contain diagrammatic representations of the morning peak hour and evening peak hour flows respectively at the 2 No. critical junctions (and within Diagrams 1 to 4 within Appendix 2):
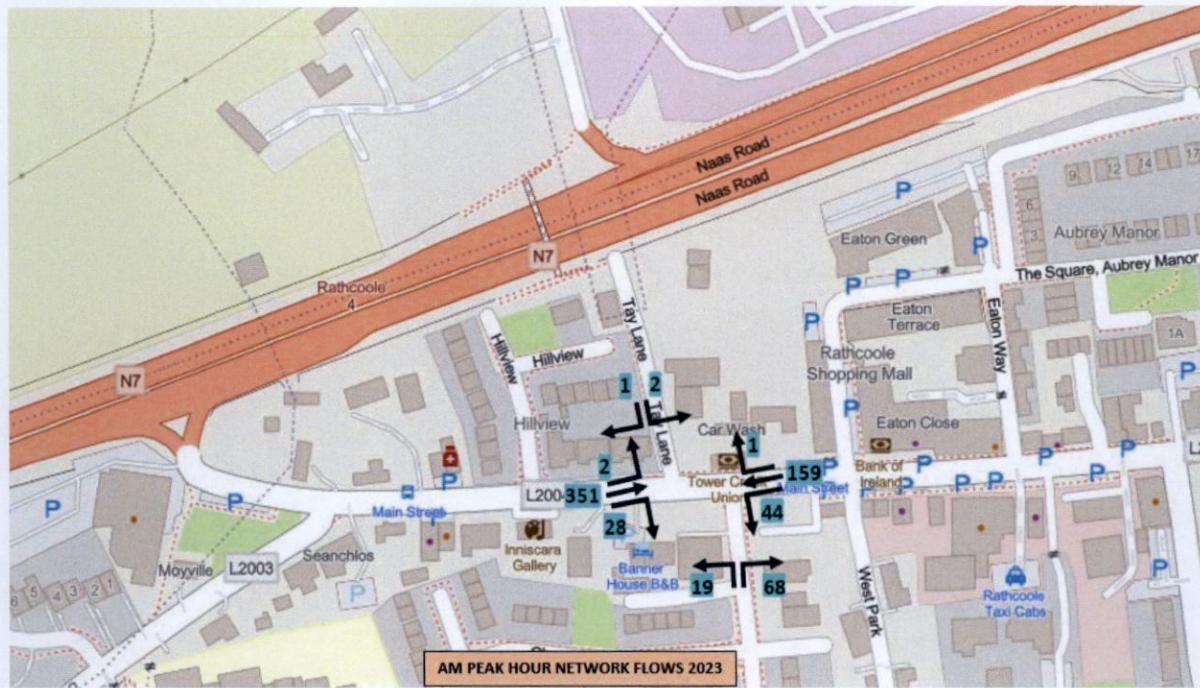
Figure 2-6: AM peak hour flows at Tay Lane / Main Street / Forest Hills T- junction
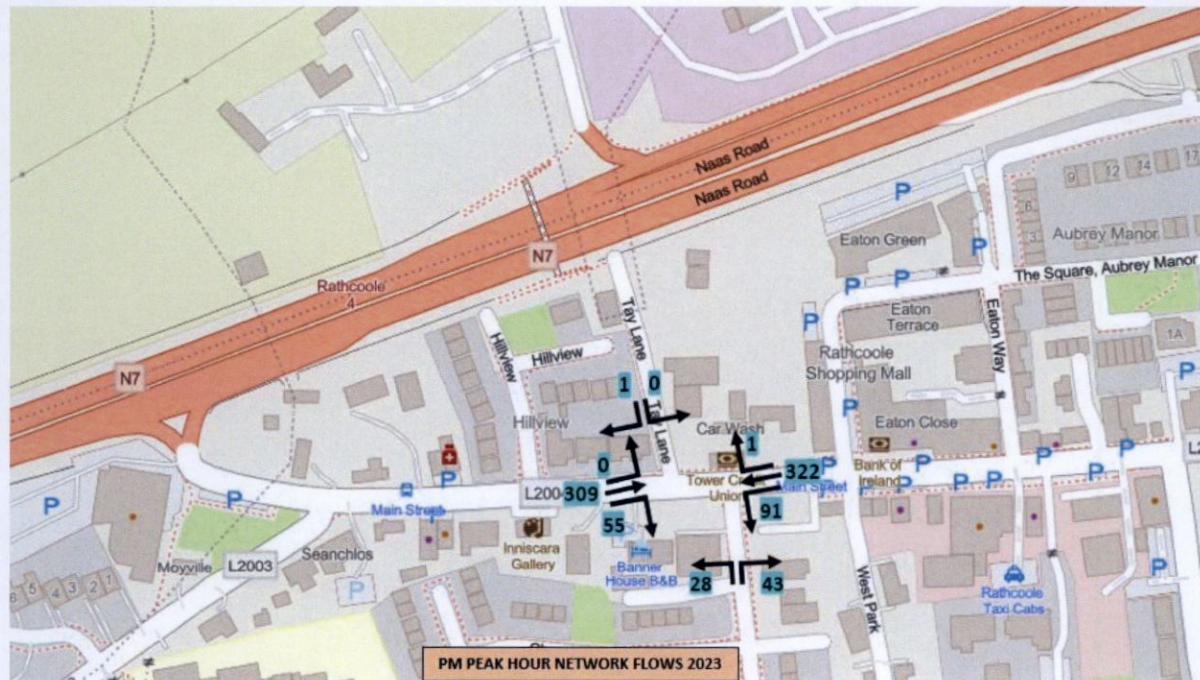
Figure 2-7: PM peak hour flows at Tay Lane / Main Street / Forest Hills T- junction
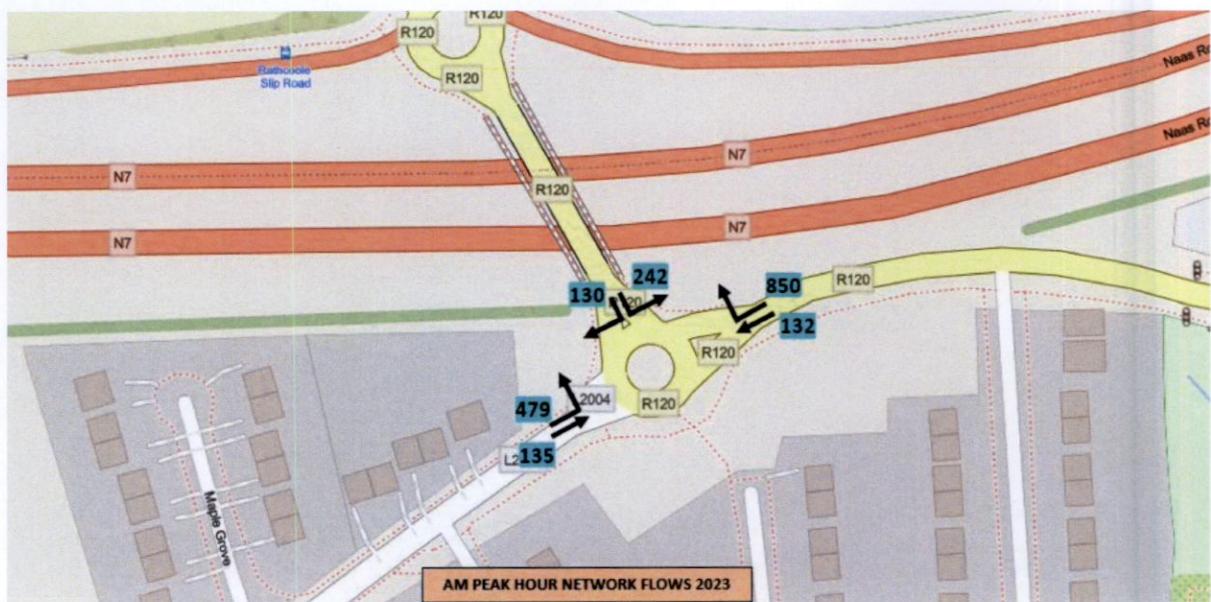
Figure 2-8: AM peak hour flows at R120 North / R120 East / Main Street roundabout junction
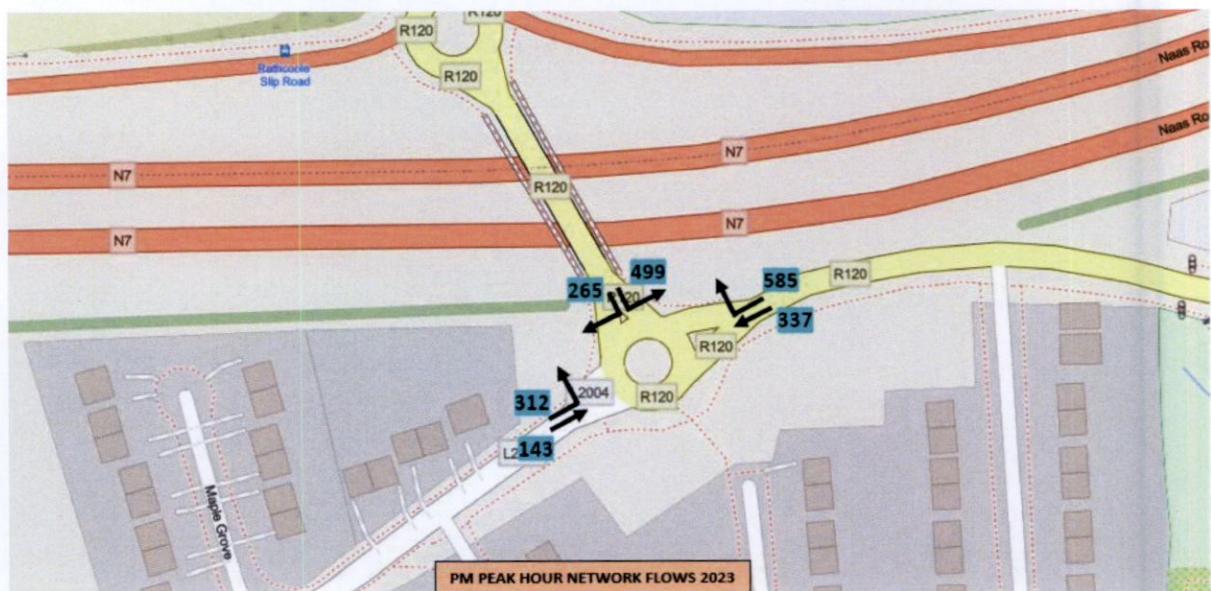
Figure 2-9: PM peak hour flows at R120 North / R120 East / Main Street roundabout junction

3.0 REQUIRED AND PROPOSED CAR PARKING PROVISION

3.1 INTRODUCTION

This section details the car and cycle parking requirements under the South Dublin Development Plan 2022 to 2028.

While no specific requirement for age-friendly housing is contained within the Development Plan, this report utilises the requirement for retirement homes and apartments stated in the document.

3.2 CAR AND CYCLE PARKING REQUIREMENTS AS PER SDCC DEVELOPMENT PLAN

Car Parking

Tables 3-1 below details the maximum car parking standards for South Dublin County Council based on the rates contained within their 2022 – 2028 Development Plan Written Statement for both retirement homes and apartment developments.

The development comprises 16 No. 1-bed housing units (maximum occupancy 2 No. persons) and 38 No. 2-bed housing units (maximum occupancy 3 No. persons).

Therefore, the above development mix provides a maximum occupancy for the overall development of 154 No. persons

Development type	Units / Residents	Maximum car parking standards	Maximum parking required
Retirement Home	146 No. residents	1 per 8 No. residents	18 No.
Apartments	54 No. units (16 No. 1-bed + 38 No. 2-bed)	$(16 \times 0.75)+(1 \times 38)=50$	50 No.

Table 3-1: Maximum Car Parking required under South Dublin County Council Development Plan Standards (The Site is in Rathcoole Village Centre which is identified as a Growth Town in the CDP Core Strategy, therefore, it is contended that Zone 2 is justified).

The proposed development will provide 30 No. car parking spaces for the proposed age-friendly housing development.

The provision of 30 No. car parking spaces is based on the following allocation:
- 24 No. spaces allocated to residents, based on 1 No. space per 4 bedrooms (92 No. beds in total within development);
- 2 No. spaces allocated to the community centre facility for hosting communal activities by the residents;
- 1 No. space for the Buildings Manager; and
- 3 No. visitor spaces

The figure of one space per 8 No. residents, yielding a requirement for 18 No. spaces, is very similar to the one space per 7 No. residents previously used by Cluid who are the ultimate end-users for the proposed development, with one space per 7 No. residents yielding a requirement of 21 No. spaces.

The overall figure of 30 No. spaces can be seen as striking a balance between apartment and retirement home standards, since no standard is provided for 'age friendly' development and the occupier profile of 'age friendly' development is markedly different to that of a standard apartment scheme, which would require 50 No. spaces for full compliance as detailed above within Table 3-1. It must be noted that residents of 'age-friendly' schemes will have a far greater degree of independence than care home / retirement home residents and so providing a higher level of car parking, relative to the care homes standard, is justified in this case. Furthermore, the majority of residents will not undertake daily work commutes which account for a high proportion of private car trips in a standard apartment development. Given that the site is within walking distance of local shops and facilities, providing a lower level of car parking relative to the standard for apartments is justified given the age profile and employment profile of the intended occupants.

Also, 2 No. spaces have been provided for the community centre. It could be argued that no extra parking requirement is generated by this facility as it will used only by the residents and local community living nearby. This would bring the effective quantum of residents' car parking to 26 No., equivalent to 1 No. space per 5.6 No. residents.

At a residential development in Drogheda, County Louth, which included retirement housing, and which was granted permission in 2018, 1 No. car parking space per 3 No. units were proposed and accepted by the planning authority.

This would equate to 18 No. car parking spaces for residents (54÷3=18), significantly lower than the overall quantum of 30 No. spaces proposed.

The TRICS figures indicate an average of less than 5 No. vehicles entering in any given hour, with a very similar exit flow, resulting in very low accumulations. A provision of 30 No. spaces equates to 5 No. vehicles arriving per hour for 6 hours with no exiting movements. The TRICS data indicates that such is not the case, with inflows practically matching outflows, with low accumulations as a result.

Thus, on the evidence of the TRICS data, 30 No. car parking spaces will be more than adequate.

Cycle Parking
It is proposed to provide 80 No. cycle parking spaces on site.

Table 3-2 details relevant cycle parking standards

Development type	Units / Residents	Minimum Cycle parking standards	Minimum parking required
Retirement Home	146 No. residents + 0 staff	(146÷10)+(0÷5)	15 No.
Apartments	54 No. units (16 No. 1-bed + 38 No. 2-bed)	(16×1)+(2×38) + (54÷2)=119	119 No.

Table 3-2: Minimum Cycle Parking required under South Dublin County Council Development Plan Standards

The overall figure of 80 No. cycle spaces aims to strike an appropriate balance between residential apartment and care retirement home parking standards bearing in mind the age profile of the intended occupants.

The proposed provision of 80 No. spaces is 67% of the required provision for apartment developments. Given the targeted age profile for the proposed development, and the consequent reduced likelihood of cycling being a viable transport option for this age-cohort, this level of provision is seen as entirely justified.

It should also be noted that the proposed provision is five times the requirement for a retirement home / nursing home development.

4.0 TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT ANALYSIS FOR PROPOSED FUTURE DEVELOPMENT

4.1 TRIP GENERATION ANALYSIS

The proposed development consists of 54 No. retirement housing units

TRICS typically gives the following weekday morning and evening peak-hour trip rates for retirement flats, comprising both flats, 'split' and non-split' houses:

		Weekday AM		Weekday PM		DAILY
		IN	OUT	IN	OUT	2-WAY
Retirement Housing	Trips/Unit	0.096	0.103	0.087	0.080	2.19

Table 4-1: Peak hour and daily trip rates for proposed development site

The above TRICS trip rates give rise to the following weekday morning and evening peak and daily trip volumes for retirement housing units:

		Weekday AM		Weekday PM		DAILY
	No. of units	IN	OUT	IN	OUT	2-WAY
Retirement Housing	54	5	6	5	5	118

Table 4-2: Peak hour and daily flows generated by proposed development site

Daily flows occur between 7AM and 7PM, a 12-hour time period.

Appendix 3 contains details of the sites in the UK and Ireland used to deduce the above rates, together with information on the day-long flow patterns.

The above flows equate to 1 No. vehicle entering or leaving every 5.5 minutes during the morning peak hour (9AM to 10AM), and 1 No. vehicle entering or leaving every 6 minutes during the evening peak hour (6PM to 7PM for the development), and, for the 12-hour time period between 7AM and 7PM, on average, during every 60-minute period, 1 No. vehicle enters or leaves on every 6 minutes.

One can thus conclude that the proposed development will be lightly trafficked, with flows relatively un-peaked, averaging 9 No. vehicles per hour over the 7AM to 9PM period.

4.2 DISTRIBUTION OF GENERATED FLOWS

On the basis of the existing flow patterns detailed within Figures 2-6 and 2-7 for the orning and evening peak hours respectively, the following distributions for development generated flows are assumed to be as follows:

AM peak
Tay lane / Main Street junction
67% exiting eastwards towards Dublin, with 33% exiting westwards
All entering flows split 50:50
R120 / Main St roundabout
75% exiting onto R120 north, 25% to R120 east
Entering flows onto Main Street split 67:33 in favour of R120 north.

PM peak
Tay lane / Main Street junction
67% entering eastwards from Dublin, with 33% entering from the west
All exiting flows split 50:50
R120 / Main St roundabout
67% exiting onto R120 north, 33% to R120 east

Entering flows onto Main Street split 50:50 between R120 north and R120 east.

The assumed morning and evening peak hour development flows are also detailed in Diagrams 5 and 6 respectively within Appendix 2.

Figures 4-1 and 4-2 below contain diagrammatic representations of the morning and evening peak hour development flows respectively at the 2 No. critical junctions.
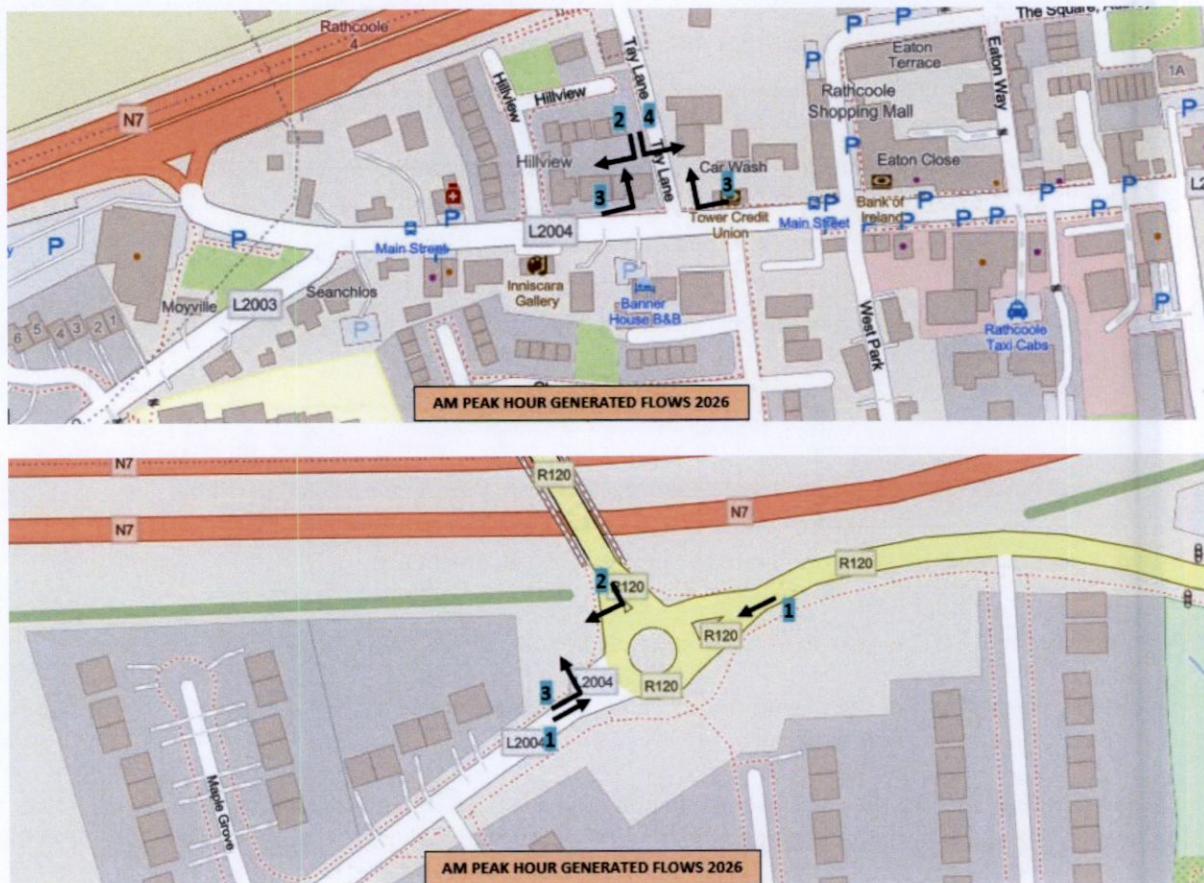
Figure 4-1: AM Peak Development Flows
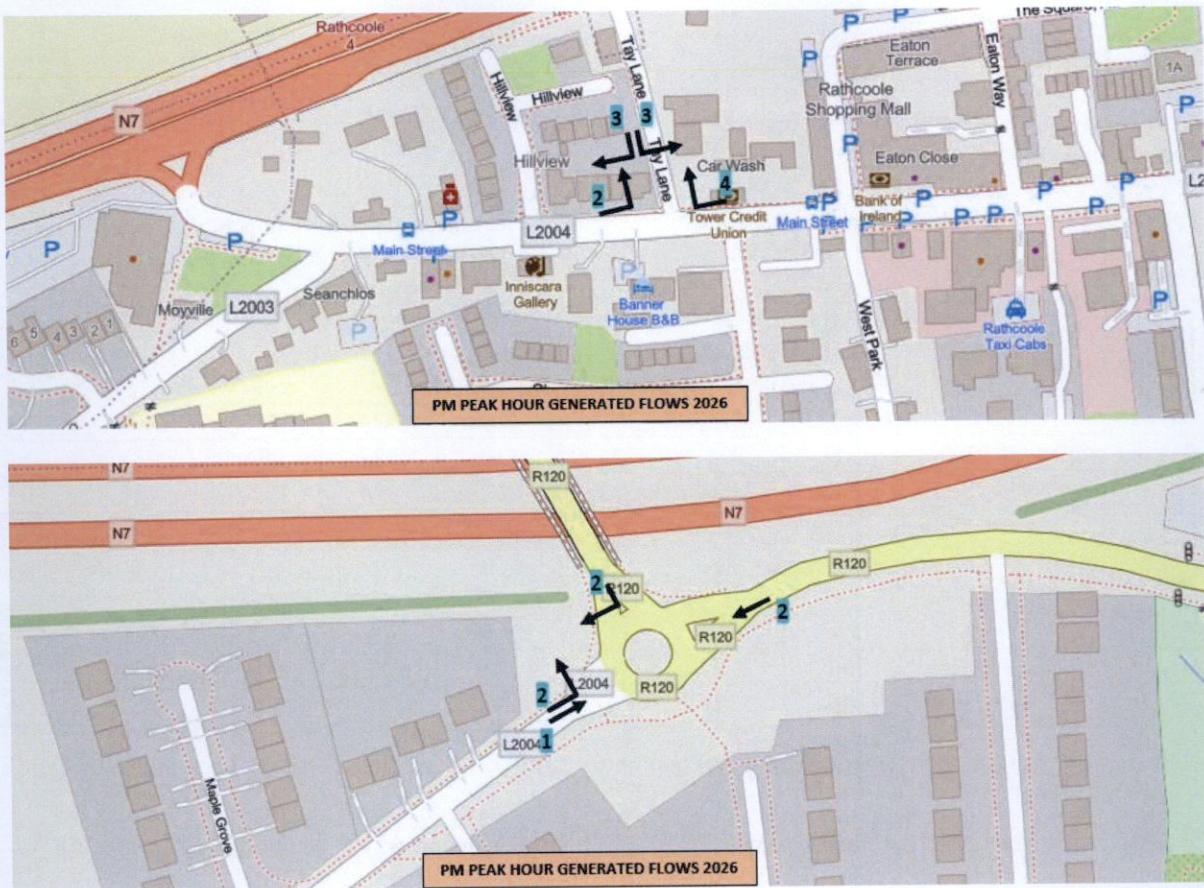
Figure 4-2: PM Peak Development Flows

The generated flows are also detailed in Diagrams 5 and 6 withinin Appendix 2 for the morning and evening peak hour respectively.

4.3   TRIP ASSIGNMENT

The 2014 Traffic and Transport Assessment Guidelines published by the NRA requires that the relevant junctions be analysed for the existing situation, the year of opening (20264) with the proposed development in place, the design year 1 (year of opening plus 5) with the proposed and adjacent developments in place, and the design year 2 (year of opening plus 15) with the proposed development in place.

An annual growth rate of 1.7% has been assumed for the period 2022 to 2030, decreasing to 0.6% for 2031 to 2041, based on the central growth estimate for the Dublin Metropolitan Region, published by TII in 2019 (PE-PAG-02017-2).

The 2026 Do-Nothing ('without development') scenario is derived by factoring the survey results in Diagrams 1 to 4 within Appendix 2 up by 5.2% ($(1.017)^3 - 1 = 0.052$). The 2026 Do-Something ('with proposed development') scenario is derived by adding the development flows detailed within Diagrams 5 and 6 within Appendix 2 to these factored network flows.

The 2031 Do-Nothing ('without development') scenario is derived by factoring the survey results in Diagrams 1 to 4 within Appendix 2 up by 13.2% ($(1.017)^7 \times (1.006)^1) - 1 = 0.132$). The 2026 Do-Something ('with proposed development') scenario is derived by adding the development flows detailed within Diagrams 5 and 6 within Appendix 2 to these factored network flows.

The 2041 Do-Nothing ('without development') scenario is derived by factoring the survey results in Diagrams 1 to 4 within Appendix 2 up by 20.2% ($(1.017)^7 \times (1.006)^{11}) - 1 = 0.202$). The 2026 Do-Something ('with proposed development') scenario is derived by adding the development flows detailed within Diagrams 5 and 6 within Appendix 2 to these factored network flows.

In reality, it could reasonably be assumed going forward that traffic volume increases during the morning and evening peaks will be marginal over the coming years given the stated transportation policies recommending a shift away from use of the private car towards sustainable modes of travel in the 2020 to 2042 period within the Greater Dublin Area..

Table 4-3 below details the network and proposed development (candidate site) flows incident on the Tay Lane / Main Street (L2004) junction on the projected day of opening in 2026 and within 2041, 15 years after opening:

Tay Lane / Main Street (L2004) / Forest Hills T-junction	Network Flows		Proposed Development flows		Total flows		Development flows as % of total flows	
	AM	PM	AM	PM	AM	PM	AM	PM
Day of opening (2026)	711	894	11	10	722	904	1.52	1.11
Design Year (2041)	813	1022	11	10	824	1032	1.33	0.97
R120 North / R120 east / Main Street (L2004) roundabout junction	Network Flows		Proposed Development flows		Total flows		Development flows as % of total flows	
	AM	PM	AM	PM	AM	PM	AM	PM
Day of opening (2026)	2069	2252	7	7	2076	2259	0.34	0.31
Design Year (2041)	2364	2572	7	7	2371	2579	0.30	0.27

Table 4-3: Network and proposed development flows at the 2 No. critical junctions on day of opening (2026) and Design Year (2041)

The 2014 Traffic and Transport Assessment Guidelines requires the impact of the additional traffic volumes on the critical nearby junctions to be assessed in detail if:
- Development flows exceed 10% of existing turning movements at the two relevant junctions;
- Development flows exceed 5% of turning movements if the location has the potential to become congested.

It is noted that the generated flows from the subject site are significantly less than half the 5% threshold at both the Tay Lane / Main Street (L2004) / Forest Hills and R120 / Main Street (L2004) junctions.

At the Tay Lane junction, a maximum of just greater than 1.5% during the morning peak hour in 2026 is computed, lowering to 1.33% by 2041.

At The R120 / Main Street roundabout, a maximum increase of 0.34% during the morning peak hour in 2026 was computed, lowering to 0.3% by 2041.

Despite the generated flows being a fraction of the required threshold values, thus illustrating the insignificant impact of the proposed development in traffic impact terms, in the interests of robustness, a full analysis of the impact of the proposed development on the critical junction will thus be carried out in section 5.

5.0 ANALYSIS OF TRAFFIC IMPACT OF ALL PROPOSED DEVELOPMENT ON 2 NO. CRITICAL JUNCTIONS

5.1 INTRODUCTION

The traffic analysis will analyse the performance of the relevant intersections for the following scenarios:

- Existing flows (2023 AM and PM peak) – Scenario No. 1
- Year-of Opening (2026) flows with no development in place (2026 AM and PM peak Do-Nothing) – Scenario No. 2
- Year-of Opening (2026) flows with proposed development in place (2026 AM and PM peak Do-Something) – Scenario No. 3
- Year-of Opening plus 15 (2041) flows with no development in place (2041 AM and PM peak Do-Nothing) – Scenario No. 4
- Year-of Opening plus 15 (2041) flows with proposed development in place (2041 AM and PM peak Do-Something) – Scenario No. 5

The PICADY programme from the Junctions 10 suite will be used to analyse the Tay Lane / Main Street (L2004) / Forest Hills staggered priority junction for all 5 No. scenarios.

The ARCADY programme from the Junctions 10 suite will be used to analyse the R120 North / R120 East / Main Street (L2004)roundabout junction for all 5 No. scenarios.

5.2 ANALYSIS OF THE TAY LANE / MAIN STREET (L2004) / FOREST HILLS STAGGERED PRIORITY JUNCTION FOR THE 5 NO. SCENARIOS

Full details of the analysis of the Tay Lane / Main Street (L2004) / Forest Hills junction are contained within Appendix 4.

Table 5-1 immediately below summarises the RFC's and queue lengths for the morning and evening peaks for each of the 5 No. scenarios for the Tay Lane / Main Street (L2004) / Forest Hills priority junction:

	WITHOUT DEVELOPMENT			WITH TOTAL DEVELOPMENT		
	MAX RFC	QUEUE (VEH)	DELAY (SECS)	MAX RFC	QUEUE (VEHS)	DELAY (SECS)
AM 2023	0.26	1	11.20	-	-	-
AM 2026	0.27	1	11.68	0.27	1	11.73
AM 2041	0.32	1	13.50	0.32	1	13.12
PM 2023	0.26	1	6.24	-	-	-
PM 2026	0.26	1	6.31	0.28	1	6.30
PM 2041	0.34	1	6.66	0.35	1	6.66

Table 5-1: Critical ratios of flow to capacity queue lengths and delays during the morning and evening peak hours for each scenario at the Tay Lane / Main Street (L2004) / Forest Hills junction

The above analysis indicates that the Tay Lane / Main Street (L2004) / Forest Hills priority junction at present operates far below capacity on all approaches during both peak hours, with a maximum degree of saturation of 26% on all opposed movements. The RFC of 0.26 occurs for traffic exiting Forest Hills, which is more heavily trafficked than Tay Lane. The maximum RFC for traffic exiting Tay Lane is 0.02, occurring during the morning peak hour.

Queuing is at a maximum of 1 No. vehicle on all opposed movements, and delays on all opposed movements into and out of Tay Lane are minimal (less than 12 seconds).

In 2026 and 2041, with network flow increases only allowed for and no development in place, the intersection will continue to operate well within capacity, with a maximum degree of saturation of 34% on all opposed movements by 2041. The RFC of 0.34 occurs for traffic exiting Forest Hills, which remains more heavily trafficked than Tay Lane. The maximum RFC for traffic exiting Tay Lane is 0.02, occurring during the morning peak hour.

Queuing remains at a maximum of 1 No. vehicle on all opposed movements, and delays on all opposed movements into and out of Tay Lane are minimal (less than 14 seconds).

In 2026 and 2041, with both network flow increases and generated flows frm the full development allowed for, the intersection will continue to operate well within capacity, with a maximum degree of saturation of 35% on all opposed movements by 2041. The RFC of 0.35 occurs for traffic exiting Forest Hills, which remains more heavily trafficked than Tay Lane. The maximum RFC for traffic exiting Tay Lane is 0.03, occurring during the morning peak hour.

Thus, the above analysis confirms that the traffic impact of the proposed development will be imperceptibly low, with effectively zero impact on the efficiency of all opposed traffic movements into and out of Tay Lane.

5.3   ANALYSIS OF R120 NORTH / R120 EAST/ MAIN STREET (L2004) ROUNDABOUT JUNCTION FOR THE 5 NO. SCENARIOS

Full details of the analysis of the R120 North / R120 East / Main Street (L2004) junction are contained within Appendix 4.

Table 5-2 immediately below summarises the RFC's and queue lengths for the morning and evening peaks for each of the 5 No. scenarios for the R120 North / R120 East / Main Street (L2004) junction:

	WITHOUT DEVELOPMENT			WITH TOTAL DEVELOPMENT		
	MAX RFC	QUEUE (VEH)	DELAY (SECS)	MAX RFC	QUEUE (VEHS)	DELAY (SECS)
AM 2023	0.91	8	42	-	-	-
AM 2026	0.98	11	41	0.96	12	42
AM 2041	1.17	87	409	1.18	93	431
PM 2023	0.93	10	37	-	-	-
PM 2026	0.98	17	58	0.99	17	60
PM 2041	1.16	97	284	1.16	101	297

Table 5-2: Critical ratios of flow to capacity queue lengths and delays during the morning and evening peak hours for each scenario at the R120 North / R120 East / Main Street (L2004)

The above analysis indicates that the R120 North / R120 East / Main Street (L2004) junction at present operates just within capacity on all approaches during both peak hours, with a maximum degree of saturation of 93%.

The maximum RFC of 0.93 occurs during the evening peak on two approaches, for traffic entering from the R120 North and the R120 East.

Queuing is at a maximum of 10 No. vehicles and delays reach a maximum of 42 seconds per vehicle.

By 2026, assuming a 5% increase in network traffic flows, the maximum RFC will increase to 0.98, occurring during the morning peak hour on the Main Street approach and during the evening peak hour on the R120 North and East approaches. Queuing increases to a maximum of 17 No. vehicles.

In 2026, assuming both a 5% increase in network traffic flows and generated flows from the full development incident on the junction, the maximum RFC will increase slightly to 0.99, occurring during the morning peak hour on the Main Street approach and during the evening peak hour on the R120 North and East approaches. Queuing remains at a maximum of 17 No. vehicles.

Thus, within the proposed year of opening of the proposed development, with the development in place, the junction remains just within capacity, with the proposed development not to maximum queue lengths.

By 2041, assuming a 20% increase in network traffic flows, the junction will be over capacity, with the maximum RFC increase to 1.17, occurring during the morning peak hour on the Main Street approach. Queuing increases to a maximum of 97 No. vehicles. Queuing is this excessive as the junction is 17% over capacity due to assumed network flow increases.

In 2041, assuming both a 20% increase in network traffic flows and generated flows from the full development incident on the junction, the maximum RFC will increase very slightly to 1.18, again occurring during the morning peak hour on the Main Street approach and during the evening peak hour on the R120 North and East approaches. Queuing increases by 4% over the 'without project' scenario to a maximum of 101 No. vehicles.

The overcapacity predicted in 2041 results directly from increases in 20% of network traffic over current values. However, if sustainability policies stated within the GDA Transport Plan 2020-2041 are enacted, with reduced car usage is at the centre of policy goals, it is highly unlikely that such increases will transpire.

6.0 SUMMARY COMMENTS ON TRAFFIC IMPACT PROPOSED RESIDENTIAL DEVELOPMENT ON TAY LANE

6.1 INTRODUCTION

This document contains a Traffic and Transport Assessment (TTA) for a proposed development located on Tay Lane, adjacent to its staggered priority intersection with Main Street Rathcoole (L2004) and Forest Hills.

The development consists of 54 No. Independent Living Units.

It is proposed to provide 30 No. car parking spaces and 80 No. cycle parking spaces.

The function of this TTA is to quantify the existing transport environment in terms of the vehicular flows incident on it and to identify and assess the level of transport impact generated by the vehicular trips generated by the proposed residential development.

This TTA has carried out a range of assessments for the existing situation, within the year of opening in 2026, and the within 2041 design year (year of opening plus 15).

It is demonstrated that predicted generated flows are significantly below the threshold at which a traffic assessment would be required. Nonetheless, an assessment was completed which confirmed imperceptibly low levels of traffic impact.

6.2 MITIGATION

The proposed development will have an insignificant impact on the local road network, increasing flows at the Tay Lane / Main Street / Forest Hills staggered priority junction by a maximum of 1.52%, and increasing flows at the R120 North / R120 east / Main Street roundabout by a maximum of 0.34%.

The analysis within 5.2 above demonstrates that the Tay Lane junction is uncongested, therefore, the relevant threshold for full analysis of the junction as per the 2014 TII Guidelines is 10%. The predicted flow increase arising from the proposed development at this junction is one-sixth of the stated threshold.

The analysis within 5.3 above demonstrates that the R120 / Main Street junction is congested, therefore, the relevant threshold for full analysis of the junction as per the 2014 TII Guidelines is 5%. The predicted flow increase arising from the proposed development at this junction is one-fifteenth of the stated threshold.

In both cases, the relationship at each intersection between the actual computed flow increases and the the levels of increase at which a full analysis of the junction would be required serves to emphasise the very low traffic impact of the proposed development.

The analysis within this report assumes traffic will grow by 5.2% between now and 2026 and by 20.2% between now and 2041. To put these increases in context, the number of cars entering the city centre between 7 am and 10 am fell from 65,000 in 2015 to 58,000 in 2019, a decrease of 11%.

One of the strategy outcomes of the Transport Plan for the Greater Dublin Area 2022-2042 is that, within the AM Peak Period (7-10am), the mode share for car is forecast to drop from 54.8% to 43.8% in the GDA, with increases in public transport and cycling – this constitutes a decrease in modal share of 11% for private car usage.

Rathcoole is just outside the boundary of the Metropolitan Area. In Metropolitan Dublin in the AM Peak Period, the mode share for car is forecast to drop from 47.9% to 36%, a decrease of 12%.

The congestion at the R120 / Main Street roundabout junction in 2041 is based on predicted network traffic flow increases 2023-2041 of 20.2%. It can be argued that, if the stated government policy is implemented, no such increase will materialise.

The sustainability of the proposal will be greatly aided by the good public transport connectivity to the bus network and onwards to the LUAS network, and the significant emphasis on the cycling mode of transport at the proposed development, with 80 no. parking spaces proposed. Cycling as a transport mode in the Rathcoole area will be further boosted when the GDA Cycle Plan proposals become operational.

6.3 CONCLUSIONS FROM ANALYSIS

Based on the data and evaluations within this TTA, the following conclusions can be made:

1. The vehicular flows predicted to be generated by the proposed development on the candidate site are at very low levels, increasing flows at the 2 No. critical junctions by a maximum of 1.52% and 0.34% respectively;
2. The site is well served by public transport, within the 69 route providing a regular service to Dublin City, and linkages to the LUAS stop at Teach Sagart;
3. Future proposals as stated within the GDA Cycle Network Plan and the GDA Transport Plan 2022-2042 will provide additional connectivity from the subject site into the city centre; and
4. If the full proposals of the GDA Transport Plan 2022-2042 are implemented, flow increases predicted by TII to 2041 that are utilised within this report will not transpire.

MRCL TRANSPORT PLANNING PROFESSIONAL

APPENDIX

1

TRAFFIC SURVEY DATA

IDASO

Survey Name:	048 23077 Rathcoole village
Site:	Site 1
Location:	St Bridgets Taylane/Main Street/Forest Hills
Date:	Tue 21-Feb-2023

TIME	A => A									A => B									A => C								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
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10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	1.5
11:15	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2.5	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	3.5	0	0	0	0	1	0	0	1	1.5
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0	0	0	2	16	1	1	0	0	20	18.9	0	0	0	0	1	0	0	1	1.5

TIME	A ⇒ D									B ⇒ A									B ⇒ B								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	1.5
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
08:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	2	0	1	0	0	0	0	3	1.4	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
10:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	3.5
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	2	0	0	0	0	2	2	0	0	0	1	0	0	0	1	1
19:00	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
H/TOT	1	0	1	0	0	0	0	2	1.2	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	5	0	6	0	0	0	0	11	7	2	0	14	0	0	0	0	16	14.4	0	0	9	1	2	0	0	12	13

TIME	A > D										B > A										B > B									
	PCU	PIC	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	PCU	PIC	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	PCU	PIC	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
24 TOT	5	0	0	5	0	0	0	0	6	5	11	0	0	0	0	0	0	0	7	144	16	0	0	0	1	2	0	0	13	13

	B => C									B => D									C => A								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	1	0	0	0	0	1	1	0	0	8	1	0	0	1	10	11	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
00:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	0	0	2	0	0	0	0	2	2	1	0	10	2	0	0	1	14	14.2	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
02:30	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0
04:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	1	0	0	0	0	1	1	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
H/TOT	0	0	2	0	0	0	0	2	2	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
05:15	0	0	1	0	0	0	0	1	1	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	4	5	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	7	2	0	0	1	10	11	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	1	0	4	2	1	0	0	8	7.7	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	8	8	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	5	2	1	0	1	9	10.5	0	0	0	0	0	0	0	0	0
06:45	0	0	1	0	0	0	0	1	1	0	0	7	3	2	0	0	12	13	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	1	0	21	10	4	0	1	37	39.2	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	9	4	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0
07:15	0	0	4	0	0	0	0	4	4	0	0	13	0	0	0	1	14	15	0	0	0	0	0	0	0	0	0
07:30	0	0	4	4	0	0	0	8	8	0	0	9	5	0	0	1	15	16	0	0	0	0	0	0	0	0	0
07:45	0	0	0	1	0	0	0	1	1	0	0	28	4	0	0	0	32	32	0	0	0	0	0	0	0	0	0
H/TOT	0	0	8	5	0	0	0	13	13	0	0	59	13	1	0	2	75	77.5	0	0	0	0	0	0	0	0	0
08:00	1	0	8	0	0	0	0	9	8.2	1	0	18	6	0	0	0	25	24.2	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	35	2	0	0	3	40	43	0	0	0	0	0	0	0	0	0
08:30	1	0	11	0	0	0	0	12	11.2	1	0	41	4	0	0	1	47	47.2	0	0	0	0	0	0	0	0	0
08:45	0	0	23	2	0	0	0	25	25	1	0	35	5	3	0	0	44	44.7	0	0	0	0	0	0	0	0	0
H/TOT	2	0	42	2	0	0	0	46	44.4	3	0	129	17	3	0	4	156	159.1	0	0	0	0	0	0	0	0	0
09:00	0	0	4	1	0	0	0	5	5	0	0	30	5	1	0	0	36	36.5	0	0	0	0	0	0	0	0	0
09:15	0	0	5	1	0	0	0	6	6	1	0	28	3	1	0	0	33	32.7	0	0	0	0	0	0	0	0	0
09:30	1	0	4	1	0	0	0	6	5.2	1	0	35	4	0	1	1	42	43.5	0	0	0	0	0	0	0	0	0
09:45	0	0	7	2	0	0	0	9	9	0	0	36	4	2	1	0	43	45.3	0	0	0	0	0	0	0	0	0
H/TOT	1	0	20	5	0	0	0	26	25.2	2	0	129	16	4	2	1	154	158	0	0	0	0	0	0	0	0	0
10:00	0	0	5	0	0	0	0	5	5	1	0	25	7	2	0	1	36	37.2	0	0	0	0	0	0	0	0	0
10:15	0	0	6	1	0	0	0	7	7	0	0	38	5	2	0	0	45	46	0	0	0	0	0	0	0	0	0
10:30	0	0	7	2	0	0	0	9	9	10	0	30	8	2	0	0	50	43	0	0	0	0	0	0	0	0	0
10:45	0	0	6	0	0	0	0	6	6	1	1	28	3	0	0	0	33	31.8	0	0	0	0	0	0	0	0	0
H/TOT	0	0	24	3	0	0	0	27	27	12	1	121	23	6	0	1	164	157.8	0	0	0	0	0	0	0	0	0
11:00	0	0	8	1	0	0	0	9	9	0	0	32	4	1	1	0	38	39.8	0	0	0	0	0	0	0	0	0
11:15	0	0	10	2	0	0	0	12	12	1	0	29	5	2	0	1	38	39.2	0	0	0	0	0	0	0	0	0
11:30	0	0	4	1	2	0	0	7	8	0	0	47	12	1	0	0	60	60.5	0	0	0	0	0	0	0	0	0
11:45	0	0	3	1	0	0	0	4	4	0	0	32	7	2	0	1	42	44	0	0	0	0	0	0	0	0	0
H/TOT	0	0	25	5	2	0	0	32	33	1	0	140	28	6	1	2	178	183.5	0	0	0	0	0	0	0	0	0
12:00	0	0	13	2	1	0	0	16	16.5	0	0	35	7	2	0	0	44	45	0	0	0	0	0	0	0	0	0
12:15	0	0	2	0	1	0	0	3	3.5	1	0	39	11	0	0	0	51	50.2	0	0	0	0	0	0	0	0	0
12:30	0	0	9	1	0	0	0	10	10	0	0	34	12	0	0	0	46	46	0	0	0	0	0	0	0	0	0
12:45	0	0	6	0	0	0	0	6	6	1	0	48	2	0	0	1	52	52.2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	30	3	2	0	0	35	36	2	0	156	32	2	0	1	193	193.4	0	0	0	0	0	0	0	0	0
13:00	0	0	13	1	0	0	0	14	14	0	0	51	6	0	1	0	58	59.3	0	0	0	0	0	0	0	0	0
13:15	0	0	14	0	0	0	0	14	14	0	0	44	6	3	0	0	53	54.5	1	0	0	0	0	0	0	1	0.2
13:30	1	0	23	0	0	0	0	24	23.2	0	0	38	6	2	0	0	46	47	0	0	0	0	0	0	0	0	0
13:45	0	0	8	2	0	0	0	10	10	0	0	45	3	2	0	0	50	51	0	0	0	0	0	0	0	0	0
H/TOT	1	0	58	3	0	0	0	62	61.2	0	0	178	21	7	1	0	207	211.8	1	0	0	0	0	0	0	1	0.2
14:00	0	0	10	2	0	0	0	12	12	0	0	40	6	3	0	1	50	52.5	0	0	0	0	0	0	0	0	0
14:15	0	0	9	4	0	0	0	13	13	0	0	41	8	1	0	1	51	52.5	0	0	0	0	0	0	0	0	0
14:30	0	0	24	2	0	0	0	26	26	0	0	35	3	0	0	0	38	38	0	0	0	0	0	0	0	0	0
14:45	2	1	12	0	2	0	0	17	15.8	1	0	58	4	1	0	1	65	65.7	0	0	0	0	0	0	0	0	0
H/TOT	2	1	55	8	2	0	0	68	66.8	1	0	174	21	5	0	3	204	208.7	0	0	0	0	0	0	0	0	0
15:00	1	0	9	1	0	0	0	11	10.2	0	0	49	4	3	0	1	57	59.5	0	0	0	0	0	0	0	0	0
15:15	0	0	7	0	0	0	0	7	7	1	1	55	5	2	0	1	65	65.6	0	0	0	0	0	0	0	0	0
15:30	0	0	14	4	0	0	0	18	18	0	0	78	4	2	0	0	84	85	0	0	0	0	0	0	0	0	0
15:45	0	0	10	1	0	0	0	11	11	0	0	54	9	1	0	0	64	64.5	0	0	0	0	0	0	0	0	0
H/TOT	1	0	40	6	0	0	0	47	46.2	1	1	236	22	8	0	2	270	274.6	0	0	0	0	0	0	0	0	0
16:00	0	0	13	0	0	0	0	13	13	0	0	58	8	1	0	0	67	67.5	0	0	0	0	0	0	0	0	0
16:15	0	0	9	2	0	0	0	11	11	0	0	52	7	2	0	1	62	64	0	0	0	0	0	0	0	0	0
16:30	2	0	10	1	0	0	0	13	11.4	0	0	48	4	1	1	0	54	55.8	0	0	0	0	0	0	0	0	0
16:45	0	0	9	3	0	0	0	12	12	1	0	66	7	0	0	0	74	73.2	0	0	0	0	0	0	0	0	0
H/TOT	2	0	41	6	0	0	0	49	47.4	1	0	224	26	4	1	1	257	260.5	0	0	0	0	0	0	0	0	0
17:00	1	1	22	2	1	0	0	27	26.1	1	0	72	7	0	0	1	81	81.2	0	0	0	0	0	0	0	0	0
17:15	2	0	15	0	0	0	0	17	15.4	0	0	78	15	0	0	1	94	95	0	0	0	0	0	0	0	0	0
17:30	0	1	13	2	0	0	0	16	15.4	0	0	66	7	0	0	0	73	73	0	0	0	0	0	0	0	0	0
17:45	0	0	32	2	0	0	0	34	34	0	0	63	10	0	0	0	73	73	0	0	0	0	0	0	0	0	0
H/TOT	3	2	82	6	1	0	0	94	90.9	1	0	279	39	0	0	2	321	322.2	0	0	0	0	0	0	0	0	0
18:00	1	0	18	7	0	0	0	26	25.2	1	0	63	10	0	1	0	75	75.5	0	0	0	0	0	0	0	0	0
18:15	0	0	11	4	0	0	0	15	15	0	1	61	9	0	0	0	71	70.4	0	0	0	0	0	0	0	0	0
18:30	1	0	9	1	0	0	0	11	10.2	0	0	68	1	0	0	2	71	73	0	0	0	0	0	0	0	0	0
18:45	2	0	31	1	0	0	0	34	32.4	0	0	54	3	1	0	0	58	58.5	0	0	0	0	0	0	0	0	0
H/TOT	4	0	69	13	0	0	0	86	82.8	1	1	246	23	1	1	2	275	277.4	0	0	0	0	0	0	0	0	0
19:00	1	0	15	1	0	0	0	17	16.2	1	0	61	6	0	0	0	68	67.2	0	0	0	0	0	0	0	0	0
19:15	0	0	9	1	0	0	0	10	10	0	0	74	7	1	0	1	83	84.5	0	0	0	0	0	0	0	0	0
19:30	0	0	11	0	0	0	0	11	11	0	0	44	2	0	0	0	46	46	0	0	0	0	0	0	0	0	0
19:45	0	0	7	1	0	0	0	8	8	0	0	37	4	1	0	0	42	42.5	0	0	0	0	0	0	0	0	0
H/TOT	1	0	42	3	0	0	0	46	45.2	1	0	216	19	2	0	1	239	240.2	0	0	0	0	0	0	0	0	0
20:00	0	0	15	2	0	0	0	17	17	0	0	28	0	0	0	1	29	30	0	0	0	0	0	0	0	0	0
20:15	0	0	10	0	0	0	0	10	10	0	0	28	3	0	0	0	31	31	0	0	0	0	0	0	0	0	0
20:30	0	0	6	0	0	0	0	6	6	0	0	27	1	1	0	0	29	29.5	0	0	0	0	0	0	0	0	0
20:45	0	0	5	0	0	0	0	5	5	0	0	27	0	1	0	1	29	30.5	0	0	0	0	0	0	0	0	0
H/TOT	0	0	36	2	0	0	0	38	38	0	0	110	4	2	0	2	118	121	0	0	0	0	0	0	0	0	0
21:00	0	0	6	0	0	0	0	6	6	0	0	24	1	0	0	0	25	25	0	0	0	0	0	0	0	0	0
21:15	0	0	8	0	0	0	0	8	8	0	0	18	1	0	0	0	19	19	0	0	0	0	0	0	0	0	0
21:30	0	0	3	0	0	0	0	3	3	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0
21:45	0	0	2	0	0	0	0	2	2	0	0	18	0	0	0	1	19	20	0	0	0	0	0	0	0	0	0
H/TOT	0	0	19	0	0	0	0	19	19	0	0	79	2	0	0	1	82	83	0	0	0	0	0	0	0	0	0
22:00	0	0	7	0	0	0	0	7	7	0	0	22	1	0	0	0	23	23	0	0	0	0	0	0	0	0	0
22:15	0	0	2	1	0	0	0	3	3	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	6	0	2	0	0	8	9	0	0	0	0	0	0	0	0	0
22:45	0	0	1	0	0	0	0	1	1	0	0	6	2	0	0	1	9	10	0	0	0	0	0	0	0	0	0
H/TOT	0	0	10	1	0	0	0	11	11	0	0	45	3	2	0	1	51	53	0	0	0	0	0	0	0	0	0
23:00	0	0	2	0	0	0	0	2	2	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
23:15	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
23:30	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	0	0	4	0	0	0	0	4	4	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
24 TOT	17	3	612	71	7	0	0	710	698.1	28	3	2580	328	60	6	29	3034	3076.6	1	0	0	0	0	0	0	1	0.2

TIME	C => B									C => C									C => D								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
05:00	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
05:30	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2
05:45	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
06:00	0	0	4	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2
06:30	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
06:45	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	25	3	0	0	0	28	28	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
07:00	0	1	6	2	0	0	0	9	8.4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
07:15	1	0	13	1	0	0	0	15	14.2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
07:30	1	0	12	1	1	0	0	15	14.7	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	5	5
07:45	1	0	15	1	0	0	0	17	16.2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	3	1	46	5	1	0	0	56	53.5	0	0	0	0	0	0	0	0	0	0	0	6	3	0	0	0	9	9
08:00	1	0	11	4	0	0	0	16	15.2	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
08:15	0	1	13	1	0	0	0	15	14.4	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
08:30	1	0	16	1	0	0	0	18	17.2	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
08:45	0	0	18	3	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
H/TOT	2	1	58	9	0	0	0	70	67.8	0	0	0	0	0	0	0	0	0	0	0	17	2	0	0	0	19	19
09:00	0	0	18	2	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
09:15	1	0	11	2	0	0	0	14	13.2	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6
09:30	0	0	8	2	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	5	5
09:45	0	0	11	1	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
H/TOT	1	0	48	7	1	0	0	57	56.7	0	0	0	0	0	0	0	0	0	0	0	12	7	0	0	0	19	19
10:00	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
10:15	0	0	7	0	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
10:30	0	0	9	2	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
10:45	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	38	3	1	0	0	42	42.5	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13
11:00	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
11:15	0	0	7	1	0	0	0	8	8	0	0	0	1	0	0	0	1	1	0	0	3	0	0	0	0	3	3
11:30	0	0	9	3	2	0	0	14	15	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
11:45	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5	5
H/TOT	0	0	29	5	2	0	0	36	37	0	0	0	1	0	0	0	1	1	0	0	11	3	0	0	0	14	14
12:00	0	0	7	1	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8
12:15	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
12:30	0	0	11	0	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
12:45	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	33	2	2	0	0	37	38	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16
13:00	0	0	11	1	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
13:15	0	0	5	1	0	1	0	7	8.3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
13:30	0	0	11	2	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
13:45	0	0	23	1	1	0	0	25	25.5	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
H/TOT	0	0	50	5	2	1	0	58	60.3	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15
14:00	0	0	8	2	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
14:15	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
14:30	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
14:45	2	0	34	3	1	0	0	40	38.9	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
H/TOT	2	0	59	6	1	0	0	68	66.9	0	0	0	0	0	0	0	0	0	0	0	17	2	0	0	0	19	19
15:00	0	1	10	0	2	0	0	13	13.4	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
15:15	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	5	5.5
15:30	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6
15:45	0	0	17	2	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	1	46	4	2	0	0	53	53.4	0	0	0	0	0	0	0	0	0	0	0	17	2	1	0	0	20	20.5
16:00	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
16:15	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
16:30	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
16:45	1	0	9	1	0	0	0	11	10.2	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
H/TOT	1	0	38	2	0	0	0	41	40.2	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	24	24
17:00	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
17:15	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6
17:30	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
17:45	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0	11	11
H/TOT	0	0	40	3	0	0	0	43	43	0	0	0	0	0	0	0	0	0	0	0	25	3	0	0	0	28	28
18:00	0	0	27	3	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
18:15	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
18:30	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
18:45	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
H/TOT	0	0	51	5	0	0	0	56	56	0	0	0	0	0	0	0	0	0	0	0	20	1	0	0	0	21	21
19:00	0	0	55	3	0	0	0	58	58	0	0	0	0	0	0	0	0	0	0	0	24	5	0	0	0	29	29
19:15	0	1	11	1	0	0	0	13	12.4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
19:30	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
19:45	0	0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	1	76	6	0	0	0	83	82.4	0	0	0	0	0	0	0	0	0	0	0	31	5	0	0	0	36	36
20:00	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
20:15	2	0	27	3	0	0	0	32	30.4	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
20:30	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
20:45	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	2	0	45	4	0	0	0	51	49.4	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	24	24
21:00	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
21:15	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
21:30	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	20	2	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
22:00	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	1	0	0	1	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	5	1	0	0	0	7	6.2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
24 TOT	12	4	723	73	12	1	0	825	820.3	0	0	0	1	0	0	0	1	1	0	0	260	32	1	0	0	293	293.5

Traffic count data table — time intervals (15-minute) with directional movement counts.

TIME	D=>A								D=>B									D=>C								
	PVC	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	PVC	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	PVC	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU

IDASO

Survey Name:	048 23077 Rathcoole village
Site:	Site 2
Location:	R120/Fitzmaurice Road/Beechwood Lawns
Date:	Tue 21-Feb-2023

TIME	A >> A									A >> B									A >> C								
	PIC	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	PIC	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	PIC	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU

TIME	B => A P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	B => B P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	B => C P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	5	1	5	4	1	16	24.7	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	6	7
00:15	0	0	6	2	1	4	0	13	18.7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
00:30	0	0	4	2	4	0	0	10	12	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
00:45	0	0	2	1	0	2	0	5	7.6	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	17	6	10	10	1	44	63	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	1	11	12
01:00	0	0	3	2	1	4	0	10	15.7	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
01:15	0	0	2	7	1	3	0	13	17.4	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3	3.5
01:30	0	0	2	7	2	3	0	14	18.9	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
01:45	0	0	5	2	1	2	0	10	13.1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	12	18	5	12	0	47	65.1	0	0	0	0	0	0	0	0	0	0	0	7	2	1	0	0	10	10.5
02:00	0	0	1	6	2	3	0	12	16.9	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
02:15	0	0	2	1	2	1	0	6	8.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	3	3	0	2	0	8	10.6	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
02:45	0	0	3	4	1	3	0	11	15.4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5
H/TOT	0	0	9	14	5	9	0	37	51.2	0	0	0	0	0	0	0	0	0	0	0	5	1	1	0	0	7	7.5
03:00	0	0	1	3	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	1	0	1	0	0	2	2.5	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
03:30	0	0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
03:45	0	0	3	4	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2
H/TOT	0	0	8	9	3	0	0	20	21.5	0	0	1	0	0	0	0	1	1	0	0	3	1	0	0	0	4	4
04:00	0	0	3	2	1	3	0	9	13.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	6	2	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
04:30	0	0	5	5	1	2	0	13	16.1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5
04:45	0	0	18	6	2	0	0	26	27	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	32	15	5	5	0	57	66	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	5	5.5
05:00	0	0	13	10	1	2	0	26	29.1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
05:15	2	0	26	8	1	3	0	40	42.8	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
05:30	4	1	55	3	2	4	0	69	71.4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	4	5
05:45	3	0	81	15	2	1	1	103	103.9	0	0	0	0	0	0	0	0	0	0	0	4	0	1	1	0	6	7.8
H/TOT	9	1	175	36	6	10	1	238	247.2	0	0	0	0	0	0	0	0	0	0	0	11	1	1	1	1	15	17.8
06:00	1	0	58	19	1	2	1	82	85.3	0	0	0	0	0	0	0	0	0	0	0	6	4	2	0	0	12	13
06:15	0	0	72	22	2	11	0	107	122.3	0	0	0	0	0	0	0	0	0	0	0	5	2	1	0	0	8	8.5
06:30	0	0	84	28	10	17	0	139	166.1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	5	6
06:45	0	0	97	39	6	6	1	150	161	0	0	0	0	0	0	0	0	0	0	0	10	3	1	0	0	15	14.7
H/TOT	2	0	311	108	19	36	2	478	534.7	0	0	0	0	0	0	0	0	0	1	0	25	9	4	0	1	40	42.2
07:00	1	1	75	35	8	8	0	128	141	0	0	0	1	0	0	0	1	1	0	1	10	3	0	0	0	14	13.4
07:15	0	2	109	30	7	8	0	156	168.7	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	1	17	18
07:30	0	1	121	45	6	7	1	181	193.5	0	0	0	0	0	0	0	0	0	0	0	21	8	0	0	1	30	31
07:45	2	0	141	40	8	10	0	201	216.4	0	0	0	1	0	0	0	1	1	0	0	13	5	0	0	0	18	18
H/TOT	3	4	446	150	29	33	1	666	719.6	0	0	2	0	0	0	0	2	2	0	1	59	17	0	0	2	79	80.4
08:00	1	0	167	32	4	14	0	218	237.4	0	0	0	0	0	0	0	0	0	0	0	18	4	0	0	0	22	22
08:15	1	5	142	41	5	8	0	202	211.1	0	0	0	0	0	0	0	0	0	0	0	20	4	0	0	1	25	26
08:30	1	0	122	36	9	14	0	182	203.9	0	0	0	0	0	0	0	0	0	0	0	37	0	1	0	1	39	40.5
08:45	0	0	117	30	14	13	0	174	197.9	0	0	1	0	0	0	0	1	1	0	0	37	3	2	0	0	42	43
H/TOT	3	5	548	139	32	49	0	776	850.3	0	0	1	0	0	0	0	1	1	0	0	112	11	3	0	2	128	131.5
09:00	0	1	117	44	14	15	0	191	216.9	0	0	0	0	0	0	0	0	0	0	0	25	4	0	0	0	29	29
09:15	0	2	120	43	9	12	2	188	208.9	0	0	0	0	0	0	0	0	0	0	1	41	3	0	0	0	45	44.4
09:30	1	1	85	33	20	6	0	146	162.4	0	0	0	0	0	0	0	0	0	1	0	37	3	2	0	1	44	45.2
09:45	0	1	107	34	16	14	0	172	197.6	0	0	0	0	0	0	0	0	0	0	0	33	6	2	1	0	42	44.3
H/TOT	1	5	429	154	59	47	2	697	785.8	0	0	0	0	0	0	0	0	0	1	1	136	16	4	1	1	160	162.9
10:00	1	0	70	29	18	20	0	138	172.2	0	0	0	0	0	0	0	0	0	0	0	38	6	1	0	1	46	47.5
10:15	4	0	72	29	20	23	0	148	184.7	0	0	0	0	0	0	0	0	0	0	0	32	2	0	0	0	34	34
10:30	0	0	74	22	8	11	2	117	137.3	0	0	0	0	0	0	0	0	0	10	0	35	5	0	0	0	50	42
10:45	0	0	89	38	19	19	0	165	199.2	0	0	0	0	0	0	0	0	0	0	1	32	2	0	0	0	35	34.4
H/TOT	5	0	305	118	65	73	2	568	693.4	0	0	0	0	0	0	0	0	0	10	1	137	15	1	0	1	165	157.9
11:00	0	0	63	35	12	10	1	121	141	0	0	0	0	0	0	0	0	0	0	0	39	5	0	0	0	44	44
11:15	1	0	85	36	21	12	1	156	182.3	0	0	0	0	0	0	0	0	0	0	0	36	2	0	0	1	39	40
11:30	2	0	74	34	19	14	0	143	169.1	0	0	0	1	0	0	0	1	1	0	0	38	10	3	0	0	51	52.5
11:45	0	0	88	33	19	12	0	152	177.1	0	0	0	0	0	0	0	1	1	0	0	48	7	3	0	1	59	61.5
H/TOT	3	0	310	138	71	48	2	572	669.5	0	0	2	0	0	0	0	2	2	0	0	161	24	6	0	2	193	198
12:00	0	0	66	42	21	19	0	148	184.2	0	0	0	0	0	0	0	0	0	0	0	53	11	1	0	0	65	65.5
12:15	0	2	67	31	17	12	0	129	151.9	0	0	0	0	0	0	0	0	0	0	0	38	5	2	0	0	45	46
12:30	0	1	71	33	14	14	0	133	157.6	0	0	0	0	0	0	0	0	0	0	0	43	5	1	0	0	49	49.5
12:45	0	0	94	45	24	6	0	169	188.8	0	0	1	0	0	0	0	1	1	0	0	44	6	2	0	1	53	55
H/TOT	0	3	297	151	76	51	1	579	682.5	0	0	1	0	0	0	0	1	1	0	0	178	27	6	0	1	212	216
13:00	2	0	97	28	17	15	3	162	191.4	0	0	0	0	0	0	0	0	0	0	0	55	10	3	0	0	68	69.5
13:15	1	0	102	32	20	10	0	164	187	0	0	1	0	0	0	0	1	1	0	0	55	4	0	0	0	59	59
13:30	1	0	118	29	17	11	0	176	198	0	0	0	0	0	0	0	0	0	0	0	48	4	2	0	0	54	55
13:45	1	0	116	40	18	15	0	190	217.7	0	0	0	0	0	0	0	0	0	0	0	30	4	0	0	0	34	34
H/TOT	4	0	433	129	72	51	3	692	794.1	0	0	1	0	0	0	0	1	1	0	0	188	22	5	0	0	215	217.5
14:00	0	0	87	38	26	10	1	162	189	0	0	1	0	0	0	0	1	1	0	1	39	5	3	0	1	49	50.9
14:15	0	0	89	44	30	11	1	175	205.3	0	0	0	0	0	0	0	0	0	0	0	45	3	0	0	1	49	50
14:30	0	0	84	30	19	21	0	154	190.8	0	0	0	0	0	0	0	0	0	0	0	62	5	0	0	0	67	67
14:45	0	0	96	30	26	12	0	164	192.6	0	0	0	0	0	0	0	0	0	0	0	40	1	0	0	0	41	41
H/TOT	0	0	356	142	101	54	2	655	777.7	0	0	1	0	0	0	0	1	1	0	1	186	14	3	0	2	206	208.9
15:00	0	1	83	46	25	12	1	168	196.5	0	0	1	0	0	0	0	1	1	0	0	39	6	2	0	1	48	50
15:15	1	1	84	35	25	13	1	160	189	0	0	0	0	0	0	0	0	0	0	0	70	3	0	0	0	73	73
15:30	0	0	74	38	14	14	1	141	167.2	0	0	0	0	0	0	0	0	0	0	0	68	9	2	0	0	79	80
15:45	0	0	84	27	12	12	2	137	160.6	0	0	0	1	0	0	0	1	1	0	0	70	8	0	0	0	78	78
H/TOT	1	2	325	146	76	51	5	606	713.3	0	0	1	0	0	0	0	1	1	0	0	247	26	4	0	1	278	281
16:00	1	1	101	33	16	8	0	160	177	0	0	0	0	0	0	0	0	0	0	0	50	3	0	0	0	53	53
16:15	0	1	82	20	6	6	0	115	125.2	0	0	0	0	0	0	0	0	0	1	0	59	6	1	0	1	61	68.7
16:30	0	0	83	24	4	5	0	116	124.5	0	0	0	0	0	0	0	0	0	2	0	55	4	0	0	0	61	59.4
16:45	0	0	80	32	7	11	0	130	147.8	0	0	0	0	0	0	0	0	0	1	0	78	10	0	0	0	89	88.2
H/TOT	1	2	346	109	33	30	0	521	574.5	0	0	0	0	0	0	0	0	0	4	0	242	23	1	0	1	271	269.3
17:00	1	2	85	18	5	8	1	120	131.8	0	0	0	0	0	0	0	0	0	1	0	74	6	1	0	0	82	81.7
17:15	0	0	95	24	4	9	0	132	145.7	0	0	0	0	0	0	0	0	0	1	0	81	8	1	0	1	92	92.7
17:30	0	3	112	20	3	7	1	146	155.8	0	0	0	0	0	0	0	0	0	0	0	61	9	0	0	0	70	70
17:45	1	0	115	13	5	6	1	141	151.5	0	0	0	0	0	0	0	0	0	1	1	84	8	0	0	0	94	92.6
H/TOT	2	5	407	75	17	30	3	539	584.8	0	0	0	0	0	0	0	0	0	3	1	300	31	2	0	1	338	337
18:00	0	0	93	12	3	12	0	120	137.1	0	0	0	0	0	0	0	0	0	1	0	66	8	0	0	0	75	74.2
18:15	0	1	89	10	6	4	0	110	117.8	0	0	0	0	0	0	0	0	0	1	2	80	7	0	0	1	91	90
18:30	0	0	99	14	4	9	0	126	139.7	0	0	0	0	0	0	0	0	0	3	0	57	3	0	0	1	64	62.6
18:45	0	0	88	9	3	4	1	106	112.9	0	0	0	1	0	0	0	1	1	0	0	79	11	1	0	0	91	91.5
H/TOT	1	1	369	45	16	29	1	462	507.3	0	0	0	1	0	0	0	1	1	5	2	282	29	1	0	2	321	318.3
19:00	0	0	67	11	3	6	0	87	96.3	0	0	0	0	0	0	0	0	0	1	0	59	5	3	0	1	69	70.7
19:15	0	0	62	18	0	4	0	84	89.2	0	0	0	0	0	0	0	0	0	0	0	69	4	0	0	0	73	73
19:30	0	0	60	16	0	5	1	82	89.5	0	0	0	0	0	0	0	0	0	0	0	51	1	1	0	0	53	53.5
19:45	0	0	47	7	0	7	1	62	72.1	0	0	0	0	0	0	0	0	0	0	0	47	5	0	0	1	53	54
H/TOT	0	0	236	52	3	22	2	315	347.1	0	0	0	0	0	0	0	0	0	1	0	226	15	4	0	2	248	251.2
20:00	0	0	61	6	0	3	0	70	73.9	0	0	0	0	0	0	0	0	0	1	0	50	9	0	0	0	60	59.2
20:15	0	0	46	6	4	2	0	58	62.6	0	0	0	0	0	0	0	0	0	0	0	41	3	1	0	0	45	45.5
20:30	0	0	34	3	3	7	1	48	59.6	0	0	0	0	0	0	0	0	0	1	0	31	2	2	0	0	36	36.2
20:45	0	0	22	2	1	6	0	31	39.3	0	0	0	0	0	0	0	0	0	0	0	29	1	0	0	1	31	32.4
H/TOT	0	0	163	17	8	18	1	207	235.4	0	0	0	0	0	0	0	0	0	2	0	151	15	3	0	1	173	173.3
21:00	0	0	34	3	0	4	0	41	46.2	0	0	0	0	0	0	0	0	0	0	0	23	2	1	0	0	26	26.5
21:15	0	0	25	3	2	3	0	33	37.9	0	0	0	0	0	0	0	0	0	0	0	19	2	0	0	0	21	21
21:30	0	2	25	4	0	6	1	38	45.6	0	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	29	29
21:45	0	0	16	1	3	2	0	22	26.1	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	1	15	16
H/TOT	0	2	100	11	5	15	1	134	155.8	0	0	0	0	0	0	0	0	0	0	0	84	5	1	0	1	91	92.5
22:00	0	0	23	2	2	1	0	28	30.3	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	27	27
22:15	0	0	23	3	1	0	0	27	27.5	0	0	0	0	0	0	0	1	1	1	0	9	0	0	0	0	10	10
22:30	0	0	17	3	2	5	0	27	34.5	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8
22:45	0	0	12	0	2	4	0	18	24.2	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	1	9	10
H/TOT	0	0	75	8	7	10	0	100	116.5	0	0	0	0	0	0	0	1	1	0	0	50	3	0	0	1	54	55
23:00	0	0	13	4	1	1	1	20	22.8	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
23:15	0	0	9	4	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
23:30	0	0	9	0	1	0	0	10	10.5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
23:45	0	0	5	2	3	0	0	10	11.5	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
H/TOT	0	0	36	10	5	1	1	53	57.8	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21	21
24 TOT	35	30	5745	1800	728	694	31	9063	10314	0	0	13	0	0	0	0	13	13	27	8	2825	307	52	2	24	3245	3271.2

TIME	C => A									C => B									C => C								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	4	1	0	0	0	5	5	0	0	1	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0
00:15	0	0	7	1	0	0	0	8	8	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
00:30	0	0	3	0	0	0	0	3	3	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	14	2	0	0	0	16	16	1	0	6	0	0	0	1	8	8.2	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
01:15	0	0	3	1	1	0	0	5	5.5	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
01:30	0	0	1	1	0	0	0	2	2	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	4	2	1	0	0	7	7.5	0	0	5	0	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0
02:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
03:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	7	1	0	0	0	8	8	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
04:00	0	0	6	0	0	0	0	6	6	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
04:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	16	1	0	0	0	17	17	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
05:00	0	0	15	1	0	0	0	16	16	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
05:15	1	0	10	1	0	0	0	12	11.2	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
05:30	0	0	22	1	0	0	0	23	23	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
05:45	2	0	28	2	0	0	0	32	30.4	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	3	0	75	5	0	0	0	83	80.6	1	0	6	0	0	0	0	7	6.2	0	0	0	0	0	0	0	0	0
06:00	0	0	32	7	3	0	0	42	43.5	0	0	9	0	0	0	1	10	11	0	0	0	0	0	0	0	0	0
06:15	0	0	47	6	4	0	0	57	59	0	0	5	1	1	0	0	7	7.5	0	0	1	0	0	0	0	1	1
06:30	0	1	76	10	2	1	0	90	91.7	0	0	5	4	0	0	0	9	9	0	0	0	0	0	0	0	0	0
06:45	0	0	89	11	2	2	0	104	107.6	0	0	11	0	0	0	1	12	13	0	0	0	0	0	0	0	0	0
H/TOT	0	1	244	34	11	3	0	293	301.8	0	0	30	5	1	0	2	38	40.5	0	0	1	0	0	0	0	1	1
07:00	0	3	109	15	0	0	0	127	125.2	0	0	26	7	0	0	0	33	33	0	0	0	0	0	0	0	0	0
07:15	1	1	120	23	3	0	0	148	148.1	1	0	29	3	2	0	1	36	37.2	0	0	0	0	0	0	0	0	0
07:30	1	2	124	22	4	0	0	153	153	0	0	24	0	0	0	1	25	26	0	0	1	0	0	0	0	1	1
07:45	0	2	115	10	1	0	0	128	127.3	0	0	11	4	2	0	1	18	20	0	0	0	0	0	0	0	0	0
H/TOT	2	8	468	70	8	0	0	556	553.6	1	0	90	14	4	0	3	112	116.2	0	0	1	0	0	0	0	1	1
08:00	0	2	106	10	1	0	0	119	118.3	0	0	18	1	0	0	0	19	19	0	0	0	0	0	0	0	0	0
08:15	0	1	106	10	1	1	0	119	120.2	0	0	24	4	1	0	0	29	29.5	0	0	0	0	0	0	0	0	0
08:30	0	0	108	8	1	0	4	121	125.5	2	0	37	2	0	0	0	41	39.4	0	0	0	0	0	0	0	0	0
08:45	0	0	109	4	0	0	1	114	115	1	0	41	4	1	0	0	47	46.7	0	0	1	0	0	0	0	1	1
H/TOT	0	3	429	32	3	1	5	473	479	3	0	120	11	2	0	0	136	134.6	0	0	1	0	0	0	0	1	1
09:00	0	0	80	11	0	0	0	91	91	0	0	40	0	0	0	1	41	42	0	0	1	0	0	0	0	1	1
09:15	0	1	91	9	2	0	0	103	103.4	0	0	32	0	0	0	0	32	32	0	0	1	0	0	0	0	1	1
09:30	0	1	61	7	2	0	1	72	73.4	1	0	30	5	1	0	0	37	36.7	0	0	1	0	0	0	0	1	1
09:45	0	0	54	10	4	0	0	68	70	0	0	30	2	0	0	0	32	32	0	0	3	0	0	0	0	3	3
H/TOT	0	2	286	37	8	0	1	334	337.8	1	0	132	7	1	0	1	142	142.7	0	0	5	0	0	0	0	5	5
10:00	0	0	47	13	7	0	0	67	70.5	0	1	28	1	0	0	0	30	29.4	0	0	0	0	0	0	0	0	0
10:15	0	0	55	8	1	0	0	64	64.5	0	0	36	6	1	0	0	43	43.5	0	0	0	0	0	0	0	0	0
10:30	0	0	55	4	2	0	0	61	62	0	0	36	5	1	0	1	43	44.5	0	0	3	0	0	0	0	3	3
10:45	0	0	53	11	4	0	0	68	70	0	0	50	1	1	0	0	52	52.5	0	0	0	0	0	0	0	0	0
H/TOT	0	0	210	36	14	0	0	260	267	0	1	150	13	3	0	1	168	169.9	0	0	3	0	0	0	0	3	3
11:00	1	0	43	9	2	0	0	55	55.2	0	0	30	1	0	0	0	31	31	0	0	0	0	0	0	0	0	0
11:15	1	0	56	8	4	0	0	69	70.2	1	0	20	3	0	0	0	24	23.2	0	0	2	0	0	0	0	2	2
11:30	0	1	63	9	2	0	0	75	75.4	2	0	20	2	0	0	1	25	24.4	0	0	0	0	0	0	0	0	0
11:45	0	0	62	17	0	1	0	80	81.3	0	0	25	3	0	0	0	28	28	0	0	0	0	0	0	0	0	0
H/TOT	2	1	224	43	8	1	0	279	282.1	3	0	95	9	0	0	1	108	106.6	0	0	2	0	0	0	0	2	2
12:00	0	0	67	13	4	0	0	84	86	0	0	41	4	1	0	0	46	46.5	0	0	0	0	0	0	0	0	0
12:15	0	0	69	6	0	0	0	75	75	0	0	35	6	1	0	0	42	42.5	0	0	0	0	0	0	0	0	0
12:30	0	0	52	11	0	0	0	63	63	9	0	21	3	1	0	1	35	29.3	0	0	0	0	0	0	0	0	0
12:45	0	0	61	9	0	0	0	70	70	2	0	25	2	1	0	0	30	28.9	0	0	0	0	0	0	0	0	0
H/TOT	0	0	249	39	4	0	0	292	294	11	0	122	15	4	0	1	153	147.2	0	0	0	0	0	0	0	0	0
13:00	2	0	67	14	4	0	0	87	87.4	0	0	21	6	1	0	0	28	26.5	0	0	0	0	0	0	0	0	0
13:15	1	0	77	9	5	1	1	94	98	18	0	23	1	0	0	0	42	27.6	0	0	1	0	0	0	0	1	1
13:30	1	1	60	8	1	0	0	71	70.1	0	0	28	3	0	0	1	32	33	0	0	0	0	0	0	0	0	0
13:45	1	0	88	6	4	0	0	99	100.2	0	0	35	2	1	0	0	38	38.5	0	0	0	0	0	0	0	0	0
H/TOT	5	1	292	37	14	1	1	351	355.7	18	0	107	12	2	0	1	140	127.6	0	0	1	0	0	0	0	1	1
14:00	1	0	62	11	3	0	0	77	77.7	0	0	26	2	0	1	0	29	30.3	0	0	1	0	1	0	0	2	2.5
14:15	1	2	69	16	2	0	0	90	89	0	0	25	1	1	0	0	27	27.5	0	0	0	0	0	0	0	0	0
14:30	0	0	62	10	1	0	0	73	73.5	0	0	24	1	0	0	1	26	27	0	0	2	0	0	0	0	2	2
14:45	0	0	83	4	0	0	1	88	89	0	0	56	5	0	0	1	62	63	0	0	0	0	0	0	0	0	0
H/TOT	2	2	276	41	6	0	1	328	329.2	0	0	131	9	1	1	2	144	147.8	0	0	3	0	1	0	0	4	4.5
15:00	1	0	91	12	4	0	0	108	109.2	0	0	40	2	1	0	0	43	43.5	0	0	0	0	0	0	0	0	0
15:15	0	0	63	6	1	0	0	70	70.5	1	0	32	4	0	0	1	38	38.2	0	0	0	0	0	0	0	0	0
15:30	0	0	68	10	4	0	0	82	84	0	0	24	2	0	0	1	27	28	0	0	0	0	0	0	0	0	0
15:45	0	0	88	7	1	0	1	97	98.5	0	0	64	2	0	0	4	70	74	0	0	1	0	0	0	0	1	1
H/TOT	1	0	310	35	10	0	1	357	362.2	1	0	160	10	1	0	6	178	183.7	0	0	1	0	0	0	0	1	1
16:00	0	0	57	7	1	0	0	65	65.5	0	0	35	3	0	0	0	38	38	0	0	2	0	0	0	0	2	2
16:15	0	0	50	6	1	0	0	57	57.5	0	0	32	4	0	0	0	36	36	0	0	1	0	0	0	0	1	1
16:30	1	0	58	4	1	0	0	64	63.7	0	0	25	3	0	1	1	30	32.3	0	0	2	0	0	0	0	2	2
16:45	0	0	58	9	0	0	0	67	67	0	0	30	1	0	0	0	31	31	0	0	2	0	0	0	0	2	2
H/TOT	1	0	223	26	3	0	0	253	253.7	0	0	122	11	0	1	1	135	137.3	0	0	7	0	0	0	0	7	7
17:00	0	0	76	6	2	0	0	84	85	0	0	33	3	0	0	0	36	36	0	0	1	0	0	0	0	1	1
17:15	0	1	53	8	0	0	0	62	61.4	0	0	27	3	0	0	0	30	30	0	0	1	0	0	0	0	1	1
17:30	0	0	64	10	0	0	0	74	74	1	0	31	6	1	0	1	40	40.7	0	0	0	0	0	0	0	0	0
17:45	0	0	80	7	3	0	0	90	91.5	0	0	35	1	0	0	1	37	36	0	0	0	1	0	0	0	1	1
H/TOT	0	1	273	31	5	0	0	310	311.9	1	0	126	13	1	0	1	142	142.7	0	0	2	1	0	0	0	3	3
18:00	0	0	85	7	1	0	0	93	93.5	0	1	36	5	0	0	0	42	41.4	0	0	1	0	0	0	0	1	1
18:15	0	0	61	6	1	0	0	68	68.5	0	0	21	2	0	0	0	23	23	0	0	1	0	0	0	0	1	1
18:30	0	0	63	11	0	0	0	74	74	0	0	27	4	0	0	1	32	33	0	0	1	0	0	0	0	1	1
18:45	0	0	67	4	0	0	1	72	73	0	0	27	1	0	0	0	28	28	0	0	1	0	0	0	0	1	1
H/TOT	0	0	276	28	2	0	1	307	309	0	1	111	12	0	0	1	125	125.4	0	0	4	0	0	0	0	4	4
19:00	0	0	74	9	0	0	0	83	83	0	0	42	1	0	0	0	43	43	0	0	0	1	0	0	0	1	1
19:15	0	0	72	4	2	0	0	78	79	0	1	29	0	0	0	0	30	29.4	0	0	1	0	0	0	0	1	1
19:30	0	0	52	7	0	0	0	59	59	0	0	29	4	0	0	1	34	35	0	0	1	0	0	0	0	1	1
19:45	0	0	50	4	0	0	0	54	54	0	0	23	2	0	0	0	25	25	0	0	1	0	0	0	0	1	1
H/TOT	0	0	248	24	2	0	0	274	275	0	1	123	7	0	0	1	132	132.4	0	0	2	1	0	0	0	3	3
20:00	0	0	44	1	0	0	0	45	45	1	0	23	3	0	0	1	27	26.2	0	0	0	0	0	0	0	0	0
20:15	0	0	40	2	0	0	0	42	42	0	0	36	3	0	0	1	40	41	0	0	0	0	0	0	0	0	0
20:30	0	0	24	4	0	0	0	28	28	1	0	19	0	1	0	0	21	20.7	0	0	0	0	0	0	0	0	0
20:45	0	0	26	1	2	0	0	29	30	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0
H/TOT	0	0	134	8	2	0	0	144	145	2	0	89	7	1	0	1	100	99.9	0	0	0	0	0	0	0	0	0
21:00	0	0	25	2	2	0	0	29	30	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0
21:15	0	0	18	0	0	0	0	18	18	0	0	16	1	1	0	1	19	20.5	0	0	0	0	0	0	0	0	0
21:30	0	0	15	1	0	0	0	16	16	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0
21:45	0	0	18	0	0	0	0	18	18	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
H/TOT	0	0	76	3	2	0	0	81	82	0	0	52	2	1	0	1	56	57.5	0	0	0	0	0	0	0	0	0
22:00	0	0	18	2	0	0	0	20	20	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
22:15	0	0	23	2	0	1	0	25	25	0	0	12	1	0	0	1	14	15	0	0	0	0	0	0	0	0	0
22:30	0	0	9	0	0	0	0	9	9	0	0	6	0	0	0	0	6	6	0	0	1	0	0	0	0	1	1
22:45	0	0	14	0	0	0	0	14	14	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	64	4	0	0	0	68	68	0	0	28	1	0	0	1	30	31	0	0	1	0	0	0	0	1	1
23:00	0	0	11	0	0	0	0	11	11	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
23:15	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0
23:30	0	0	9	0	0	0	0	9	9	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
23:45	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	23	0	0	0	0	23	23	0	0	10	0	0	0	1	11	12	0	0	0	0	0	0	0	0	0
24 TOT	16	19	4424	539	103	6	10	5117	5162.1	43	3	1819	158	23	2	27	2075	2079.9	0	0	34	2	1	0	0	37	37.5

MRCL TRANSPORT PLANNING PROFESSIONAL

APPENDIX 2

BASELINE AND GENERATED TRAFFIC FLOWS

DIAGRAM 1 – AM PEAK HOUR TAY LANE / MAIN STREET / FOREST HILLS

DIAGRAM 2 – AM PEAK HOUR R120 NORTH / R120 EAST / MAIN STREET
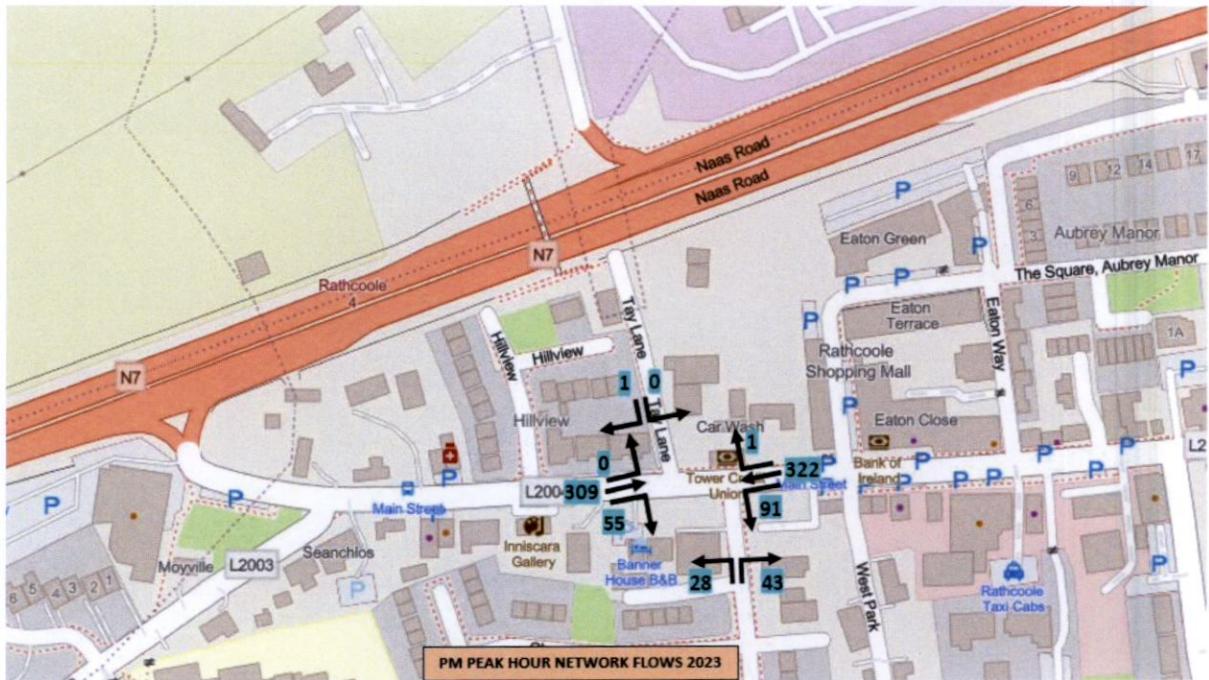
DIAGRAM 3 – PM PEAK HOUR TAY LANE / MAIN STREET / FOREST HILLS
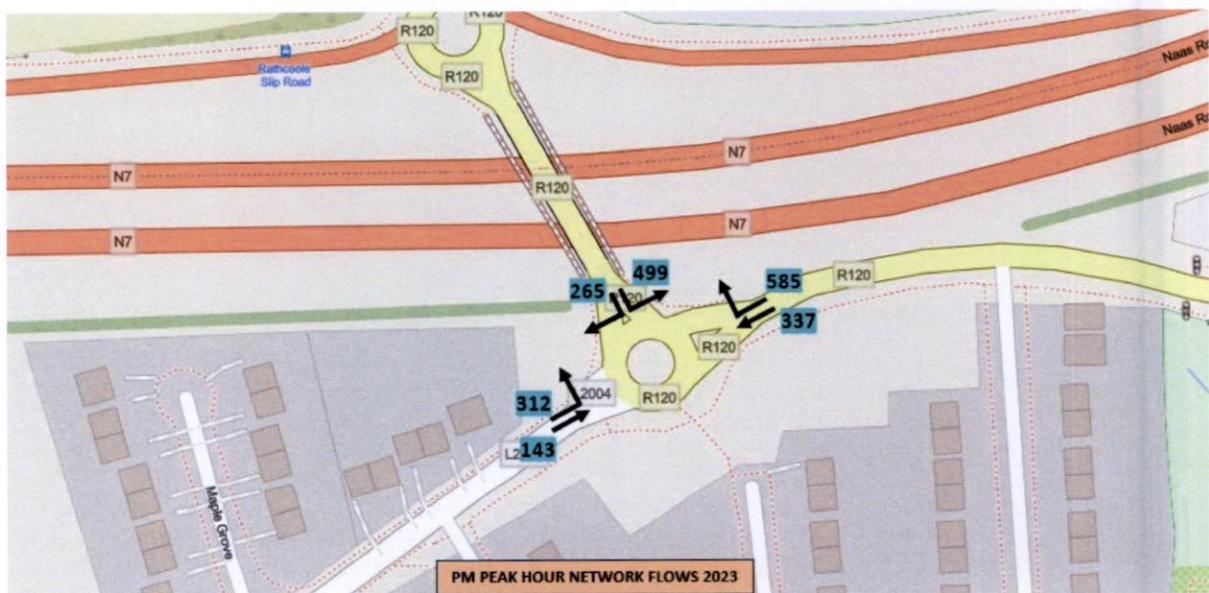
DIAGRAM 4 – PM PEAK HOUR R120 NORTH / R120 EAST / MAIN STREET

AM PEAK HOUR GENERATED FLOWS 2026

AM PEAK HOUR GENERATED FLOWS 2026
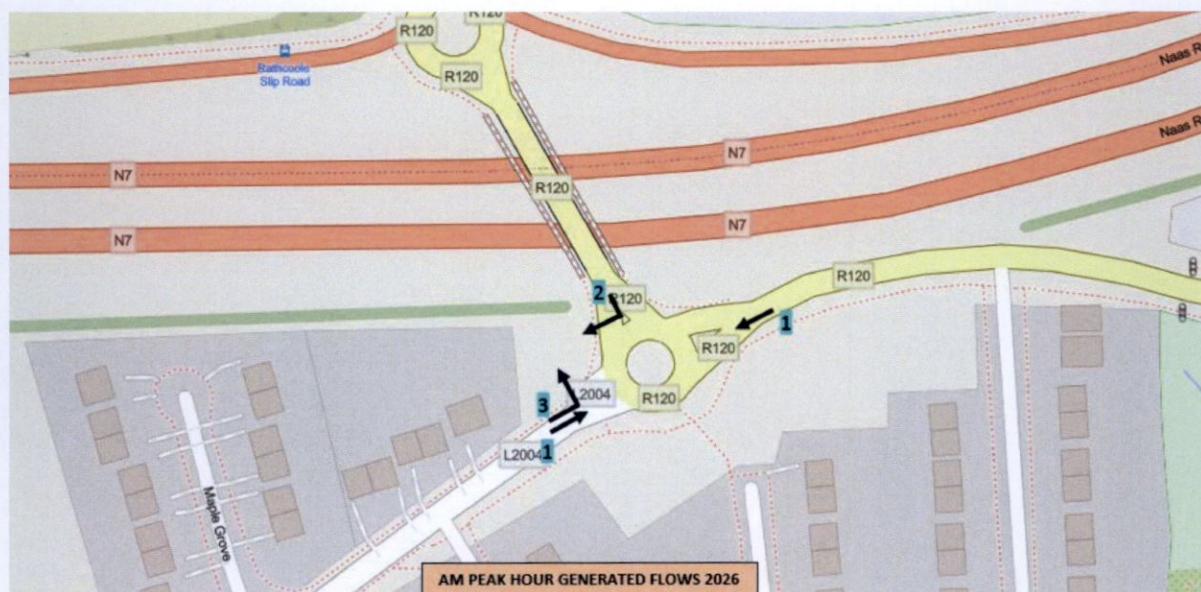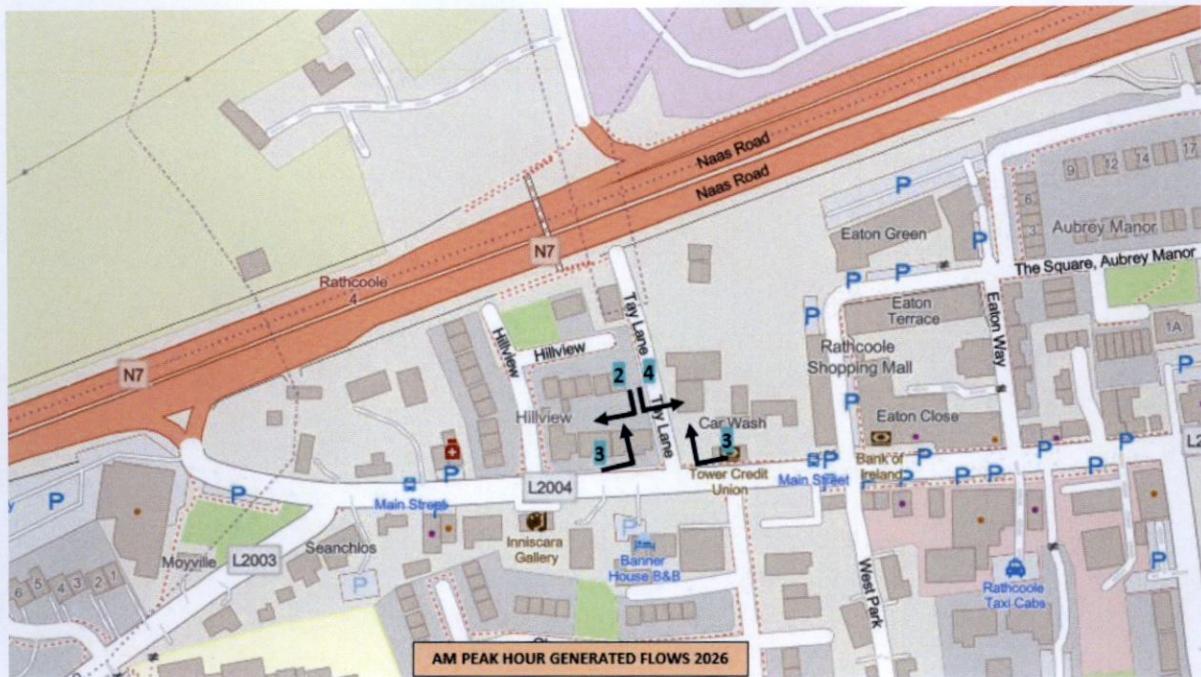
DIAGRAM 5 – AM PEAK HOUR - TAY LANE / MAIN STREET / FOREST HILLS AND R120 / MAIN STREET

PM PEAK HOUR GENERATED FLOWS 2026

PM PEAK HOUR GENERATED FLOWS 2026
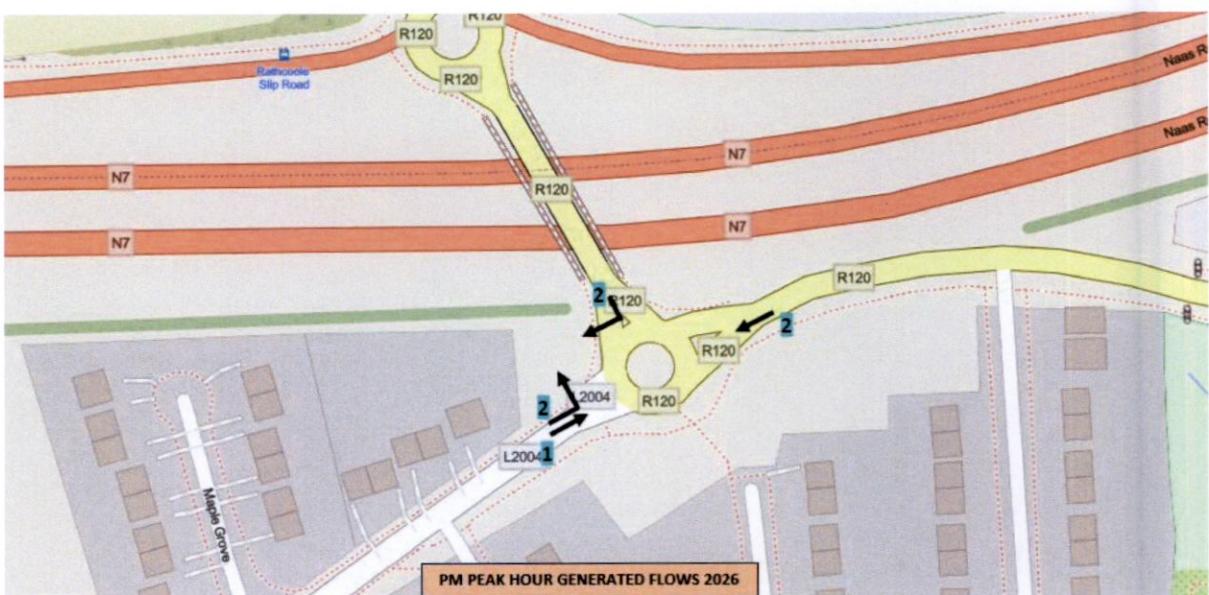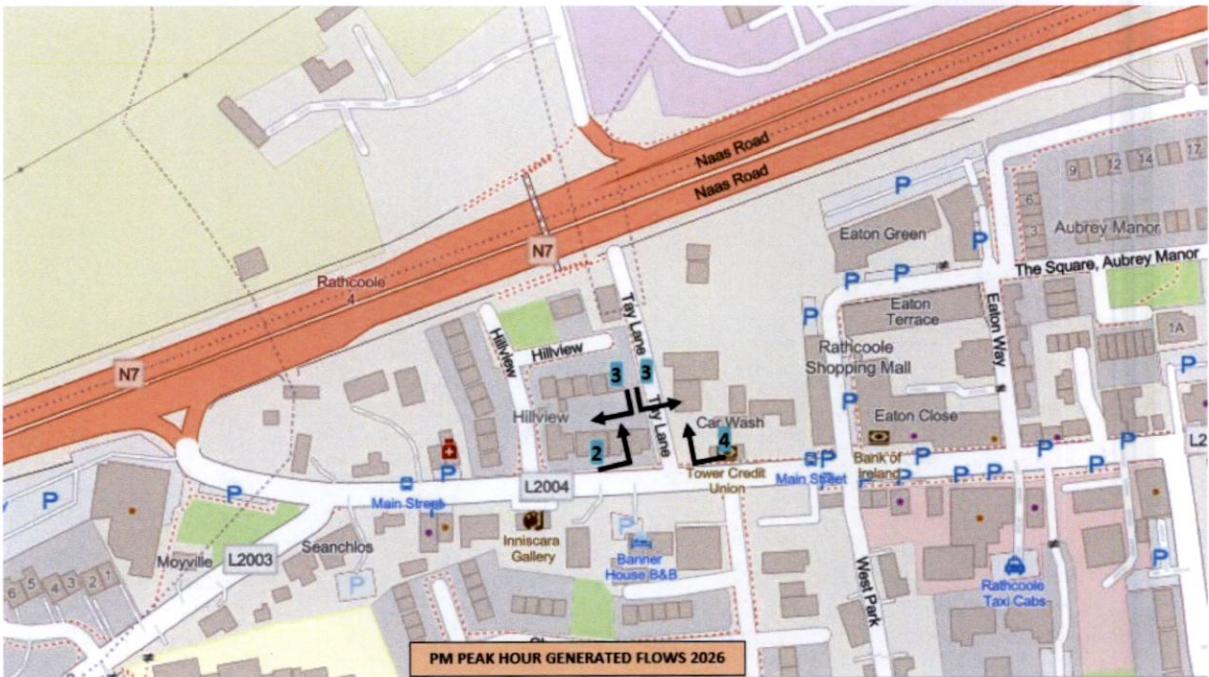
DIAGRAM 6 – PM PEAK HOUR - TAY LANE / MAIN STREET / FOREST HILLS AND R120 / MAIN STREET

MRCL

**TRANSPORT
PLANNING PROFESSIONAL**

APPENDIX

3

TRICS DATA – PRIVATE APARTMENTS AND ILU'S

INDEPENDENT LIVING UNITS

Calculation Reference: AUDIT-306901-221210-1209

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use   : 03 - RESIDENTIAL
Category   : N - RETIREMENT FLATS
TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	IW	ISLE OF WIGHT	1 days
	KC	KENT	1 days
	WS	WEST SUSSEX	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
05	**EAST MIDLANDS**		
	DS	DERBYSHIRE	1 days
	LN	LINCOLNSHIRE	1 days
06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NY	NORTH YORKSHIRE	1 days
	WY	WEST YORKSHIRE	1 days
08	**NORTH WEST**		
	CH	CHESHIRE	1 days
09	**NORTH**		
	TW	TYNE & WEAR	1 days
10	**WALES**		
	BG	BRIDGEND	1 days
	CF	CARDIFF	1 days
	MM	MONMOUTHSHIRE	1 days
11	**SCOTLAND**		
	EB	CITY OF EDINBURGH	1 days
	FI	FIFE	1 days
12	**CONNAUGHT**		
	GA	GALWAY	1 days
14	**LEINSTER**		
	KK	KILKENNY	1 days

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

Saturday 10/12/22
Page 2

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Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 25 to 88 (units:)
Range Selected by User: 17 to 88 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/14 to 20/10/21

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

Selected survey days:
Monday   3 days
Tuesday   5 days
Wednesday   3 days
Thursday   4 days
Friday   4 days

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

Selected survey types:
Manual count   19 days
Directional ATC Count   0 days

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

Selected Locations:
Edge of Town Centre   8
Suburban Area (PPS6 Out of Centre)   4
Edge of Town   2
Neighbourhood Centre (PPS6 Local Centre) 5

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

Selected Location Sub Categories:
Residential Zone   17
Village   1
No Sub Category   1

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

Secondary Filtering selection:

Use Class:
C3   19 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	4 days
10,001 to 15,000	2 days
15,001 to 20,000	2 days
20,001 to 25,000	2 days
25,001 to 50,000	6 days
50,001 to 100,000	2 days

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

Population within 5 miles:

5,000 or Less	2 days
5,001 to 25,000	1 days
25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	3 days
125,001 to 250,000	4 days
250,001 to 500,000	4 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	6 days
1.1 to 1.5	11 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	2 days
No	17 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	19 days

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

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

LIST OF SITES relevant to selection parameters

1 **BG-03-N-01**   **RETIREMENT FLATS**   **BRIDGEND**
   PICTON AVENUE
   PORTHCAWL

   Edge of Town Centre
   Residential Zone
   Total No of Dwellings: 57
        Survey date: TUESDAY   *18/05/21*   *Survey Type: MANUAL*

2 **CA-03-N-02**   **RETIREMENT FLATS**   **CAMBRIDGESHIRE**
   DOGSTHORPE ROAD
   PETERBOROUGH

   Suburban Area (PPS6 Out of Centre)
   Residential Zone
   Total No of Dwellings: 32
        Survey date: MONDAY   *17/10/16*   *Survey Type: MANUAL*

3 **CF-03-N-01**   **RETIREMENT FLATS**   **CARDIFF**
   CARDIFF ROAD
   CARDIFF
   LLANDAFF
   Neighbourhood Centre (PPS6 Local Centre)
   Residential Zone
   Total No of Dwellings: 60
        Survey date: WEDNESDAY   *05/10/16*   *Survey Type: MANUAL*

4 **CH-03-N-01**   **RETIREMENT FLATS**   **CHESHIRE**
   HOBSON STREET
   MACCLESFIELD

   Edge of Town Centre
   Residential Zone
   Total No of Dwellings: 33
        Survey date: FRIDAY   *16/09/16*   *Survey Type: MANUAL*

5 **DS-03-N-02**   **RETIREMENT FLATS**   **DERBYSHIRE**
   LEAPER STREET
   DERBY

   Edge of Town Centre
   Residential Zone
   Total No of Dwellings: 35
        Survey date: WEDNESDAY   *20/10/21*   *Survey Type: MANUAL*

6 **EB-03-N-01**   **RETIREMENT FLATS**   **CITY OF EDINBURGH**
   POLWARTH GARDENS
   EDINBURGH
   MERCHISTON
   Edge of Town Centre
   Residential Zone
   Total No of Dwellings: 33
        Survey date: FRIDAY   *22/05/15*   *Survey Type: MANUAL*

7 **FI-03-N-01**   **RETIREMENT FLATS**   **FIFE**
   ST MARGARET STREET
   DUNFERMLINE

   Edge of Town Centre
   No Sub Category
   Total No of Dwellings: 47
        Survey date: MONDAY   *21/03/16*   *Survey Type: MANUAL*

8 **GA-03-N-01**   **RETIREMENT VILLAGE**   **GALWAY**
   BRIDGESTREET
   BALLINASLOE

   Edge of Town Centre
   Residential Zone
   Total No of Dwellings: 37
        Survey date: THURSDAY   *27/10/16*   *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9   **IW-03-N-01**   **RETIREMENT FLATS**   **ISLE OF WIGHT**
CHURCH ROAD
BEMBRIDGE

Edge of Town
Residential Zone
Total No of Dwellings: 40
        Survey date: THURSDAY   27/06/19   Survey Type: MANUAL

10   **KC-03-N-08**   **RETIREMENT FLATS**   **KENT**
CANTERBURY ROAD
HERNE BAY
EDDINGTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 88
        Survey date: TUESDAY   26/09/17   Survey Type: MANUAL

11   **KK-03-N-01**   **RETIREMENT FLATS**   **KILKENNY**
DONOUGHMORE
BALLYRAGGET

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 55
        Survey date: THURSDAY   26/10/17   Survey Type: MANUAL

12   **LN-03-N-01**   **RETIREMENT FLATS**   **LINCOLNSHIRE**
NEWPORT ROAD
LINCOLN
ERMINE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 39
        Survey date: FRIDAY   28/06/19   Survey Type: MANUAL

13   **MM-03-N-01**   **RETIREMENT FLATS**   **MONMOUTHSHIRE**
BRYNGWYN ROAD
NEWPORT

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 65
        Survey date: FRIDAY   27/09/19   Survey Type: MANUAL

14   **NF-03-N-02**   **RETIREMENT FLATS**   **NORFOLK**
YARMOUTH ROAD
NORWICH
THORPE SAINT ANDREW
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 48
        Survey date: WEDNESDAY   20/11/19   Survey Type: MANUAL

15   **NY-03-N-01**   **RETIREMENT FLATS**   **NORTH YORKSHIRE**
EASTGATE
PICKERING

Edge of Town
Residential Zone
Total No of Dwellings: 30
        Survey date: MONDAY   26/09/16   Survey Type: MANUAL

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LIST OF SITES relevant to selection parameters (Cont.)

16	**TW-03-N-03**	**RETIREMENT FLATS**	**TYNE & WEAR**

CHAPEL LANE
WHITLEY BAY
MONKSEATON
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 27
    Survey date: TUESDAY   12/10/21   *Survey Type: MANUAL*

17	**WM-03-N-01**	**RETIREMENT BUNGALOWS**	**WEST MIDLANDS**

SHORT STREET
STOURBRIDGE

Edge of Town Centre
Residential Zone
Total No of Dwellings: 25
    Survey date: TUESDAY   21/11/17   *Survey Type: MANUAL*

18	**WS-03-N-03**	**RETIREMENT FLATS**	**WEST SUSSEX**

FITZALAN ROAD
LITTLEHAMPTON

Edge of Town Centre
Residential Zone
Total No of Dwellings: 38
    Survey date: THURSDAY   23/09/21   *Survey Type: MANUAL*

19	**WY-03-N-01**	**RETIREMENT BUNGALOWS**	**WEST YORKSHIRE**

GROVE AVENUE
HALIFAX
WHEATLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 34
    Survey date: TUESDAY   23/10/18   *Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/N - RETIREMENT FLATS
TOTAL VEHICLES
Calculation factor: 1 DWELLS
Estimated TRIP rate value per 54 DWELLS shown in shaded columns
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	19	43	0.032	1.706	19	43	0.024	1.312	19	43	0.056	3.018
08:00 - 09:00	19	43	0.073	3.937	19	43	0.072	3.871	19	43	0.145	7.808
09:00 - 10:00	19	43	0.096	5.183	19	43	0.103	5.577	19	43	0.199	10.760
10:00 - 11:00	**19**	**43**	**0.125**	**6.758**	19	43	0.126	6.824	19	43	0.251	13.582
11:00 - 12:00	19	43	0.117	6.299	19	43	0.100	5.380	19	43	0.217	11.679
12:00 - 13:00	19	43	0.108	5.840	19	43	0.102	5.512	19	43	0.210	11.352
13:00 - 14:00	19	43	0.098	5.315	19	43	0.106	5.708	19	43	0.204	11.023
14:00 - 15:00	19	43	0.119	6.430	**19**	**43**	**0.134**	**7.217**	**19**	**43**	**0.253**	**13.647**
15:00 - 16:00	19	43	0.096	5.183	19	43	0.091	4.921	19	43	0.187	10.104
16:00 - 17:00	19	43	0.087	4.724	19	43	0.080	4.330	19	43	0.167	9.054
17:00 - 18:00	19	43	0.084	4.527	19	43	0.084	4.527	19	43	0.168	9.054
18:00 - 19:00	19	43	0.060	3.215	19	43	0.075	4.068	19	43	0.135	7.283
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			1.095	59.117			1.097	59.247			2.192	118.364

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

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

Parameter summary

Trip rate parameter range selected:	25 - 88 (units:)
Survey date date range:	01/01/14 - 20/10/21
Number of weekdays (Monday-Friday):	19
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

MRCL

**TRANSPORT
PLANNING PROFESSIONAL**

APPENDIX

4

PICADY AND ARCADY OUTPUT

PICADY OUTPUT

TAY LANE / MAIN STREET / FOREST HILLS STAGGEDED T-JUNCTION

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: Tay Lane L2004 Forest Hills 2023 exist.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 09/03/2023 15:30:03

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					2023 exist				
Stream B-ACD	D1	0.3	11.20	0.26	B	D2	0.3	11.27	0.22	B
Stream AB-CD		0.0	5.71	0.01	A		0.0	4.96	0.01	A
Stream D-ABC		0.0	9.04	0.02	A		0.0	9.87	0.01	A
Stream CD-AB		0.2	5.28	0.11	A		0.6	6.24	0.26	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	08/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2023 exist	AM	DIRECT	08:00	09:00	60	15
D2	2023 exist	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 exist, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.04	A

Arms

Arms

Arm	Name	Description	Arm type
A	L2004 east		Major
B	Forest Hills		Minor
C	L2004 west		Major
D	Tay Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - L2004 east	6.00			30.0	✓	0.00
C - L2004 west	6.00			30.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Forest Hills	One lane	3.00	30	30
D - Tay Lane	One lane	3.00	30	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
AB-D	147.834	-	-	-	-	-	0.229	0.229	0.229	-	-
B-A	125.513	0.091	0.231	0.231	-	-	0.145	0.330	-	0.145	0.330
B-CD	160.706	0.099	0.249	0.249	-	-	-	-	-	-	-
CD-B	147.834	0.229	0.229	0.229	-	-	-	-	-	-	-
D-AB	160.706	-	-	-	-	-	0.249	0.249	0.099	-	-
D-C	125.513	-	0.145	0.330	0.145	0.330	0.231	0.231	0.091	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2023 exist	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	8.00	24.00	0.00
	B - Forest Hills	15.00	0.00	3.00	0.00
	C - L2004 west	78.00	8.00	0.00	1.00
	D - Tay Lane	1.00	0.00	0.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	0.00	43.00	1.00
	B - Forest Hills	15.00	0.00	3.00	0.00
	C - L2004 west	93.00	3.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	11.00	47.00	0.00
	B - Forest Hills	17.00	0.00	5.00	0.00
	C - L2004 west	111.00	11.00	0.00	0.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	25.00	45.00	0.00
	B - Forest Hills	21.00	0.00	7.00	0.00
	C - L2004 west	69.00	6.00	0.00	1.00
	D - Tay Lane	0.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.26	11.20	0.3	B
A-B				
A-C				
A-D				
AB-CD	0.01	5.71	0.0	A
AB-C				
D-ABC	0.02	9.04	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.11	5.28	0.2	A
CD-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18.00	110.97	0.162	17.81	0.2	9.641	A
A-B	8.00			8.00			
A-C	24.00			24.00			
A-D	0.00			0.00			
AB-CD	0.00	127.90	0.000	0.00	0.0	0.000	A
D-ABC	26.97			26.97			
AB-C	1.00	139.19	0.007	1.00	0.0	6.512	A
C-D	1.00			1.00			
C-A	78.00			78.00			
C-B	8.00			8.00			
CD-AB	13.46	194.83	0.069	13.34	0.1	4.957	A
CD-A	73.54			73.54			

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18.00	106.61	0.169	17.99	0.2	10.154	B
A-B	0.00			0.00			
A-C	43.00			43.00			
A-D	1.00			1.00			
AB-CD	1.41	158.97	0.009	1.40	0.0	5.711	A
D-ABC	45.59			45.59			
AB-C	0.00	113.03	0.000	0.01	0.0	0.000	A
C-D	0.00			0.00			
C-A	93.00			93.00			
C-B	3.00			3.00			
CD-AB	5.61	202.32	0.028	5.70	0.0	4.580	A
CD-A	90.39			90.39			

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22.00	102.21	0.215	21.93	0.3	11.200	B
A-B	11.00			11.00			
A-C	47.00			47.00			
A-D	0.00			0.00			
AB-CD	0.00	119.88	0.000	0.01	0.0	0.000	A
D-ABC	51.97			51.97			
AB-C	2.00	106.29	0.019	1.98	0.0	8.627	A
C-D	0.00			0.00			
C-A	111.00			111.00			
C-B	11.00			11.00			
CD-AB	23.21	213.06	0.109	23.01	0.2	4.736	A
CD-A	99.78			99.78			

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	28.00	109.35	0.256	27.93	0.3	11.042	B
A-B	25.00			25.00			
A-C	45.00			45.00			
A-D	0.00			0.00			
AB-CD	0.00	130.42	0.000	0.00	0.0	0.000	A
D-ABC	51.98			51.98			
AB-C	1.00	100.52	0.010	1.01	0.0	9.044	A

C-D	1.00			1.00			
C-A	69.00			69.00			
C-B	6.00			6.00			
CD-AB	9.78	180.68	0.054	9.93	0.1	5.278	A
CD-A	65.23			65.23			

2023 exist, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		0.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.93	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2023 exist	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

17:00 - 17:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	26.00	81.00	0.00
	B - Forest Hills	9.00	0.00	5.00	0.00
	C - L2004 west	71.00	7.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	15.00	95.00	0.00
	B - Forest Hills	8.00	0.00	6.00	0.00
	C - L2004 west	58.00	12.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	15.00	73.00	1.00
	B - Forest Hills	14.00	0.00	6.00	0.00
	C - L2004 west	82.00	11.00	0.00	0.00
	D - Tay Lane	0.00	0.00	1.00	0.00

Demand (PCU/TS)

17:45 - 18:00

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	34.00	73.00	0.00
	B - Forest Hills	12.00	0.00	11.00	0.00
	C - L2004 west	98.00	25.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.22	11.27	0.3	B
A-B				
A-C				
A-D				

AB-CD	0.01	4.96	0.0	A
AB-C				
D-ABC	0.01	9.87	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.26	6.24	0.6	A
CD-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14.00	104.24	0.134	13.85	0.2	9.939	A
A-B	26.00			26.00			
A-C	81.00			81.00			
A-D	0.00			0.00			
AB-CD	0.00	129.96	0.000	0.00	0.0	0.000	A
AB-C	85.95			85.95			
D-ABC	0.00	113.59	0.000	0.00	0.0	0.000	A
C-D	0.00			0.00			
C-A	71.00			71.00			
C-B	7.00			7.00			
CD-AB	11.79	174.86	0.067	11.67	0.1	5.513	A
CD-A	66.21			66.21			

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14.00	104.93	0.133	14.00	0.2	9.897	A
A-B	15.00			15.00			
A-C	95.00			95.00			
A-D	0.00			0.00			
AB-CD	0.00	131.80	0.000	0.00	0.0	0.000	A
AB-C	100.99			100.99			
D-ABC	0.00	113.99	0.000	0.00	0.0	0.000	A
C-D	0.00			0.00			
C-A	58.00			58.00			
C-B	12.00			12.00			
CD-AB	18.55	164.86	0.113	18.47	0.2	6.150	A
CD-A	51.45			51.45			

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	20.00	102.22	0.196	19.91	0.2	10.924	B
A-B	15.00			15.00			
A-C	73.00			73.00			
A-D	1.00			1.00			
AB-CD	1.76	183.31	0.010	1.75	0.0	4.956	A
AB-C	78.24			78.24			
D-ABC	1.00	92.19	0.011	0.99	0.0	9.866	A
C-D	0.00			0.00			
C-A	82.00			82.00			
C-B	11.00			11.00			
CD-AB	19.76	186.27	0.106	19.74	0.2	5.411	A
CD-A	73.24			73.24			

17:45 - 18:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	23.00	102.74	0.224	22.96	0.3	11.271	B
A-B	34.00			34.00			
A-C	73.00			73.00			
A-D	0.00			0.00			
AB-CD	0.00	119.65	0.000	0.01	0.0	0.000	A
AB-C	83.94			83.94			
D-ABC	0.00	102.71	0.000	0.01	0.0	0.000	A
C-D	0.00			0.00			
C-A	98.00			98.00			
C-B	25.00			25.00			
CD-AB	50.53	194.53	0.260	50.15	0.6	6.239	A
CD-A	72.47			72.47			

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: Tay Lane L2004 Forest Hills 2026 wdev.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 09/03/2023 15:34:46

»2026 wdev, AM
»2026 wdev, PM

Summary of junction performance

	AM					PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2026 wdev										
Stream B-ACD	D1	0.4	11.73	0.27	B	D2	0.3	11.92	0.25	B
Stream AB-CD		0.0	6.18	0.02	A		0.0	4.96	0.02	A
Stream D-ABC		0.0	8.41	0.03	A		0.0	9.15	0.03	A
Stream CD-AB		0.3	5.23	0.12	A		0.7	6.30	0.28	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	08/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2026 wdev	AM	DIRECT	08:00	09:00	60	15
D2	2026 wdev	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 wdev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.13	A

Arms

Arms

Arm	Name	Description	Arm type
A	L2004 east		Major
B	Forest Hills		Minor
C	L2004 west		Major
D	Tay Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - L2004 east	6.00			30.0	✓	0.00
C - L2004 west	6.00			30.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Forest Hills	One lane	3.00	30	30
D - Tay Lane	One lane	3.00	30	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
AB-D	147.834	-	-	-	-	-	0.229	0.229	0.229	-	-
B-A	125.513	0.091	0.231	0.231	-	-	0.145	0.330	-	0.145	0.330
B-CD	160.706	0.099	0.249	0.249	-	-	-	-	-	-	-
CD-B	147.834	0.229	0.229	0.229	-	-	-	-	-	-	-
D-AB	160.706	-	-	-	-	-	0.249	0.249	0.099	-	-
D-C	125.513	-	0.145	0.330	0.145	0.330	0.231	0.231	0.091	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2026 wdev	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	9.00	25.00	1.00
	B - Forest Hills	16.00	0.00	3.00	0.00
	C - L2004 west	82.00	8.00	0.00	2.00
	D - Tay Lane	2.00	0.00	1.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	0.00	45.00	2.00
	B - Forest Hills	15.00	0.00	4.00	0.00
	C - L2004 west	98.00	3.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	12.00	50.00	1.00
	B - Forest Hills	18.00	0.00	5.00	0.00
	C - L2004 west	117.00	12.00	0.00	1.00
	D - Tay Lane	2.00	0.00	1.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	26.00	47.00	1.00
	B - Forest Hills	22.00	0.00	7.00	0.00
	C - L2004 west	72.00	6.00	0.00	2.00
	D - Tay Lane	1.00	0.00	2.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.27	11.73	0.4	B
A-B				
A-C				
A-D				
AB-CD	0.02	6.18	0.0	A
AB-C				
D-ABC	0.03	8.41	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.12	5.23	0.3	A
CD-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	19.00	109.40	0.174	18.79	0.2	9.910	A
A-B	9.00			9.00			
A-C	25.00			25.00			
A-D	1.00			1.00			
AB-CD	1.24	146.85	0.008	1.23	0.0	6.180	A
AB-C	27.73			27.73			
D-ABC	3.00	122.60	0.024	2.98	0.0	7.521	A
C-D	2.00			2.00			
C-A	82.00			82.00			
C-B	8.00			8.00			
CD-AB	13.91	197.70	0.070	13.79	0.1	4.892	A
CD-A	78.08			78.08			

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	19.00	106.72	0.178	18.99	0.2	10.257	B
A-B	0.00			0.00			
A-C	45.00			45.00			
A-D	2.00			2.00			
AB-CD	2.89	159.90	0.018	2.87	0.0	5.731	A
AB-C	48.10			48.10			
D-ABC	2.00	111.18	0.018	2.01	0.0	8.243	A
C-D	1.00			1.00			
C-A	98.00			98.00			
C-B	3.00			3.00			
CD-AB	5.84	205.95	0.028	5.93	0.0	4.501	A
CD-A	96.16			96.16			

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	23.00	99.52	0.231	22.92	0.3	11.735	B
A-B	12.00			12.00			
A-C	50.00			50.00			
A-D	1.00			1.00			
AB-CD	1.54	158.61	0.010	1.55	0.0	5.732	A
AB-C	54.44			54.44			
D-ABC	3.00	111.00	0.027	2.99	0.0	8.332	A
C-D	1.00			1.00			
C-A	117.00			117.00			
C-B	12.00			12.00			
CD-AB	26.58	217.13	0.122	26.32	0.3	4.718	A
CD-A	104.42			104.42			

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	29.00	107.69	0.269	28.93	0.4	11.416	B
A-B	26.00			26.00			
A-C	47.00			47.00			
A-D	1.00			1.00			
AB-CD	1.48	167.95	0.009	1.48	0.0	5.405	A
AB-C	53.50			53.50			
D-ABC	3.00	110.02	0.027	3.00	0.0	8.409	A

C-D	2.00			2.00			
C-A	72.00			72.00			
C-B	6.00			6.00			
CD-AB	10.08	182.76	0.055	10.28	0.1	5.227	A
CD-A	68.93			68.93			

2026 wdev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.02	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2026 wdev	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
17:00 - 17:15 From	A - L2004 east	0.00	27.00	85.00	1.00
	B - Forest Hills	9.00	0.00	5.00	0.00
	C - L2004 west	75.00	7.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
17:15 - 17:30 From	A - L2004 east	0.00	16.00	100.00	1.00
	B - Forest Hills	8.00	0.00	6.00	0.00
	C - L2004 west	61.00	13.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
17:30 - 17:45 From	A - L2004 east	0.00	16.00	77.00	2.00
	B - Forest Hills	15.00	0.00	6.00	0.00
	C - L2004 west	86.00	12.00	0.00	1.00
	D - Tay Lane	1.00	0.00	2.00	0.00

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
17:45 - 18:00 From	A - L2004 east	0.00	36.00	77.00	1.00
	B - Forest Hills	13.00	0.00	12.00	0.00
	C - L2004 west	103.00	26.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.25	11.92	0.3	B
A-B				
A-C				
A-D				

Stream				
AB-CD	0.02	4.96	0.0	A
AB-C				
D-ABC	0.03	9.15	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.28	6.30	0.7	
CD-A				A

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14.00	102.33	0.137	13.84	0.2	10.154	B
A-B	27.00			27.00			
A-C	85.00			85.00			
A-D	1.00			1.00			
AB-CD	1.87	193.01	0.010	1.86	0.0	4.708	A
AB-C	89.07			89.07			
D-ABC	2.00	111.86	0.018	1.98	0.0	8.190	A
C-D	1.00			1.00			
C-A	75.00			75.00			
C-B	7.00			7.00			
CD-AB	12.25	177.34	0.069	12.13	0.1	5.446	A
CD-A	70.74			70.74			

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14.00	102.64	0.136	14.00	0.2	10.152	B
A-B	16.00			16.00			
A-C	100.00			100.00			
A-D	1.00			1.00			
AB-CD	2.07	205.87	0.010	2.07	0.0	4.415	A
AB-C	104.92			104.92			
D-ABC	2.00	112.13	0.018	2.00	0.0	8.172	A
C-D	1.00			1.00			
C-A	61.00			61.00			
C-B	13.00			13.00			
CD-AB	20.77	166.39	0.125	20.66	0.2	6.179	A
CD-A	54.23			54.23			

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21.00	99.41	0.211	20.89	0.3	11.449	B
A-B	16.00			16.00			
A-C	77.00			77.00			
A-D	2.00			2.00			
AB-CD	3.63	185.07	0.020	3.62	0.0	4.959	A
AB-C	81.36			81.36			
D-ABC	3.00	101.50	0.030	2.99	0.0	9.135	A
C-D	1.00			1.00			
C-A	86.00			86.00			
C-B	12.00			12.00			
CD-AB	22.39	188.75	0.119	22.37	0.2	5.417	A
CD-A	76.61			76.61			

17:45 - 18:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25.00	100.39	0.249	24.94	0.3	11.918	B
A-B	36.00			36.00			
A-C	77.00			77.00			
A-D	1.00			1.00			
AB-CD	1.95	183.65	0.011	1.96	0.0	4.953	A
AB-C	87.97			87.97			
D-ABC	2.00	100.34	0.020	2.01	0.0	9.152	A
C-D	1.00			1.00			
C-A	103.00			103.00			
C-B	26.00			26.00			
CD-AB	55.05	197.67	0.279	54.63	0.7	6.299	A
CD-A	74.95			74.95			

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: Tay Lane L2004 Forest Hills 2031 wod.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 09/03/2023 15:41:45

Summary of junction performance

	AM					PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					2031 wod					
Stream B-ACD	D1	0.4	12.16	0.30	B	D2	0.4	12.73	0.27	B
Stream AB-CD		0.0	5.60	0.01	A		0.0	4.81	0.01	A
Stream D-ABC		0.0	9.36	0.02	A		0.0	10.36	0.01	B
Stream CD-AB		0.3	5.21	0.13	A		0.8	6.46	0.31	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	08/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2031 wod	AM	DIRECT	08:00	09:00	60	15
D2	2031 wod	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 wod, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.12	A

Arms

Arms

Arm	Name	Description	Arm type
A	L2004 east		Major
B	Forest Hills		Minor
C	L2004 west		Major
D	Tay Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - L2004 east	6.00			30.0	✓	0.00
C - L2004 west	6.00			30.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Forest Hills	One lane	3.00	30	30
D - Tay Lane	One lane	3.00	30	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
AB-D	147.834	-	-	-	-	-	0.229	0.229	0.229	-	-
B-A	125.513	0.091	0.231	0.231	-	-	0.145	0.330	-	0.145	0.330
B-CD	160.706	0.099	0.249	0.249	-	-	-	-	-	-	-
CD-B	147.834	0.229	0.229	0.229	-	-	-	-	-	-	-
D-AB	160.706	-	-	-	-	-	0.249	0.249	0.099	-	-
D-C	125.513	-	0.145	0.330	0.145	0.330	0.231	0.231	0.091	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2031 wod	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	9.00	27.00	0.00
	B - Forest Hills	17.00	0.00	3.00	0.00
	C - L2004 west	89.00	9.00	0.00	1.00
	D - Tay Lane	1.00	0.00	0.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	0.00	49.00	1.00
	B - Forest Hills	16.00	0.00	5.00	0.00
	C - L2004 west	105.00	4.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
08:30 - 08:45	A - L2004 east	0.00	13.00	53.00	0.00
From B - Forest Hills	19.00	0.00	6.00	0.00
	C - L2004 west	126.00	12.00	0.00	0.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
08:45 - 09:00	A - L2004 east	0.00	28.00	51.00	0.00
From B - Forest Hills	24.00	0.00	8.00	0.00
	C - L2004 west	78.00	7.00	0.00	1.00
	D - Tay Lane	0.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
	A - L2004 east	0	0	0	0
From	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.30	12.16	0.4	B
A-B				
A-C				
A-D				
AB-CD	0.01	5.60	0.0	A
AB-C				
D-ABC	0.02	9.36	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.13	5.21	0.3	A
CD-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	20.00	107.74	0.186	19.78	0.2	10.206	B
A-B	9.00			9.00			
A-C	27.00			27.00			
A-D	0.00			0.00			
AB-CD	0.00	125.15	0.000	0.00	0.0	0.000	A
AB-C	29.97			29.97			
D-ABC	1.00	136.20	0.007	0.99	0.0	6.656	A
C-D	1.00			1.00			
C-A	89.00			89.00			
C-B	9.00			9.00			
CD-AB	16.25	201.66	0.081	16.10	0.1	4.849	A
CD-A	82.74			82.74			

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21.00	105.96	0.198	20.98	0.2	10.588	B
A-B	0.00			0.00			
A-C	49.00			49.00			
A-D	1.00			1.00			
AB-CD	1.50	162.10	0.009	1.49	0.0	5.603	A
AB-C	53.48			53.48			
D-ABC	0.00	109.04	0.000	0.01	0.0	0.000	A
C-D	0.00			0.00			
C-A	105.00			105.00			
C-B	4.00			4.00			
CD-AB	8.10	209.61	0.039	8.20	0.1	4.470	A
CD-A	100.91			100.91			

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25.00	98.81	0.253	24.91	0.3	12.164	B
A-B	13.00			13.00			
A-C	53.00			53.00			
A-D	0.00			0.00			
AB-CD	0.00	116.22	0.000	0.01	0.0	0.000	A
AB-C	58.98			58.98			
D-ABC	2.00	101.64	0.020	1.98	0.0	9.027	A
C-D	0.00			0.00			
C-A	126.00			126.00			
C-B	12.00			12.00			
CD-AB	28.03	222.27	0.126	27.79	0.3	4.629	A
CD-A	110.96			110.96			

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	32.00	106.18	0.301	31.91	0.4	12.101	B
A-B	28.00			28.00			
A-C	51.00			51.00			
A-D	0.00			0.00			
AB-CD	0.00	128.13	0.000	0.00	0.0	0.000	A
AB-C	58.97			58.97			
D-ABC	1.00	97.19	0.010	1.01	0.0	9.360	A

C-D	1.00			1.00			
C-A	78.00			78.00			
C-B	7.00			7.00			
CD-AB	12.19	185.38	0.066	12.38	0.1	5.212	A
CD-A	72.82			72.82			

2031 wod, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.04	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2031 wod	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

17:00 - 17:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	30.00	92.00	0.00
	B - Forest Hills	10.00	0.00	6.00	0.00
	C - L2004 west	80.00	8.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	17.00	108.00	0.00
	B - Forest Hills	9.00	0.00	7.00	0.00
	C - L2004 west	66.00	14.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	17.00	83.00	1.00
	B - Forest Hills	16.00	0.00	7.00	0.00
	C - L2004 west	93.00	12.00	0.00	0.00
	D - Tay Lane	0.00	0.00	1.00	0.00

Demand (PCU/TS)

17:45 - 18:00

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	38.00	83.00	0.00
	B - Forest Hills	14.00	0.00	12.00	0.00
	C - L2004 west	111.00	28.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.27	12.73	0.4	B
A-B				
A-C				
A-D				

AB-CD	0.01	4.81	0.0	A
AB-C				
D-ABC	0.01	10.36	0.0	B
C-D				
C-A				
C-B				
CD-AB	0.31	6.46	0.8	A
CD-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	16.00	100.54	0.159	15.81	0.2	10.599	B
A-B	30.00			30.00			
A-C	92.00			92.00			
A-D	0.00			0.00			
AB-CD	0.00	127.67	0.000	0.00	0.0	0.000	A
AB-C	97.93			97.93			
D-ABC	0.00	109.87	0.000	0.00	0.0	0.000	A
C-D	0.00			0.00			
C-A	80.00			80.00			
C-B	8.00			8.00			
CD-AB	14.49	178.57	0.081	14.34	0.2	5.480	A
CD-A	73.51			73.51			

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	16.00	100.48	0.159	16.00	0.2	10.652	B
A-B	17.00			17.00			
A-C	108.00			108.00			
A-D	0.00			0.00			
AB-CD	0.00	129.50	0.000	0.00	0.0	0.000	A
AB-C	114.99			114.99			
D-ABC	0.00	110.02	0.000	0.00	0.0	0.000	A
C-D	0.00			0.00			
C-A	66.00			66.00			
C-B	14.00			14.00			
CD-AB	23.14	167.76	0.138	23.03	0.3	6.222	A
CD-A	56.86			56.86			

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	23.00	98.08	0.235	22.89	0.3	11.951	B
A-B	17.00			17.00			
A-C	83.00			83.00			
A-D	1.00			1.00			
AB-CD	1.91	189.01	0.010	1.90	0.0	4.809	A
AB-C	89.08			89.08			
D-ABC	1.00	87.82	0.011	0.99	0.0	10.364	B
C-D	0.00			0.00			
C-A	93.00			93.00			
C-B	12.00			12.00			
CD-AB	23.43	192.00	0.122	23.43	0.3	5.348	A
CD-A	81.57			81.57			

17:45 - 18:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	26.00	96.59	0.269	25.94	0.4	12.726	B
A-B	38.00			38.00			
A-C	83.00			83.00			
A-D	0.00			0.00			
AB-CD	0.00	115.99	0.000	0.01	0.0	0.000	A
AB-C	94.92			94.92			
D-ABC	0.00	97.56	0.000	0.01	0.0	0.000	A
C-D	0.00			0.00			
C-A	111.00			111.00			
C-B	28.00			28.00			
CD-AB	62.53	201.58	0.310	62.00	0.8	6.456	A
CD-A	76.47			76.47			

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: Tay Lane L2004 Forest Hills 2031 wdev.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 09/03/2023 15:43:53

»2031 wdev, AM
»2031 wdev, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					2031 wdev					
Stream B-ACD	D1	0.4	12.23	0.30	B	D2	0.4	12.79	0.27	B
Stream AB-CD		0.0	6.19	0.02	A		0.0	4.89	0.02	A
Stream D-ABC		0.0	8.59	0.03	A		0.0	9.45	0.03	A
Stream CD-AB		0.3	5.20	0.13	A		0.8	6.45	0.31	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	08/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2031 wdev	AM	DIRECT	08:00	09:00	60	15
D2	2031 wdev	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 wdev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.18	A

Arms

Arms

Arm	Name	Description	Arm type
A	L2004 east		Major
B	Forest Hills		Minor
C	L2004 west		Major
D	Tay Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - L2004 east	6.00			30.0	✓	0.00
C - L2004 west	6.00			30.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Forest Hills	One lane	3.00	30	30
D - Tay Lane	One lane	3.00	30	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
AB-D	147.834	-	-	-	-	-	0.229	0.229	0.229	-	-
B-A	125.513	0.091	0.231	0.231	-	-	0.145	0.330	-	0.145	0.330
B-CD	160.706	0.099	0.249	0.249	-	-	-	-	-	-	-
CD-B	147.834	0.229	0.229	0.229	-	-	-	-	-	-	-
D-AB	160.706	-	-	-	-	-	0.249	0.249	0.099	-	-
D-C	125.513	-	0.145	0.330	0.145	0.330	0.231	0.231	0.091	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2031 wdev	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	9.00	27.00	1.00
	B - Forest Hills	17.00	0.00	3.00	0.00
	C - L2004 west	89.00	9.00	0.00	2.00
	D - Tay Lane	2.00	0.00	1.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	0.00	49.00	2.00
	B - Forest Hills	16.00	0.00	5.00	0.00
	C - L2004 west	105.00	4.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	13.00	53.00	1.00
	B - Forest Hills	19.00	0.00	6.00	0.00
	C - L2004 west	126.00	12.00	0.00	1.00
	D - Tay Lane	2.00	0.00	1.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	28.00	51.00	1.00
	B - Forest Hills	24.00	0.00	8.00	0.00
	C - L2004 west	78.00	7.00	0.00	2.00
	D - Tay Lane	1.00	0.00	2.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.30	12.23	0.4	B
A-B				
A-C				
A-D				
AB-CD	0.02	6.19	0.0	A
AB-C				
D-ABC	0.03	8.59	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.13	5.20	0.3	A
CD-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	20.00	107.37	0.186	19.77	0.2	10.251	B
A-B	9.00			9.00			
A-C	27.00			27.00			
A-D	1.00			1.00			
AB-CD	1.26	146.57	0.009	1.25	0.0	6.192	A
AB-C	29.71			29.71			
D-ABC	3.00	120.48	0.025	2.97	0.0	7.656	A
C-D	2.00			2.00			
C-A	89.00			89.00			
C-B	9.00			9.00			
CD-AB	16.37	202.16	0.081	16.21	0.2	4.839	A
CD-A	83.62			83.62			

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21.00	105.59	0.199	20.98	0.2	10.634	B
A-B	0.00			0.00			
A-C	49.00			49.00			
A-D	2.00			2.00			
AB-CD	3.00	161.90	0.019	2.99	0.0	5.663	A
AB-C	52.97			52.97			
D-ABC	2.00	108.71	0.018	2.01	0.0	8.434	A
C-D	1.00			1.00			
C-A	105.00			105.00			
C-B	4.00			4.00			
CD-AB	8.16	210.13	0.039	8.25	0.1	4.462	A
CD-A	101.85			101.85			

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25.00	98.43	0.254	24.91	0.3	12.226	B
A-B	13.00			13.00			
A-C	53.00			53.00			
A-D	1.00			1.00			
AB-CD	1.59	159.77	0.010	1.60	0.0	5.692	A
AB-C	58.38			58.38			
D-ABC	3.00	108.45	0.028	2.99	0.0	8.534	A
C-D	1.00			1.00			
C-A	126.00			126.00			
C-B	12.00			12.00			
CD-AB	28.24	222.81	0.127	27.99	0.3	4.621	A
CD-A	111.75			111.75			

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	32.00	105.81	0.302	31.91	0.4	12.162	B
A-B	28.00			28.00			
A-C	51.00			51.00			
A-D	1.00			1.00			
AB-CD	1.53	170.12	0.009	1.54	0.0	5.338	A
AB-C	58.44			58.44			
D-ABC	3.00	107.73	0.028	3.00	0.0	8.592	A

C-D	2.00			2.00			
C-A	78.00			78.00			
C-B	7.00			7.00			
CD-AB	12.28	185.90	0.066	12.47	0.1	5.197	A
CD-A	73.73			73.73			

2031 wdev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.10	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2031 wdev	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

17:00 - 17:15

From		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	30.00	92.00	1.00
	B - Forest Hills	10.00	0.00	6.00	0.00
	C - L2004 west	80.00	8.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Demand (PCU/TS)

17:15 - 17:30

From		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	17.00	108.00	1.00
	B - Forest Hills	9.00	0.00	7.00	0.00
	C - L2004 west	66.00	14.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Demand (PCU/TS)

17:30 - 17:45

From		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	17.00	83.00	2.00
	B - Forest Hills	16.00	0.00	7.00	0.00
	C - L2004 west	93.00	12.00	0.00	2.00
	D - Tay Lane	2.00	0.00	1.00	0.00

Demand (PCU/TS)

17:45 - 18:00

From		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	38.00	83.00	1.00
	B - Forest Hills	14.00	0.00	12.00	0.00
	C - L2004 west	111.00	28.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.27	12.79	0.4	B
A-B				
A-C				
A-D				

Stream				
AB-CD	0.02	4.89	0.0	A
AB-C				
D-ABC	0.03	9.45	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.31	6.45	0.8	A
CD-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	16.00	100.18	0.160	15.81	0.2	10.645	B
A-B	30.00			30.00			
A-C	92.00			92.00			
A-D	1.00			1.00			
AB-CD	1.98	197.64	0.010	1.97	0.0	4.599	A
AB-C	96.95			96.95			
D-ABC	2.00	109.53	0.018	1.98	0.0	8.367	A
C-D	1.00			1.00			
C-A	80.00			80.00			
C-B	8.00			8.00			
CD-AB	14.60	179.11	0.082	14.45	0.2	5.466	A
CD-A	74.39			74.39			

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	16.00	100.12	0.160	16.00	0.2	10.698	B
A-B	17.00			17.00			
A-C	108.00			108.00			
A-D	1.00			1.00			
AB-CD	2.20	211.23	0.010	2.20	0.0	4.306	A
AB-C	113.79			113.79			
D-ABC	2.00	109.67	0.018	2.00	0.0	8.358	A
C-D	1.00			1.00			
C-A	66.00			66.00			
C-B	14.00			14.00			
CD-AB	23.32	168.30	0.139	23.21	0.3	6.206	A
CD-A	57.68			57.68			

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	23.00	97.58	0.236	22.89	0.3	12.031	B
A-B	17.00			17.00			
A-C	83.00			83.00			
A-D	2.00			2.00			
AB-CD	3.83	188.65	0.020	3.82	0.0	4.869	A
AB-C	88.16			88.16			
D-ABC	3.00	113.89	0.026	2.99	0.0	8.115	A
C-D	2.00			2.00			
C-A	93.00			93.00			
C-B	12.00			12.00			
CD-AB	23.76	193.26	0.123	23.76	0.3	5.319	A
CD-A	83.23			83.23			

17:45 - 18:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	26.00	96.21	0.270	25.94	0.4	12.794	B
A-B	38.00			38.00			
A-C	83.00			83.00			
A-D	1.00			1.00			
AB-CD	2.05	186.27	0.011	2.06	0.0	4.885	A
AB-C	93.87			93.87			
D-ABC	2.00	97.21	0.021	2.01	0.0	9.453	A
C-D	1.00			1.00			
C-A	111.00			111.00			
C-B	28.00			28.00			
CD-AB	63.01	202.15	0.312	62.48	0.8	6.452	A
CD-A	76.99			76.99			

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: Tay Lane L2004 Forest Hills 2026 wod.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 09/03/2023 15:32:52

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					2026 wod				
Stream B-ACD	D1	0.4	11.68	0.27	B	D2	0.3	11.86	0.25	B
Stream AB-CD		0.0	5.67	0.01	A		0.0	4.91	0.01	A
Stream D-ABC		0.0	9.14	0.02	A		0.0	10.06	0.01	B
Stream CD-AB		0.3	5.24	0.12	A		0.7	6.31	0.28	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	08/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2026 wod	AM	DIRECT	08:00	09:00	60	15
D2	2026 wod	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 wod, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.07	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.07	A

Arms

Arms

Arm	Name	Description	Arm type
A	L2004 east		Major
B	Forest Hills		Minor
C	L2004 west		Major
D	Tay Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - L2004 east	6.00			30.0	✓	0.00
C - L2004 west	6.00			30.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Forest Hills	One lane	3.00	30	30
D - Tay Lane	One lane	3.00	30	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
AB-D	147.834	-	-	-	-	-	0.229	0.229	0.229	-	-
B-A	125.513	0.091	0.231	0.231	-	-	0.145	0.330	-	0.145	0.330
B-CD	160.706	0.099	0.249	0.249	-	-	-	-	-	-	-
CD-B	147.834	0.229	0.229	0.229	-	-	-	-	-	-	-
D-AB	160.706	-	-	-	-	-	0.249	0.249	0.099	-	-
D-C	125.513	-	0.145	0.330	0.145	0.330	0.231	0.231	0.091	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2026 wod	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	9.00	25.00	0.00
	B - Forest Hills	16.00	0.00	3.00	0.00
	C - L2004 west	82.00	8.00	0.00	1.00
	D - Tay Lane	1.00	0.00	0.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	0.00	45.00	1.00
	B - Forest Hills	15.00	0.00	4.00	0.00
	C - L2004 west	98.00	3.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	12.00	50.00	0.00
	B - Forest Hills	18.00	0.00	5.00	0.00
	C - L2004 west	117.00	12.00	0.00	0.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	26.00	47.00	0.00
	B - Forest Hills	22.00	0.00	7.00	0.00
	C - L2004 west	72.00	6.00	0.00	1.00
	D - Tay Lane	0.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.27	11.68	0.4	B
A-B				
A-C				
A-D				
AB-CD	0.01	5.67	0.0	A
AB-C				
D-ABC	0.02	9.14	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.12	5.24	0.3	A
CD-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	19.00	109.78	0.173	18.79	0.2	9.871	A
A-B	9.00			9.00			
A-C	25.00			25.00			
A-D	0.00			0.00			
AB-CD	0.00	126.98	0.000	0.00	0.0	0.000	A
AB-C	27.97			27.97			
D-ABC	1.00	138.19	0.007	0.99	0.0	6.559	A
C-D	1.00			1.00			
C-A	82.00			82.00			
C-B	8.00			8.00			
CD-AB	13.81	197.21	0.070	13.69	0.1	4.903	A
CD-A	77.18			77.18			

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	19.00	107.09	0.177	18.99	0.2	10.214	B
A-B	0.00			0.00			
A-C	45.00			45.00			
A-D	1.00			1.00			
AB-CD	1.44	160.11	0.009	1.43	0.0	5.671	A
AB-C	48.55			48.55			
D-ABC	0.00	111.51	0.000	0.01	0.0	0.000	A
C-D	0.00			0.00			
C-A	98.00			98.00			
C-B	3.00			3.00			
CD-AB	5.80	205.44	0.028	5.89	0.0	4.512	A
CD-A	95.20			95.20			

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	23.00	99.90	0.230	22.92	0.3	11.677	B
A-B	12.00			12.00			
A-C	50.00			50.00			
A-D	0.00			0.00			
AB-CD	0.00	118.28	0.000	0.01	0.0	0.000	A
AB-C	54.98			54.98			
D-ABC	2.00	104.27	0.019	1.98	0.0	8.799	A
C-D	0.00			0.00			
C-A	117.00			117.00			
C-B	12.00			12.00			
CD-AB	26.38	216.59	0.122	26.14	0.3	4.727	A
CD-A	103.61			103.61			

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	29.00	108.06	0.268	28.93	0.4	11.362	B
A-B	26.00			26.00			
A-C	47.00			47.00			
A-D	0.00			0.00			
AB-CD	0.00	129.73	0.000	0.00	0.0	0.000	A
AB-C	53.98			53.98			
D-ABC	1.00	99.53	0.010	1.01	0.0	9.137	A

C-D	1.00			1.00			
C-A	72.00			72.00			
C-B	6.00			6.00			
CD-AB	10.01	182.25	0.055	10.21	0.1	5.240	A
CD-A	68.00			68.00			

2026 wod, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		0.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.97	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2026 wod	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

17:00 - 17:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	27.00	85.00	0.00
	B - Forest Hills	9.00	0.00	5.00	0.00
	C - L2004 west	75.00	7.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	16.00	100.00	0.00
	B - Forest Hills	8.00	0.00	6.00	0.00
	C - L2004 west	61.00	13.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	16.00	77.00	1.00
	B - Forest Hills	15.00	0.00	6.00	0.00
	C - L2004 west	86.00	12.00	0.00	0.00
	D - Tay Lane	0.00	0.00	1.00	0.00

Demand (PCU/TS)

17:45 - 18:00

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	36.00	77.00	0.00
	B - Forest Hills	13.00	0.00	12.00	0.00
	C - L2004 west	103.00	26.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.25	11.86	0.3	B
A-B				
A-C				
A-D				

Stream				
AB-CD	0.01	4.91	0.0	A
AB-C				
D-ABC	0.01	10.06	0.0	B
C-D				
C-A				
C-B				
CD-AB	0.28	6.31	0.7	A
CD-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14.00	102.69	0.136	13.84	0.2	10.113	B
A-B	27.00			27.00			
A-C	85.00			85.00			
A-D	0.00			0.00			
AB-CD	0.00	129.05	0.000	0.00	0.0	0.000	A
AB-C	89.94			89.94			
D-ABC	0.00	112.19	0.000	0.00	0.0	0.000	A
C-D	0.00			0.00			
C-A	75.00			75.00			
C-B	7.00			7.00			
CD-AB	12.16	176.81	0.069	12.04	0.1	5.461	A
CD-A	69.84			69.84			

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14.00	103.00	0.136	14.00	0.2	10.111	B
A-B	16.00			16.00			
A-C	100.00			100.00			
A-D	0.00			0.00			
AB-CD	0.00	130.88	0.000	0.00	0.0	0.000	A
AB-C	105.99			105.99			
D-ABC	0.00	112.47	0.000	0.00	0.0	0.000	A
C-D	0.00			0.00			
C-A	61.00			61.00			
C-B	13.00			13.00			
CD-AB	20.61	165.86	0.124	20.50	0.2	6.195	A
CD-A	53.39			53.39			

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21.00	99.78	0.210	20.89	0.3	11.394	B
A-B	16.00			16.00			
A-C	77.00			77.00			
A-D	1.00			1.00			
AB-CD	1.81	185.25	0.010	1.80	0.0	4.905	A
AB-C	82.18			82.18			
D-ABC	1.00	90.45	0.011	0.99	0.0	10.058	B
C-D	0.00			0.00			
C-A	86.00			86.00			
C-B	12.00			12.00			
CD-AB	22.22	188.22	0.118	22.20	0.2	5.427	A
CD-A	75.78			75.78			

17:45 - 18:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25.00	100.76	0.248	24.94	0.3	11.860	B
A-B	36.00			36.00			
A-C	77.00			77.00			
A-D	0.00			0.00			
AB-CD	0.00	118.28	0.000	0.01	0.0	0.000	A
AB-C	88.92			88.92			
D-ABC	0.00	100.69	0.000	0.01	0.0	0.000	A
C-D	0.00			0.00			
C-A	103.00			103.00			
C-B	26.00			26.00			
CD-AB	54.63	197.11	0.277	54.22	0.7	6.306	A
CD-A	74.37			74.37			

Junctions 10
PICADY 10 - Priority Intersection Module
Version: 10.0.1.1519 © Copyright TRL Software Limited, 2021
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Filename: Tay Lane L2004 Forest Hills 2041 wod.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 09/03/2023 15:37:10

»2041 wod, AM
»2041 wod, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2041 wod									
Stream B-ACD	D1	0.5	13.05	0.32	B	D2	0.4	13.28	0.29	B
Stream AB-CD		0.0	5.58	0.01	A		0.0	4.75	0.01	A
Stream D-ABC		0.0	9.52	0.02	A		0.0	10.62	0.01	B
Stream CD-AB		0.4	5.15	0.14	A		0.9	6.66	0.34	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	08/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2041 wod	AM	DIRECT	08:00	09:00	60	15
D2	2041 wod	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2041 wod, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.19	A

Arms

Arms

Arm	Name	Description	Arm type
A	L2004 east		Major
B	Forest Hills		Minor
C	L2004 west		Major
D	Tay Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - L2004 east	6.00			30.0	✓	0.00
C - L2004 west	6.00			30.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Forest Hills	One lane	3.00	30	30
D - Tay Lane	One lane	3.00	30	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
AB-D	147.834	-	-	-	-	-	0.229	0.229	0.229	-	-
B-A	125.513	0.091	0.231	0.231	-	-	0.145	0.330	-	0.145	0.330
B-CD	160.706	0.099	0.249	0.249	-	-	-	-	-	-	-
CD-B	147.834	0.229	0.229	0.229	-	-	-	-	-	-	-
D-AB	160.706	-	-	-	-	-	0.249	0.249	0.099	-	-
D-C	125.513	-	0.145	0.330	0.145	0.330	0.231	0.231	0.091	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2041 wod	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	10.00	29.00	0.00
	B - Forest Hills	18.00	0.00	4.00	0.00
	C - L2004 west	94.00	10.00	0.00	1.00
	D - Tay Lane	1.00	0.00	0.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	0.00	52.00	1.00
	B - Forest Hills	17.00	0.00	5.00	0.00
	C - L2004 west	112.00	4.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	13.00	57.00	0.00
	B - Forest Hills	21.00	0.00	6.00	0.00
	C - L2004 west	134.00	13.00	0.00	0.00
	D - Tay Lane	1.00	0.00	1.00	0.00

08:30 - 08:45

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	30.00	54.00	0.00
	B - Forest Hills	25.00	0.00	8.00	0.00
	C - L2004 west	83.00	7.00	0.00	1.00
	D - Tay Lane	0.00	0.00	1.00	0.00

08:45 - 09:00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.32	13.05	0.5	B
A-B				
A-C				
A-D				
AB-CD	0.01	5.58	0.0	A
AB-C				
D-ABC	0.02	9.52	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.14	5.15	0.4	A
CD-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22.00	107.40	0.205	21.75	0.3	10.478	B
A-B	10.00			10.00			
A-C	29.00			29.00			
A-D	0.00			0.00			
AB-CD	0.00	123.78	0.000	0.00	0.0	0.000	A
AB-C	32.95			32.95			
D-ABC	1.00	134.70	0.007	0.99	0.0	6.730	A
C-D	1.00			1.00			
C-A	94.00			94.00			
C-B	10.00			10.00			
CD-AB	18.67	204.57	0.091	18.49	0.2	4.837	A
CD-A	86.32			86.32			

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22.00	103.90	0.212	21.99	0.3	10.986	B
A-B	0.00			0.00			
A-C	52.00			52.00			
A-D	1.00			1.00			
AB-CD	1.54	162.89	0.009	1.53	0.0	5.577	A
AB-C	56.45			56.45			
D-ABC	0.00	107.02	0.000	0.01	0.0	0.000	A
C-D	0.00			0.00			
C-A	112.00			112.00			
C-B	4.00			4.00			
CD-AB	8.50	213.98	0.040	8.63	0.1	4.387	A
CD-A	107.50			107.50			

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	27.00	95.71	0.282	26.88	0.4	13.051	B
A-B	13.00			13.00			
A-C	57.00			57.00			
A-D	0.00			0.00			
AB-CD	0.00	114.15	0.000	0.01	0.0	0.000	A
AB-C	62.97			62.97			
D-ABC	2.00	99.01	0.020	1.98	0.0	9.273	A
C-D	0.00			0.00			
C-A	134.00			134.00			
C-B	13.00			13.00			
CD-AB	32.06	227.27	0.141	31.76	0.4	4.606	A
CD-A	115.93			115.93			

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	33.00	104.32	0.316	32.93	0.5	12.594	B
A-B	30.00			30.00			
A-C	54.00			54.00			
A-D	0.00			0.00			
AB-CD	0.00	126.98	0.000	0.00	0.0	0.000	A
AB-C	61.98			61.98			

D-ABC	1.00	95.59	0.010	1.01	0.0	9.516	A
C-D	1.00			1.00			
C-A	83.00			83.00			
C-B	7.00			7.00			
CD-AB	12.66	188.03	0.067	12.90	0.1	5.148	A
CD-A	77.35			77.35			

2041 wod, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.09	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.09	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2041 wod	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

17:00 - 17:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	31.00	98.00	0.00
	B - Forest Hills	11.00	0.00	6.00	0.00
	C - L2004 west	85.00	8.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	19.00	114.00	0.00
	B - Forest Hills	10.00	0.00	7.00	0.00
	C - L2004 west	70.00	14.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	19.00	88.00	1.00
	B - Forest Hills	17.00	0.00	7.00	0.00
	C - L2004 west	98.00	13.00	0.00	0.00
	D - Tay Lane	0.00	0.00	1.00	0.00

Demand (PCU/TS)

17:45 - 18:00

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	41.00	88.00	0.00
	B - Forest Hills	14.00	0.00	13.00	0.00
	C - L2004 west	118.00	30.00	0.00	0.00
	D - Tay Lane	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.29	13.28	0.4	B
A-B				
A-C				
A-D				

Stream				
AB-CD	0.01	4.75	0.0	A
AB-C				
D-ABC	0.01	10.62	0.0	B
C-D				
C-A				
C-B				
CD-AB	0.34	6.66	0.9	A
CD-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17.00	97.48	0.174	16.79	0.2	11.129	B
A-B	31.00			31.00			
A-C	98.00			98.00			
A-D	0.00			0.00			
AB-CD	0.00	126.53	0.000	0.00	0.0	0.000	A
AB-C	103.93			103.93			
D-ABC	0.00	107.99	0.000	0.00	0.0	0.000	A
C-D	0.00			0.00			
C-A	85.00			85.00			
C-B	8.00			8.00			
CD-AB	15.09	180.94	0.083	14.93	0.2	5.421	A
CD-A	77.91			77.91			

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17.00	97.25	0.175	17.00	0.2	11.213	B
A-B	19.00			19.00			
A-C	114.00			114.00			
A-D	0.00			0.00			
AB-CD	0.00	128.59	0.000	0.00	0.0	0.000	A
AB-C	120.99			120.99			
D-ABC	0.00	108.38	0.000	0.00	0.0	0.000	A
C-D	0.00			0.00			
C-A	70.00			70.00			
C-B	14.00			14.00			
CD-AB	23.95	169.16	0.142	23.83	0.3	6.197	A
CD-A	60.05			60.05			

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	24.00	95.21	0.252	23.88	0.3	12.595	B
A-B	19.00			19.00			
A-C	88.00			88.00			
A-D	1.00			1.00			
AB-CD	1.98	191.55	0.010	1.97	0.0	4.747	A
AB-C	94.01			94.01			
D-ABC	1.00	85.70	0.012	0.99	0.0	10.622	B
C-D	0.00			0.00			
C-A	98.00			98.00			
C-B	13.00			13.00			
CD-AB	26.40	194.37	0.136	26.37	0.3	5.365	A
CD-A	84.60			84.60			

17:45 - 18:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	27.00	94.64	0.285	26.94	0.4	13.282	B
A-B	41.00			41.00			
A-C	88.00			88.00			
A-D	0.00			0.00			
AB-CD	0.00	113.93	0.000	0.01	0.0	0.000	A
AB-C	100.91			100.91			
D-ABC	0.00	94.66	0.000	0.01	0.0	0.000	A
C-D	0.00			0.00			
C-A	118.00			118.00			
C-B	30.00			30.00			
CD-AB	70.79	205.38	0.345	70.15	0.9	6.665	A
CD-A	77.21			77.21			

Junctions 10
PICADY 10 - Priority Intersection Module
Version: 10.0.1.1519
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Filename: Tay Lane L2004 Forest Hills 2041 wdev.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 09/03/2023 15:39:19

Summary of junction performance

	AM					PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2041 wdev										
Stream B-ACD	D1	0.5	13.12	0.32	B	D2	0.4	13.35	0.29	B
Stream AB-CD		0.0	6.16	0.02	A		0.0	4.82	0.02	A
Stream D-ABC		0.0	8.75	0.03	A		0.0	9.75	0.03	A
Stream CD-AB		0.4	5.14	0.14	A		0.9	6.66	0.35	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	08/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2041 wdev	AM	DIRECT	08:00	09:00	60	15
D2	2041 wdev	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2041 wdev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.24	A

Arms

Arms

Arm	Name	Description	Arm type
A	L2004 east		Major
B	Forest Hills		Minor
C	L2004 west		Major
D	Tay Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - L2004 east	6.00			30.0	✓	0.00
C - L2004 west	6.00			30.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Forest Hills	One lane	3.00	30	30
D - Tay Lane	One lane	3.00	30	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
AB-D	147.834	-	-	-	-	-	0.229	0.229	0.229	-	-
B-A	125.513	0.091	0.231	0.231	-	-	0.145	0.330	-	0.145	0.330
B-CD	160.706	0.099	0.249	0.249	-	-	-	-	-	-	-
CD-B	147.834	0.229	0.229	0.229	-	-	-	-	-	-	-
D-AB	160.706	-	-	-	-	-	0.249	0.249	0.099	-	-
D-C	125.513	-	0.145	0.330	0.145	0.330	0.231	0.231	0.091	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2041 wdev	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	10.00	29.00	1.00
	B - Forest Hills	18.00	0.00	4.00	0.00
	C - L2004 west	94.00	10.00	0.00	2.00
	D - Tay Lane	2.00	0.00	1.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	0.00	52.00	2.00
	B - Forest Hills	17.00	0.00	5.00	0.00
	C - L2004 west	112.00	4.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	13.00	57.00	1.00
	B - Forest Hills	21.00	0.00	6.00	0.00
	C - L2004 west	134.00	13.00	0.00	1.00
	D - Tay Lane	2.00	0.00	1.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	30.00	54.00	1.00
	B - Forest Hills	25.00	0.00	8.00	0.00
	C - L2004 west	83.00	7.00	0.00	2.00
	D - Tay Lane	1.00	0.00	2.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.32	13.12	0.5	B
A-B				
A-C				
A-D				
AB-CD	0.02	6.16	0.0	A
AB-C				
D-ABC	0.03	8.75	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.14	5.14	0.4	A
CD-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22.00	107.03	0.206	21.75	0.3	10.521	B
A-B	10.00			10.00			
A-C	29.00			29.00			
A-D	1.00			1.00			
AB-CD	1.29	147.45	0.009	1.28	0.0	6.156	A
AB-C	32.67			32.67			
D-ABC	3.00	118.78	0.025	2.97	0.0	7.770	A
C-D	2.00			2.00			
C-A	94.00			94.00			
C-B	10.00			10.00			
CD-AB	18.80	205.07	0.092	18.62	0.2	4.827	A
CD-A	87.18			87.18			

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22.00	103.53	0.213	21.99	0.3	11.036	B
A-B	0.00			0.00			
A-C	52.00			52.00			
A-D	2.00			2.00			
AB-CD	3.08	162.69	0.019	3.07	0.0	5.638	A
AB-C	55.90			55.90			
D-ABC	2.00	106.69	0.019	2.01	0.0	8.599	A
C-D	1.00			1.00			
C-A	112.00			112.00			
C-B	4.00			4.00			
CD-AB	8.56	214.51	0.040	8.69	0.1	4.375	A
CD-A	108.44			108.44			

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	27.00	95.33	0.283	26.88	0.4	13.123	B
A-B	13.00			13.00			
A-C	57.00			57.00			
A-D	1.00			1.00			
AB-CD	1.65	160.96	0.010	1.66	0.0	5.651	A
AB-C	62.32			62.32			
D-ABC	3.00	105.88	0.028	2.99	0.0	8.747	A
C-D	1.00			1.00			
C-A	134.00			134.00			
C-B	13.00			13.00			
CD-AB	32.30	227.82	0.142	31.99	0.4	4.599	A
CD-A	116.69			116.69			

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	33.00	103.94	0.317	32.93	0.5	12.660	B
A-B	30.00			30.00			
A-C	54.00			54.00			
A-D	1.00			1.00			
AB-CD	1.57	171.28	0.009	1.57	0.0	5.302	A
AB-C	61.40			61.40			

D-ABC	3.00	106.17	0.028	3.00	0.0	8.723	A
C-D	2.00			2.00			
C-A	83.00			83.00			
C-B	7.00			7.00			
CD-AB	12.75	188.56	0.068	13.00	0.1	5.137	A
CD-A	78.26			78.26			

2041 wdev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	Two-way	Two-way	Two-way		1.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.15	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2041 wdev	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 east		✓	100.000
B - Forest Hills		✓	100.000
C - L2004 west		✓	100.000
D - Tay Lane		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	31.00	98.00	1.00
	B - Forest Hills	11.00	0.00	6.00	0.00
	C - L2004 west	85.00	8.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

17:00 - 17:15

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	19.00	114.00	1.00
	B - Forest Hills	10.00	0.00	7.00	0.00
	C - L2004 west	70.00	14.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

17:15 - 17:30

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	19.00	88.00	2.00
	B - Forest Hills	17.00	0.00	7.00	0.00
	C - L2004 west	98.00	13.00	0.00	1.00
	D - Tay Lane	1.00	0.00	2.00	0.00

17:30 - 17:45

Demand (PCU/TS)

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0.00	41.00	88.00	1.00
	B - Forest Hills	14.00	0.00	13.00	0.00
	C - L2004 west	118.00	30.00	0.00	1.00
	D - Tay Lane	1.00	0.00	1.00	0.00

17:45 - 18:00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - L2004 east	B - Forest Hills	C - L2004 west	D - Tay Lane
From	A - L2004 east	0	0	0	0
	B - Forest Hills	0	0	0	0
	C - L2004 west	0	0	0	0
	D - Tay Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.29	13.35	0.4	B
A-B				
A-C				
A-D				

AB-CD	0.02	4.82	0.0	A
AB-C				
D-ABC	0.03	9.75	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.35	6.66	0.9	A
CD-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17.00	97.11	0.175	16.79	0.2	11.177	B
A-B	31.00			31.00			
A-C	98.00			98.00			
A-D	1.00			1.00			
AB-CD	2.07	201.06	0.010	2.06	0.0	4.522	A
AB-C	102.86			102.86			
D-ABC	2.00	107.65	0.019	1.98	0.0	8.516	A
C-D	1.00			1.00			
C-A	85.00			85.00			
C-B	8.00			8.00			
CD-AB	15.20	181.48	0.084	15.05	0.2	5.407	A
CD-A	78.79			78.79			

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17.00	96.89	0.175	17.00	0.2	11.265	B
A-B	19.00			19.00			
A-C	114.00			114.00			
A-D	1.00			1.00			
AB-CD	2.30	214.84	0.011	2.30	0.0	4.235	A
AB-C	119.69			119.69			
D-ABC	2.00	108.03	0.019	2.00	0.0	8.487	A
C-D	1.00			1.00			
C-A	70.00			70.00			
C-B	14.00			14.00			
CD-AB	24.14	169.71	0.142	24.02	0.3	6.181	A
CD-A	60.86			60.86			

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	24.00	94.84	0.253	23.88	0.3	12.662	B
A-B	19.00			19.00			
A-C	88.00			88.00			
A-D	2.00			2.00			
AB-CD	3.98	191.38	0.021	3.96	0.0	4.802	A
AB-C	93.01			93.01			
D-ABC	3.00	96.86	0.031	2.99	0.0	9.586	A
C-D	1.00			1.00			
C-A	98.00			98.00			
C-B	13.00			13.00			
CD-AB	26.60	194.91	0.136	26.57	0.3	5.354	A
CD-A	85.40			85.40			

17:45 - 18:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	27.00	94.26	0.286	26.94	0.4	13.353	B
A-B	41.00			41.00			
A-C	88.00			88.00			
A-D	1.00			1.00			
AB-CD	2.16	189.12	0.011	2.17	0.0	4.816	A
AB-C	99.75			99.75			
D-ABC	2.00	94.30	0.021	2.01	0.0	9.753	A
C-D	1.00			1.00			
C-A	118.00			118.00			
C-B	30.00			30.00			
CD-AB	71.34	205.95	0.346	70.69	0.9	6.664	A
CD-A	77.66			77.66			

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service

ARCADY OUTPUT

**R120   (NORTH)   /   R120   (EAST)   /   MAIN   STREET
ROUNDABOUT JUNCTION**

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519
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Filename: Rathcoole R120 Main St 2023 exist.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 08/03/2023 13:45:21

»2023 exist, AM
»2023 exist, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2023 exist									
1 - R120 N		0.7	6.56	0.42	A		8.4	29.30	0.93	D
2 - R120 E	D1	7.3	26.10	0.90	D	D2	9.7	36.84	0.93	E
3 - Main St		7.3	41.65	0.91	E		1.6	11.30	0.62	B

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

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

File summary

File Description

Title	Rathcoole R120 Main St Roundabout
Location	
Site number	
Date	06/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2023 exist	AM	DIRECT	08:00	09:00	60	15
D2	2023 exist	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 exist, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	27.25	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	27.25	D

Arms

Arms

Arm	Name	Description	No give-way line
1	R120 N		
2	R120 E		
3	Main St		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - R120 N	3.50	4.80	5.0	5.0	28.0	45.0		
2 - R120 E	3.75	5.50	10.0	5.0	28.0	45.0		
3 - Main St	3.65	5.00	10.0	5.0	28.0	45.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1 - R120 N	0.459	255.501
2 - R120 E	0.492	295.692

3 - Main St	0.478	278.755

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2023 exist	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R120 N		✓	100.000
2 - R120 E		✓	100.000
3 - Main St		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	63.00	19.00
	2 - R120 E	237.00	0.00	22.00
	3 - Main St	118.00	19.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	63.00	32.00
	2 - R120 E	211.00	0.00	26.00
	3 - Main St	120.00	30.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	62.00	37.00
	2 - R120 E	204.00	0.00	41.00
	3 - Main St	126.00	39.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	55.00	42.00
	2 - R120 E	198.00	0.00	43.00
	3 - Main St	115.00	47.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0	0	0
	2 - R120 E	0	0	0
	3 - Main St	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R120 N	0.42	6.56	0.7	A
2 - R120 E	0.90	26.10	7.3	D
3 - Main St	0.91	41.65	7.3	E

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	82.00	18.48	247.02	0.332	81.51	0.5	5.421	A
2 - R120 E	259.00	18.89	286.40	0.904	251.74	7.3	22.615	C
3 - Main St	137.00	230.35	168.67	0.812	133.24	3.8	23.413	C

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	95.00	29.57	241.93	0.393	94.85	0.6	6.112	A
2 - R120 E	237.00	31.90	280.00	0.846	238.20	6.1	22.300	C
3 - Main St	150.00	212.24	177.32	0.846	149.00	4.8	30.274	D

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	99.00	38.23	237.96	0.416	98.94	0.7	6.470	A
2 - R120 E	245.00	36.95	277.52	0.883	244.37	6.7	26.099	D
3 - Main St	165.00	203.82	181.35	0.910	162.48	7.3	41.651	E

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	97.00	46.61	234.12	0.414	97.00	0.7	6.563	A
2 - R120 E	241.00	41.96	275.06	0.876	240.93	6.8	26.033	D
3 - Main St	162.00	198.02	184.12	0.880	162.00	7.3	40.606	E

2023 exist, PM

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	28.73	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	28.73	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2023 exist	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R120 N		✓	100.000
2 - R120 E		✓	100.000
3 - Main St		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

17:00 - 17:15

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	144.00	78.00
	2 - R120 E	132.00	0.00	82.00
	3 - Main St	85.00	36.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	123.00	60.00
	2 - R120 E	146.00	0.00	93.00
	3 - Main St	61.00	30.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	128.00	59.00
	2 - R120 E	156.00	0.00	70.00
	3 - Main St	74.00	41.00	0.00

Demand (PCU/TS)

17:45 - 18:00

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	103.00	68.00
	2 - R120 E	152.00	0.00	93.00
	3 - Main St	92.00	36.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0	0	0
	2 - R120 E	0	0	0
	3 - Main St	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R120 N	0.93	29.30	8.4	D
2 - R120 E	0.93	36.84	9.7	E
3 - Main St	0.62	11.30	1.6	B

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	222.00	35.63	239.15	0.928	213.63	8.4	29.297	D
2 - R120 E	214.00	75.06	258.78	0.827	209.72	4.3	17.105	C
3 - Main St	121.00	129.36	216.93	0.558	119.77	1.2	9.152	A

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	183.00	30.11	241.69	0.757	188.04	3.3	18.119	C
2 - R120 E	239.00	61.85	265.27	0.901	236.08	7.2	27.950	D
3 - Main St	91.00	144.24	209.82	0.434	91.46	0.8	7.634	A

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	187.00	40.81	236.78	0.790	186.76	3.6	17.820	C
2 - R120 E	226.00	58.97	266.69	0.847	227.07	6.1	23.530	C
3 - Main St	115.00	156.17	204.12	0.563	114.52	1.3	9.989	A

17:45 - 18:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	171.00	36.01	238.98	0.716	171.93	2.6	13.617	B
2 - R120 E	245.00	68.08	262.21	0.934	241.45	9.7	36.839	E
3 - Main St	128.00	150.23	206.96	0.618	127.68	1.6	11.301	B

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519
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Filename: Rathcoole R120 Main St 2026 wod.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 08/03/2023 13:46:56

»2026 wod, AM
»2026 wod, PM

Summary of junction performance

		AM					PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2026 wod										
1 - R120 N		0.8	6.85	0.44	A		12.9	39.15	0.98	E
2 - R120 E	D1	10.8	40.18	0.95	E	D2	16.2	57.37	0.98	F
3 - Main St		13.6	76.23	0.98	F		1.8	12.67	0.66	B

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

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

File summary

File Description

Title	Rathcoole R120 Main St Roundabout
Location	
Site number	
Date	06/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2026 wod	AM	DIRECT	08:00	09:00	60	15
D2	2026 wod	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 wod, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	45.14	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	45.14	E

Arms

Arms

Arm	Name	Description	No give-way line
1	R120 N		
2	R120 E		
3	Main St		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - R120 N	3.50	4.80	5.0	5.0	28.0	45.0		
2 - R120 E	3.75	5.50	10.0	5.0	28.0	45.0		
3 - Main St	3.65	5.00	10.0	5.0	28.0	45.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1 - R120 N	0.459	255.501
2 - R120 E	0.492	295.692

3 - Main St	0.478	278.755

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2026 wod	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R120 N		✓	100.000
2 - R120 E		✓	100.000
3 - Main St		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

From \ To	1 - R120 N	2 - R120 E	3 - Main St
1 - R120 N	0.00	63.00	19.00
2 - R120 E	250.00	0.00	23.00
3 - Main St	124.00	20.00	0.00

Demand (PCU/TS)

08:15 - 08:30

From \ To	1 - R120 N	2 - R120 E	3 - Main St
1 - R120 N	0.00	67.00	34.00
2 - R120 E	222.00	0.00	27.00
3 - Main St	126.00	31.00	0.00

Demand (PCU/TS)

08:30 - 08:45

From \ To	1 - R120 N	2 - R120 E	3 - Main St
1 - R120 N	0.00	65.00	39.00
2 - R120 E	214.00	0.00	43.00
3 - Main St	132.00	41.00	0.00

Demand (PCU/TS)

08:45 - 09:00

From \ To	1 - R120 N	2 - R120 E	3 - Main St
1 - R120 N	0.00	58.00	44.00
2 - R120 E	208.00	0.00	45.00
3 - Main St	121.00	49.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0	0	0
	2 - R120 E	0	0	0
	3 - Main St	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R120 N	0.44	6.85	0.8	A
2 - R120 E	0.95	40.18	10.8	E
3 - Main St	0.98	76.23	13.6	F

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	82.00	19.24	246.67	0.332	81.51	0.5	5.432	A
2 - R120 E	273.00	18.89	286.40	0.953	262.18	10.8	29.698	D
3 - Main St	144.00	240.09	164.01	0.878	138.56	5.4	30.786	D

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	101.00	30.27	241.61	0.418	100.78	0.7	6.382	A
2 - R120 E	249.00	33.88	279.03	0.892	250.28	9.5	33.295	D
3 - Main St	157.00	223.41	171.99	0.913	154.90	7.5	45.856	E

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	104.00	39.41	237.42	0.438	103.94	0.8	6.739	A
2 - R120 E	257.00	38.95	276.54	0.929	255.97	10.6	39.544	E
3 - Main St	173.00	213.70	176.62	0.979	167.56	13.0	67.962	F

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	102.00	48.14	233.41	0.437	102.00	0.8	6.847	A
2 - R120 E	253.00	43.96	274.07	0.923	252.77	10.8	40.176	E
3 - Main St	170.00	207.92	179.39	0.948	169.34	13.6	76.234	F

2026 wod, PM

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	41.36	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	41.36	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2026 wod	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R120 N		✓	100.000
2 - R120 E		✓	100.000
3 - Main St		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

17:00 - 17:15

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	152.00	82.00
	2 - R120 E	139.00	0.00	86.00
	3 - Main St	89.00	38.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	130.00	63.00
	2 - R120 E	153.00	0.00	98.00
	3 - Main St	65.00	32.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	135.00	62.00
	2 - R120 E	164.00	0.00	74.00
	3 - Main St	78.00	43.00	0.00

Demand (PCU/TS)

17:45 - 18:00

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	109.00	71.00
	2 - R120 E	159.00	0.00	97.00
	3 - Main St	96.00	38.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0	0	0
	2 - R120 E	0	0	0
	3 - Main St	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R120 N	0.98	39.15	12.9	E
2 - R120 E	0.98	57.37	16.2	F
3 - Main St	0.66	12.67	1.8	B

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	234.00	37.58	238.26	0.982	221.11	12.9	39.150	E
2 - R120 E	225.00	77.48	257.59	0.874	219.28	5.7	21.096	C
3 - Main St	127.00	135.46	214.02	0.593	125.58	1.4	10.025	B

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	193.00	32.13	240.76	0.802	201.43	4.5	26.396	D
2 - R120 E	251.00	66.06	263.20	0.954	245.47	11.3	40.306	E
3 - Main St	97.00	149.68	207.22	0.468	97.53	0.9	8.243	A

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service

	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	197.00	42.77	235.88	0.835	196.73	4.7	22.606	C
2 - R120 E	238.00	61.97	265.22	0.897	239.14	10.1	36.846	E
3 - Main St	121.00	163.89	200.43	0.604	120.42	1.5	11.164	B

17:45 - 18:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	180.00	38.00	238.06	0.756	181.44	3.3	16.293	C
2 - R120 E	256.00	71.19	260.68	0.982	249.95	16.2	57.366	F
3 - Main St	134.00	155.93	204.24	0.656	133.64	1.8	12.670	B

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519
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Filename: Rathcoole R120 Main St 2026 wdev.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 08/03/2023 13:48:43

»2026 wdev, AM
»2026 wdev, PM

Summary of junction performance

		AM					PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2026 wdev										
1 - R120 N		0.8	6.92	0.44	A		13.3	40.05	0.99	E
2 - R120 E	D1	11.3	41.90	0.96	E	D2	17.0	59.34	0.99	F
3 - Main St		15.5	85.33	0.99	F		1.9	12.80	0.66	B

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

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

File summary

File Description

Title	Rathcoole R120 Main St Roundabout
Location	
Site number	
Date	06/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2026 wdev	AM	DIRECT	08:00	09:00	60	15
D2	2026 wdev	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026 wdev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	48.87	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	48.87	E

Arms

Arms

Arm	Name	Description	No give-way line
1	R120 N		
2	R120 E		
3	Main St		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - R120 N	3.50	4.80	5.0	5.0	28.0	45.0		
2 - R120 E	3.75	5.50	10.0	5.0	28.0	45.0		
3 - Main St	3.65	5.00	10.0	5.0	28.0	45.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1 - R120 N	0.459	255.501
2 - R120 E	0.492	295.692

3 - Main St	0.478	278.755

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2026 wdev	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R120 N		✓	100.000
2 - R120 E		✓	100.000
3 - Main St		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

From \ To	1 - R120 N	2 - R120 E	3 - Main St
1 - R120 N	0.00	66.00	20.00
2 - R120 E	250.00	0.00	24.00
3 - Main St	125.00	20.00	0.00

Demand (PCU/TS)

08:15 - 08:30

From \ To	1 - R120 N	2 - R120 E	3 - Main St
1 - R120 N	0.00	67.00	34.00
2 - R120 E	222.00	0.00	28.00
3 - Main St	127.00	32.00	0.00

Demand (PCU/TS)

08:30 - 08:45

From \ To	1 - R120 N	2 - R120 E	3 - Main St
1 - R120 N	0.00	65.00	39.00
2 - R120 E	214.00	0.00	43.00
3 - Main St	133.00	42.00	0.00

Demand (PCU/TS)

08:45 - 09:00

From \ To	1 - R120 N	2 - R120 E	3 - Main St
1 - R120 N	0.00	58.00	45.00
2 - R120 E	208.00	0.00	46.00
3 - Main St	122.00	50.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0	0	0
	2 - R120 E	0	0	0
	3 - Main St	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R120 N	0.44	6.92	0.8	A
2 - R120 E	0.96	41.90	11.3	E
3 - Main St	0.99	85.33	15.5	F

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	86.00	19.23	246.68	0.349	85.47	0.5	5.565	A
2 - R120 E	274.00	19.88	285.92	0.958	262.69	11.3	30.633	D
3 - Main St	145.00	239.68	164.21	0.883	139.39	5.6	31.396	D

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	101.00	31.12	241.22	0.419	100.82	0.7	6.402	A
2 - R120 E	250.00	33.88	279.03	0.896	251.34	10.0	34.708	D
3 - Main St	159.00	223.47	171.96	0.925	156.41	8.2	48.888	E

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	104.00	40.18	237.07	0.439	103.94	0.8	6.757	A
2 - R120 E	257.00	38.95	276.54	0.929	256.18	10.8	40.272	E
3 - Main St	175.00	213.87	176.55	0.991	168.74	14.5	73.913	F

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	103.00	48.98	233.03	0.442	102.99	0.8	6.920	A
2 - R120 E	254.00	44.95	273.59	0.928	253.58	11.2	41.904	E
3 - Main St	172.00	207.80	179.44	0.959	171.00	15.5	85.329	F

2026 wdev, PM

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	42.54	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	42.54	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2026 wdev	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R120 N		✓	100.000
2 - R120 E		✓	100.000
3 - Main St		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

17:00 - 17:15

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	152.00	83.00
	2 - R120 E	139.00	0.00	86.00
	3 - Main St	90.00	38.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	130.00	64.00
	2 - R120 E	153.00	0.00	98.00
	3 - Main St	65.00	32.00	0.00

Demand (PCU/TS)

17:30 - 17:45		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	135.00	62.00
	2 - R120 E	164.00	0.00	74.00
	3 - Main St	78.00	43.00	0.00

Demand (PCU/TS)

17:45 - 18:00		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	109.00	72.00
	2 - R120 E	159.00	0.00	98.00
	3 - Main St	97.00	38.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0	0	0
	2 - R120 E	0	0	0
	3 - Main St	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R120 N	0.99	40.05	13.3	E
2 - R120 E	0.99	59.34	17.0	F
3 - Main St	0.66	12.80	1.9	B

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	235.00	37.57	238.26	0.986	221.65	13.3	40.053	E
2 - R120 E	225.00	78.29	257.19	0.875	219.23	5.8	21.257	C
3 - Main St	128.00	135.43	214.03	0.598	126.55	1.4	10.129	B

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	194.00	32.13	240.76	0.806	202.75	4.6	27.469	D
2 - R120 E	251.00	67.20	262.64	0.956	245.32	11.5	40.935	E
3 - Main St	97.00	149.59	207.27	0.468	97.55	0.9	8.245	A

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	197.00	42.77	235.88	0.835	196.82	4.8	22.728	C
2 - R120 E	238.00	62.01	265.19	0.897	239.28	10.2	37.191	E
3 - Main St	121.00	163.97	200.39	0.604	120.41	1.5	11.169	B

17:45 - 18:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	181.00	38.00	238.07	0.760	182.40	3.4	16.578	C
2 - R120 E	257.00	72.16	260.20	0.988	250.19	17.0	59.340	F
3 - Main St	135.00	155.51	204.44	0.660	134.60	1.9	12.803	B

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519
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Filename: Rathcoole R120 Main St 2031 wod.j10
Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi 2023\ARCADY
Report generation date: 08/03/2023 13:50:14

»2031 wod, AM
»2031 wod, PM

Summary of junction performance

		AM					PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
					2031 wod					
1 - R120 N		0.9	7.29	0.47	A		24.4	62.59	1.06	F
2 - R120 E	D1	33.6	112.56	1.03	F	D2	46.3	138.47	1.07	F
3 - Main St		47.9	233.85	1.10	F		2.4	15.45	0.72	C

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

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

File summary

File Description

Title	Rathcoole R120 Main St Roundabout
Location	
Site number	
Date	06/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2031 wod	AM	DIRECT	08:00	09:00	60	15
D2	2031 wod	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 wod, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	130.45	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	130.45	F

Arms

Arms

Arm	Name	Description	No give-way line
1	R120 N		
2	R120 E		
3	Main St		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - R120 N	3.50	4.80	5.0	5.0	28.0	45.0		
2 - R120 E	3.75	5.50	10.0	5.0	28.0	45.0		
3 - Main St	3.65	5.00	10.0	5.0	28.0	45.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1 - R120 N	0.459	255.501
2 - R120 E	0.492	295.692

3 - Main St	0.478	278.755

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2031 wod	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R120 N		✓	100.000
2 - R120 E		✓	100.000
3 - Main St		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	71.00	21.00
	2 - R120 E	269.00	0.00	25.00
	3 - Main St	134.00	22.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	72.00	36.00
	2 - R120 E	239.00	0.00	29.00
	3 - Main St	136.00	33.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	70.00	42.00
	2 - R120 E	231.00	0.00	46.00
	3 - Main St	142.00	45.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	62.00	48.00
	2 - R120 E	224.00	0.00	49.00
	3 - Main St	130.00	53.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0	0	0
	2 - R120 E	0	0	0
	3 - Main St	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R120 N	0.47	7.29	0.9	A
2 - R120 E	1.03	112.56	33.6	F
3 - Main St	1.10	233.85	47.9	F

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	92.00	20.53	246.08	0.374	91.41	0.6	5.797	A
2 - R120 E	294.00	20.87	285.43	1.030	272.66	21.3	46.978	E
3 - Main St	156.00	249.47	159.53	0.978	145.57	10.4	48.274	E

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	108.00	30.66	241.43	0.447	107.79	0.8	6.723	A
2 - R120 E	268.00	35.87	278.05	0.964	267.63	21.7	75.409	F
3 - Main St	169.00	239.16	164.46	1.028	159.94	19.5	99.408	F

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	112.00	39.81	237.24	0.472	111.92	0.9	7.177	A
2 - R120 E	277.00	41.94	275.07	1.007	270.12	28.6	93.334	F
3 - Main St	187.00	226.52	170.50	1.097	169.10	37.4	165.643	F

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	110.00	48.13	233.42	0.471	110.00	0.9	7.291	A
2 - R120 E	273.00	47.94	272.11	1.003	268.01	33.6	112.565	F
3 - Main St	183.00	220.29	173.48	1.055	172.51	47.9	233.854	F

2031 wod, PM

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	85.17	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	85.17	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2031 wod	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
1 - R120 N		✓	100.000
2 - R120 E		✓	100.000
3 - Main St		✓	100.000

Origin-Destination Data

Demand (PCU/TS)

17:00 - 17:15

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	163.00	89.00
	2 - R120 E	149.00	0.00	92.00
	3 - Main St	96.00	41.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	1 - R120 N	0.00	140.00	68.00
	2 - R120 E	165.00	0.00	105.00
	3 - Main St	70.00	34.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	**1 - R120 N**	0.00	145.00	67.00
	2 - R120 E	176.00	0.00	79.00
	3 - Main St	84.00	46.00	0.00

Demand (PCU/TS)

17:45 - 18:00

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	**1 - R120 N**	0.00	117.00	77.00
	2 - R120 E	171.00	0.00	105.00
	3 - Main St	104.00	41.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - R120 N	2 - R120 E	3 - Main St
From	**1 - R120 N**	0	0	0
	2 - R120 E	0	0	0
	3 - Main St	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - R120 N	1.06	62.59	24.4	F
2 - R120 E	1.07	138.47	46.3	F
3 - Main St	0.72	15.45	2.4	C

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	252.00	40.46	236.94	1.064	227.61	24.4	60.555	F
2 - R120 E	241.00	80.38	256.16	0.941	231.58	9.4	29.851	D
3 - Main St	137.00	143.18	210.33	0.651	135.20	1.8	11.718	B

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	208.00	34.19	239.81	0.867	224.10	8.3	62.591	F
2 - R120 E	270.00	73.90	259.35	1.041	253.68	25.7	75.304	F
3 - Main St	104.00	155.09	204.64	0.508	104.75	1.1	9.075	A

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service

1 - R120 N	212.00	45.67	234.54	0.904	211.77	8.5	37.935	E
2 - R120 E	255.00	67.02	262.73	0.971	254.64	26.1	94.753	F
3 - Main St	130.00	173.72	195.73	0.664	129.16	1.9	13.348	B

17:45 - 18:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - R120 N	194.00	40.99	236.69	0.820	197.50	5.0	24.598	C
2 - R120 E	276.00	77.70	257.48	1.072	255.81	46.3	138.473	F
3 - Main St	145.00	160.34	202.13	0.717	144.48	2.4	15.445	C