

Ross Road, Killarney, Co. Kerry

Proposed Large Scale Residential Development,
Ross Rd., Killarney, Kerry.



Traffic and Transportation Assessment

July 2025



MHL & Associates Ltd.
Consulting Engineers





Document Control Sheet

Client	Homeland Group
Project Title	Proposed Large-Scale Residential Development
Project Location	Ross Rd., Killarney, Co. Kerry
Document Title	Traffic and Transportation Assessment
Document No.	MHL_25012TT-Ross Rd LRD-TTA DOC 03
Job No.	25012TT

Rev	Status	Author	Reviewed By	Approved By	Date
	Internal Draft	C. O'Connor		-	20/03/2025
	Client Draft	C. O'Connor	J Daly		26/03/2025
R01	Section 32B Issue	C. O'Connor	J Daly	J Daly	03/04/2025
R02	Planning Issue	C. O'Connor	J Daly	J Daly	29/07/2025

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1 NON TECHNICAL SUMMARY

M.H.L. & Associates Ltd. Consulting Engineers has been engaged by Homeland Group to prepare a Traffic and Transportation Assessment (TTA) in support of an LRD planning application by Homeland Group for a proposed development located at Ross Rd., Killarney, Co. Kerry.

The proposed development will consist of a largescale residential development (LRD), comprising of 134no. residential dwellings as follows: 65no. houses consisting of 10no. 4-bed dwellings and 55no 3-bed dwellings; 51no. townhouses consisting of 32no. 3-bed units and 19no. 2-bed units; and 18no. apartments consisting of 12no. 2-bed units and 6no. 1-bed units.

The proposed development also includes crèche (585sqm) with capacity to accommodate 102no. children, and all ancillary site development works including 2no. vehicular and pedestrian accesses onto the Ross Road. .

This report has been prepared in accordance with the TII's 2014 publication "Traffic and Transport Assessment Guidelines" and the "Guidelines for Traffic Impact Assessments" as published by the Institution of Highways & Transportation U.K. in 1994.

The Opening year is the year of expected completion for the development and is taken to be 2027. In accordance with the TII's "Traffic and Transport Assessment Guidelines", a traffic analysis is required to be undertaken for the **Opening Year Phase 1 (2027)**, **Opening Year +5 (2032)** and fifteen years from this date i.e., the **Opening Year+15 (2042)**.

This TTA assessment focused on the following traffic junctions:

- **Junction A:** Ross Road / New Development Priority Junction
- **Junction B:** Ross Road / Muckcross Road Signalised junction



Figure 1.1: Junctions A & B (Credit: Google)

As part of this assessment, 12-hour traffic flows were recorded by third party traffic counters Irish Traffic Surveys Ltd. for junctions 1, 2, 3 & 4 with these traffic counts recorded on the 8th of February 2025. These counts been factored up to the modelling year scenarios 2025 through to 2042 with TII expansion factors.



Figure 1.2: Traffic Count Locations (Credit: Google)

The overall impact of the development on the adjoining local road is to increase traffic flows entering/exiting the development of 124 no. trips in the morning peak and by 122 no. trips in the evening peak in the Opening Year 2027, assuming all traffic generated by the development is new to the network.

Junction A reaches a maximum RFC of 41% in the 2042 AM with development scenario and reaches a maximum of 24% in the 2042 PM with development scenario. The development is modelled to increase traffic %RFC for all junctions by a maximum of 10% for both morning and evening peaks from the Opening Year of the development.

Junction B reaches a maximum RFC of 64.1% in the 2042 PM with development scenario but without the development a max RFC of 60.1% will be reached in 2042. The cumulative impact of the development is an RFC of 4% on the junction as a whole.

All analysed junctions operate well within capacity for all design scenarios. Additionally, these junctions show no more than a 10% increase in RFC between the "with development" and "without development" scenarios. The proposed development does not cause a significant negative impact on the analysed junctions and surrounding area.

This report set out these findings in more detail overleaf.

3 PROPOSED DEVELOPMENT

The proposed development will consist of a largescale residential development (LRD), comprising of 134no. residential dwellings as follows: 65no. houses consisting of 10no. 4-bed dwellings and 55no 3-bed dwellings; 51no. townhouses consisting of 32no. 3-bed units and 19no. 2-bed units; and 18no. apartments consisting of 12no. 2-bed units and 6no. 1-bed units.

The proposed development also includes crèche (585sqm) with capacity to accommodate 102no. children, and all ancillary site development works including 2no. vehicular and pedestrian accesses onto the Ross Road.

The site layout plan and schedule can be seen below in Figure 3.2 and Figure 3.3.



Figure 3.1: Development Site (Credit: Google)

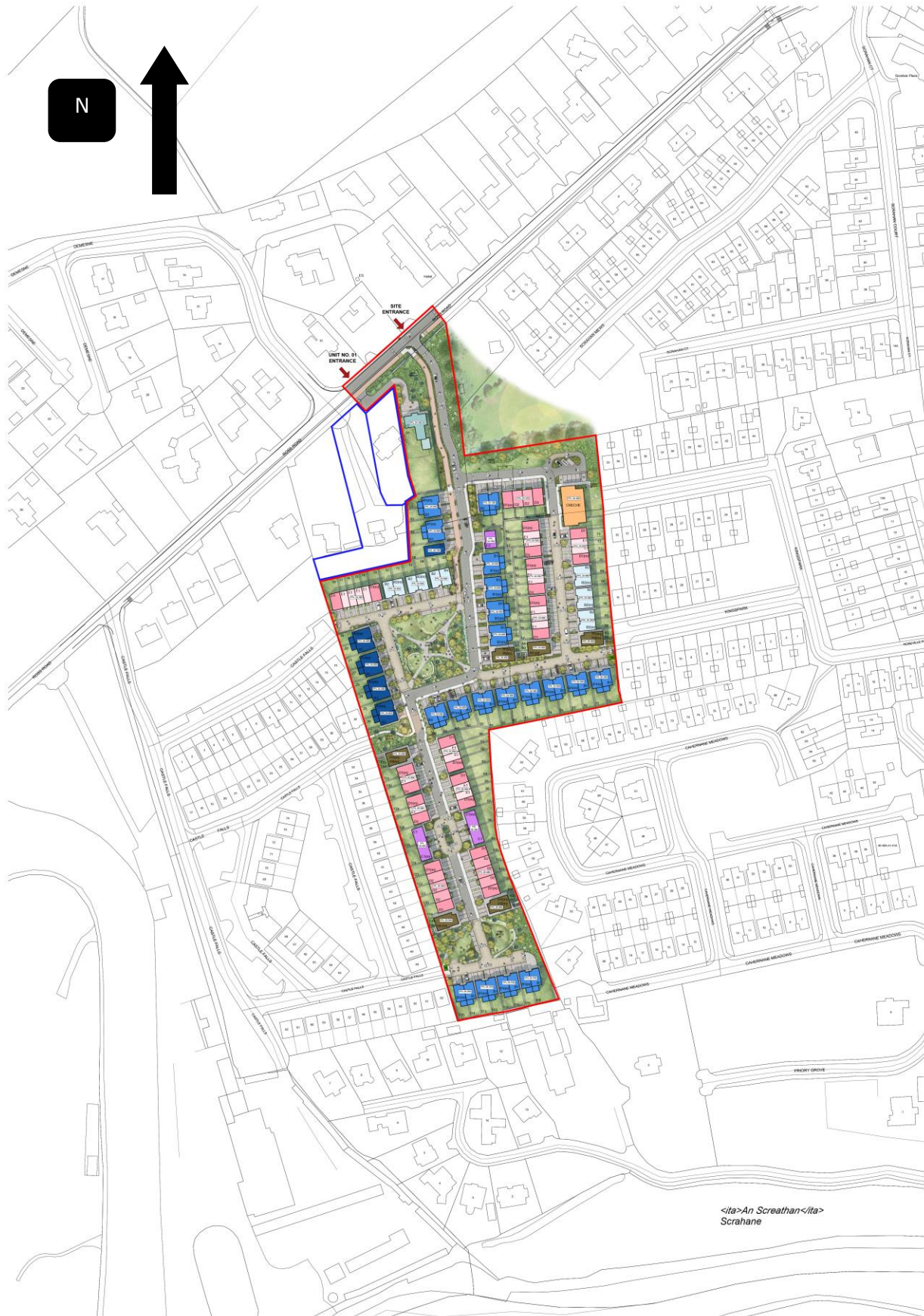


Figure 3.2: Site Layout Map (Credit: Deady Gahan Architects)

ROSS ROAD LRD - KILLARNEY						
UNIT TYPE	DESCRIPTION	NO. OF BEDROOMS	BED SPACES	UNIT AREA (m²)	NO. OF UNITS	
A1	4 Bed Semi-Detached	4	7	134.0	6	4.5%
A2	4 Bed Semi-Detached	4	6	136.5	2	1.5%
B1	3 Bed Semi-Detached	3	5	115.3	36	26.9%
B2	3 Bed Semi-Detached	3	5	104.4	11	8.2%
B3	3 Bed Semi-Detached	3	5	119.6	2	1.5%
B4	3 Bed Semi-Detached	3	5	108.6	1	0.7%
C1	3 Bed Semi-Detached	3	5	115.8	4	3.0%
C2	3 Bed Detached	3	5	115.8	1	0.7%
D1	3 Bed End Townhouse	3	5	109.8	23	17.2%
D2	3 Bed Mid Townhouse	3	5	109.8	8	6.0%
D3	3 Bed End Townhouse	3	5	113.3	1	0.7%
E1	2 Bed Mid Townhouse	2	4	80.2	19	14.2%
F2	4 Bed Detached	4	6	126.8	1	0.7%
G	4 Bed Detached	4	8	272.8	1	0.7%
H1	2 Bed Apartment	2	3	71.9	6	4.5%
H2	1 Bed Apartment	1	2	61.6	6	4.5%
H3	2 Bed Apartment	2	3	69.4	6	4.5%
TOTAL NO. OF UNITS					134	100.0%
4 bed		10		7.4%		
3 bed		87		64.9%		
2 bed		31		23.2%		
1 bed		6		4.5%		
Detached/Semi-Detached		65		48.4%		
Townhouses		51		38.1%		
Apartments		18		13.5%		
TOTAL NUMBER OF UNITS		134				
SITE AREA (RED LINE BOUNDARY)				3.94 HA		
DEVELOPABLE AREA				3.35 HA		
DENSITY				40 Units /Ha		
OPEN SPACE				15%		
102 CHILD CRECHE		G.I.A. 585 sq.m.				

Figure 3.3: Proposed Development Schedule (Credit: Deady Gahan Architects)

4 TRAFFIC

4.1 Traffic Generation -TRICS

Trip generation from the proposed units was garnered via the TRICS database. MHL are a licence holder for the TRICS database and employ it for traffic studies. TRICS is a well-established UK and Irish national database which holds in excess of 2,100 site locations and 7,000 survey counts with over 98 separate land use sub-categories. MHL & Associates Ltd. are one of over 300 worldwide licensed TRICS member organisations. The TRICS program was utilised for the land-use sub-category associated with the development proposal. The "Guidelines for Traffic and Transportation Assessments" state that for residential units, the busiest hours are between 08:00-09:15 and 17:00-18:00. The proposed development Trip Rates per unit are shown below.

The full TRICS output, is included in Appendix of this report and outlines the likely trip rates for a development of this size. A synopsis of the peak hour trip generation rates and figures for the overall development is displayed in Figure below.

<i>Full Proposed Development</i>		AM PEAK		PM PEAK	
		Arrivals	Departures	Arrivals	Departures
New Housing Development Trip Generation - based on TRICs database					
134	<i>Peak Trics Trip Rates Per Unit</i>	0.153	0.374	0.334	0.177
	<i>Peak Trips No. Units</i>	21	50	45	24
	SUBTOTAL	71		68	
	New Creche Trip Generation - based on TRICs database				
585	<i>Peak Trics Trip Rates Per 100 Sqm.</i>	0.036	0.029	0.025	0.034
	<i>Peak Trips No. Sqm.</i>	21	17	15	20
	SUBTOTAL	38		35	
	Total New Trip Generation				
<i>Sum New Peak Trips No. Units</i>		41	67	60	43
TOTAL NEW		109		103	

Figure 4.1: Peak Hour Tric's Traffic Generation for the Proposed Development

As part of the survey we measured the volume of Traffic in and out of the adjoining development Castle Falls. It was deemed that this Trip Rate would be more accurate for the calculation of the Trip rate for the new development. A synopsis of the peak hour trip generation rates and figures for the overall development is displayed in Figure below

<i>Full Proposed Development</i>		AM PEAK		PM PEAK	
		Arrivals	Departures	Arrivals	Departures
New Housing Development Trip Generation - based on Caste Fall Development					
134	<i>Peak Trics Trip Rates Per Unit</i>	0.160	0.480	0.416	0.236
	<i>Peak Trips No. Units</i>	21	64	56	32
	SUBTOTAL	86		87	
	New Creche Trip Generation - based on TRICs database				
585	<i>Peak Trics Trip Rates Per 100 Sqm.</i>	0.036	0.029	0.025	0.034
	<i>Peak Trips No. Sqm.</i>	21	17	15	20
	SUBTOTAL	38		35	
	Total New Trip Generation				
	<i>Sum New Peak Trips No. Units</i>	42	82	71	51
	TOTAL NEW	124		122	

Figure 4.2: Peak Hour Traffic Generation for the Proposed Development based on Neighbouring Development

The counted figure was higher then that calculated by Trics and were used for this assessment. This conservative approach provides a very robust basis for the traffic assessment and modelling that following.

4.2 Site Traffic Counts

Traffic counts conducted on Wednesday 08/02/2025 by Irish Traffic Surveys Ltd. were utilised to establish the actual AM & PM Peak traffic hours for the local road network for the purposes of this assessment. These existing junction traffic counts were growth factored as described in Chapter 5. Based on the traffic counts and considering the recommendation of the Guidelines for Traffic and Transportation Assessments, the peak hours considered in this TTA are reflective of the demand case for the site.

4.3 Modal Choice

In predicting the level of traffic that will be generated by the proposed development, the means of transport (modal choice) and quantity of traffic generated (trip attraction) must be considered. It is assumed that there will be a combination of cars, public transport and active travel, due to the nature of the development. The analysis assumes the cars will dominate the developments traffic movements. Further public transport improvements would encourage a greater modal shift in the future towards sustainable travel modes for those travelling to work or live at the facility, as encouraged by local and National Transport Authority Policy. This would reduce the modelled impact of this development on the surrounding road network.

4.4 Existing Situation

Traffic counts taken at each of the assessed junctions were used as the basis of the modelling, producing morning and evening O/D Matrices. The traffic flows through the junctions were assessed as shown in the following figures.

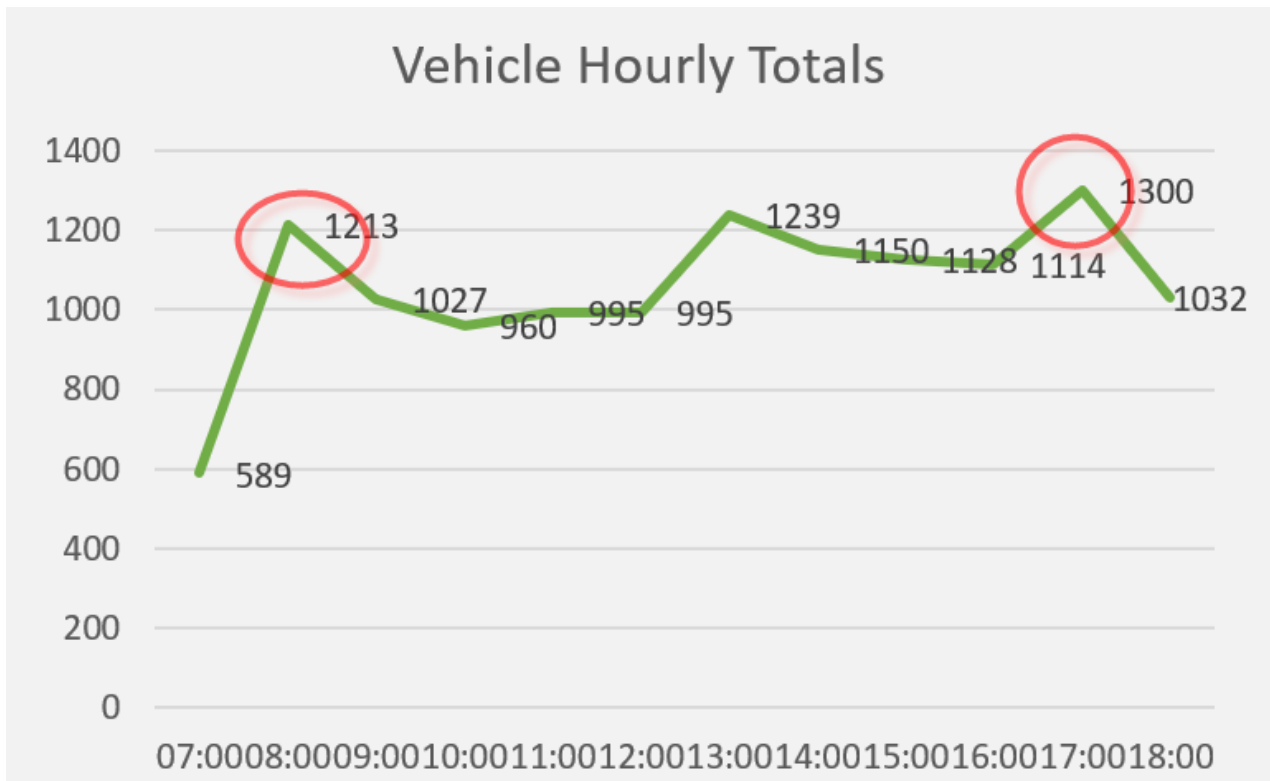


Figure 4.3: Network Traffic Profile for AM & PM Peak Flows at Ross Rd/Muckcross Rd

4.5 Trip Distribution

The current traffic distribution pattern was used to determine directional split to and from the proposed development. This peak hour directional split pattern is assumed to remain constant with the passage of time. The “Guidelines for Traffic and Transportation Assessments” state that for a residential development, the busiest hours are between 08:00-09:00 in the mornings and from 17:00 to 18:00 in the evenings.

Having reviewed the existing measured traffic flows at both existing junctions, it was determined that the most heavily trafficked peak hours were 08:10-09:10 and 17:00-18:00 for the working week.

4.6 Traffic Volumes

Traffic counts taken at the assessed junction was used as the basis of the modelling, producing morning and evening O/D Matrices. The traffic flows through Junction 1 as recorded in the traffic counts are shown in the following figures.



Figure 4.4: Current AM Turning Counts for Junction A



Figure 4.5: Current Turning Counts for Junction A



Figure 4.6: Current AM Turning Counts for Junction B



Figure 4.7: PM Turning Counts for Junction B

5 TRAFFIC ASSESSMENT

The base year is taken as 2025 the year the traffic counts were undertaken. It is anticipated that the first year of operation, subject to a positive outcome from the planning process would be 2027. In accordance with the Guidelines for Traffic and Transportation Assessments as published by the TII, a traffic analysis is required to be undertaken for the Opening Year, Opening Year plus five years and Opening Year plus fifteen years.

The TII publication "Project Appraisal Guidelines for National Routes Unit 5.3 – Travel Demand Projections" was used to calculate growth factors for the road network traffic. Table 5.1 below shows the calculated growth factors:

			Cars/LGV	HGV	Combined
Count %			99%	1%	
2025	to	2027	1.022	1.058	1.023
2025	to	2032	1.059	1.177	1.060
2025	to	2042	1.068	1.326	1.071
TII Publication PE-PAG-02017					
<i>Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections</i>					

Figure 5.1: Future Projected Growth Rates

The client has proposed to build the scheme in 2 phases but for the purposes of this report, we have modelled the worst-case scenario, namely the whole scheme was built in one phase.

The effects of traffic growth on the existing network plus the additional traffic generated by the proposed development, have been compiled to build junction diagrams of the priority junctions.

6 TRAFFIC MODELLING

6.1 Junction 11 Analysis of Junction A

The purpose of this Traffic and Transport Assessment is to determine if the capacity of the existing road network is sufficient to cater for the traffic generated by the proposed development.

In order to assess the capacity of the proposed development and the adjoining network, traffic models for the priority junctions were produced using the PICADY traffic modelling software.

The output movements from the models are based on the assigned junction arms. The arms are designated A to C for the Development Junction.

The output result sheets from the traffic modelling software consist of tables of demand flow, capacities, queues, and delays for each 15-minute time segment of the peak hour analysis.

The PICADy output table contains information on maximum queue length, delay, and Ratio of Flow to Capacity (RFC). The RFC provides the basis for judging the acceptability of junction design and the capacity of existing junctions. Generally, an RFC of 0.85 or less is considered acceptable during the peak period. An RFC of this value indicates that at peak times the junction is at 85% of its operational capacity and therefore has a practical reserve capacity at a junction required to cater for periods of unusually high traffic flow, such as bank holiday weekends, etc. The degree of saturation of a junction is a measure of the capacity of the junction. A junction with an RFC of 0.85 would be considered to be operating at a degree of saturation of 100%.

The following summary junction performance tables for describes each of the junctions RFC's, Delay and Queue values for both morning and evening peaks for all design scenarios as well as the Level of Service for the junction.

Junction A – Development Junction

	AM						PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
2025 - Base												
Stream B-	D1	0	0	0	A	900%	D2	0	0	0	A	900%
Stream B-		0	0	0	A			0	0	0	A	
Stream C-		0	0	0	A			0	0	0	A	
2027 - Opening Year with Dev												
Stream B-	D5	0.1	7.13	0.08	A	390%	D6	0.1	6.94	0.05	A	421%
Stream B-		0.1	9.43	0.11	A			0.1	9.32	0.07	A	
Stream C-		0	5.68	0.04	A			[Stream B-A]	0.1	5.86	0.07	
2027 - Opening Year without Dev												
Stream B-	D3	0	0	0	A	900%	D4	0	0	0	A	900%
Stream B-		0	0	0	A			0	0	0	A	
Stream C-		0	0	0	A			0	0	0	A	
2032 - with Dev												
Stream B-	D9	0.1	7.14	0.08	A	386%	D10	0.1	6.95	0.05	A	415%
Stream B-		0.1	9.45	0.11	A			0.1	9.34	0.07	A	
Stream C-		0.1	5.67	0.04	A			[Stream B-A]	0.1	5.85	0.07	
2032 - without Dev												
Stream B-	D7	0	0	0	A	900%	D8	0	0	0	A	900%
Stream B-		0	0	0	A			0	0	0	A	
Stream C-		0	0	0	A			0	0	0	A	
2042 - with Dev												
Stream B-	D13	0.1	6.99	0.08	A	462%	D14 *	0.1	6.95	0.05	A	413%
Stream B-		0.1	9.21	0.11	A			0.1	9.35	0.07	A	
Stream C-		0	5.58	0.04	A			[Stream B-A]	0.1	5.85	0.07	
2042 - without Dev												
Stream B-	D11	0	0	0	A	900%	D12	0	0	0	A	900%
Stream B-		0	0	0	A			0	0	0	A	
Stream C-		0	0	0	A			0	0	0	A	

Figure 6.1: Development Junction Summary Table for Junction A

A maximum RFC of 11% occurs in the AM peak for the 2042 With Development scenario. This occurs on Stream B – Development Access Road. A delay of approximately 9 seconds will be experienced along the minor arm of the junction, while a 6 second delay will be experienced for vehicles turning from Ross Road onto the development access road. The analysis shows that the junction is operating well below capacity for all scenarios up to and including the 2042 with development scenarios and any delays are minimal.

6.2 Linsig Analysis of Junction B

Linsig analysis software was used to assess the capacity of Junction B.

LINSIG is a computer software program dealing with capacities, mean max queue lengths (pcu) and delays at uncontrolled and signalised junctions. The output results sheets from LINSIG consist of tables of demand flow, capacities, queues and delays for the morning and evening peak hour analysis, for each arm of the junction. These tables contain start and finish times for each arm, traffic demand, %Degree of Saturated Flow (DOS), start queue length and queuing delay.

The DOS provides the basis for judging the acceptability of junction design and the capacity of existing junctions. In general, a DOS of 85% is deemed acceptable for uncontrolled junctions and a DOS of 90% is acceptable for signalised junctions.

A DOS of this value would indicate that at peak times the junction is at 85% of its operational capacity and therefore has a practical reserve capacity of 15%. This reserve capacity of 15% is considered by traffic engineers to be the level of reserve capacity at a junction required to cater for periods of unusually high traffic flows, such as bank holiday weekends, public entertainment, and sporting events etc.

The table below shows the various traffic models for the junction for the traffic counts conducted in Sept 2024. (See Appendix for the full LINSIG output data).

Junction B		Without Development		With Development	
		DOS %	Queue (pcu)	DOS %	Queue (pcu)
2025 Base Year	AM	47.1	6		
	PM	56.1	6.5		
2027	AM	48.2	6.2	51.5	7.4
	PM	57.4	6.8	61.9	7.7
2032	AM	49.9	6.5	53.4	7.7
	PM	59.5	7.1	63.7	8.1
2042	AM	50.5	6.6	53.9	7.9
	PM	60.1	7.2	64.1	8.2

Figure 6.2: Ross Rd./Muckcross Rd. Junction B Summary Table

Based on the traffic counts undertaken, the existing AM DOS is 47.1% and the PM DOS value is 56.1%. A maximum RFC of 64.1% occurs for traffic approaching the junction from the Town Centre during the PM peak of the 2042 With Development Scenario. The greatest queue experienced at the junction is 8.2 pcu's and occurs on Muckcross Rd for vehicles approaching the Town Centre.

In the AM peak, the junction operates below capacity for all design scenarios up to and including the year 2041.

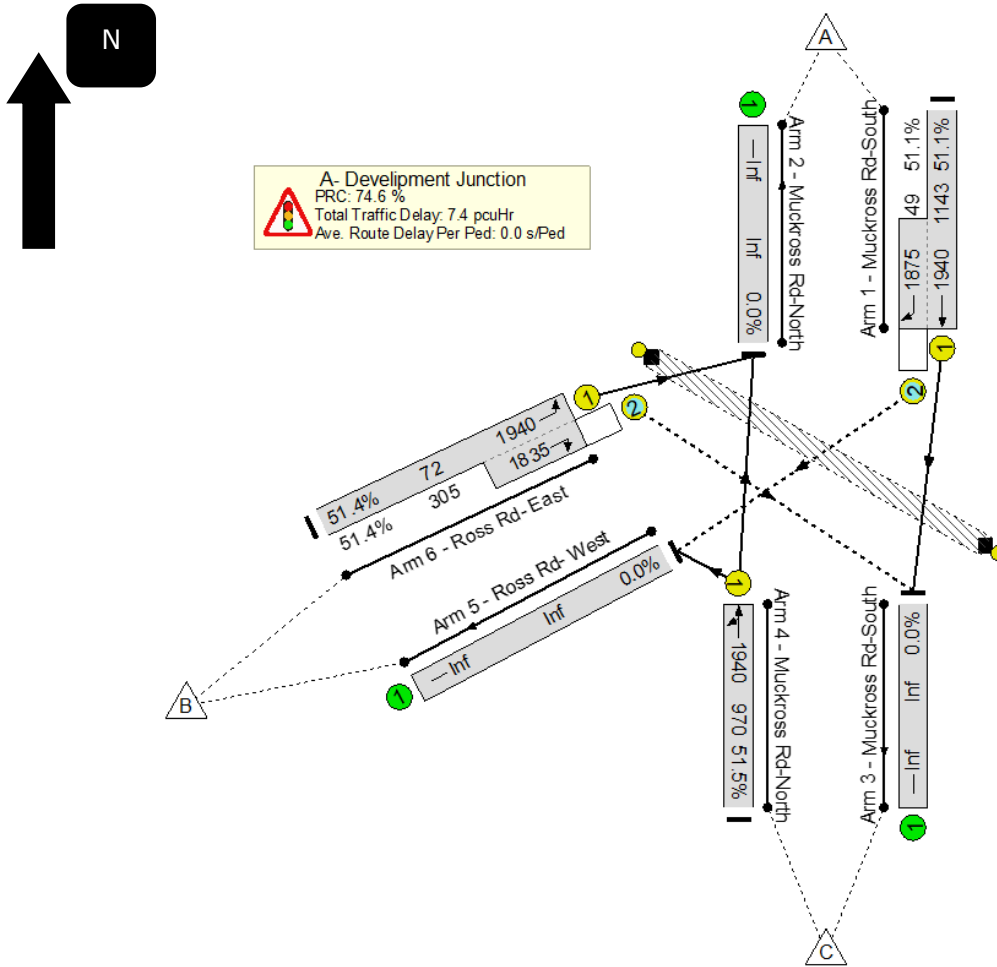


Figure 6.3: Junction B – Ross Rd./Muckross Rd. Junction (2027)
(Arm A –Muckross Road (N), Arm B – Ross Road (W), Arm C –Muckross Road (S))

6.3 Cumulative Impact

The cumulative impact of the scheme on the surrounding roads network for future years is determined by modelling future scenarios on future projected traffic data and expected development traffic.

The overall impact of the development on the adjoining town network of assessed junctions is to increase RFC by an estimate of 4% for both morning and evening peaks from the Opening Year of the development, assuming all traffic generated by the development is new to the network. The traffic volumes at junction B may increase by 3% for the AM peak hour and 4% in the PM peak. All junctions are operating within capacity for all scenarios, and the impact of the development is not significant in nature.

7 ROAD SAFETY

Please refer to the Stage 1 Road Safety Report (RSA) submitted as part of this planning submission.

8 INTERNAL LAYOUT & PARKING PROVISION

The site is to have a hard tarmac or concrete surface with adequate foundation to withstand the wheel loads involved. The overall drainage of the site should be adequate to cope with storm water. The whole site is to be well lit to ensure the safe execution of manoeuvres, the safety of passengers and the security of vehicles and their contents. The lighting should be from a high level to prevent glare during manoeuvres and reduce the potential for vandalism. The layout of the site is to be designed to reduce the need for reversing manoeuvres. Where these are unavoidable, there should be an adequate area to safely execute the reversing or turning manoeuvres necessary. All parking spaces provided are required to be a minimum 2.4m x 4.9m in size.

A total of 235 no. surface car parking spaces, including 5 no. visitor car parking spaces, 2 no. car parking spaces per 4-bed unit, 2 no. car parking spaces per 3-bed end townhouse, semi-detached & detached units, and 1 no. parking space per 2-bed unit, 3-bed mid-townhouse unit, 1-bed apartment unit & 2-bed apartment unit. There are also 7 no. parking spaces for the creche where 2 no. are accessible parking spaces, 1 no. is an EV. Parking space and 2 no. drop-off spaces.

Bicycle parking is proposed comprising of 113 no. spaces in total, comprising 1 no. space per bedroom per 2/3-bed mid-townhouse unit, 12 no. spaces within secure shelter at the rear of the creche and 20 no. visitor spaces. It is noted that the 1/2-bed detached and semi-detached apartment units will not need bike spaces the tenants will have direct access to their private amenity space are bike storage or else a bike store.

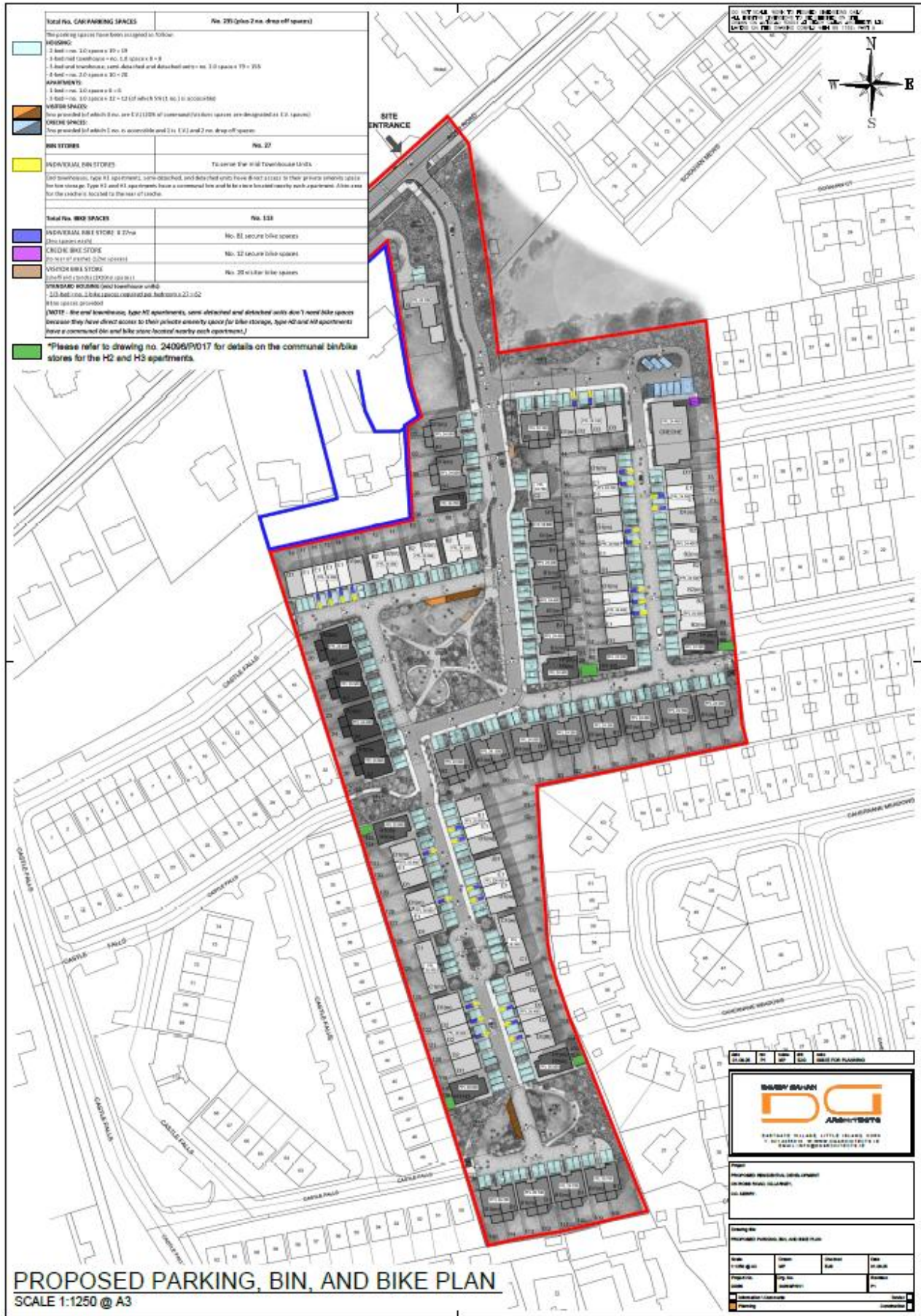


Figure 8.1: Site layout showing parking proposals (Credit: Deady Gahan Architects)

9 PEDESTRIAN / CYCLIST / DISABILITY

All internal footpaths should be dished at all entrances and crossings with tapered/dropped kerbs and tactile paving used on approaches in accordance with the design guidelines for use with tactile paving. This is to accommodate wheelchair access and guide the visually impaired users safely through the development. Adequate bicycle parking provision is proposed as per development schedules presented.

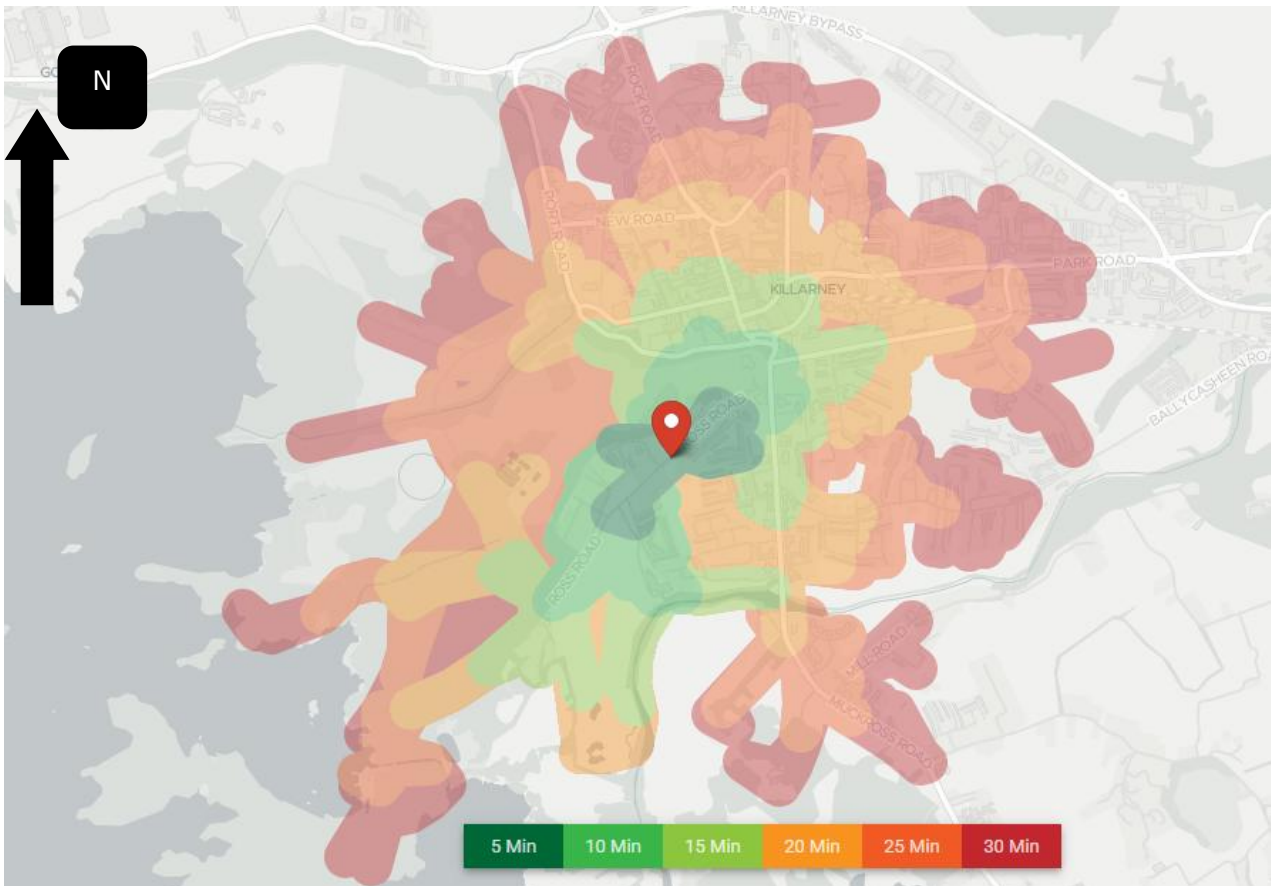


Figure 9.1: 30min Walking Distance from Site

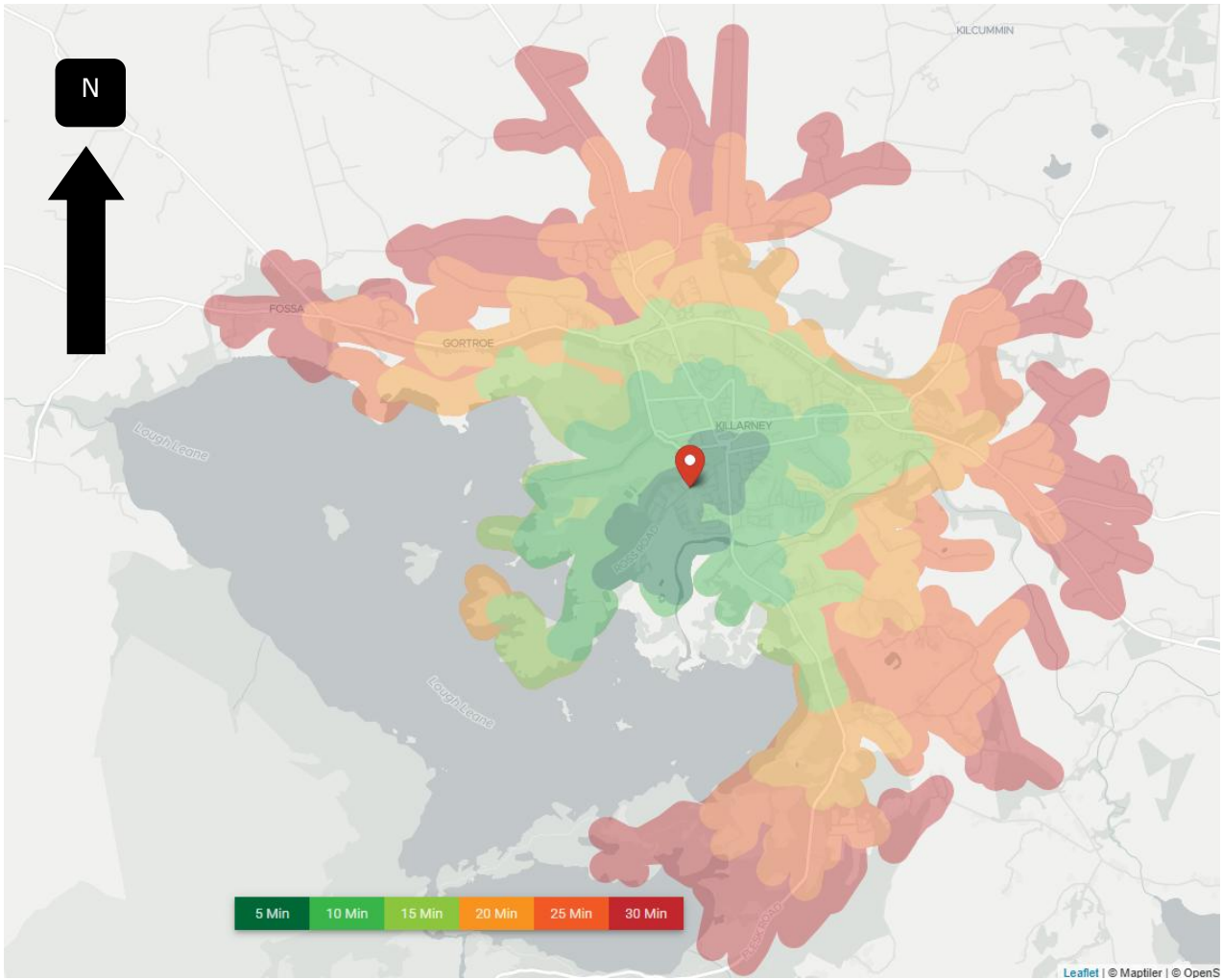


Figure 9.2: 30min Cycle Distance from Site

10 SUMMARY CONCLUSION

In accordance with the TII's "Traffic and Transport Assessment Guidelines", the traffic analysis was undertaken for the **Opening Year please 1 (2027), Opening Year +5 (2031)** and fifteen years from this date i.e., the **Opening Year+15 (2041)**.

In summary, the TTA assessment focused on the 1no. nearby traffic junction and the proposed development junction for this application. The priority junction of Upper Park Road and Woodlands Road was assessed as well as the development access junction.

The traffic modelling analysis carried out for these design year scenarios shows that:

- The assessed junctions are operating below capacity for all design years up to 2042 for both morning and evening peaks respectively.
- The development access junction reaches a maximum RFC of 11% in the 2042 AM with development scenario.
- The % increase in RFC between "without development" and "with development" scenarios are at a maximum of 4% at the Ross Road / Muckcross Rd Junction

Comparing the analysis of the traffic models, the development will not have a significant negative impact on the operation of these junctions from a capacity point-of-view.

11 REFERENCES

- TII. Traffic and Transport Assessment Guidelines, PE-PDV-02045
- National Roads Authority (2014) Traffic and Transport Assessment Guidelines
- Institution of Highways & Transportation (1994) Guidelines for Traffic Impact Assessment IHT, London
- National Roads Authority (2000) Road Geometry Handbook NRA, Dublin
- National Roads Authority Design Manual for Roads and Bridges NRA, Dublin
- Design Manual for Urban Roads and Streets
- Transport for Ireland (Oct 2016) Project Appraisal Guidelines for National Roads Unit 16.1 – Expansion Factors for Short Period Traffic Counts
- Transport for Ireland 2017. Geometric Design of Junctions, DN-GEO-03060
- Transport for Ireland 2017. Rural Road Link Design, DN-GEO-03031
- National Disability Authority (NDA) guidelines – Towards Best Practice in Provision of Transport Services
- TII approved junction simulation modelling program, Junctions 9
- Trip Rate Information Computer System (TRICS)
- Traffic Surveys: Irish Traffic Surveys Ltd.
- PCU (passenger carrying units) factors, Transport in The Urban Environment, The Institution of highways and Transportation.
- Google Maps
- Openstreetmaps

12 APPENDIX

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13 TRAFFIC COUNT DATA

(Traffic Count Data Available Upon Request)

14 TRICS

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

TOTAL VEHICLES

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 134 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	134	77	0.077	10.321	134	77	0.270	36.200	134	77	0.347	46.521
08:00 - 09:00	134	77	0.153	20.525	134	77	0.374	50.180	134	77	0.527	70.705
09:00 - 10:00	134	77	0.150	20.098	134	77	0.184	24.651	134	77	0.334	44.749
10:00 - 11:00	134	77	0.137	18.417	134	77	0.161	21.585	134	77	0.298	40.002
11:00 - 12:00	134	77	0.145	19.477	134	77	0.151	20.189	134	77	0.296	39.666
12:00 - 13:00	134	77	0.165	22.077	134	77	0.159	21.340	134	77	0.324	43.417
13:00 - 14:00	134	77	0.170	22.762	134	77	0.167	22.387	134	77	0.337	45.149
14:00 - 15:00	134	77	0.171	22.905	134	77	0.196	26.215	134	77	0.367	49.120
15:00 - 16:00	134	77	0.263	35.282	134	77	0.185	24.832	134	77	0.448	60.114
16:00 - 17:00	134	77	0.275	36.846	134	77	0.173	23.202	134	77	0.448	60.048
17:00 - 18:00	134	77	0.334	44.710	134	77	0.177	23.668	134	77	0.511	68.378
18:00 - 19:00	134	77	0.262	35.126	134	77	0.159	21.353	134	77	0.421	56.479
19:00 - 20:00	2	53	0.066	8.849	2	53	0.057	7.585	2	53	0.123	16.434
20:00 - 21:00	2	53	0.038	5.057	2	53	0.019	2.528	2	53	0.057	7.585
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			2.406	322.452			2.432	325.915			4.838	648.367

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

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

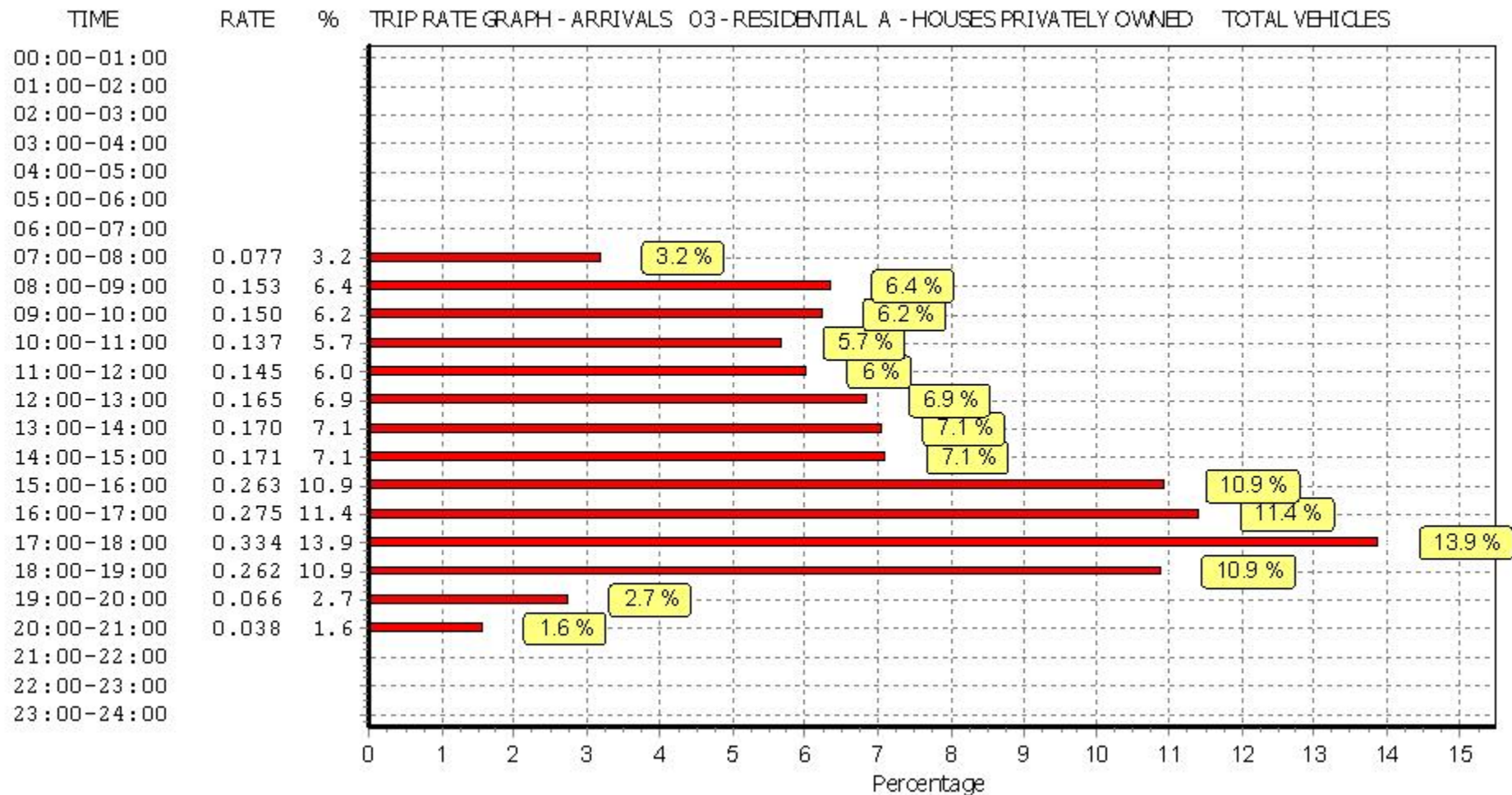
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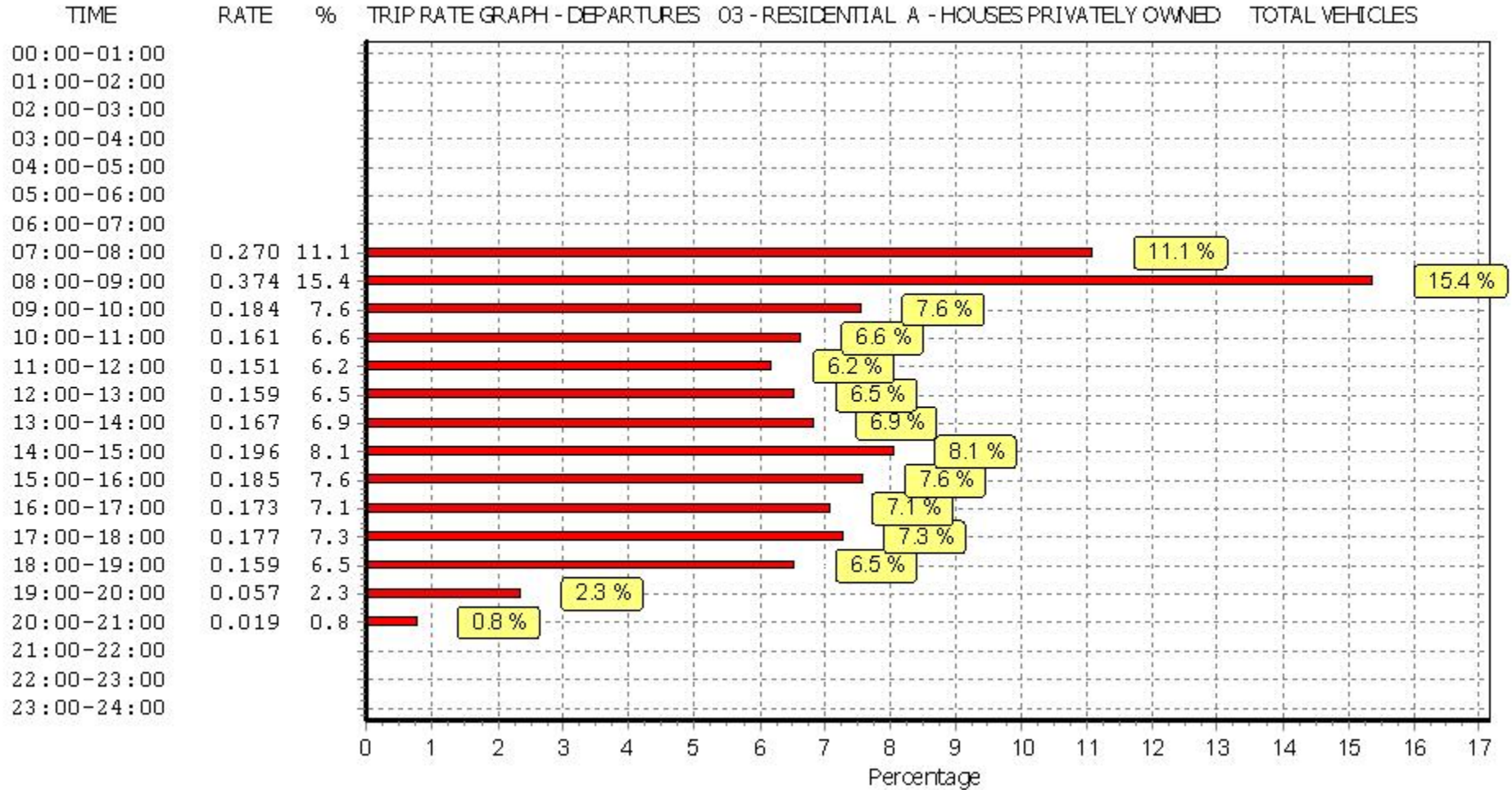
Parameter summary

Trip rate parameter range selected: 6 - 198 (units:)
 Survey date date range: 01/01/16 - 18/09/24
 Number of weekdays (Monday-Friday): 138
 Number of Saturdays: 1
 Number of Sundays: 1
 Surveys automatically removed from selection: 35
 Surveys manually removed from selection: 0

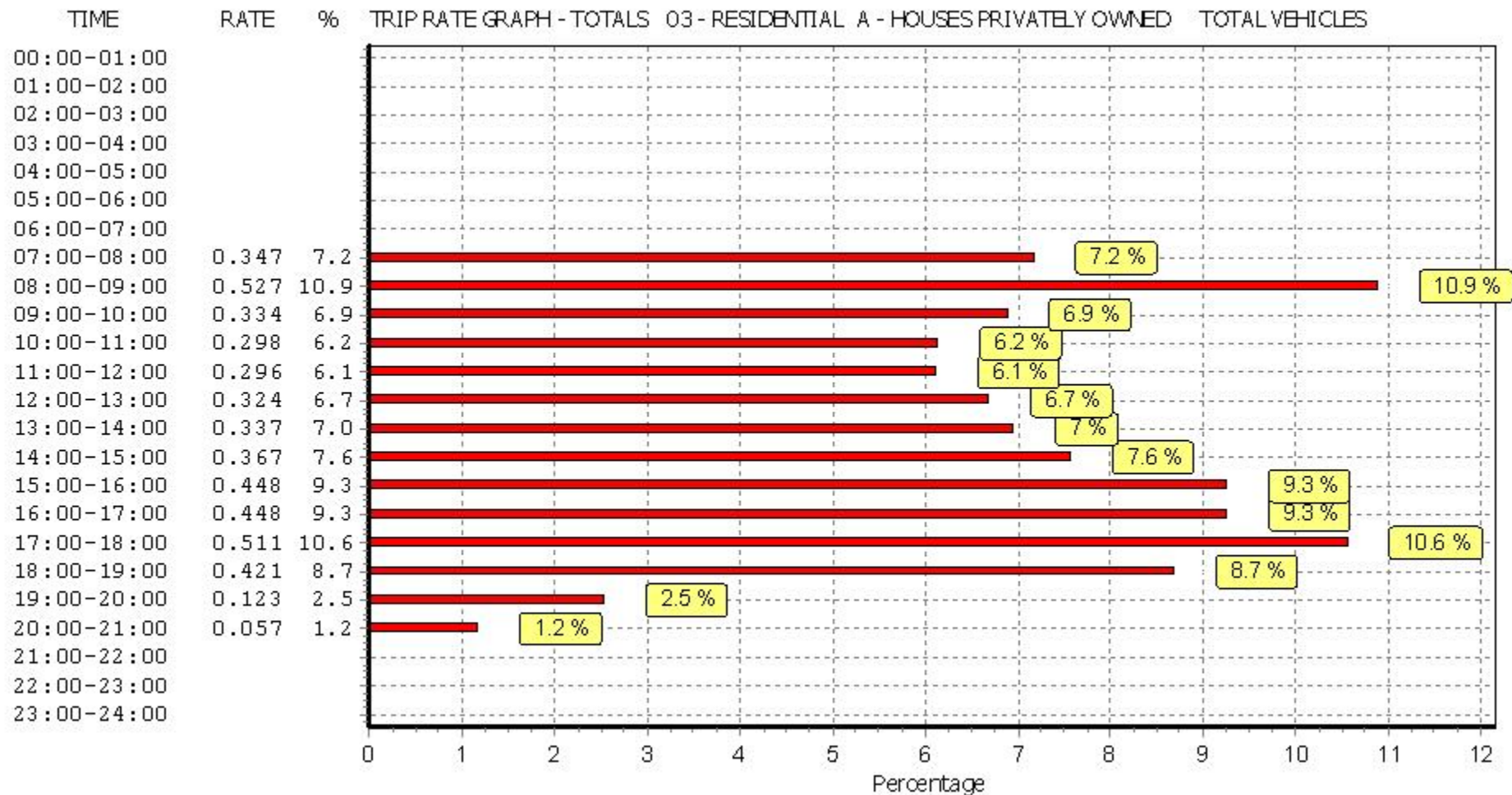
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY

TOTAL VEHICLES

Calculation factor: 100 sqm

Estimated TRIP rate value per 585 SQM shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00	3	420	0.159	0.929	3	420	0.000	0.000	3	420	0.159	0.929
07:00 - 08:00	19	500	2.115	12.373	19	500	0.979	5.725	19	500	3.094	18.098
08:00 - 09:00	19	500	3.578	20.930	19	500	2.946	17.237	19	500	6.524	38.167
09:00 - 10:00	19	500	1.379	8.064	19	500	1.231	7.202	19	500	2.610	15.266
10:00 - 11:00	19	500	0.474	2.770	19	500	0.295	1.724	19	500	0.769	4.494
11:00 - 12:00	19	500	0.484	2.832	19	500	0.358	2.093	19	500	0.842	4.925
12:00 - 13:00	19	500	1.368	8.003	19	500	1.515	8.865	19	500	2.883	16.868
13:00 - 14:00	19	500	0.810	4.740	19	500	1.179	6.895	19	500	1.989	11.635
14:00 - 15:00	19	500	0.537	3.140	19	500	0.442	2.585	19	500	0.979	5.725
15:00 - 16:00	19	500	0.894	5.233	19	500	0.937	5.479	19	500	1.831	10.712
16:00 - 17:00	19	500	1.400	8.187	19	500	1.642	9.603	19	500	3.042	17.790
17:00 - 18:00	19	500	2.536	14.836	19	500	3.378	19.761	19	500	5.914	34.597
18:00 - 19:00	18	520	0.139	0.813	18	520	0.684	4.003	18	520	0.823	4.816
19:00 - 20:00	1	450	0.222	1.300	1	450	2.222	13.000	1	450	2.444	14.300
20:00 - 21:00	1	450	0.000	0.000	1	450	0.000	0.000	1	450	0.000	0.000
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			16.095	94.150			17.808	104.172			33.903	198.322

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

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

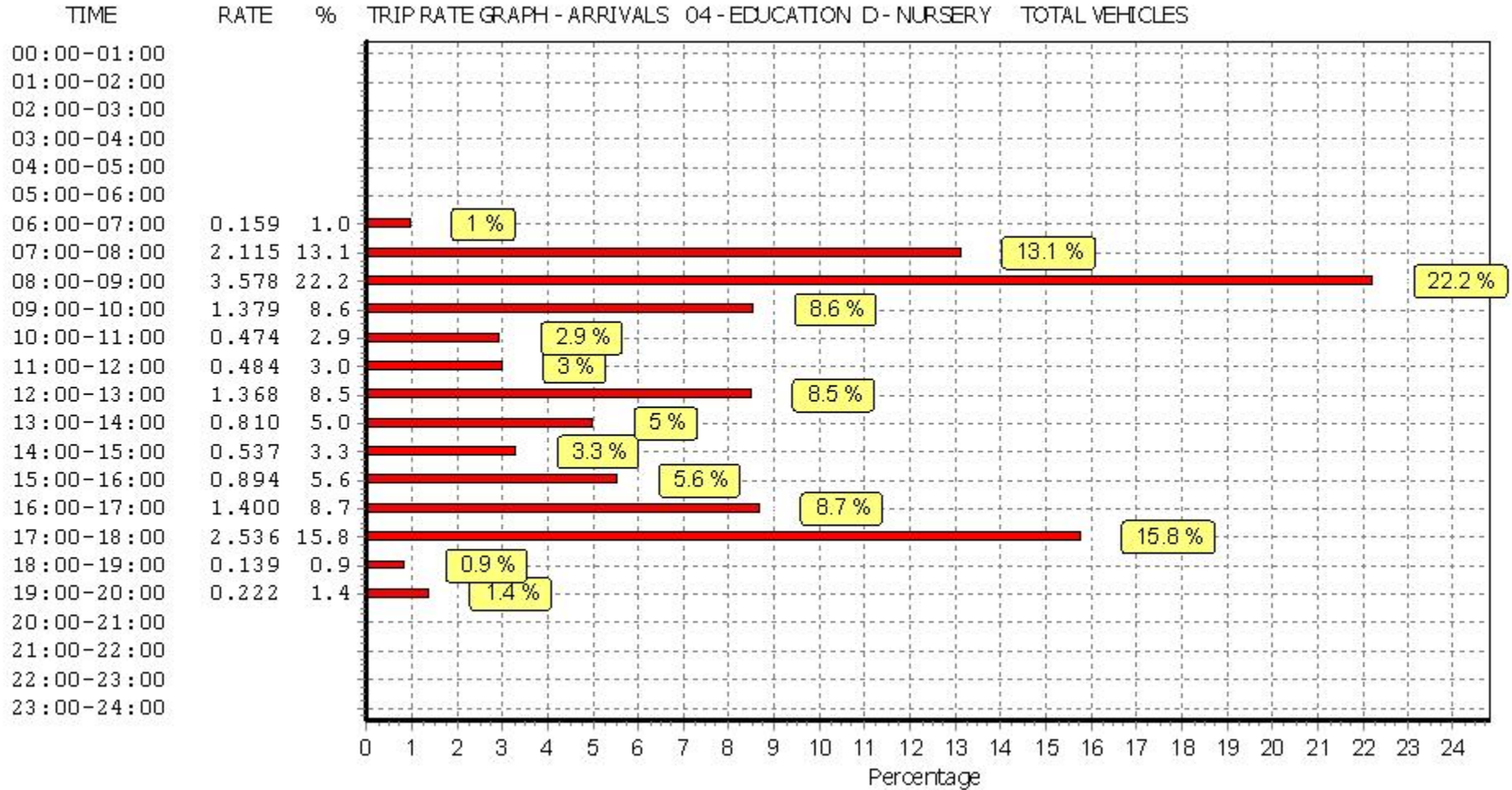
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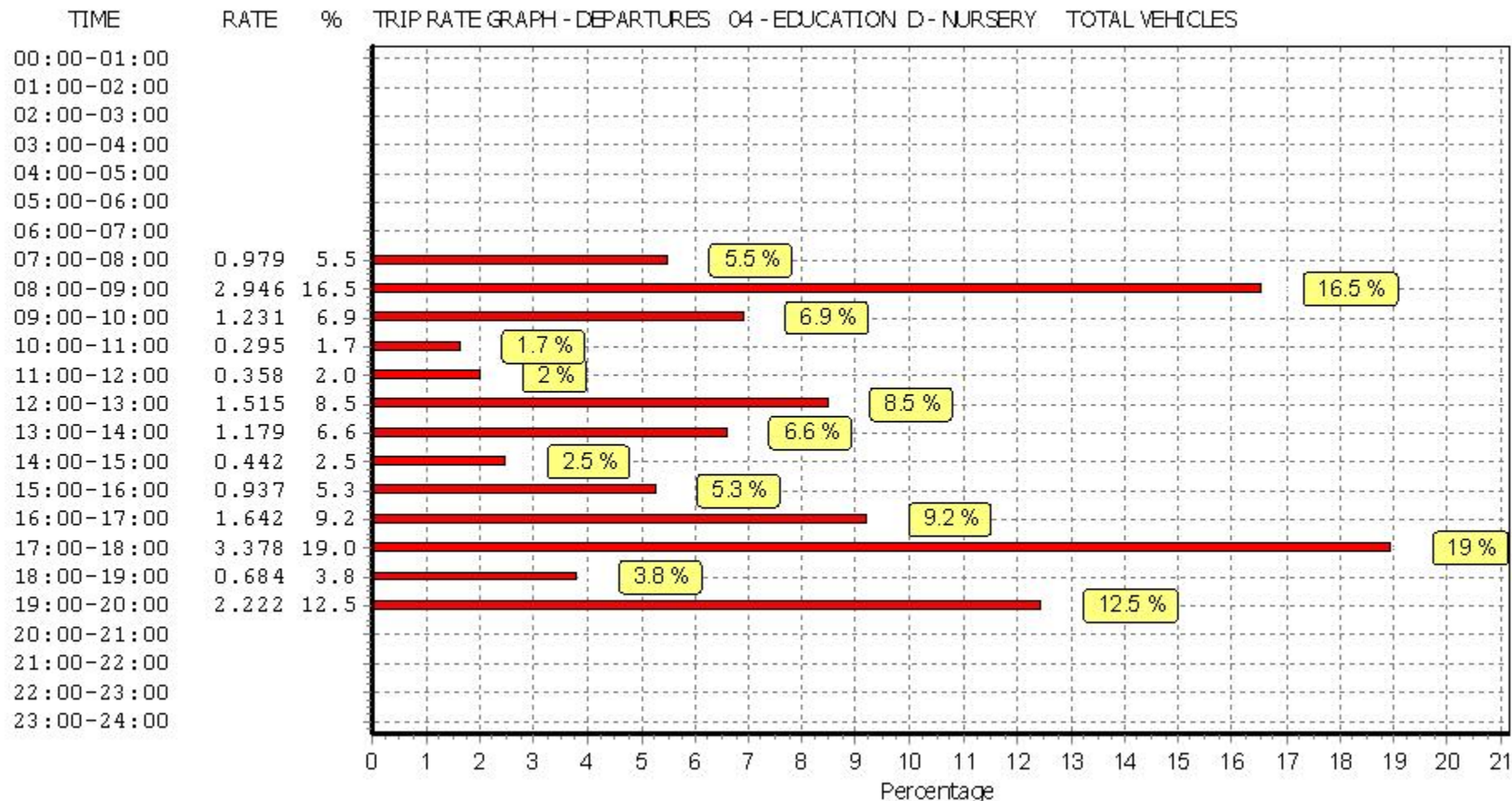
Parameter summary

Trip rate parameter range selected: 150 - 860 (units: sqm)
 Survey date date range: 01/01/16 - 06/09/23
 Number of weekdays (Monday-Friday): 19
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 1
 Surveys manually removed from selection: 0

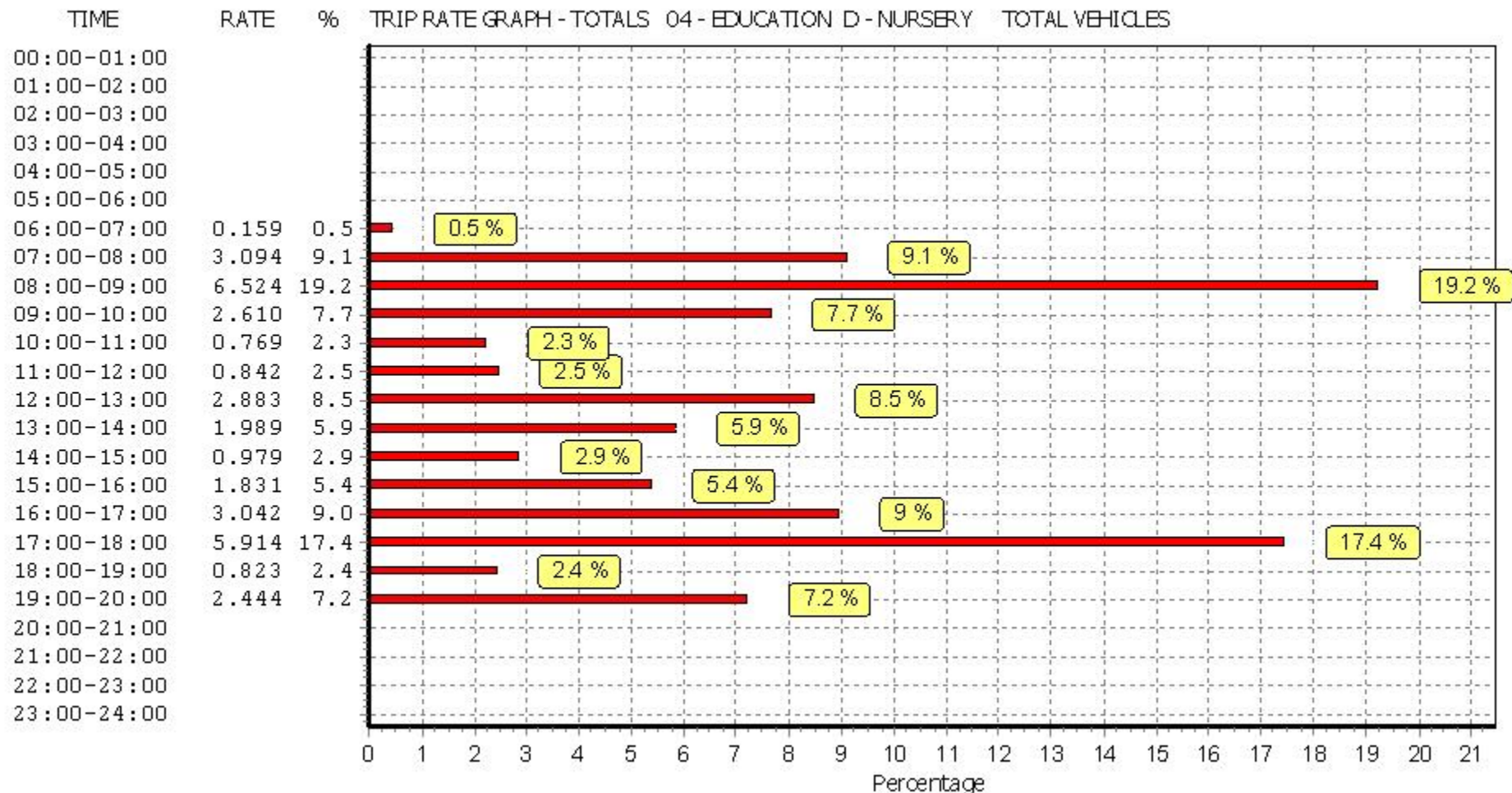
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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15 PICADY MODELLING RESULTS

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Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.0.0.2177

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Filename: Modelling.j11

Path: N:\TIA\25012TT Ross Rd Killarney LRD\Traffic Modelling

Report generation date: 26/03/2025 14:32:00

»2025 | Base | AM
»2025 | Base | PM
»2027 | Opening Year without Dev | AM
»2027 | Opening Year without Dev | PM
»2027 | Opening Year with Dev | AM
»2027 | Opening Year with Dev | PM
»2032 | without Dev | AM
»2032 | without Dev | PM
»2032 | with Dev | AM
»2032 | with Dev | PM
»2042 | without Dev | AM
»2042 | without Dev | PM
»2042 | with Dev | AM
»2042 | with Dev | PM

Summary of junction performance

	AM					PM								
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity		
2025 - Base														
Stream B-C	D1	0.0	0.00	0.00	A	900 %	D2	0.0	0.00	0.00	A	900 %		
Stream B-A		0.0	0.00	0.00	A			0.0	0.00	0.00	A			
Stream C-AB		0.0	0.00	0.00	A			0.0	0.00	0.00	A			
2027 - Opening Year with Dev														
Stream B-C	D5	0.1	7.13	0.08	A	390 %	D6	0.1	6.94	0.05	A	421 %		
Stream B-A		0.1	9.43	0.11	A			[Stream B-A]	0.1	9.32	0.07		A	[Stream B-A]
Stream C-AB		0.0	5.68	0.04	A				0.1	5.86	0.07		A	
2027 - Opening Year without Dev														
Stream B-C	D3	0.0	0.00	0.00	A	900 %	D4	0.0	0.00	0.00	A	900 %		
Stream B-A		0.0	0.00	0.00	A			0.0	0.00	0.00	A			
Stream C-AB		0.0	0.00	0.00	A			0.0	0.00	0.00	A			
2032 - with Dev														
Stream B-C	D9	0.1	7.14	0.08	A	386 %	D10	0.1	6.95	0.05	A	415 %		
Stream B-A		0.1	9.45	0.11	A			[Stream B-A]	0.1	9.34	0.07		A	[Stream B-A]
Stream C-AB		0.1	5.67	0.04	A				0.1	5.85	0.07		A	
2032 - without Dev														
Stream B-C	D7	0.0	0.00	0.00	A	900 %	D8	0.0	0.00	0.00	A	900 %		
Stream B-A		0.0	0.00	0.00	A			0.0	0.00	0.00	A			
Stream C-AB		0.0	0.00	0.00	A			0.0	0.00	0.00	A			
2042 - with Dev														
Stream B-C	D13	0.1	6.99	0.08	A	462 %	D14	0.1	6.95	0.05	A	413 %		
Stream B-A		0.1	9.21	0.11	A			[Stream B-A]	0.1	9.35	0.07		A	[Stream B-A]
Stream C-AB		0.0	5.58	0.04	A				0.1	5.85	0.07		A	
2042 - without Dev														
Stream B-C	D11	0.0	0.00	0.00	A	900 %	D12	0.0	0.00	0.00	A	900 %		
Stream B-A		0.0	0.00	0.00	A			0.0	0.00	0.00	A			
Stream C-AB		0.0	0.00	0.00	A			0.0	0.00	0.00	A			

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. 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	26/03/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MHL\cobrien
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

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

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2025	Base	AM	ONE HOUR	08:00	09:30	15
D2	2025	Base	PM	ONE HOUR	17:00	18:30	15
D3	2027	Opening Year without Dev	AM	ONE HOUR	08:00	09:30	15
D4	2027	Opening Year without Dev	PM	ONE HOUR	17:00	18:30	15
D5	2027	Opening Year with Dev	AM	ONE HOUR	08:00	09:30	15
D6	2027	Opening Year with Dev	PM	ONE HOUR	17:00	18:30	15
D7	2032	without Dev	AM	ONE HOUR	08:00	09:30	15
D8	2032	without Dev	PM	ONE HOUR	17:00	18:30	15
D9	2032	with Dev	AM	ONE HOUR	08:00	09:30	15
D10	2032	with Dev	PM	ONE HOUR	17:00	18:30	15
D11	2042	without Dev	AM	ONE HOUR	08:00	09:30	15
D12	2042	without Dev	PM	ONE HOUR	17:00	18:30	15
D13	2042	with Dev	AM	ONE HOUR	08:00	09:30	15
D14	2042	with Dev	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2025 | Base | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

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

Junction Network

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

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has left-turn storage	Visibility for left turn (m)	Blocks?	Blocking queue (PCU)
C	7.50			117.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane Width (Right) (m)	Lane Width (Left) (m)	Visibility to right (m)	Visibility to left (m)
B	Two lanes	2.20	2.20	50	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	454	0.077	0.195	0.123	0.279
B-C	574	0.082	0.208	-	-
C-B	642	0.232	0.232	-	-

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	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2025	Base	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	43	100.000
B		✓	0	100.000
C		✓	49	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A	B	C	
A	0	0	43	
B	0	0	0	
C	49	0	0	

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	567	0.000	0	0.0	0.000	A
B-A	0	0.00	443	0.000	0	0.0	0.000	A
C-AB	0	0.00	634	0.000	0	0.0	0.000	A
C-A	37	0.00			37			
A-B	0	0.00			0			
A-C	32	0.00			32			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	566	0.000	0	0.0	0.000	A
B-A	0	0.00	441	0.000	0	0.0	0.000	A
C-AB	0	0.00	633	0.000	0	0.0	0.000	A
C-A	44	0.00			44			
A-B	0	0.00			0			
A-C	39	0.00			39			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	564	0.000	0	0.0	0.000	A
B-A	0	0.00	438	0.000	0	0.0	0.000	A
C-AB	0	0.00	631	0.000	0	0.0	0.000	A
C-A	54	0.00			54			
A-B	0	0.00			0			
A-C	47	0.00			47			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	564	0.000	0	0.0	0.000	A
B-A	0	0.00	438	0.000	0	0.0	0.000	A
C-AB	0	0.00	631	0.000	0	0.0	0.000	A
C-A	54	0.00			54			
A-B	0	0.00			0			
A-C	47	0.00			47			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	566	0.000	0	0.0	0.000	A
B-A	0	0.00	441	0.000	0	0.0	0.000	A
C-AB	0	0.00	633	0.000	0	0.0	0.000	A
C-A	44	0.00			44			
A-B	0	0.00			0			
A-C	39	0.00			39			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	567	0.000	0	0.0	0.000	A
B-A	0	0.00	443	0.000	0	0.0	0.000	A
C-AB	0	0.00	634	0.000	0	0.0	0.000	A
C-A	37	0.00			37			
A-B	0	0.00			0			
A-C	32	0.00			32			

2025 | Base | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

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

Junction Network

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2025	Base	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	68	100.000
B		✓	0	100.000
C		✓	62	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	68
	B	0	0	0
	C	62	0	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	438	0.000	0	0.0	0.000	A
C-AB	0	0.00	630	0.000	0	0.0	0.000	A
C-A	47	0.00			47			
A-B	0	0.00			0			
A-C	51	0.00			51			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	561	0.000	0	0.0	0.000	A
B-A	0	0.00	435	0.000	0	0.0	0.000	A
C-AB	0	0.00	628	0.000	0	0.0	0.000	A
C-A	56	0.00			56			
A-B	0	0.00			0			
A-C	61	0.00			61			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	558	0.000	0	0.0	0.000	A
B-A	0	0.00	431	0.000	0	0.0	0.000	A
C-AB	0	0.00	624	0.000	0	0.0	0.000	A
C-A	68	0.00			68			
A-B	0	0.00			0			
A-C	75	0.00			75			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	558	0.000	0	0.0	0.000	A
B-A	0	0.00	431	0.000	0	0.0	0.000	A
C-AB	0	0.00	624	0.000	0	0.0	0.000	A
C-A	68	0.00			68			
A-B	0	0.00			0			
A-C	75	0.00			75			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	561	0.000	0	0.0	0.000	A
B-A	0	0.00	435	0.000	0	0.0	0.000	A
C-AB	0	0.00	628	0.000	0	0.0	0.000	A
C-A	56	0.00			56			
A-B	0	0.00			0			
A-C	61	0.00			61			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	438	0.000	0	0.0	0.000	A
C-AB	0	0.00	630	0.000	0	0.0	0.000	A
C-A	47	0.00			47			
A-B	0	0.00			0			
A-C	51	0.00			51			

2027 | Opening Year without Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

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

Junction Network

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2027	Opening Year without Dev	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	44	100.000
B		✓	0	100.000
C		✓	50	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	44
	B	0	0	0
	C	50	0	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	567	0.000	0	0.0	0.000	A
B-A	0	0.00	443	0.000	0	0.0	0.000	A
C-AB	0	0.00	634	0.000	0	0.0	0.000	A
C-A	38	0.00			38			
A-B	0	0.00			0			
A-C	33	0.00			33			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	566	0.000	0	0.0	0.000	A
B-A	0	0.00	441	0.000	0	0.0	0.000	A
C-AB	0	0.00	633	0.000	0	0.0	0.000	A
C-A	45	0.00			45			
A-B	0	0.00			0			
A-C	40	0.00			40			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	564	0.000	0	0.0	0.000	A
B-A	0	0.00	438	0.000	0	0.0	0.000	A
C-AB	0	0.00	630	0.000	0	0.0	0.000	A
C-A	55	0.00			55			
A-B	0	0.00			0			
A-C	48	0.00			48			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	564	0.000	0	0.0	0.000	A
B-A	0	0.00	438	0.000	0	0.0	0.000	A
C-AB	0	0.00	630	0.000	0	0.0	0.000	A
C-A	55	0.00			55			
A-B	0	0.00			0			
A-C	48	0.00			48			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	566	0.000	0	0.0	0.000	A
B-A	0	0.00	441	0.000	0	0.0	0.000	A
C-AB	0	0.00	633	0.000	0	0.0	0.000	A
C-A	45	0.00			45			
A-B	0	0.00			0			
A-C	40	0.00			40			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	567	0.000	0	0.0	0.000	A
B-A	0	0.00	443	0.000	0	0.0	0.000	A
C-AB	0	0.00	634	0.000	0	0.0	0.000	A
C-A	38	0.00			38			
A-B	0	0.00			0			
A-C	33	0.00			33			

2027 | Opening Year without Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

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

Junction Network

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2027	Opening Year without Dev	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	70	100.000
B		✓	0	100.000
C		✓	63	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	70
	B	0	0	0
	C	63	0	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	438	0.000	0	0.0	0.000	A
C-AB	0	0.00	629	0.000	0	0.0	0.000	A
C-A	47	0.00			47			
A-B	0	0.00			0			
A-C	53	0.00			53			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	561	0.000	0	0.0	0.000	A
B-A	0	0.00	435	0.000	0	0.0	0.000	A
C-AB	0	0.00	627	0.000	0	0.0	0.000	A
C-A	57	0.00			57			
A-B	0	0.00			0			
A-C	63	0.00			63			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	558	0.000	0	0.0	0.000	A
B-A	0	0.00	430	0.000	0	0.0	0.000	A
C-AB	0	0.00	624	0.000	0	0.0	0.000	A
C-A	69	0.00			69			
A-B	0	0.00			0			
A-C	77	0.00			77			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	558	0.000	0	0.0	0.000	A
B-A	0	0.00	430	0.000	0	0.0	0.000	A
C-AB	0	0.00	624	0.000	0	0.0	0.000	A
C-A	69	0.00			69			
A-B	0	0.00			0			
A-C	77	0.00			77			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	561	0.000	0	0.0	0.000	A
B-A	0	0.00	435	0.000	0	0.0	0.000	A
C-AB	0	0.00	627	0.000	0	0.0	0.000	A
C-A	57	0.00			57			
A-B	0	0.00			0			
A-C	63	0.00			63			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	438	0.000	0	0.0	0.000	A
C-AB	0	0.00	629	0.000	0	0.0	0.000	A
C-A	47	0.00			47			
A-B	0	0.00			0			
A-C	53	0.00			53			

2027 | Opening Year with Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		3.75	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	390	Stream B-A	3.75	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2027	Opening Year with Dev	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	64	100.000
B		✓	81	100.000
C		✓	73	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	20	44
	B	43	0	38
	C	50	23	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.08	7.13	0.1	A
B-A	0.11	9.43	0.1	A
C-AB	0.04	5.68	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	0.00	555	0.052	28	0.1	6.828	A
B-A	32	0.00	437	0.074	32	0.1	8.891	A
C-AB	18	0.00	655	0.028	18	0.0	5.654	A
C-A	37	0.00			37			
A-B	15	0.00			15			
A-C	33	0.00			33			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	0.00	552	0.062	34	0.1	6.956	A
B-A	39	0.00	434	0.089	39	0.1	9.112	A
C-AB	22	0.00	658	0.034	22	0.0	5.665	A
C-A	43	0.00			43			
A-B	18	0.00			18			
A-C	40	0.00			40			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	0.00	546	0.077	42	0.1	7.133	A
B-A	47	0.00	429	0.110	47	0.1	9.427	A
C-AB	28	0.00	661	0.042	28	0.0	5.680	A
C-A	53	0.00			53			
A-B	22	0.00			22			
A-C	48	0.00			48			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	0.00	546	0.077	42	0.1	7.133	A
B-A	47	0.00	429	0.110	47	0.1	9.431	A
C-AB	28	0.00	661	0.042	28	0.0	5.683	A
C-A	53	0.00			53			
A-B	22	0.00			22			
A-C	48	0.00			48			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	0.00	552	0.062	34	0.1	6.961	A
B-A	39	0.00	434	0.089	39	0.1	9.121	A
C-AB	22	0.00	658	0.034	22	0.0	5.666	A
C-A	43	0.00			43			
A-B	18	0.00			18			
A-C	40	0.00			40			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	0.00	555	0.052	29	0.1	6.839	A
B-A	32	0.00	437	0.074	32	0.1	8.903	A
C-AB	18	0.00	655	0.028	18	0.0	5.655	A
C-A	37	0.00			37			
A-B	15	0.00			15			
A-C	33	0.00			33			

2027 | Opening Year with Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.60	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	421	Stream B-A	2.60	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2027	Opening Year with Dev	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	103	100.000
B		✓	51	100.000
C		✓	101	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	33	70
	B	27	0	24
	C	63	38	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	6.94	0.1	A
B-A	0.07	9.32	0.1	A
C-AB	0.07	5.86	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	0.00	554	0.033	18	0.0	6.710	A
B-A	20	0.00	428	0.047	20	0.0	8.822	A
C-AB	31	0.00	655	0.047	31	0.1	5.767	A
C-A	45	0.00			45			
A-B	25	0.00			25			
A-C	53	0.00			53			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	0.00	550	0.039	22	0.0	6.807	A
B-A	24	0.00	423	0.057	24	0.1	9.028	A
C-AB	37	0.00	657	0.057	37	0.1	5.806	A
C-A	53	0.00			53			
A-B	30	0.00			30			
A-C	63	0.00			63			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	0.00	545	0.048	26	0.1	6.941	A
B-A	30	0.00	416	0.071	30	0.1	9.319	A
C-AB	47	0.00	661	0.071	47	0.1	5.860	A
C-A	64	0.00			64			
A-B	36	0.00			36			
A-C	77	0.00			77			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	0.00	545	0.048	26	0.1	6.942	A
B-A	30	0.00	416	0.071	30	0.1	9.321	A
C-AB	47	0.00	661	0.071	47	0.1	5.863	A
C-A	64	0.00			64			
A-B	36	0.00			36			
A-C	77	0.00			77			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	0.00	550	0.039	22	0.0	6.808	A
B-A	24	0.00	423	0.057	24	0.1	9.035	A
C-AB	37	0.00	657	0.057	37	0.1	5.808	A
C-A	53	0.00			53			
A-B	30	0.00			30			
A-C	63	0.00			63			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	0.00	554	0.033	18	0.0	6.717	A
B-A	20	0.00	428	0.048	20	0.1	8.834	A
C-AB	31	0.00	655	0.047	31	0.1	5.771	A
C-A	45	0.00			45			
A-B	25	0.00			25			
A-C	53	0.00			53			

2032 | without Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

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

Junction Network

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2032	without Dev	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	46	100.000
B		✓	0	100.000
C		✓	52	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	46
	B	0	0	0
	C	52	0	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	567	0.000	0	0.0	0.000	A
B-A	0	0.00	442	0.000	0	0.0	0.000	A
C-AB	0	0.00	634	0.000	0	0.0	0.000	A
C-A	39	0.00			39			
A-B	0	0.00			0			
A-C	35	0.00			35			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	565	0.000	0	0.0	0.000	A
B-A	0	0.00	440	0.000	0	0.0	0.000	A
C-AB	0	0.00	632	0.000	0	0.0	0.000	A
C-A	47	0.00			47			
A-B	0	0.00			0			
A-C	41	0.00			41			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	437	0.000	0	0.0	0.000	A
C-AB	0	0.00	630	0.000	0	0.0	0.000	A
C-A	57	0.00			57			
A-B	0	0.00			0			
A-C	51	0.00			51			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	437	0.000	0	0.0	0.000	A
C-AB	0	0.00	630	0.000	0	0.0	0.000	A
C-A	57	0.00			57			
A-B	0	0.00			0			
A-C	51	0.00			51			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	565	0.000	0	0.0	0.000	A
B-A	0	0.00	440	0.000	0	0.0	0.000	A
C-AB	0	0.00	632	0.000	0	0.0	0.000	A
C-A	47	0.00			47			
A-B	0	0.00			0			
A-C	41	0.00			41			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	567	0.000	0	0.0	0.000	A
B-A	0	0.00	442	0.000	0	0.0	0.000	A
C-AB	0	0.00	634	0.000	0	0.0	0.000	A
C-A	39	0.00			39			
A-B	0	0.00			0			
A-C	35	0.00			35			

2032 | without Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

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

Junction Network

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2032	without Dev	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	72	100.000
B		✓	0	100.000
C		✓	66	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	72
	B	0	0	0
	C	66	0	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	437	0.000	0	0.0	0.000	A
C-AB	0	0.00	629	0.000	0	0.0	0.000	A
C-A	50	0.00			50			
A-B	0	0.00			0			
A-C	54	0.00			54			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	561	0.000	0	0.0	0.000	A
B-A	0	0.00	434	0.000	0	0.0	0.000	A
C-AB	0	0.00	627	0.000	0	0.0	0.000	A
C-A	59	0.00			59			
A-B	0	0.00			0			
A-C	65	0.00			65			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	557	0.000	0	0.0	0.000	A
B-A	0	0.00	430	0.000	0	0.0	0.000	A
C-AB	0	0.00	623	0.000	0	0.0	0.000	A
C-A	73	0.00			73			
A-B	0	0.00			0			
A-C	79	0.00			79			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	557	0.000	0	0.0	0.000	A
B-A	0	0.00	430	0.000	0	0.0	0.000	A
C-AB	0	0.00	623	0.000	0	0.0	0.000	A
C-A	73	0.00			73			
A-B	0	0.00			0			
A-C	79	0.00			79			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	561	0.000	0	0.0	0.000	A
B-A	0	0.00	434	0.000	0	0.0	0.000	A
C-AB	0	0.00	627	0.000	0	0.0	0.000	A
C-A	59	0.00			59			
A-B	0	0.00			0			
A-C	65	0.00			65			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	437	0.000	0	0.0	0.000	A
C-AB	0	0.00	629	0.000	0	0.0	0.000	A
C-A	50	0.00			50			
A-B	0	0.00			0			
A-C	54	0.00			54			

2032 | with Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		3.69	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	386	Stream B-A	3.69	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2032	with Dev	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	66	100.000
B		✓	81	100.000
C		✓	75	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	20	46
	B	43	0	38
	C	52	23	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.08	7.14	0.1	A
B-A	0.11	9.45	0.1	A
C-AB	0.04	5.67	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	0.00	555	0.052	28	0.1	6.832	A
B-A	32	0.00	436	0.074	32	0.1	8.901	A
C-AB	18	0.00	656	0.028	18	0.0	5.649	A
C-A	38	0.00			38			
A-B	15	0.00			15			
A-C	35	0.00			35			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	0.00	551	0.062	34	0.1	6.961	A
B-A	39	0.00	433	0.089	39	0.1	9.126	A
C-AB	22	0.00	658	0.034	22	0.0	5.658	A
C-A	45	0.00			45			
A-B	18	0.00			18			
A-C	41	0.00			41			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	0.00	546	0.077	42	0.1	7.140	A
B-A	47	0.00	428	0.111	47	0.1	9.445	A
C-AB	28	0.00	662	0.042	28	0.0	5.673	A
C-A	55	0.00			55			
A-B	22	0.00			22			
A-C	51	0.00			51			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	0.00	546	0.077	42	0.1	7.140	A
B-A	47	0.00	428	0.111	47	0.1	9.449	A
C-AB	28	0.00	662	0.042	28	0.1	5.673	A
C-A	55	0.00			55			
A-B	22	0.00			22			
A-C	51	0.00			51			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	0.00	551	0.062	34	0.1	6.964	A
B-A	39	0.00	433	0.089	39	0.1	9.134	A
C-AB	22	0.00	658	0.034	22	0.0	5.662	A
C-A	45	0.00			45			
A-B	18	0.00			18			
A-C	41	0.00			41			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	0.00	555	0.052	29	0.1	6.840	A
B-A	32	0.00	436	0.074	32	0.1	8.913	A
C-AB	18	0.00	656	0.028	18	0.0	5.649	A
C-A	38	0.00			38			
A-B	15	0.00			15			
A-C	35	0.00			35			

2032 | with Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.56	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	415	Stream B-A	2.56	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2032	with Dev	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	105	100.000
B		✓	51	100.000
C		✓	104	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	33	72
	B	27	0	24
	C	66	38	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	6.95	0.1	A
B-A	0.07	9.34	0.1	A
C-AB	0.07	5.85	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	0.00	554	0.033	18	0.0	6.714	A
B-A	20	0.00	427	0.048	20	0.0	8.834	A
C-AB	31	0.00	656	0.047	31	0.1	5.758	A
C-A	47	0.00			47			
A-B	25	0.00			25			
A-C	54	0.00			54			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	0.00	550	0.039	22	0.0	6.812	A
B-A	24	0.00	422	0.057	24	0.1	9.043	A
C-AB	38	0.00	659	0.057	38	0.1	5.795	A
C-A	56	0.00			56			
A-B	30	0.00			30			
A-C	65	0.00			65			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	0.00	544	0.049	26	0.1	6.948	A
B-A	30	0.00	415	0.072	30	0.1	9.339	A
C-AB	47	0.00	663	0.071	47	0.1	5.846	A
C-A	67	0.00			67			
A-B	36	0.00			36			
A-C	79	0.00			79			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	0.00	544	0.049	26	0.1	6.948	A
B-A	30	0.00	415	0.072	30	0.1	9.341	A
C-AB	47	0.00	663	0.071	47	0.1	5.849	A
C-A	67	0.00			67			
A-B	36	0.00			36			
A-C	79	0.00			79			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	0.00	550	0.039	22	0.0	6.816	A
B-A	24	0.00	422	0.057	24	0.1	9.050	A
C-AB	38	0.00	659	0.057	38	0.1	5.797	A
C-A	56	0.00			56			
A-B	30	0.00			30			
A-C	65	0.00			65			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	0.00	554	0.033	18	0.0	6.721	A
B-A	20	0.00	427	0.048	20	0.1	8.847	A
C-AB	31	0.00	656	0.047	31	0.1	5.764	A
C-A	47	0.00			47			
A-B	25	0.00			25			
A-C	54	0.00			54			

2042 | without Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

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

Junction Network

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2042	without Dev	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	46	100.000
B		✓	0	100.000
C		✓	52	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	46
	B	0	0	0
	C	52	0	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	567	0.000	0	0.0	0.000	A
B-A	0	0.00	442	0.000	0	0.0	0.000	A
C-AB	0	0.00	634	0.000	0	0.0	0.000	A
C-A	39	0.00			39			
A-B	0	0.00			0			
A-C	35	0.00			35			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	565	0.000	0	0.0	0.000	A
B-A	0	0.00	440	0.000	0	0.0	0.000	A
C-AB	0	0.00	632	0.000	0	0.0	0.000	A
C-A	47	0.00			47			
A-B	0	0.00			0			
A-C	41	0.00			41			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	437	0.000	0	0.0	0.000	A
C-AB	0	0.00	630	0.000	0	0.0	0.000	A
C-A	57	0.00			57			
A-B	0	0.00			0			
A-C	51	0.00			51			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	437	0.000	0	0.0	0.000	A
C-AB	0	0.00	630	0.000	0	0.0	0.000	A
C-A	57	0.00			57			
A-B	0	0.00			0			
A-C	51	0.00			51			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	565	0.000	0	0.0	0.000	A
B-A	0	0.00	440	0.000	0	0.0	0.000	A
C-AB	0	0.00	632	0.000	0	0.0	0.000	A
C-A	47	0.00			47			
A-B	0	0.00			0			
A-C	41	0.00			41			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	567	0.000	0	0.0	0.000	A
B-A	0	0.00	442	0.000	0	0.0	0.000	A
C-AB	0	0.00	634	0.000	0	0.0	0.000	A
C-A	39	0.00			39			
A-B	0	0.00			0			
A-C	35	0.00			35			

2042 | without Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

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

Junction Network

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2042	without Dev	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	73	100.000
B		✓	0	100.000
C		✓	66	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	73
	B	0	0	0
	C	66	0	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	437	0.000	0	0.0	0.000	A
C-AB	0	0.00	629	0.000	0	0.0	0.000	A
C-A	50	0.00			50			
A-B	0	0.00			0			
A-C	55	0.00			55			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	560	0.000	0	0.0	0.000	A
B-A	0	0.00	434	0.000	0	0.0	0.000	A
C-AB	0	0.00	626	0.000	0	0.0	0.000	A
C-A	59	0.00			59			
A-B	0	0.00			0			
A-C	66	0.00			66			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	557	0.000	0	0.0	0.000	A
B-A	0	0.00	429	0.000	0	0.0	0.000	A
C-AB	0	0.00	623	0.000	0	0.0	0.000	A
C-A	73	0.00			73			
A-B	0	0.00			0			
A-C	80	0.00			80			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	557	0.000	0	0.0	0.000	A
B-A	0	0.00	429	0.000	0	0.0	0.000	A
C-AB	0	0.00	623	0.000	0	0.0	0.000	A
C-A	73	0.00			73			
A-B	0	0.00			0			
A-C	80	0.00			80			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	560	0.000	0	0.0	0.000	A
B-A	0	0.00	434	0.000	0	0.0	0.000	A
C-AB	0	0.00	626	0.000	0	0.0	0.000	A
C-A	59	0.00			59			
A-B	0	0.00			0			
A-C	66	0.00			66			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0.00	563	0.000	0	0.0	0.000	A
B-A	0	0.00	437	0.000	0	0.0	0.000	A
C-AB	0	0.00	629	0.000	0	0.0	0.000	A
C-A	50	0.00			50			
A-B	0	0.00			0			
A-C	55	0.00			55			

2042 | with Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		4.55	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	462	Stream B-A	4.55	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2042	with Dev	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	20	100.000
B		✓	81	100.000
C		✓	75	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	20	0
	B	43	0	38
	C	52	23	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.08	6.99	0.1	A
B-A	0.11	9.21	0.1	A
C-AB	0.04	5.58	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	0.00	562	0.051	28	0.1	6.738	A
B-A	32	0.00	443	0.073	32	0.1	8.749	A
C-AB	18	0.00	663	0.028	18	0.0	5.580	A
C-A	38	0.00			38			
A-B	15	0.00			15			
A-C	0	0.00			0			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	0.00	560	0.061	34	0.1	6.847	A
B-A	39	0.00	441	0.088	39	0.1	8.942	A
C-AB	22	0.00	668	0.033	22	0.0	5.576	A
C-A	45	0.00			45			
A-B	18	0.00			18			
A-C	0	0.00			0			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	0.00	557	0.075	42	0.1	6.993	A
B-A	47	0.00	438	0.108	47	0.1	9.206	A
C-AB	28	0.00	674	0.041	28	0.0	5.572	A
C-A	55	0.00			55			
A-B	22	0.00			22			
A-C	0	0.00			0			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	0.00	557	0.075	42	0.1	6.993	A
B-A	47	0.00	438	0.108	47	0.1	9.209	A
C-AB	28	0.00	674	0.041	28	0.0	5.573	A
C-A	55	0.00			55			
A-B	22	0.00			22			
A-C	0	0.00			0			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	0.00	560	0.061	34	0.1	6.852	A
B-A	39	0.00	441	0.088	39	0.1	8.949	A
C-AB	22	0.00	668	0.033	22	0.0	5.579	A
C-A	45	0.00			45			
A-B	18	0.00			18			
A-C	0	0.00			0			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	0.00	562	0.051	29	0.1	6.750	A
B-A	32	0.00	443	0.073	32	0.1	8.765	A
C-AB	18	0.00	663	0.028	18	0.0	5.580	A
C-A	38	0.00			38			
A-B	15	0.00			15			
A-C	0	0.00			0			

2042 | with Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to left	Arm B - Minor arm geometry	Visibility to left expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.55	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Right	Normal/unknown	413	Stream B-A	2.55	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2042	with Dev	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	106	100.000
B		✓	51	100.000
C		✓	104	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	33	73
	B	27	0	24
	C	66	38	0

Vehicle Mix

Heavy Vehicle %

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	6.95	0.1	A
B-A	0.07	9.35	0.1	A
C-AB	0.07	5.85	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	0.00	554	0.033	18	0.0	6.715	A
B-A	20	0.00	427	0.048	20	0.0	8.838	A
C-AB	31	0.00	656	0.047	31	0.1	5.759	A
C-A	47	0.00			47			
A-B	25	0.00			25			
A-C	55	0.00			55			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	0.00	550	0.039	22	0.0	6.814	A
B-A	24	0.00	422	0.058	24	0.1	9.047	A
C-AB	38	0.00	658	0.057	38	0.1	5.797	A
C-A	56	0.00			56			
A-B	30	0.00			30			
A-C	66	0.00			66			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	0.00	544	0.049	26	0.1	6.951	A
B-A	30	0.00	415	0.072	30	0.1	9.344	A
C-AB	47	0.00	662	0.071	47	0.1	5.848	A
C-A	67	0.00			67			
A-B	36	0.00			36			
A-C	80	0.00			80			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	0.00	544	0.049	26	0.1	6.951	A
B-A	30	0.00	415	0.072	30	0.1	9.347	A
C-AB	47	0.00	662	0.071	47	0.1	5.849	A
C-A	67	0.00			67			
A-B	36	0.00			36			
A-C	80	0.00			80			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	0.00	550	0.039	22	0.0	6.818	A
B-A	24	0.00	422	0.058	24	0.1	9.053	A
C-AB	38	0.00	659	0.057	38	0.1	5.801	A
C-A	56	0.00			56			
A-B	30	0.00			30			
A-C	66	0.00			66			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	0.00	554	0.033	18	0.0	6.722	A
B-A	20	0.00	427	0.048	20	0.1	8.850	A
C-AB	31	0.00	656	0.047	31	0.1	5.763	A
C-A	47	0.00			47			
A-B	25	0.00			25			
A-C	55	0.00			55			

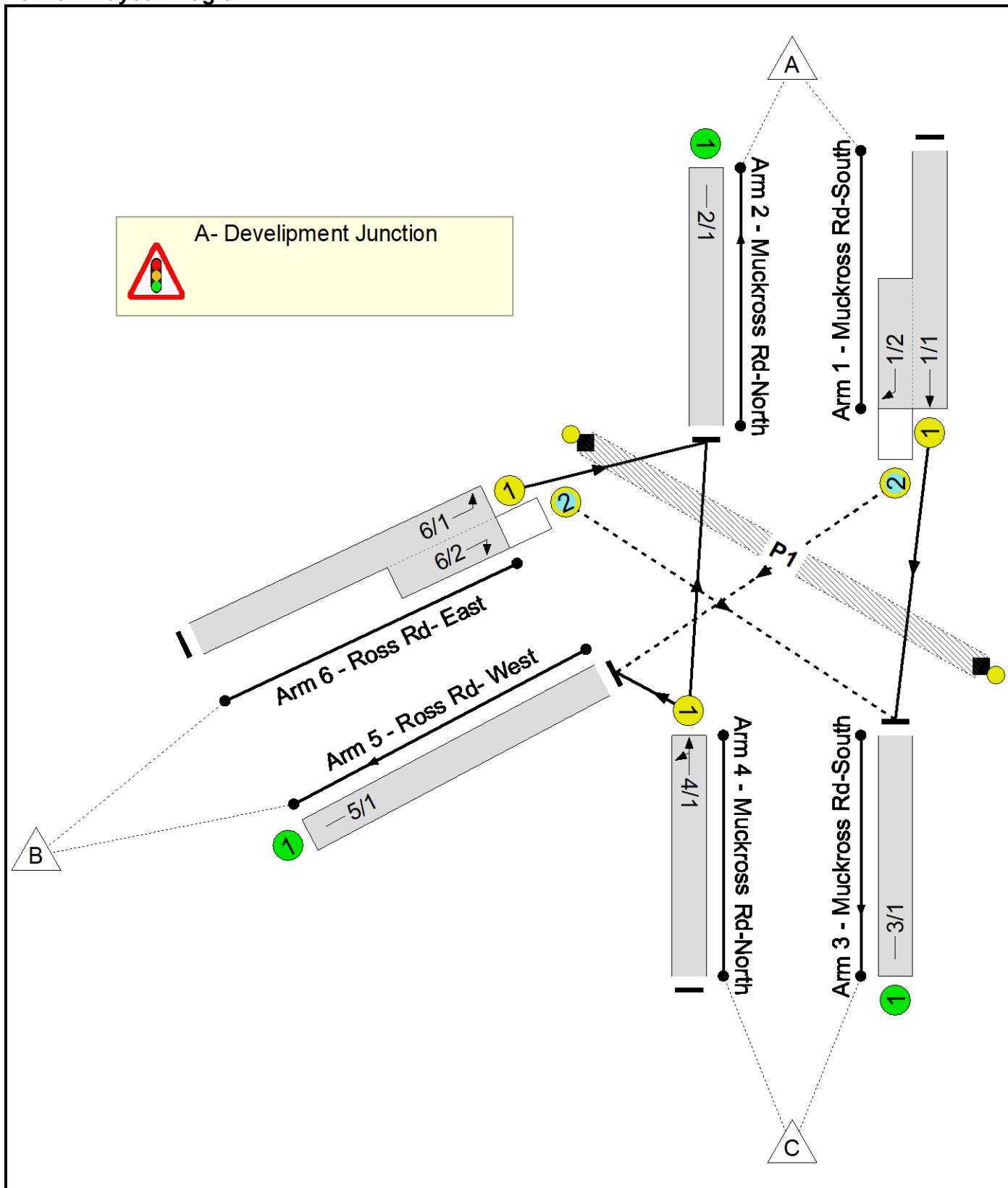
16 LINSIG MODELLING RESULTS

Full Input Data And Results
Full Input Data And Results

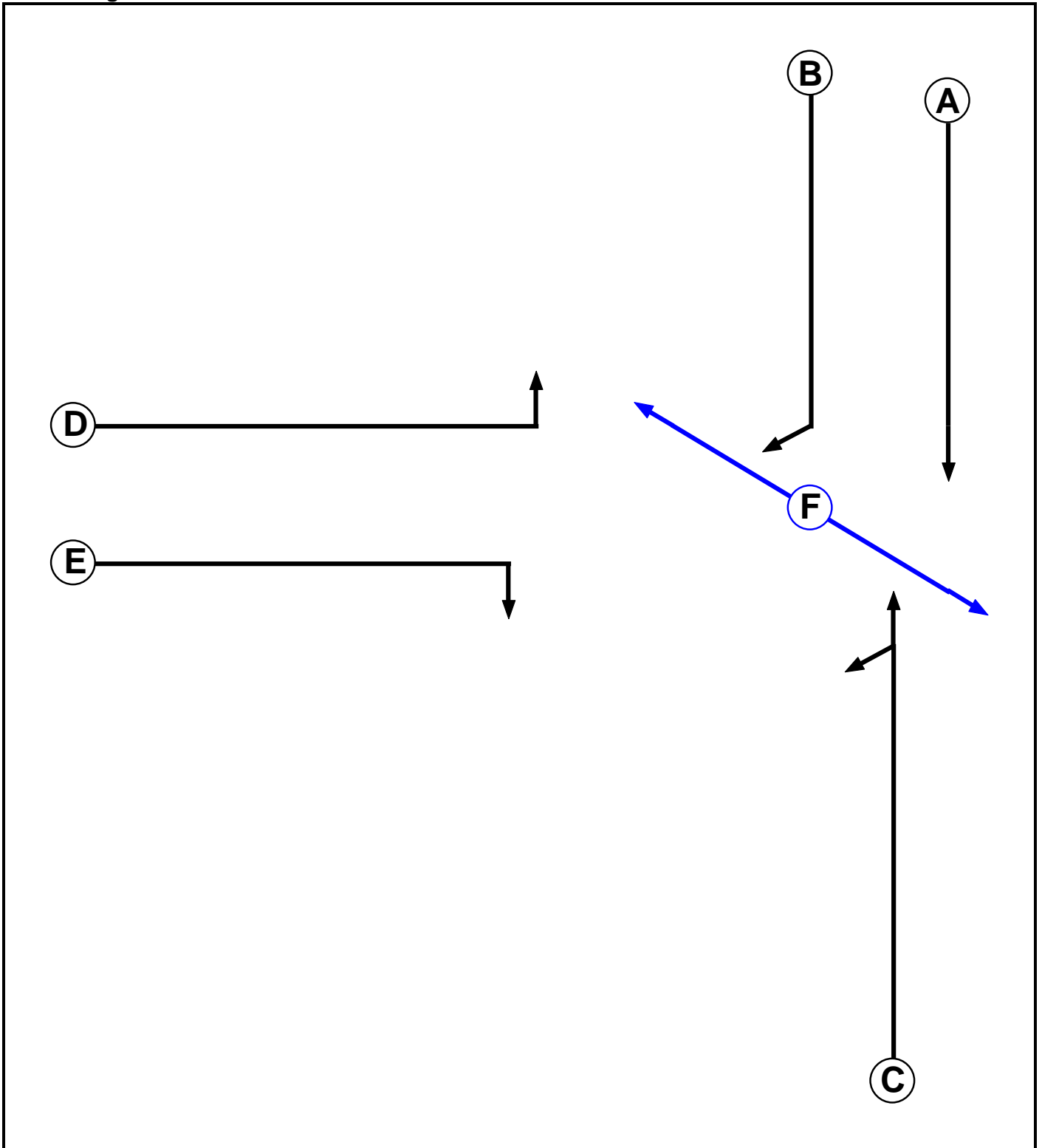
User and Project Details

Project:	Ross Rd Killarney LRD
Title:	TTA
Location:	
Additional detail:	
File name:	Junction B.lsg3x
Author:	
Company:	MHL
Address:	

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

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

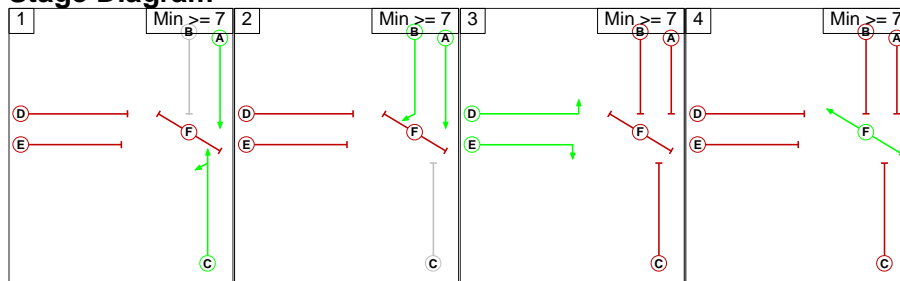
Phase Intergreens Matrix

		Starting Phase					
		A	B	C	D	E	F
Terminating Phase	A	-	-	-	5	5	5
	B	-	-	-	5	5	5
	C	-	-	-	5	5	5
	D	5	5	5	-	-	5
	E	5	5	5	-	-	5
	F	5	5	5	5	5	-

Phases in Stage

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

Stage Diagram



Phase Delays

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

Full Input Data And Results

Prohibited Stage Change

		To Stage			
		1	2	3	4
From Stage	1	■	2	5	5
	2	2	■	5	5
	3	5	5	■	5
	4	5	5	5	■

Full Input Data And Results

Give-Way Lane Input Data

Junction: A- Development Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (Muckcross Rd-South)	5/1 (Right)	1439	0	2/1	1.09	All	2.20	-	0.50	2	2.00
				5/1	1.09	All					
				3/1	1.09	All					
6/2 (Ross Rd- East)	3/1 (Right)	1439	0	2/1	1.09	All	2.00	-	0.50	2	2.00
				3/1	1.09	All					
				5/1	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: A- Development Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Muckcross Rd-South)	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 3 Ahead	Inf
1/2 (Muckcross Rd-South)	O	B	2	3	5.7	Geom	-	2.60	0.00	Y	Arm 5 Right	Inf
2/1 (Muckcross Rd-North)	U		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (Muckcross Rd-South)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1 (Muckcross Rd-North)	U	C	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 2 Ahead	Inf
5/1 (Ross Rd-West)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Ross Rd-East)	U	D	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 2 Left	Inf
6/2 (Ross Rd-East)	O	E	2	3	5.2	Geom	-	2.20	0.00	Y	Arm 3 Right	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Base Year 2025 AM'	08:00	09:00	01:00	
2: 'Base Year 2025 PM'	17:00	18:00	01:00	
3: '2027 opening year without Dev- AM'	08:00	09:00	01:00	
4: '2027 opening year without Dev- PM'	17:00	18:00	01:00	
5: '2027 opening year with Dev- AM'	08:00	09:00	01:00	
6: '2027 opening year with Dev- PM'	17:00	18:00	01:00	
7: '2032 without Dev- AM'	08:00	09:00	01:00	
8: '2032 without Dev- PM'	17:00	18:00	01:00	
9: '2032 with Dev- AM'	08:00	09:00	01:00	
10: '2032 with Dev- PM'	17:00	18:00	01:00	
11: '2042 without Dev- AM'	08:00	09:00	01:00	
12: '2042 without Dev- PM'	17:00	18:00	01:00	
13: '2042 with Dev- AM'	08:00	09:00	01:00	
14: '2042 with Dev- PM'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: '2024- Base Year- AM' (FG1: 'Base Year 2025 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	20	571	591
	B	28	0	119	147
	C	405	69	0	474
	Tot.	433	89	690	1212

Traffic Lane Flows

Lane	Scenario 1: 2024- Base Year- AM
Junction: A- Development Junction	
1/1 (with short)	591(In) 571(Out)
1/2 (short)	20
2/1	433
3/1	690
4/1	474
5/1	89
6/1 (with short)	147(In) 28(Out)
6/2 (short)	119

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	85.4 %	1940	1940
				Arm 5 Left	Inf	14.6 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 2: '2024 Base Year- PM' (FG2: 'Base Year 2025 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	34	505	539
	B	31	0	113	144
	C	465	152	0	617
	Tot.	496	186	618	1300

Traffic Lane Flows

Lane	Scenario 2: 2024 Base Year- PM
Junction: A- Development Junction	
1/1 (with short)	539(In) 505(Out)
1/2 (short)	34
2/1	496
3/1	618
4/1	617
5/1	186
6/1 (with short)	144(In) 31(Out)
6/2 (short)	113

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckcross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckcross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckcross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckcross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckcross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	75.4 %	1940	1940
				Arm 5 Left	Inf	24.6 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 3: '2027 without Dev-AM' (FG3: '2027 opening year without Dev- AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	20	584	604
	B	29	0	122	151
	C	414	71	0	485
	Tot.	443	91	706	1240

Traffic Lane Flows

Lane	Scenario 3: 2027 without Dev-AM
Junction: A- Development Junction	
1/1 (with short)	604(In) 584(Out)
1/2 (short)	20
2/1	443
3/1	706
4/1	485
5/1	91
6/1 (with short)	151(In) 29(Out)
6/2 (short)	122

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	85.4 %	1940	1940
				Arm 5 Left	Inf	14.6 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 4: '2027 without Dev- PM' (FG4: '2027 opening year without Dev- PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	35	516	551
	B	32	0	116	148
	C	476	155	0	631
	Tot.	508	190	632	1330

Traffic Lane Flows

Lane	Scenario 4: 2027 without Dev- PM
Junction: A- Development Junction	
1/1 (with short)	551(In) 516(Out)
1/2 (short)	35
2/1	508
3/1	632
4/1	631
5/1	190
6/1 (with short)	148(In) 32(Out)
6/2 (short)	116

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	75.4 %	1940	1940
				Arm 5 Left	Inf	24.6 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 5: '2027 with Dev- AM' (FG5: '2027 opening year with Dev- AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	25	584	609
	B	37	0	157	194
	C	414	86	0	500
	Tot.	451	111	741	1303

Traffic Lane Flows

Lane	Scenario 5: 2027 with Dev- AM
Junction: A- Development Junction	
1/1 (with short)	609(In) 584(Out)
1/2 (short)	25
2/1	451
3/1	741
4/1	500
5/1	111
6/1 (with short)	194(In) 37(Out)
6/2 (short)	157

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckcross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckcross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckcross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckcross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckcross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	82.8 %	1940	1940
				Arm 5 Left	Inf	17.2 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 6: '2027 with Dev-- PM' (FG6: '2027 opening year with Dev- PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	41	516	557
	B	38	0	137	175
	C	476	182	0	658
	Tot.	514	223	653	1390

Traffic Lane Flows

Lane	Scenario 6: 2027 with Dev-- PM
Junction: A- Development Junction	
1/1 (with short)	557(In) 516(Out)
1/2 (short)	41
2/1	514
3/1	653
4/1	658
5/1	223
6/1 (with short)	175(In) 38(Out)
6/2 (short)	137

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckcross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckcross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckcross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckcross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckcross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	72.3 %	1940	1940
				Arm 5 Left	Inf	27.7 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 7: '2032 without Dev- AM' (FG7: '2032 without Dev- AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	21	605	626
	B	30	0	126	156
	C	429	73	0	502
	Tot.	459	94	731	1284

Traffic Lane Flows

Lane	Scenario 7: 2032 without Dev-AM
Junction: A- Development Junction	
1/1 (with short)	626(In) 605(Out)
1/2 (short)	21
2/1	459
3/1	731
4/1	502
5/1	94
6/1 (with short)	156(In) 30(Out)
6/2 (short)	126

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckcross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckcross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckcross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckcross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckcross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	85.5 %	1940	1940
				Arm 5 Left	Inf	14.5 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 8: '2032 withoutr Dev- PM' (FG8: '2032 without Dev- PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	36	535	571
	B	33	0	120	153
	C	493	161	0	654
	Tot.	526	197	655	1378

Traffic Lane Flows

Lane	Scenario 8: 2032 withoutr Dev- PM
Junction: A- Development Junction	
1/1 (with short)	571(In) 535(Out)
1/2 (short)	36
2/1	526
3/1	655
4/1	654
5/1	197
6/1 (with short)	153(In) 33(Out)
6/2 (short)	120

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	75.4 %	1940	1940
				Arm 5 Left	Inf	24.6 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 9: '2032 with Dev- AM' (FG9: '2032 with Dev- AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	26	605	631
	B	38	0	161	199
	C	429	89	0	518
	Tot.	467	115	766	1348

Traffic Lane Flows

Lane	Scenario 9: 2032 with Dev- AM
Junction: A- Development Junction	
1/1 (with short)	631(In) 605(Out)
1/2 (short)	26
2/1	467
3/1	766
4/1	518
5/1	115
6/1 (with short)	199(In) 38(Out)
6/2 (short)	161

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckcross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckcross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckcross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckcross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckcross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	82.8 %	1940	1940
				Arm 5 Left	Inf	17.2 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 10: '2032 with Dev-PM' (FG10: '2032 with Dev- PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	42	535	577
	B	39	0	141	180
	C	493	188	0	681
	Tot.	532	230	676	1438

Traffic Lane Flows

Lane	Scenario 10: 2032 with Dev-PM
Junction: A- Development Junction	
1/1 (with short)	577(In) 535(Out)
1/2 (short)	42
2/1	532
3/1	676
4/1	681
5/1	230
6/1 (with short)	180(In) 39(Out)
6/2 (short)	141

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckcross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckcross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckcross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckcross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckcross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	72.4 %	1940	1940
				Arm 5 Left	Inf	27.6 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 11: '2042 without Dev - AM' (FG11: '2042 without Dev- AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	21	612	633
	B	30	0	127	157
	C	434	74	0	508
	Tot.	464	95	739	1298

Traffic Lane Flows

Lane	Scenario 11: 2042 without Dev - AM
Junction: A- Development Junction	
1/1 (with short)	633(In) 612(Out)
1/2 (short)	21
2/1	464
3/1	739
4/1	508
5/1	95
6/1 (with short)	157(In) 30(Out)
6/2 (short)	127

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckcross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckcross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckcross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckcross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckcross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	85.4 %	1940	1940
				Arm 5 Left	Inf	14.6 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 12: '2042 without Dev- PM' (FG12: '2042 without Dev- PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	36	541	577
	B	33	0	121	154
	C	498	163	0	661
	Tot.	531	199	662	1392

Traffic Lane Flows

Lane	Scenario 12: 2042 without Dev- PM
Junction: A- Development Junction	
1/1 (with short)	577(In) 541(Out)
1/2 (short)	36
2/1	531
3/1	662
4/1	661
5/1	199
6/1 (with short)	154(In) 33(Out)
6/2 (short)	121

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckcross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckcross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckcross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckcross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckcross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	75.3 %	1940	1940
				Arm 5 Left	Inf	24.7 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 13: '2042 with Devr- AM' (FG13: '2042 with Dev- AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	26	612	638
	B	38	0	163	201
	C	434	89	0	523
	Tot.	472	115	775	1362

Traffic Lane Flows

Lane	Scenario 13: 2042 with Devr-AM
Junction: A- Development Junction	
1/1 (with short)	638(In) 612(Out)
1/2 (short)	26
2/1	472
3/1	775
4/1	523
5/1	115
6/1 (with short)	201(In) 38(Out)
6/2 (short)	163

Full Input Data And Results

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckcross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckcross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckcross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckcross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckcross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	83.0 %	1940	1940
				Arm 5 Left	Inf	17.0 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 14: '2042 with Dev- PM' (FG14: '2042 with Dev- PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	42	541	583
	B	39	0	142	181
	C	498	190	0	688
	Tot.	537	232	683	1452

Traffic Lane Flows

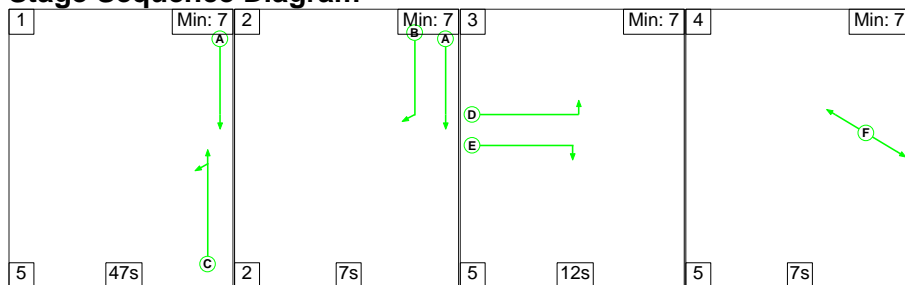
Lane	Scenario 14: 2042 with Dev- PM
Junction: A- Development Junction	
1/1 (with short)	583(In) 541(Out)
1/2 (short)	42
2/1	537
3/1	683
4/1	688
5/1	232
6/1 (with short)	181(In) 39(Out)
6/2 (short)	142

Lane Saturation Flows

Junction: A- Development Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Muckcross Rd-South)	3.25	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1940	1940
1/2 (Muckcross Rd-South)	2.60	0.00	Y	Arm 5 Right	Inf	100.0 %	1875	1875
2/1 (Muckcross Rd-North Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (Muckcross Rd-South Lane 1)	Infinite Saturation Flow						Inf	Inf
4/1 (Muckcross Rd-North)	3.25	0.00	Y	Arm 2 Ahead	Inf	72.4 %	1940	1940
				Arm 5 Left	Inf	27.6 %		
5/1 (Ross Rd- West Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Ross Rd- East)	3.25	0.00	Y	Arm 2 Left	Inf	100.0 %	1940	1940
6/2 (Ross Rd- East)	2.20	0.00	Y	Arm 3 Right	Inf	100.0 %	1835	1835

Scenario 1: '2024- Base Year- AM' (FG1: 'Base Year 2025 AM', Plan 1: 'Network Control Plan 1')

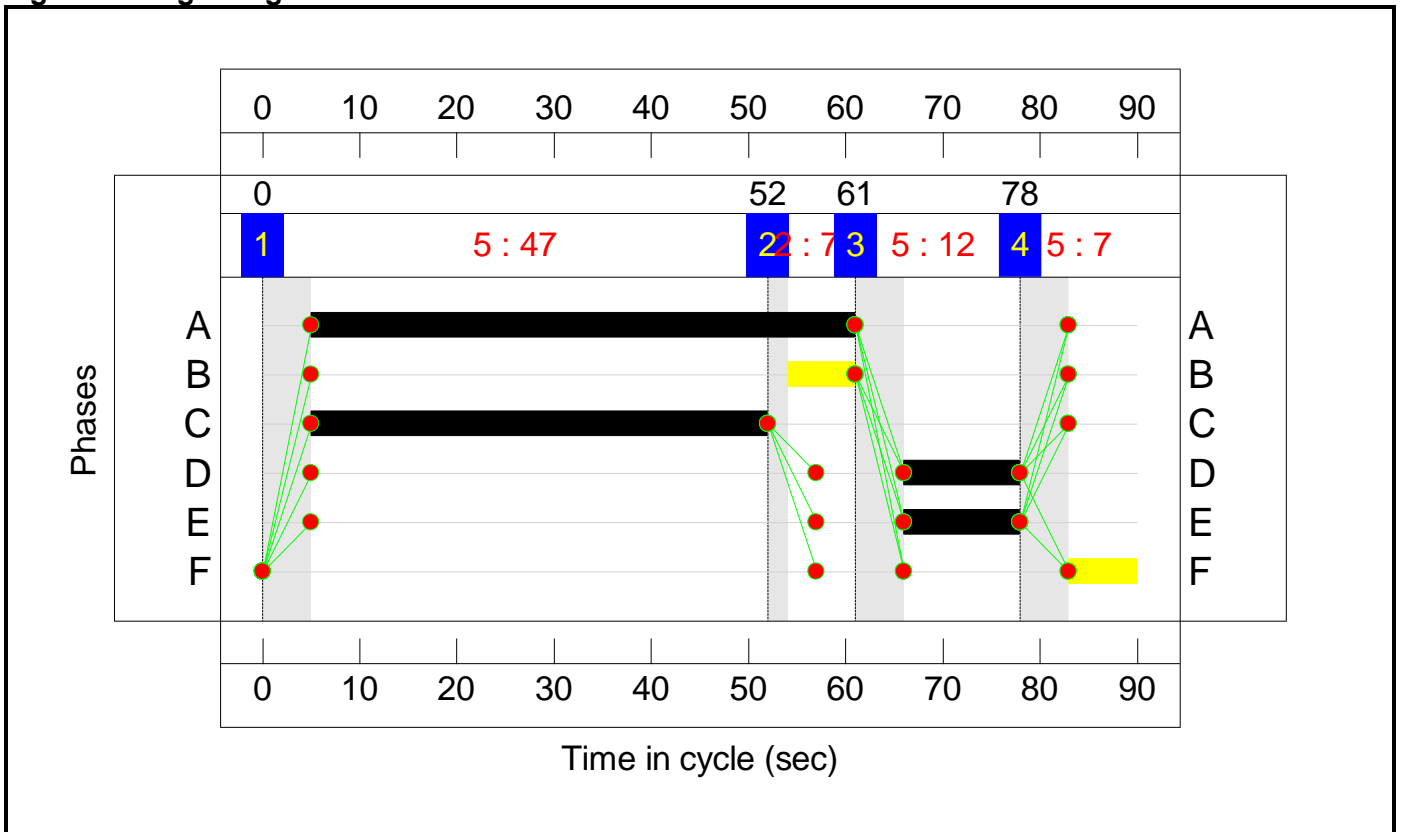
Stage Sequence Diagram



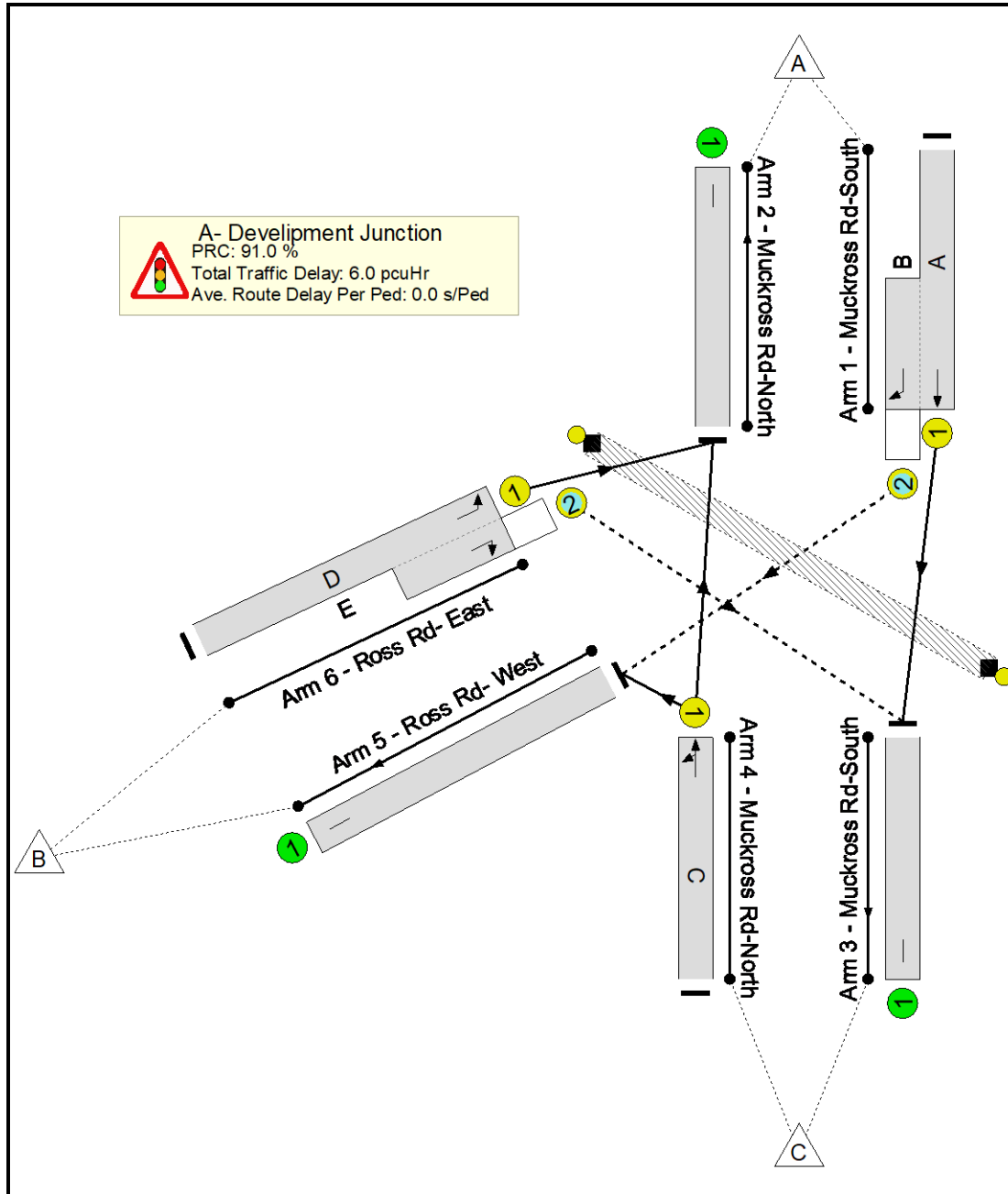
Stage Timings

Stage	1	2	3	4
Duration	47	7	12	7
Change Point	0	52	61	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	47.1%
A-Develpment Junction	-	-	N/A	-	-		-	-	-	-	-	-	47.1%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	56:7	-	591	1940:1875	1212+42	47.1 : 47.1%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	433	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	690	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	47	-	474	1940	1035	45.8%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	89	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	12	-	147	1940:1835	60+255	46.6 : 46.6%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

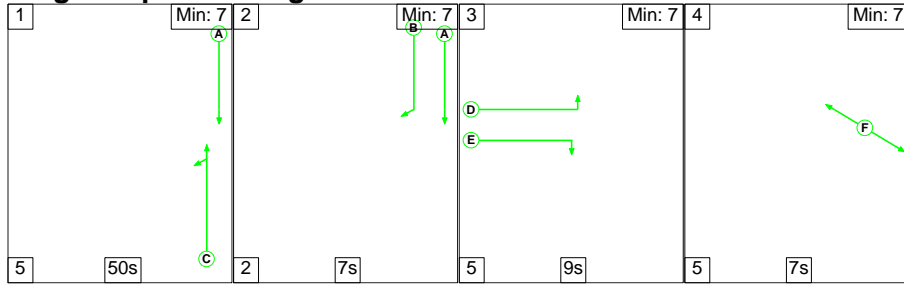
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	136	3	4.7	1.3	0.0	6.0	-	-	-	-
A-Development Junction	-	-	0	136	3	4.7	1.3	0.0	6.0	-	-	-	-
1/1+1/2	591	591	0	20	0	1.6	0.4	0.0	2.0	12.3	7.3	0.4	7.7
2/1	433	433	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	690	690	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	474	474	-	-	-	1.7	0.4	-	2.1	16.2	7.2	0.4	7.7
5/1	89	89	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	147	147	0	116	3	1.4	0.4	0.0	1.9	45.5	2.7	0.4	3.1
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 91.0 Total Delay for Signalled Lanes (pcuHr): 6.00 Cycle Time (s): 90</p> <p> PRC Over All Lanes (%): 91.0 Total Delay Over All Lanes(pcuHr): 6.00</p>													

Full Input Data And Results

Scenario 2: '2024 Base Year- PM' (FG2: 'Base Year 2025 PM', Plan 1: 'Network Control Plan 1')

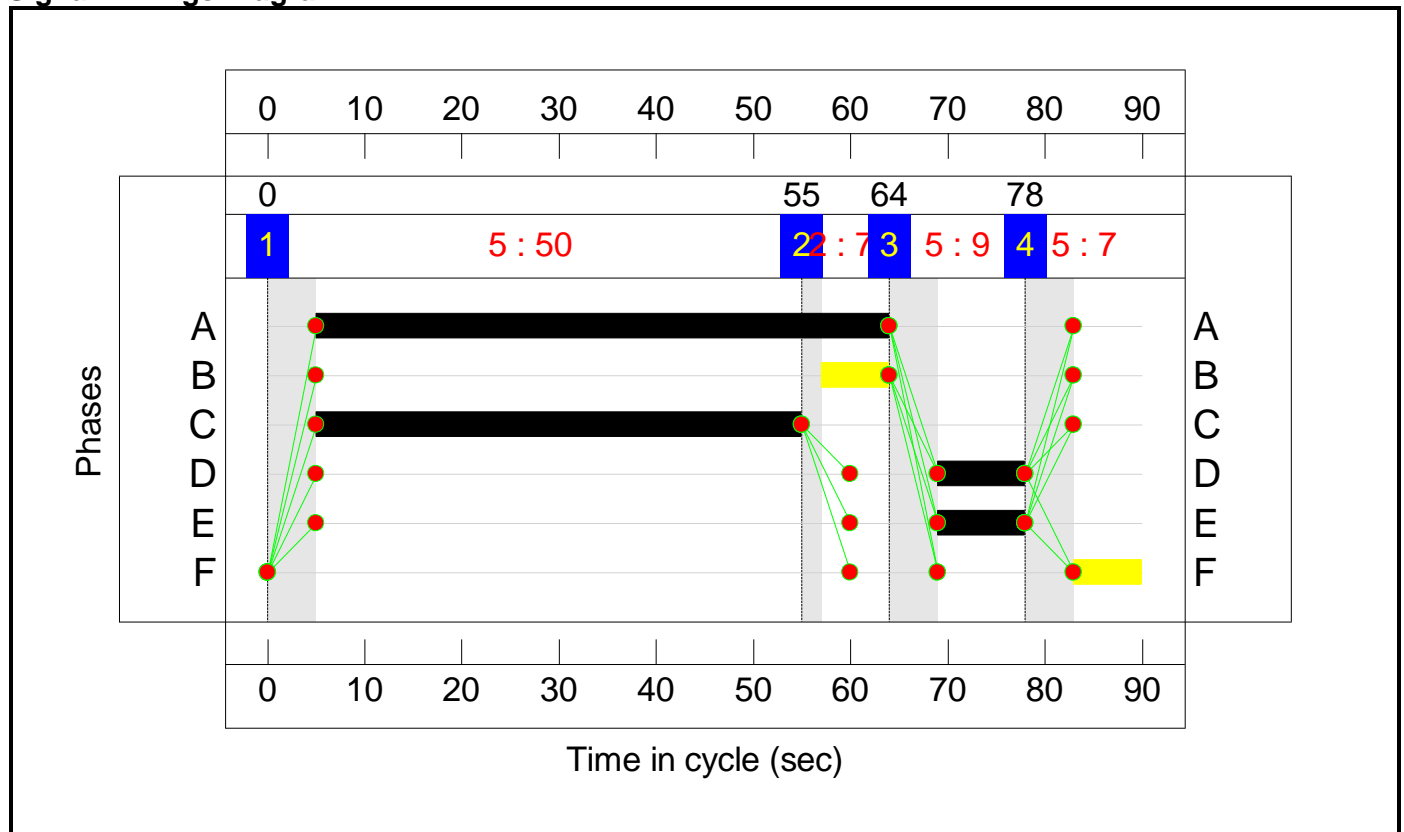
Stage Sequence Diagram



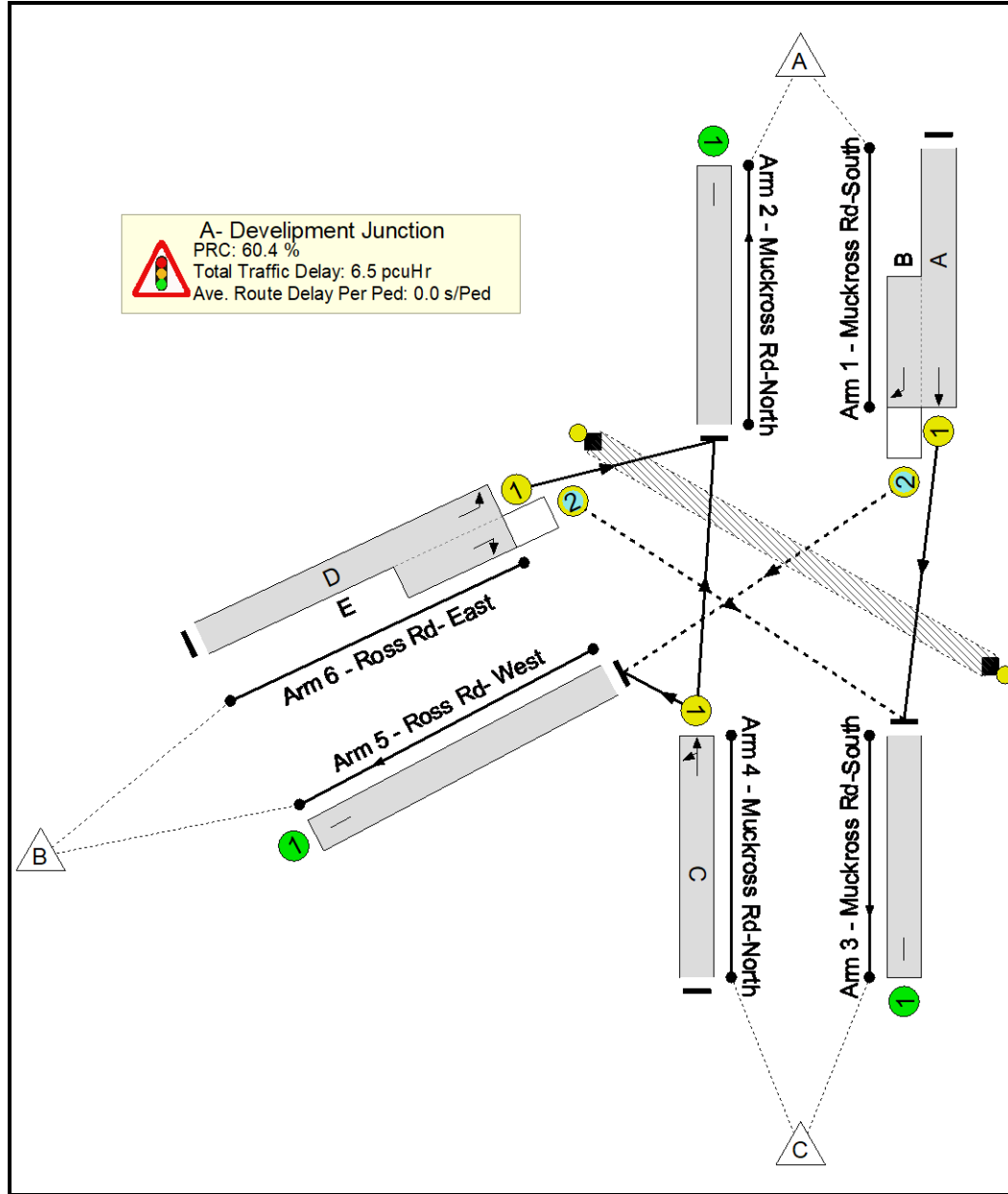
Stage Timings

Stage	1	2	3	4
Duration	50	7	9	7
Change Point	0	55	64	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	56.1%
A-Development Junction	-	-	N/A	-	-		-	-	-	-	-	-	56.1%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	59:7	-	539	1940:1875	1242+84	40.7 : 40.7%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	618	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	50	-	617	1940	1099	56.1%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	186	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	9	-	144	1940:1835	56+204	55.4 : 55.4%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

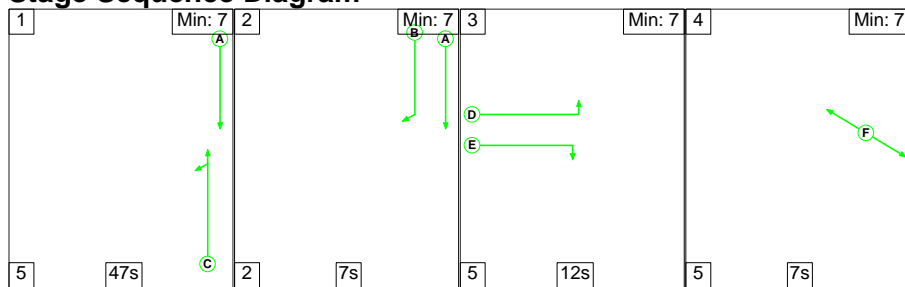
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	144	3	4.9	1.6	0.0	6.5	-	-	-	-
A-Development Junction	-	-	0	144	3	4.9	1.6	0.0	6.5	-	-	-	-
1/1+1/2	539	539	0	33	1	1.3	0.3	0.0	1.7	11.0	5.6	0.3	6.0
2/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	618	618	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	617	617	-	-	-	2.1	0.6	-	2.8	16.1	9.8	0.6	10.4
5/1	186	186	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	144	144	0	110	3	1.5	0.6	0.0	2.1	52.9	2.7	0.6	3.3
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 60.4 Total Delay for Signalled Lanes (pcuHr): 6.53 Cycle Time (s): 90</p> <p> PRC Over All Lanes (%): 60.4 Total Delay Over All Lanes(pcuHr): 6.53</p>													

Full Input Data And Results

Scenario 3: '2027 without Dev-AM' (FG3: '2027 opening year without Dev- AM', Plan 1: 'Network Control Plan 1')

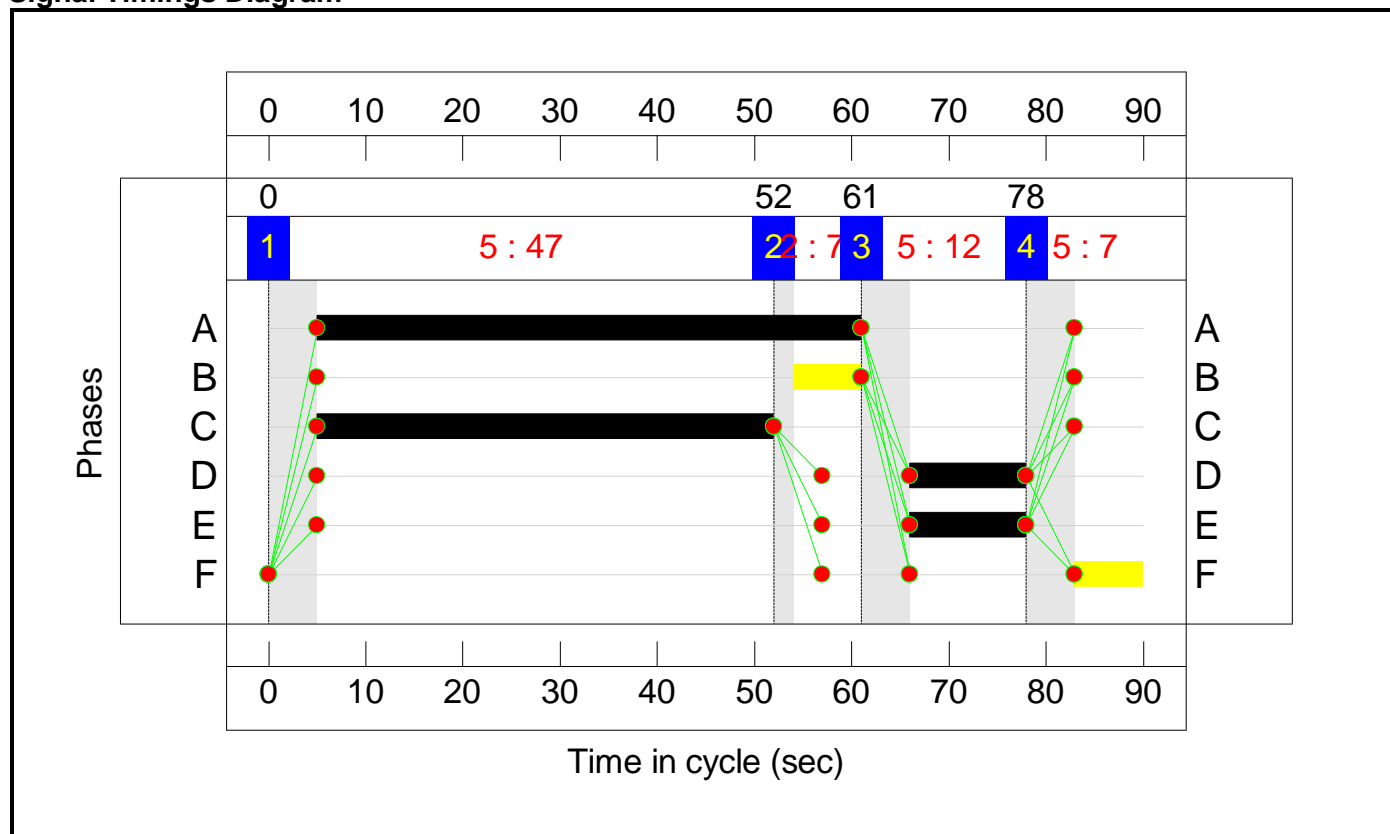
Stage Sequence Diagram



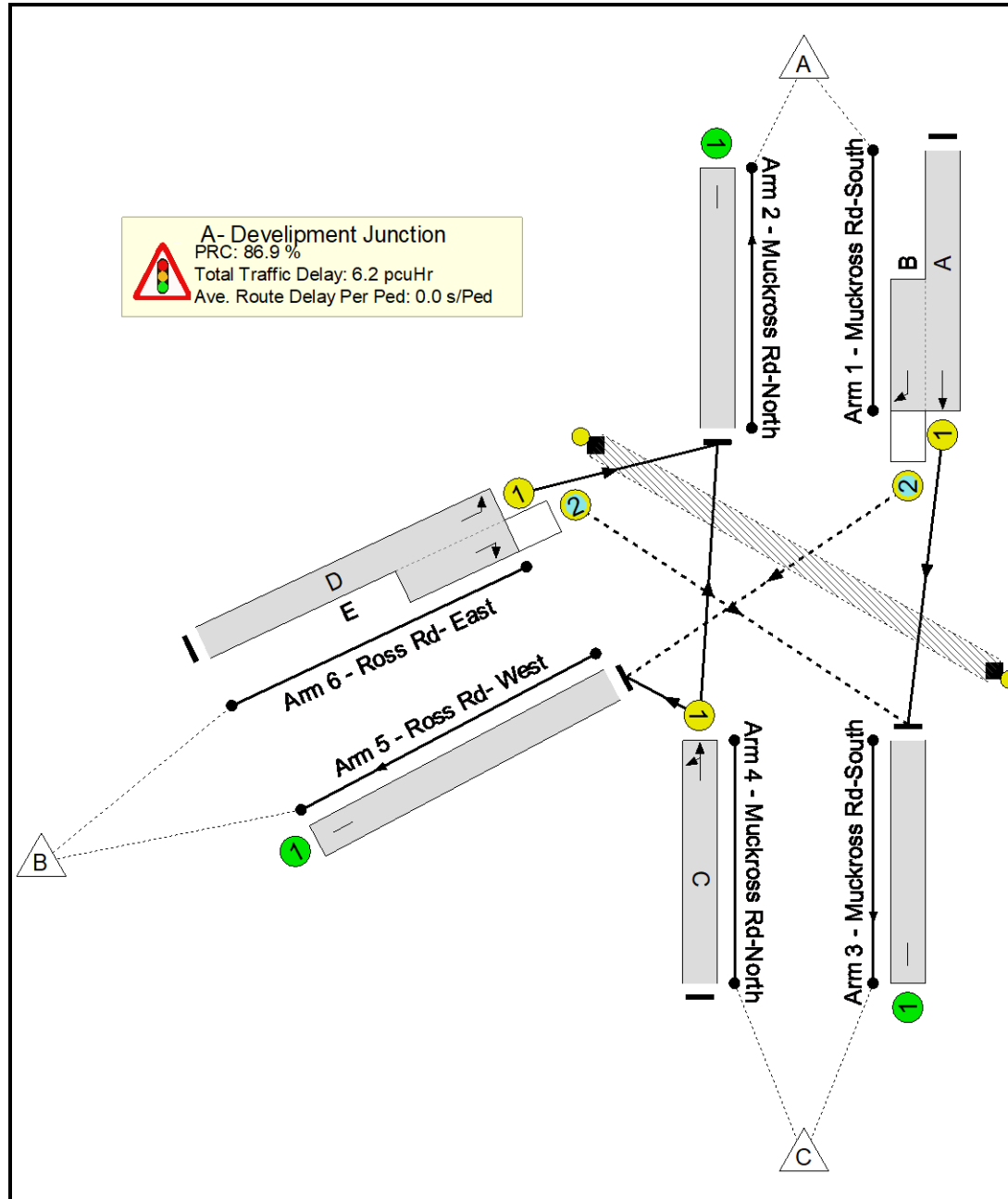
Stage Timings

Stage	1	2	3	4
Duration	47	7	12	7
Change Point	0	52	61	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	48.2%
A-Develpment Junction	-	-	N/A	-	-		-	-	-	-	-	-	48.2%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	56:7	-	604	1940:1875	1213+42	48.2 : 48.2%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	443	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	706	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	47	-	485	1940	1035	46.9%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	91	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	12	-	151	1940:1835	61+255	47.8 : 47.8%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

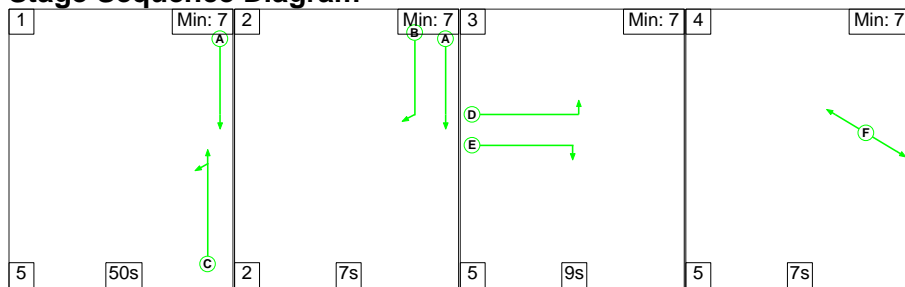
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	139	3	4.8	1.4	0.0	6.2	-	-	-	-
A-Development Junction	-	-	0	139	3	4.8	1.4	0.0	6.2	-	-	-	-
1/1+1/2	604	604	0	20	0	1.6	0.5	0.0	2.1	12.4	7.6	0.5	8.1
2/1	443	443	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	706	706	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	485	485	-	-	-	1.8	0.4	-	2.2	16.3	7.4	0.4	7.9
5/1	91	91	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	151	151	0	119	3	1.5	0.5	0.0	1.9	45.8	2.8	0.5	3.2
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 86.9 Total Delay for Signalled Lanes (pcuHr): 6.20 Cycle Time (s): 90</p> <p>PRC Over All Lanes (%): 86.9 Total Delay Over All Lanes(pcuHr): 6.20</p>													

Full Input Data And Results

Scenario 4: '2027 without Dev- PM' (FG4: '2027 opening year without Dev- PM', Plan 1: 'Network Control Plan 1')

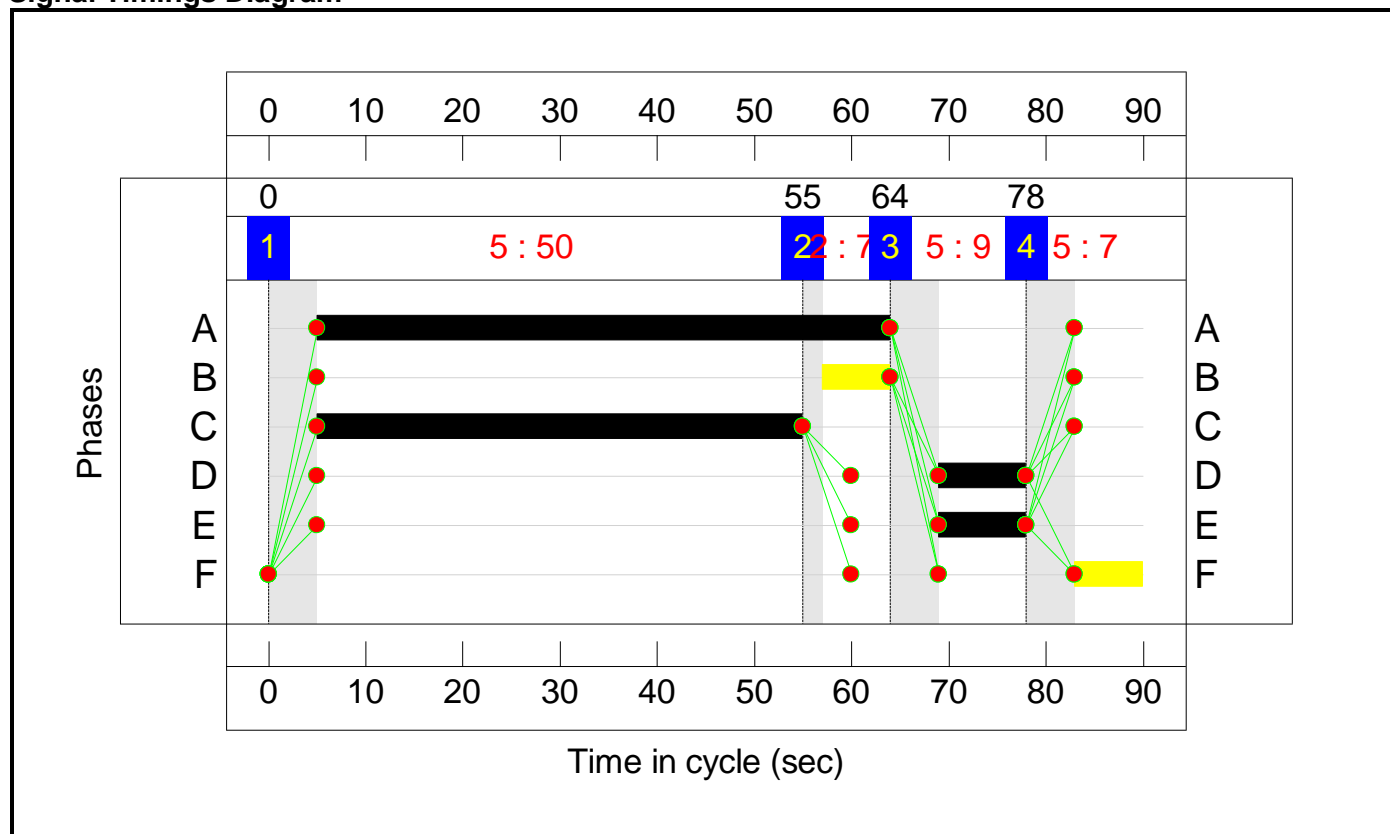
Stage Sequence Diagram



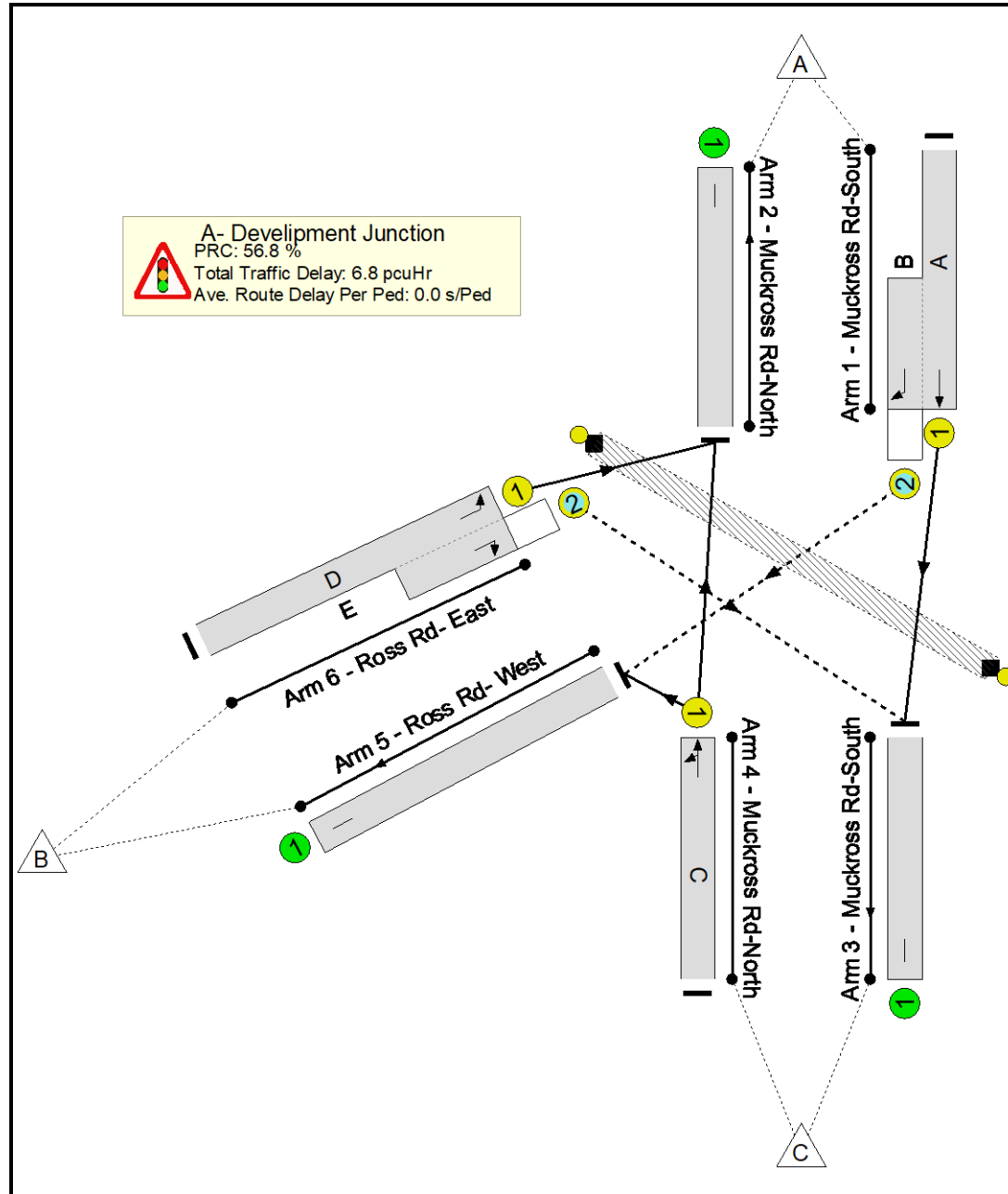
Stage Timings

Stage	1	2	3	4
Duration	50	7	9	7
Change Point	0	55	64	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	57.4%
A-Development Junction	-	-	N/A	-	-		-	-	-	-	-	-	57.4%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	59:7	-	551	1940:1875	1241+84	41.6 : 41.6%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	632	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	50	-	631	1940	1099	57.4%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	190	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	9	-	148	1940:1835	56+204	56.9 : 56.9%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

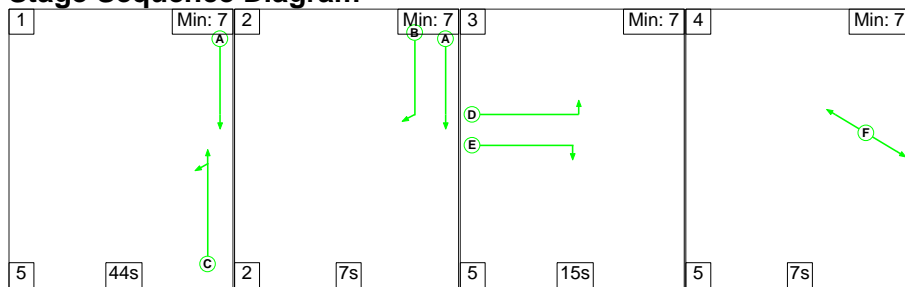
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	148	3	5.1	1.7	0.0	6.8	-	-	-	-
A-Development Junction	-	-	0	148	3	5.1	1.7	0.0	6.8	-	-	-	-
1/1+1/2	551	551	0	34	1	1.3	0.4	0.0	1.7	11.1	5.7	0.4	6.1
2/1	508	508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	632	632	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	631	631	-	-	-	2.2	0.7	-	2.9	16.4	10.0	0.7	10.7
5/1	190	190	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	148	148	0	113	3	1.5	0.7	0.0	2.2	53.5	2.7	0.7	3.4
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 56.8 Total Delay for Signalled Lanes (pcuHr): 6.77 Cycle Time (s): 90</p> <p>PRC Over All Lanes (%): 56.8 Total Delay Over All Lanes(pcuHr): 6.77</p>													

Full Input Data And Results

Scenario 5: '2027 with Dev- AM' (FG5: '2027 opening year with Dev- AM', Plan 1: 'Network Control Plan 1')

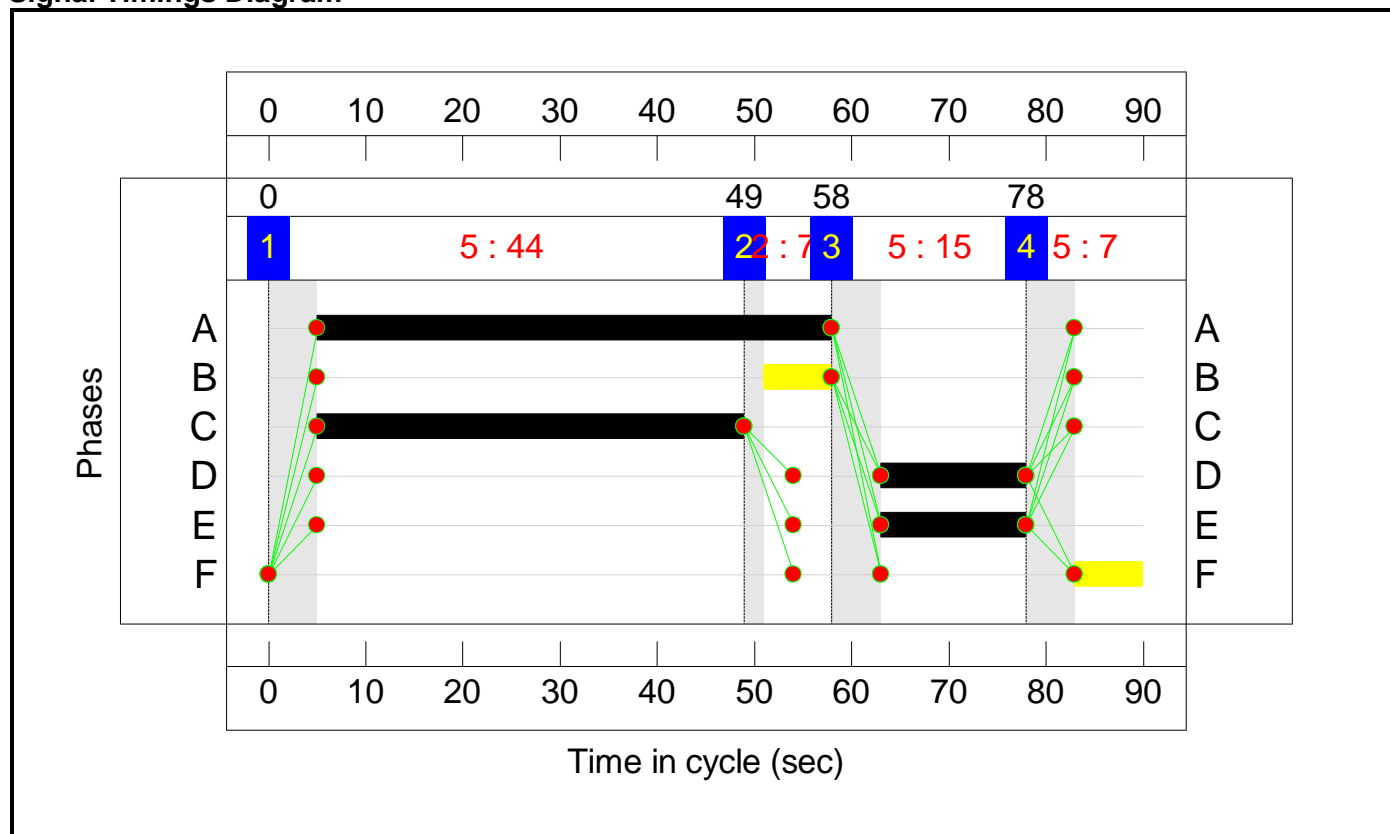
Stage Sequence Diagram



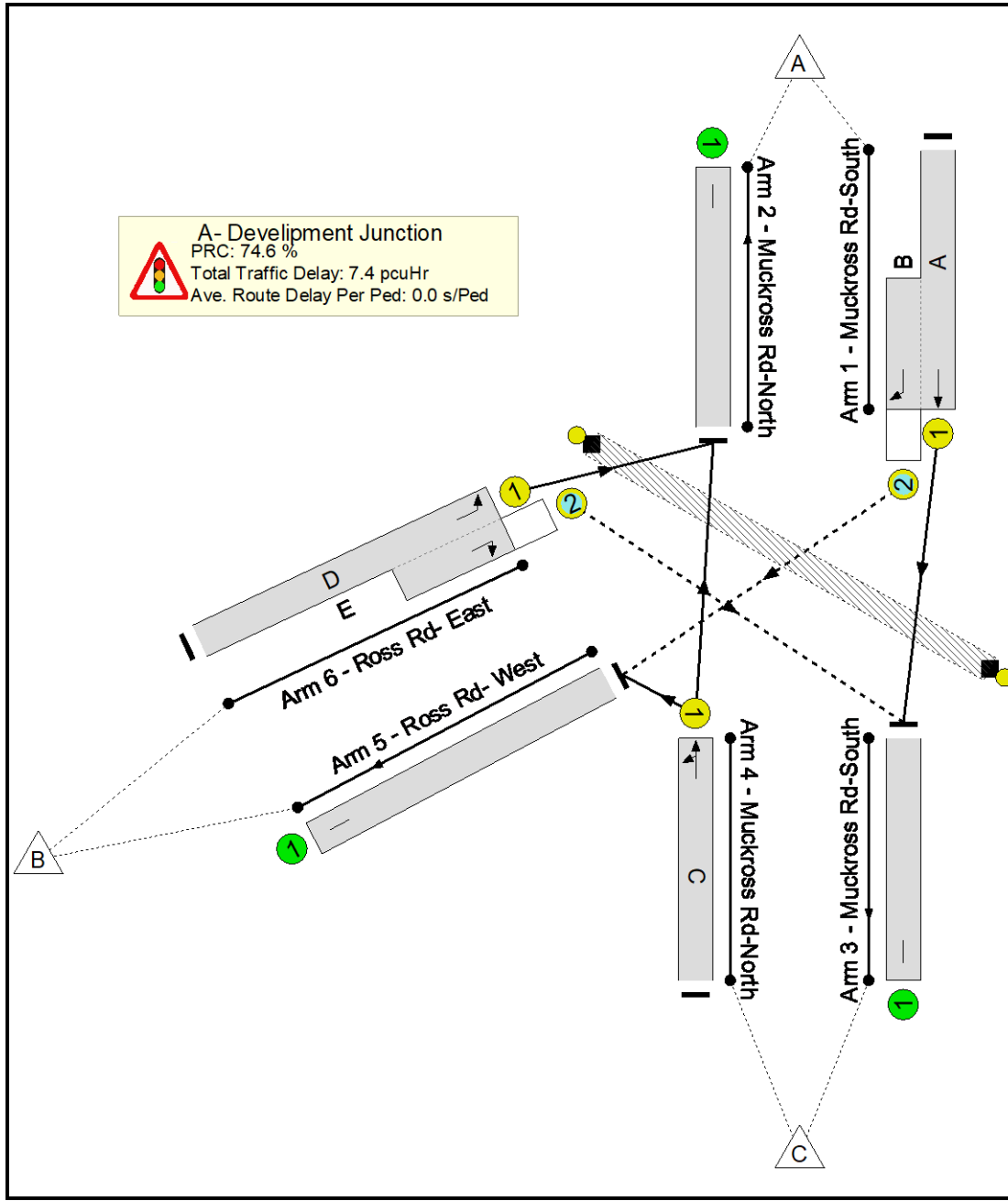
Stage Timings

Stage	1	2	3	4
Duration	44	7	15	7
Change Point	0	49	58	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	51.5%
A-Develpment Junction	-	-	N/A	-	-		-	-	-	-	-	-	51.5%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	53:7	-	609	1940:1875	1143+49	51.1 : 51.1%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	451	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	741	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	44	-	500	1940	970	51.5%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	111	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	15	-	194	1940:1835	72+305	51.4 : 51.4%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

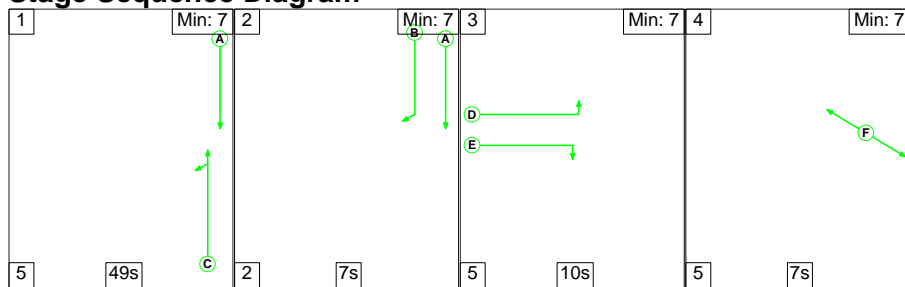
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	178	4	5.8	1.6	0.0	7.4	-	-	-	-
A-Development Junction	-	-	0	178	4	5.8	1.6	0.0	7.4	-	-	-	-
1/1+1/2	609	609	0	24	1	1.9	0.5	0.0	2.5	14.5	8.3	0.5	8.8
2/1	451	451	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	741	741	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	500	500	-	-	-	2.1	0.5	-	2.6	19.0	8.3	0.5	8.9
5/1	111	111	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	194	194	0	154	3	1.8	0.5	0.0	2.3	42.6	3.5	0.5	4.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p style="text-align: center;">C1 PRC for Signalled Lanes (%): 74.6 Total Delay for Signalled Lanes (pcuHr): 7.39 Cycle Time (s): 90</p> <p style="text-align: center;">PRC Over All Lanes (%): 74.6 Total Delay Over All Lanes(pcuHr): 7.39</p>													

Full Input Data And Results

Scenario 6: '2027 with Dev-- PM' (FG6: '2027 opening year with Dev- PM', Plan 1: 'Network Control Plan 1')

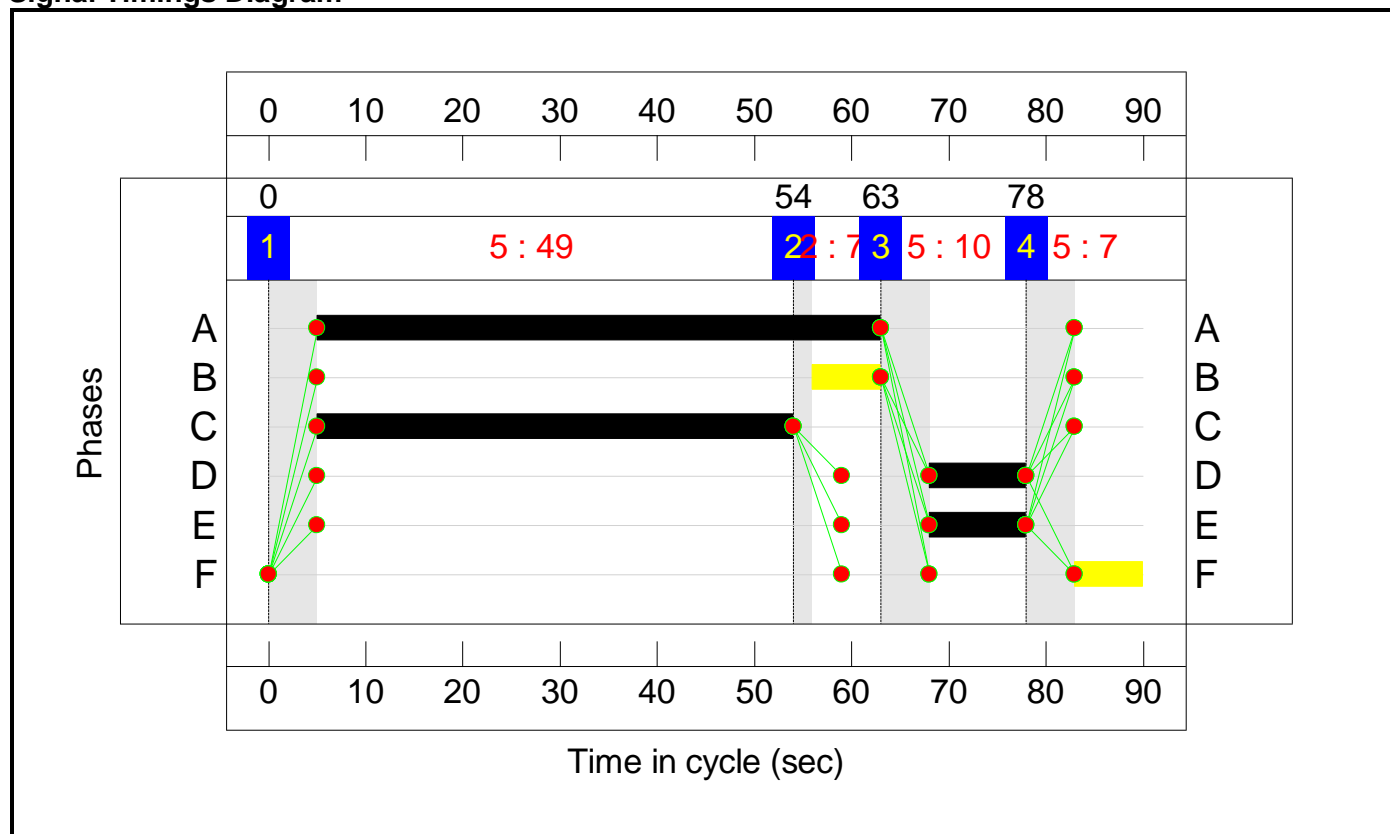
Stage Sequence Diagram



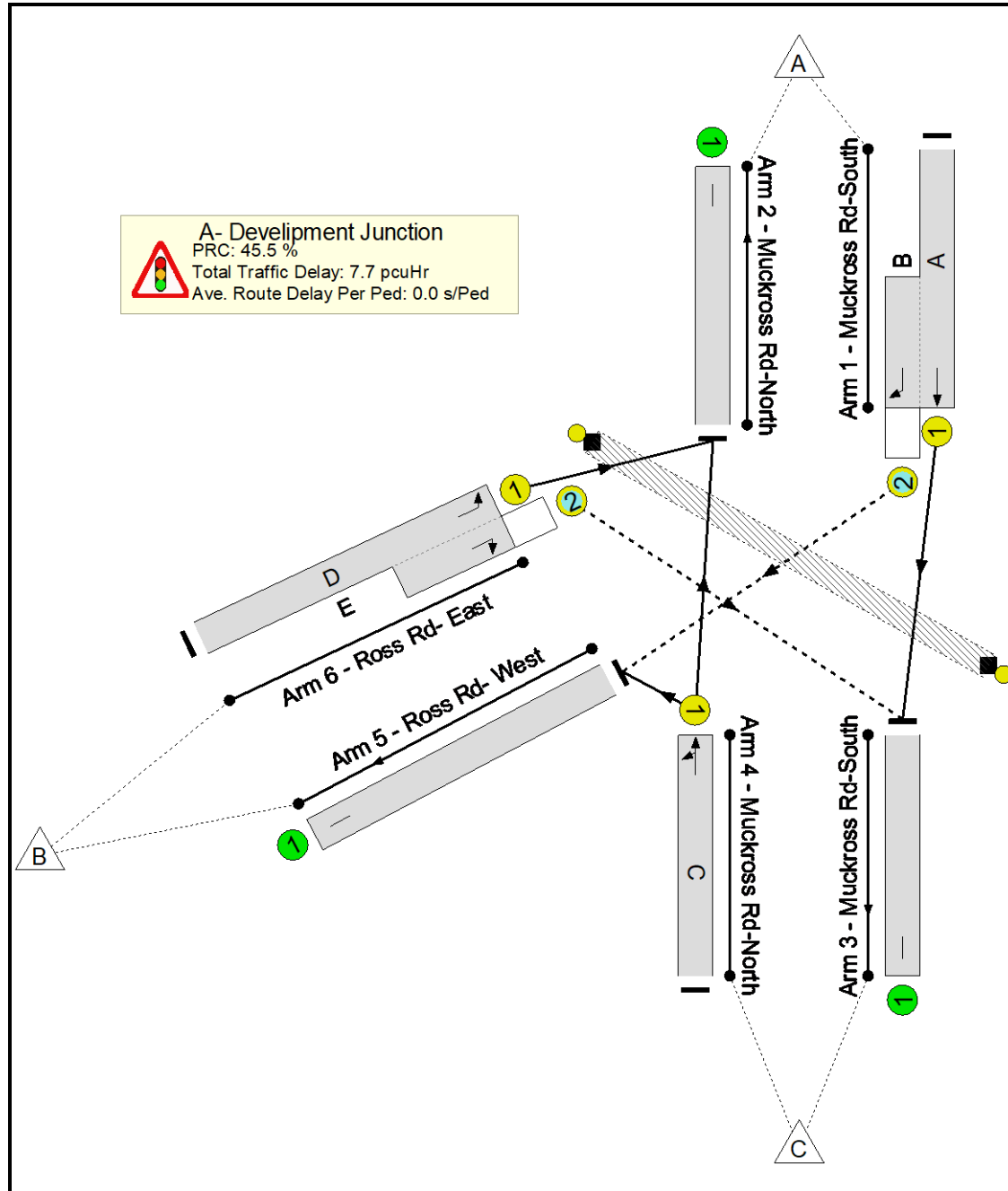
Stage Timings

Stage	1	2	3	4
Duration	49	7	10	7
Change Point	0	54	63	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	61.9%
A-Develpment Junction	-	-	N/A	-	-		-	-	-	-	-	-	61.9%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	58:7	-	557	1940:1875	1210+96	42.6 : 42.6%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	514	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	653	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	49	-	658	1940	1078	61.1%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	10	-	175	1940:1835	61+221	61.9 : 61.9%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

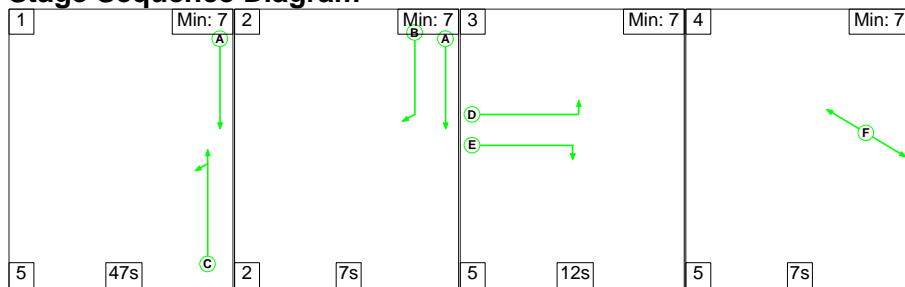
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	174	4	5.7	2.0	0.0	7.7	-	-	-	-
A-Development Junction	-	-	0	174	4	5.7	2.0	0.0	7.7	-	-	-	-
1/1+1/2	557	557	0	40	1	1.5	0.4	0.0	1.8	12.0	6.0	0.4	6.4
2/1	514	514	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	653	653	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	658	658	-	-	-	2.5	0.8	-	3.2	17.7	11.0	0.8	11.7
5/1	223	223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	175	175	0	134	3	1.8	0.8	0.0	2.6	53.5	3.2	0.8	4.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 45.5 Total Delay for Signalled Lanes (pcuHr): 7.69 Cycle Time (s): 90</p> <p>PRC Over All Lanes (%): 45.5 Total Delay Over All Lanes(pcuHr): 7.69</p>													

Full Input Data And Results

Scenario 7: '2032 without Dev- AM' (FG7: '2032 without Dev- AM', Plan 1: 'Network Control Plan 1')

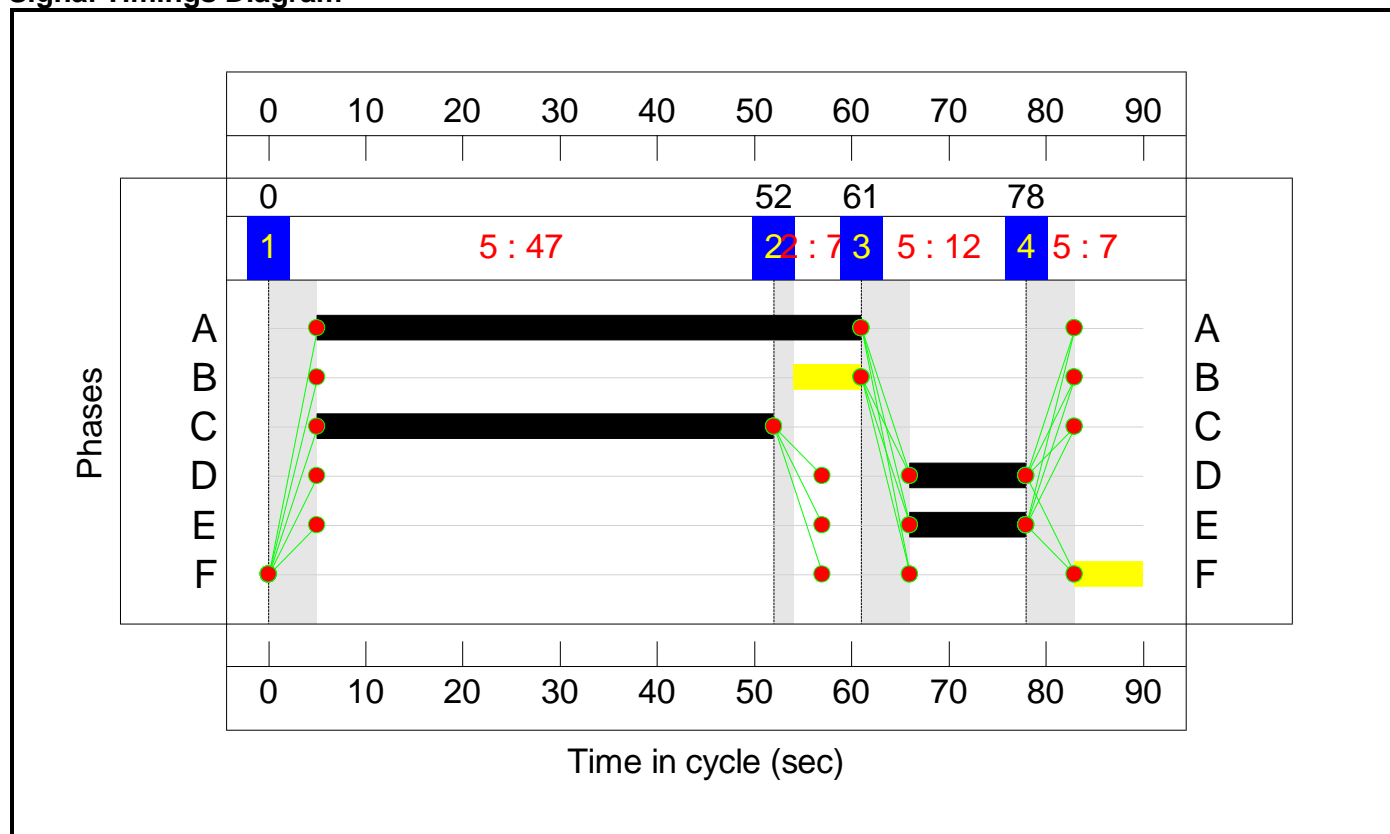
Stage Sequence Diagram



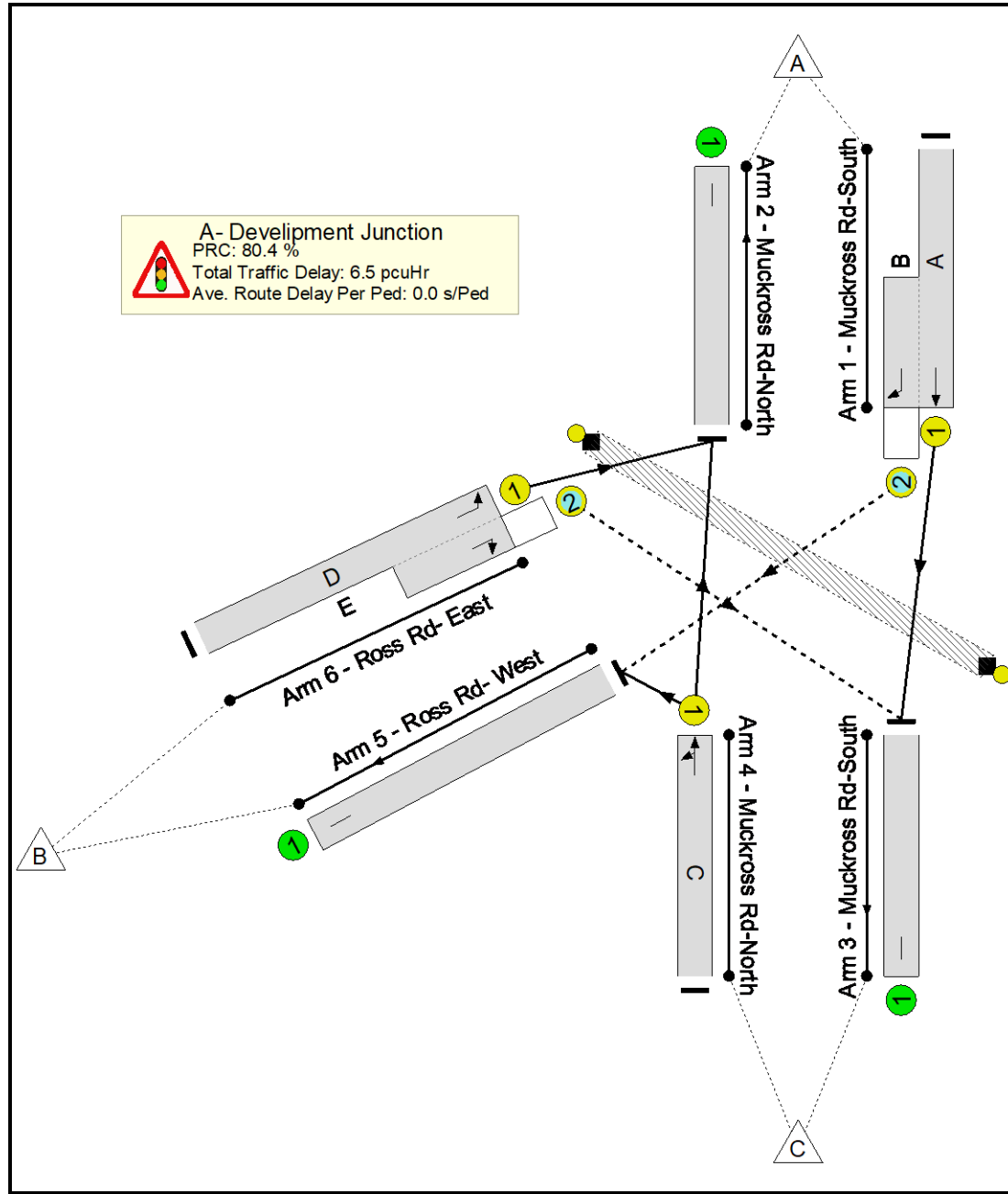
Stage Timings

Stage	1	2	3	4
Duration	47	7	12	7
Change Point	0	52	61	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	49.9%
A-Develpment Junction	-	-	N/A	-	-		-	-	-	-	-	-	49.9%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	56:7	-	626	1940:1875	1212+42	49.9 : 49.9%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	459	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	731	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	47	-	502	1940	1035	48.5%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	94	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	12	-	156	1940:1835	61+255	49.4 : 49.4%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

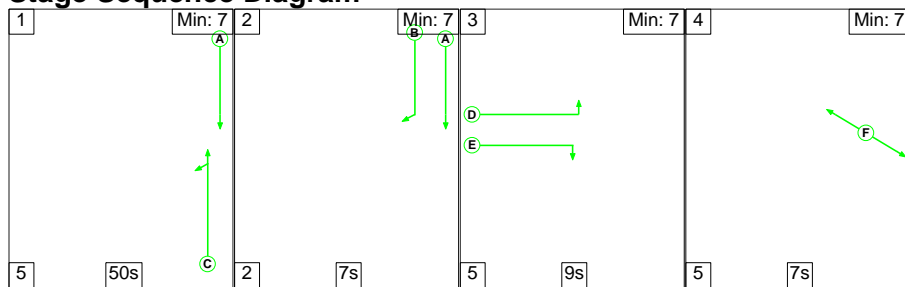
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	144	3	5.1	1.5	0.0	6.5	-	-	-	-
A-Development Junction	-	-	0	144	3	5.1	1.5	0.0	6.5	-	-	-	-
1/1+1/2	626	626	0	21	0	1.7	0.5	0.0	2.2	12.6	7.9	0.5	8.4
2/1	459	459	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	731	731	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	502	502	-	-	-	1.8	0.5	-	2.3	16.6	7.8	0.5	8.3
5/1	94	94	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	156	156	0	123	3	1.5	0.5	0.0	2.0	46.2	2.9	0.5	3.4
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 80.4 Total Delay for Signalled Lanes (pcuHr): 6.51 Cycle Time (s): 90</p> <p> PRC Over All Lanes (%): 80.4 Total Delay Over All Lanes(pcuHr): 6.51</p>													

Full Input Data And Results

Scenario 8: '2032 without Dev- PM' (FG8: '2032 without Dev- PM', Plan 1: 'Network Control Plan 1')

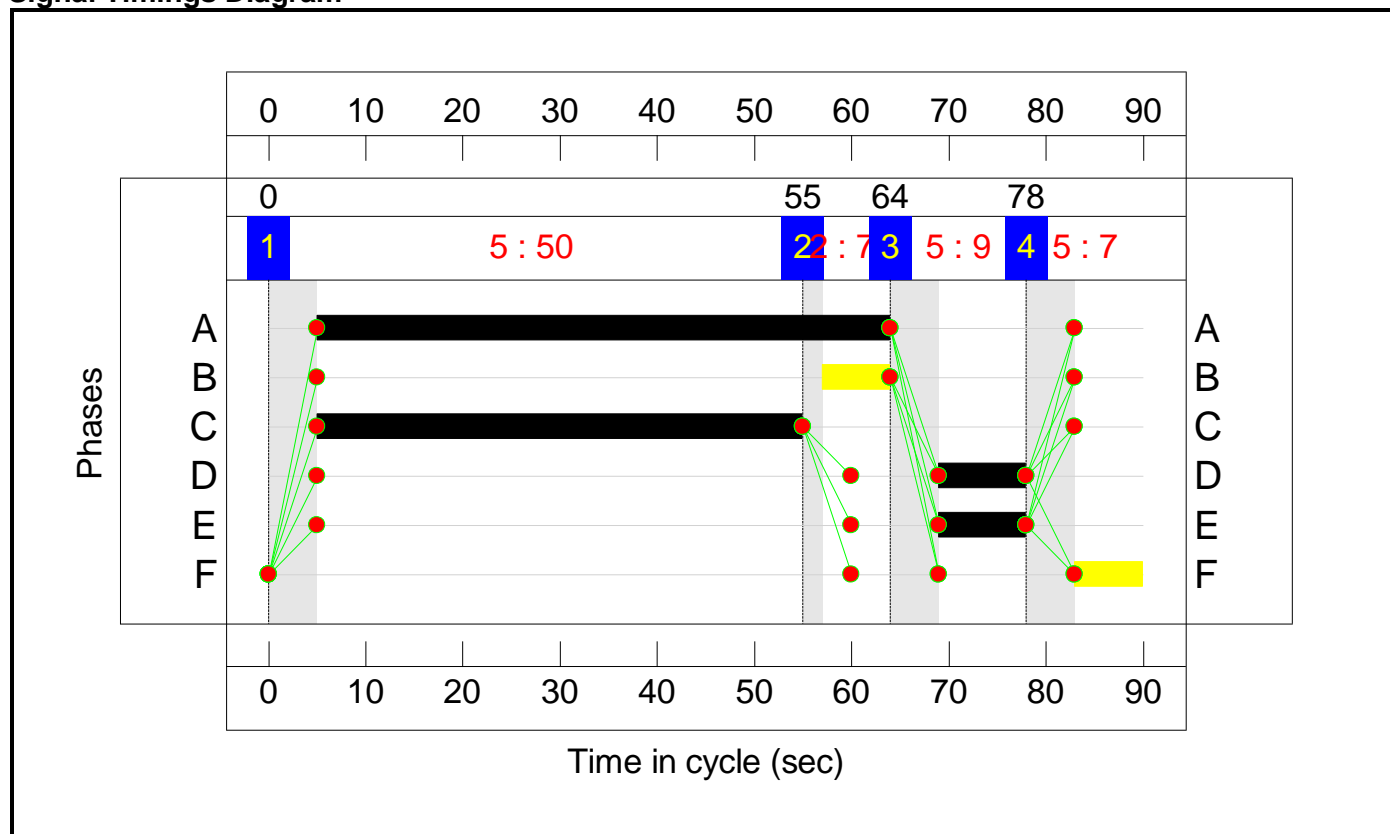
Stage Sequence Diagram



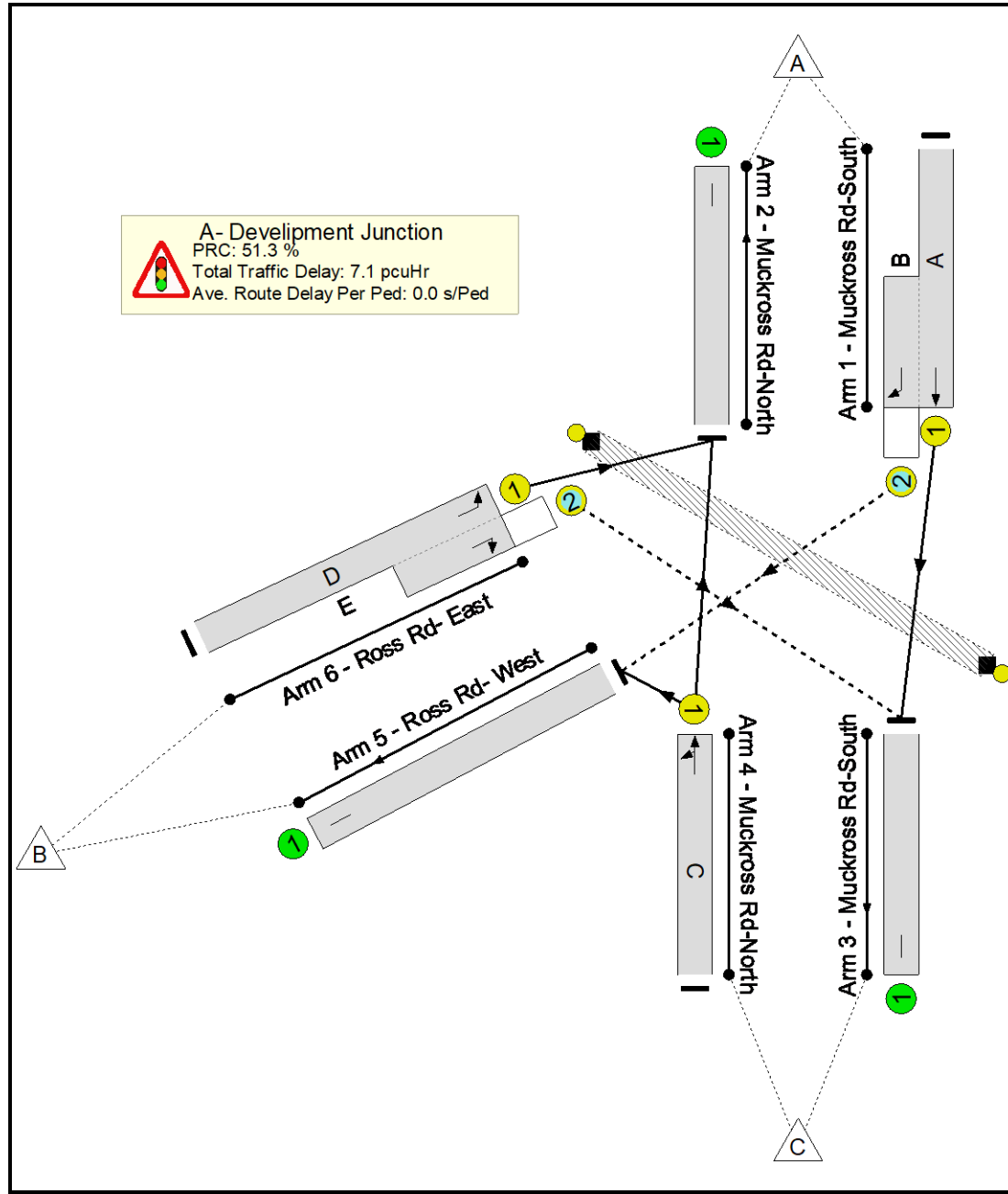
Stage Timings

Stage	1	2	3	4
Duration	50	7	9	7
Change Point	0	55	64	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	59.5%
A-Develpment Junction	-	-	N/A	-	-		-	-	-	-	-	-	59.5%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	59:7	-	571	1940:1875	1242+84	43.1 : 43.1%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	655	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	50	-	654	1940	1099	59.5%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	197	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	9	-	153	1940:1835	56+204	58.9 : 58.9%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

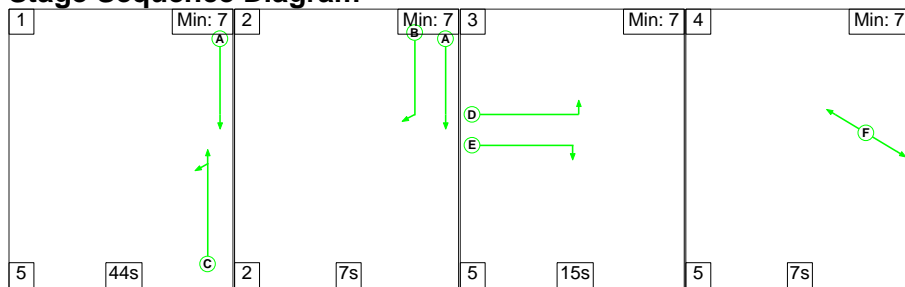
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	153	3	5.3	1.8	0.0	7.1	-	-	-	-
A-Development Junction	-	-	0	153	3	5.3	1.8	0.0	7.1	-	-	-	-
1/1+1/2	571	571	0	35	1	1.4	0.4	0.0	1.8	11.3	6.1	0.4	6.5
2/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	655	655	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	654	654	-	-	-	2.3	0.7	-	3.0	16.8	10.5	0.7	11.3
5/1	197	197	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	153	153	0	117	3	1.6	0.7	0.0	2.3	54.3	2.8	0.7	3.5
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 51.3 Total Delay for Signalled Lanes (pcuHr): 7.14 Cycle Time (s): 90</p> <p> PRC Over All Lanes (%): 51.3 Total Delay Over All Lanes(pcuHr): 7.14</p>													

Full Input Data And Results

Scenario 9: '2032 with Dev- AM' (FG9: '2032 with Dev- AM', Plan 1: 'Network Control Plan 1')

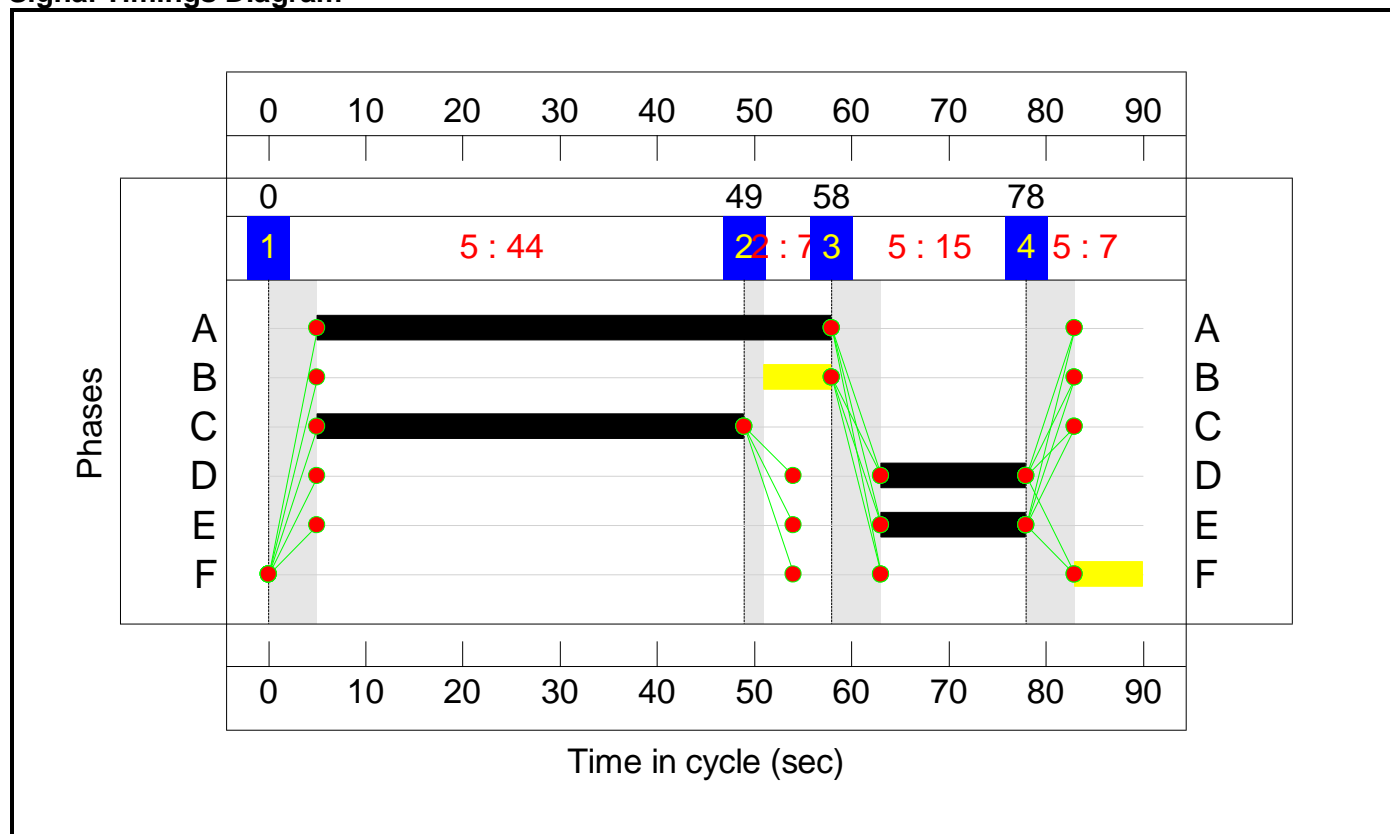
Stage Sequence Diagram



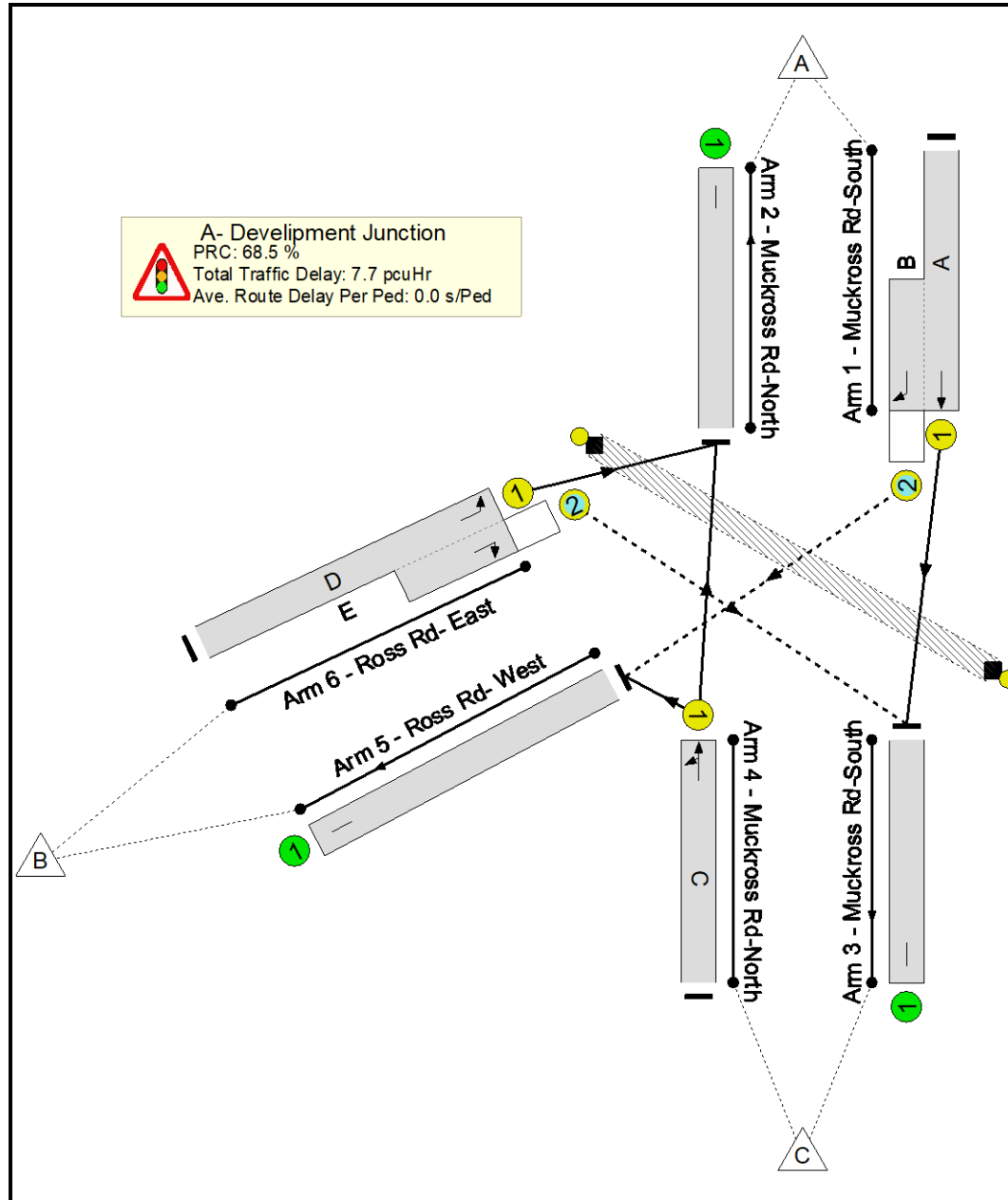
Stage Timings

Stage	1	2	3	4
Duration	44	7	15	7
Change Point	0	49	58	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	53.4%
A-Development Junction	-	-	N/A	-	-		-	-	-	-	-	-	53.4%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	53:7	-	631	1940:1875	1142+49	53.0 : 53.0%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	467	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	766	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	44	-	518	1940	970	53.4%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	115	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	15	-	199	1940:1835	72+305	52.8 : 52.8%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

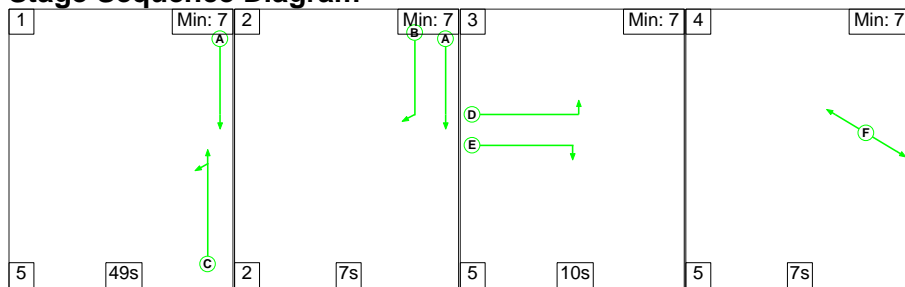
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	183	4	6.1	1.7	0.0	7.7	-	-	-	-
A-Development Junction	-	-	0	183	4	6.1	1.7	0.0	7.7	-	-	-	-
1/1+1/2	631	631	0	25	1	2.0	0.6	0.0	2.6	14.8	8.7	0.6	9.3
2/1	467	467	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	766	766	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	518	518	-	-	-	2.2	0.6	-	2.8	19.3	8.8	0.6	9.3
5/1	115	115	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	199	199	0	157	4	1.8	0.6	0.0	2.4	43.0	3.6	0.6	4.2
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 68.5 Total Delay for Signalled Lanes (pcuHr): 7.75 Cycle Time (s): 90</p> <p>PRC Over All Lanes (%): 68.5 Total Delay Over All Lanes(pcuHr): 7.75</p>													

Full Input Data And Results

Scenario 10: '2032 with Dev-PM' (FG10: '2032 with Dev- PM', Plan 1: 'Network Control Plan 1')

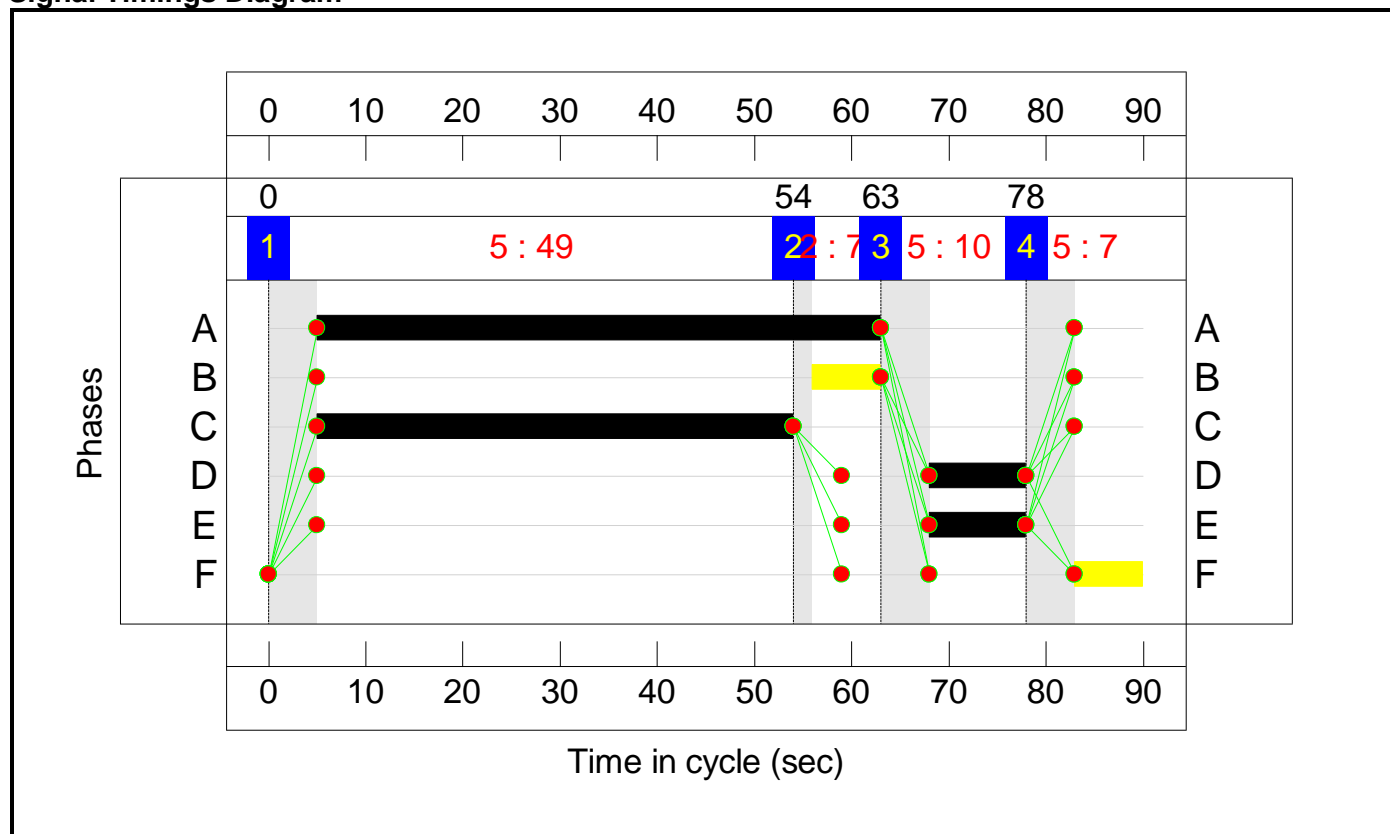
Stage Sequence Diagram



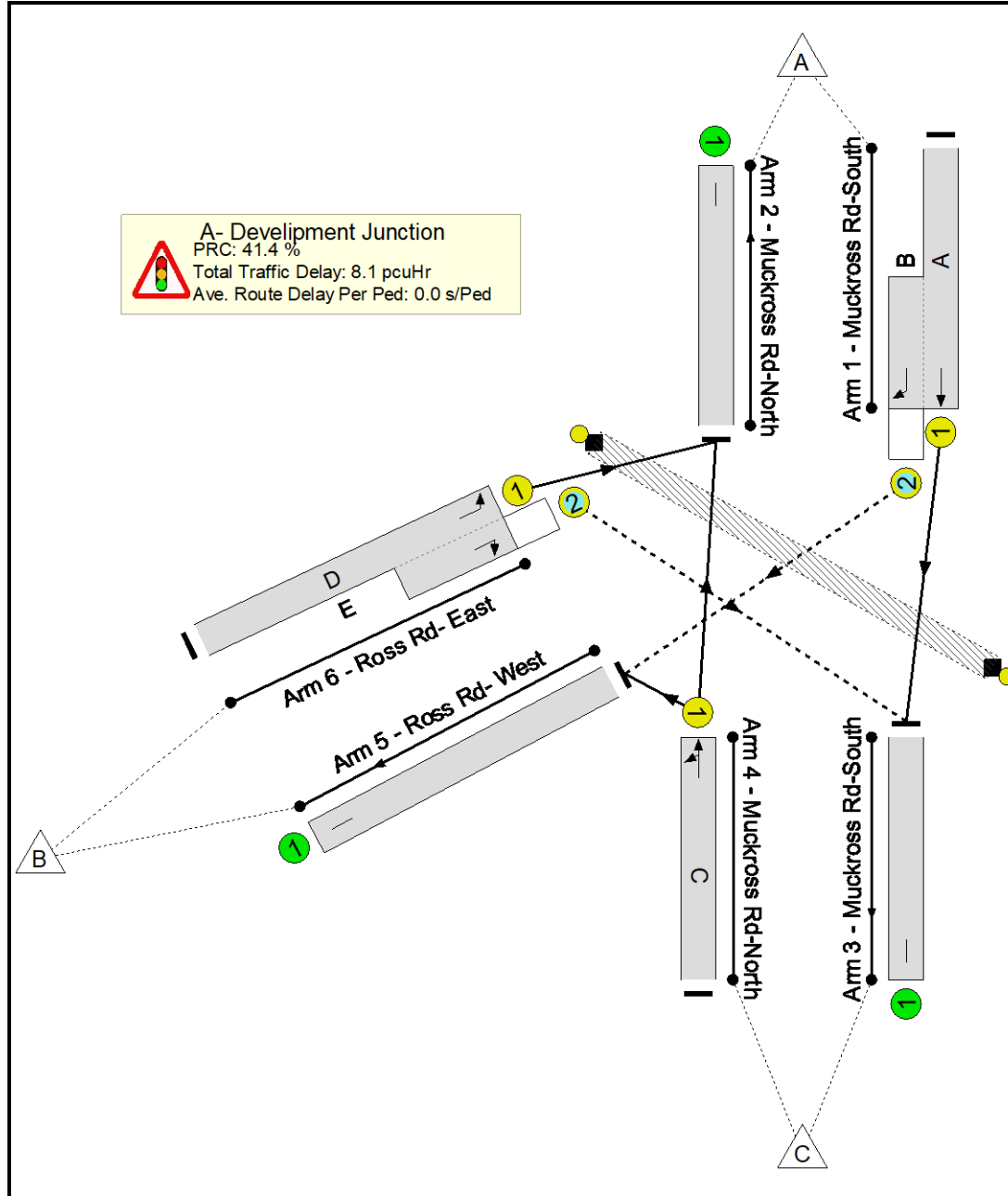
Stage Timings

Stage	1	2	3	4
Duration	49	7	10	7
Change Point	0	54	63	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	63.7%
A-Development Junction	-	-	N/A	-	-		-	-	-	-	-	-	63.7%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	58:7	-	577	1940:1875	1211+95	44.2 : 44.2%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	532	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	676	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	49	-	681	1940	1078	63.2%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	230	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	10	-	180	1940:1835	61+221	63.7 : 63.7%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

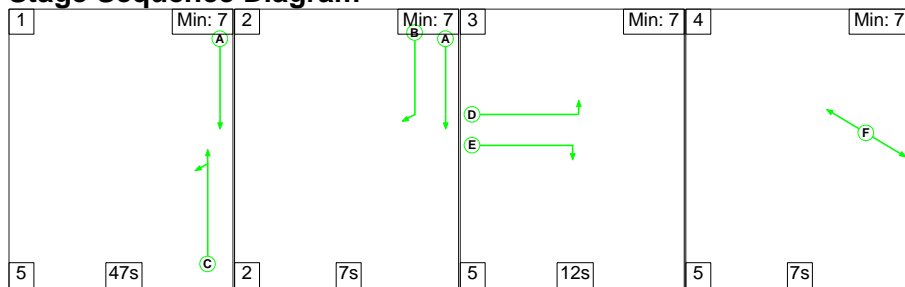
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	179	4	6.0	2.1	0.0	8.1	-	-	-	-
A-Development Junction	-	-	0	179	4	6.0	2.1	0.0	8.1	-	-	-	-
1/1+1/2	577	577	0	41	1	1.5	0.4	0.0	1.9	12.1	6.2	0.4	6.6
2/1	532	532	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	676	676	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	681	681	-	-	-	2.6	0.9	-	3.4	18.2	11.5	0.9	12.4
5/1	230	230	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	180	180	0	138	3	1.9	0.9	0.0	2.7	54.3	3.3	0.9	4.2
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 41.4 Total Delay for Signalled Lanes (pcuHr): 8.10 Cycle Time (s): 90</p> <p> PRC Over All Lanes (%): 41.4 Total Delay Over All Lanes(pcuHr): 8.10</p>													

Full Input Data And Results

Scenario 11: '2042 without Dev - AM' (FG11: '2042 without Dev- AM', Plan 1: 'Network Control Plan 1')

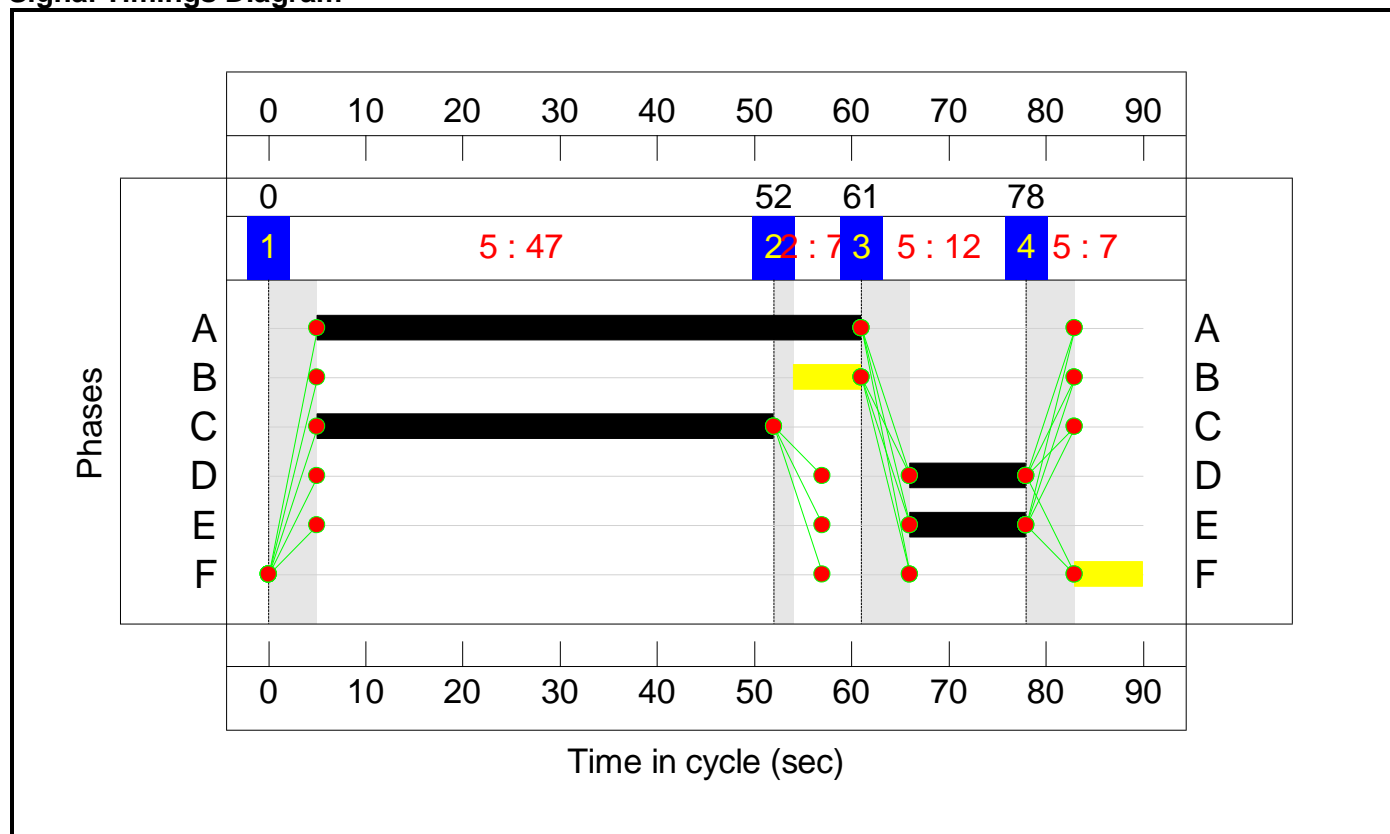
Stage Sequence Diagram



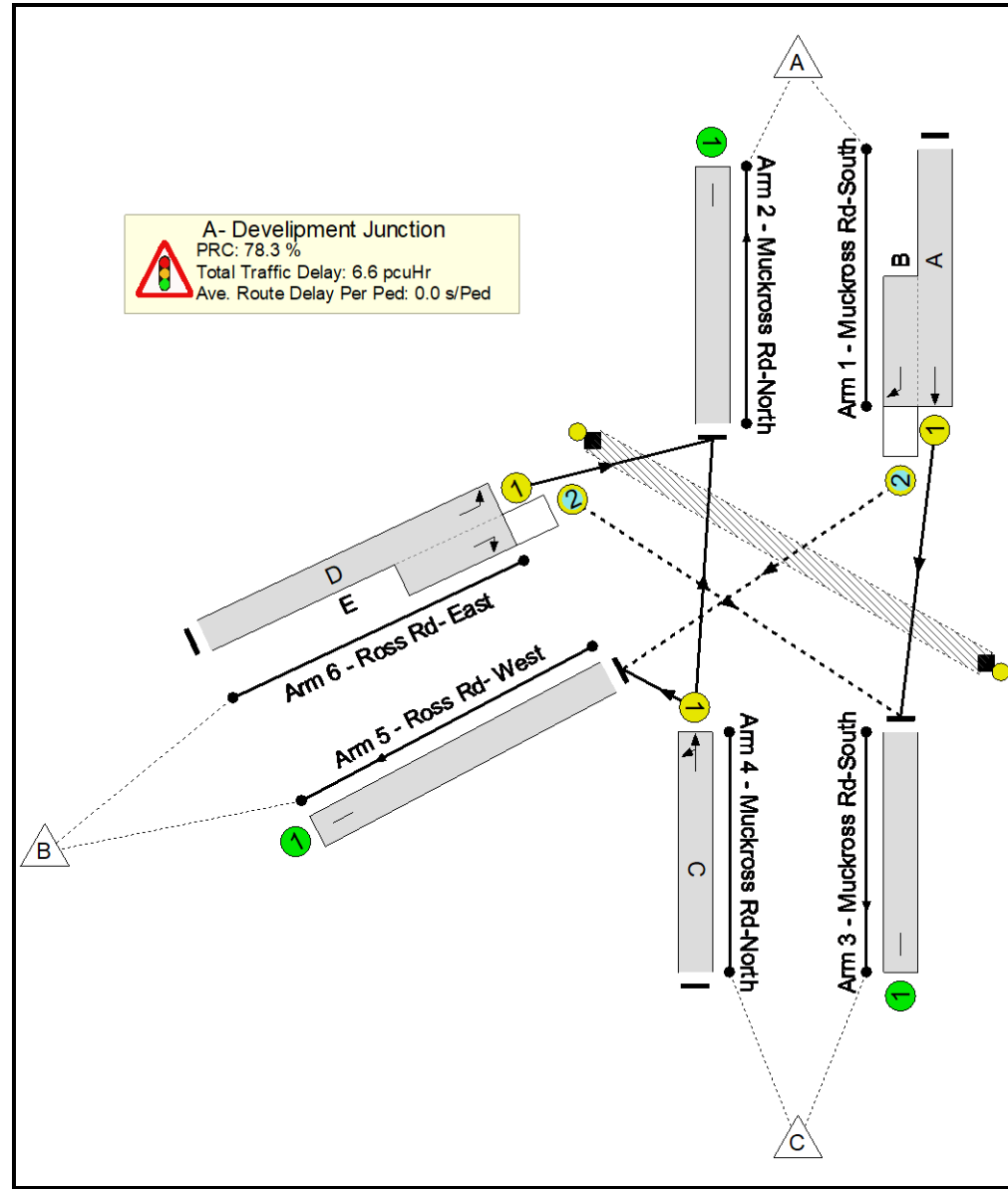
Stage Timings

Stage	1	2	3	4
Duration	47	7	12	7
Change Point	0	52	61	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	50.5%
A-Development Junction	-	-	N/A	-	-		-	-	-	-	-	-	50.5%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	56:7	-	633	1940:1875	1213+42	50.5 : 50.5%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	464	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	739	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	47	-	508	1940	1035	49.1%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	95	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	12	-	157	1940:1835	60+255	49.8 : 49.8%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

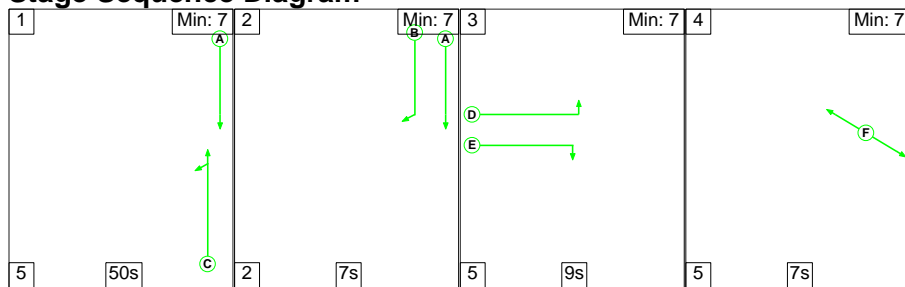
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	145	3	5.1	1.5	0.0	6.6	-	-	-	-
A-Development Junction	-	-	0	145	3	5.1	1.5	0.0	6.6	-	-	-	-
1/1+1/2	633	633	0	21	0	1.7	0.5	0.0	2.2	12.7	8.2	0.5	8.7
2/1	464	464	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	739	739	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	508	508	-	-	-	1.9	0.5	-	2.4	16.7	7.9	0.5	8.4
5/1	95	95	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	157	157	0	124	3	1.5	0.5	0.0	2.0	46.3	2.9	0.5	3.4
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 78.3 Total Delay for Signalled Lanes (pcuHr): 6.61 Cycle Time (s): 90</p> <p>PRC Over All Lanes (%): 78.3 Total Delay Over All Lanes(pcuHr): 6.61</p>													

Full Input Data And Results

Scenario 12: '2042 without Dev- PM' (FG12: '2042 without Dev- PM', Plan 1: 'Network Control Plan 1')

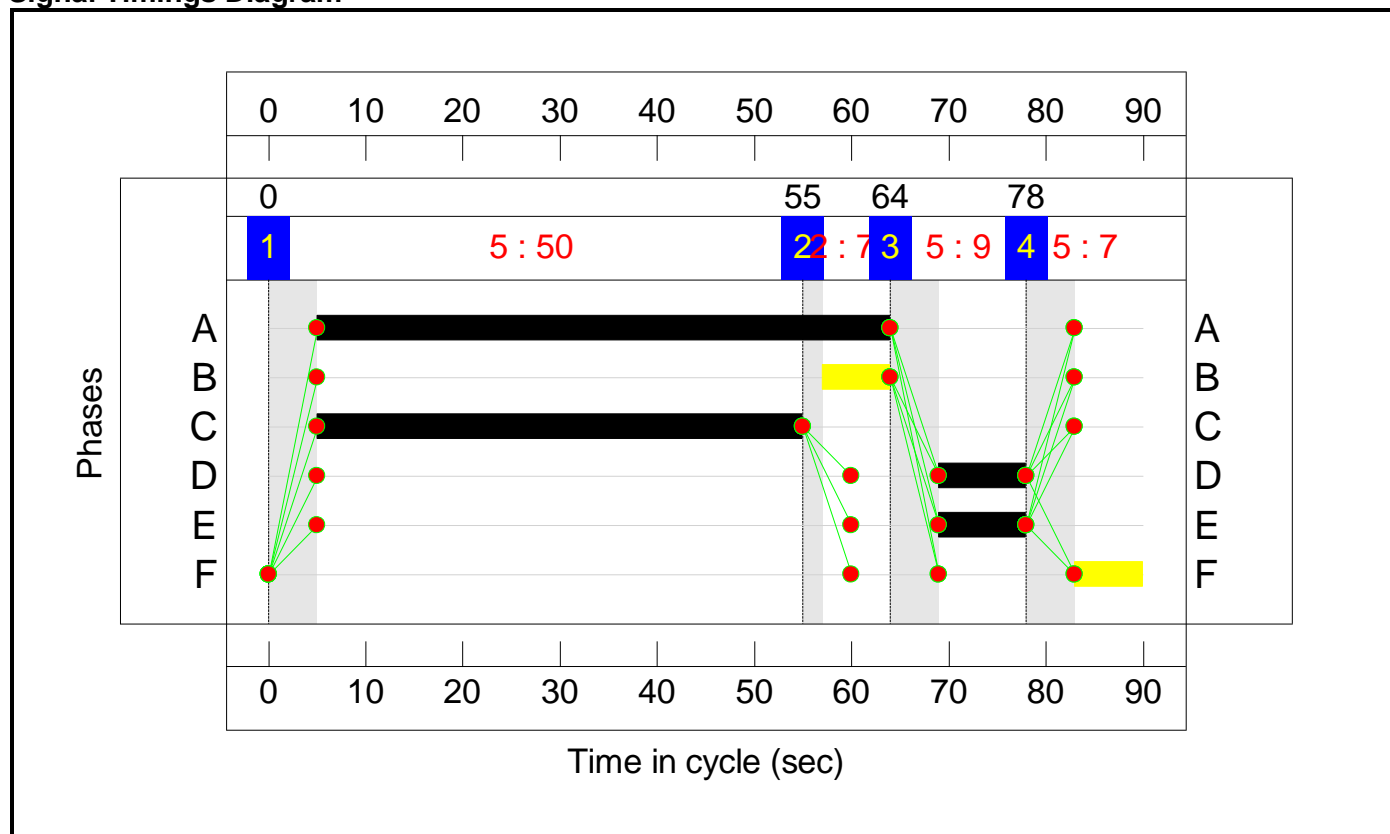
Stage Sequence Diagram



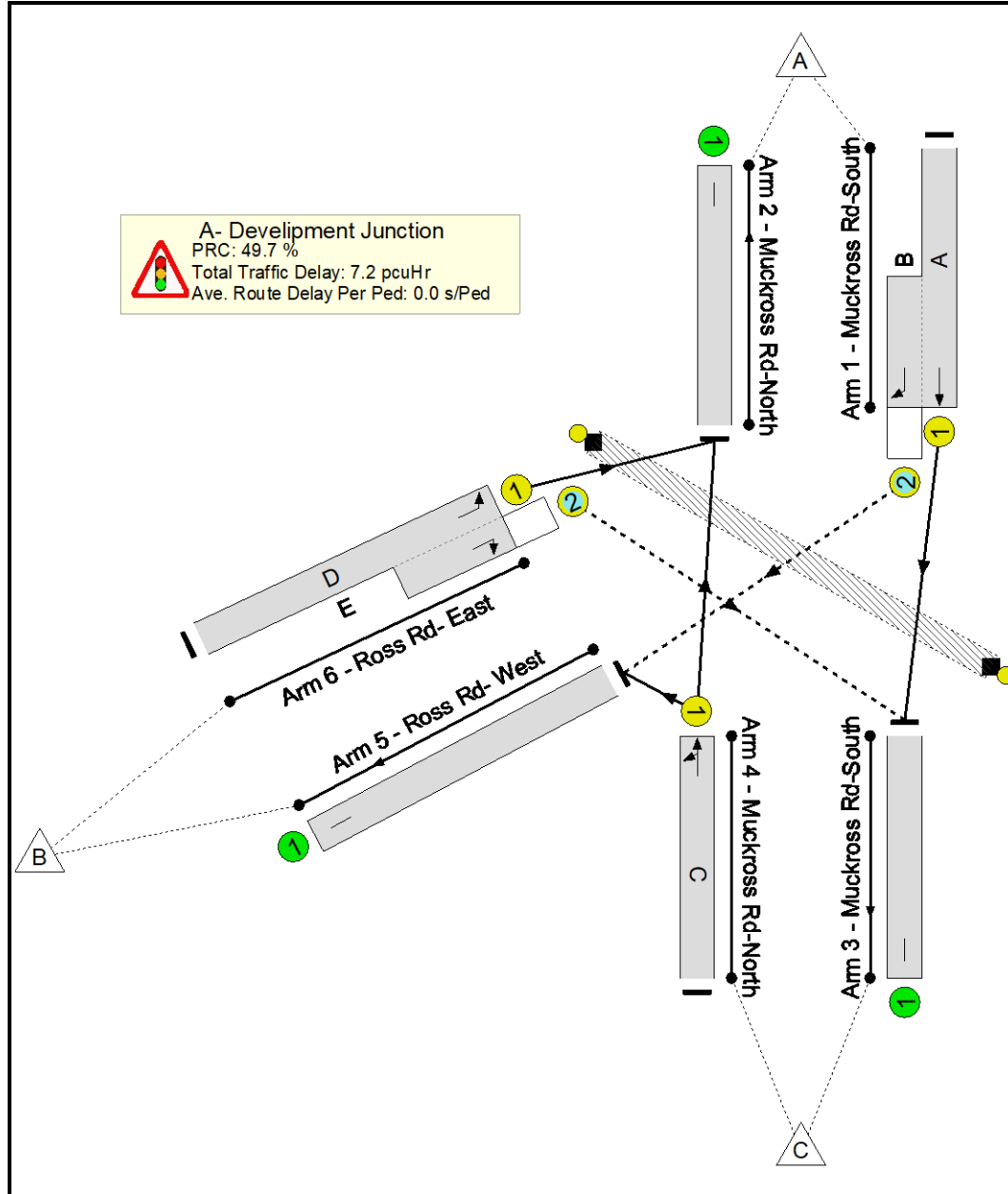
Stage Timings

Stage	1	2	3	4
Duration	50	7	9	7
Change Point	0	55	64	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	60.1%
A-Development Junction	-	-	N/A	-	-		-	-	-	-	-	-	60.1%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	59:7	-	577	1940:1875	1243+83	43.5 : 43.5%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	531	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	662	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	50	-	661	1940	1099	60.1%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	199	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	9	-	154	1940:1835	56+204	59.3 : 59.3%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

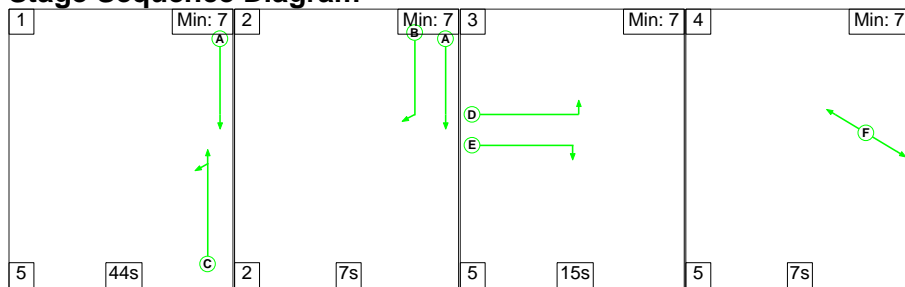
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	154	3	5.4	1.9	0.0	7.2	-	-	-	-
A-Development Junction	-	-	0	154	3	5.4	1.9	0.0	7.2	-	-	-	-
1/1+1/2	577	577	0	35	1	1.4	0.4	0.0	1.8	11.3	6.2	0.4	6.6
2/1	531	531	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	662	662	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	661	661	-	-	-	2.4	0.8	-	3.1	16.9	10.8	0.8	11.6
5/1	199	199	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	154	154	0	118	3	1.6	0.7	0.0	2.3	54.5	2.9	0.7	3.6
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 49.7 Total Delay for Signalled Lanes (pcuHr): 7.25 Cycle Time (s): 90</p> <p>PRC Over All Lanes (%): 49.7 Total Delay Over All Lanes(pcuHr): 7.25</p>													

Full Input Data And Results

Scenario 13: '2042 with Devr- AM' (FG13: '2042 with Dev- AM', Plan 1: 'Network Control Plan 1')

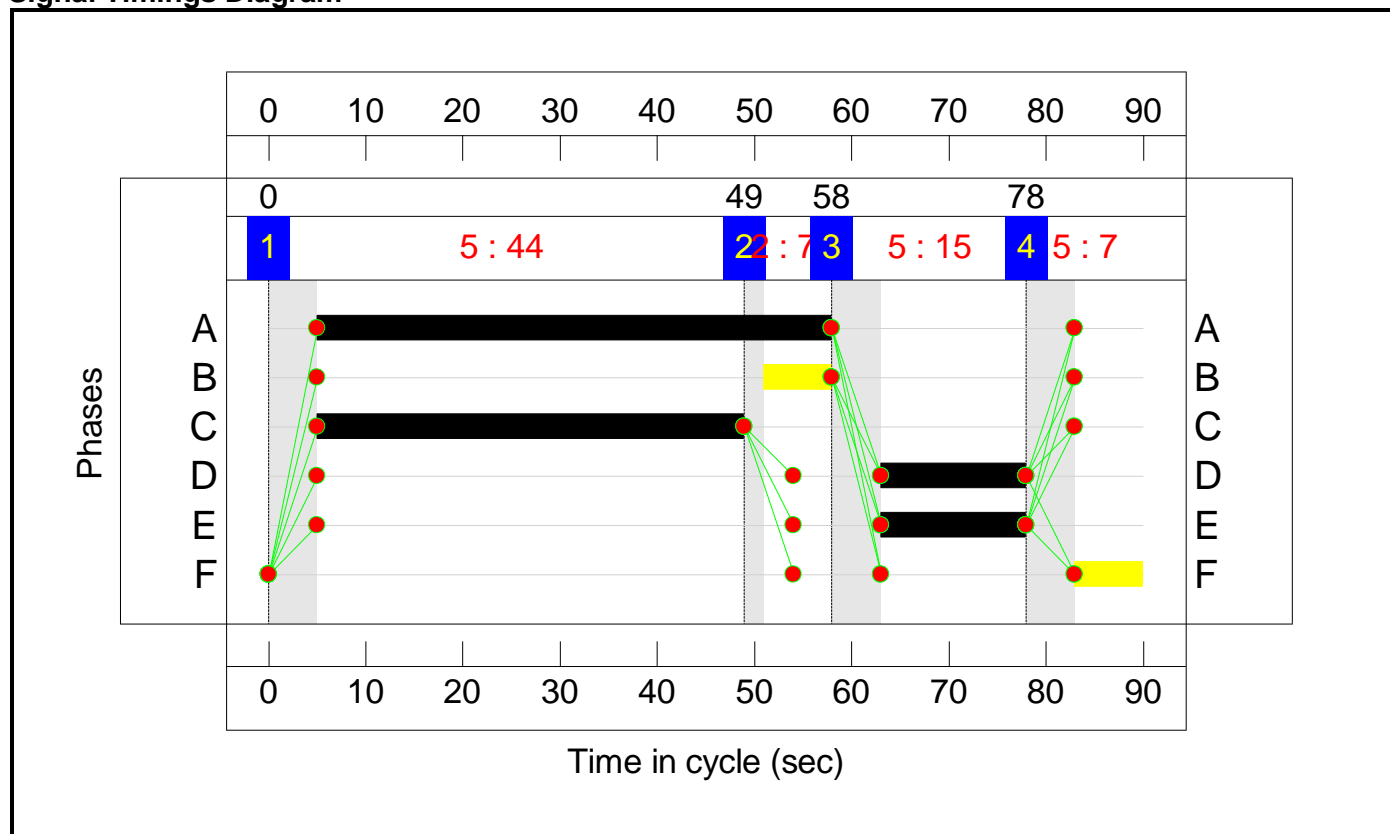
Stage Sequence Diagram



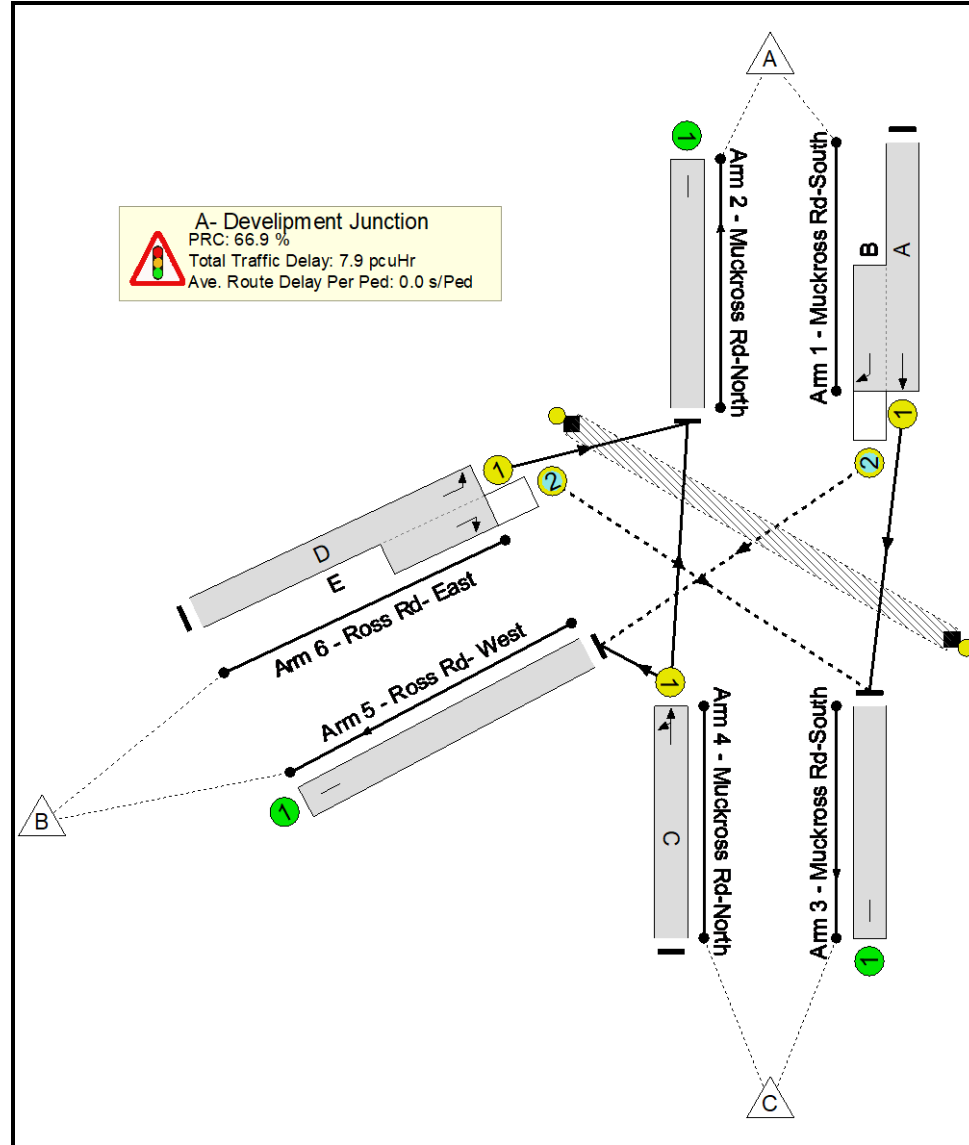
Stage Timings

Stage	1	2	3	4
Duration	44	7	15	7
Change Point	0	49	58	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	53.9%
A-Development Junction	-	-	N/A	-	-		-	-	-	-	-	-	53.9%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	53:7	-	638	1940:1875	1143+49	53.5 : 53.5%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	472	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	775	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	44	-	523	1940	970	53.9%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	115	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	15	-	201	1940:1835	71+305	53.4 : 53.4%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

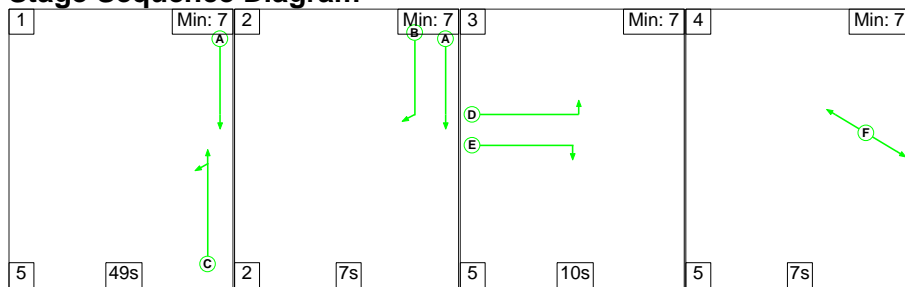
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: TTA	-	-	0	185	4	6.1	1.7	0.0	7.9	-	-	-	-
A-Development Junction	-	-	0	185	4	6.1	1.7	0.0	7.9	-	-	-	-
1/1+1/2	638	638	0	25	1	2.1	0.6	0.0	2.6	14.9	8.8	0.6	9.4
2/1	472	472	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	775	775	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	523	523	-	-	-	2.2	0.6	-	2.8	19.4	8.9	0.6	9.4
5/1	115	115	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	201	201	0	159	4	1.8	0.6	0.0	2.4	43.1	3.7	0.6	4.2
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 66.9 Total Delay for Signalled Lanes (pcuHr): 7.87 Cycle Time (s): 90</p> <p>PRC Over All Lanes (%): 66.9 Total Delay Over All Lanes(pcuHr): 7.87</p>													

Full Input Data And Results

Scenario 14: '2042 with Dev- PM' (FG14: '2042 with Dev- PM', Plan 1: 'Network Control Plan 1')

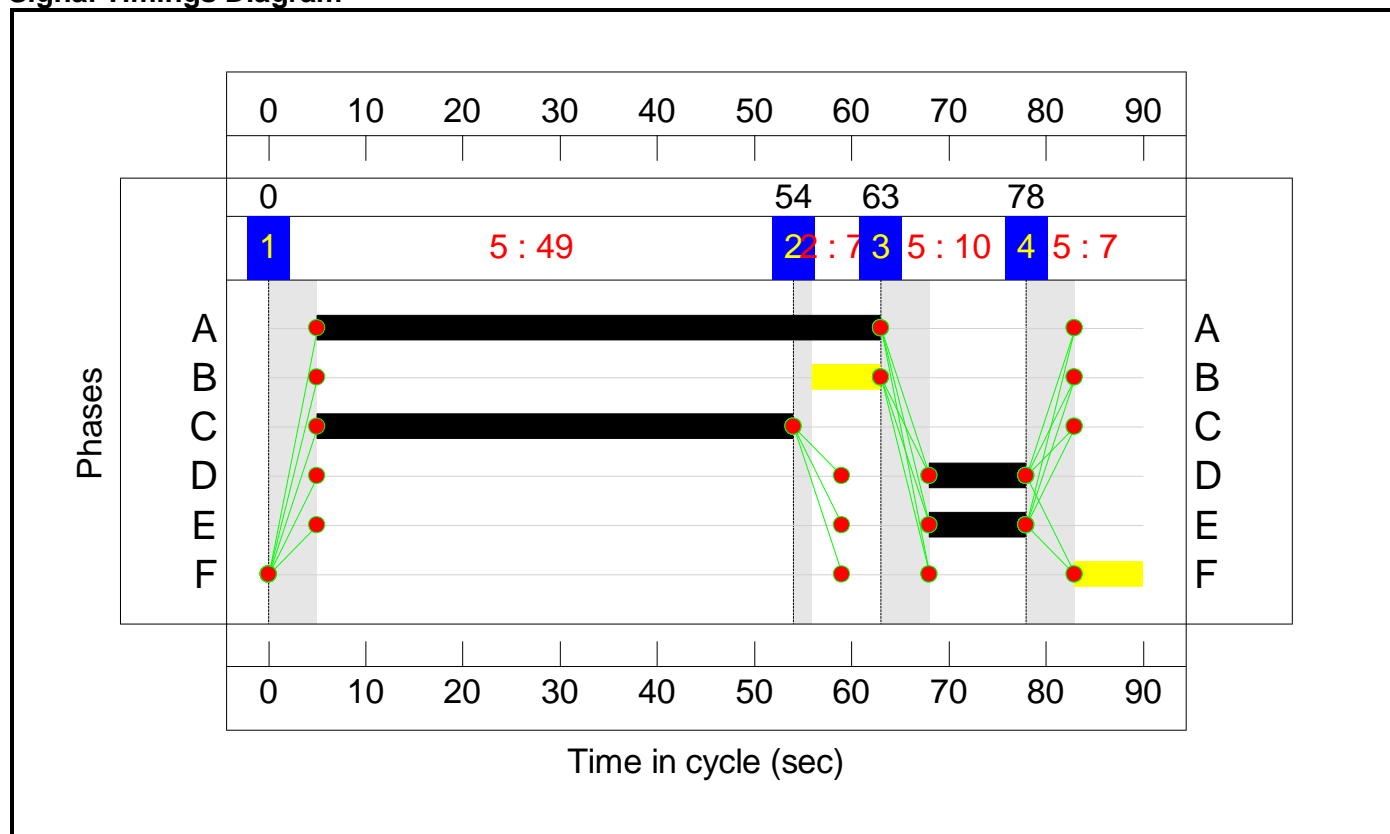
Stage Sequence Diagram



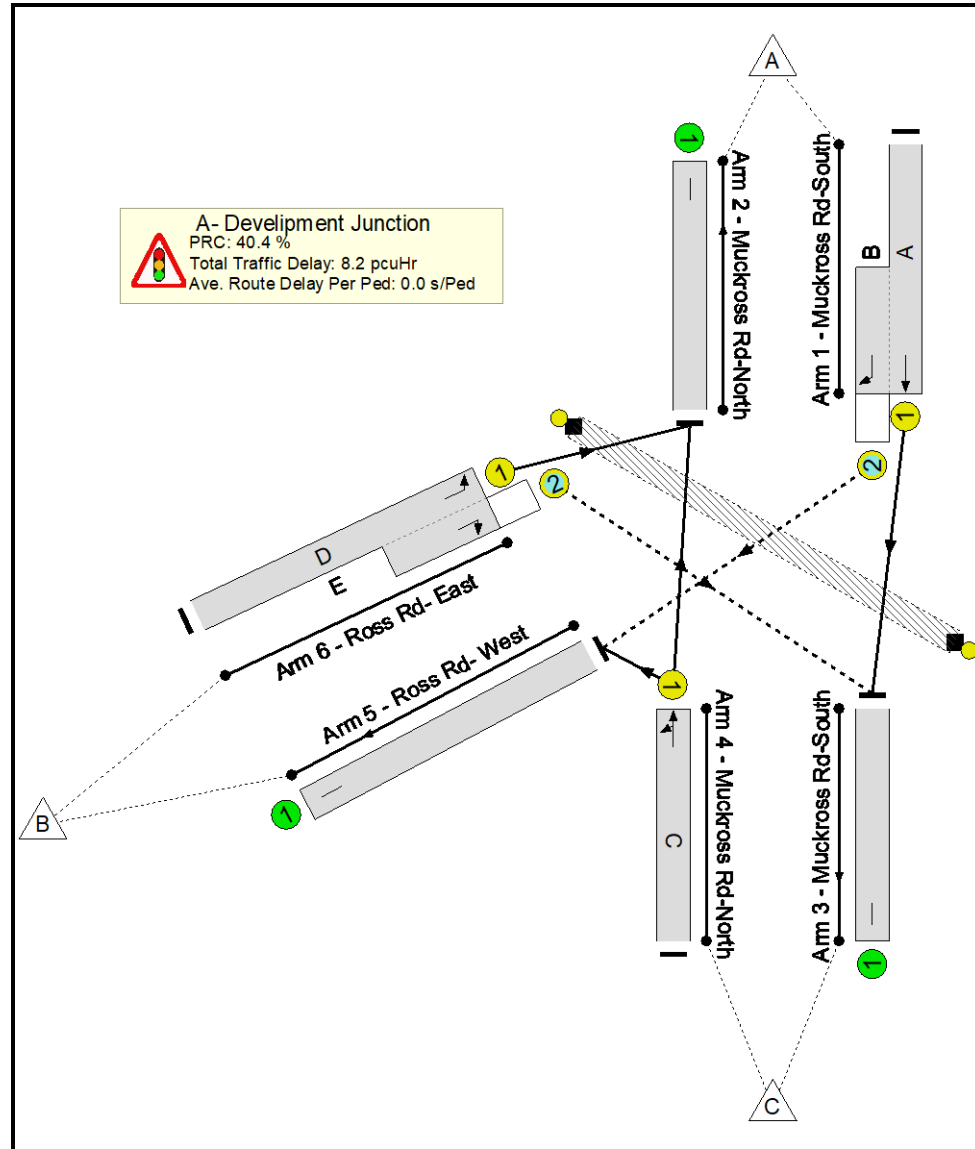
Stage Timings

Stage	1	2	3	4
Duration	49	7	10	7
Change Point	0	54	63	78

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: TTA	-	-	N/A	-	-		-	-	-	-	-	-	64.1%
A-Development Junction	-	-	N/A	-	-		-	-	-	-	-	-	64.1%
1/1+1/2	Muckross Rd-South Ahead Right	U+O	N/A	N/A	A B		1	58:7	-	583	1940:1875	1212+94	44.6 : 44.6%
2/1	Muckross Rd-North	U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
3/1	Muckross Rd-South	U	N/A	N/A	-		-	-	-	683	Inf	Inf	0.0%
4/1	Muckross Rd-North Ahead Left	U	N/A	N/A	C		1	49	-	688	1940	1078	63.8%
5/1	Ross Rd- West	U	N/A	N/A	-		-	-	-	232	Inf	Inf	0.0%
6/1+6/2	Ross Rd- East Left Right	U+O	N/A	N/A	D E		1	10	-	181	1940:1835	61+222	64.1 : 64.1%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	7	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)																
Network: TTA	-	-	0	180	4	6.1	2.2	0.0	8.2	-	-	-	-																
A-Development Junction	-	-	0	180	4	6.1	2.2	0.0	8.2	-	-	-	-																
1/1+1/2	583	583	0	41	1	1.6	0.4	0.0	2.0	12.1	6.3	0.4	6.8																
2/1	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																
3/1	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																
4/1	688	688	-	-	-	2.6	0.9	-	3.5	18.4	11.7	0.9	12.5																
5/1	232	232	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																
6/1+6/2	181	181	0	139	3	1.9	0.9	0.0	2.7	54.6	3.4	0.9	4.2																
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-																
<table style="width:100%; border:none;"> <tr> <td style="width:25%;"></td> <td style="width:10%;">C1</td> <td style="width:15%;">PRC for Signalled Lanes (%):</td> <td style="width:10%;">40.4</td> <td style="width:15%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width:10%;">8.22</td> <td style="width:15%;">Cycle Time (s):</td> <td style="width:10%;">90</td> </tr> <tr> <td></td> <td></td> <td>PRC Over All Lanes (%):</td> <td>40.4</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>8.22</td> <td></td> <td></td> </tr> </table>															C1	PRC for Signalled Lanes (%):	40.4	Total Delay for Signalled Lanes (pcuHr):	8.22	Cycle Time (s):	90			PRC Over All Lanes (%):	40.4	Total Delay Over All Lanes(pcuHr):	8.22		
	C1	PRC for Signalled Lanes (%):	40.4	Total Delay for Signalled Lanes (pcuHr):	8.22	Cycle Time (s):	90																						
		PRC Over All Lanes (%):	40.4	Total Delay Over All Lanes(pcuHr):	8.22																								

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