

MONAGHAN COUNTY COUNCIL

Dublin Street North Regeneration

Traffic Statement

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1 Executive Summary

The Proposed Scheme

The proposed scheme includes the development of a Russell Row link road to the northeast of Dublin Street, which will feature a 48-space car park and public open space. As part of the plan, enhancements to Dublin Street will reduce the current allocation of 25 car parking spaces to 17 relocating these spaces to the proposed Russell Row Car Park

The Diamond Car Park will also undergo enhancements, with the number of parking spaces reduced from 66 to 43, alongside the introduction of a one-way access link road connecting to Russell Row.

Similarly, Old Cross Square will see its parking spaces reduced from 34 to 26 (spaces will be reallocated to Russell Row), with a proposed two-way access road linking Dublin Street to Russell Row.

The reallocation of parking includes an additional nine spaces overall within the subject area with total existing parking of 125 spaces within the subject area increasing to 134. Please refer to Figure 1.



Figure 1: Proposed Russell Row Development and Key Areas



Impact on Surrounding Road Network

While this Traffic Statement (TS) considers the introduction of Russell Row across all modes of transport in terms of vehicle impact the assessment is based on the introduction of ten additional parking spaces only. Therefore, the traffic impact within the study area if extremely low. Furthermore, within the Flow Diagrams (Appendix A) the percentage increase seems high due to the current traffic levels being so low.

Future Russell Row Development Plots 1 & 2

While this application assesses the introduction of Russell Row and the proposed 48 car parking spaces; Russell Row also opens lands for two additional development plots 'Plot 1, 2A and 2B', please refer to Figure 2 which indicates Dublin Street North Regeneration Masterplan.



Figure 2: Dublin Street North Regeneration Masterplan

Each of the two development plots will be subject to a TS at them of their respective planning applications. However, consideration has been given to the traffic impact of the plots within this study.



Committed Development

In terms of committed development, the recently approved Civic Offices, and the proposed Aldi traffic generation has been added to the baseline traffic surveys as it is assumed they will be in operational in advance this Dublin Street North proposal.

High level consideration has also considered within this study in relation to the wider Roosky Lands development and recognition that at some point the Dublin Street Roundabout will require works to accommodate the wider development proposals traffic within the area. However, as will be demonstrated within this study this application as a negatable impact on the roundabout.

Non-Motorised Modes of Travel

There are multiple approaches to the proposed development which is well served by public transport.

The project is aligning with the CycleConnects initiative led by the National Transport Authority, Monaghan Town, including areas like Dublin Street, The Diamond, and Old Cross Square, will see significant upgrades to cycling infrastructure. The CycleConnects proposals aim to create a safer, more accessible network for cyclists, supporting sustainable travel across Ireland.

The design includes provision of dropped kerbs, tactile paving, no greater than 5% gradient within the site footways, accessible parking spaces and level access buildings thus ensuring barrier-free access for individuals with mobility impairments.

To ensure the ease of navigation along internal pedestrian routes tactile guidance has been incorporated.

Verifying compliance with relevant accessibility standards and guidelines, such as the European Standard EN 301549 and the Irish National Disability Authority (NDA) guidelines, to ensure that transportation infrastructure meets minimum accessibility requirements.

Non-motorised users are considered in further detail within Chapter 4 Receiving Environment.

Conclusion

In conclusion the proposed development in traffic terms will have a negatable impact as it involves a slight increase in terms of traffic and re-direction of existing traffic rather than being a significant traffic generator. The proposed development will provide significant benefit enabling access to future development lands using non-motorised modes which will all be assessed within their own right within this study.



2 Introduction

McAdam Design have commissioned Hoy Dorman (HD) to prepare a Traffic Assessment (TA) on behalf of Monaghan County Council (MCC) for the proposed development of lands situated to the northeast of Dublin Street. A full description of the proposed development is contained within the planning package. A key aspect of the proposed development in providing Russell Row is the proposed two-way access from Old Cross Square to all parts of the development and one-way (south-east) from the Diamond Carpark to Russell Row.

Area of Influence

The study area has been defined and described within the wider planning application package and EIAR and identified in Figure 3 below.



Figure 3: Proposed Project Location Plan

Scope

The scope of this TS is to evaluate the current transport environment to determine the potential transport impacts of the proposed development against the baseline conditions within the area. The assessment primarily considers the parking and open space elements of the scheme. While other aspects of the scheme will be developed separately (and subject to their own TS process) later, this scope will consider the cumulative impact of the land uses based on the available information within the surrounding road network.



3 Methodology

Our approach to the study aligns with both national and local policies and guidance frameworks. The methodology follows best practices, incorporating current standards and emerging recommendations. This approach is supported by key publications advocating this type of analysis, including:

- 'Guidelines for Traffic and Transport Assessments' by Transport Infrastructure Ireland
- 'Traffic Management Guidelines' by the Dublin Transportation Office & Department of the Environment and Local Government (May 2003)
- Monaghan County Development Plan 2019-2025

The methodology consists of various interconnected stages, outlined as follows:

Site Surveys / Audit

A site audit was conducted to consider the existing road network conditions and local infrastructure characteristics. This included evaluating the site's accessibility in terms of walking, cycling, and public transport. An inventory of the local road network was also created during this phase.

Baseline Traffic & Peak Hours

Baseline traffic was obtained from another planning application currently either approved or within planning process namely MCC Civic Offices, and Dublin Street South application. The traffic surveys were undertaken in 2022 with spot checks observed in 2023 at the Diamond and Dublin Street Roundabout to ensure no notable change in baseline traffic conditions. Peak hours for the surrounding road network were 08:00 - 09:00 and 16:45 – 17:45. This data formed the foundation for further analysis.

Development & Cumulative Traffic Generation

As part of the proposed scheme it is proposed to relocate parking spaces within the following areas.

	Existing	Proposed
Dublin Street	25	17
Old Cross Square	34	26
NEW – Russell Row	0	48
The Diamond	66	43
Totals	125	134



As the above table indicates, within the development area there will be a negligible increase in traffic generation associated with the 9 additional spaces provided. The Diamond carpark use was surveyed in 2023 and the ratios of that scale of carpark used to determine traffic generate in relation to the additional 9 spaces.

In terms of cumulative impact traffic generation, the following were considered.

- Russell Row additional development plots
- The Civil Office development (benefits from recent planning)
- Dublin Street South (planning application lodged).



Assessment Years & Trip Distribution

Assuming an opening year of 2030 and assessment years of 2035 and 2040 traffic generation within the assessment years will look at Dublin Street Roundabout in terms of cumulative impact. In terms of traffic distribution relating to the proposed parking at Russel Row, the 9 additional spaces within the area will be considered a minor re-distribution of traffic with the associated re-distribution of spaces within the study area. An assumption of 50% / 50% was made in relation of traffic approaching Russell Row to the proposed 48 new car parking spaces.

Network Impact

The specific impact of the proposed development on the local road network was analysed to identify which junctions required further assessment in accordance with Transport Infrastructure Ireland (TII) guidelines.

Network Assessment

Based on the findings from the previous stages, an operational assessment of the local road network was performed primarily in relation to the high-level assessment of cumulative impact. This structured approach ensures a comprehensive understanding of the proposed development's impact on local traffic and transport infrastructure.



4 Receiving Environment

This chapter provides an overview of the existing transport environment surrounding Dublin Street, The Diamond, The Diamond Car Park, and Old Cross Square in Monaghan Town focusing on road characteristics, parking provisions, active travel facilities, public transport services, and road conditions. Figure 4 indicates the main areas regarding receiving environment.



Figure 4: Proposed Russell Row Development and Key Areas

Dublin Street

Dublin Street is a primary route connecting Monaghan Town to major national roads (N54 and N2). The road surface condition is fair but shows signs of wear due to frequent vehicular use particularly from commercial traffic. The street width is narrow with limited space for on-street parking, there are no dedicated cycle lanes which restricts active travel options. The footpaths are well-maintained but narrow occasionally leading to overcrowding during peak pedestrian traffic periods.

The Diamond Junction

The Diamond is the central square and traffic hub of Monaghan Town. The road surface around The Diamond is generally in good condition, the current layout can lead to congestion during peak hours due to high pedestrian and vehicular activity.

Due to the nature of an old town layout the area has reduced dedicated cycling infrastructure

and while pedestrian crossings are well-placed the narrow road layout can create bottlenecks. Traffic management systems, including the signalised crossings, help to mitigate traffic congestion during peak periods.

Hoy**Dorman**

The Diamond Car Park

The Diamond Car Park is a small surface-level facility with clearly marked parking bays, including disabled access spaces. The car park surface is in reasonable condition and is accessible from surrounding roads, the car park is underutilised given its off-street parking solution, it plays a key role in alleviating on-street parking pressures in The Diamond / Dublin Street and surrounding areas.

The Diamond provides parking for the staff of the National Learning Network, staff arrived in the morning between 08:30 and 09:00, they left at staggered times from 15:00 however, all vehicles associated with the building had vacated the carpark by 17:15.

There were 4 vehicles which did not leave the carpark throughout both survey days, two of which had Garda notices on them for abandonment. Between 17:30 and 18:30 it was noted that 6 vehicles were parked and the drivers and passengers walked up to the apartment buildings. Although the carpark officially has 66 parking spaces it was noted that 5 vehicles parked in front of the Chinese Take Away unit (these were counted within the survey) and a drop off in front of the old cinema was also parked in. This was not from lack of available spaces.

During the daytime there was a high turnover of vehicles associated with shoppers, the evening there was a high turnover of people using the carpark to collect take away food from various outlets.

Old Cross Square

Old Cross Square provides on-street parking for local businesses and residents. The road surface condition is adequate but shows signs of aging in sections with minor cracking and uneven patches that will benefit from the proposed scheme. The Square's layout supports moderate traffic flows, though parking demand can result in congestion during peak hours. Pedestrian access is well-supported with footpaths however, cycling infrastructure remains absent but with plans in place to address this.

This carpark had a high turnover throughout the day associated with the convenience store. It was observed that at 10am there was a yoga class in one of the buildings next to the convince store, the carpark only had 1 available space for the next, hour however no additional double parking was noted during this time. The vehicles associated with the yoga class were quickly replaced with more shoppers and taxis that were waiting for calls.

Public Transport Services

Monaghan Town is primarily served by bus transport, with services connecting the town to nearby urban centres, including Dublin, Cavan, and Enniskillen. Key bus routes and stops relevant to Dublin Street, The Diamond, and Old Cross Square include:

• Bus Éireann Route 32 Dublin to Letterkenny: The service runs circa every 2 hours during peak times and offers the same service on weekends.



Monaghan (Bus Station)	ARR. DEP.	08:10 08:25	10:40 10:55	12:40 12:55	14:55 15:10	14:55 16:40 15:10 16:55		20:40 20:55	22:40 22:55	00:40 00:55
Monaghan (Bus Station)		07:30 P		07:45 P		12:00 P		2	18:00 P	
Monaghan (Opp Co. Council Offices)		07:34		07:48	12	2:05	14:15		18:05	

- Bus Éireann Route 162 Monaghan to Dundalk via Castleblayney: This service runs once a day departing Monaghan Bus Station at 07:30 and arriving back at 18:30 on weekdays only.
- Bus Éireann Route 175 Monaghan to Cavan: Timetables vary depending on the day, but there are typically 5 services per day.
- Bus Éireann Route 70 Monaghan to Drogheda via Ardee: This route operates seven times per day on weekdays, with reduced services on weekends.
 Monaghan (Bus Station)
 06:00 P
 08:00 P
 10:10 P
 12:10 P
 14:10 P
 16:10 P
 18:15 P

Timetables and frequency are subject to change based on the season and local demand however, these routes provide frequent and reliable service within and beyond Monaghan Town, supporting both local commuters and longer-distance travel.

TFI Local Link Routes provide the following services for Monaghan:



Figure 5 6: TFI Local Link Bus Routes

All 3 routes provide connectivity to Monaghan Bus Station to facilitate onward travel and provide connectivity to regional bus services.

Route MN1 to Tydavnet, with up to six daily return services Monday to Friday, and an additional evening service on Fridays. On Saturdays, the route will operate up to six daily return services, while Sundays will offer five daily return services. The enhanced MN1 route will offer improved connectivity for the communities of Knockatallon, Tydavnet, Scotstown and Ballinode with Monaghan Town also stopping at Woodlands, Dawson Street, North Road, Old



Cross Square, Cathedral, Latlorcan, Combilift, Monaghan Institute and Rooskey.

Route MN2 providing up to five daily return services Monday to Friday from Castleblayney with an additional evening service on Friday, up to six daily return services on Saturday and five daily return services on Sunday. The enhanced MN2 route will improve connectivity to the communities of Ardaghy Ballybay and Doohamlet to key areas in Monaghan Town, including Tully, The Glen, Old Cross Square, Coolshannagh, Ballyalbany, St. Macartan's and Monaghan Institute.

Route MN3 operates five daily return services from Monday to Friday, including an evening service on Fridays and Saturdays. Saturday services will offer up to six daily return trips, while Sundays will feature four daily return services. The enhanced MN3 route introduces new stops at the Leisure Centre, Cortolvin Road, and Killyconigan, enhancing connectivity to Dawson Street, North Road, Monaghan Hospital Rooskey, Tullygony and the communities of Tyholland, Glaslough, Emyvale, and Mullan.

Cycling - Active Travel Proposals for Monaghan (CycleConnects)

As part of the CycleConnects initiative led by the National Transport Authority, Monaghan Town, including areas like Dublin Street, The Diamond, and Old Cross Square, will see significant upgrades to cycling infrastructure. The CycleConnects proposals aim to create a safer, more accessible network for cyclists, supporting sustainable travel across Ireland.

Planned Cycle Routes Around Dublin Street and The Diamond (Separate Schemes)

The proposed project is aligning with the CycleConnects proposals which include a comprehensive cycling network across Monaghan Town, integrating both urban and interurban routes. For Dublin Street, the plan outlines a connected cycle route that links Monaghan's central areas, including The Diamond and Old Cross Square, to the broader county network. This will provide safer and more convenient routes for cyclists moving through town. Key proposals for Monaghan include:

- Urban Cycle Network: Dedicated cycle lanes along major roads, including Dublin Street, to enhance cyclist safety and encourage cycling as an alternative to car travel.
- Link to Greenways: Improved connections between urban cycle routes and existing greenways (off-road paths). While not directly passing through Dublin Street, the Monaghan Greenway will provide accessible leisure cycling options near the town.
- Pedestrian and Cyclist Enhancements: Shared spaces with enhanced pedestrian crossings, particularly around The Diamond and Old Cross Square, to improve safety for both pedestrians and cyclists in these busy areas.

Iso – Distance Mapping

Iso-distance maps are a specialised type of spatial representation used to visualise areas that share equal distance from a specific point of interest. Unlike traditional maps that focus on geographic distance, iso-distance maps prioritize the accessibility of locations based on the distance required to reach them, considering factors such as cycleways, footpaths, transportation modes and road networks.

These maps consist of contours or bands that indicate zones of equal distance radiating from a central point. Each contour represents the number of kilometres travelled. This allows users to see the spatial relationship between a location and its surroundings in terms of accessibility rather than raw distance.



Figure 7: Walking Iso Distances 1km & 2km Combined.



Figure 8: Cycling Iso Distances 2km & 5km Combined.



Figure 9: Driving Combined 5km, 10km, 15km & 20km Iso Distances.

5 Proposed Development

Please refer to project description within main planning application package, in terms of traffic impact the following elements are relevant.

The proposed scheme includes the development of a Russell Row link road to the northeast of Dublin Street, which will feature a 48-space car park and public open space. As part of the plan, enhancements to Dublin Street will reduce the current allocation of 25 car parking spaces to 17.

The Diamond Car Park will also undergo enhancements, with the number of parking spaces reduced from 66 to 43, alongside the introduction of a one-way access link road connecting to Russell Row.

Similarly, Old Cross Square will see its parking spaces reduced from 34 to 26, with a proposed two-way access road linking Dublin Street to Russell Row.

The reallocation of parking includes an additional 9 spaces overall within the subject area with total existing parking o 125 spaces within the subject area increasing to 134.

	Existing	Proposed
Dublin Street	25	17
Old Cross Square	34	26
NEW – Russell Row	0	48
The Diamond	66	43
Totals	125	134

Table 2: Parking Numbers



Figure 10: Parking Elements of The Proposed Scheme

6 Trip Generation & Distribution

Assessment Years and Growth Rates

In line with TII Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (October 2016), design years of 2035 and 2040 have been used in this assessment to represent a 5-year and 10-year design horizon for studying any identified impacts of the development on the existing surrounding roads network.

- 2022 Base Year (Survey Year).
- 2030 Opening Year (With / Without Development).
- 2035 Opening Year + 5 Year Forecast (With / Without Development).
- 2040 Opening Year + 10 Year Forecast (With / Without Development).

Central growth rates were applied to the base network traffic flows to allow for a reflective analysis of the future year scenarios. This will account for general traffic growth within the area, which will increase the amount of traffic on the base network.

National Roads Authority Growth Rates were obtained from the Project Appraisal Guidelines – Unit 5.3 'Traffic Forecasting' http://www.nra.ie/policy-publications/.

	From	To Year	Growth	Factor %	Notes
	Year		Rate		
G1	2022	2030	1.09579	9.58	Opening Year
G2	2022	2035	1.12178	12.18	+ 5 Years
G3	2022	2040	1.14839	14.84	+ 10 Years

Table 3: Growth Rates

The baseline traffic growth factors predicted by TII do not consider any national targets as per the 2023 Climate Action Plan to reduce vehicular kilometres on our roads by 20% However, for a robust assessment no reduction to the above TII forecast traffic growth factors has been applied.

Traffic Generation

Traffic generation has been generated using the surveys of the existing carparking within The Diamond car park. The numbers of vehicles parked were then factored down to generate a daily expected parking profile for the proposed 48 space Russel Row carpark.

It is expected 1 vehicle will be generated in the AM peak and 6 vehicles in the PM peak on a typical day. Details of the proposed traffic generation are contained in Appendix A.

Traffic Distribution

Given the extremely low levels of traffic generated by the proposed development i.e. 9 additional parking spaces the traffic distribution to the existing road network has been assumed 50% / 50% split from the North and South respectively. However, in terms of impact on the receiving environment all vehicles could arrive from a single direction is insignificant as traffic generation is so low.

7 Network Assessment

Figure 10 illustrates the network junctions which were considered as part of this study with the referencing carried out throughout the document, flow diagrams, modelling etc.



Figure 11: Network Junctions References

Impact on Surrounding Road Network

An impact is considered significant if the development-generated traffic exceeds 10% on normal networks or 5% on congested networks. Regardless of percentage impacts given the existing traffic on the existing junction at Old Cross Square the PM impact on arm B of junction 3 indicates a 40% increase. However, the percentage increase seems high due to the current traffic levels being so low i.e. existing traffic on arm B of junction 3 = 11 vehicles at opening year rising to 18 post construction and operational phase.

Please refer to Table 4 which is extracted from the flow diagrams contained in Appendix A. Junction 3 (Old Cross Square / Russell Row) was the only junction modelled as part of this proposed application. The impact on other junctions was negligible.

	JUNCTIONS IMPACT												
		JUNCTION 1			NCTION	2	JU	INCTION	3	JUNCTION 4			
Junction Arm Reference	e A	В	С	Α	В	С	Α	В	С	Α	В	С	D
ED 001 - 2022 Base Voar A	M 606	580	394	395	28	375	375	14	381	399	27	1264	972
Pb_001 - 2022 Base Teal	M 694	666	538	576	126	506	506	11	511	548	30	1256	898
02 - Committed Development Civil Offices ALDL Dublin Street South	M 8	8	16	16	0	16	16	0	16	16	72	43	31
P	M 1	1	2	2	0	2	2	0	2	2	62	134	110
ED 003 = 2030 Opening Year Factored from 2022	M 664	636	432	433	31	411	411	14	417	437	22	1377	1065
P	M 760	730	590	631	138	554	554	11	559	600	28	1372	984
ED 004 - Development Flows (Car Park) A	И 3	3	5	1	1	0	0	1	1	16	0	6	10
PD_004 = Development Flows (car Park)	M 3	3	5	2	2	0	0	7	7	17	0	10	7
Combined Opening Vest Flows 2030 + Committed + Development A	M 675	646	453	450	32	427	427	15	434	469	94	1426	1106
P	M 764	733	597	635	140	556	556	18	569	619	90	1516	1101
% Impact of Day Flows on Opening Year Base 2030 A	M 0.4	% 0.4%	1.1%	0.2%	3.2%	0.0%	0.0%	7.7%	0.3%	3.4%	0.0%	0.4%	0.9%
P	M 0.3	% 0.3%	0.8%	0.3%	1.4%	0.0%	0.0%	40.4%	1.3%	2.7%	0.0%	0.7%	0.6%

Table 4: Network Percentage Impact

Traffic Modelling

Although its appears obvious the impact of such a low volume of generated traffic will have in terms of modelling the precentage impact did exide 10% and therefore Junction 3 was modelled using PICADY software with the results contained in Figure

	AM								РМ										
	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	
									Base Ye	ear 20	22								
Stream B-AC	D1	0.0	0.5	7.13	0.01	A	0.11		392 %	D10	0.0	~1	0.00	0.00	Α	0.00		900 %	
Stream C-B		0.0	~1	0.00	0.00	Α	0.11		A [Stream B-AC]		0.0	~1	0.00	0.00	Α	0.00	~	۵	
									Opening	Year	2030								
Stream B-AC		0.0	0.5	7.28	0.01	A			349 %		0.0	~1	0.00	0.00	Α			900 %	
Stream C-B		0.0	~1	0.00	0.00	Α	0.11	A	[Stream B-AC]	ווט	0.0	~1	0.00	0.00	А	0.00	A	۵	
			Develop							oment Traffic									
Stream B-AC	D3	0.0	~1	0.00	0.00	Α	0.00	0.00 F	900 %	D12	0.0 ~1	0.00	0.00	Α	0.00	F	900 %		
Stream C-B		0.0	~1	0.00	0.00	Α			. D	0	012	0.0	~1	0.00	0.00	Α	0.00		۵
								Open	ing Year 2	030 +	Dev Fl	ows							
Stream B-AC		0.0	0.5	7.28	0.01	Α	0.01	21 A		348 %	012	0.0	0.5	7.92	0.02	Α	0.00		231 %
Stream C-B	04	0.0	0.5	7.33	0.01	A	0.21		[Stream B-AC]		0.0	0.5	7.98	0.02	А	0.22	A	[Stream B-AC]	
								5 years - A	ssessment	t year	2035 +	Dev Flo	ows						
Stream B-AC		0.0	0.5	7.32	0.02	A			337 %		0.0	0.5	7.38	0.02	A			322 %	
Stream C-B	05	0.0	0.5	7.37	0.01	A	0.21	A	[Stream B-AC]	D14	0.0	0.5	7.40	0.02	Α	0.31	A	[Stream B-AC]	
							+ 1	10 years - <i>1</i>	Assessmen	it yea	r 2040 +	Dev Fl	ows						
Stream B-AC		0.0	0.5	7.36	0.02	А			327 %		0.0	0.5	8.05	0.02	А			216 %	
Stream C-B	D6	0.0	0.5	7.41	0.01	А	0.21	A	[Stream B-AC]	D15	0.0	0.5	8.10	0.02	А	0.22	A	[Stream B-AC]	

Table 5: Modelling Results for Junction 3

The results of the modelling demonstrate that the proposed development has no impact. Detailed modelling outputs are contained in Appendix B. As can be seen within the modelling results the additional traffic will have marginal impact on the junction in terms of capacity. There remains significant capacity at the junction.



Mitigation Strategy

The new proposed junction of Russell Row and Dublin Street will be designed to an appropriate standard to facilitate all users. Given the negligible increase in traffic the mitigation is the junction design itself.

8 Cumulative Impacts / Committed Development

Future Development Plots 1 & 2 on Russel Row

To ensure a robust assessment as a form of sensitivity the traffic generation from Plot 1, 2A and 2B as outlined in Figure 8 have also been taken into consideration.



Figure 1213: 14Dublin Street North Regeneration Masterplan

	Dublin S		AM		PM						
Location	Land Use	Total	TRICS Unit	Units (no.) / Area (sqm)		ARRIVAL	DEPARTURE	TOTAL	ARRIVAL	DEPARTURE	TOTAL
1	Residential	1665	Per Unit	No. Units	20	2	6	8	7	4	11
	Retail - Local Shops	311			311	3	2	5	3	4	7
20	Residential	2475	Per Unit	No. Units	31	4	9	13	11	6	18
24	Retail - Local Shops	273			273	2	2	4	3	3	6
2B	Retail - Local Shops	490			490	4	3	7	5	6	12
	1	15	23	38	30	24	54				

Traffic generation for the above plots were calculated as follows:

Retail trips discounted by 70% to account for local walk in and dual purpose trips

Table 6: Traffic Generation for Additional Plots

The now approved Civic Centre has been taken into consideration as committed development.

	Civio		AM		PM						
Location	Land Use	Total	TRICS Unit	Units (no.) / Area (sqm)		ARRIVAL	DEPARTURE	TOTAL	ARRIVAL	DEPARTURE	TOTAL
1	1 Civic Offices 5601 per 100 sqm 5601							71	4	57	61
Retail trips	discounted by 70% to account for local wall										

Table 7: Traffic Generation for Civic Centre

The above traffic generation was added to the flow diagrams to give an overall percentage impact of the potential three development plots and of the approved Civic Centre. Please refer to Appendix A for flow diagrams.

		JUNCTIONS IMPACT												
		JUNCTION 1			JL	INCTION	CTION 2 J			UNCTION 3		JUNCTION 4		
Junction Arm Refe	Junction Arm Reference			С	Α	В	С	Α	В	С	Α	В	С	D
ED 005 - Development Plote	AM	4	4	7	7	7	0	0	23	23	23	0	19	4
Tb_003 - bevelopment Hota	PM	6	6	11	11	11	0	0	35	35	35	0	28	7
Combined Opening Year Flows - 2030 + Committed + Development	AM	675	646	453	450	32	427	427	15	434	469	94	1417	1097
combined opening real nows - 2000 Committee - bevelopment	PM	764	733	597	635	140	556	556	18	569	619	90	1424	1009
% Impact of Dev Flows on Opening Year Base - 2030	AM	0.6%	0.6%	1.7%	1.7%	23.7%	0.0%	0.0%	150%	5.2%	4.8%	0.4%	1.3%	0.3%
A impact of Dev Hows on Opening Teal Dase - 2000	PM	0.7%	0.8%	1.9%	1.8%	8.1%	0.0%	0.0%	191%	6.2%	5.7%	0.1%	2.0%	0.7%

Table 8: Percentage Impact of Potential Additional Plots & Approved Civic Centre

As demonstrated in Table 8 junctions 2, 3 and 4 have arms that are above 5% however it should be noted that these individual plots will be subject to their own Transport Assessments at time of respective planning applications.

The modelling software was rerun to include the committed development and the potential additional development plots.

		A	м				РМ							
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS		Set ID	Queue (PCU)	Delay (s)	RFC	LOS			
		2022	Base					2022	Base					
A - Macartan Road		2.8	26.02	0.74	D	A - Macartan Road		3.0	21.05	0.76	с			
B - Old Cross Square (N)		2.6	25.02	0.72	D	B - Old Cross Square (N)		6.4	46.07	0.88	E			
C - Slí Ógie Uí Dhufaigh	01	0.0	16.02	0.04	С	C - Slí Ógie Uí Dhufaigh	D1	0.2	26.02	0.15	D			
D - Old Cross Square (S)		8.8	50.05	0.91	F	D - Old Cross Square (5)		10.0	89.07	0.95	F			
		2030 - Op	ening Year					2030 - Op	ening Year		1			
A - Macartan Road		3.7	31.62	0.80	D	A - Macartan Road		3.1	21.18	0.76	С			
B - Old Cross Square (N)		4.1	36.27	0.81	E	B - Old Cross Square (N)		7.9	55.42	0.91	F			
C - Slí Ógie Uí Dhufaigh	D2	0.1	17.12	0.05	С	C - Slí Ógie Uí Dhufaigh	D2	0.2	26.59	0.15	D			
D - Old Cross Square (S)		21.0	102.59	1.01	F	D - Old Cross Square (S)		30.6	211.00	1.09	F			
		2035 - As	s Year + 5					2035 - As	Year + 5					
A - Macartan Road		4.1	34.35	0.81	D	A - Macartan Road		3.8	24.75	0.80	С			
B - Old Cross Square (N)		4.7	40.96	0.84	E	B - Old Cross Square (N)		14.8	94.71	0.99	F			
C - Slí Ógie Uí Dhufaigh	D3	0.1	17.43	0.05	С	C - Slí Ógie Uí Dhufaigh	D3	0.2	28.85	0.17	D			
D - Old Cross Square (S)		26.8	124.28	1.03	F	D - Old Cross Square (S)		44.7	332.89	1.15	F			
		2040 - Ass	Year + 10					2040 - Ass	Year + 10					
A - Macartan Road		4.5	37.54	0.83	E	A - Macartan Road		4.7	29.70	0.83	D			
B - Old Cross Square (N)		5.5	46.89	0.86	E	B - Old Cross Square (N)		26.2	149.88	1.05	F			
C - Slí Ógie Uí Dhufaigh	D4	0.1	17.75	0.05	С	C - Slí Ógie Uí Dhufaigh	D4	0.2	30.32	0.19	D			
D - Old Cross Square (S)		33.8	149.57	1.06	F	D - Old Cross Square (S)		58.7	457.48	1.20	F			
		Committed I)evelopment					Committed [)evelopment		1			
A - Macartan Road		0.1	7.36	0.06	Α	A - Macartan Road		0.0	0.00	0.00	Α			
B - Old Cross Square (N)		0.0	5.70	0.03	Α	B - Old Cross Square (N)		0.0	0.00	0.00	Α			
C - Slí Ógie Uí Dhufaigh	D5	0.0	9.73	0.02	Α	C - Slí Ógie Uí Dhufaigh	D5	0.2	13.86	0.19	В			
D - Old Cross Square (S)		0.0	5.28	0.05	Α	D - Old Cross Square (S)		0.0	0.00	0.00	Α			
		Developm	ent Flows					Developm	ent Flows					
A - Macartan Road		0.0	6.96	0.01	Α	A - Macartan Road		0.0	0.00	0.00	A			
B - Old Cross Square (N)		0.0	5.84	0.01	Α	B - Old Cross Square (N)		0.0	4.76	0.02	Α			
C - Slí Ógie Uí Dhufaigh	00	0.0	0.00	0.00	Α	C - Slí Ógie Uí Dhufaigh	00	0.0	0.00	0.00	Α			
D - Old Cross Square (S)		0.0	0.00	0.00	Α	D - Old Cross Square (S)		0.0	0.00	0.00	Α			
		Developn	ient Plots					Developm						
A - Macartan Road		0.0	0.00	0.00	Α	A - Macartan Road		0.0	0.00	0.00	Α			
B - Old Cross Square (N)	D7	0.0	5.81	0.02	Α	B - Old Cross Square (N)	0.7	0.0	4.81	0.03	Α			
C - Slí Ógie Uí Dhufaigh		0.0	0.00	0.00	Α	C - Slí Ógie Uí Dhufaigh		0.0	0.00	0.00	Α			
D - Old Cross Square (S)		0.0	5.23	0.01	Α	D - Old Cross Square (S)		0.0	8.39	0.02	Α			
	Combin	ed Opening Year 20	30 (Base+Co	nmitted	Dev)		Combin	ed Opening Year 20	30 (Base+Co	nmitted	Dev)			
A - Macartan Road		5.2	42.81	0.85	E	A - Macartan Road		3.1	21.39	0.77	C			
B - Old Cross Square (N)	DS	5.7	49.78	0.87	E	B - Old Cross Square (N)	DB	8.2	57.52	0.92	F			
C - Slí Ógie Uí Dhufaigh		0.1	17.71	0.08	C	C - Slí Ógie Uí Dhufaigh		1.1	48.90	0.54	E			
D - Old Cross Square (S)		32.6	145.21	1.05	F	D - Old Cross Square (S)		32.6	226.32	1.10	F			
	Combi	ned Opening Year 2	030 + Develo	pment l	loes		Combir	ed Opening Year 2	030 + Develo	pment F	lows			
A - Macartan Road		5.7	46.24	0.86	E	A - Macartan Road		3.2	21.55	0.77	C			
B - Old Cross Square (N)	D9	6.3	54.06	0.88	F	B - Old Cross Square (N)	De	10.0	67.86	0.94	F			
C - Slí Ógie Uí Dhufaigh	55	0.1	17.81	0.08	С	C - Slí Ógie Uí Dhufaigh		1.1	50.08	0.55	F			
D - Old Cross Square (S)		33.8	149.62	1.06	F	D - Old Cross Square (S)		34.7	245.78	1.11	F			
	Combin	ed Opening Year 20	30 + Dev Flov	vs + Dev	/ Plots		Combine	ed Opening Year 20	30 + Dev Flov	vs + Dev	Plots			
A - Macartan Road		5.8	47.44	0.87	E	A - Macartan Road		3.3	22.08	0.77	C			
B - Old Cross Square (N)	D10	8.0	65.59	0.92	F	B - Old Cross Square (N)	D10	14.9	93.47	0.99	F			
C - Slí Ógie Uí Dhufaigh		0.1	18.04	0.09	С	C - Slí Ógie Uí Dhufaigh	2.10	1.2	52.02	0.56	F			
D - Old Cross Square (S)		36.9	160.89	1.07	F	D - Old Cross Square (S)		38.3	278.42	1.12	F			

Table 9: Modelling Outputs Committed Development

As demonstrated in Table 9 the development plots have no material change on the 2030 factored modelling+ however, Junction 4 requires redevelopment without the proposed scheme. There is sufficient residual capacity at Junction 3.

South Dublin Street & Backlands - New Aldi Store Development

Two planned development schemes have been incorporated into this traffic assessment, as outlined below:



South Dublin Street & Backlands Regeneration Project (ABP Ref. JA18.314501):

• This project focuses on a significant urban renewal initiative in Monaghan town centre, involving the demolition of existing buildings, the creation of a new street and civic space (Charles Gavan Duffy Place), and enhancements to the public realm along South Dublin Street. Planned improvements include updated paving, lighting, drainage, and other related infrastructure. Although the project does not introduce additional traffic to the network, it is predicted there will be a net reduction in traffic at the Old Cross Square Roundabout, with an estimated decrease of 30 vehicles during the AM peak and 67 vehicles in the PM peak hour.

New Aldi Store Development (Planning Reference 17453 / 22240, ABP Ref. PL18.301542):

• This proposal includes a new Aldi store west of the Old Cross Square junction.

Table 10 illustrates and comments on the wider cumulative impact of both committed development and future schemes. Traffic modelling has been undertaken in relation to this application in relation to the additional 9 parking spaces and for the development plots.

Phase	Development	Development	Opening	Assessment	Traffic Impact
	(s)	(s)	Year		
1	Proposed Development i.e. addition of 9no car parking spaces	Dublin St North	2030 (Approx.)	Quantitative Assessment – Traffic modelling	Virtually no traffic impacts as the scheme only adds 10no car parking spaces. Junction 3 modelling demonstrates no issues relating to capacity at this junction. Refer to Section 7 Network Assessment of this study for results.
2	Cumulative 1 Committed Development	Dublin St North + Civic Offices + Aldi	2030 (Approx.)	Quantitative Assessment – Traffic Modelling	As above. Noted that Civic Offices and Aldi will increase 'saturation' at the roundabout, but both schemes are treated as committed developments and their traffic impacts have been assessed at planning stage in their own right. Furthermore, the traffic generation has been included within opening year traffic volumes for this scheme as respective schemes will be operational at time of opening this subject planning application.
3	Cumulative 2 Committed Development + Applications submitted but not yet determined.	Dublin St North + Civic Offices + Aldi + Dublin St South	2030 (Approx.)	Qualitative Assessment. DSS has negative traffic generation so we can say no impact on roundabout	No additional impact to above as the Dublin Street South proposal has a reduction of generated traffic on Dublin Street. However, traffic generated by the Dublin Street South scheme has been included within the opening year 2030 base flows as its assumed that scheme will be in place in advance of this application proposal.

Phase	Development	Development	Opening	Assessment	Traffic Impact
	(s)	(s)	Year		
4a	Cumulative 3 As above + DSN Development Plots	Dublin St North + Civic Offices + Dublin St South + DSN Development Plots	Not known at this time	Quantitative Assessment – Traffic Modelling.	Dublin Street North Developments will be subject to their own traffic assessments as part of the planning stage. Furthermore, the generated traffic numbers are very low and will not have a significant impact on the surrounding road network.
4b	Cumulative 4 As above + DSS Plots + Roosky Masterplan lands	Dublin St North + Civic Offices + Dublin St South + DSN Development Plots + (Roosky Lands + DSS Development Plots)	Not known at this time	Qualitative Assessment	The wider Roosky Masterplan lands are not expected to have a significant impact on the Dublin Street North development. When the Roosky Masterplan is implemented modifications to the Dublin Street Roundabout would be required to cater for the additional future demand.

Table 1011: Wider Cumulative Impact of Committed Development



Considered Assessment of Dublin Street Roundabout

The current roundabout configuration is expected to remain suitable through the 2030 opening year and potentially until the 2035 future design year, provided the phasing schedule outlined in this report for the masterplan lands is followed. Beyond this period, the analysis of junction modelling results indicates that adjustments to the existing junction layout would be necessary to accommodate increased future demand.

While this study acknowledges the wider Roosky Masterplan will have an impact on the Dublin Street Roundabout, consideration of modifications should be considered as part of future planning applications.

9 **Construction Phase**

Impact Projection Methodology

The project will involve the use of heavy construction vehicles and machinery. Traffic management arrangements will be in place including a Traffic Management Plan to consider both onsite and offsite traffic related control measures. The Traffic Management plan will clearly outline the proposals for minimising the impact of his site traffic on the public, the project stakeholders and local property owners.

Monaghan County Council will ensure that any traffic management systems in place on the site access roads are included in the traffic management and safety plan particularly in relation to traffic movements at the entrance to the site. The plan will also comply with Cavan County Council and An Garda Síochána requirements. Temporary Road Signage will be placed as per current guidelines.

All works impacting on public roads surrounding the site should be conducted in compliance with all relevant statutory procedures.

The outline construction programme is set out below:

ID	0	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1		-4						
2		-4	DSN CONSTRUCTION PROGRAMME	690 days	Mon 06/01/	2Fri 27/08/27		
3		-4	Site Clearance, Demolitions, Reduced Levels - Phase 1	60 days	Mon 06/01/25	Fri 28/03/25		
4		-4	Scrub, vegetation, loose materials	2 wks	Mon 06/01/	2Fri 17/01/25		General Construc
5		4	Above ground - Buildings Demolition, incl crushing & export (incl Haul Rd - OSC to Russell Row)	4 wks	Mon 20/01/25	Fri 14/02/25	4	McA to Quantify Plant
6		4	Below ground - foundations, incl crushing, concrete / rock breaking & export	2 wks	Mon 17/02/25	Fri 28/02/25	5	McA to Quantify Plant
7		-4	Russell Row, Development Plots, Events Space, Tiered Garden - reduce levels	4 wks	Mon 03/03/25	Fri 28/03/25	6	McA to Quantify Plant
8		-4	Works Construction - Phase 1	340 days	Mon 31/03/	2Fri 17/07/26	i i	
9		-	Diamond Car Park, Russell Row, Development Plots, Events Space, Tiered Garden - construction works to subbase levels, incl utilities, drainage, kerbing &	42 wks	Mon 31/03/25	Fri 16/01/26	7	General Construction Plant
10		-4	Reduced levels dig Russell Row>OSC & OSC incl export of material off site	, 6 wks	Mon 19/01/26	Fri 27/02/26	9	McA to Quantify Plant
11	*	*	Russell Row>OSC & OSC - construction works to subbase levels, incl utilities, drainage, kerbing & boundary walls /	20 wks	Mon 02/03/26	Fri 17/07/26	10	General Construction Plant
12		-4	Works Construction - Phase 2	200 days	Mon 02/03/	2Fri 04/12/26		
13	*	•	Diamond Car Park, Russell Row, Development Plots, Events Space, Tiered Garden - Surfacing, Landscaping, Paving,	30 wks	Mon 02/03/26	Fri 25/09/26	10	General Construction Plant
14	*	4	Russell Row>OSC & OSC - Surfacing, Landscaping, Paving, Street Furniture	20 wks	Mon 20/07/26	Fri 04/12/26	11	General Construction
15		-4	Works Construction - Phase 3	120 days	Mon 07/12/	2Fri 21/05/27		
16	*	-4	Dublin St - incl utilities, drainage, kerbing	17 wks	Mon 07/12/	2 Fri 02/04/27	14	General Construc
17	*	4	Dublin St - Surfacing, Landscaping, Paving, Street Furniture	17 wks	Mon 25/01/27	Fri 21/05/27	16FS-10 wks	General Construction
18		-4	Works Construction - Phase 4	50 days	Mon 24/05/	2Fri 30/07/27		
19		-4	Community Garden	10 wks	Mon 24/05/	2Fri 30/07/27	17	General Construct
20		-4	Works Construction - Phase 5	20 days	Mon 02/08/	2Fri 27/08/27		
21		-4	Final Landscaping, Finishes, Snagging, Clear	ni <mark>4 wks</mark>	Mon 02/08/	2Fri 27/08/27	19	General Construc
22		-4	Completion	0 days	Fri 27/08/27	Fri 27/08/27	21	

Table 1112: Outline Construction Programme

Table 12 sets out the expected construction vehicle traffic generated by construction on an average day. The number of HGV movement has been informed by the CMP and construction period from the scheme programme. The average LGV and staff trips have been assumed. No discounts of vehicles have been applied to ensure a robust assessment.

Constructi	Av	HGV's	Average Other Vehicles				Total Daily Constr. Traffic Trips				
Months	Weeks	week		Day		LGV		Staff		One-way	Two-way
20	80		165		30		20		12	62	124

Table 12: Two Way Movements Construction Phase

Construction Hours

The hours of construction activity will be limited to avoid unsociable hours. Construction works shall be restricted to between 08:00hrs and 18:00hrs on weekdays and between 08:00hrs and 13:00hrs on Saturdays. There will be no works carried out on Sundays or Bank Holidays.



Under certain, limited, circumstances Works outside these hours may be required, e.g., large deliveries, removal of plant or materials off-site, or works which require specific weather conditions. In these circumstances, the required works and working hours will be agreed in advance with the Local Authority and will be subject to a specific Traffic Management Plan and RAMS.

Emergency works for safety and/or environmental protection may also be required to extend outside of normal hours in the event of an incident at the site.

The Construction & Environmental Management Plan (CEMP), which accompanies the application, along with the Construction Traffic Management Plan (CTMP) to be prepared by the appointed contractor prior to the commencement of construction, and the Resource and Waste Management Plan (RWMP), will include a range of control measures and management initiatives aimed at minimizing the impact of construction activities on the local road network.

The impact during the construction phase is expected to be short-term (limited to the duration of construction). It is anticipated that heavy goods vehicle (HGV) movements will not exceed 3no. vehicles per hour throughout the day during the busiest period of construction. Additionally, peak construction traffic arrivals and departures will occur outside of peak traffic hours, thereby avoiding any further delays on the road network during those times. The spread of HGV movements is expected to be evenly distributed throughout the day, reducing the likelihood of significant impact during peak periods. The highest volume of HGV traffic is anticipated during the site clearance, demolitions, and earthworks phase, which is anticipated to last approximately 4 months.

All construction traffic to enter via the proposed entrance to Russell Row at Old Cross Square. This will require the Contractor to carry out the required demolition works to create this access in the earliest phase of his construction programme. Security will be in place at all entry points, with sufficient off-road queuing areas to prevent construction vehicles from backing up onto the existing road network.

Construction traffic will generally consist of the following:

- Private vehicles owned and driven by site staff and management.
- Construction vehicles such as excavation equipment, dump trucks, and material delivery trucks, amounting to approximately 3 HGV movements per hour.
- On-site employees are expected to arrive before 08:00, avoiding the morning peak hour traffic, and depart after 18:00.

Based on similar projects, a development of this scale would require a maximum of 20 construction workers on-site at any given time. With an estimated 30% of staff driving individually, 60% carpooling (average of 2.5 people per vehicle), and 10% being dropped off, this equates to approximately 124 two-way trips at the beginning and end of the workday.

Where feasible, contractor staff will commute via shared vehicles, public transportation, or other alternative modes. If public transport is not a practical option for staff, the contractor may arrange off-site parking at a suitable location. Construction vehicles will not be allowed to park on public roads unless designated or authorized to do so.



Local Constraints Requiring Mitigation During Construction

Dublin Street and Old Cross Square will remain open as much as possible during construction, with priority given to opening the permanent realigned route. However, due to the constrained nature of the area, short-term diversions may be necessary to ensure safe separation between the public and construction activities. A CEMP will be provided which will include measures to ensure safety of all road users.

Pedestrian Routes: Informal pedestrian routes crossing the site will be maintained wherever possible, although short-term closures or diversions may be necessary to ensure safety.

Construction Mitigation

Working hours will be limited to avoid unsociable hours. Construction works shall be restricted to between 08:00hrs and 18:00hrs on weekdays and between 08:00hrs and 13:00hrs on Saturdays. There will be no works carried out on Sundays or Bank Holidays.

10 Road Safety

A Stage 2 Road Safety Audit has been carried out for the scheme and is provided within the planning package within the EIAr. Unfortunately, due to RSA reviewing their road traffic collision (RTC) data sharing policies and procedures record-level RTC data is currently unavailable.

11 Environmental Impact

There was a full environmental impact undertaken for this proposed development.

Local Severance

Local severance refers to the physical and psychological barriers created by transportation infrastructure, which disrupt communities, restrict access to amenities, and contribute to social exclusion. There will be no local severance associated with this planning application.

12 Access for People with Disabilities

The integration of accessibility measures for people with disabilities is a critical aspect of transportation infrastructure development in Ireland. This chapter outlines the guidelines set forth by the Transport Infrastructure Ireland (TII) regarding the assessment and enhancement of accessibility within the transportation network for individuals with disabilities.

Legal Framework and Policy Context

The TII guidelines on access for people with disabilities align with national legislation, including the Disability Act 2005 and the National Disability Inclusion Strategy. These laws mandate the provision of accessible transportation infrastructure to ensure equal opportunities for all citizens, regardless of their physical abilities.

Physical Accessibility: The design includes provision of dropped kerbs, tactile paving, no greater than 5% gradient within the site footways, accessible parking spaces and level access buildings thus ensuring barrier-free access for individuals with mobility impairments.

Wayfinding and Navigation: To ensure the ease of navigation along internal pedestrian routes tactile guidance has been incorporated.

Compliance with Standards: Verifying compliance with relevant accessibility standards and guidelines, such as the European Standard EN 301549 and the Irish National Disability Authority (NDA) guidelines, to ensure that transportation infrastructure meets minimum accessibility requirements.

13 Conclusion

Traffic Impact

In conclusion the proposed development in traffic terms will have a minimal impact on the surrounding road network as it involves a redirection of existing traffic and a modest additional 9 car parking spaces within the subject area.

The proposed development will provide significant benefit enabling access to future development lands which will all be assessed within their own right.

Non-Motorised Modes of Travel

There are multiple approaches to the proposed development which is well served by public transport.

The project is aligning with the CycleConnects initiative led by the National Transport Authority, Monaghan Town, including areas like Dublin Street, The Diamond, and Old Cross Square, will see significant upgrades to cycling infrastructure. The CycleConnects proposals aim to create a safer, more accessible network for cyclists, supporting sustainable travel across Ireland.

Overall Impact of the Proposed Development

Given the result of this study, it is considered the traffic impact of the proposed is negligible to slight on the receiving environment.

Appendix A – Flow Diagrams

FD_001 = 2022 Base Year



FD_002 = Committed Development - Civil Offices, ALDI, Dublin Street South



FD_003 = 2030 Opening Year Factored from 2022






FD_004 = Development Flow	vs (Car Park)
---------------------------	---------------

Combined Opening Year Flows - 2030 + Committed + Development

% Impact of Dev Flows on Opening Year Base - 2030

AM	3	3	5	1	1	0	0	1	1	16	0	6	10
PM	3	3	5	2	2	0	0	7	7	17	0	10	7
AM	675	646	453	450	32	427	427	15	434	469	94	1426	1106
PM	764	733	597	635	140	556	556	18	569	619	90	1516	1101
AM	0.4%	0.4%	1.1%	0.2%	3.2%	0.0%	0.0%	7.7%	0.3%	3.4%	0.0%	0.4%	0.9%
PM	0.3%	0.3%	0.8%	0.3%	1.4%	0.0%	0.0%	40.4%	1.3%	2.7%	0.0%	0.7%	0.6%

984

 PM
 760
 730
 590
 631
 138
 554
 554
 11
 559
 600
 28
 1372





Hoy**Dorman**

Appendix B – Junctions 10 Modelling



1

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.1.1905

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solution

Filename: 240923_Old_Cross_Square_Junction.j10 Path: C:\Users\MartinHoy\OneDrive - Hoy & Dorman Ltd\2. Hoy Dorman\Civils\2022023_Monaghan_Dublin_Street\2.0 Work\2.2 Traffic\Modelling Report generation date: 09/04/2025 11:55:26

»Base Year 2022, AM
»Opening Year 2030, AM
»Development Traffic, AM
»Opening Year 2030 + Dev Flows, AM
»+ 5 years - Assessment year 2035 + Dev Flows, AM
»+ 10 years - Assessment year 2040 + Dev Flows, AM
»Base Year 2022, PM
»Opening Year 2030, PM
»Development Traffic, PM
»Opening Year 2030 + Dev Flows, PM
»+ 5 years - Assessment year 2035 + Dev Flows, PM
»+ 10 years - Assessment year 2040 + Dev Flows, PM



Summary of junction performance

						AM								F	PM			
	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Netwo Resid Capac
									Base Y	ear 2	022							
Stream B-AC		0.0	0.5	6.81	0.01	А	0.44		384 %	Dia	0.0	~1	0.00	0.00	А	0.00		900
Stream C-B		0.0	~1	0.00	0.00	А	0.11	A	[Stream B-AC]		0.0	~1	0.00	0.00	А	0.00	A	[]
		-					,		Opening	Year	2030		-	•			-	-
Stream B-AC		0.0	0.5	6.95	0.01	А			342 %		0.0	~1	0.00	0.00	А	0.00		900
Stream C-B	D2	0.0	~1	0.00	0.00	А	0.11	A	[Stream B-AC]	D11	0.0	~1	0.00	0.00	А	0.00	A	1
	Development Traffic																	
Stream B-AC	Da	0.0	~1	0.00	0.00	А	0.00	_	900 %	Dia	0.0	~1	0.00	0.00	А	0.00	_	900
Stream C-B	03	0.0	~1	0.00	0.00	А	0.00		13		0.0	~1	0.00	0.00	А	0.00		0
								Openir	ng Year 2	030 +	- Dev F	lows						
Stream B-AC	D4	0.0	0.5	6.96	0.01	А	0.04		338 %	DIO	0.0	0.5	7.59	0.02	А	0.04		222
Stream C-B	D4	0.0	0.5	7.37	0.01	А	0.21	A	[Stream C-B]	D13	0.0	0.5	8.05	0.02	А	0.21	A	[Strea C-B
							+ 5 ye	ears - As	sessmen	t yea	r 2035	+ Dev I	Flows				-	
Stream B-AC		0.0	0.5	7.00	0.01	А			327 %		0.0	0.5	7.05	0.02	А	0.00		317
Stream C-B	D5	0.0	0.5	7.42	0.01	А	0.21	A	[Stream C-B]	D14	0.0	0.5	7.45	0.02	А	0.30	A	[Strea B-AC
							+ 10 y	ears - As	sessmer	nt yea	ar 2040	+ Dev	Flows			•	-	<u>.</u>
Stream B-AC		0.0	0.5	7.04	0.02	А			318 %	DIE	0.0	0.5	7.72	0.02	А	0.04		208
Stream C-B	D6	0.0	0.5	7.46	0.01	А	0.21	A	[Stream C-B]	D15	0.0	0.5	8.19	0.02	А	0.21	A	[Strea C-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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	02/05/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\MartinHoy
Description	

Units

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



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75	~				~	Delay	0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	Base Year 2022	AM	ONE HOUR	08:00	09:30	15	~		
D2	Opening Year 2030	AM	ONE HOUR	08:00	09:30	15	~	Simple	D1*G1
D3	Development Traffic	AM	ONE HOUR	08:00	09:30	15	~		
D4	Opening Year 2030 + Dev Flows	AM	ONE HOUR	08:00	09:30	15	~	Simple	D2+D3
D5	+ 5 years - Assessment year 2035 + Dev Flows	AM	ONE HOUR	08:00	09:30	15	~	Simple	(D1*G2)+D3
D6	+ 10 years - Assessment year 2040 + Dev Flows	AM	ONE HOUR	08:00	09:30	15	~	Simple	(D1*G3)+D3
D10	Base Year 2022	PM	ONE HOUR	16:45	18:15	15	~		
D11	Opening Year 2030	PM	ONE HOUR	16:45	18:15	15	~	Simple	D10*G1
D12	Development Traffic	PM	ONE HOUR	16:45	18:15	15	~		
D13	Opening Year 2030 + Dev Flows	PM	ONE HOUR	16:45	18:15	15	~	Simple	D11+D12
D14	+ 5 years - Assessment year 2035 + Dev Flows	PM	ONE HOUR	16:45	18:15	15	~	Simple	(D1*G2)+D12
D15	+ 10 years - Assessment year 2040 + Dev Flows	PM	ONE HOUR	16:45	18:15	15	~	Simple	(D10*G3) +D12

Growth Factors

ID	Description	Use TEMPRO	Growth Factor
G1	2022 - 2030 - Opening Year		1.0958
G2	2022 - 2035 +5years from opening year of 2030		1.1218
G3	2022 - 2040 +10years from opening year of 2030		1.1484

Growth factors are only active if a Demand Set references them in a Relationship.

Analysis Set Details

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



Base Year 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.11	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	384	Stream B-AC	0.11	А

Arms

Arms

Arm	Name	Description	Arm type
Α	untitled		Major
в	untitled		Minor
С	untitled		Major

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)
С	5.30			50.0		-

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)
в	One lane	3.00	40	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	e Slope Slope for for A-C C-A		Slope for C-B
B-A	503	0.094	0.239	0.150	0.341
B-C	640	0.101	0.255	-	-
C-B	603	0.241	0.241	-	-

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 segment length (min)	Run automatically
D1	Base Year 2022	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	~	375	100.000
в		ONE HOUR	✓	6	100.000
С		ONE HOUR	✓	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		То					
		Α	в	С			
_	Α	0	4	371			
From	в	0	0	6			
	С	0	4	0			

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		То					
		Α	в	С			
F	Α	0	0	0			
From	в	0	0	0			
	С	0	0	0			

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.01	6.81	0.0	0.5	А	6	8
C-A						0	0
С-В	0.00	0.00	0.0	~1	А	0	0
A-B						4	6
A-C						340	511



Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	568	0.008	4	0.0	0.0	6.387	А
C-A	0	0			0				
С-В	0	0	535	0.000	0	0.0	0.0	0.000	A
A-B	3	0.75			3				
A-C	279	70			279				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	554	0.010	5	0.0	0.0	6.559	A
C-A	0	0			0				
С-В	0	0	522	0.000	0	0.0	0.0	0.000	A
A-B	4	0.90			4				
A-C	334	83			334				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	535	0.012	7	0.0	0.0	6.813	А
C-A	0	0			0				
С-В	0	0	504	0.000	0	0.0	0.0	0.000	А
A-B	4	1			4				
A-C	408	102			408				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	535	0.012	7	0.0	0.0	6.813	А
C-A	0	0			0				
С-В	0	0	504	0.000	0	0.0	0.0	0.000	A
ΑB	4	1			4				
A-C	408	102			408				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	554	0.010	5	0.0	0.0	6.559	A
C-A	0	0			0				
С-В	0	0	522	0.000	0	0.0	0.0	0.000	A
A-B	4	0.90			4				
A-C	334	83			334				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	568	0.008	5	0.0	0.0	6.387	А
C-A	0	0			0				
С-В	0	0	535	0.000	0	0.0	0.0	0.000	A
A-B	3	0.75			3				
A-C	279	70			279				



Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A



Opening Year 2030, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.11	А

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	342	Stream B-AC	0.11	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D2	Opening Year 2030	AM	ONE HOUR	08:00	09:30	15	~	Simple	D1*G1

Demand overview (Traffic)

Arm	Linked arm	ked arm Profile type Use O-D data		Average Demand (PCU/hr)	Scaling Factor (%)	
Α		ONE HOUR	✓	411	100.000	
в		ONE HOUR	✓	7	100.000	
С		ONE HOUR	✓	4	100.000	

Origin-Destination Data

Demand (PCU/hr)

	То							
		Α	в	С				
_	Α	0	4	407				
From	в	0	0	7				
	С	0	4	0				

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



	То						
		Α	в	С			
F	Α	0	0	0			
From	в	0	0	0			
	С	0	0	0			

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.01	6.95	0.0	0.5	А	6	9
C-A						0	0
С-В	0.00	0.00	0.0	~1	A	0	0
A-B						4	6
A-C						373	560

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	561	0.009	5	0.0	0.0	6.471	А
C-A	0	0			0				
С-В	0	0	528	0.000	0	0.0	0.0	0.000	A
ΑB	3	0.82			3				
A-C	306	77			306				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	1	546	0.011	6	0.0	0.0	6.665	А
C-A	0	0			0				
С-В	0	0	514	0.000	0	0.0	0.0	0.000	A
ΑB	4	0.99			4				
A-C	365	91			365				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	525	0.014	7	0.0	0.0	6.953	А
C-A	0	0			0				
С-В	0	0	494	0.000	0	0.0	0.0	0.000	А
A-B	5	1			5				
A-C	448	112			448				



08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	525	0.014	7	0.0	0.0	6.953	А
C-A	0	0			0				
С-В	0	0	494	0.000	0	0.0	0.0	0.000	А
A-B	5	1			5				
A-C	448	112			448				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	1	546	0.011	6	0.0	0.0	6.665	А
C-A	0	0			0				
С-В	0	0	514	0.000	0	0.0	0.0	0.000	А
A-B	4	0.99			4				
A-C	365	91			365				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	561	0.009	5	0.0	0.0	6.471	А
C-A	0	0			0				
С-В	0	0	528	0.000	0	0.0	0.0	0.000	A
ΑB	3	0.82			3				
A-C	306	77			306				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A



Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A



Development Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.00	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	900		0.00	F

Traffic Demand

Demand Set Details

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	~	0	100.000
в		ONE HOUR	✓	0.20	100.000
С		ONE HOUR	~	1	100.000

Origin-Destination Data

Demand (PCU/hr)

		То					
		Α	в	С			
-	Α	0	0	0			
From	в	0	0	0.20			
	С	0	1	0			

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



	То						
		Α	в	С			
F	Α	0	0	0			
From	в	0	0	0			
	С	0	0	0			

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	~1	А	0	0
C-A						0	0
С-В	0.00	0.00	0.0	~1	А	0	0
A-B						0	0
A-C						0	0

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	А
A-B	0	0			0				
A-C	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	0	0			0				



08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	А
A-B	0	0			0				
A-C	0	0			0				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	0	0			0				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	A
ΑB	0	0			0				
A-C	0	0			0				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A



Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A





Opening Year 2030 + Dev Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.21	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	338	Stream C-B	0.21	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D4	Opening Year 2030 + Dev Flows	AM	ONE HOUR	08:00	09:30	15	✓	Simple	D2+D3

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	~	411	100.000
в		ONE HOUR	✓	7	100.000
С		ONE HOUR	1	5	100.000

Origin-Destination Data

Demand (PCU/hr)

	То				
From		Α	в	С	
	Α	0	4	407	
	в	0	0	7	
	С	0	5	0	

HV data entry mode	PCU Factor for a HV (PCU)				
HV Percentages	2.00				



	То				
From		Α	В	С	
	Α	0	0	0	
	в	0	0	0	
	С	0	0	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.01	6.96	0.0	0.5	А	6	9
C-A						0	0
С-В	0.01	7.37	0.0	0.5	А	5	7
A-B						4	6
A-C						373	560

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	561	0.009	5	0.0	0.0	6.473	А
C-A	0	0			0				
С-В	4	1	528	0.008	4	0.0	0.0	6.864	A
ΑB	3	0.82			3				
A-C	306	77			306				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	546	0.011	6	0.0	0.0	6.667	А
C-A	0	0			0				
С-В	5	1	514	0.009	5	0.0	0.0	7.069	A
ΑB	4	0.99			4				
A-C	365	91			365				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	525	0.014	7	0.0	0.0	6.956	А
C-A	0	0			0				
С-В	6	1	494	0.012	6	0.0	0.0	7.374	А
A-B	5	1			5				
A-C	448	112			448				



08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	525	0.014	7	0.0	0.0	6.956	А
C-A	0	0			0				
С-В	6	1	494	0.012	6	0.0	0.0	7.374	А
A-B	5	1			5				
A-C	448	112			448				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	546	0.011	6	0.0	0.0	6.668	А
C-A	0	0			0				
С-В	5	1	514	0.009	5	0.0	0.0	7.072	А
A-B	4	0.99			4				
A-C	365	91			365				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	561	0.009	5	0.0	0.0	6.475	А
C-A	0	0			0				
С-В	4	1	528	0.008	4	0.0	0.0	6.867	A
A-B	3	0.82			3				
A-C	306	77			306				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
С-В	0.01	0.01	0.25	0.45	0.48			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A



Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker	
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A	
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A	



+ 5 years - Assessment year 2035 + Dev Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.21	А

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	327	Stream C-B	0.21	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D5	+ 5 years - Assessment year 2035 + Dev Flows	AM	ONE HOUR	08:00	09:30	15	~	Simple	(D1*G2)+D3

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
Α		ONE HOUR	~	421	100.000	
в		ONE HOUR	✓	7	100.000	
С		ONE HOUR	✓	5	100.000	

Origin-Destination Data

Demand (PCU/hr)

	То						
		Α	в	С			
Farm	Α	0	4	416			
From	в	0	0	7			
	С	0	5	0			

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



	То					
		Α	в	С		
F	Α	0	0	0		
From	в	0	0	0		
	С	0	0	0		

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.01	7.00	0.0	0.5	А	6	10
C-A						0	0
С-В	0.01	7.42	0.0	0.5	A	5	8
A-B						4	6
A-C						382	573

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	559	0.009	5	0.0	0.0	6.496	А
C-A	0	0			0				
С-В	4	1	527	0.008	4	0.0	0.0	6.888	A
ΑB	3	0.84			3				
A-C	313	78			313				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	544	0.011	6	0.0	0.0	6.697	А
C-A	0	0			0				
С-В	5	1	512	0.010	5	0.0	0.0	7.100	A
ΑB	4	1			4				
A-C	374	94			374				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	522	0.015	8	0.0	0.0	6.995	А
C-A	0	0			0				
С-В	6	2	491	0.012	6	0.0	0.0	7.415	А
A-B	5	1			5				
A-C	458	115			458				



08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	522	0.015	8	0.0	0.0	6.995	А
C-A	0	0			0				
С-В	6	2	491	0.012	6	0.0	0.0	7.415	А
A-B	5	1			5				
A-C	458	115			458				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	544	0.011	6	0.0	0.0	6.699	А
C-A	0	0			0				
С-В	5	1	512	0.010	5	0.0	0.0	7.103	А
A-B	4	1			4				
A-C	374	94			374				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	559	0.009	5	0.0	0.0	6.496	A
C-A	0	0			0				
С-В	4	1	527	0.008	4	0.0	0.0	6.891	A
ΑB	3	0.84			3				
A-C	313	78			313				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
С-В	0.01	0.01	0.25	0.45	0.48			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A



Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A



+ 10 years - Assessment year 2040 + Dev Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.21	А

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	318	Stream C-B	0.21	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D6	+ 10 years - Assessment year 2040 + Dev Flows	AM	ONE HOUR	08:00	09:30	15	~	Simple	(D1*G3)+D3

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)		
Α		ONE HOUR	~	431	100.000		
в		ONE HOUR	✓	7	100.000		
С		ONE HOUR	✓	6	100.000		

Origin-Destination Data

Demand (PCU/hr)

	То							
		Α	в	С				
F	Α	0	5	426				
From	в	0	0	7				
	С	0	6	0				

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



	То						
		Α	в	С			
F	Α	0	0	0			
From	в	0	0	0			
	С	0	0	0			

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	7.04	0.0	0.5	А	7	10
C-A						0	0
С-В	0.01	7.46	0.0	0.5	A	5	8
A-B						4	6
A-C						391	586

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	557	0.010	5	0.0	0.0	6.520	А
C-A	0	0			0				
С-В	4	1	525	0.008	4	0.0	0.0	6.913	А
A-B	3	0.86			3				
A-C	321	80			321				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	541	0.012	6	0.0	0.0	6.727	А
C-A	0	0			0				
С-В	5	1	510	0.010	5	0.0	0.0	7.132	A
A-B	4	1			4				
A-C	383	96			383				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	519	0.015	8	0.0	0.0	7.036	А
C-A	0	0			0				
С-В	6	2	489	0.013	6	0.0	0.0	7.458	А
A-B	5	1			5				
A-C	469	117			469				



08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	519	0.015	8	0.0	0.0	7.036	А
C-A	0	0			0				
С-В	6	2	489	0.013	6	0.0	0.0	7.458	А
A-B	5	1			5				
A-C	469	117			469				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	541	0.012	6	0.0	0.0	6.730	А
C-A	0	0			0				
С-В	5	1	510	0.010	5	0.0	0.0	7.135	А
A-B	4	1			4				
A-C	383	96			383				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	557	0.010	5	0.0	0.0	6.522	А
C-A	0	0			0				
С-В	4	1	525	0.008	4	0.0	0.0	6.916	A
A-B	3	0.86			3				
A-C	321	80			321				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
С-В	0.01	0.01	0.25	0.45	0.48			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A



Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A



Base Year 2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.00	А

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	900		0.00	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	Base Year 2022	PM	ONE HOUR	16:45	18:15	15	~

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	~	509	100.000
в		ONE HOUR	✓	4	100.000
С		ONE HOUR	~	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		То					
		Α	в	С			
_	Α	0	3	506			
From	в	0	0	4			
	с	0	4	0			

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



	То					
		Α	в	С		
F	Α	0	0	0		
From	в	0	0	0		
	С	0	0	0		

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
С-В	0.00	0.00	0.0	~1	A	0	0
A-B						3	4
A-C						464	696

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	468	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	511	0.000	0	0.0	0.0	0.000	A
ΑB	2	0.56			2				
A-C	381	95			381				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	450	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	493	0.000	0	0.0	0.0	0.000	A
A-B	3	0.67			3				
A-C	455	114			455				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	424	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	468	0.000	0	0.0	0.0	0.000	А
A-B	3	0.83			3				
A-C	557	139			557				



17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	424	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	468	0.000	0	0.0	0.0	0.000	А
A-B	3	0.83			3				
A-C	557	139			557				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	450	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	493	0.000	0	0.0	0.0	0.000	А
A-B	3	0.67			3				
A-C	455	114			455				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	468	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	511	0.000	0	0.0	0.0	0.000	А
A-B	2	0.56			2				
A-C	381	95			381				

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:45 - 18:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A



18:00 - 18:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A



Opening Year 2030, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.00	А

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	900		0.00	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	Opening Year 2030	PM	ONE HOUR	16:45	18:15	15	~	Simple	D10*G1

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
Α		ONE HOUR	~	558	100.000	
в		ONE HOUR	✓	4	100.000	
С		ONE HOUR	✓	4	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То				
From		Α	в	С		
	Α	0	3	554		
	в	0	0	4		
	С	0	4	0		

HV data entry mode	PCU Factor for a HV (PCU)				
HV Percentages	2.00				



	То				
From		Α	В	С	
	Α	0	0	0	
	в	0	0	0	
	С	0	0	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	~1	А	0	0
C-A						0	0
С-В	0.00	0.00	0.0	~1	A	0	0
A-B						3	5
A-C						509	763

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	459	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	502	0.000	0	0.0	0.0	0.000	A
ΑB	2	0.62			2				
A-C	417	104			417				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	439	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	482	0.000	0	0.0	0.0	0.000	A
A-B	3	0.74			3				
A-C	498	125			498				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	411	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	455	0.000	0	0.0	0.0	0.000	А
ΑB	4	0.90			4				
A-C	610	153			610				


Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	411	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	455	0.000	0	0.0	0.0	0.000	А
A-B	4	0.90			4				
A-C	610	153			610				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	439	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	482	0.000	0	0.0	0.0	0.000	А
A-B	3	0.74			3				
A-C	498	125			498				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	459	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	502	0.000	0	0.0	0.0	0.000	А
A-B	2	0.62			2				
A-C	417	104			417				

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A



Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A



Development Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.00	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	900		0.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	Development Traffic	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	~	0	100.000
в		ONE HOUR	✓	4	100.000
С		ONE HOUR	~	3	100.000

Origin-Destination Data

Demand (PCU/hr)

		То						
		Α	в	С				
_	Α	0	0	0				
From	в	0	0	4				
	с	0	3	0				

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



		То						
		Α	в	С				
F	Α	0	0	0				
From	в	0	0	0				
	С	0	0	0				

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
С-В	0.00	0.00	0.0	~1	А	0	0
A-B						0	0
A-C						0	0

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	0	0			0				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	0	0			0				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	А
A-B	0	0			0				
A-C	0	0			0				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	0	0			0				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	А
A-B	0	0			0				
A-C	0	0			0				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	563	0.000	0	0.0	0.0	0.000	А
C-A	0	0			0				
С-В	0	0	603	0.000	0	0.0	0.0	0.000	А
A-B	0	0			0				
A-C	0	0			0				

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A



Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
С-В	0.00	0.00	0.00	0.00	0.00			N/A	N/A





Opening Year 2030 + Dev Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.21	А

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	222	Stream C-B	0.21	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	Opening Year 2030 + Dev Flows	PM	ONE HOUR	16:45	18:15	15	~	Simple	D11+D12

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	~	558	100.000
в		ONE HOUR	✓	8	100.000
С		ONE HOUR	1	7	100.000

Origin-Destination Data

Demand (PCU/hr)

		٦	Го	
		Α	в	С
	Α	0	3	554
From	в	0	0	8
	С	0	7	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



	То					
		Α	в	С		
From	Α	0	0	0		
	в	0	0	0		
	С	0	0	0		

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	7.59	0.0	0.5	А	8	12
C-A						0	0
С-В	0.02	8.05	0.0	0.5	А	7	10
A-B						3	5
A-C						509	763

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	533	0.012	6	0.0	0.0	6.836	А
C-A	0	0			0				
С-В	6	1	502	0.011	6	0.0	0.0	7.253	A
ΑB	2	0.62			2				
A-C	417	104			417				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	512	0.015	8	0.0	0.0	7.134	A
C-A	0	0			0				
С-В	7	2	482	0.014	7	0.0	0.0	7.568	A
A-B	3	0.74			3				
A-C	498	125			498				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	2	483	0.019	9	0.0	0.0	7.591	А
C-A	0	0			0				
С-В	8	2	455	0.018	8	0.0	0.0	8.054	А
A-B	4	0.90			4				
A-C	610	153			610				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	2	483	0.019	9	0.0	0.0	7.591	А
C-A	0	0			0				
С-В	8	2	455	0.018	8	0.0	0.0	8.054	А
A-B	4	0.90			4				
A-C	610	153			610				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	512	0.015	8	0.0	0.0	7.137	А
C-A	0	0			0				
С-В	7	2	482	0.014	7	0.0	0.0	7.569	А
A-B	3	0.74			3				
A-C	498	125			498				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	533	0.012	6	0.0	0.0	6.839	А
C-A	0	0			0				
С-В	6	1	502	0.011	6	0.0	0.0	7.256	А
A-B	2	0.62			2				
A-C	417	104			417				

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
С-В	0.01	0.01	0.25	0.45	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.02	0.00	0.00	0.02	0.02			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A



Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A



+ 5 years - Assessment year 2035 + Dev Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.30	А

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	317	Stream B-AC	0.30	А

Traffic Demand

C Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	+ 5 years - Assessment year 2035 + Dev Flows	PM	ONE HOUR	16:45	18:15	15	~	Simple	(D1*G2)+D12

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	~	421	100.000
в		ONE HOUR	✓	11	100.000
С		ONE HOUR	✓	7	100.000

Origin-Destination Data

Demand (PCU/hr)

		То					
		Α	в	С			
Farm	Α	0	4	416			
From	в	0	0	11			
	С	0	7	0			

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

>



	То					
		Α	в	С		
F	Α	0	0	0		
From	в	0	0	0		
	С	0	0	0		

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	7.05	0.0	0.5	А	10	15
C-A						0	0
С-В	0.02	7.45	0.0	0.5	A	7	10
A-B						4	6
A-C						382	573

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	559	0.014	8	0.0	0.0	6.530	А
C-A	0	0			0				
С-В	6	1	527	0.011	6	0.0	0.0	6.908	A
ΑB	3	0.84			3				
A-C	313	78			313				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	2	544	0.018	10	0.0	0.0	6.739	А
C-A	0	0			0				
С-В	7	2	512	0.013	7	0.0	0.0	7.125	A
A-B	4	1			4				
A-C	374	94			374				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	522	0.023	12	0.0	0.0	7.053	А
C-A	0	0			0				
С-В	8	2	491	0.017	8	0.0	0.0	7.449	А
A-B	5	1			5				
A-C	458	115			458				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	522	0.023	12	0.0	0.0	7.053	А
C-A	0	0			0				
С-В	8	2	491	0.017	8	0.0	0.0	7.449	A
A-B	5	1			5				
A-C	458	115			458				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	2	544	0.018	10	0.0	0.0	6.743	А
C-A	0	0			0				
С-В	7	2	512	0.013	7	0.0	0.0	7.128	А
A-B	4	1			4				
A-C	374	94			374				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	559	0.014	8	0.0	0.0	6.532	А
C-A	0	0			0				
С-В	6	1	527	0.011	6	0.0	0.0	6.908	А
A-B	3	0.84			3				
A-C	313	78			313				

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
С-В	0.01	0.01	0.25	0.45	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.02	0.00	0.00	0.02	0.02			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A



Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A



+ 10 years - Assessment year 2040 + Dev Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Set Relationship	D4 - Opening Year 2030 + Dev Flows, AM	Demand Set relationships are chained. This may slow down the file.
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.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Sc1-Full Two Way	T-Junction	Two-way	Two-way	Two-way		0.21	А

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	208	Stream C-B	0.21	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	+ 10 years - Assessment year 2040 + Dev Flows	PM	ONE HOUR	16:45	18:15	15	~	Simple	(D10*G3) +D12

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	~	585	100.000
в		ONE HOUR	✓	9	100.000
С		ONE HOUR	✓	8	100.000

Origin-Destination Data

Demand (PCU/hr)

		A B C 0 3 581 0 0 9					То					
		Α	в	С								
_	Α	0	3	581								
From	в	0	0	9								
	С	0	8	0								

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00



	То					
		Α	в	С		
F	Α	0	0	0		
From	в	0	0	0		
	С	0	0	0		

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	7.72	0.0	0.5	А	8	12
C-A						0	0
С-В	0.02	8.19	0.0	0.5	А	7	10
A-B						3	5
A-C						533	800

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	528	0.012	6	0.0	0.0	6.906	А
C-A	0	0			0				
С-В	6	1	497	0.012	6	0.0	0.0	7.327	A
ΑB	3	0.65			3				
A-C	437	109			437				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	506	0.015	8	0.0	0.0	7.224	А
C-A	0	0			0				
С-В	7	2	476	0.014	7	0.0	0.0	7.665	A
A-B	3	0.77			3				
A-C	522	131			522				

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	2	476	0.020	9	0.0	0.0	7.717	А
C-A	0	0			0				
С-В	8	2	448	0.019	8	0.0	0.0	8.188	А
ΑB	4	0.95			4				
A-C	640	160			640				



Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	2	476	0.020	9	0.0	0.0	7.717	А
C-A	0	0			0				
С-В	8	2	448	0.019	8	0.0	0.0	8.188	А
A-B	4	0.95			4				
A-C	640	160			640				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	506	0.015	8	0.0	0.0	7.228	А
C-A	0	0			0				
С-В	7	2	476	0.014	7	0.0	0.0	7.668	А
ΑB	3	0.77			3				
A-C	522	131			522				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	528	0.012	6	0.0	0.0	6.909	А
C-A	0	0			0				
С-В	6	1	497	0.012	6	0.0	0.0	7.330	А
A-B	3	0.65			3				
A-C	437	109			437				

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
С-В	0.01	0.01	0.25	0.45	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.02	0.00	0.00	0.02	0.02			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A



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18:00 - 18:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
С-В	0.01	0.00	0.00	0.01	0.01			N/A	N/A

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