Movement & Access Assessment - Addendum 1

PMP Printing Precinct

V170605

Prepared for
Victorian Planning Authority

23 September 2020

Cardno

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Document Information

Prepared for	Victorian Planning Authority
Project Name	PMP Printing Precinct
File Reference	V170605_REP002F01.docx
Job Reference	V170605
Date	23 September 2020
Version Number	F01
Effective Date	23/09/2020
Date Approved	23/09/2020

Document History

Version	Effective Date	Description of Revision	Prepared by	Reviewed by
D01	11/09/2020	Draft	James Aloi	Matt Mudge
F01	23/09/2020	Final	James Aloi	Matt Mudge

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1 Introduction

Cardno was commissioned by VPA in 2017 to provide an Access and Movement Assessment for the proposed redevelopment of the PMP Printing precinct. This work involved a considerable amount of traffic modelling, reflecting existing conditions and a proposed development and access scenario, and considering a range of trip generation and distribution parameters agreed by all stakeholders at that time. This work is reflected in Cardno's final Access and Movement Report (V170605_REP001F01) issued in July 2019.

VPA has subsequently requested an update to the traffic modelling undertaken to reflect a small increase in the number of residential dwellings and to determine the impact that the additional traffic generated may have on the road network (email dated 31st August 2020, with scope agreed on 3rd September 2020).

This Addendum summarises the following:

- Revised development yield;
- Revised model inputs and assumptions;
- Revised modelling results and any refinements to improve intersections performance; and
- An assessment of the traffic related impacts of the amended development proposal.

2 Stage 1 Revised Traffic Generation

2.1 2019 Development Yield and Traffic Generation

The residential yield modelled in 2019 and reflected in Section 3.1 of Cardno's 2019 Report comprised 105 townhouses and 1,030 apartments. The Commercial GFA was assumed to be 20,000 sqm, comprising General office, Education (Tertiary), and Health / Health Care land uses. The rationale behind the Commercial yield for the purposes of this modelling is outlined in Section 4.1.3 of Cardno's 2019 Report.

Section 4.3 of Cardno's 2019 Report details the various assumptions agreed to calculate the resulting traffic generation. The resulting AM and PM peak traffic generated by the precinct under this scenario is shown in Table 2-1 below (reflecting Table 4.6 in Cardno's 2019 Report).

Table 2-1 PMP Printing Precinct Traffic Generation Summary (2019)

Land Use	AM Peak			PM Peak		
	In	Out	TOTAL	In	Out	TOTAL
Dwellings (Apartments)	8 vph	34 vph	42 vph	25 vph	17 vph	42 vph
Dwellings (Townhouses)	62 vph	247 vph	309 vph	185 vph	124 vph	309 vph
Office (General)	101 vph	11 vph	112 vph	22 vph	90 vph	112 vph
Education (Tertiary)	72 vph	8 vph	80 vph	32 vph	48 vph	80 vph
Heath / Healthcare	77 vph	51 vph	128 vph	64 vph	64 vph	128 vph
TOTAL	**320 vph**	**351 vph**	**671 vph**	**329 vph**	**342 vph**	**671 vph**

2.2 2020 Development Yield and Traffic Generation

It is understood that as a result of submissions regarding the urban design element of the proposed amendment to the Planning Scheme, there is a small modification to the mix of townhouses and apartments. These changes have been presented on Page 5 in Tract's Response to Agency Feedback on Browns Road Interface Amendments, supplied by VPA. This document shows an increase in the number of townhouses from 105 to 130 dwellings, and an increase in the number of apartments from 1,030 to 1,052 dwellings, totalling 1,182 dwellings.

It is noted that there is no change in the nature and level of commercial development to that assumed in Cardno's previous work. All other generation and distribution assumptions also remain the same as the previous work.

Table 2-2 shows the revised traffic generation as a result of the increased residential development.

Table 2-2 PMP Printing Precinct Traffic Generation Summary (2020)

Land Use	AM Peak			PM Peak		
	In	Out	TOTAL	In	Out	TOTAL
Dwellings (Apartments)	10 vph	42 vph	52 vph	31 vph	21 vph	52 vph
Dwellings (Townhouses)	63 vph	253 vph	316 vph	190 vph	126 vph	316 vph
Office (General)	101 vph	11 vph	112 vph	22 vph	90 vph	112 vph
Education (Tertiary)	72 vph	8 vph	80 vph	32 vph	48 vph	80 vph
Heath / Healthcare	77 vph	51 vph	128 vph	64 vph	64 vph	128 vph
TOTAL	**323 vph**	**365 vph**	**688 vph**	**338 vph**	**350 vph**	**688 vph**

It is shown that the increases in traffic generated by the precinct are minimal, with a net increase of 17 trips (or 2.5%) in each of the peak hours.

The next stage of work will be to test the impact of this additional traffic on the modelled intersections that include the improvements recommended and agreed with the relevant authorities as detailed in Cardno's 2019 Report.

3 Stage 2 Revised SIDRA Intersection Modelling & Comparison

The following pages of analysis summarise and compare the intersection performances between the 2019 and 2020 Development Yield and Traffic Generation modelling detailed in Stage 1. For detailed analysis, please refer to the SIDRA-generated movement summaries and phasing summaries provided in Appendix A.

3.1 Term Definitions

- All previous versions of intersection SIDRA analysis refer to the 2019 Development Yield and Traffic Generation;
- All new versions of intersection SIDRA analysis refer to the 2020 Development Yield and Traffic Generation;
- AM/PM 2031 = Projected AM and PM peak volumes at this year, detailed in Cardno's 2019 Report; and
- PMP = PMP Printing Precinct generated traffic, detailed in Cardno's 2019 Report.

3.2 Carinish Road & Browns Road Intersection – V4 & V5 Comparison

3.2.1 Carinish-Browns Rd AM 2031 + PMP

For this scenario, the intersection of Carinish Road and Browns Road shows minimal changes in Degree of Saturation, Average Delay and 95th Percentile Queueing, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance.

Table 3-1 Carinish Rd & Brown Rd Intersection – AM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V4	V5	Diff	V4	V5	Diff	V4	V5	V4	V5	Diff
Carinish Rd (SE)	T	0.405	0.400	-0.005	3.2	3.2	-	A	A	0.0	0.0	-
	R	0.405	0.400	-0.005	3.6	3.6	-	A	A	0.0	0.0	-
Browns Rd (N)	L	0.506	0.511	+0.005	8.1	8.1	-	A	A	22.2	22.7	+0.5
	R	0.506	0.511	+0.005	24.1	23.9	-0.2	C	C	22.2	22.7	+0.5
Carinish Rd (NW)	L	0.240	0.240	-	5.4	5.4	-	A	A	0.0	0.0	-
	T	0.240	0.240	-	3.2	3.2	-	A	A	0.0	0.0	-

3.2.2 Carinish-Browns Rd PM 2031 + PMP

For this scenario, the intersection of Carinish Road and Browns Road shows minimal changes in Degree of Saturation, Average Delay and 95th Percentile Queueing, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance.

Table 3-2 Carinish Rd & Brown Rd Intersection – PM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V4	V5	Diff	V4	V5	Diff	V4	V5	V4	V5	Diff
Carinish Rd (SE)	T	0.284	0.285	+0.001	3.2	3.2	-	A	A	0.0	0.0	-
	R	0.284	0.285	+0.001	3.6	3.6	-	A	A	0.0	0.0	-
Browns Rd (N)	L	0.682	0.690	+0.008	11.1	11.3	+0.2	B	B	40.8	41.9	+1.1
	R	0.682	0.690	+0.008	24.5	24.9	+0.4	C	C	40.8	41.9	+1.1
Carinish Rd (NW)	L	0.315	0.318	+0.003	5.5	5.5	-	A	A	0.0	0.0	-
	T	0.315	0.318	+0.003	3.2	3.2	-	A	A	0.0	0.0	-

3.2.3 Princes Hwy-Browns Rd AM 2031 + PMP

For this scenario, the intersection of Princes Highway and Browns Road shows minimal changes on the Browns Road leg in Degree of Saturation and 95th Percentile Queueing, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance.

Table 3-3 Princes Highway & Brown Rd Intersection – AM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V4	V5	Diff	V4	V5	Diff	V4	V5	V4	V5	Diff
Browns Rd (S)	L	0.442	0.446	+0.004	10.2	10.2	-	B	B	17.1	17.4	+0.3
Princes Hwy (SE)	L	0.457	0.457	-	9.1	9.1	-	A	A	0.0	0.0	-
	T	0.457	0.457	-	0.1	0.1	-	A	A	0.0	0.0	-

3.2.4 Princes Hwy-Browns Rd PM 2031 + PMP

For this scenario, the intersection of Princes Highway and Browns Road shows no changes in performance.

Table 3-4 Princes Highway & Brown Rd Intersection – PM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V4	V5	Diff	V4	V5	Diff	V4	V5	V4	V5	Diff
Browns Rd (S)	L	0.384	0.384	-	8.3	8.3	-	A	A	14.7	14.7	-
Princes Hwy (SE)	L	0.484	0.484	-	9.1	9.1	-	A	A	0.0	0.0	-
	T	0.484	0.484	-	0.1	0.1	-	A	A	0.0	0.0	-

3.3 Centre Road & Moriah Street – V4 & V5 Comparison

3.3.1 Centre Rd-Moriah St AM 2031 + PMP

For this scenario, the intersection of Centre Road and Moriah Street shows minimal changes in Degree of Saturation and Average Delay, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance.

Table 3-5 Centre Road & Moriah Street Intersection – AM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V4	V5	Diff	V4	V5	Diff	V4	V5	V4	V5	Diff
Centre Rd (E)	T	0.211	0.211	-	0.8	0.8	-	A	A	5.2	5.2	-
	R	0.211	0.211	-	14.2	14.2	-	B	B	5.2	5.2	-
Moriah St (N)	L	0.080	0.080	-	8.3	8.3	-	A	A	2.0	2.0	-
	R	0.080	0.080	-	48.9	49.1	+0.2	E	E	2.0	2.0	-
Centre Rd (W)	L	0.283	0.284	+0.001	5.6	5.6	-	A	A	0.0	0.0	-
	T	0.283	0.284	+0.001	0.0	0.0	-	A	A	0.0	0.0	-

3.3.2 Centre Rd-Moriah St PM 2031 + PMP

For this scenario, the intersection of Centre Road and Moriah Street shows minimal changes on the Moriah Street leg in Degree of Saturation, Average Delay, and 95th Percentile Queueing, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance. It is noted that this intersection operates above capacity using both the 2019 and 2020 traffic volumes.

Table 3-6 Centre Road & Moriah Street Intersection – PM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V4	V5	Diff	V4	V5	Diff	V4	V5	V4	V6	V5
Centre Rd (E)	T	0.256	0.256	-	0.2	0.2	-	A	A	2.1	2.1	-
	R	0.256	0.256	-	12.6	12.6	-	B	B	2.1	2.1	-
Moriah St (N)	L	0.364	0.367	+0.003	13.4	13.5	+0.1	B	B	9.8	9.9	+0.1
	R	0.364	0.367	+0.003	59.0	59.3	+0.3	F	F	9.8	9.9	+0.1
Centre Rd (W)	L	0.242	0.242	-	5.6	5.6	-	A	A	0.0	0.0	-
	T	0.242	0.242	-	0.0	0.0	-	A	A	0.0	0.0	-

3.4 Carinish Road, Centre Road & Haughton Road Network – V6 & V7 Comparison

3.4.1 Centre-Haughton 2031 AM + PMP (Network)

For this scenario, the networked intersection of Centre Road and Haughton Road shows minimal changes in Degree of Saturation, Average Delay and 95th Percentile Queueing, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance.

Table 3-7 Centre Road & Haughton Road Intersection (Networked) – AM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V6	V7	Diff	V6	V7	Diff	V6	V7	V6	V7	Diff
Haughton Rd (S)	T	0.260	0.259	-0.001	6.9	6.9	-	A	A	16.3	16.2	-0.1
	R	0.753	0.753	-	44.1	44.1	-	D	D	41.8	41.8	-
Centre Rd (E)	L	0.426	0.428	+0.002	15.8	16.9	+1.1	B	B	32.6	32.6	-
	R	0.426	0.428	+0.002	12.4	12.8	+0.4	B	B	32.6	32.6	-
Centre Rd (W)	L	0.596	0.596	-	21.7	21.7	-	C	C	84.3	84.3	-
	T	0.507	0.507	-	43.1	43.1	-	D	D	20.2	20.2	-

3.4.2 PedCrossing 2031 AM + PMP (Network)

For this scenario, the networked pedestrian crossing on Centre Road shows no changes in performance.

Table 3-8 Centre Road Pedestrian Crossing (Networked) – AM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V6	V7	Diff	V6	V7	Diff	V6	V7	V6	V7	Diff
Centre Rd (E)	T	0.429	0.429	-	0.5	0.5	-	A	A	3.5	3.5	-
Centre Rd (W)	T	0.809	0.809	-	7.4	7.4	-	A	A	32.6	32.6	-

3.4.3 Centre-Carinish 2031 AM + PMP (Network)

For this scenario, the networked intersection of Centre Road and Carinish Road shows minimal changes on the Carinish Road leg in Degree of Saturation and 95th Percentile Queueing, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance.

Table 3-9 Centre Road & Carinish Road Intersection (Networked) – AM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V6	V7	Diff	V6	V7	Diff	V6	V7	V6	V7	Diff
Centre Rd (E)	T	0.290	0.290	-	19.1	19.1	-	B	B	35.9	35.9	-
	R	0.796	0.796	-	25.9	25.9	-	C	C	73.4	73.4	-
Carinish Rd (N)	L	0.384	0.386	+0.002	9.3	9.3	-	A	A	39.4	39.7	+0.3
	R	0.487	0.493	+0.006	40.7	40.7	-	D	D	25.0	25.3	+0.3
Centre Rd (W)	L	0.728	0.728	-	11.2	11.2	-	B	B	24.5	24.5	-
	T	0.728	0.728	-	12.8	12.8	-	B	B	24.5	24.5	-

3.4.4 Centre-Haughton 2031 PM + PMP (Network)

For this scenario, the networked intersection of Centre Road and Haughton Road shows minimal changes in Degree of Saturation, Average Delay and 95th Percentile Queueing, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance.

Table 3-10 Centre Road & Haughton Road Intersection (Networked) – PM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V6	V7	Diff	V6	V7	Diff	V6	V7	V6	V7	Diff
Haughton Rd (S)	T	0.258	0.258	-	11.2	11.2	-	B	B	30.1	30.1	-
	R	0.412	0.412	-	40.0	40.0	-	D	D	27.7	27.7	-
Centre Rd (E)	L	0.884	0.884	-	28.9	29.0	+0.1	C	C	32.6	32.6	-
	R	0.884	0.884	-	24.6	24.7	+0.1	C	C	32.6	32.6	-
Centre Rd (W)	L	0.612	0.614	+0.002	32.2	32.3	+0.1	C	C	58.6	59.0	+0.4
	T	0.921	0.921	-	58.1	58.1	-	E	E	59.1	59.1	-

3.4.5 PedCrossing 2031 PM + PMP (Network)

For this scenario, the networked pedestrian crossing on Centre Road shows no changes in performance.

Table 3-11 Centre Road Pedestrian Crossing (Networked) – PM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V6	V7	Diff	V6	V7	Diff	V6	V7	V6	V7	Diff
Centre Rd (E)	T	0.813	0.813	-	7.2	7.2	-	A	A	24.5	24.5	-
Centre Rd (W)	T	0.481	0.481	-	0.7	0.7	-	A	A	6.0	6.0	-

3.4.6 Centre-Carinish 2031 PM + PMP (Network)

For this scenario, the networked intersection of Centre Road and Carinish Road shows minimal changes in Degree of Saturation, Average Delay and 95th Percentile Queueing, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance.

Table 3-12 Centre Road & Carinish Road Intersection (Networked) – PM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V6	V7	Diff	V6	V7	Diff	V6	V7	V6	V7	Diff
Centre Rd (E)	T	0.596	0.596	-	24.3	24.3	-	C	C	85.5	85.5	-
	R	0.669	0.672	+0.003	36.5	36.6	+0.1	D	D	73.3	73.7	+0.4
Carinish Rd (N)	L	0.412	0.413	+0.001	7.6	7.7	+0.1	A	A	40.9	41.1	+0.2
	R	0.868	0.873	+0.005	50.3	50.7	+0.4	D	D	61.1	61.6	+0.5
Centre Rd (W)	L	0.650	0.650	-	17.5	17.3	-0.2	B	B	24.5	24.5	-
	T	0.650	0.650	-	18.3	18.2	-0.1	B	B	24.5	24.5	-

3.5 Clayton Road & Carinish Road – V5 & V6 Comparison

3.5.1 Intersection (Clayton/Carinish) - 2031 AM Base Vols + PMP

For this scenario, the intersection of Clayton Road and Carinish Road shows minimal changes in Degree of Saturation, Average Delay and 95th Percentile Queueing, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance.

Table 3-13 Clayton Road & Carinish Road Intersection – AM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V5	V6	Diff	V5	V6	Diff	V5	V6	V5	V6	Diff
Clayton Rd (S)	L	0.874	0.874	-	38.3	38.3	-	D	D	225.5	225.5	-
	T	0.874	0.874	-	34.8	34.8	-	C	C	225.5	225.5	-
	R	0.801	0.801	-	51.6	51.6	-	D	D	39.9	39.9	-
Carinish Rd (E)	L	0.472	0.472	-	32.2	32.2	-	C	C	65.7	65.7	-
	T	0.472	0.472	-	26.6	26.6	-	C	C	65.7	65.7	-
	R	0.857	0.865	+0.008	52.4	53.3	+0.9	D	D	82.0	83.7	+1.7
Clayton Rd (N)	L	0.525	0.526	+0.001	26.4	26.4	-	C	C	90.9	91.1	+0.2
	T	0.525	0.526	+0.001	20.6	20.6	-	C	C	90.9	91.1	+0.2
	R	0.123	0.123	-	47.2	47.2	-	D	D	5.4	5.4	-
Carinish Rd (W)	L	0.419	0.419	-	31.7	31.7	-	C	C	58.4	58.4	-
	T	0.419	0.419	-	26.1	26.1	-	C	C	58.4	58.4	-
	R	0.363	0.363	-	39.2	39.2	-	D	D	24.8	24.8	-

3.5.2 Give Way (Clayton/Haughton) - 2031 AM Base Vols + PMP

For this scenario, the intersection of Clayton Road and Haughton Road shows no changes in performance.

Table 3-14 Clayton Road & Haughton Road Intersection – AM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V5	V6	Diff	V5	V6	Diff	V5	V6	V5	V6	Diff
Clayton Rd (S)	L	0.352	0.352	-	5.6	5.6	-	A	A	0.0	0.0	-
	T	0.352	0.352	-	0.0	0.0	-	A	A	0.0	0.0	-
Clayton Rd (N)	T	0.184	0.184	-	0.0	0.0	-	A	A	0.0	0.0	-
Haughton Rd (W)	L	0.338	0.338	-	9.9	9.9	-	A	A	12.5	12.5	-

3.5.3 Intersection (Clayton/Carinish) - 2031 PM Base Vols + PMP

For this scenario, the intersection of Clayton Road and Carinish Road shows minimal changes on all legs except for Clayton Road (South) in Degree of Saturation, Average Delay and 95th Percentile Queueing. The negative impact on the right hand turn from Clayton Road from the south pushes the Degree of Saturation over the 0.950 threshold to 0.991. Further optimisation of this intersection has been carried out in Stage 3 of this Addendum.

Table 3-15 Clayton Road & Carinish Road Intersection – PM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V5	V6	Diff	V5	V6	Diff	V5	V6	V5	V6	Diff
Clayton Rd (S)	L	0.703	0.703	-	29.0	29.0	-	C	C	160.3	160.4	+0.1
	T	0.703	0.703	-	24.4	24.4	-	C	C	160.3	160.4	+0.1
	R	0.939	0.991	+0.052	71.2	88.7	+17.5	E	F	75.3	85.8	+10.5
Carinish Rd (E)	L	0.858	0.859	+0.001	48.9	49.0	+0.1	D	D	125.6	125.9	+0.3
	T	0.858	0.859	+0.001	43.3	43.4	+0.1	D	D	125.6	125.9	+0.3
	R	0.936	0.942	+0.006	75.8	77.4	+1.6	E	E	81.4	83.0	+1.6
Clayton Rd (N)	L	0.942	0.944	+0.002	59.5	60.3	+0.8	E	E	337.7	340.8	+3.1
	T	0.942	0.944	+0.002	53.7	54.5	+0.8	D	D	337.7	340.8	+3.1
	R	0.499	0.499	-	53.9	53.9	-	D	D	31.8	31.8	-
Carinish Rd (W)	L	0.749	0.749	-	40.4	40.4	-	D	D	108.1	108.1	-
	T	0.749	0.749	-	34.8	34.8	-	C	C	108.1	108.1	-
	R	0.894	0.894	-	67.1	67.1	-	E	E	69.6	69.6	-

3.5.4 Give Way (Clayton/Haughton) - 2031 PM Base Vols + PMP

For this scenario, the intersection of Clayton Road and Haughton Road shows minimal changes in Degree of Saturation and Average Delay, and therefore the increase in traffic volumes results in a negligible impact on the intersection performance.

Table 3-16 Clayton Road & Haughton Road Intersection – PM 2031 + PMP

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V5	V6	Diff	V5	V6	Diff	V5	V6	V5	V6	Diff
Clayton Rd (S)	L	0.304	0.308	+0.004	5.6	5.6	-	A	A	0.0	0.0	-
	T	0.304	0.308	+0.004	0.0	0.0	-	A	A	0.0	0.0	-
Clayton Rd (N)	T	0.373	0.380	+0.007	0.0	0.0	-	A	A	0.0	0.0	-
Haughton Rd (W)	L	0.163	0.164	+0.001	7.3	7.4	+0.1	A	A	5.0	5.0	-

4 Stage 3 Clayton Road & Carinish Road Intersection – Further Analysis

The small increases in traffic generated by the amended development result in relatively minor changes to the performances of most intersection movements at Clayton Road and Carinish Road. That is to say, the degree of saturation increases slightly for some movements and decreases slightly for others.

The exception is the right turn from south to east, which is opposed by the peak outbound movements in the PM peak, and is therefore more sensitive to minor increases in traffic.

Table 4-1 shows that a minor adjustment in intersection cycle time, a reduction by 2 seconds, brings the intersection to within capacity, reducing the Degree of Saturation to under the 0.950 threshold to 0.926. The rest of the intersection is shows minimal impacts on Degree of Saturation, Average Delay and 95th Percentile Queueing, and therefore the intersection's operation is deemed acceptable under these cycle time conditions

Table 4-1 Clayton Road & Carinish Road Intersection – PM 2031 + PMP (Manual Cycle Time)

Approach	Movement	DOS			Avg Delay (s)			LOS		95%ile Queue (m)		
		V6	V7	Diff	V6	V7	Diff	V6	V7	V6	V7	Diff
Clayton Rd (S)	L	0.703	0.705	+0.002	29.0	28.6	-0.4	C	C	160.4	157.6	-2.8
	T	0.703	0.705	+0.002	24.4	24.1	-0.3	C	C	160.4	157.6	-2.8
	R	0.991	0.926	-0.065	88.7	67.4	-21.3	F	E	85.8	72.8	-13.0
Carinish Rd (E)	L	0.859	0.856	-0.003	49.0	48.2	-0.8	D	D	125.9	123.5	-2.4
	T	0.859	0.856	-0.003	43.4	42.6	-0.8	D	D	125.9	123.5	-2.4
	R	0.942	0.942	-	77.4	76.0	-1.4	E	E	83.0	81.0	-2.0
Clayton Rd (N)	L	0.944	0.947	+0.003	60.3	61.0	+0.7	E	E	340.8	339.5	-1.3
	T	0.944	0.947	+0.003	54.5	55.2	+0.7	D	E	340.8	339.5	-1.3
	R	0.499	0.489	-0.010	53.9	52.7	-1.2	D	D	31.8	31.1	-0.7
Carinish Rd (W)	L	0.749	0.748	-0.001	40.4	40.1	-0.3	D	D	108.1	106.6	-1.5
	T	0.749	0.748	-0.001	34.8	34.5	-0.3	C	C	108.1	106.6	-1.5
	R	0.894	0.895	+0.001	67.1	66.4	-0.7	E	E	69.6	68.7	-0.9

5 Conclusion

Based on the analysis of the amended development proposal detailed above, it is concluded that the traffic generated by the additional dwellings will have a negligible impact on the performance of surrounding intersections, and that no additional physical intersection improvements are required other than those previously identified in the 2019 development assessment.

APPENDIX

A

SIDRA OUTPUT FILES

MOVEMENT SUMMARY

Site: 101 [Carinish-Browns Rd AM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Carinish Rd SE												
22	T1	413	5.0	0.405	3.2	LOS A	0.0	0.0	0.00	0.47	0.00	46.0
23a	R1	349	3.0	0.405	3.6	LOS A	0.0	0.0	0.00	0.47	0.00	45.9
Approach		762	4.1	0.405	3.4	NA	0.0	0.0	0.00	0.47	0.00	46.0
North: Browns Rd N												
7a	L1	258	0.0	0.506	8.1	LOS A	3.2	22.2	0.58	0.87	0.92	39.3
9b	R3	75	0.0	0.506	24.1	LOS C	3.2	22.2	0.58	0.87	0.92	42.3
Approach		333	0.0	0.506	11.7	LOS B	3.2	22.2	0.58	0.87	0.92	40.2
NorthWest: Carnish Rd NW												
27b	L3	105	3.0	0.240	5.4	LOS A	0.0	0.0	0.00	0.49	0.00	47.4
28	T1	328	5.0	0.240	3.2	LOS A	0.0	0.0	0.00	0.49	0.00	45.8
Approach		434	4.5	0.240	3.8	NA	0.0	0.0	0.00	0.49	0.00	46.3
All Vehicles		1528	3.3	0.506	5.3	NA	3.2	22.2	0.13	0.57	0.20	44.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Carinish-Browns Rd AM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Carinish Rd SE												
22	T1	414	5.0	0.400	3.2	LOS A	0.0	0.0	0.00	0.47	0.00	46.0
23a	R1	339	3.0	0.400	3.6	LOS A	0.0	0.0	0.00	0.47	0.00	45.9
Approach		753	4.1	0.400	3.4	NA	0.0	0.0	0.00	0.47	0.00	46.0
North: Browns Rd N												
7a	L1	260	0.0	0.511	8.1	LOS A	3.2	22.7	0.58	0.88	0.94	39.3
9b	R3	77	0.0	0.511	23.9	LOS C	3.2	22.7	0.58	0.88	0.94	42.3
Approach		337	0.0	0.511	11.7	LOS B	3.2	22.7	0.58	0.88	0.94	40.2
NorthWest: Carnish Rd NW												
27b	L3	105	3.0	0.240	5.4	LOS A	0.0	0.0	0.00	0.49	0.00	47.4
28	T1	329	5.0	0.240	3.2	LOS A	0.0	0.0	0.00	0.49	0.00	45.8
Approach		435	4.5	0.240	3.8	NA	0.0	0.0	0.00	0.49	0.00	46.3
All Vehicles		1524	3.3	0.511	5.4	NA	3.2	22.7	0.13	0.57	0.21	44.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Carinish-Browns Rd PM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Carinish Rd SE												
22	T1	345	5.0	0.284	3.2	LOS A	0.0	0.0	0.00	0.47	0.00	46.1
23a	R1	189	3.0	0.284	3.6	LOS A	0.0	0.0	0.00	0.47	0.00	45.9
Approach		535	4.3	0.284	3.4	NA	0.0	0.0	0.00	0.47	0.00	46.0
North: Browns Rd N												
7a	L1	403	0.0	0.682	11.1	LOS B	5.8	40.8	0.71	1.18	1.49	38.2
9b	R3	85	0.0	0.682	24.5	LOS C	5.8	40.8	0.71	1.18	1.49	41.5
Approach		488	0.0	0.682	13.5	LOS B	5.8	40.8	0.71	1.18	1.49	38.9
NorthWest: Carnish Rd NW												
27b	L3	91	3.0	0.315	5.5	LOS A	0.0	0.0	0.00	0.48	0.00	47.5
28	T1	488	5.0	0.315	3.2	LOS A	0.0	0.0	0.00	0.48	0.00	45.9
Approach		579	4.7	0.315	3.6	NA	0.0	0.0	0.00	0.48	0.00	46.3
All Vehicles		1602	3.1	0.682	6.5	NA	5.8	40.8	0.22	0.69	0.45	43.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Carinish-Browns Rd PM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Carinish Rd SE												
22	T1	346	5.0	0.285	3.2	LOS A	0.0	0.0	0.00	0.47	0.00	46.1
23a	R1	191	3.0	0.285	3.6	LOS A	0.0	0.0	0.00	0.47	0.00	45.9
Approach		537	4.3	0.285	3.4	NA	0.0	0.0	0.00	0.47	0.00	46.0
North: Browns Rd N												
7a	L1	404	0.0	0.690	11.3	LOS B	6.0	41.9	0.72	1.19	1.53	38.1
9b	R3	86	0.0	0.690	24.9	LOS C	6.0	41.9	0.72	1.19	1.53	41.3
Approach		491	0.0	0.690	13.7	LOS B	6.0	41.9	0.72	1.19	1.53	38.8
NorthWest: Carnish Rd NW												
27b	L3	93	3.0	0.318	5.5	LOS A	0.0	0.0	0.00	0.48	0.00	47.5
28	T1	491	5.0	0.318	3.2	LOS A	0.0	0.0	0.00	0.48	0.00	45.9
Approach		583	4.7	0.318	3.6	NA	0.0	0.0	0.00	0.48	0.00	46.3
All Vehicles		1611	3.1	0.690	6.6	NA	6.0	41.9	0.22	0.70	0.47	43.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Princes Hwy-Browns Rd AM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Browns Rd S												
1a	L1	311	3.0	0.442	10.2	LOS B	2.4	17.1	0.70	0.96	0.99	49.3
Approach		311	3.0	0.442	10.2	LOS B	2.4	17.1	0.70	0.96	0.99	49.3
SouthEast: Princes Hwy SE												
21b	L3	111	3.0	0.457	9.1	LOS A	0.0	0.0	0.00	0.10	0.00	74.2
22	T1	2412	8.0	0.457	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	79.1
Approach		2522	7.8	0.457	0.5	NA	0.0	0.0	0.00	0.03	0.00	78.9
All Vehicles		2833	7.3	0.457	1.5	NA	2.4	17.1	0.08	0.13	0.11	74.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Princes Hwy-Browns Rd AM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Browns Rd S												
1a	L1	314	3.0	0.446	10.2	LOS B	2.4	17.4	0.70	0.97	1.00	49.2
Approach		314	3.0	0.446	10.2	LOS B	2.4	17.4	0.70	0.97	1.00	49.2
SouthEast: Princes Hwy SE												
21b	L3	111	3.0	0.457	9.1	LOS A	0.0	0.0	0.00	0.10	0.00	74.2
22	T1	2413	8.0	0.457	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	79.1
Approach		2523	7.8	0.457	0.5	NA	0.0	0.0	0.00	0.03	0.00	78.9
All Vehicles		2837	7.3	0.457	1.5	NA	2.4	17.4	0.08	0.14	0.11	74.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Princes Hwy-Browns Rd PM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Browns Rd S												
1a	L1	322	3.0	0.384	8.3	LOS A	2.0	14.7	0.63	0.89	0.81	50.5
Approach		322	3.0	0.384	8.3	LOS A	2.0	14.7	0.63	0.89	0.81	50.5
SouthEast: Princes Hwy SE												
21b	L3	256	3.0	0.484	9.1	LOS A	0.0	0.0	0.00	0.22	0.00	72.0
22	T1	2392	8.0	0.484	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	78.5
Approach		2647	7.5	0.484	1.0	NA	0.0	0.0	0.00	0.07	0.00	77.8
All Vehicles		2969	7.0	0.484	1.8	NA	2.0	14.7	0.07	0.16	0.09	73.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Princes Hwy-Browns Rd PM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Browns Rd S												
1a	L1	323	3.0	0.384	8.3	LOS A	2.1	14.7	0.63	0.89	0.81	50.5
Approach		323	3.0	0.384	8.3	LOS A	2.1	14.7	0.63	0.89	0.81	50.5
SouthEast: Princes Hwy SE												
21b	L3	258	3.0	0.484	9.1	LOS A	0.0	0.0	0.00	0.22	0.00	72.0
22	T1	2393	8.0	0.484	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	78.5
Approach		2651	7.5	0.484	1.0	NA	0.0	0.0	0.00	0.07	0.00	77.8
All Vehicles		2974	7.0	0.484	1.8	NA	2.1	14.7	0.07	0.16	0.09	73.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Centre Rd-Moriah St AM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd E												
5	T1	689	8.0	0.211	0.8	LOS A	0.7	5.2	0.09	0.02	0.10	56.9
6	R2	24	3.0	0.211	14.2	LOS B	0.7	5.2	0.22	0.05	0.23	53.0
Approach		714	7.8	0.211	1.2	NA	0.7	5.2	0.10	0.02	0.10	56.7
North: Moriah St N												
7	L2	34	3.0	0.080	8.3	LOS A	0.3	2.0	0.60	0.73	0.60	43.8
9	R2	3	3.0	0.080	48.9	LOS E	0.3	2.0	0.60	0.73	0.60	41.1
Approach		37	3.0	0.080	11.8	LOS B	0.3	2.0	0.60	0.73	0.60	43.6
West: Centre Rd W												
10	L2	13	3.0	0.283	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	56.2
11	T1	1038	8.0	0.283	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		1051	7.9	0.283	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.7
All Vehicles		1801	7.8	0.283	0.8	NA	0.7	5.2	0.05	0.03	0.05	57.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Centre Rd-Moriah St AM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd E												
5	T1	689	8.0	0.211	0.8	LOS A	0.7	5.2	0.09	0.02	0.10	56.9
6	R2	24	3.0	0.211	14.2	LOS B	0.7	5.2	0.22	0.05	0.23	53.0
Approach		714	7.8	0.211	1.3	NA	0.7	5.2	0.10	0.02	0.10	56.7
North: Moriah St N												
7	L2	34	3.0	0.080	8.3	LOS A	0.3	2.0	0.60	0.73	0.60	43.8
9	R2	3	3.0	0.080	49.1	LOS E	0.3	2.0	0.60	0.73	0.60	41.1
Approach		37	3.0	0.080	11.8	LOS B	0.3	2.0	0.60	0.73	0.60	43.6
West: Centre Rd W												
10	L2	13	3.0	0.284	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	56.2
11	T1	1040	8.0	0.284	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		1053	7.9	0.284	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.7
All Vehicles		1803	7.8	0.284	0.8	NA	0.7	5.2	0.05	0.03	0.05	57.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Centre Rd-Moriah St PM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd E												
5	T1	916	8.0	0.256	0.2	LOS A	0.3	2.1	0.03	0.01	0.03	59.1
6	R2	11	3.0	0.256	12.6	LOS B	0.3	2.1	0.06	0.01	0.07	55.7
Approach		926	7.9	0.256	0.4	NA	0.3	2.1	0.03	0.01	0.03	59.0
North: Moriah St N												
7	L2	37	3.0	0.364	13.4	LOS B	1.4	9.8	0.78	0.92	0.99	31.2
9	R2	26	3.0	0.364	59.0	LOS F	1.4	9.8	0.78	0.92	0.99	28.0
Approach		63	3.0	0.364	32.4	LOS D	1.4	9.8	0.78	0.92	0.99	30.0
West: Centre Rd W												
10	L2	34	3.0	0.242	5.6	LOS A	0.0	0.0	0.00	0.04	0.00	55.7
11	T1	862	8.0	0.242	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.4
Approach		896	7.8	0.242	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.2
All Vehicles		1885	7.7	0.364	1.4	NA	1.4	9.8	0.04	0.04	0.05	56.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Centre Rd-Moriah St PM 2031 + PMP]

New Site
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd E												
5	T1	917	8.0	0.256	0.2	LOS A	0.3	2.1	0.03	0.01	0.03	59.1
6	R2	11	3.0	0.256	12.6	LOS B	0.3	2.1	0.06	0.01	0.07	55.7
Approach		927	7.9	0.256	0.4	NA	0.3	2.1	0.03	0.01	0.03	59.0
North: Moriah St N												
7	L2	38	3.0	0.231	8.2	LOS A	0.7	5.3	0.66	0.81	0.71	39.3
9	R2	26	3.0	0.231	31.1	LOS D	0.7	5.3	0.66	0.81	0.71	36.3
Approach		64	3.0	0.231	17.6	LOS C	0.7	5.3	0.66	0.81	0.71	38.2
West: Centre Rd W												
10	L2	34	3.0	0.242	5.6	LOS A	0.0	0.0	0.00	0.04	0.00	55.7
11	T1	863	8.0	0.242	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.4
Approach		897	7.8	0.242	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.2
All Vehicles		1888	7.7	0.256	0.9	NA	0.7	5.3	0.04	0.04	0.04	57.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 4698 2 [Centre-Carnish 2031 AM + PMP]

Network: N101 [2031 AM + PMP]

Centre Road / Carnish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 73 seconds (CCG User-Given Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd (E)														
5	T1	375	5.0	375	5.0	0.290	19.1	LOS B	4.9	35.9	0.77	0.64	0.77	33.1
6	R2	372	5.0	372	5.0	0.796	25.9	LOS C	10.1	73.4	0.99	0.92	1.17	44.2
Approach		746	5.0	746	5.0	0.796	22.5	LOS C	10.1	73.4	0.88	0.78	0.97	41.0
North: Carinish Rd (N)														
7	L2	415	5.0	415	5.0	0.384	9.3	LOS A	5.4	39.4	0.44	0.68	0.44	52.8
9	R2	192	5.0	192	5.0	0.487	40.7	LOS D	3.4	25.0	0.98	0.77	0.98	34.3
Approach		606	5.0	606	5.0	0.487	19.2	LOS B	5.4	39.4	0.61	0.71	0.61	46.7
West: Centre Rd (W)														
10	L2	397	5.0	397	5.0	0.728	11.2	LOS B	3.4	24.5	0.69	0.75	0.78	49.8
11	T1	671	5.0	671	5.0	0.728	12.8	LOS B	3.4	24.5	0.74	0.70	0.78	38.9
Approach		1067	5.0	1067	5.0	0.728	12.2	LOS B	3.4	24.5	0.72	0.72	0.78	44.5
All Vehicles		2420	5.0	2420	5.0	0.796	17.1	LOS B	10.1	73.4	0.74	0.74	0.80	44.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P2	East Full Crossing	16	30.8	LOS D	0.0	0.0	0.92	0.92
P3	North Full Crossing	53	22.3	LOS C	0.1	0.1	0.78	0.78
All Pedestrians		68	24.3	LOS C			0.81	0.81

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 4698 2 [Centre-Carnish 2031 AM + PMP]

Network: N101 [2031 AM + PMP]

Centre Road / Carnish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 73 seconds (CCG User-Given Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd (E)														
5	T1	375	5.0	375	5.0	0.290	19.1	LOS B	4.9	35.9	0.77	0.64	0.77	33.1
6	R2	372	5.0	372	5.0	0.796	25.9	LOS C	10.1	73.4	0.99	0.92	1.17	44.2
Approach		746	5.0	746	5.0	0.796	22.5	LOS C	10.1	73.4	0.88	0.78	0.97	41.0
North: Carinish Rd (N)														
7	L2	417	5.0	417	5.0	0.386	9.3	LOS A	5.4	39.7	0.44	0.68	0.44	52.8
9	R2	194	5.0	194	5.0	0.493	40.7	LOS D	3.5	25.3	0.98	0.77	0.98	34.3
Approach		611	5.0	611	5.0	0.493	19.3	LOS B	5.4	39.7	0.61	0.71	0.61	46.6
West: Centre Rd (W)														
10	L2	397	5.0	397	5.0	0.728	11.2	LOS B	3.4	24.5	0.69	0.75	0.78	49.8
11	T1	671	5.0	671	5.0	0.728	12.8	LOS B	3.4	24.5	0.74	0.70	0.78	38.9
Approach		1067	5.0	1067	5.0	0.728	12.2	LOS B	3.4	24.5	0.72	0.72	0.78	44.5
All Vehicles		2424	5.0	2424	5.0	0.796	17.1	LOS B	10.1	73.4	0.74	0.74	0.80	44.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P2	East Full Crossing	16	30.8	LOS D	0.0	0.0	0.92	0.92
P3	North Full Crossing	53	22.3	LOS C	0.1	0.1	0.78	0.78
All Pedestrians		68	24.3	LOS C			0.81	0.81

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 3 [PedCrossing 2031 AM + PMP]

Network: N101 [2031 AM + PMP]

POS
Site Category: (None)
Pedestrian Crossing (Signals) - Fixed Time Isolated Cycle Time = 73 seconds (CCG User-Given Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd														
8	T1	566	5.0	566	5.0	0.429	0.5	LOS A	0.5	3.5	0.05	0.04	0.05	44.1
Approach		566	5.0	566	5.0	0.429	0.5	LOS A	0.5	3.5	0.05	0.04	0.05	44.1
West: Centre Rd														
2	T1	1067	5.0	1067	5.0	0.809	7.4	LOS A	4.5	32.6	0.19	0.26	0.31	11.7
Approach		1067	5.0	1067	5.0	0.809	7.4	LOS A	4.5	32.6	0.19	0.26	0.31	11.7
All Vehicles		1634	5.0	1634	5.0	0.809	5.0	LOS A	4.5	32.6	0.14	0.19	0.22	15.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	West Full Crossing	74	30.8	LOS D	0.1	0.1	0.92	0.92
All Pedestrians		74	30.8	LOS D			0.92	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 3 [PedCrossing 2031 AM + PMP]

Network: N101 [2031 AM + PMP]

POS
Site Category: (None)
Pedestrian Crossing (Signals) - Fixed Time Isolated Cycle Time = 73 seconds (CCG User-Given Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd														
8	T1	566	5.0	566	5.0	0.429	0.5	LOS A	0.5	3.5	0.05	0.04	0.05	44.2
Approach		566	5.0	566	5.0	0.429	0.5	LOS A	0.5	3.5	0.05	0.04	0.05	44.2
West: Centre Rd														
2	T1	1067	5.0	1067	5.0	0.809	7.4	LOS A	4.5	32.6	0.19	0.26	0.31	11.7
Approach		1067	5.0	1067	5.0	0.809	7.4	LOS A	4.5	32.6	0.19	0.26	0.31	11.7
All Vehicles		1634	5.0	1634	5.0	0.809	5.0	LOS A	4.5	32.6	0.14	0.19	0.22	15.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	West Full Crossing	74	30.8	LOS D	0.1	0.1	0.92	0.92
All Pedestrians		74	30.8	LOS D			0.92	0.92

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 4698 [Centre-Haughton 2031 AM + PMP]

Network: N101 [2031 AM + PMP]

Centre Rd / Haughton Rd
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 73 seconds (CCG User-Given Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Haughton Rd (S)														
1	L2	314	5.0	314	5.0	0.260	6.9	LOS A	2.2	16.3	0.26	0.62	0.26	54.4
3	R2	296	5.0	296	5.0	0.753	44.1	LOS D	5.7	41.8	1.00	0.89	1.24	28.5
Approach		609	5.0	609	5.0	0.753	25.0	LOS C	5.7	41.8	0.62	0.75	0.74	42.1
East: Centre Rd (E)														
4	L2	97	5.0	97	5.0	0.426	15.8	LOS B	4.5	32.6	0.53	0.60	0.97	44.1
5	T1	469	5.0	469	5.0	0.426	12.4	LOS B	4.5	32.6	0.55	0.53	0.73	45.8
Approach		566	5.0	566	5.0	0.426	13.0	LOS B	4.5	32.6	0.54	0.54	0.77	45.5
West: Centre Rd (W)														
11	T1	772	5.0	772	5.0	0.596	21.7	LOS C	11.5	84.3	0.88	0.76	0.88	38.9
12	R2	75	5.0	75	5.0	0.507	43.1	LOS D	2.8	20.2	1.00	0.76	1.00	38.3
Approach		846	5.0	846	5.0	0.596	23.6	LOS C	11.5	84.3	0.89	0.76	0.89	38.8
All Vehicles		2022	5.0	2022	5.0	0.753	21.0	LOS C	11.5	84.3	0.71	0.70	0.81	41.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	22.3	LOS C	0.1	0.1	0.78	0.78
P4	West Full Crossing	16	26.3	LOS C	0.0	0.0	0.85	0.85
All Pedestrians		68	23.2	LOS C			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 4698 [Centre-Haughton 2031 AM + PMP]

Network: N101 [2031 AM + PMP]

Centre Rd / Haughton Rd
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 73 seconds (CCG User-Given Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Haughton Rd (S)														
1	L2	314	5.0	314	5.0	0.259	6.9	LOS A	2.2	16.2	0.26	0.62	0.26	54.4
3	R2	296	5.0	296	5.0	0.753	44.1	LOS D	5.7	41.8	1.00	0.89	1.24	28.5
Approach		609	5.0	609	5.0	0.753	25.0	LOS C	5.7	41.8	0.62	0.75	0.74	42.1
East: Centre Rd (E)														
4	L2	97	5.0	97	5.0	0.428	16.9	LOS B	4.5	32.6	0.55	0.62	1.01	43.3
5	T1	472	5.0	472	5.0	0.428	12.8	LOS B	4.5	32.6	0.56	0.54	0.75	45.4
Approach		568	5.0	568	5.0	0.428	13.5	LOS B	4.5	32.6	0.56	0.55	0.79	45.0
West: Centre Rd (W)														
11	T1	772	5.0	772	5.0	0.596	21.7	LOS C	11.5	84.3	0.88	0.76	0.88	38.9
12	R2	75	5.0	75	5.0	0.507	43.1	LOS D	2.8	20.2	1.00	0.76	1.00	38.3
Approach		846	5.0	846	5.0	0.596	23.6	LOS C	11.5	84.3	0.89	0.76	0.89	38.8
All Vehicles		2024	5.0	2024	5.0	0.753	21.2	LOS C	11.5	84.3	0.72	0.70	0.82	41.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	22.3	LOS C	0.1	0.1	0.78	0.78
P4	West Full Crossing	16	26.3	LOS C	0.0	0.0	0.85	0.85
All Pedestrians		68	23.2	LOS C			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

CCG PHASING SUMMARY

Common Control Group: CCG1 [Vicroads TSP]

Network: N101 [2031 PM + PMP]

Fixed Time Isolated Cycle Time = 78 seconds (CCG Practical Cycle Time)

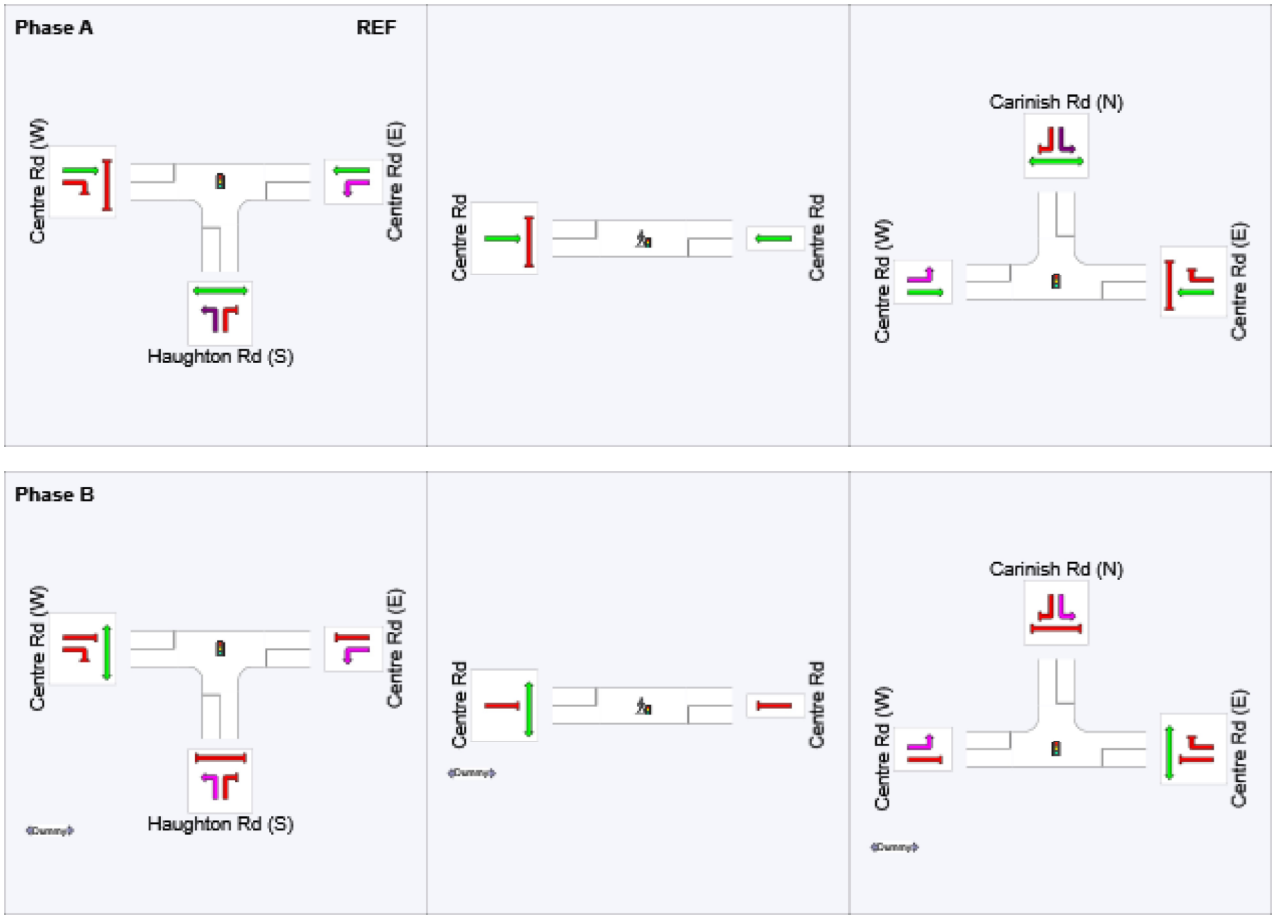
Timings based on settings in the CCG Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects not included in determining phase times
Phase Sequence: updated phasing
Reference Phase: Phase A
Input Phase Sequence: A, B, C1*, C2*, C3*, D1, D2*, D3
Output Phase Sequence: A, B, C1*, D1, D3
(* Variable Phase)

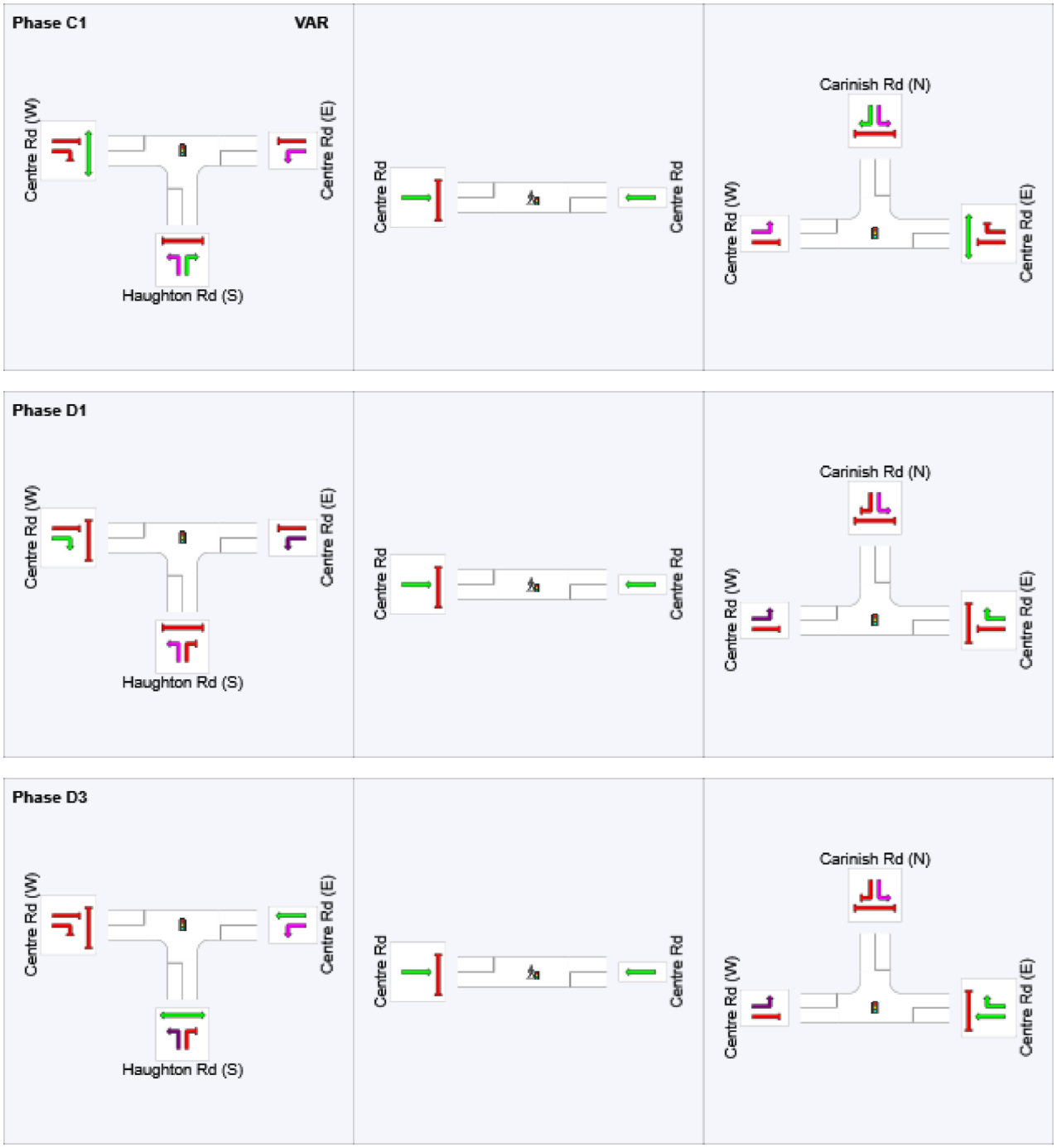
Phase Timing Summary (CCG)

Phase	A	B	C1	D1	D3
Phase Change Time (sec)	0	21	40	54	68
Green Time (sec)	15	13	11	8	4
Phase Time (sec)	21	16	17	14	10
Phase Split	27%	21%	22%	18%	13%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence (CCG)





REF: Reference Phase
VAR: Variable Phase

Normal Movement	Permitted/Opposed
Slip/Bypass-Lane Movement	Opposed Slip/Bypass-Lane
Stopped Movement	Turn On Red
Other Movement Class (MC) Running	Undetected Movement
Mixed Running & Stopped MCs	Continuous Movement
Other Movement Class (MC) Stopped	Phase Transition Applied

CCG PHASING SUMMARY

Common Control Group: CCG1 [Vicroads TSP]

Network: N101 [2031 AM + PMP]

Fixed Time Isolated Cycle Time = 73 seconds (CCG User-Given Cycle Time)

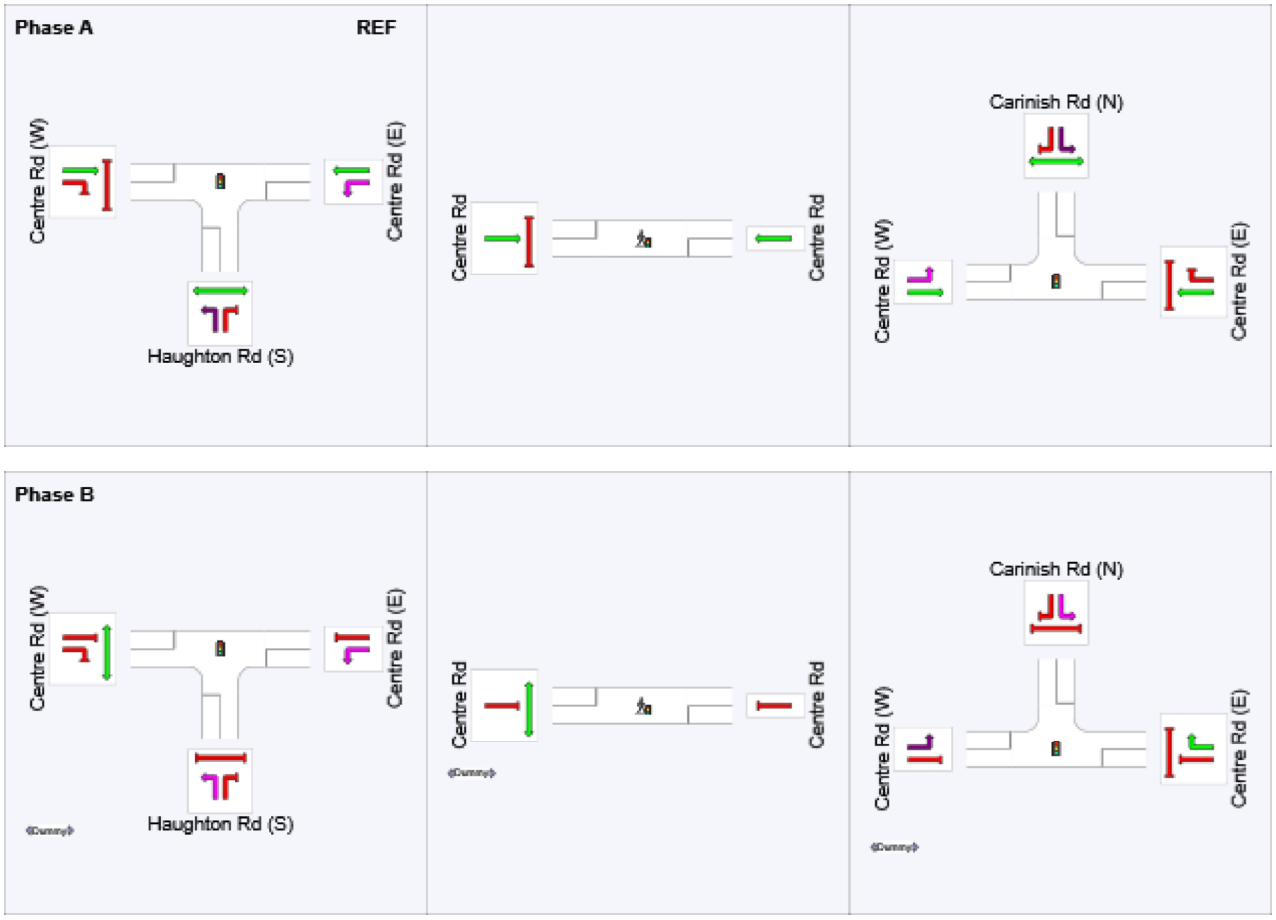
Timings based on settings in the CCG Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: updated phasing
Reference Phase: Phase A
Input Phase Sequence: A, B, C1*, C2*, C3*, D1, D2*, D3*
Output Phase Sequence: A, B, C1*, D1
(* Variable Phase)

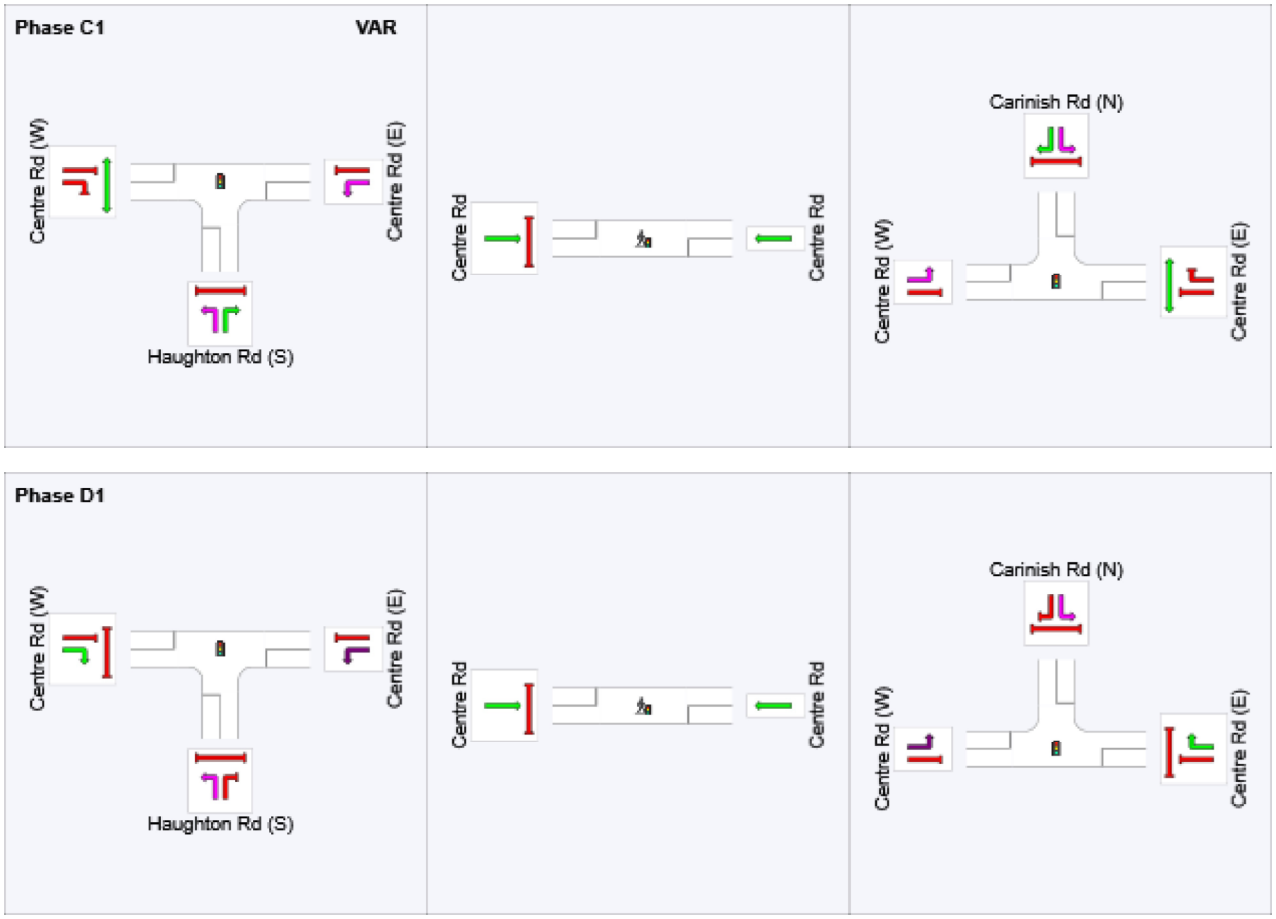
Phase Timing Summary (CCG)

Phase	A	B	C1	D1
Phase Change Time (sec)	0	31	50	61
Green Time (sec)	25	13	8	6
Phase Time (sec)	31	16	14	12
Phase Split	42%	22%	19%	16%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence (CCG)





REF: Reference Phase
VAR: Variable Phase

Normal Movement	Permitted/Opposed
Slip/Bypass-Lane Movement	Opposed Slip/Bypass-Lane
Stopped Movement	Turn On Red
Other Movement Class (MC) Running	Undetected Movement
Mixed Running & Stopped MCs	Continuous Movement
Other Movement Class (MC) Stopped	Phase Transition Applied

MOVEMENT SUMMARY

Site: 4698 2 [Centre-Carnish 2031 PM + PMP]

Network: N101 [2031 PM + PMP]

Centre Road / Carnish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 78 seconds (CCG Practical Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd (E)														
5	T1	721	5.0	721	5.0	0.596	24.3	LOS C	11.7	85.5	0.89	0.77	0.89	29.5
6	R2	277	5.0	277	5.0	0.669	36.5	LOS D	10.0	73.3	0.96	0.85	1.00	40.1
Approach		998	5.0	998	5.0	0.669	27.7	LOS C	11.7	85.5	0.91	0.79	0.92	34.6
North: Carinish Rd (N)														
7	L2	543	5.0	543	5.0	0.412	7.6	LOS A	5.6	40.9	0.34	0.65	0.34	53.8
9	R2	381	5.0	381	5.0	0.868	50.3	LOS D	8.4	61.1	1.00	0.99	1.47	31.1
Approach		924	5.0	924	5.0	0.868	25.2	LOS C	8.4	61.1	0.61	0.79	0.81	43.4
West: Centre Rd (W)														
10	L2	272	5.0	272	5.0	0.650	17.5	LOS B	3.4	24.5	0.72	0.83	1.05	45.5
11	T1	381	5.0	381	5.0	0.650	18.3	LOS B	3.4	24.5	0.76	0.72	0.89	33.8
Approach		653	5.0	653	5.0	0.650	18.0	LOS B	3.4	24.5	0.75	0.77	0.96	40.2
All Vehicles		2575	5.0	2575	5.0	0.868	24.4	LOS C	11.7	85.5	0.76	0.79	0.89	39.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P2	East Full Crossing	16	26.3	LOS C	0.0	0.0	0.82	0.82
P3	North Full Crossing	53	33.3	LOS D	0.1	0.1	0.93	0.93
All Pedestrians		68	31.7	LOS D			0.90	0.90

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 4698 2 [Centre-Carnish 2031 PM + PMP]

Network: N101 [2031 PM + PMP]

Centre Road / Carnish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 78 seconds (CCG Practical Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd (E)														
5	T1	721	5.0	721	5.0	0.596	24.3	LOS C	11.7	85.5	0.89	0.77	0.89	29.5
6	R2	278	5.0	278	5.0	0.672	36.6	LOS D	10.1	73.7	0.96	0.85	1.00	40.1
Approach		999	5.0	999	5.0	0.672	27.7	LOS C	11.7	85.5	0.91	0.79	0.93	34.6
North: Carinish Rd (N)														
7	L2	544	5.0	544	5.0	0.413	7.7	LOS A	5.6	41.1	0.34	0.65	0.34	53.8
9	R2	382	5.0	382	5.0	0.873	50.7	LOS D	8.4	61.6	1.00	1.00	1.48	31.0
Approach		926	5.0	926	5.0	0.873	25.4	LOS C	8.4	61.6	0.61	0.80	0.81	43.3
West: Centre Rd (W)														
10	L2	274	5.0	274	5.0	0.650	17.3	LOS B	3.4	24.5	0.72	0.83	1.04	45.6
11	T1	381	5.0	381	5.0	0.650	18.2	LOS B	3.4	24.5	0.76	0.72	0.89	33.9
Approach		655	5.0	655	5.0	0.650	17.9	LOS B	3.4	24.5	0.74	0.77	0.96	40.3
All Vehicles		2580	5.0	2580	5.0	0.873	24.4	LOS C	11.7	85.5	0.76	0.79	0.89	39.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P2	East Full Crossing	16	26.3	LOS C	0.0	0.0	0.82	0.82
P3	North Full Crossing	53	33.3	LOS D	0.1	0.1	0.93	0.93
All Pedestrians		68	31.7	LOS D			0.90	0.90

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 3 [PedCrossing 2031 PM + PMP]

Network: N101 [2031 PM + PMP]

POS
Site Category: (None)
Pedestrian Crossing (Signals) - Fixed Time Isolated Cycle Time = 78 seconds (CCG Practical Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd														
8	T1	1102	5.0	1102	5.0	0.813	7.2	LOS A	3.4	24.5	0.13	0.20	0.24	10.4
Approach		1102	5.0	1102	5.0	0.813	7.2	LOS A	3.4	24.5	0.13	0.20	0.24	10.4
West: Centre Rd														
2	T1	653	5.0	653	5.0	0.481	0.7	LOS A	0.8	6.0	0.07	0.06	0.07	42.6
Approach		653	5.0	653	5.0	0.481	0.7	LOS A	0.8	6.0	0.07	0.06	0.07	42.6
All Vehicles		1755	5.0	1755	5.0	0.813	4.8	LOS A	3.4	24.5	0.11	0.15	0.18	15.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	West Full Crossing	74	33.3	LOS D	0.2	0.2	0.93	0.93
All Pedestrians		74	33.3	LOS D			0.93	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 3 [PedCrossing 2031 PM + PMP]

Network: N101 [2031 PM + PMP]

POS
Site Category: (None)
Pedestrian Crossing (Signals) - Fixed Time Isolated Cycle Time = 78 seconds (CCG Practical Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Centre Rd														
8	T1	1102	5.0	1102	5.0	0.813	7.2	LOS A	3.4	24.5	0.13	0.20	0.24	10.4
Approach		1102	5.0	1102	5.0	0.813	7.2	LOS A	3.4	24.5	0.13	0.20	0.24	10.4
West: Centre Rd														
2	T1	653	5.0	653	5.0	0.481	0.7	LOS A	0.8	6.0	0.07	0.06	0.07	42.5
Approach		653	5.0	653	5.0	0.481	0.7	LOS A	0.8	6.0	0.07	0.06	0.07	42.5
All Vehicles		1755	5.0	1755	5.0	0.813	4.8	LOS A	3.4	24.5	0.11	0.15	0.18	15.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	West Full Crossing	74	33.3	LOS D	0.2	0.2	0.93	0.93
All Pedestrians		74	33.3	LOS D			0.93	0.93

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 4698 [Centre-Haughton 2031 PM + PMP]

Network: N101 [2031 PM + PMP]

Centre Rd / Haughton Rd
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 78 seconds (CCG Practical Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Haughton Rd (S)														
1	L2	267	5.0	267	5.0	0.258	11.2	LOS B	4.1	30.1	0.47	0.68	0.47	51.9
3	R2	208	5.0	208	5.0	0.412	40.0	LOS D	3.8	27.7	0.95	0.78	0.95	29.9
Approach		476	5.0	476	5.0	0.412	23.8	LOS C	4.1	30.1	0.68	0.72	0.68	43.0
East: Centre Rd (E)														
4	L2	202	5.0	202	5.0	0.884	28.9	LOS C	4.5	32.6	0.92	1.02	1.59	35.7
5	T1	900	5.0	900	5.0	0.884	24.6	LOS C	4.5	32.6	0.93	0.97	1.29	37.3
Approach		1102	5.0	1102	5.0	0.884	25.4	LOS C	4.5	32.6	0.93	0.98	1.35	37.0
West: Centre Rd (W)														
11	T1	444	5.0	444	5.0	0.612	32.2	LOS C	8.0	58.6	0.97	0.80	0.97	33.2
12	R2	169	5.0	169	5.0	0.921	58.1	LOS E	8.1	59.1	1.00	1.09	1.69	34.2
Approach		614	5.0	614	5.0	0.921	39.4	LOS D	8.1	59.1	0.98	0.88	1.17	33.6
All Vehicles		2192	5.0	2192	5.0	0.921	29.0	LOS C	8.1	59.1	0.89	0.89	1.15	37.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	24.7	LOS C	0.1	0.1	0.80	0.80
P4	West Full Crossing	16	26.3	LOS C	0.0	0.0	0.82	0.82
All Pedestrians		68	25.1	LOS C			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 4698 [Centre-Haughton 2031 PM + PMP]

Network: N101 [2031 PM + PMP]

Centre Rd / Haughton Rd
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 78 seconds (CCG Practical Cycle Time)
Common Control Group: CCG1 [Vicroads TSP]

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Haughton Rd (S)														
1	L2	267	5.0	267	5.0	0.258	11.2	LOS B	4.1	30.1	0.47	0.68	0.47	51.9
3	R2	208	5.0	208	5.0	0.412	40.0	LOS D	3.8	27.7	0.95	0.78	0.95	29.9
Approach		476	5.0	476	5.0	0.412	23.8	LOS C	4.1	30.1	0.68	0.72	0.68	43.0
East: Centre Rd (E)														
4	L2	202	5.0	202	5.0	0.884	29.0	LOS C	4.5	32.6	0.93	1.02	1.59	35.7
5	T1	901	5.0	901	5.0	0.884	24.7	LOS C	4.5	32.6	0.93	0.97	1.30	37.3
Approach		1103	5.0	1103	5.0	0.884	25.5	LOS C	4.5	32.6	0.93	0.98	1.35	37.0
West: Centre Rd (W)														
11	T1	446	5.0	446	5.0	0.614	32.3	LOS C	8.1	59.0	0.97	0.80	0.97	33.2
12	R2	169	5.0	169	5.0	0.921	58.1	LOS E	8.1	59.1	1.00	1.09	1.69	34.2
Approach		616	5.0	616	5.0	0.921	39.4	LOS D	8.1	59.1	0.98	0.88	1.17	33.6
All Vehicles		2195	5.0	2195	5.0	0.921	29.0	LOS C	8.1	59.1	0.89	0.90	1.16	37.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	24.7	LOS C	0.1	0.1	0.80	0.80
P4	West Full Crossing	16	26.3	LOS C	0.0	0.0	0.82	0.82
All Pedestrians		68	25.1	LOS C			0.80	0.80

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

CCG PHASING SUMMARY

Common Control Group: CCG1 [Vicroads TSP]

Network: N101 [2031 PM + PMP]

Fixed Time Isolated Cycle Time = 78 seconds (CCG Practical Cycle Time)

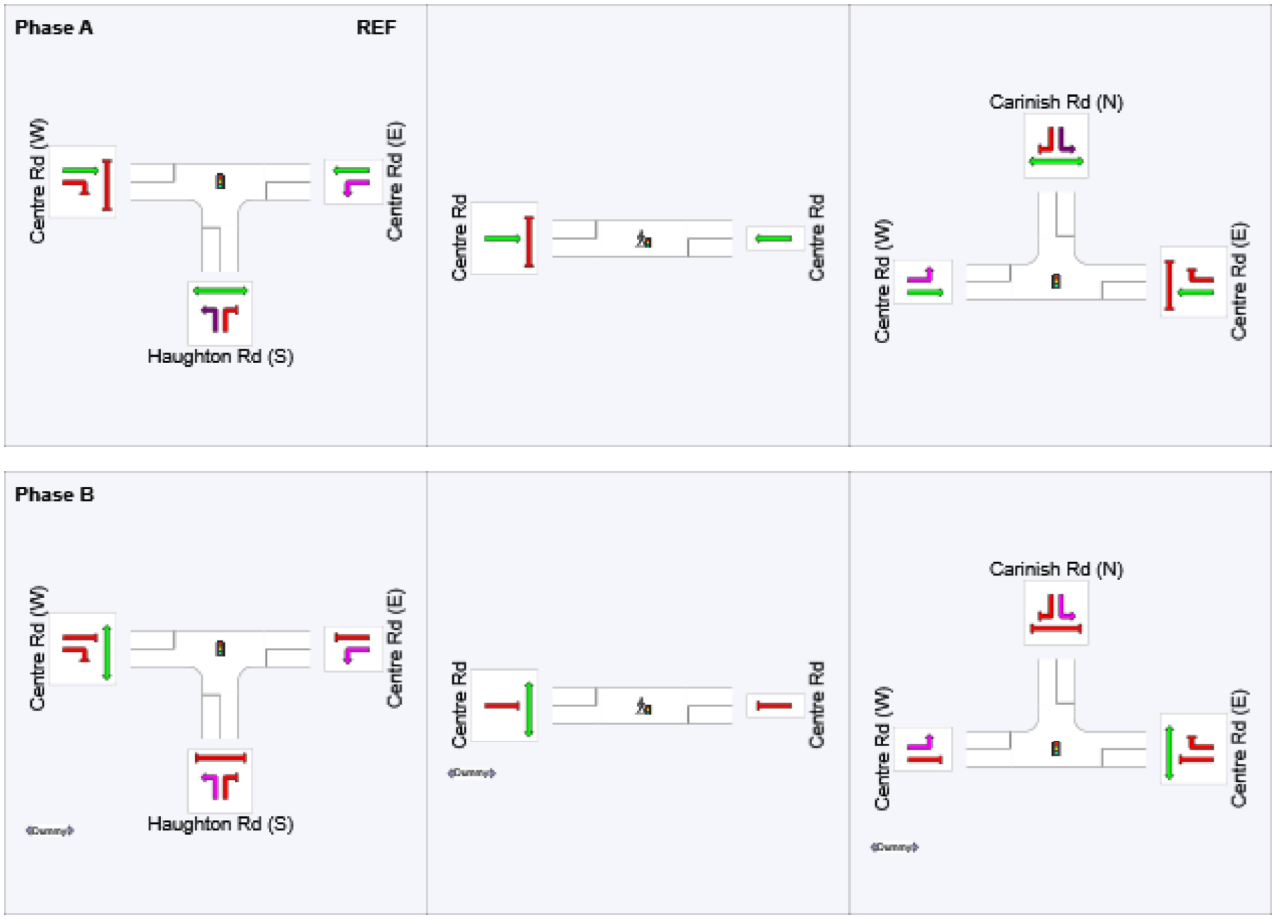
Timings based on settings in the CCG Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects not included in determining phase times
Phase Sequence: updated phasing
Reference Phase: Phase A
Input Phase Sequence: A, B, C1*, C2*, C3*, D1, D2*, D3
Output Phase Sequence: A, B, C1*, D1, D3
(* Variable Phase)

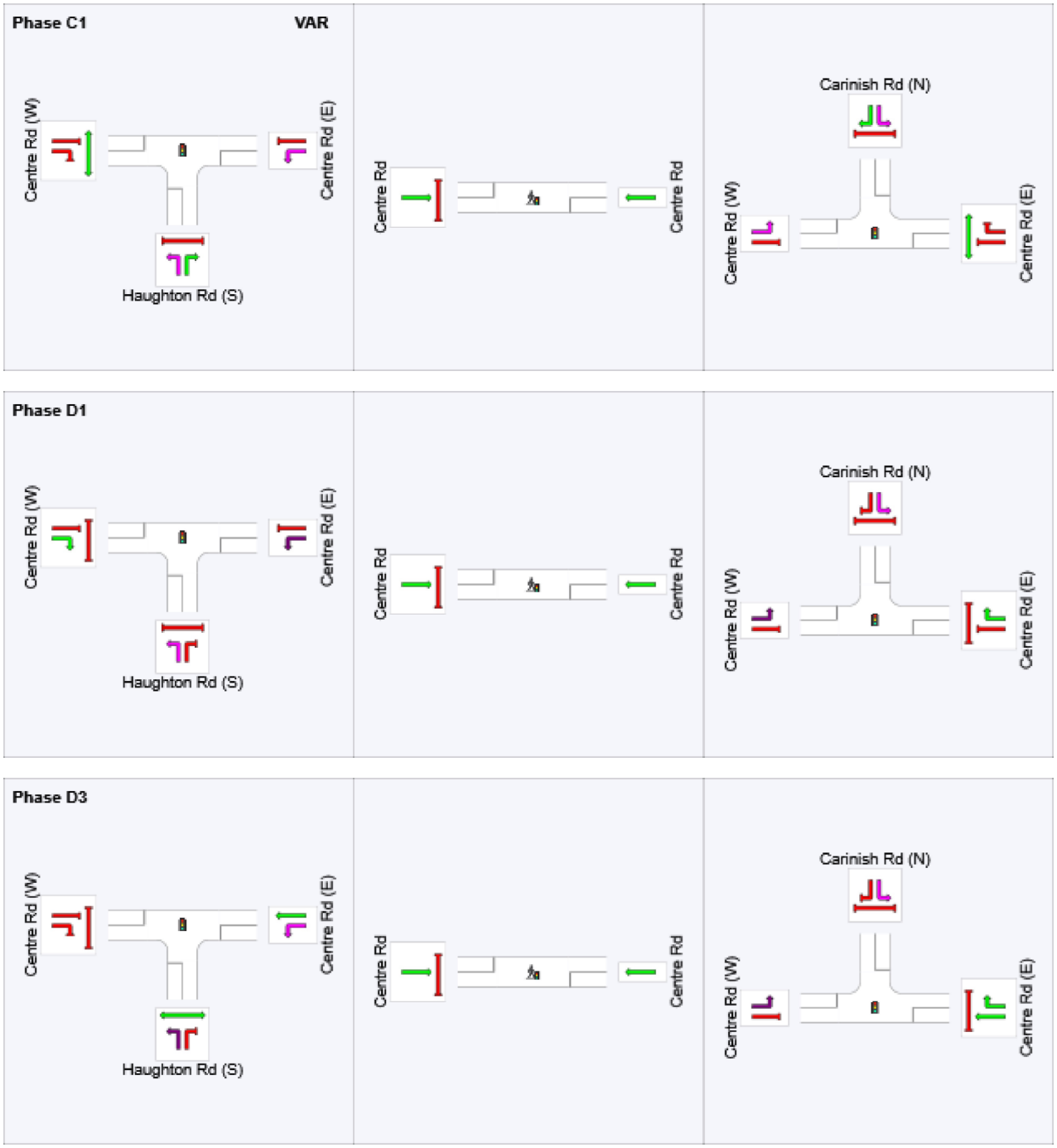
Phase Timing Summary (CCG)

Phase	A	B	C1	D1	D3
Phase Change Time (sec)	0	21	40	54	68
Green Time (sec)	15	13	11	8	4
Phase Time (sec)	21	16	17	14	10
Phase Split	27%	21%	22%	18%	13%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence (CCG)





REF: Reference Phase
VAR: Variable Phase

Normal Movement	Permitted/Opposed
Slip/Bypass-Lane Movement	Opposed Slip/Bypass-Lane
Stopped Movement	Turn On Red
Other Movement Class (MC) Running	Undetected Movement
Mixed Running & Stopped MCs	Continuous Movement
Other Movement Class (MC) Stopped	Phase Transition Applied

CCG PHASING SUMMARY

Common Control Group: CCG1 [Vicroads TSP]

Network: N101 [2031 PM + PMP]

Fixed Time Isolated Cycle Time = 78 seconds (CCG Practical Cycle Time)

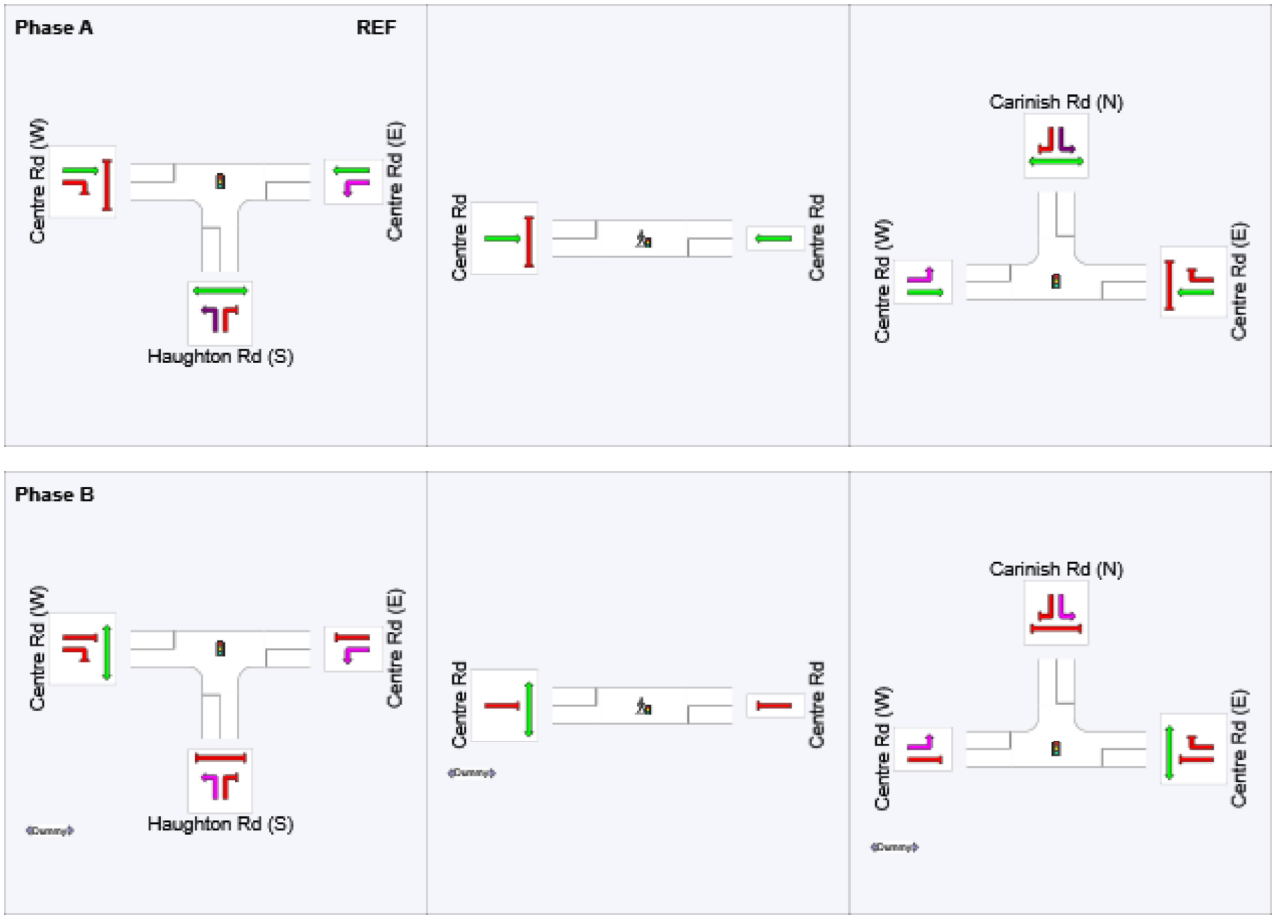
Timings based on settings in the CCG Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects not included in determining phase times
Phase Sequence: updated phasing
Reference Phase: Phase A
Input Phase Sequence: A, B, C1*, C2*, C3*, D1, D2*, D3
Output Phase Sequence: A, B, C1*, D1, D3
(* Variable Phase)

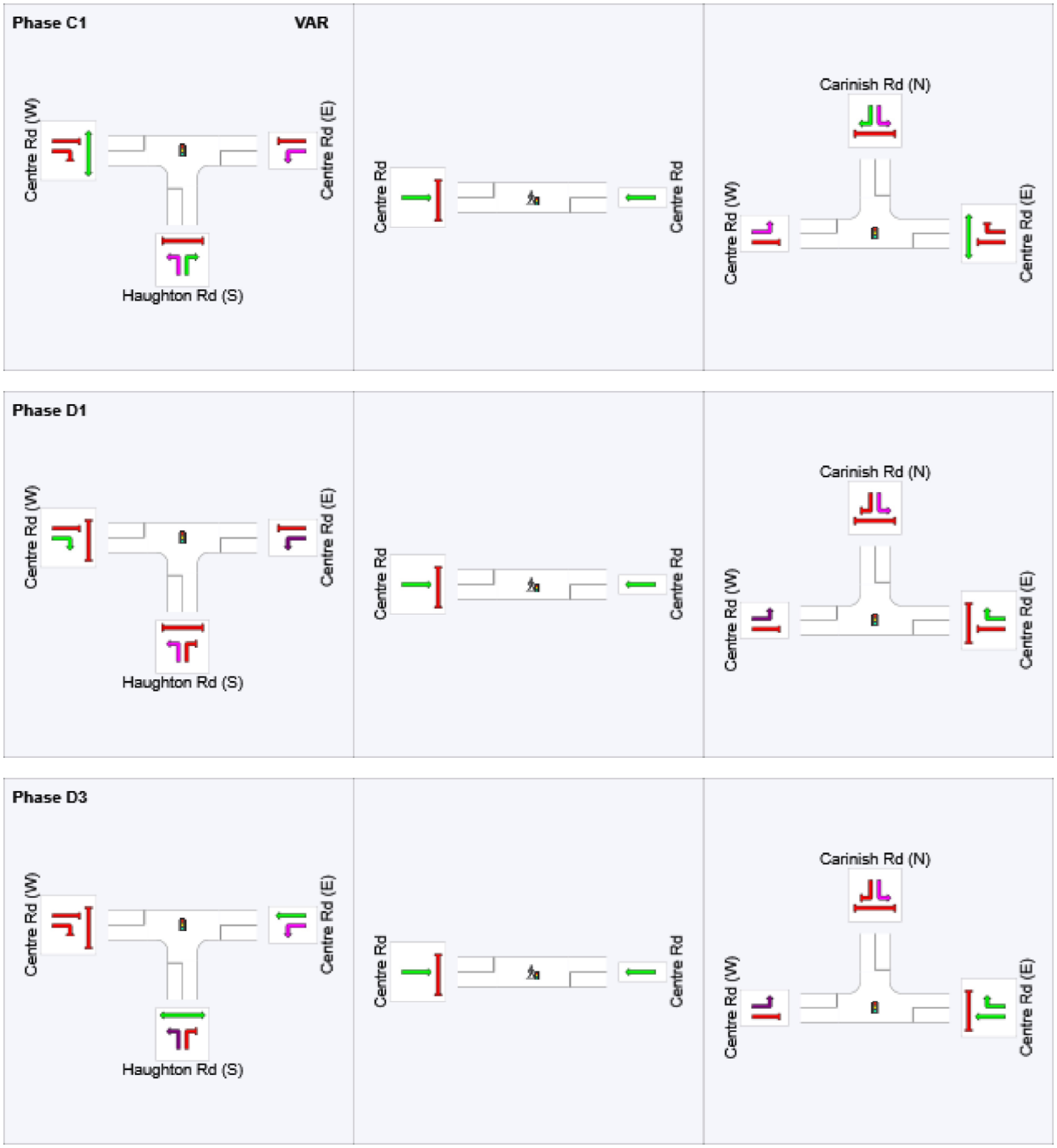
Phase Timing Summary (CCG)

Phase	A	B	C1	D1	D3
Phase Change Time (sec)	0	21	40	54	68
Green Time (sec)	15	13	11	8	4
Phase Time (sec)	21	16	17	14	10
Phase Split	27%	21%	22%	18%	13%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence (CCG)





REF: Reference Phase
VAR: Variable Phase

Normal Movement	Permitted/Opposed
Slip/Bypass-Lane Movement	Opposed Slip/Bypass-Lane
Stopped Movement	Turn On Red
Other Movement Class (MC) Running	Undetected Movement
Mixed Running & Stopped MCs	Continuous Movement
Other Movement Class (MC) Stopped	Phase Transition Applied

MOVEMENT SUMMARY

Site: 3206 [2031 AM Base Vols + PMP]

Clayton Road / Carinish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 86 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Clayton Rd (S)												
1	L2	77	5.0	0.874	38.3	LOS D	30.9	225.5	0.99	1.04	1.19	28.1
2	T1	1176	5.0	0.874	34.8	LOS C	30.9	225.5	0.96	1.01	1.17	25.6
3	R2	117	5.0	0.801	51.6	LOS D	5.5	39.9	1.00	0.92	1.34	22.9
Approach		1369	5.0	0.874	36.4	LOS D	30.9	225.5	0.96	1.01	1.18	25.4
East: Carinish Rd (E)												
4	L2	178	5.0	0.472	32.2	LOS C	9.0	65.7	0.86	0.78	0.86	30.3
5	T1	82	5.0	0.472	26.6	LOS C	9.0	65.7	0.86	0.78	0.86	40.0
6	R2	228	5.0	0.857	52.4	LOS D	11.2	82.0	1.00	1.00	1.38	30.0
Approach		488	5.0	0.857	40.7	LOS D	11.2	82.0	0.93	0.88	1.10	31.8
North: Clayton Rd (N)												
7	L2	227	5.0	0.525	26.4	LOS C	12.5	90.9	0.81	0.77	0.81	40.5
8	T1	554	5.0	0.525	20.6	LOS C	12.5	90.9	0.80	0.71	0.80	32.8
9	R2	18	5.0	0.123	47.2	LOS D	0.7	5.4	0.96	0.69	0.96	31.4
Approach		799	5.0	0.525	22.9	LOS C	12.5	90.9	0.81	0.73	0.81	35.8
West: Carinish Rd (W)												
10	L2	63	5.0	0.419	31.7	LOS C	8.0	58.4	0.85	0.73	0.85	38.8
11	T1	173	5.0	0.419	26.1	LOS C	8.0	58.4	0.85	0.73	0.85	41.3
12	R2	89	5.0	0.363	39.2	LOS D	3.4	24.8	0.91	0.78	0.91	26.7
Approach		325	5.0	0.419	30.8	LOS C	8.0	58.4	0.86	0.75	0.86	37.3
All Vehicles		2982	5.0	0.874	32.9	LOS C	30.9	225.5	0.90	0.88	1.03	30.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	32.8	LOS D	0.1	0.1	0.87	0.87
P2	East Full Crossing	53	19.6	LOS B	0.1	0.1	0.68	0.68
P3	North Full Crossing	53	32.8	LOS D	0.1	0.1	0.87	0.87
P4	West Full Crossing	53	19.6	LOS B	0.1	0.1	0.68	0.68
All Pedestrians		211	26.2	LOS C			0.77	0.77

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 3206 [2031 AM Base Vols + PMP]

Clayton Road / Carinish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 86 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Clayton Rd (S)												
1	L2	77	5.0	0.874	38.3	LOS D	30.9	225.5	0.99	1.04	1.19	28.1
2	T1	1176	5.0	0.874	34.8	LOS C	30.9	225.5	0.96	1.01	1.17	25.6
3	R2	117	5.0	0.801	51.6	LOS D	5.5	39.9	1.00	0.92	1.34	22.9
Approach		1369	5.0	0.874	36.4	LOS D	30.9	225.5	0.96	1.01	1.18	25.4
East: Carinish Rd (E)												
4	L2	178	5.0	0.472	32.2	LOS C	9.0	65.7	0.86	0.78	0.86	30.3
5	T1	82	5.0	0.472	26.6	LOS C	9.0	65.7	0.86	0.78	0.86	40.0
6	R2	231	5.0	0.865	53.3	LOS D	11.5	83.7	1.00	1.01	1.40	29.7
Approach		491	5.0	0.865	41.2	LOS D	11.5	83.7	0.93	0.89	1.12	31.6
North: Clayton Rd (N)												
7	L2	228	5.0	0.526	26.4	LOS C	12.5	91.1	0.81	0.77	0.81	40.5
8	T1	554	5.0	0.526	20.6	LOS C	12.5	91.1	0.80	0.71	0.80	32.8
9	R2	18	5.0	0.123	47.2	LOS D	0.7	5.4	0.96	0.69	0.96	31.4
Approach		800	5.0	0.526	22.9	LOS C	12.5	91.1	0.81	0.73	0.81	35.8
West: Carinish Rd (W)												
10	L2	63	5.0	0.419	31.7	LOS C	8.0	58.4	0.85	0.73	0.85	38.8
11	T1	173	5.0	0.419	26.1	LOS C	8.0	58.4	0.85	0.73	0.85	41.3
12	R2	89	5.0	0.363	39.2	LOS D	3.4	24.8	0.91	0.78	0.91	26.7
Approach		325	5.0	0.419	30.8	LOS C	8.0	58.4	0.86	0.75	0.86	37.3
All Vehicles		2985	5.0	0.874	33.0	LOS C	30.9	225.5	0.90	0.88	1.04	30.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	32.8	LOS D	0.1	0.1	0.87	0.87
P2	East Full Crossing	53	19.6	LOS B	0.1	0.1	0.68	0.68
P3	North Full Crossing	53	32.8	LOS D	0.1	0.1	0.87	0.87
P4	West Full Crossing	53	19.6	LOS B	0.1	0.1	0.68	0.68
All Pedestrians		211	26.2	LOS C			0.77	0.77

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 3206 [2031 AM Base Vols + PMP]

Clayton Road / Carinish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 86 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

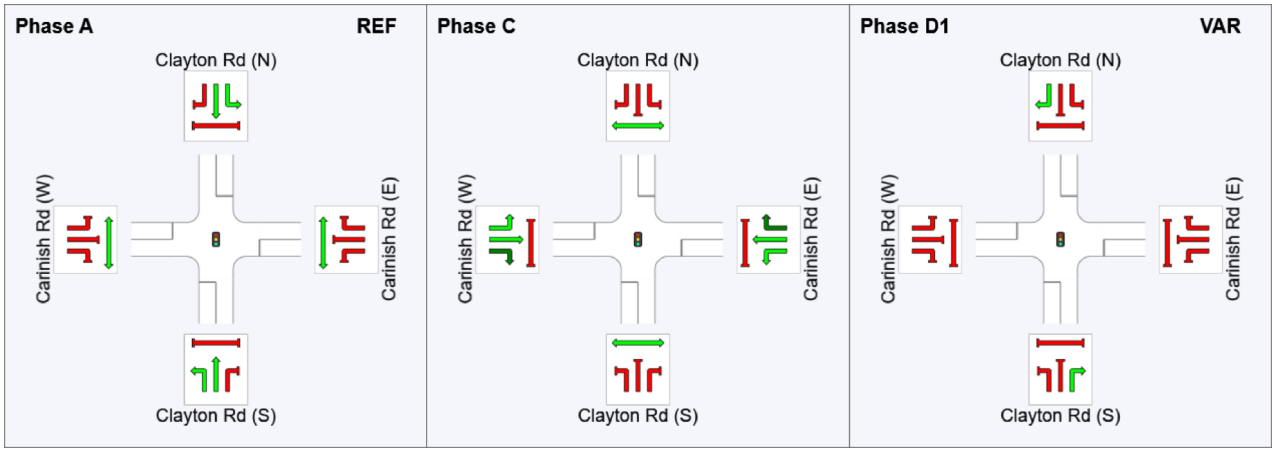
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Vicroads (updated)
Reference Phase: Phase A
Input Phase Sequence: A, B1*, B2*, B3*, C, D1*, D2*, D3*
Output Phase Sequence: A, C, D1*
(* Variable Phase)

Phase Timing Summary

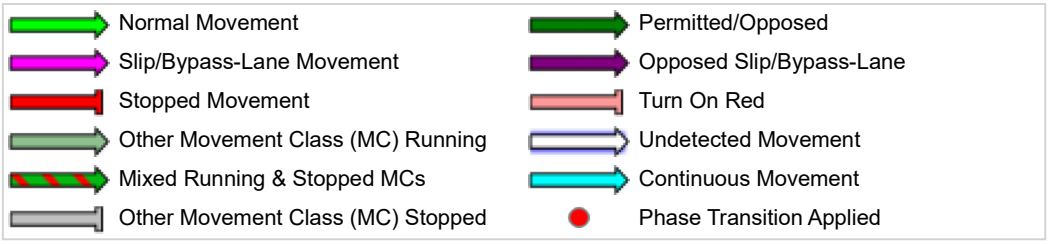
Phase	A	C	D1
Phase Change Time (sec)	0	41	73
Green Time (sec)	35	26	7
Phase Time (sec)	41	32	13
Phase Split	48%	37%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



PHASING SUMMARY

Site: 3206 [2031 AM Base Vols + PMP]

Clayton Road / Carinish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 86 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

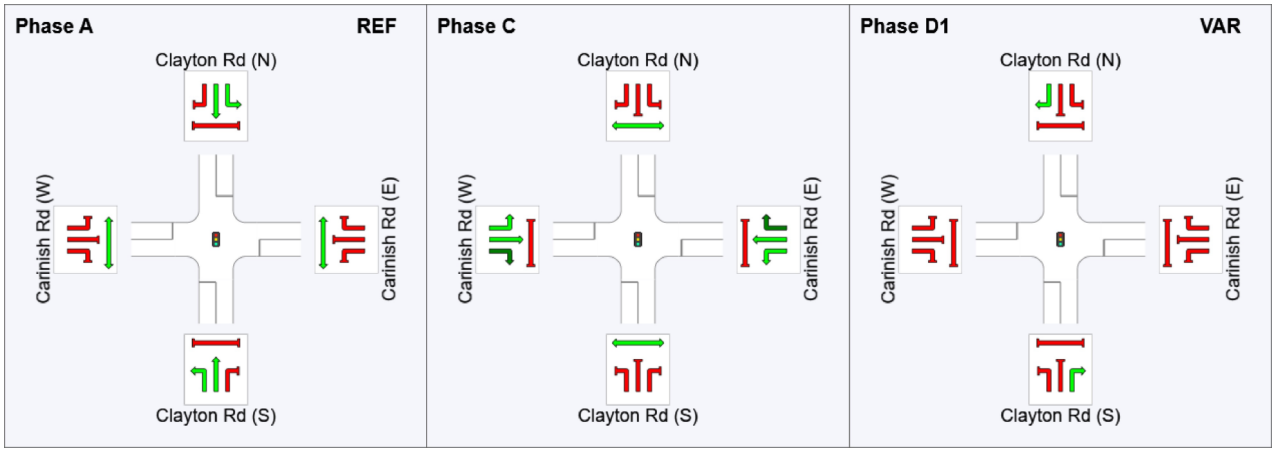
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Vicroads (updated)
Reference Phase: Phase A
Input Phase Sequence: A, B1*, B2*, B3*, C, D1*, D2*, D3*
Output Phase Sequence: A, C, D1*
(* Variable Phase)

Phase Timing Summary

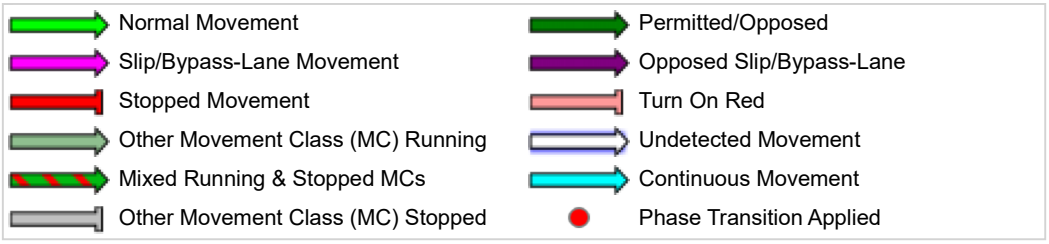
Phase	A	C	D1
Phase Change Time (sec)	0	41	73
Green Time (sec)	35	26	7
Phase Time (sec)	41	32	13
Phase Split	48%	37%	15%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



MOVEMENT SUMMARY

Site: 101 [2031 AM Base Vols + PMP]

Clayton Road / Haughton Road
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Clayton Rd (S)												
1	L2	101	2.0	0.352	5.6	LOS A	0.0	0.0	0.00	0.09	0.00	55.9
2	T1	1226	5.0	0.352	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	57.3
Approach		1327	4.8	0.352	0.4	NA	0.0	0.0	0.00	0.05	0.00	56.9
North: Clayton Rd (N)												
8	T1	694	5.0	0.184	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		694	5.0	0.184	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
West: Haughton Rd (W)												
10	L2	252	2.0	0.338	9.9	LOS A	1.8	12.5	0.60	0.85	0.71	44.2
Approach		252	2.0	0.338	9.9	LOS A	1.8	12.5	0.60	0.85	0.71	44.2
All Vehicles		2273	4.5	0.352	1.3	NA	1.8	12.5	0.07	0.12	0.08	53.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [2031 AM Base Vols + PMP]

Clayton Road / Haughton Road
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Clayton Rd (S)												
1	L2	101	2.0	0.352	5.6	LOS A	0.0	0.0	0.00	0.09	0.00	55.9
2	T1	1226	5.0	0.352	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	57.3
Approach		1327	4.8	0.352	0.4	NA	0.0	0.0	0.00	0.05	0.00	56.9
North: Clayton Rd (N)												
8	T1	694	5.0	0.184	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		694	5.0	0.184	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
West: Haughton Rd (W)												
10	L2	252	2.0	0.338	9.9	LOS A	1.8	12.5	0.60	0.85	0.71	44.2
Approach		252	2.0	0.338	9.9	LOS A	1.8	12.5	0.60	0.85	0.71	44.2
All Vehicles		2273	4.5	0.352	1.3	NA	1.8	12.5	0.07	0.12	0.08	53.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 3206 [2031 PM Base Vols + PMP]

Clayton Road / Carinish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Clayton Rd (S)												
1	L2	202	5.0	0.703	29.0	LOS C	22.0	160.3	0.88	0.81	0.88	32.0
2	T1	774	5.0	0.703	24.4	LOS C	22.0	160.3	0.84	0.75	0.84	30.6
3	R2	168	5.0	0.939	71.2	LOS E	10.3	75.3	1.00	1.07	1.64	18.7
Approach		1144	5.0	0.939	32.1	LOS C	22.0	160.3	0.87	0.81	0.96	27.8
East: Carinish Rd (E)												
4	L2	159	5.0	0.858	48.9	LOS D	17.2	125.6	0.92	0.97	1.17	24.5
5	T1	184	5.0	0.858	43.3	LOS D	17.2	125.6	0.92	0.97	1.17	34.3
6	R2	174	5.0	0.936	75.8	LOS E	11.2	81.4	1.00	1.10	1.65	24.6
Approach		517	5.0	0.936	55.9	LOS E	17.2	125.6	0.94	1.01	1.33	28.0
North: Clayton Rd (N)												
7	L2	257	5.0	0.942	59.5	LOS E	46.3	337.7	1.00	1.13	1.33	29.0
8	T1	1148	5.0	0.942	53.7	LOS D	46.3	337.7	0.98	1.14	1.33	19.4
9	R2	89	5.0	0.499	53.9	LOS D	4.4	31.8	0.99	0.77	0.99	29.5
Approach		1495	5.0	0.942	54.7	LOS D	46.3	337.7	0.99	1.12	1.31	22.2
West: Carinish Rd (W)												
10	L2	137	5.0	0.749	40.4	LOS D	14.8	108.1	0.91	0.85	0.98	34.9
11	T1	199	5.0	0.749	34.8	LOS C	14.8	108.1	0.91	0.85	0.98	37.4
12	R2	161	5.0	0.894	67.1	LOS E	9.5	69.6	1.00	1.03	1.51	19.4
Approach		497	5.0	0.894	46.8	LOS D	14.8	108.1	0.94	0.91	1.15	30.7
All Vehicles		3653	5.0	0.942	46.7	LOS D	46.3	337.7	0.94	0.98	1.18	25.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	36.2	LOS D	0.1	0.1	0.85	0.85
P2	East Full Crossing	53	21.2	LOS C	0.1	0.1	0.65	0.65
P3	North Full Crossing	53	36.2	LOS D	0.1	0.1	0.85	0.85
P4	West Full Crossing	53	21.2	LOS C	0.1	0.1	0.65	0.65
All Pedestrians		211	28.7	LOS C			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 3206 [2031 PM Base Vols + PMP]

Clayton Road / Carinish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Clayton Rd (S)												
1	L2	202	5.0	0.703	29.0	LOS C	22.0	160.4	0.88	0.81	0.88	32.0
2	T1	774	5.0	0.703	24.4	LOS C	22.0	160.4	0.84	0.75	0.84	30.6
3	R2	169	5.0	0.991	88.7	LOS F	11.8	85.8	1.00	1.16	1.87	16.0
Approach		1145	5.0	0.991	34.7	LOS C	22.0	160.4	0.87	0.82	1.00	26.7
East: Carinish Rd (E)												
4	L2	159	5.0	0.859	49.0	LOS D	17.2	125.9	0.92	0.97	1.18	24.5
5	T1	184	5.0	0.859	43.4	LOS D	17.2	125.9	0.92	0.97	1.18	34.2
6	R2	175	5.0	0.942	77.4	LOS E	11.4	83.0	1.00	1.10	1.67	24.3
Approach		518	5.0	0.942	56.6	LOS E	17.2	125.9	0.94	1.01	1.34	27.9
North: Clayton Rd (N)												
7	L2	260	5.0	0.944	60.3	LOS E	46.7	340.8	1.00	1.13	1.34	28.8
8	T1	1148	5.0	0.944	54.5	LOS D	46.7	340.8	0.98	1.15	1.34	19.2
9	R2	89	5.0	0.499	53.9	LOS D	4.4	31.8	0.99	0.77	0.99	29.5
Approach		1498	5.0	0.944	55.4	LOS E	46.7	340.8	0.99	1.12	1.32	22.1
West: Carinish Rd (W)												
10	L2	137	5.0	0.749	40.4	LOS D	14.8	108.1	0.91	0.85	0.98	34.9
11	T1	199	5.0	0.749	34.8	LOS C	14.8	108.1	0.91	0.85	0.98	37.4
12	R2	161	5.0	0.894	67.1	LOS E	9.5	69.6	1.00	1.03	1.51	19.4
Approach		497	5.0	0.894	46.8	LOS D	14.8	108.1	0.94	0.91	1.15	30.7
All Vehicles		3658	5.0	0.991	47.9	LOS D	46.7	340.8	0.94	0.98	1.20	25.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	36.2	LOS D	0.1	0.1	0.85	0.85
P2	East Full Crossing	53	21.2	LOS C	0.1	0.1	0.65	0.65
P3	North Full Crossing	53	36.2	LOS D	0.1	0.1	0.85	0.85
P4	West Full Crossing	53	21.2	LOS C	0.1	0.1	0.65	0.65
All Pedestrians		211	28.7	LOS C			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 3206 [2031 PM Base Vols + PMP]

Clayton Road / Carinish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 98 seconds (Site Optimum Cycle Time - Minimum Delay)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Clayton Rd (S)												
1	L2	202	5.0	0.705	28.6	LOS C	21.6	157.6	0.89	0.81	0.89	32.2
2	T1	774	5.0	0.705	24.1	LOS C	21.6	157.6	0.84	0.75	0.84	30.8
3	R2	169	5.0	0.926	67.4	LOS E	10.0	72.8	1.00	1.05	1.60	19.4
Approach		1145	5.0	0.926	31.3	LOS C	21.6	157.6	0.87	0.81	0.96	28.2
East: Carinish Rd (E)												
4	L2	159	5.0	0.856	48.2	LOS D	16.9	123.5	0.92	0.97	1.18	24.7
5	T1	184	5.0	0.856	42.6	LOS D	16.9	123.5	0.92	0.97	1.18	34.5
6	R2	175	5.0	0.942	76.0	LOS E	11.1	81.0	1.00	1.11	1.68	24.6
Approach		518	5.0	0.942	55.6	LOS E	16.9	123.5	0.95	1.01	1.35	28.1
North: Clayton Rd (N)												
7	L2	260	5.0	0.947	61.0	LOS E	46.5	339.5	1.00	1.15	1.36	28.6
8	T1	1148	5.0	0.947	55.2	LOS E	46.5	339.5	0.98	1.17	1.36	19.0
9	R2	89	5.0	0.489	52.7	LOS D	4.3	31.1	0.99	0.77	0.99	29.8
Approach		1498	5.0	0.947	56.0	LOS E	46.5	339.5	0.99	1.14	1.34	21.9
West: Carinish Rd (W)												
10	L2	137	5.0	0.748	40.1	LOS D	14.6	106.6	0.92	0.85	0.99	35.0
11	T1	199	5.0	0.748	34.5	LOS C	14.6	106.6	0.92	0.85	0.99	37.5
12	R2	161	5.0	0.895	66.4	LOS E	9.4	68.7	1.00	1.04	1.52	19.6
Approach		497	5.0	0.895	46.4	LOS D	14.6	106.6	0.94	0.91	1.16	30.8
All Vehicles		3658	5.0	0.947	46.9	LOS D	46.5	339.5	0.94	0.99	1.20	25.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	36.1	LOS D	0.1	0.1	0.86	0.86
P2	East Full Crossing	53	20.9	LOS C	0.1	0.1	0.65	0.65
P3	North Full Crossing	53	36.1	LOS D	0.1	0.1	0.86	0.86
P4	West Full Crossing	53	20.9	LOS C	0.1	0.1	0.65	0.65
All Pedestrians		211	28.5	LOS C			0.76	0.76

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

PHASING SUMMARY

Site: 3206 [2031 PM Base Vols + PMP]

Clayton Road / Carinish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

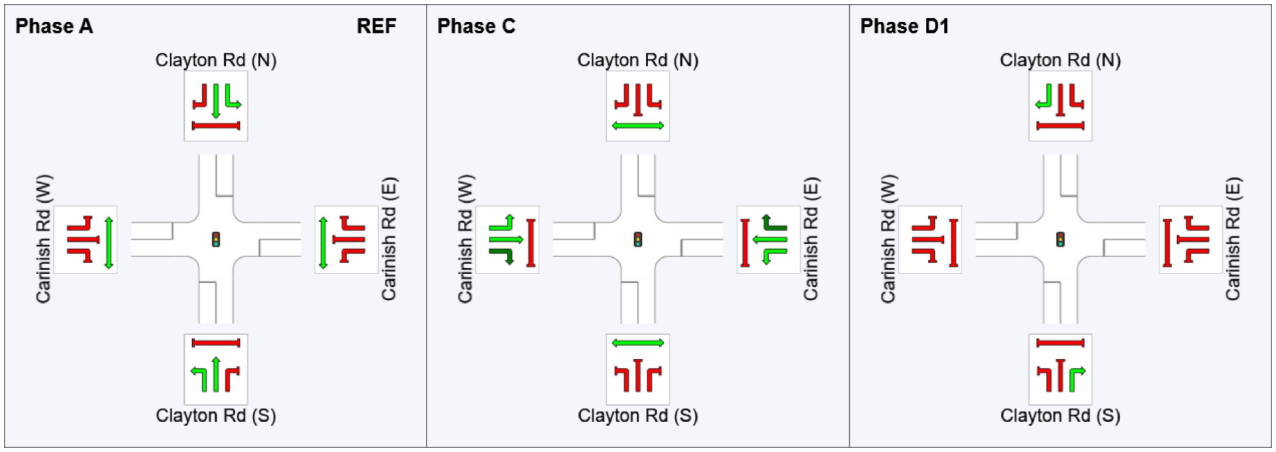
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: VicRoads (updated)
Reference Phase: Phase A
Input Phase Sequence: A, B1*, B2*, B3*, C, D1, D2*, D3
Output Phase Sequence: A, C, D1
(* Variable Phase)

Phase Timing Summary

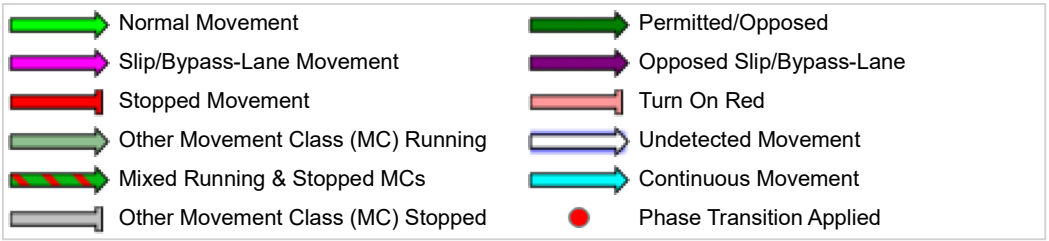
Phase	A	C	D1
Phase Change Time (sec)	0	48	84
Green Time (sec)	42	30	10
Phase Time (sec)	48	36	16
Phase Split	48%	36%	16%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



PHASING SUMMARY

Site: 3206 [2031 PM Base Vols + PMP]

Clayton Road / Carinish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 100 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

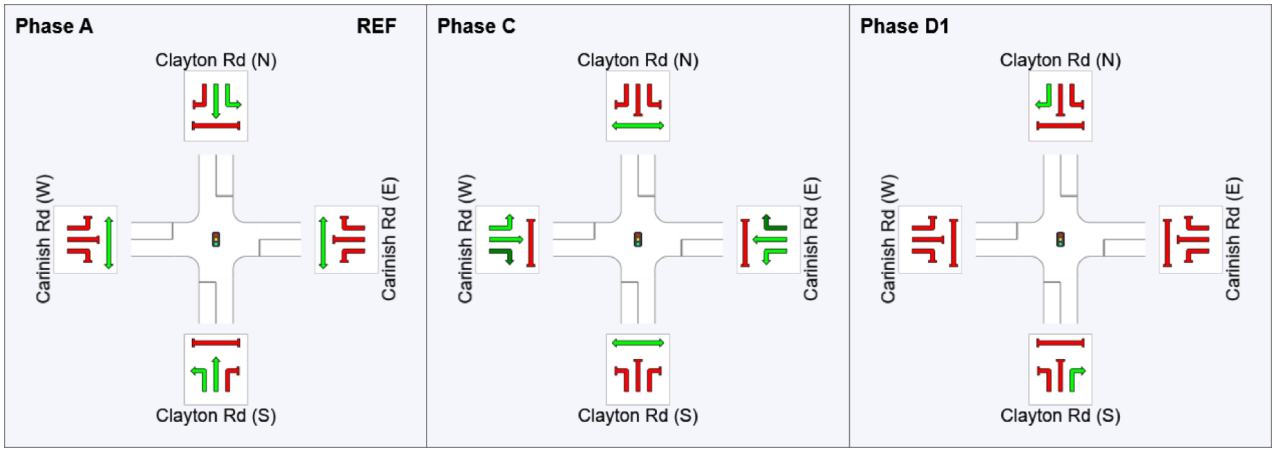
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: VicRoads (updated)
Reference Phase: Phase A
Input Phase Sequence: A, B1*, B2*, B3*, C, D1, D2*, D3
Output Phase Sequence: A, C, D1
(* Variable Phase)

Phase Timing Summary

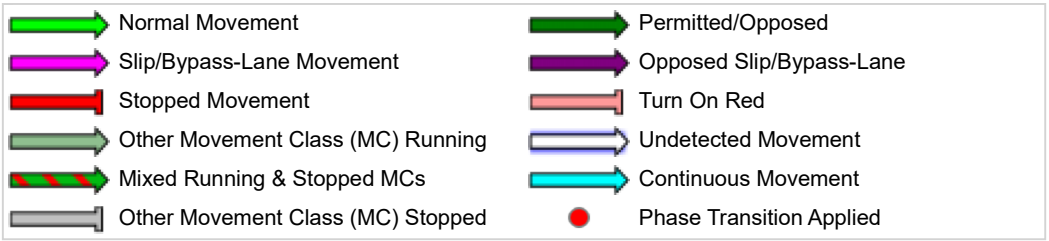
Phase	A	C	D1
Phase Change Time (sec)	0	48	84
Green Time (sec)	42	30	10
Phase Time (sec)	48	36	16
Phase Split	48%	36%	16%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



PHASING SUMMARY

Site: 3206 [2031 PM Base Vols + PMP]

Clayton Road / Carinish Road
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 98 seconds (Site Optimum Cycle Time - Minimum Delay)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

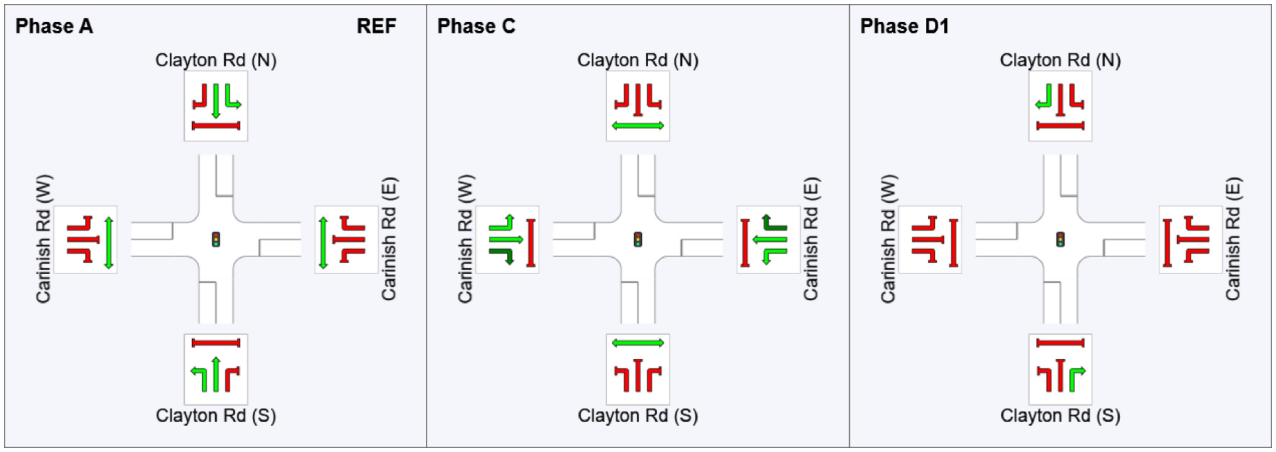
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: VicRoads (updated)
Reference Phase: Phase A
Input Phase Sequence: A, B1*, B2*, B3*, C, D1, D2*, D3
Output Phase Sequence: A, C, D1
(* Variable Phase)

Phase Timing Summary

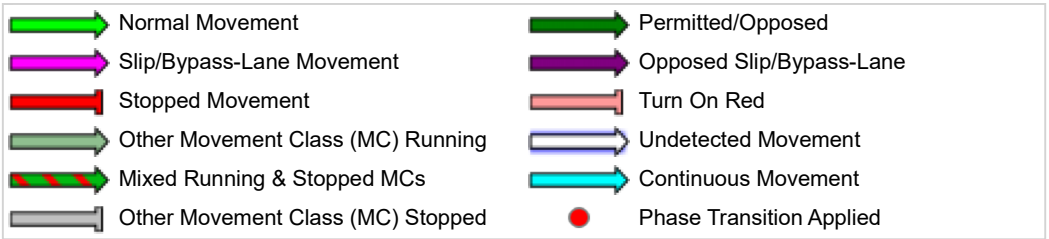
Phase	A	C	D1
Phase Change Time (sec)	0	47	82
Green Time (sec)	41	29	10
Phase Time (sec)	47	35	16
Phase Split	48%	36%	16%

See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase
VAR: Variable Phase



MOVEMENT SUMMARY

Site: 101 [2031 PM Base Vols + PMP]

Clayton Road / Haughton Road
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Clayton Rd (S)												
1	L2	218	2.0	0.304	5.6	LOS A	0.0	0.0	0.00	0.23	0.00	54.2
2	T1	922	5.0	0.304	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	54.8
Approach		1140	4.4	0.304	1.1	NA	0.0	0.0	0.00	0.11	0.00	54.5
North: Clayton Rd (N)												
8	T1	1409	5.0	0.373	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1409	5.0	0.373	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Haughton Rd (W)												
10	L2	155	2.0	0.163	7.3	LOS A	0.7	5.0	0.43	0.65	0.43	46.9
Approach		155	2.0	0.163	7.3	LOS A	0.7	5.0	0.43	0.65	0.43	46.9
All Vehicles		2704	4.6	0.373	0.9	NA	0.7	5.0	0.02	0.08	0.02	55.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [2031 PM Base Vols + PMP]

Clayton Road / Haughton Road
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Clayton Rd (S)												
1	L2	218	2.0	0.308	5.6	LOS A	0.0	0.0	0.00	0.22	0.00	54.2
2	T1	939	5.0	0.308	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	54.8
Approach		1157	4.4	0.308	1.1	NA	0.0	0.0	0.00	0.11	0.00	54.5
North: Clayton Rd (N)												
8	T1	1437	5.0	0.380	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1437	5.0	0.380	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Haughton Rd (W)												
10	L2	155	2.0	0.164	7.4	LOS A	0.7	5.0	0.44	0.65	0.44	46.9
Approach		155	2.0	0.164	7.4	LOS A	0.7	5.0	0.44	0.65	0.44	46.9
All Vehicles		2748	4.6	0.380	0.9	NA	0.7	5.0	0.02	0.08	0.02	55.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.