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Report Prepared for
Harrington Custodian Pty Ltd.

16 April 2021

Traffic Impact Assessment
Proposed Mixed-Use
Development

Fairfield Forum
8-36 Station Street, Fairfield

traffic:impact

Prepared for:

Harrington Custodian Pty Ltd.
Our reference 15881T-REP05-F01

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1 Introduction:

Ratio Consultants have been commissioned by Harrington Custodian Pty Ltd. (the applicant) to assess the traffic and parking implications of the proposed redevelopment of the Fairfield shopping centre located at 8-36 Station Street in Fairfield.

The proposal seeks to redevelop the existing retail centre whilst providing a generous public open space area and introducing a number of residential buildings.

The proposed Master Plan seeks to revitalise the northern extent of the Fairfield Town Centre into a high amenity area.

This report has been prepared as part of the site specific Development Control Plan (DCP) that will apply to the site. This report therefore addresses the anticipated traffic impacts of the development and the associated intersection operation outcomes.

During the course of preparing this assessment the subject site and its surrounds have been inspected, plans of the development reviewed and historical traffic data sourced and analysed.

2 Background & History:

The site has been the subject of a number of investigations that have been undertaken as part of a Gateway approval process, including the assessment of potential traffic generation and car parking requirements.

An initial Traffic and Transport Review was prepared by Ratio in February 2019 and submitted to Fairfield City Council as part of the Master Plan documentation. In response to Council comments, a refined and amended traffic and transport review was prepared and issued December 2019 that included additional discussion of the proposal's traffic generation and traffic distribution.

Subsequent to submission of updated documentation, a Gateway decision was issued by the Department of Planning, Industry and Environment on 31 March 2020. This included a Condition that the proposal *"prepare a transport study to assess and identify the impact of the planning proposal on the surrounding road network and clarify whether there is a need for infrastructure improvements to accommodate the additional traffic generated by the planning proposal"*

Initial traffic impact assessments of the proposal were prepared in 2020, and, based on the restrictions put in place as part of the Covid-19 pandemic, there was been an associated reduction in traffic volumes on the road network. Additionally, the patterns of the traffic had altered with many people working from home which has reduced commuter traffic, and many people have adopted a greater utilisation of online shopping which has reduced traditional shopping traffic. As such, the collection of traffic volume data within the Fairfield Town Centre at this time would have likely yield atypical results.

Having regard to this limitation, historical traffic volume data has been sourced for the town centre and used as the basis of the traffic study to inform the site specific DCP. The collection and calibration of this data has been undertaken in co-ordination with Council, including a Traffic Modelling Assumptions Report prepared by Ratio, initially submitted in June 2020, that has been approved by Council. On this basis a detailed transport impacts assessment of the proposal was submitted for consideration in October 2020.

Subsequent to this October 2020 assessment, additional information has been requested by Transport for New South Wales (TfNSW) via an RFI dated 10th February 2021. Amongst other items, the RFI seeks additional traffic volume data for surrounding intersections. In light of the reduced Covid-19 restrictions and the stabilisation of traffic volume data, the additional traffic counts were undertaken. This assessment therefore updates the October 2020 assessment to include the additional intersections and the updated traffic volume data.

3 Existing Conditions:

3.1 Location and Environment

The subject site (Fairfield Forum Shopping Centre) is located on the south-east corner of the Station Street and Cunningham Street intersection in Fairfield.

The site's location relative to the surrounding area and road network is shown in Figure 3-1 and Figure 3-2.

Figure 3-1: Site Locality Plan



Source: www.street-directory.com.au

Figure 3-2: Aerial Photograph of Subject Site and Surrounds



Source: www.nearmap.com

The subject site is irregular in shape and is generally bound by Cunninghame Street to the north, residential properties fronting onto Smart Street to the east, Nelson Street to the south and Station Street to the west

The subject site accommodates an overall area of approximately 4.2 hectares and is currently occupied by approximately 18,000 sqm of retail space comprising over 40 stores including Coles and K-Mart.

An on-site car park accommodating approximately 750 parking spaces is also provided.

3.2 Surrounding Land Uses

The site is located within the Fairfield Town Centre and is zoned as a Mixed-Use Zone (B4) within the Fairfield Local Environmental Plan 2013. The surrounding properties are predominantly commercial in nature to the south and residential to the north.

The site is located at the northern section of the Fairfield Town Centre and key non-residential land uses in the vicinity are detailed below:

- Fairfield Public School located approximately 200 metres east of the subject site.
- Neeta City Shopping Centre located approximately 250 metres south-east of the subject site (FCC UDF Site #2).
- Fairfield Library located approximately 300 metres south of the subject site (FCC UDF Site #10).
- Fairfield Centrelink and Medicare located approximately 450 metres south of the subject site.
- Fairfield City Centre located approximately 500 metres south of the subject site.
- Fairfield Chase Shopping Centre located approximately 600 metres south-east of the subject site.
- Fairfield High School located approximately 600 metres east of the subject site.

Having regard to the Fairfield Town Centre as a whole, the subject site forms the northern most parcel within the list of Key Sites in the *Fairfield City Centre Urban Design Study 2018*.

All other Key Sites are located south of Nelson Street which acts as a buffer to future development. Sites 2, 11, 12 and 13 are the closest Key Sites to the subject site.

The location of these Key Sites is shown overleaf in Figure 3-3.

Figure 3-3: Map of Key Site Locations



Source: *Fairfield City Centre Urban Design Study 2018*

As shown in Figure 3-3, the subject site is located at the northern periphery of the Town Centre and is separated from all other key development sites by Nelson Street.

3.3 Existing Access Arrangements

Current vehicle access to the site is provided via a number of vehicle crossovers situated along Cunningham Street, Ware Street, Smart Street and Station Street.

A total of 9 site access points currently provide access to the subject site.

The location of these site accesses is shown overleaf in Figure 3-4.

Figure 3-4: Existing Site Access Locations



Source: www.nearmap.com

3.4 Road Network

The subject site is directly fronted by a number of local roads which provide access to and from the surrounding precinct. These are identified in Figure 3-5 with further detail provided below.

Figure 3-5: Local Road Network



Source: www.nearmap.com

Cunninghame Street

Cunninghame Street is a Council controlled road connecting from Station Street in the southwest to The Horsley Drive in the northeast.

Along the site frontage, Cunninghame Street has an approximate carriageway width of 12.6 metres. Within the road reserve Cunninghame Street comprises a single carriageway with one through lane in each direction and parallel parking provided along both kerbs. Along the site frontage, Cunninghame Street has a posted speed limit of 50km/h.

Figure 3-6 shows the typical configuration of Cunninghame Street along the frontage of the site.

Figure 3-6: Cunninghame Street Typical Configuration



Source: www.nearmap.com

Station Street

Station Street is a Council controlled road connecting from The Boulevard in the northwest to Nelson Street in the south.

Along the site frontage, Station Street has an approximate carriageway width of 12.6 metres. Within the road reserve, Station Street comprises a single carriageway with one through lane in each direction and parallel parking provided along both kerbs. Along the site frontage, Station Street has a posted speed limit of 50km/h.

Figure 3-7 shows the typical configuration of Station Street along the frontage of the site.

Figure 3-7: Station Street Typical Configuration



Source: www.nearmap.com

Ware Street

Ware Street is a local street that runs in a north-south alignment along the eastern boundary of the site. It extends south from Cunninghame Street and continues into the site as one of the existing access points.

In the vicinity of the site, Ware Street accommodates a carriageway of approximately 12.5 metres comprising a central through lane in each direction as well as outer kerbside parking. Along the site frontage, Ware Street operates with a default 50km/h speed limit.

Figure 3-8 shows the typical configuration of Station Street along the frontage of the site.

Figure 3-8: Ware Street Typical Configuration



Source: www.nearmap.com

3.5 Traffic Volume Data

Due to social distancing regulations resulting from Covid-19, traffic volumes in 2020 were much lower than typical conditions and as such could not be used in the preparation of the transport study. Historical traffic volume data was therefore sourced as either Turning Movement Counts (TMC) or SCATS data as part of the October 2020 assessment.

Whilst it was not possible to source historical traffic volume for all intersections throughout the Fairfield Town Centre, the October 2020 assessment sourced traffic volume data for the following intersections:

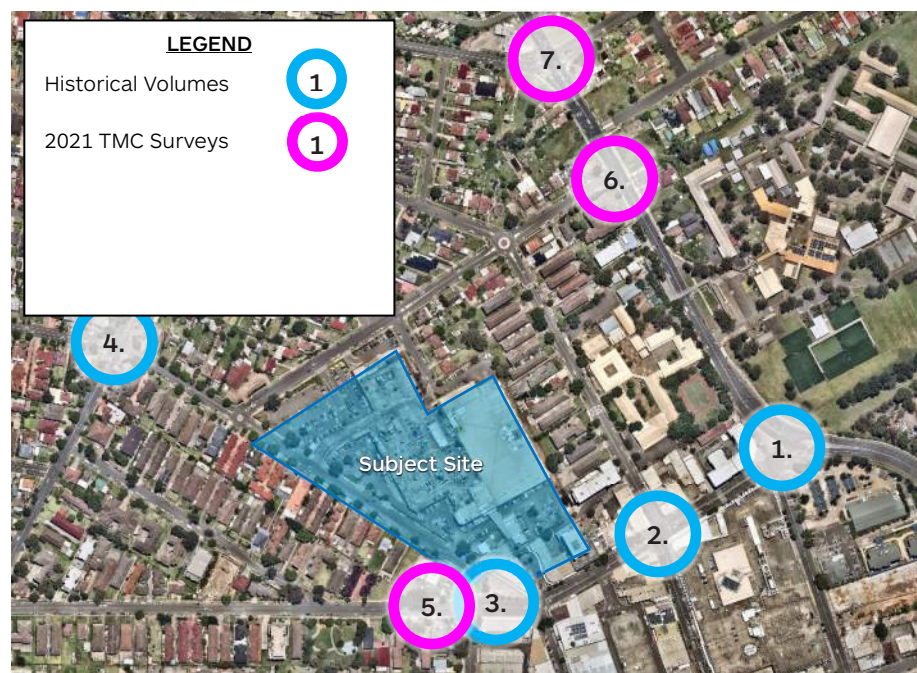
1. The Horsley Drive/Nelson Street/Court Road (TMC 2019);
2. Nelson Street/Smart Street (TMC 2016);
3. Nelson Street/Station Street (SCATS); and
4. Station Street/Sackville Street (TMC 2018).

Following receipt of the TfNSW RFI, additional traffic volume data has been collected on 4th and 6th March 2021 at the following intersections:

5. Nelson Street/Station Street (TMC);
6. Cunninghame Street/The Horsely Drive (TMC); and
7. The Horsely Drive/Polding Street (TMC).

The context of these intersections in relation to the subject site is illustrated in Figure 3-9.

Figure 3-9: Key Intersections



These intersections form key access points to the Fairfield Town Centre and are considered appropriate intersections to form the basis of the transport study.

Review of the sourced traffic volume data identifies the following critical road network peak hours that will form the basis of the traffic study:

- AM Peak: 8am – 9am
- PM Peak: 4.30pm – 5.30pm
- Weekend Peak: 12noon – 1pm

3.6 Traffic Volume Calibration

The historical traffic data has been sourced for the identified intersections across a number of dates. As such, each individual intersection has required some form of calibration to achieve an equivalent volume. The initial modelling process was undertaken and agreed with Council to coincide with pre-covid volumes, and as such 2019 is the equivalent year all volumes are calibrated to. To assess the calibration required of the historical data, SCATS volume data for each intersection has also been sourced from RMS for Thursday 24th October 2019 and Saturday 26th October 2019.

A comparison of the dates for the sourced data sets is provided as Table 3.1.

Table 3.1: Dates of Sourced Data

Intersection	Historical TMC	RMS Data
The Horsley Drive/Nelson Street/Court Road	23 rd October 2019	24 th October & 26 th October 2019
Nelson Street/Smart Street	24 th November 2016	
Station Street/Sackville Street	9 th May 2018	

To estimate traffic conditions for 2019, traffic volumes at key intersections where data is available have been compared to establish potential growth on the road network e.g. TMC data vs RMS data. The established growth rate is then to be applied to each intersection to derive an “existing conditions” model.

Given the available TMC data for The Horsley Drive/Nelson Street/Court Road intersection is collected within the same week as the RMS data it is not proposed to calibrate this data further.

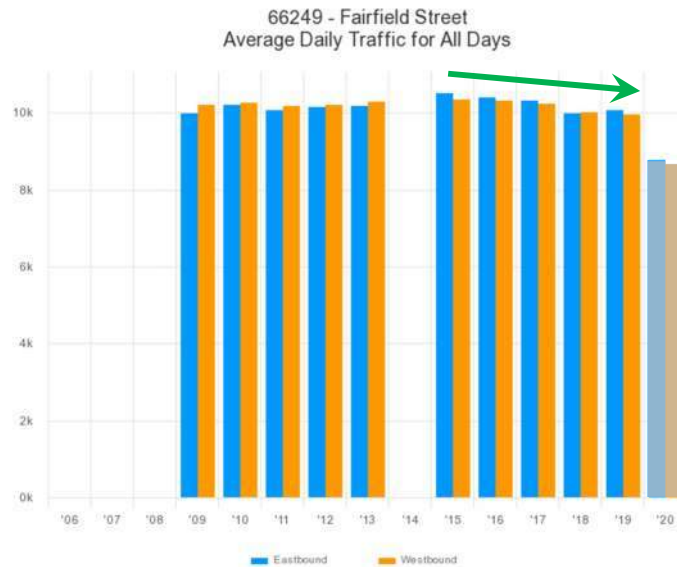
A review of the available data reveals there has generally been a *reduction* in traffic volumes recorded around the town centre with the RMS SCATS data (2019) being consistently lower than the TMC data. A traffic volume comparison of total intersection volumes during peak hours for intersections within the Town Centre is provided at Table 3.2.

Table 3.2: Town Centre Intersection Peak Hour Volumes Growth Rates

Time	TMC	RMS	Growth Rate
Nelson Street/Smart Street (2016)			
8am-9am	1,335vph	1,334vph	0.0%
5pm-6pm	1,497vph	1,403vph	-2.1%
Sackville Street/Station Street (2018)			
8am-9am	1,511vph	1,431vph	-5.3%
5pm-6pm	1,676vph	1,589vph	-5.2%

Overall traffic volumes in the study area have remained largely static, or have reduced which is further illustrated by the RMS Traffic Volume Viewer, reproduced at Figure 3-10, which indicates traffic on nearby Fairfield Street has been steadily reducing since 2015. It is acknowledged that this data is not from within the study area, however the data illustrates the general reduction in traffic volumes in the area, consistent with other data sourced.

Figure 3-10: RMS Traffic Monitor Daily Traffic Volume Decrease



On the basis of the preceding, the higher traffic volumes, as set out within the historical TMC data, for Town Centre traffic volumes will be adopted for the purposes of assessing the existing intersection operations. This is considered a conservative and robust existing conditions assessment as it adopts the higher of the available traffic volumes irrespective of the year they occurred.

The existing peak hour traffic volumes are presented in Figure 3-11 to Figure 3-13 and reproduced in Appendix B for clarity.

Figure 3-11: AM Peak Hour Turning Movements

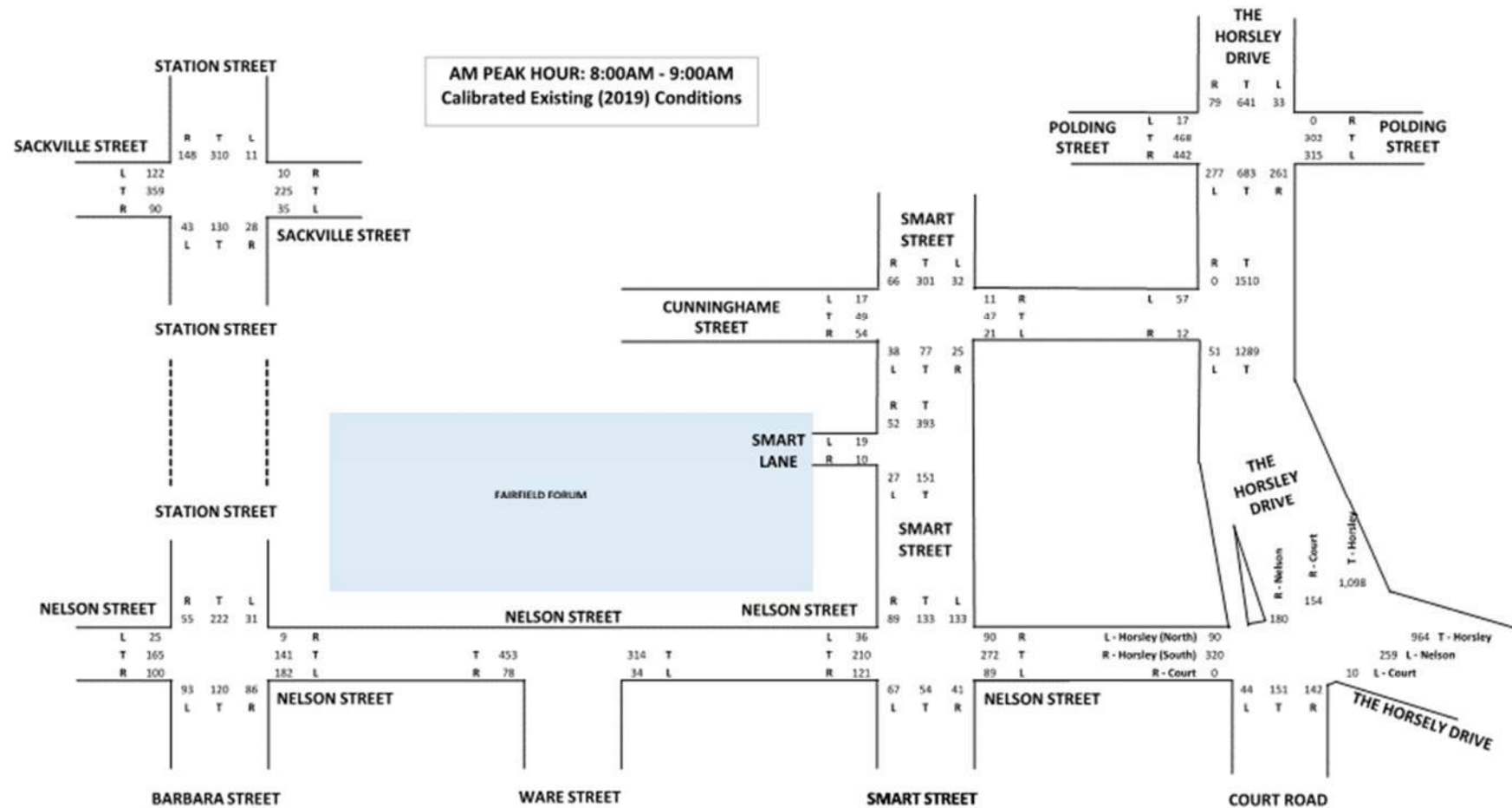
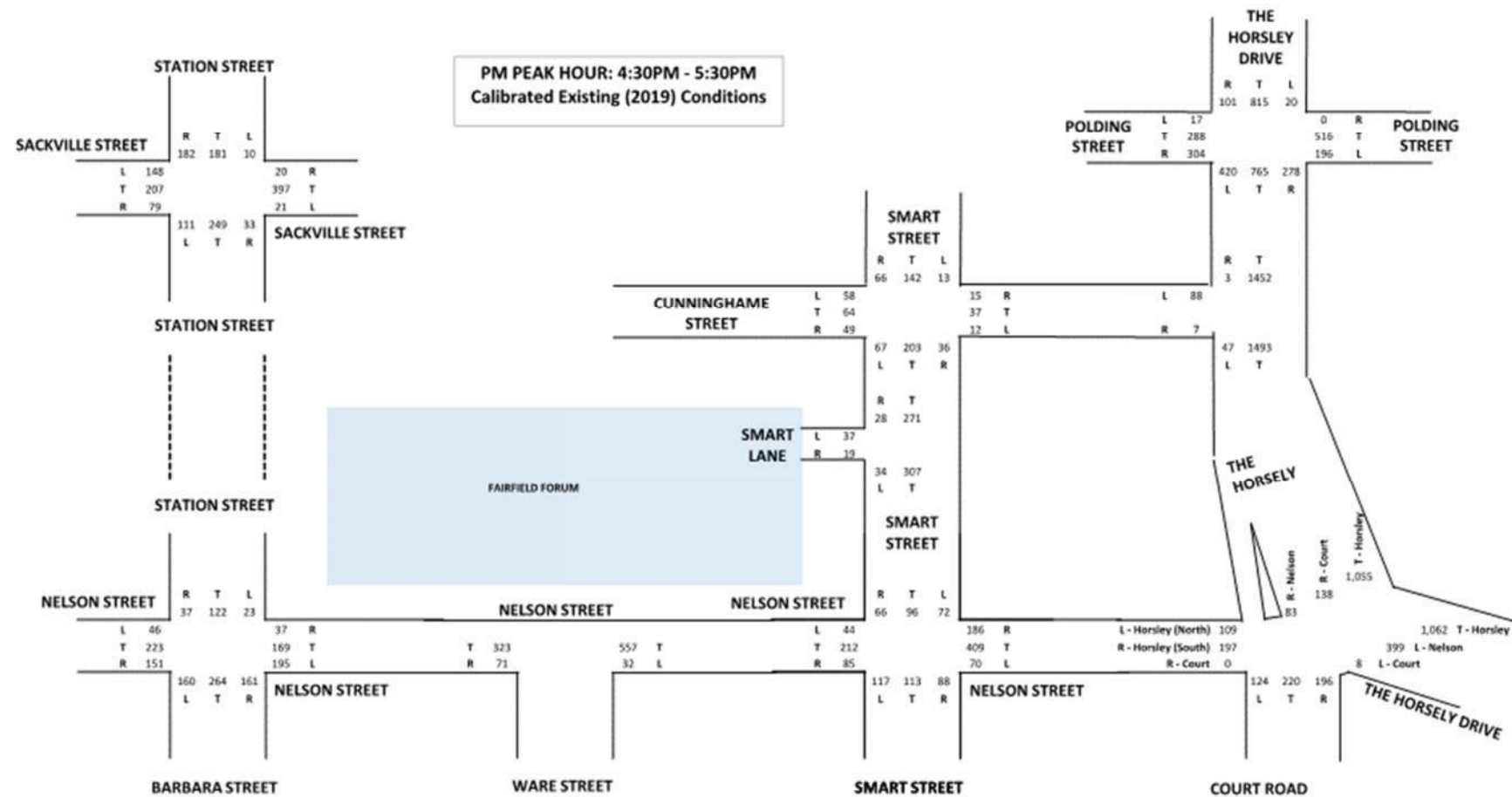


Figure 3-12: PM Peak Hour Turning Movements



[illegible]

3.7 Existing Intersection Operation

General

A peak hour intersection analysis has been undertaken using the intersection analysis program SIDRA for the following intersections:

- Nelson Street / The Horsley Drive / Court Road;
- Nelson Street / Smart Street;
- Nelson Street / Ware Street;
- Nelson Street / Station Street;
- Sackville Street / Station Street;
- Cunninghame Street / The Horsely Drive; and
- Polding Street / The Horsely Drive.

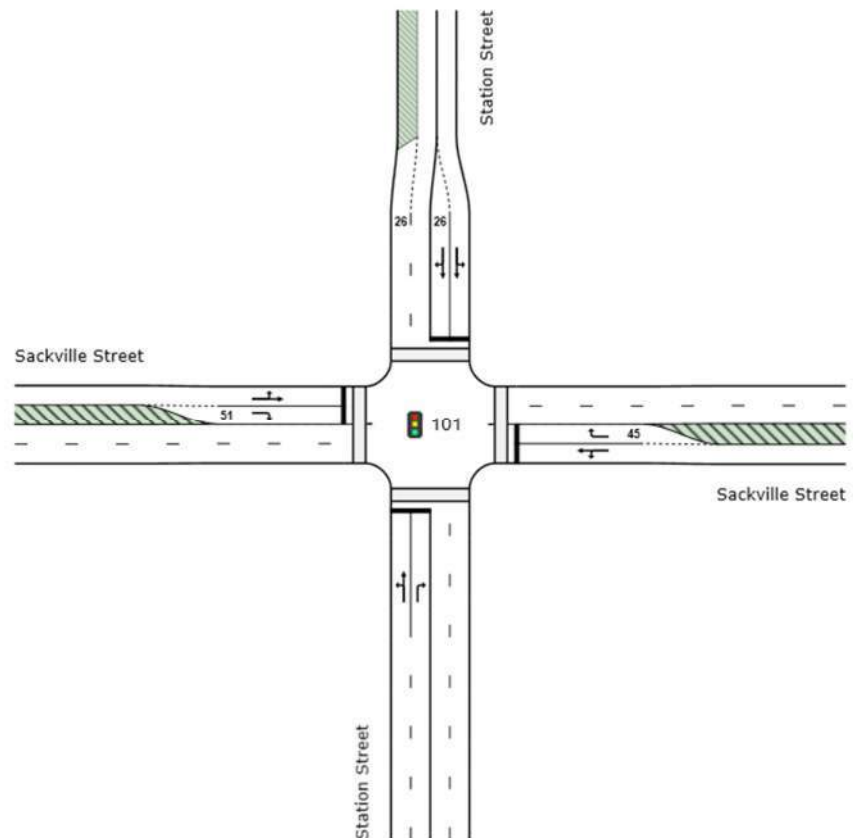
Due to the close proximity of the intersections and the coordinated nature of their operations, the Nelson Street intersections have been modelled as a network in SIDRA, with the network geometry displayed in Figure 3-14.

The intersection of Sackville Street and Station Street has been modelled as a single intersection, with layout displayed in Figure 3-15.

The adopted phasing for the SIDRA network is based on SCATS data sourced from RMS.



Figure 3-15: SIDRA Intersection Layout, Sackville Street/Station Street



SIDRA Parameters

The key parameters used to determine the operational capacity of an intersection are degree of saturation (or volume to capacity ratio), queue length and Level of Service.

Degree of Saturation is a ratio of arrival (or demand) flow to capacity. Degrees of saturation above 1.0 represent oversaturated conditions and degrees of saturation below 1.0 represent undersaturated conditions.

The operational rating associated with the degree of saturation is summarised in Table 3.3.

Table 3.3: Ratings of Degree of Saturation

Degree of Saturation (DOS)	Rating
Up to 0.6	Excellent
0.61 – 0.70	Very Good
0.71 – 0.80	Good
0.81 – 0.90	Fair
0.91 – 1.00	Poor
Greater than 1.00	Very poor

Although operating conditions with a degree of saturation around 1.00 are undesirable, it is acknowledged that this level of congestion is typical of many metropolitan intersections during the AM and PM peak hours.

The 95th percentile queue length is the value below which 95 percent of all observed cycle queue lengths fall, or 5 percent of all observed queue lengths exceed.

The Level of Service (LoS) is an assessment of the average control delay per vehicle, expressed in seconds. The lower the delay, the better the LoS.

The operational rating associated with the RMS LoS is summarised in Table 3.4.

Table 3.4: Ratings of RMS Level of Service (LoS)

Control Delay in Seconds (d)	Level of Service
d < 14	A
d < 15 to 28	B
d < 29 to 42	C
d < 43 to 56	D
d < 57 to 70	E
d > 70	F

Results – Weekday Peak Hours Existing Conditions

The results of the existing conditions peak hour SIDRA analyses are detailed in Appendix C.

A summary of the weekday AM and PM peak hours is provided in Table 3.5 to Table 3.10.

Table 3.5: Existing Weekday Peak Conditions, Nelson Street/Station Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Barbara Street (South)	0.51	42	C	0.75	85	C
Nelson Street (East)	0.52	22	B	0.73	24	C
Station Street (North)	0.52	44	C	0.68	18	D
Nelson Street (West)	0.49	22	D	0.68	26	C
Intersection	0.52		C	0.75		c

Review of the above results shows that the intersection of Nelson Street/Station Street currently operates under ‘excellent’ conditions during the AM peak with an LoS of C and ‘fair’ conditions during the PM peak with an LoS of C.

Table 3.6: Existing Weekday Peak Conditions, Nelson Street/Ware Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Nelson Street (East)	0.13	21	A	0.24	35	A
Nelson Street (West)	0.17	10	A	0.15	6	A
Intersection	0.17		A	0.24		A

Review of the above results shows that the intersection of Nelson Street/Ware Street currently operates under ‘excellent’ conditions in both the AM and PM peak periods with an LoS of A.

Table 3.7: Existing Weekday Peak Conditions, Nelson Street/Smart Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Smart Street (South)	0.30	14	D	0.43	25	D
Nelson Street (East)	0.29	30	C	0.44	35	C
Smart Street (North)	0.41	39	C	0.44	33	D
Nelson Street (West)	0.42	28	D	0.26	25	C
Intersection	0.42		C	0.44		C

Review of the above results shows that the intersection of Nelson Street/Smart Street currently operates under 'excellent' conditions in both the AM and PM peak periods with an LoS of C.

Table 3.8: Existing Weekday Peak Conditions, Smart Street/Smart Lane

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Smart Street (South)	0.10	0	A	0.19	0	A
Smart Street (North)	0.38	2	A	0.22	1	A
Smart Lane (West)	0.04	0	A	0.07	1	A
Intersection	0.38		A	0.22		A

Review of the above results shows that the intersection of Smart Street/Smart Lane currently operates under 'excellent' conditions in both the AM and PM peak periods with an LoS A.

Table 3.9: Existing Weekday Peak Conditions, Nelson Street/Horsley Drive/Court Road

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Court Road (South)	0.84	58	E	0.86	92	E
The Horsley Drive (SouthEast)	0.84	134	D	0.88	157	D
The Horsley Drive (North)	0.59	14	C	0.61	106	C
Nelson Street (West)	0.85	8	E	0.77	39	D
Intersection	0.85		D	0.88	157	D

Review of the above results shows that the intersection of Nelson Street/Horsley Drive/Court Road currently operates under 'fair' conditions during both the AM and PM peak hours with an LoS of D.

Table 3.10: Existing Weekday Peak Conditions, Sackville Street/Station Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Station Street (South)	0.72	57	D	0.95	163	E
Sackville Street (East)	0.80	84	D	0.95	165	D
Station Street (North)	0.75	77	D	0.91	77	E
Sackville Street (West)	0.95	216	E	0.80	117	D
Intersection	0.95		D	0.95		D

Review of the above results shows that the intersection of Sackville Street/Station Street currently operates under congested conditions during the AM peak and PM peak, operating under 'very poor' conditions, with a LoS of D.

Table 3.11: Existing Weekday Peak Conditions, Cunninghame Street/Horsley Drive

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.48	0	A	0.63	0	A
Cunninghame Street (West)	0.42	0	A	0.41	0	A
The Horsley Drive (North)	1.0+	13	F	0.95	1	F
Intersection	1.0+		F	0.95		F

Review of the above results shows that the intersection of Cunninghame Street/The Horsley Drive currently operates under congested conditions during the AM peak and PM peak, operating under ‘very poor’ conditions, with a LoS of F. It should be noted that this is related to the low number of right turning vehicles which are opposed by the high quantum of through volumes on The Horsley Drive.

Table 3.12: Existing Weekday Peak Conditions, Polding Street/Horsley Drive

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.84	88	D	0.90	99	D
Polding Street (East)	0.82	59	D	0.87	105	D
The Horsley Drive (North)	0.83	116	E	0.88	154	E
Polding Street (West)	0.80	112	D	0.88	84	D
Intersection	0.84		D	0.90	154	D

Review of the above results shows that the intersection of The Horsley Drive/Polding Street currently operates under congested conditions during the AM peak and PM peak, operating under ‘poor’ conditions, with a LoS of D.

Results – Saturday Peak Hours Existing Conditions

The Saturday peak hour results are summarised in Table 3.13 to Table 3.18.

Table 3.13: Existing Saturday Peak Conditions, Nelson Street/ Station Street/Barbara Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Barbara Street (South)	0.78	82	C
Nelson Street (East)	0.75	45	C
Barbara Street (North)	0.74	36	D
Nelson Street (West)	0.78	44	D
Intersection	0.78		D

Review of the above results shows that the intersection of Nelson Street/ Station Street/Barbara Street currently operates under 'good' conditions during the Saturday peak hour with an LoS of D.

Table 3.14: Existing Saturday Peak Conditions, Nelson Street/Ware Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Nelson Street (East)	0.33	36	A
Nelson Street (West)	0.27	12	A
Intersection	0.33		A

Review of the above results shows that the intersection of Nelson Street/Ware Street currently operates under 'excellent' conditions during the Saturday peak hour with an LoS of A.

Table 3.15: Existing Saturday Peak Conditions, Nelson Street/Smart Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Smart Street (South)	0.42	28	D
Nelson Street (East)	0.27	31	C
Smart Street (North)	0.41	31	D
Nelson Street (West)	0.41	29	C
Intersection	0.42		C

Review of the above results shows that the intersection of Nelson Street/Horsley Drive/Court currently operates under 'excellent' conditions during the Saturday peak hour with an LoS of C.

Table 3.16: Existing Saturday Peak Conditions, Smart Street/Smart Lane

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Smart Street (South)	0.19	0	A
Smart Street (North)	0.20	1	A
Smart Lane (West)	0.07	1	A
Intersection	0.20		A

Review of the above results shows that the intersection of Nelson Street/Horsley Drive/Court Road currently operates under 'excellent' conditions with an LoS of A.

Table 3.17: Existing Saturday Peak Conditions, Nelson Street/Horsley Drive/Court Road

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Court Road (South)	0.83	103	D
Horsley Drive (Southeast)	0.80	84	D
Horsley Drive (North)	0.46	71	C
Nelson Street (West)	0.71	35	D
Intersection	0.83		D

Review of the above results shows that the intersection of Nelson Street/Horsley Drive/Court Road currently operates under 'fair' conditions during the Saturday peak hour with an LoS of D.

Table 3.18: Existing Saturday Peak Conditions, Sackville Street/Station Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Station Street (South)	0.95	163	E
Sackville Street (East)	0.95	165	D
Station Street (North)	0.91	78	E
Sackville Street (West)	0.80	117	D
Intersection	0.95		D

Review of the above results shows that the intersection of Sackville Street/Station Street currently operates under 'very poor' conditions during the Saturday peak hour with an LoS of D.

Table 3.19: Existing Weekday Peak Conditions, Cunninghame Street/Horsley Drive

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.35	0	A
Cunninghame Street (West)	0.37	0	A
The Horsley Drive (North)	1.0+	6	F
Intersection	1.0+		F

Review of the above results shows that the intersection of Cunninghame Street/The Horsley Drive currently operates under congested conditions during the Saturday peak hour, operating under 'very poor' conditions, with a LoS of F. It should be noted that this is related to the low number of right turning vehicles which are opposed by the high quantum of through volumes on The Horsley Drive.

Table 3.20: Existing Weekday Peak Conditions, Polding Street/Horsley Drive

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.75	84	D
Polding Street (East)	0.75	61	D
The Horsley Drive (North)	0.75	105	D
Polding Street (West)	0.70	69	D
Intersection	0.75		D

Review of the above results shows that the intersection of The Horsley Drive/Polding Street currently operates under congested conditions during the Saturday peak hour, operating under 'fair conditions, with a LoS of D.

3.8 Pedestrian Connectivity

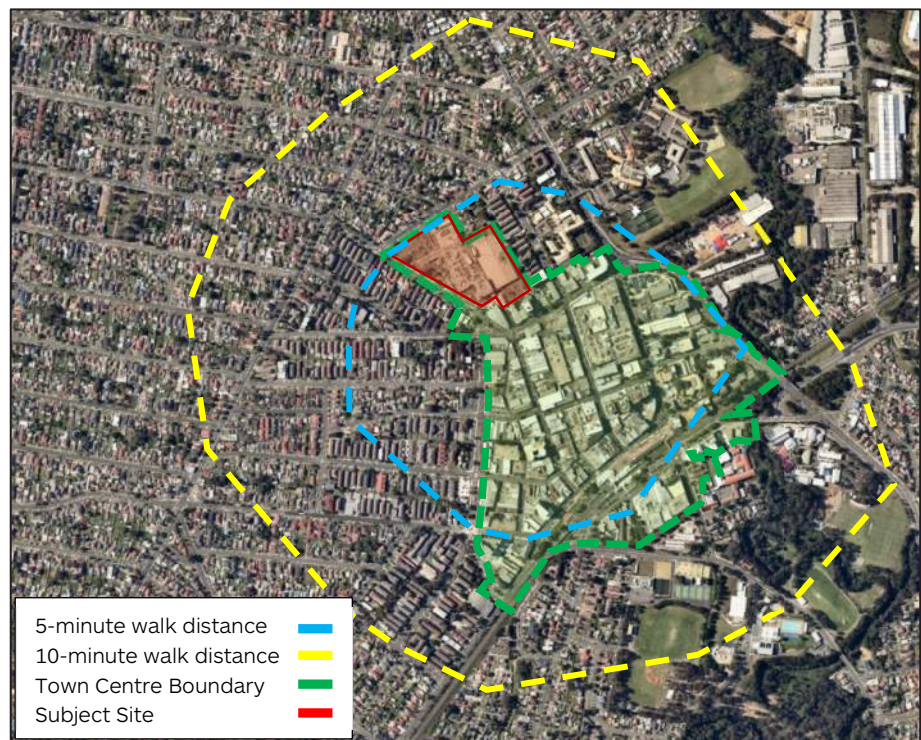
The Fairfield Town Centre benefits from a well-connected local pedestrian network that facilitates convenient pedestrian access to many local facilities contained within the precinct.

The NSW “*Planning Guidelines for Walking and Cycling*” (NSW DIPNR 2004) identifies the benchmarks for accessibility, suggesting sixty percent of the area within a walking catchment should be able to be reached by a five to ten minute walk along the street.

Based on typical pedestrian travel speeds of 1.4m/s, a five minute walk time is calculated as equating to a walk distance of 420 metres, with a ten minute walking time equating to 840 metres.

Based on this, Figure 3-16 has been prepared showing the areas of Fairfield accessible within a five and ten minute walk from the centre of Fairfield.

Figure 3-16: Walking distance from the centre of Fairfield



Review of the above figure subsequently indicates that the majority of the Town Centre, including the subject site, is situated within a five-minute walk from the middle of the precinct.

Furthermore, the entire town centre, as well as many surrounding residential streets, are captured within the 10-minute walking catchment.

It is therefore considered that Fairfield town centre is well suited to encourage people to use walking as a primary mode of travel, when accessing the various local facilities.

3.9 Bicycle Connectivity

In addition to the excellent pedestrian connectivity, the Fairfield Town Centre and surrounding precinct also benefits from the provision of a comprehensive network of cycleways throughout the precinct.

Over 100 kilometres of cycleway are provided, traversing east/west and north/south linking Fairfield to adjacent areas. The cycleways are primarily off-road and provide access to the major rail and bus public transport systems.

Within proximity of the Fairfield Town Centre, there are three main regional cycling routes providing east/west connectivity across the precinct:

- Prospect Creek share path connects to the Holroyd City network and Fairfield Town Centre.
- Bay to Mountains shared path connects to Mirambeena Regional Park and to Prospect Reservoir, Blacktown.
- Fairfield Council has recently completed stages 1 to 3 of the Cabramatta Creek shared path which connects the Bay to Mountains network to Cowpasture Road.

In conjunction with these routes, there are also two regional routes that provide north/south connectivity across the precinct:

- Rail Trail cycleway connects Parramatta to Liverpool and links to Prospect Creek and the Bay to Mountains shared path network. This path will connect to the Cabramatta Creek shared path when the next stages are completed.
- T-Way cycleway connects Parramatta to Liverpool and links to the Bay to Mountains and the St Johns Park shared path network.

The cycling network in the vicinity of the site is shown in Figure 3-17.

Figure 3-17: Cycling Network



With regards to the wider bicycle network and based on an average cyclist travel speed of 4.2m/s, Figure 3-18 has been prepared showing the five-minute and ten-minute cycling catchment areas from the middle of the Fairfield Town Centre.

Figure 3-18: Cycling distance from the centre of Fairfield



Review of the above figure subsequently indicates that the entirety of the Town Centre, including the subject site, is situated within a five-minute ride from the middle of the precinct.

Furthermore, a large portion of surrounding residential streets are situated within a ten-minute ride from the Town Centre.

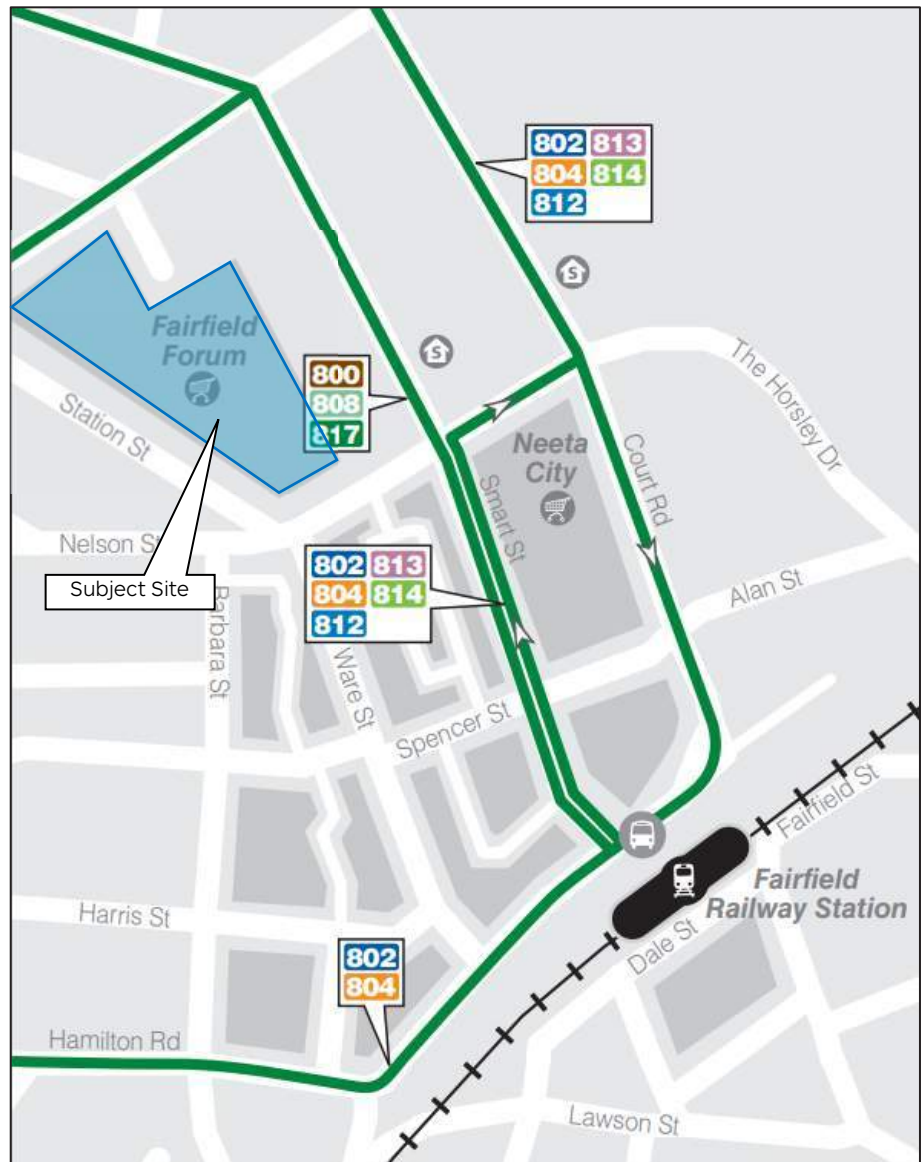
It is therefore considered that Fairfield town centre is well suited to encourage people to use cycling as an alternate mode of travel, when accessing the various local facilities.

3.10 Public Transport Opportunities

In addition to the pedestrian and cyclist connectivity provided within the precinct, the Fairfield Town Centre is also well serviced by both bus and train services providing multiple, conveniently accessible, public transport options.

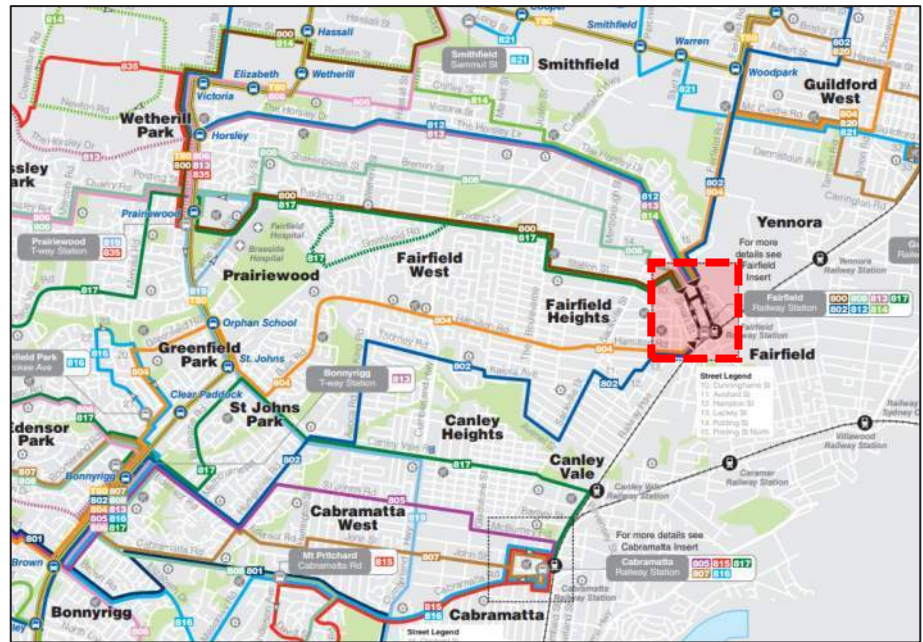
Figure 3-19 shows the public transport facilities provided at a local context within the Fairfield Town Centre with Figure 3-20 showing the wider public transport network and its connectivity throughout the surrounding areas.

Figure 3-19: Local Public Transport



Source: transportnsw.info

Figure 3-20: Public Transport Network



Source: transportnsw.info

As identified within the preceding figures, multiple bus routes operate directly within the Fairfield Town Centre, providing connectivity throughout the surrounding precinct. All buses operating within the Fairfield Town Centre stop at the Fairfield Railway Station to provide connectivity between bus and train services.

Most suburbs within the surrounding Fairfield LGA are serviced by bus routes providing connection to/from the Fairfield Town Centre by either dedicated north – south or east-west connections through the LGA. Bus services within the Fairfield LGA typically operate at regular frequencies of between 15 – 30 minutes.

Train connectivity within the precinct is facilitated via the Fairfield Railway station located towards the southern end of the Town Centre. The station is located 300 metres from the town centre and is accessible within a four-minute walk or a two-minute cycle ride.

Fairfield Railway Station is located on the Inner West & Leppington and Cumberland Lines with trains arriving/departing the station on both lines at regular intervals.

The station provides access to key interchange stations including Richmond, Liverpool, Blacktown, and Central Station, along with other local stations.

Table 3.21 provides a summary of the services available within the Fairfield Town Centre along with their service frequency.

Table 3.21: Public Transport Services

Service	Route No / Station	Route	Frequency
Bus	800	Blacktown – Fairfield	15 mins
	817	Cabramatta - Fairfield	30 mins
	802	Liverpool – Parramatta	30 mins
	804		15 mins
	812	Blacktown – Fairfield	30 mins
	813	Bonnyrigg – Fairfield	30 mins
	814	Fairfield - Smithfield	30 mins
	904	Fairfield - Liverpool	Hourly
	905	Bankstown – Fairfield	15 mins
	906	Fairfield - Parramatta	30 mins
	S4	Fairfield – Chester Hill	Two a day
Train	Fairfield Railway Station	Inner West & Leppington and Cumberland Lines	6 - 30 minutes

It is therefore considered that the Fairfield Town Centre is well serviced by various public transport options which will provide a viable and practical alternative means of travel to private vehicle both within the town centre and within the wider surrounding precinct.

4.1 Development Schedule

It is proposed to redevelop the site into a mixed use precinct consisting of approximately 1,489 residential apartments and 17,593sqm. of retail space.

The development is proposed to comprise four buildings on the subject site. More specifically, the Master Plan prepared for the development indicates the following uses in Table 4.1. It is noted that whilst the final development schedule will be refined through the DA process, it is expected to generally reflect the uses set out in Table 4.1.

Table 4.1: Development Schedule

Use		Existing	Proposed	Difference
Retail		17,748 sqm	17,593 sqm	+155 sqm
Dwellings	1 & 2 bedrooms	-	1,310 no.	+1,310 no.
	3 or more bedrooms	-	179 no.	+179 no.
	Total	-	1,489 no.	+1,489 no.

This assessment is based on the following development plan, as shown in Figure 4-1, prepared by Rothelowman Architects.

Figure 4-1: Proposed Site Layout



4.2 Vehicle and Pedestrian Access

As discussed previously, under existing conditions, vehicle access to/from the site is currently facilitated via the provision of multiple access points (total 9) situated around the site.

As part of the proposed development, the existing access arrangements are to be consolidated and reduced with vehicle access proposed to be provided as follows:

- 1 car park accessed from Ware Street;
- 1 car park accessed from Smart Lane;
- 1 combined car park and loading dock accessed from Ware Street;
- 1 combined car park and loading dock accessed from Station Street; and
- 1 car park accessed from Station Street.

In addition to these proposed access locations, a new local connection is proposed to be provided between Station Street and the current southern extent of Ware Street, providing road network linkage through the site.

These proposed access locations in conjunction with the proposed internal road link will allow for connectivity between the subject site and the surrounding road network.

The proposed access points have been located such that they are situated away from critical intersection areas such as the Ware Street extension to Station Street and the existing intersection with Cunninghame Street. By locating site access away from these areas increases legibility and reduces conflict.

Additionally, the proposed access points have been located such that the “core” of the Ware Street extension is free from excessive traffic volumes. The location of the access points is therefore intended to promote the amenity of Ware Street, reduce the intensity of traffic and improve pedestrian activity through the area.

Similarly, the location of car parking and loading facilities have been considered within the concept development plans. Specifically, loading areas have been located away from high traffic pedestrian areas and have been arranged such that they are serviced by a single location to reduce points of conflict. Proposed resident and customer car parking areas have been separated and are provided in independent basement car parking areas to accommodate residential amenity and security.

The provision of multiple access points to the site seeks to distribute the traffic load across the wider road network and to provide a number of access points that provide direct access to the road network to reduce internal congestion associated with circulation.

Figure 4-2 following shows the proposed site access locations along with the new local road connection.

The proposal also incorporates the pedestrian connectivity of the existing Ware Street pedestrian mall that connects the existing Fairfield Forum centre to the wider town centre via a high amenity crossing of Nelson Street as illustrated in Figure 4-3. Given this existing high amenity crossing and alignment with pedestrian desire lines, additional crossings are not proposed.

Figure 4-2: Site Access Locations

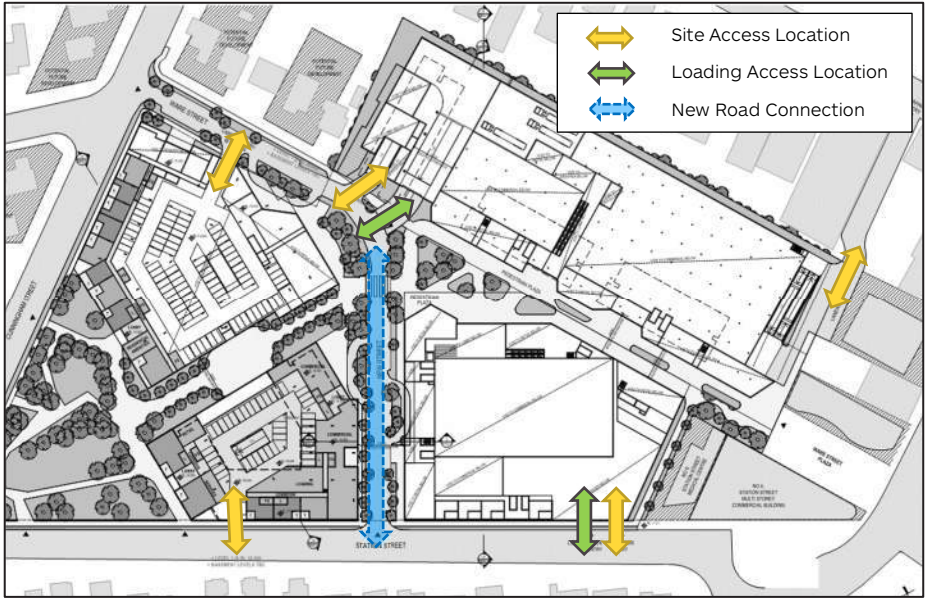
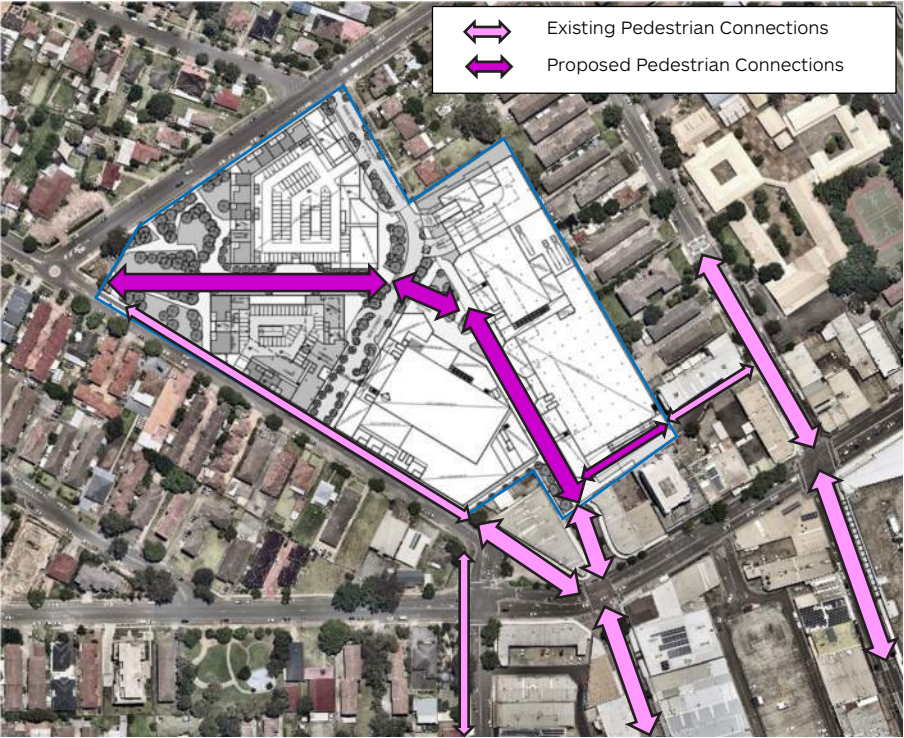


Figure 4-3: Pedestrian Connectivity to the Town Centre



5.1 Traffic Generation

Retail Traffic

Development plans for the proposal indicates that upon completion, the retail component of the site will total 17,593 sqm of floor space. The floor area of the existing retail centre on the subject site is 17,748sqm and as such is similar in size and nature.

It is noted that the retail component of the site is to remain largely unchanged from existing conditions. As such, the traffic generation of the retail component is already captured within the existing traffic volume counts and the calculation of additional retail traffic generation is not required at external intersections. Specifically, this applies to the 5 external intersections identified within this report.

Therefore, traffic for the retail component will continue to be accommodated within the surrounding road network as per existing operations.

Residential Traffic

In light of the above, the residential component of the proposal is identified as generating the additional traffic from the site.

In assessing the potential traffic generation of the residential component of the proposal, guidance has been taken from the *RMS Guide to Traffic Generating Developments – Updated Traffic Surveys (August 2013)*. This document sets out AM peak hour, PM peak hour and daily traffic generation rates for residential dwellings.

These rates were compiled from surveys of a number of metropolitan sites and regional sites. As noted in the Traffic Modelling Assumptions Report, the regional sites are not considered to be comparable with the characteristics of the subject site and so have been omitted. Additionally, a number of the metropolitan sites were not considered comparable given their close proximity to the Sydney CBD.

Council officers have consequently specified the use of the following traffic generation rates:

- 0.30 movements/dwelling in the AM peak hour;
- 0.30 movements/dwelling in the PM peak hour;
- 0.30 movements/dwelling in the Saturday peak hour; and
- 2.0 vehicle trips per day per unit.

The Council specified traffic generation rates are significantly higher than the RMS data, indeed, there is only one RMS rate higher across all the metropolitan sites in each of the AM and PM peak hours.

Given the context of the subject site in a town centre and the proximity of the Fairfield railway station, and bus services, the traffic generation rate is anticipated to be better represented by the RMS data for Paramatta, which is less than the rates specified by Council.

For comparison, the Council specified rates and the RMS Paramatta generation rates have been applied to the proposal as shown in Table 5.1

Table 5.1: Residential Traffic Generation

Rates	Schedule	Weekday AM Peak	Weekday PM Peak	Weekend Peak	Daily Traffic
Council Specified	1,489 units	447 vph	447 vph	447 vph	2,978 vpd
RMS Paramatta		402 vph	179 vph	328 vph	2,487 vpd

In light of the above, it is considered that the specified Council traffic generation rates reflect the upper range of traffic generation and are therefore a conservative assessment representing a potential over estimation of traffic volumes.

Nevertheless, to provide a robust assessment, the higher Council specified traffic generation rates have been adopted for the purposes of this assessment.

5.2 Traffic Distribution

Retail Traffic Distribution

As stated earlier, it is considered that traffic as generated by the retail component of the development will largely be in line with existing conditions and therefore will continue to be accommodated within the surrounding road network as per existing operations.

Residential Traffic Distribution

The majority of the traffic generated by the residential aspect of the development during the AM peak period will be residents departing the site whilst the majority of the traffic during the PM peak period will be residents returning to the site.

It is assumed that residential movements will be distributed as per Table 5.2 during the assessed peak hours.

Table 5.2: Anticipated Traffic Distribution - Residential

Time	Inbound	Outbound
AM Peak	20%	80%
PM Peak	60%	40%
Saturday Peak	50%	50%

Applying the above distributions to the proposed traffic generation results in the peak hour traffic movements shown in Table 5.3.

Table 5.3: Anticipated Traffic Generation - Residential

Use	Time	Inbound	Outbound	Total
Residential	AM Peak (vph)	89 vph	358 vph	447 vph
	PM Peak (vph)	269 vph	178 vph	447 vph
	Saturday Peak	223 vph	224 vph	447 vph
	Daily (vpd)	1,489 vpd	1,489 vpd	2,978 vpd

A review of the Transport for New South Wales 'Household Travel Survey' trip purpose data has been undertaken for the 'Fairfield' area which is considered to be reflective of the location of the subject site.

Table 5.4 shows the trip purpose percentage data and the resulting proposed traffic generation.

Table 5.4: Trip Purpose Data - Residential

Trip Purpose	Driver / Passenger			
	Peak Hour %	AM Peak	PM Peak	Daily
Work Related	24%	107	107	715
Education	12%	54	54	357
Shopping	20%	89	89	596
Social / Recreation	20%	89	89	596
Personal	8%	36	36	238
Other	16%	72	72	476
Total	100%	447	447	2,978vpd

Source: transportnsw.gov.au

As shown in Table 5.4, peak hour trips are made for a variety of reasons, including work, education, shopping etc.

It is noted that within the identified trip purposes are a number of purposes that can be fulfilled within the Fairfield town centre e.g. shopping, work related, social etc. Given the walkability of the town centre it is considered that these vehicle trips would not be generated and would instead be replaced with walking trips.

This mode shift would therefore result in lower traffic generation rates. Nevertheless, to provide a robust assessment, the Council specified traffic generation rates have been adopted.

A review of places of employment, retail and educational facilities in the surrounding area and suburbs has been undertaken, resulting in the assumed percentage distribution outlined in Figure 5-1.

Figure 5-1: Adopted Traffic Distribution



Based on Figure 5-1, the anticipated peak hour traffic movements on the local road network of the additional residential traffic generation are shown in Figure 5-6 to Figure 5-8.

It is noted that at the external intersections only the additional residential traffic has been added as the retail traffic is already captured within the existing volumes. At the Ware Street intersections with Station Street and Cunninghame Street the volumes include both residential and retail traffic volumes as, at a site level, the new access strategy results in a redistribution of retail traffic to access points.

Figure 5-2: Site-Generated AM Peak Hour Volumes

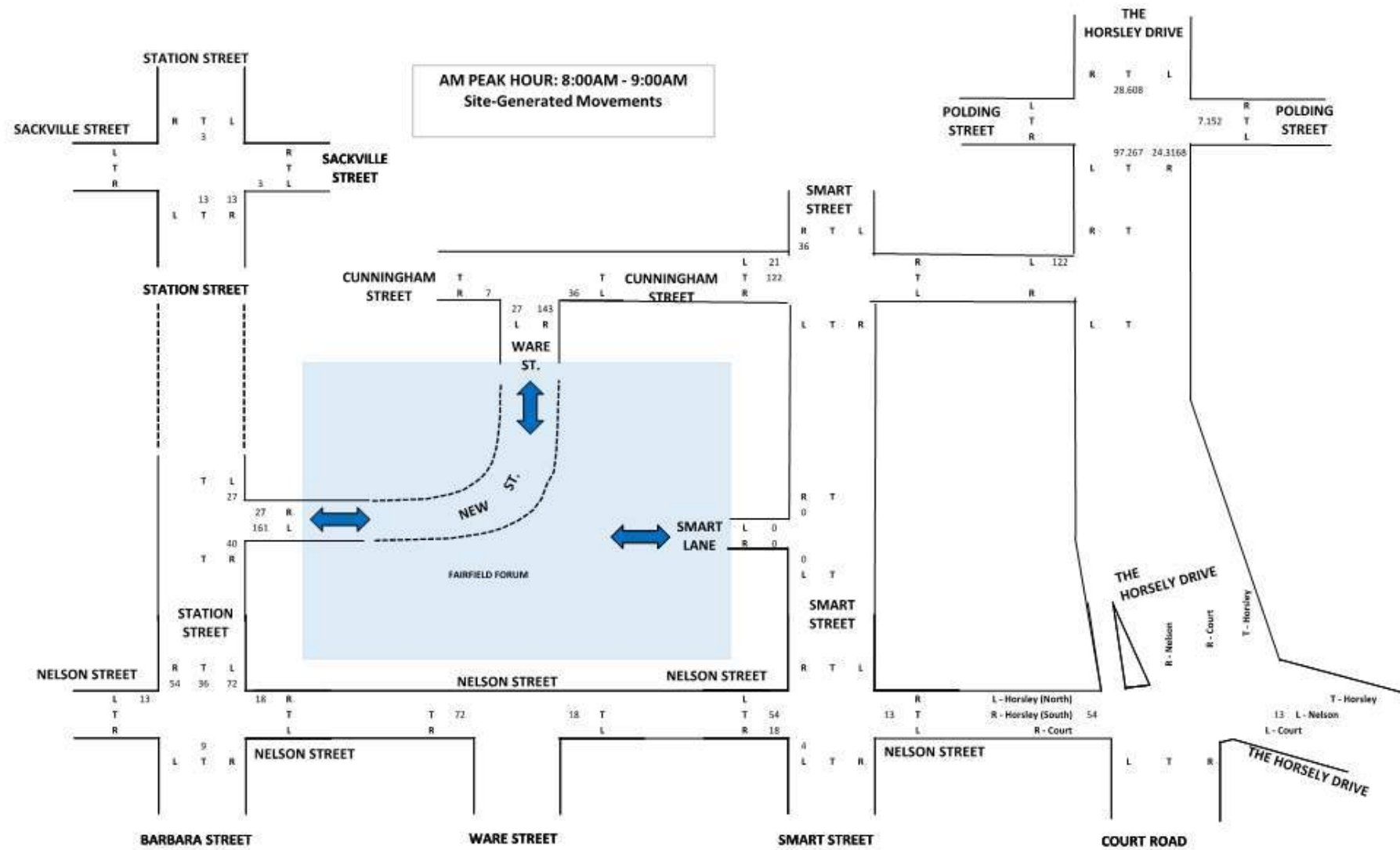


Figure 5-3: Site-Generated PM Peak Hour Volumes

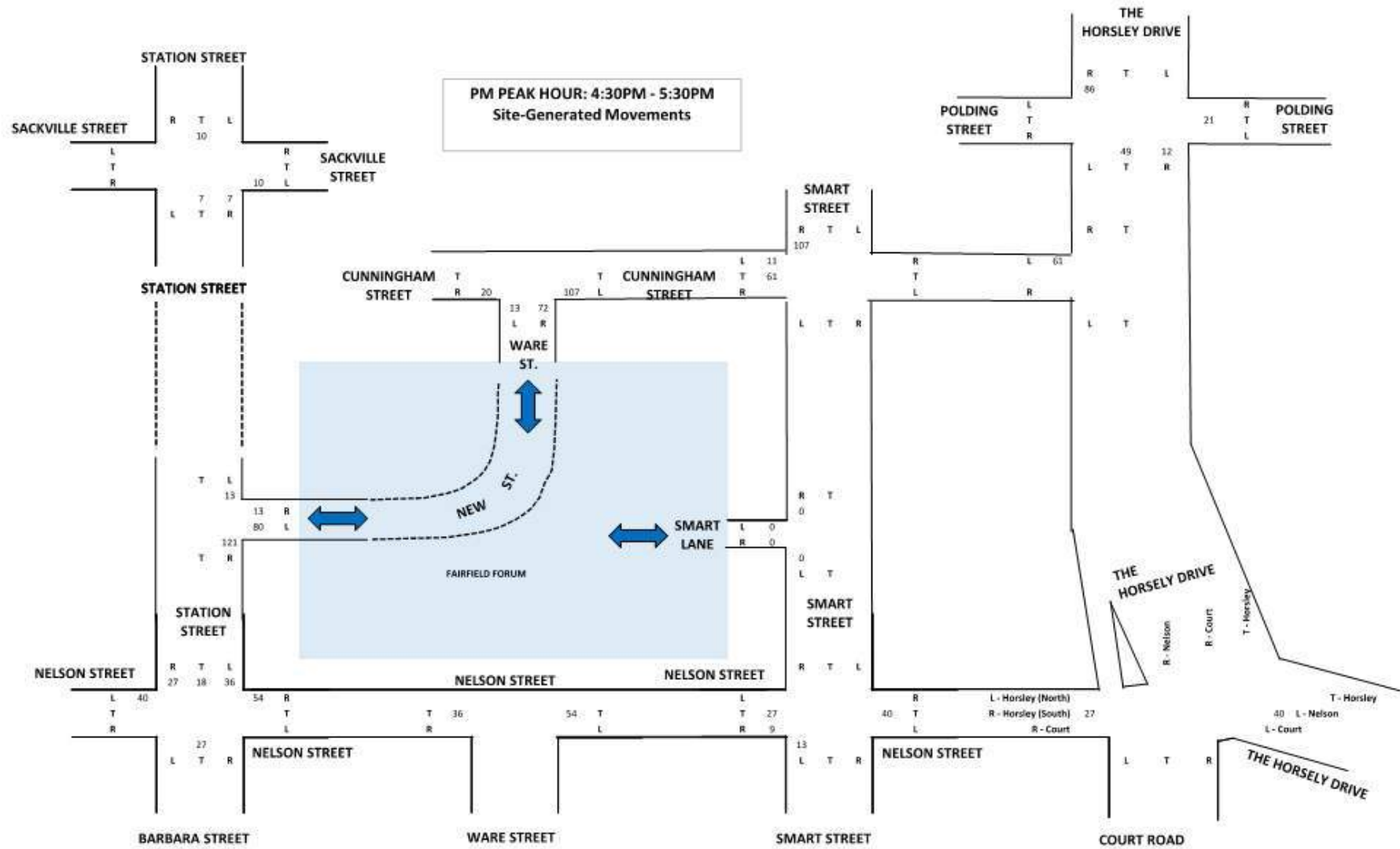
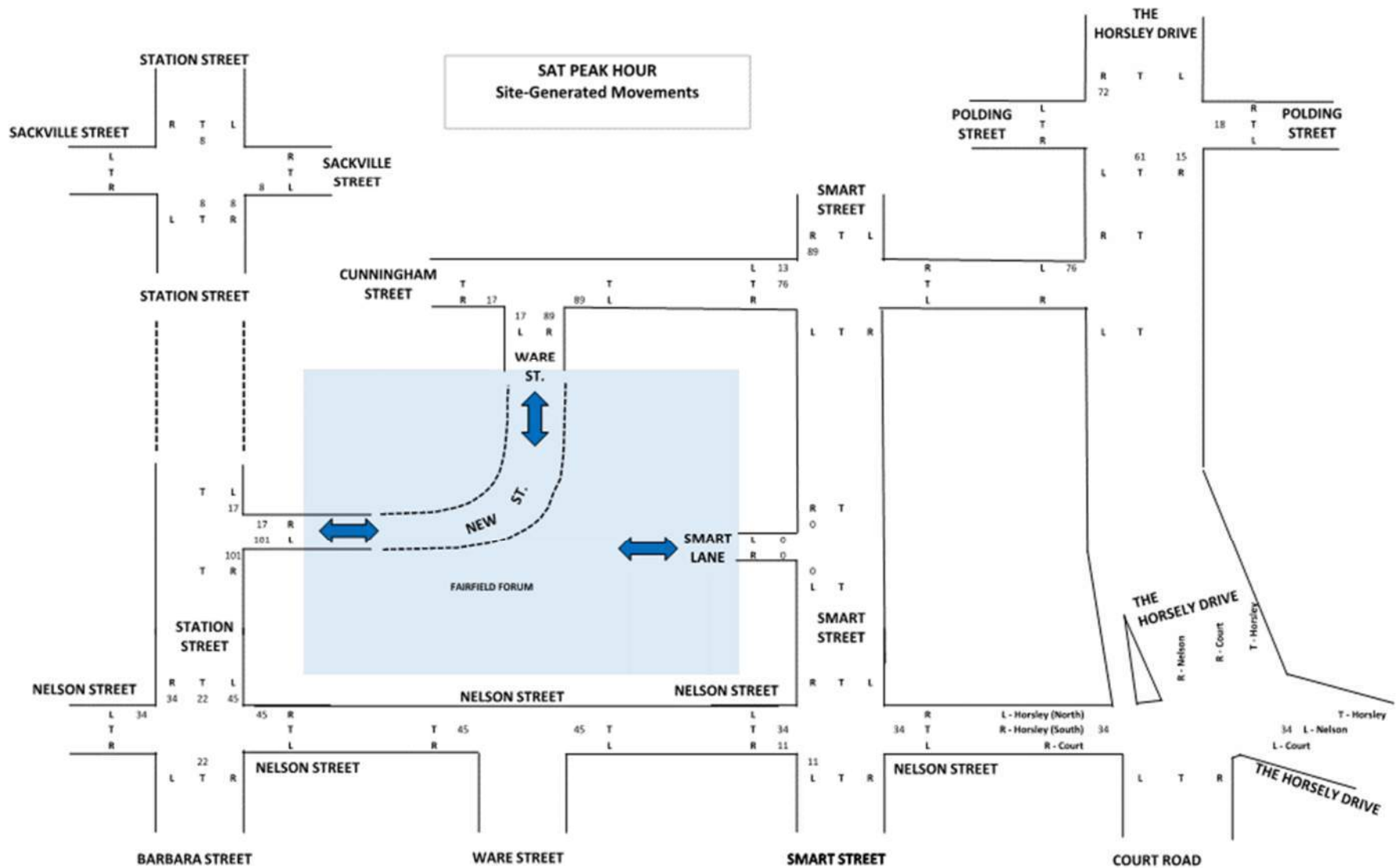


Figure 5-4: Site-Generated Saturday Peak Hour Volumes



5.3 Growth (Base Case)

In order to estimate the future traffic volumes on the road network, a growth rate has been applied to the existing road network volumes displayed previously in Section 3.6.

As set out in Section 3.6 the existing traffic volumes have either remained static, or reduced over time since 2015. This data suggests that the background traffic volumes over the past 5 years on the Town Centre road network are not experiencing noteworthy growth.

An additional assessment of the arterial road network growth on The Horsely Drive has been undertaken based on the additional traffic volume data collected. Peak hour traffic volumes of The Horsely Drive have been assessed where the northbound and southbound volumes have been compared between the intersections with Nelson Street and Polding Street to identify growth patterns on the arterial road network. i.e. northbound traffic departing the Nelson Street intersection compared to northbound traffic approaching the Polding Street intersection. This is summarised in Table 5.5.

Table 5.5: The Horsely Drive Peak Hour Volume Growth Rates

Time	Nelson Street Intersection (2019)	Polding Street Intersection (2021)	Growth Rate
Northbound			
8am-9am	1,205vph	1,239vph	0.1% pa
5pm-6pm	1,414vph	1,410vph	0.0% pa
Southbound			
8am-9am	1,432vph	1,410vph	-0.1% pa
5pm-6pm	1,279vph	1,370vph	+3.0% pa

A review of the data in Table 5.5 indicates that the traffic volumes on the arterial road network have remained largely static, with 3 of the 4 assessment flows being unchanged between 2019 and 2021.

On the basis of the preceding, and the data presented in Section 3.6 the higher traffic volumes, as set out within the historical TMC data, for Town Centre traffic volumes will be adopted for the purposes of assessing the existing intersection operations without application of a traffic growth rate. This is considered representative for traffic with origins or destinations *within* the Fairfield Town Centre.

It is acknowledged that through traffic, that is, traffic with origins and destinations *external* to the Fairfield Town Centre, may seek to use the identified road network i.e. pass through the town centre as part of a journey originating and finishing outside the town centre. This is also applicable to through traffic on the arterial road network i.e. The Horsley Drive.

With consideration to this, and the limited growth in volumes observed on The Hosley Drive, a linear growth rate of 1% per annum will be applied to external precinct traffic across all major roads including:

- Through movements on Nelson Street;
- Through movements on Sackville Street; and
- Through movements on The Horsley Drive.

A growth rate of 1% has been applied for a period of 10 years, and has been calculated on the basis of historical traffic volume trends. The application of this growth rate is considered representative of the ongoing change in land use patterns of the surrounding area as they relate to traffic volumes.

Application of the growth rate to the existing through volumes, displayed previously in Figure 3-11 to Figure 3-13, result in the 2029 network 'base case' volumes displayed in Figure 5-5 to Figure 5-7.

Figure 5-5: AM Peak Hour Base Case Volumes

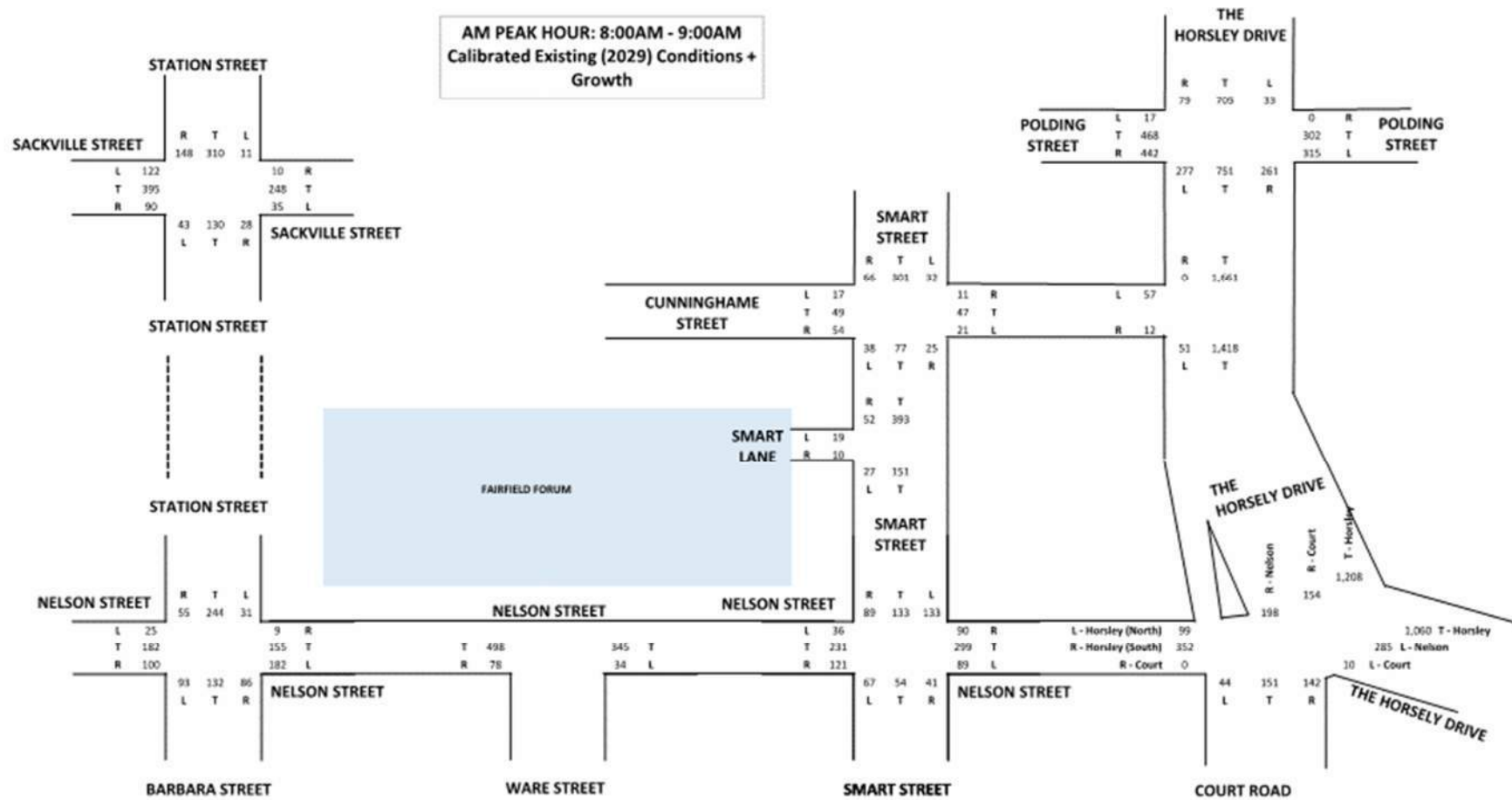


Figure 5-6: PM Peak Hour Base Case Volumes

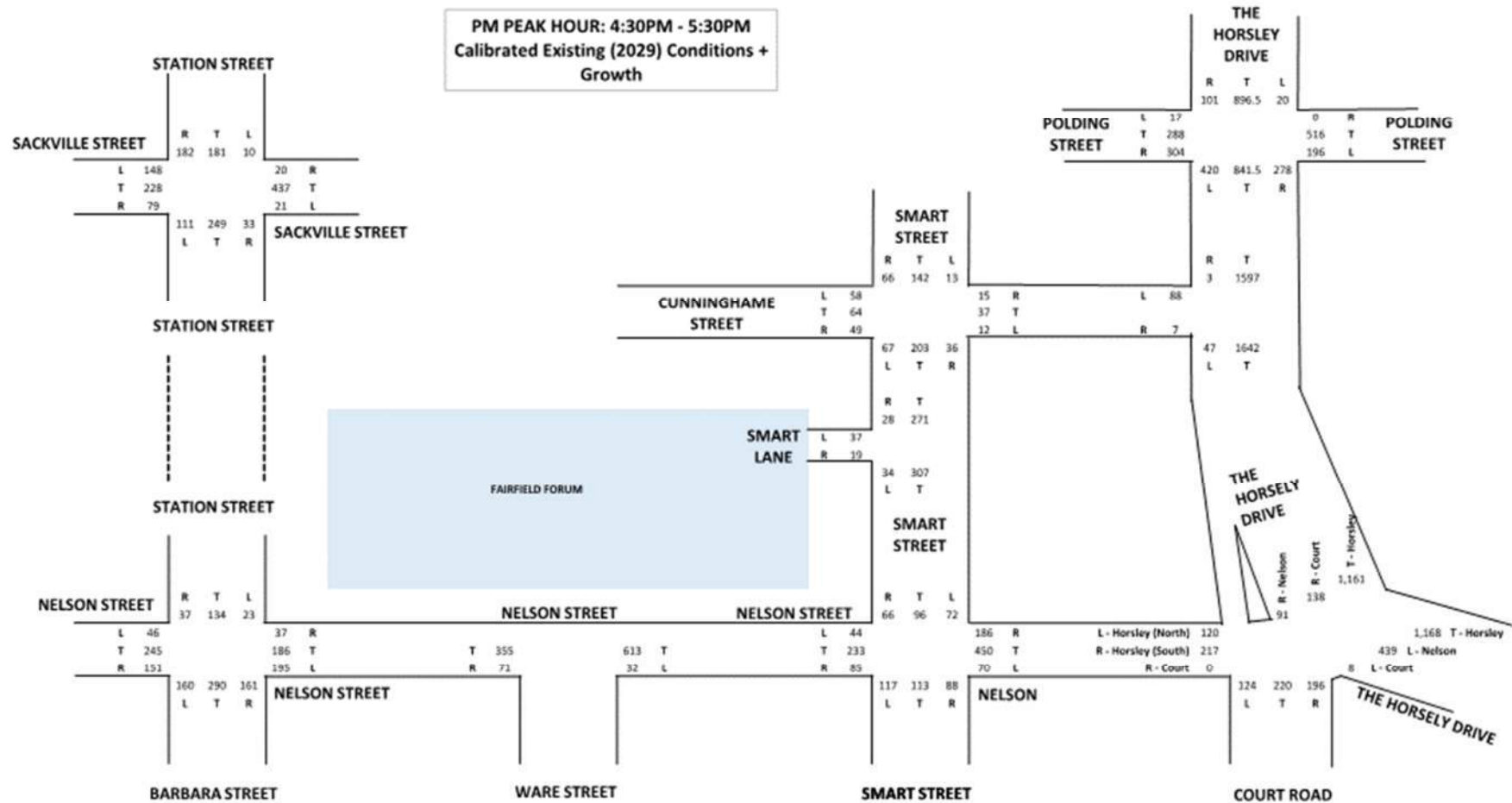
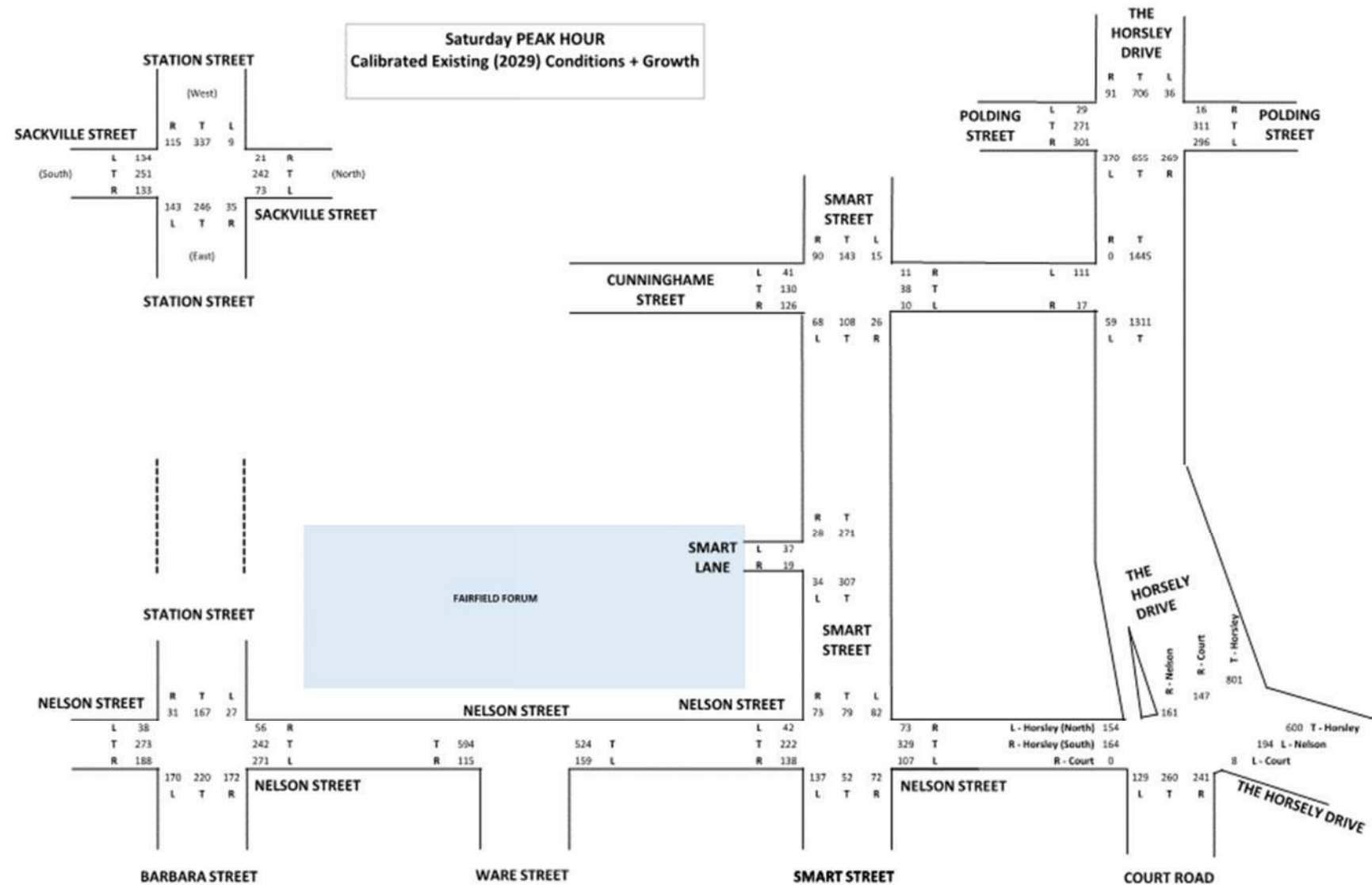


Figure 5-7: Saturday Peak Hour Base Case Volumes



Results – Weekday Peak Hours Base Case Conditions

The base case intersection turning movement volumes have been input into the existing SIDRA road network layout displayed previously in Figure 3-14.

The SIDRA results for the base case weekday AM and PM peak hours are summarised in Table 5.6 to Table 5.11 with detailed SIDRA analysis in Appendix D.

Table 5.6: Base Case Weekday Peak Conditions, Nelson Street/Station Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	LOS	D.O.S.	95%ile Queue (m)	LOS
Barbara Street (South)	0.56	46	C	0.75	115	C
Nelson Street (East)	0.58	24	B	0.75	51	D
Station Street (North)	0.56	48	C	0.72	43	E
Nelson Street (West)	0.54	23	D	0.73	50	E
Intersection	0.58		c	0.75		D

Review of the above results shows that the intersection of Nelson Street/Station Street is anticipated to operate under 'excellent' conditions during the AM peak with an LoS of C and 'fair' conditions during the PM peak with an LoS of D.

Table 5.7: Base Case Weekday Peak Conditions, Nelson Street/Ware Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	LOS	D.O.S.	95%ile Queue (m)	LOS
Nelson Street (East)	0.14	23	A	0.38	45	A
Nelson Street (West)	0.19	11	A	0.16	7	A
Intersection	0.19		A	0.38		A

Review of the above results shows that the intersection of Nelson Street/Ware Street is anticipated to operate under 'excellent' conditions in both the AM and PM peak periods.

Table 5.8: Base Case Weekday Peak Conditions, Nelson Street/Smart Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	LOS	D.O.S.	95%ile Queue (m)	LOS
Smart Street (South)	0.30	14	D	0.44	34	E
Nelson Street (East)	0.30	32	C	0.45	52	C
Smart Street (North)	0.43	39	C	0.44	44	D
Nelson Street (West)	0.42	27	D	0.28	38	D
Intersection	0.43		C	0.45		D

Review of the above results shows that the intersection of Nelson Street/Smart Street is anticipated to operate under 'excellent' conditions in both the AM and PM peak periods with an LoS of C & D.

Table 5.9: Base Case Weekday Peak Conditions, Smart Street/Smart Lane

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	LOS	D.O.S.	95%ile Queue (m)	LOS
Smart Street (South)	0.1	0	A	0.19	0	A
Smart Street (North)	0.39	2	A	0.32	1	A
Smart Lane (West)	0.04	0	A	0.08	1	A
Intersection	0.39		A	0.32		A

Review of the above results shows that the intersection of Smart Street/Smart Lane is anticipated to operate under 'excellent' conditions in both the AM and PM peak periods with an LoS A.

Table 5.10: Base Case Weekday Peak Conditions, Nelson Street/Horsley Drive/Court Road

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	LOS	D.O.S.	95%ile Queue (m)	LOS
Court Road (South)	0.89	62	E	0.89	96	E
The Horsley Drive (South East)	0.88	156	D	0.92	190	D
The Horsley Drive (North)	0.66	123	C	0.66	120	C
Nelson Street (West)	0.83	64	E	0.85	45	E
Intersection	0.89		D	0.92		D

Review of the above results shows that the intersection of Nelson Street/Horsley Drive/Court Road is anticipated to operate 'fair' conditions during the AM peak hour and 'poor' conditions in the PM peak hour with both operating with an LoS D.

Table 5.11: Base Case Weekday Peak Conditions, Sackville Street/Station Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	LOS	D.O.S.	95%ile Queue (m)	LOS
Station Street (South)	0.72	57	D	0.95	163	E
Sackville Street (East)	0.87	98	D	1.0+	249	F
Station Street (North)	0.75	77	D	0.91	78	E
Sackville Street (West)	1.0+	258	F	0.86	135	D
Intersection	1.0+		E	1.0+		E

Review of the above results shows that the intersection of Sackville Street/Station Street is anticipated to operate under congested conditions during the peak hours, operating beyond capacity and under 'very poor' conditions with an LOS of E.

Under the base case conditions, i.e. with 10 years traffic volume growth of existing volumes, the intersection of Sackville Street/Station Street exceeds capacity and becomes oversaturated.

Table 5.12: Existing Weekday Peak Conditions, Cunninghame Street/Horsley Drive

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.59	0	A	0.78	0	A
Cunninghame Street (West)	0.46	0	A	0.45	0	A
The Horsley Drive (North)	1.0+	26	F	1.0+	11	F
Intersection	1.0+		F			F

Review of the above results shows that the intersection of Cunninghame Street/The Horsley Drive currently operates under congested conditions during the AM peak and PM peak, operating under ‘very poor’ conditions, with a LoS of F. It should be noted that this is related to the low number of right turning vehicles which are opposed by the high quantum of through volumes on The Horsley Drive.

Table 5.13: Existing Weekday Peak Conditions, Polding Street/Horsley Drive

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.84	98	D	0.90	113	D
Polding Street (East)	0.82	59	D	0.90	108	E
The Horsley Drive (North)	0.86	130	E	0.92	181	E
Polding Street (West)	0.84	119	D	0.93	93	D
Intersection	0.86		D	0.93		D

Review of the above results shows that the intersection of The Horsley Drive/Polding Street currently operates under congested conditions during the AM peak and PM peak, operating under ‘poor’ conditions, with a LoS of D.

Results – Saturday Peak Hours Base Case Conditions

The base case Saturday peak hour results are summarised in Table 5.14 to Table 5.19.

Table 5.14: Base Case Saturday Peak Conditions, Nelson Street/ Station Street/Barbara Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	LOS
Barbara Street (South)	0.81	114	D
Nelson Street (East)	0.82	51	D
Barbara Street (North)	0.79	55	E
Nelson Street (West)	0.81	60	E
Intersection	0.82		D

Review of the above results shows that the intersection of Nelson Street/ Station Street/Barbara Street is anticipated to operate under 'good' conditions during the Saturday peak hour with an LoS of D.

Table 5.15: Base Case Saturday Peak Conditions, Nelson Street/Ware Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	LOS
Nelson Street (East)	0.43	64	A
Nelson Street (West)	0.30	13	A
Intersection	0.43		A

Review of the above results shows that the intersection of Nelson Street/Ware Street is anticipated to operate under 'excellent' conditions during the Saturday peak hour with an LoS of A.

Table 5.16: Base Case Saturday Peak Conditions, Nelson Street/Smart Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	LOS
Smart Street (South)	0.42	39	E
Nelson Street (East)	0.28	44	C
Smart Street (North)	0.41	41	D
Nelson Street (West)	0.42	37	C
Intersection	0.42		D

Review of the above results shows that the intersection of Nelson Street/Smart Street is anticipated to operate under 'excellent' conditions during the Saturday peak hour with an LoS of D.

Table 5.17: Base Case Saturday Peak Conditions, Smart Street/Smart Lane

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	LOS
Smart Street (South)	0.19	0	A
Smart Street (North)	0.29	1	A
Smart Lane (West)	0.08	1	A
Intersection	0.29		A

Review of the above results shows that the intersection of Smart Street/Smart Lane is anticipated to operate under 'excellent' conditions during the Saturday peak hour with an LoS of A.

Table 5.18: Base Case Saturday Peak Conditions, Nelson Street/Horsley Drive/Court Road

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	LOS
Court Road (South)	0.81	100	D
Horsley Drive (Southeast)	0.80	84	D
Horsley Drive (North)	0.47	72	C
Nelson Street (West)	0.71	35	D
Intersection	0.81		D

Review of the above results shows that the intersection of Nelson Street/Horsley Drive/Court Road is anticipated to operate under ‘fair’ conditions during the Saturday peak hour with an LoS of D.

Table 5.19: Base Case Saturday Peak Conditions, Sackville Street/Station Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	LOS
Station Street (South)	0.93	165	D
Sackville Street (East)	0.89	100	D
Station Street (North)	0.96	108	E
Sackville Street (West)	0.95	173	E
Intersection	0.96		E

Review of the above results shows that the intersection of Sackville Street/Station Street is operating under congested conditions during the Saturday peak hour, anticipated to operate under ‘very poor’ conditions with an LOS E under the base case.

Table 5.20: Base Case Weekday Peak Conditions, Cunninghame Street/Horsley Drive

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.43	0	A
Cunninghame Street (West)	0.40	0	A
The Horsley Drive (North)	1.0+	33	F
Intersection	1.0+		F

Review of the above results shows that the intersection of Cunninghame Street/The Horsley Drive currently operates under congested conditions during the Saturday peak hour, operating under 'very poor' conditions, with a LoS of F. It should be noted that this is related to the low number of right turning vehicles which are opposed by the high quantum of through volumes on The Horsley Drive.

Table 5.21: Base Case Weekday Peak Conditions, Polding Street/Horsley Drive

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.75	80	D
Polding Street (East)	0.75	61	D
The Horsley Drive (North)	0.74	102	D
Polding Street (West)	0.70	69	D
Intersection	0.75		D

Review of the above results shows that the intersection of The Horsley Drive/Polding Street currently operates under congested conditions during the Saturday peak hour, operating under 'fair conditions, with a LoS of D.

5.4 Future Volumes

The 2029 post-development road network volumes are calculated from the site-generated volumes (displayed previously in Figure 5-2 to Figure 5-4) plus the Base Case volumes (displayed previously in Figure 5-5 to Figure 5-7).

The resulting 2029 post-development road network volumes are displayed in Figure 5-8 and Figure 5-10.

Figure 5-8: Future AM Peak Hour Volumes

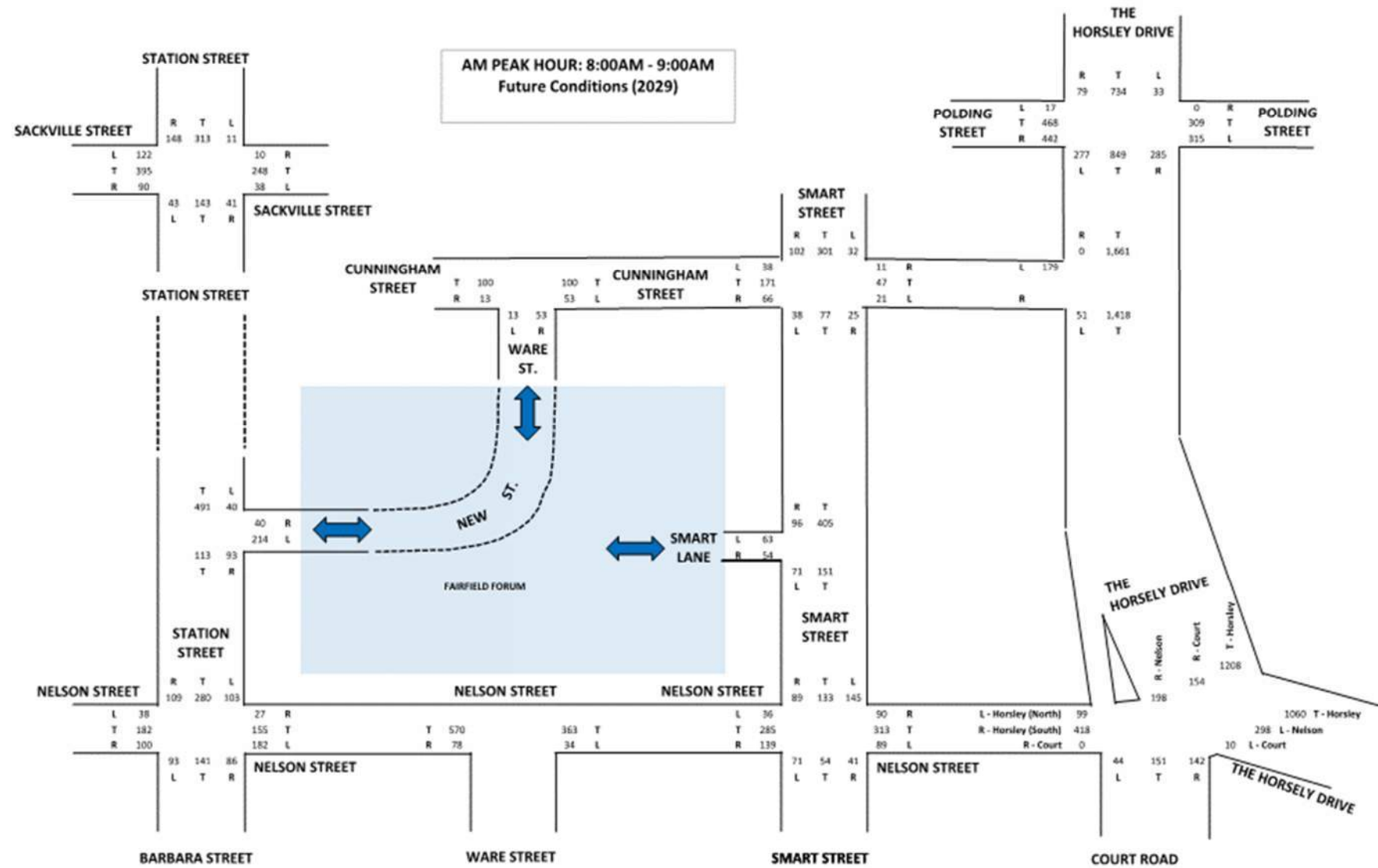


Figure 5-9: Future PM Peak Hour Volumes

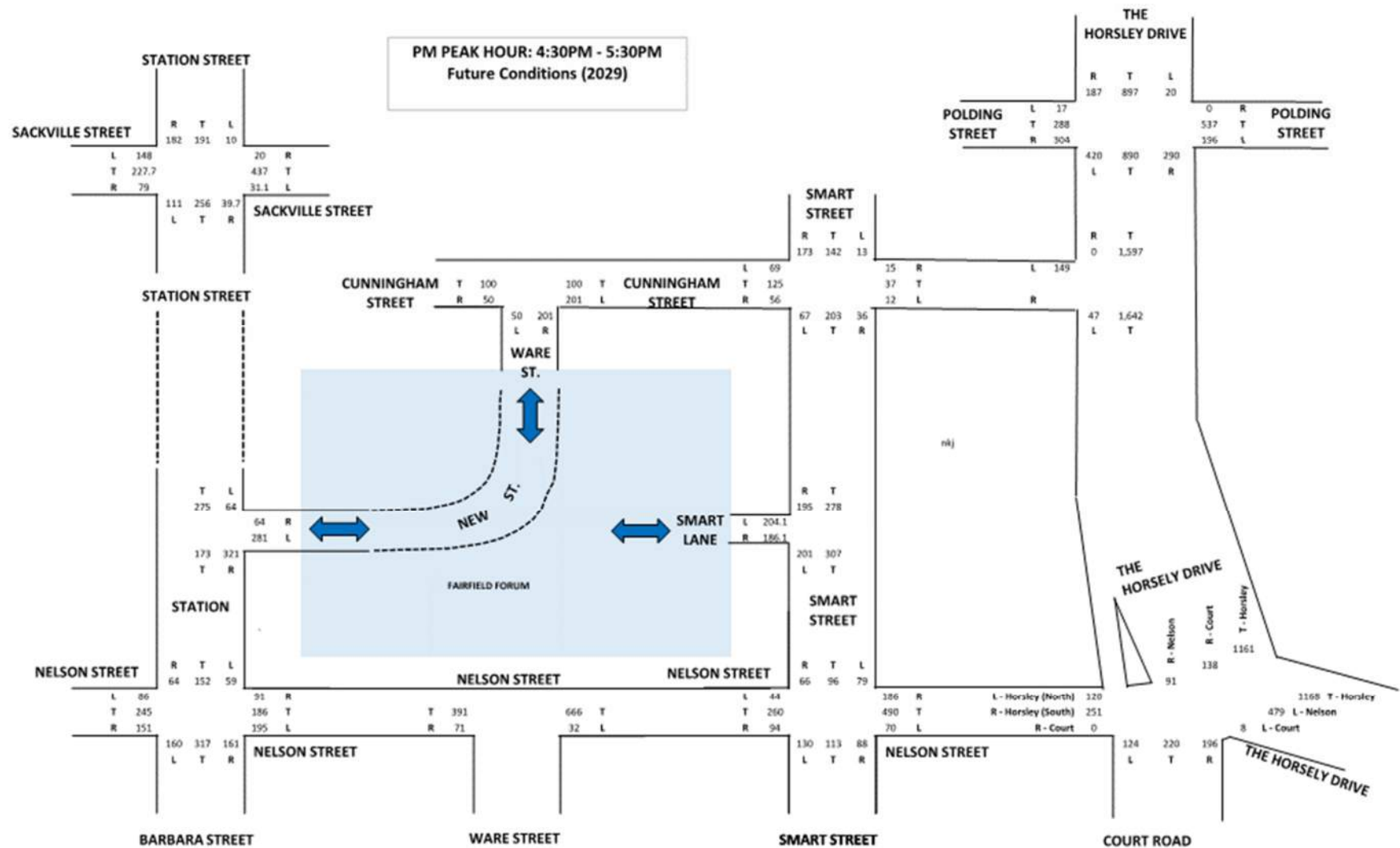
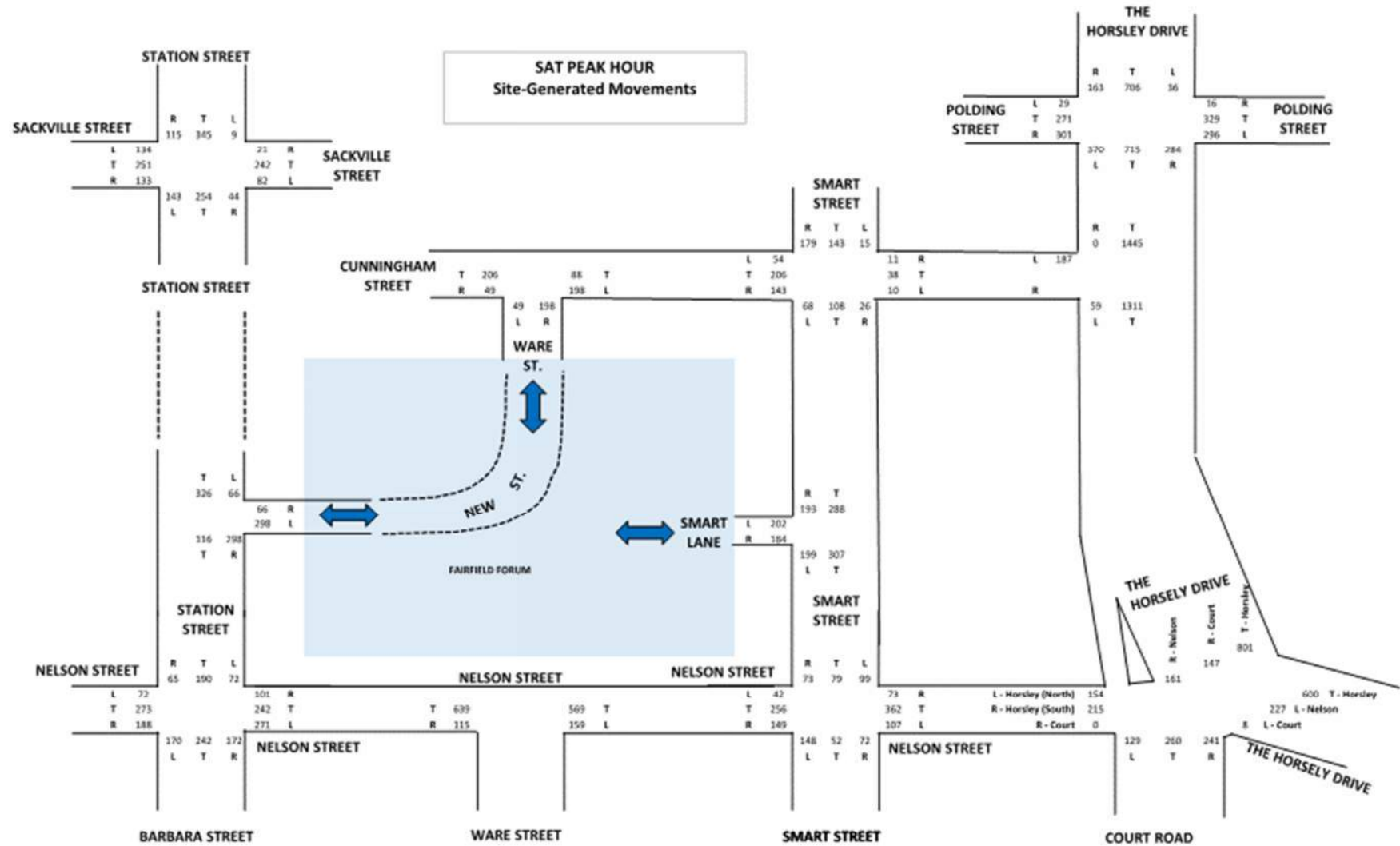


Figure 5-10: Future Saturday Peak Hour Volumes



5.5 External Intersection Operations

Based on the traffic volumes presented in Section 5.4, a post development, or future conditions assessment, of the identified external intersections to the site has been prepared. As previously noted, this assessment is based on the additional residential traffic volumes as the retail traffic volumes already exist on the road network and are already captured in the base case volumes.

The following summarises the SIDRA outputs for the AM, PM and Saturday peak hour with detailed SIDRA analyses in Appendix D.

Results – Weekday Peak Hours Future Conditions

The weekday AM and PM peak hour results are summarised in Table 5.22 to Table 5.27.

Table 5.22: Future Conditions Weekday Peak Conditions, Nelson Street/Station Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Barbara Street (South)	0.61	49	C	0.84	109	C
Nelson Street (East)	0.62	27	C	0.83	45	C
Station Street (North)	0.63	54	C	0.77	36	D
Nelson Street (West)	0.59	53	D	0.80	38	D
Intersection	0.63		c	0.84		D

Review of the above results shows that the intersection of Nelson Street/Station Street is anticipated to operate under 'excellent' conditions during the AM peak, and 'fair' conditions during the PM peak. The future intersection operations represent a moderate change to base case conditions with all movements operating within capacity.

Table 5.23: Future Conditions Weekday Peak Conditions, Nelson Street/Ware Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Nelson Street (East)	0.15	25	A	0.33	48	A
Nelson Street (West)	0.21	15	A	0.18	8	A
Intersection	0.21		A	0.33		A

Review of the above results shows that the intersection of Nelson Street/Ware Street is anticipated to operate under 'excellent' conditions in both the AM and PM peak periods. The future intersection operations represent a minor change to base case conditions with all movements operating within capacity.

Table 5.24: Future Conditions Weekday Peak Conditions, Nelson Street/Smart Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Smart Street (South)	0.32	15	D	0.48	28	D
Nelson Street (East)	0.30	32	C	0.46	41	C
Smart Street (North)	0.48	41	C	0.47	34	D
Nelson Street (West)	0.46	32	C	0.32	30	C
Intersection	0.48		C	0.48		C

Review of the above results shows that the intersection of Nelson Street/Smart Street is anticipated to operate under 'excellent' conditions in both the AM and PM peak periods. The future intersection operations represent a moderate change to base case conditions with all movements operating within capacity.

Table 5.25: Future Conditions Weekday Peak Conditions, Smart Street/Smart Lane

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Smart Street (South)	0.13	0	A	0.29	0	A
Smart Street (North)	0.46	3	A	0.42	9	A
Smart Lane (West)	0.19	2	A	0.67	14	B
Intersection	0.46		A	0.67		B

Review of the above results shows that the intersection of Smart Street/Smart Lane is anticipated to operate under 'excellent' conditions in the AM peak period and 'good' conditions in the PM peak period. The future intersection operations generally represent a moderate change to base case conditions. The operation of Smart Lane in the PM peak period represents the largest change in conditions however all movements operate within capacity.

Table 5.26: Future Conditions Weekday Peak Conditions, Nelson Street/Horsley Drive/Court Road

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Court Road (South)	0.89	62	E	0.93	104	E
The Horsley Drive (South East)	0.92	173	D	0.90	181	D
The Horsley Drive (North)	0.68	129	C	0.67	122	C
Nelson Street (West)	0.86	77	E	0.83	50	E
Intersection	0.92		D	0.93		D

Review of the above results shows that the intersection of Nelson Street/Horsley Drive/Court Road is anticipated to operate under 'fair' conditions during both the AM and PM peak hours. The future intersection operations represent a minor change to base case conditions with all movements operating within capacity.

Table 5.27: Future Conditions Weekday Peak Conditions, Sackville Street/Station Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	LOS	D.O.S.	95%ile Queue (m)	LOS
Station Street (South)	0.78	64	D	0.94	177	E
Sackville Street (East)	0.88	101	D	1.0+	280	F
Station Street (North)	0.75	78	D	0.97	95	E
Sackville Street (West)	1.0+	259	E	0.86	135	D
Intersection	1.0+		D	1.0+	280	E

Review of the above results shows that the intersection of Station Street/Sackville Street is anticipated to operate under congested conditions in both the AM and PM peak periods.

Table 5.28: Future Weekday Peak Conditions, Cunninghame Street/Horsley Drive

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.49	5	A	0.47	49	A
Cunninghame Street (West)	0.46	0	A	0.45	0	A
The Horsley Drive (North)	0.34	3	B	0.49	3	C
Intersection	0.49		A	0.49		A

Review of the above results shows that the intersection of Cunninghame Street/The Horsley Drive currently operates under congested conditions during the AM peak and PM peak, operating under 'excellent' conditions, with a LoS of A.

It should be noted that this is related to the restriction of the intersection to left in/left out only which removes the existing right turning vehicles that were previously opposed by the high quantum of through volumes on The Horsley Drive.

Table 5.29: Future Weekday Peak Conditions, Polding Street/Horsley Drive

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.92	120	D	0.97	120	E
Polding Street (East)	0.93	72	E	0.95	129	E
The Horsley Drive (North)	0.92	150	E	0.99	223	F
Polding Street (West)	0.87	137	D	0.95	105	D
Intersection	0.93		D	0.99		E

Review of the above results shows that the intersection of The Horsley Drive/Polding Street is expected to operate under congested conditions during the AM peak and PM peak, operating under 'poor' conditions, with a LoS of D & E.

Results – Saturday Peak Hours Future Conditions

The Saturday peak hour results are summarised in Table 5.30 to

Table 5.34.

Table 5.30: Future Conditions Saturday Peak Conditions, Nelson Street/Station Street/Barbara Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Barbara Street (South)	0.90	109	D
Nelson Street (East)	0.88	51	C
Barbara Street (North)	0.86	48	D
Nelson Street (West)	0.91	51	D
Intersection	0.91		D

Review of the above results shows that the intersection of Nelson Street/Station Street/Barbara Street is anticipated to operate under 'fair' conditions during the Saturday peak hour. The future intersection operations represent a minor change to base case conditions with all movements operating within capacity.

Table 5.31: Future Conditions Saturday Peak Conditions, Nelson Street/Ware Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Nelson Street (East)	0.39	46	A
Nelson Street (West)	0.31	16	A
Intersection	0.39		A

Review of the above results shows that the intersection of Nelson Street/Ware Street is anticipated to operate under 'excellent' conditions during the Saturday peak hour. The future intersection operations represent a moderate change to base case conditions with all movements operating within capacity.

Table 5.32: Future Conditions Saturday Peak Conditions, Nelson Street/Smart Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Smart Street (South)	0.42	28	D
Nelson Street (East)	0.29	33	C
Smart Street (North)	0.43	31	D
Nelson Street (West)	0.42	29	C
Intersection	0.43		C

Review of the above results shows that the intersection of Nelson Street/Smart Street is anticipated to operate under 'excellent' conditions during the Saturday peak hour. The future intersection operations represent a moderate change to base case conditions with all movements operating within capacity.

Table 5.33: Future Conditions Saturday Peak Conditions, Smart Street/Smart Lane

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Smart Street (South)	0.29	0	A
Smart Street (North)	0.41	8	A
Smart Lane (West)	0.66	14	B
Intersection	0.66		A

Review of the above results shows that the intersection of Nelson Smart Street/Smart Lane is anticipated to operate under 'excellent' conditions during the Saturday peak hour. The future intersection operations generally represent a moderate change to base case conditions. The operation of Smart Lane represents the largest change in conditions however all movements operate within capacity.

Table 5.34: Future Conditions Saturday Peak Conditions, Nelson Street/Horsley Drive/Court Road

Saturday Peak	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Court Road (South)	0.86	108	D
Horsley Drive (Southeast)	0.83	87	D
Horsley Drive (North)	0.47	72	C
Nelson Street (West)	0.77	45	D
Intersection	0.86		D

Review of the above results shows that the intersection of Nelson Street/Horsley Drive/Court Road is anticipated to operate under 'fair' conditions during the Saturday peak hour. The future intersection operations represent a moderate change to base case conditions with all movements operating within capacity.

Table 5.35: Future Saturday Peak Conditions, Sackville Street/Station Street

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
Station Street (South)	0.95	178	E
Sackville Street (East)	0.92	110	D
Station Street (North)	0.98	119	E
Sackville Street (West)	0.93	165	E
Intersection	0.98		E

Review of the above results shows that the intersection of Sackville Street/Station Street is anticipated to operate under congested conditions in the future scenario during the Saturday peak hour.

Table 5.36: Future Saturday Peak Conditions, Cunninghame Street/Horsley Drive

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.54	0	A
Cunninghame Street (West)	0.40	0	A
The Horsley Drive (North)	0.32	3	B
Intersection	0.54		A

Review of the above results shows that the intersection of Cunninghame Street/The Horsley Drive currently operates under congested conditions during the Saturday peak hour, operating under 'excellent' conditions, with a LoS of A.

It should be noted that this is related to the restriction of the intersection to left in/left out only which removes the existing right turning vehicles which are opposed by the high quantum of through volumes on The Horsley Drive.

Table 5.37: Future Saturday Peak Conditions, Polding Street/Horsley Drive

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.85	97	D
Polding Street (East)	0.83	73	D
The Horsley Drive (North)	0.86	137	E
Polding Street (West)	0.72	72	D
Intersection	0.86		D

Review of the above results shows that the intersection of The Horsley Drive/Polding Street currently operates under congested conditions during the Saturday peak hour, operating under 'fair' conditions, with a LoS of D.

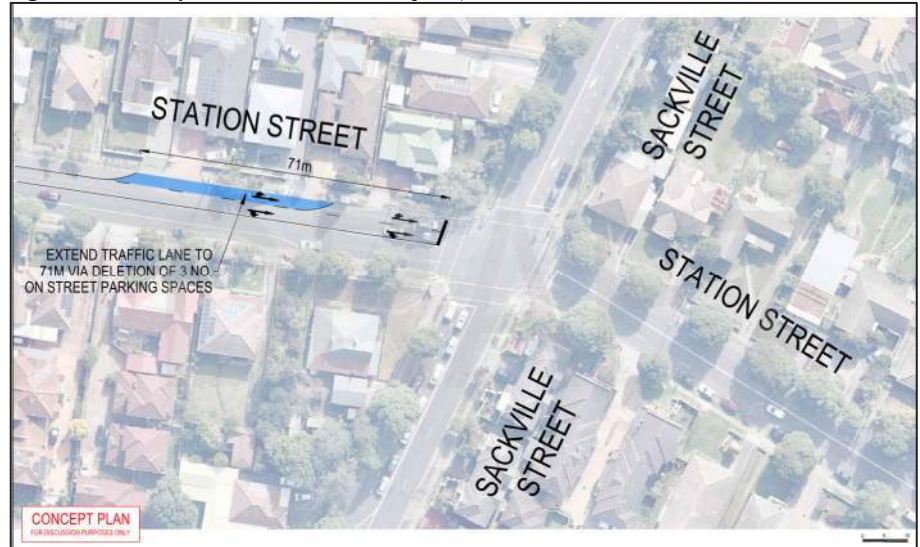
5.6 Road Network Improvements

Sackville Street/Station Street Intersection

Whilst the future conditions assessment indicates the intersection of Sackville Street and Station Street will exceed capacity, it is noted that the intersection is already expected to exceed capacity under base case conditions i.e. without the additional traffic associated with the Fairfield Forum.

In order to improve intersection operation and reduce delays through the Station Street and Sackville Street intersection, it is possible to increase the effective length of the second traffic lane on the north-west approach to Station Street from 26 metres to 71 metres, as illustrated in Figure 5-11 and Appendix F.

Figure 5-11: Proposed Intersection Layout, Station Street/Sackville Street



In order to achieve the lengthened lane to Station Street displayed in the intersection layout above, it is proposed to remove kerbside car parking as displayed in Figure 5-12.

Figure 5-12: Proposed kerbside parking converted to through lane, Station Street



Source: [google.com/maps](https://www.google.com/maps)

As this length of kerbside car parking on Station Street includes two double-width crossovers and two single-width crossovers, the effective kerbside car parking length is just 18 metres. As such, increasing the

length of the through lane to Station Street by 44 metres results in the loss of a maximum of 2 to 3 kerbside car parking spaces, and improves the efficiency of the Station Street/Sackville Street intersection to better accommodate growth in traffic in the area.

The results of the SIDRA intersection analysis for future volumes displayed previously, applied to the proposed future intersection layout including the extended lane length are displayed in Table 5.38 and Table 5.39 below.

Table 5.38: Future Conditions Weekday Peak Conditions, Modified Sackville Street/Station Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Station Street (South)	0.77	64	D	0.94	160	E
Sackville Street (East)	0.78	88	D	0.92	175	D
Station Street (North)	0.72	83	D	0.93	87	E
Sackville Street (West)	0.87	188	D	0.83	131	D
Intersection	0.87		D	0.94		D

Table 5.39: Future Conditions Saturday Peak Conditions, Modified Sackville Street/Station Street

Approach	Weekday AM		
	D.O.S.	95%ile Queue (m)	L.O.S.
Station Street (South)	0.93	169	D
Sackville Street (East)	0.90	102	D
Station Street (North)	0.75	84	D
Sackville Street (West)	0.86	143	D
Intersection	0.93		D

Review of the above results shows that the intersection of Sackville Street/Station Street is anticipated to operate under 'fair' conditions when considering the future traffic volumes and extended turn lane length on the north-west approach.

It is noted that the future conditions, with the amended north-west approach, result in intersection operating conditions that are better than base case conditions and are comparable to existing conditions. As such, the proposed lane extension provides an improvement greater than the impact of the additional volumes generated by the Fairfield Forum.

The current intersection operates with split phasing due to the intersection geometry, the introduction of leading right turns or double diamond phasing at the intersection would likely improve intersection efficiency. Additionally, the extension of 'no stopping' restrictions along Station Street to the site would likely improve intersection operations, at the expense of existing resident on street parking. These modifications have been identified by RMS.

A concept intersection design has been prepared of this modification and is attached as Appendix F. As illustrated in this concept plan, the modifications identified by RMS would require the acquisition of private land to accommodate the simultaneous movement of turning vehicles associated with double diamond phasing.

Given that the intersection is anticipated to operate appropriately with minor modifications, i.e. extended turn lane on the northern leg, and the above noted impacts to surrounding land holders, it is considered that the identified modifications are not warranted at this time.

The Horsley Street/Polding Street Intersection

The intersection of The Horsley Drive and Polding Street is anticipated to operate within capacity under future conditions, however the PM peak hour operations are essentially considered to be operating at capacity.

Having regard to the surrounding road network existing conditions it is noted that opportunity exists to extend the right turn lanes on The Horsely Drive through amended line marking of the existing right turn lanes. The modified line marking seeks to increase the effective storage length of the turn lanes by reducing the extent of existing chevron line marking. This is enabled by the limiting of the intersection with Cunninghame Street further to the south to left in/left out only.

The extension of the right tun lanes through line marking results in the turn lane lengths of:

- Southern approach: 125m
- Northern approach: 90m

Modification of the turn lane lengths results in the intersection operating characteristics as summarised in Figure and as attached in Appendix F.

Figure 5-13: Proposed Intersection Layout, Polding Street/The Horsley Drive

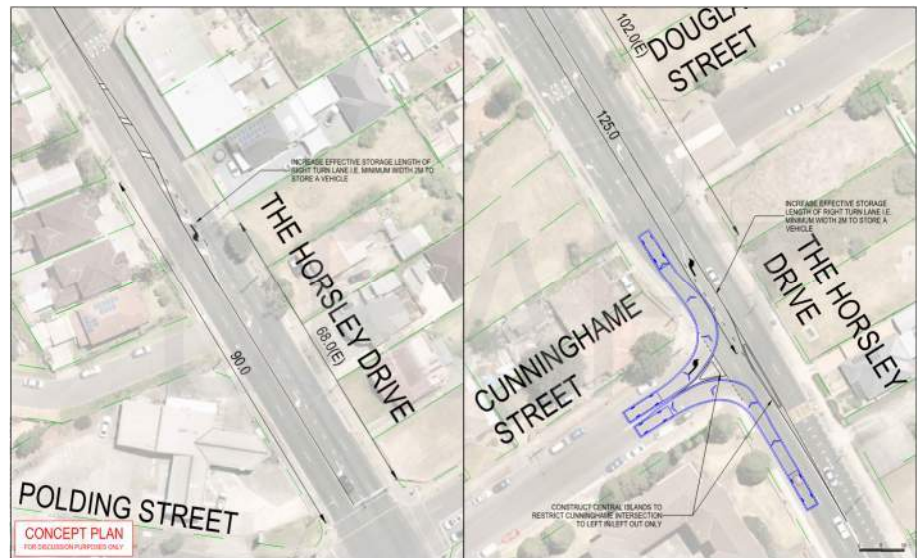


Table 5.40: Future Weekday Peak Conditions, Modified Polding Street/Horsley Drive

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.88	207	D	0.88	183	D
Polding Street (East)	0.84	100	D	0.90	106	D
The Horsley Drive (North)	0.87	220	E	0.87	220	E
Polding Street (West)	0.86	204	D	0.86	205	D
Intersection	0.88		D	0.90		D

Table 5.41: Future Saturday Peak Conditions, Modified Polding Street/Horsley Drive

Approach	Saturday Peak		
	D.O.S.	95%ile Queue (m)	L.O.S.
The Horsley Drive (South)	0.85	168	D
Polding Street (East)	0.84	120	D
The Horsley Drive (North)	0.85	212	E
Polding Street (West)	0.70	115	D
Intersection	0.85		D

Review of the above results shows that the modified intersection of The Horsley Drive/Polding Street with extended turn lanes would be expected to operate under 'fair' conditions during the weekday and Saturday peak hour, with a LoS of D. This is generally in line with the existing intersection operations and is considered an appropriate outcome.

Nelson Street/Station Street Intersection

The current intersection operates with split phasing due to the intersection geometry. The introduction of leading right turns or double diamond phasing at the intersection would likely improve intersection efficiency, as would the construction of a left turn slip lane into Station Street from Nelson Street (west). These improvements have been identified by RMS.

A concept intersection design has been prepared of these modifications and is attached as Appendix F. As illustrated in this concept plan, the modifications identified by RMS would require the acquisition of private land and the loss of public open space.

Given that the intersection is anticipated to operate appropriately under existing conditions, i.e. without the modifications, and the above noted impacts to surrounding land holders, it is considered that the identified modifications are not warranted at this time.

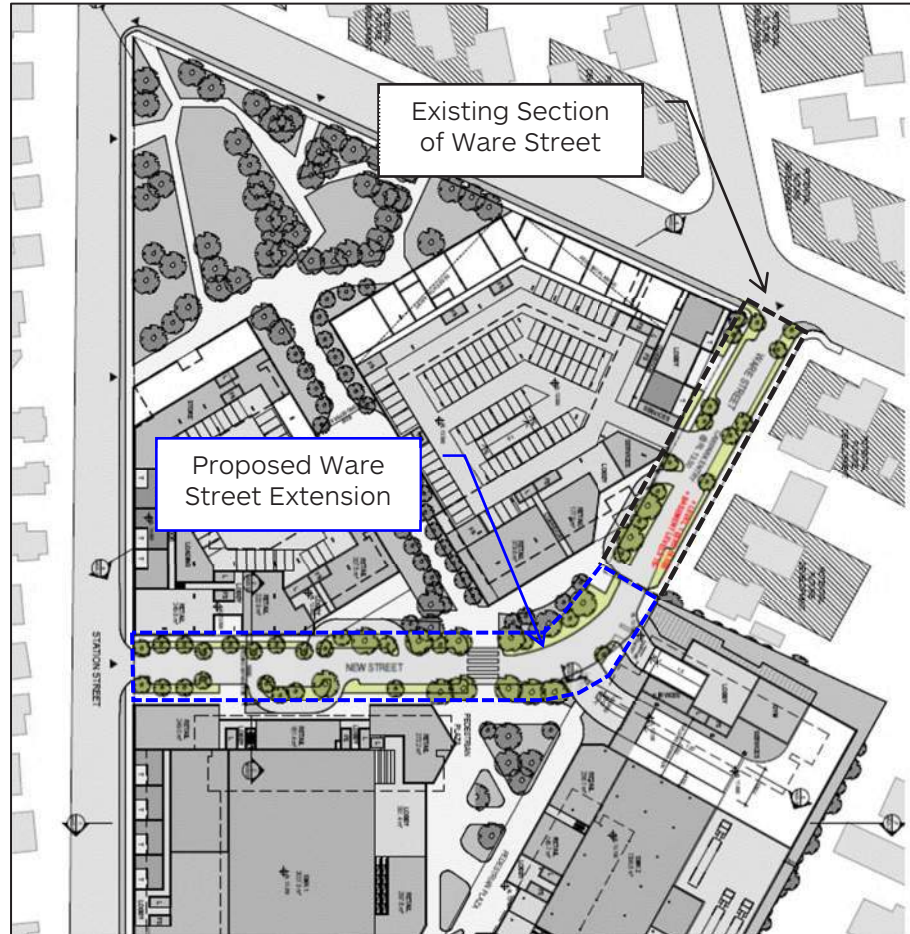
Results Summary

Based on the above, it is anticipated that sufficient capacity exists within the assessed external intersections to accommodate the traffic generated by the proposed Fairfield Forum development.

5.7 Ware Street

The proposal includes the extension of the existing Ware Street to Station Street via the creation of a new public road as illustrated in Figure 5-14.

Figure 5-14: Proposed Ware Street Extension to Station Street



Ware Street, including the proposed extension of Ware Street to Station Street, will provide access to a number of car parks for both the residential and retail components of the development.

The location of the Ware Street intersection with Station Street is approximately 140m north of Nelson Street. As summarised in Table 5.22 and Table 5.30, the 95th percentile queue on the northern leg of the Station Street/Nelson Street intersection is 54m. The proposed intersection location is therefore clear of external road network queuing allowing the intersection to operate without downstream constraints.

A SIDRA assessment of the Ware Street intersections with Cunninghame Street (existing) and Station Street (proposed) has been undertaken based on the future traffic volumes previously identified in Figure 5-8 and Figure 5-10.

It is noted that this assessment includes the traffic volumes generated by both the residential and retail components of the Fairfield Forum as the consolidation of retail access points from existing conditions results in a redistribution of retail traffic. The resulting SIDRA intersection operating characteristics are summarised in Table 5.42 to Table 5.45 with detailed outputs included in Appendix E.

Table 5.42: Future Conditions Weekday Peak Conditions, Ware Street/Cunninghame Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Ware Street (South)	0.27	9	A	0.47	23	A
Cunninghame Street (East)	0.06	0	A	0.18	0	A
Cunninghame Street (West)	0.08	1	A	0.14	5	A
Intersection	0.27		a	0.47		A

Table 5.43: Future Conditions Saturday Peak Conditions, Ware Street/Cunninghame Street

Approach	Weekday AM		
	D.O.S.	95%ile Queue (m)	L.O.S.
Ware Street (South)	0.48	25	A
Cunninghame Street (East)	0.17	0	A
Cunninghame Street (West)	0.13	5	A
Intersection	0.48		A

A review of the above assessments indicates that the intersection of Ware Street and Cunninghame Street will operate under 'excellent' conditions with an LOS A under future conditions for the AM, PM and Saturday peak hours.

It is therefore considered that sufficient capacity exists within the Cunninghame Street and Ware Street intersection to accommodate the additional traffic generated by the Fairfield Forum.

Table 5.44: Future Conditions Weekday Peak Conditions, Ware Street/Station Street

Approach	Weekday AM			Weekday PM		
	D.O.S.	95%ile Queue (m)	L.O.S.	D.O.S.	95%ile Queue (m)	L.O.S.
Station Street (South)	0.19	7	A	0.55	34	A
Ware Street (East)	0.33	12	A	0.57	28	A
Station Street (North)	0.25	0	A	0.28	0	A
Intersection	0.33		A	0.57		A

Table 5.45: Future Conditions Weekday Peak Conditions, Ware Street/Station Street

Approach	Weekday AM		
	D.O.S.	95%ile Queue (m)	L.O.S.
Station Street (South)	0.57	33	A
Ware Street (East)	0.68	37	B
Station Street (North)	0.33	0	A
Intersection	0.68		A

A review of the above assessments indicates that the new intersection of Ware Street and Station Street will operate under 'excellent' conditions with an LOS A under future conditions for the AM, PM and Saturday peak hours.

It is therefore considered that sufficient capacity exists within the proposed Station Street and Ware Street intersection to accommodate the additional traffic generated by the Fairfield Forum.

6.1 DCP Parking Rates

Table 1 of Chapter 12 to the Fairfield Citywide Development Control Plan sets out the minimum parking requirement rates for proposed development within Fairfield.

In conjunction with this, Appendix 5 of the Fairfield City Centre DCP 2013 sets out specific minimum rates for developments identified as being located within the Fairfield Town Centre.

As previously identified, the subject site is situated within the Fairfield Town centre and is subject to the rates as set out within Appendix 5 of the Fairfield City Centre DCP 2013 and as summarised in Table 6.1.

Table 6.1: DCP Minimum Car Parking Rates

Use		DCP Minimum Car Parking Rate
Retail		1 space per 25 sqm gross leasable area
Dwellings	1 - 2 bedroom unit	1 car space per dwelling
	3 or more bedrooms	1.5 car spaces per dwelling
	Visitors	0.25 car spaces per dwelling

The above car parking rates are the current minimum car parking supply rates set out by Council, and any reduction in these rates is subject to Council consent.

Application of the DCP parking rates to the Master Plan development schedules results in the parking allocations as summarised in Table 6.2.

Table 6.2: DCP Minimum Car Parking Allocation

Use		Schedule	DCP Parking Rate	Parking
Retail		17,593sqm	1 space per 25 sqm gross leasable area	704 spaces
Dwellings	1 - 2 bedrooms	1,310 no.	1 car space per dwelling	1,310 spaces
	3 or more bedrooms	179 no.	1.5 car spaces per dwelling	269 spaces
	Visitors	1,489 no.	0.25 car spaces per dwelling	373 spaces
Total				2,656 spaces

Previously prepared Master Plans for the proposal indicate the potential to deliver in the order of 2,900 on-site parking spaces which is in excess of the minimum requirement of 2,656 spaces when the DCP parking rates in Table 6.1 are applied to the development summary.

6.2 Parking Limitation Opportunities

Whilst acknowledging the above minimum DCP parking rates, the subject site is situated within the Fairfield Town Centre with excellent connectivity to surrounding land uses and to a variety of public transport options.

Developments situated in activity centre locations are typically able to operate with reduced parking provisions due to the increased likelihood of multi-purpose trips to the site, in conjunction with a variation in parking demand between uses over the course of a typical day, and week.

RMS Car Parking Data

With consideration to the parking requirements of the proposed residential dwellings, it is noted that within the 2013 update to the *RMS Guide to Traffic Generating Development*, surveys of high density residential dwellings within Sydney metropolitan areas indicated the following rates of car parking provision and occupancy:

- Average car parking *provision* rate of 1.31 per dwelling. Note that this provision rate is irrespective of the number of rooms within a dwelling and is inclusive of visitor parking.
- Average car park *occupancy* rate of 65%.

Based on these rates, it is therefore noted that high density residential dwellings, similar to those proposed, typically generate an average parking demand of 0.85 spaces per dwelling (1.31×0.65). This is not to say that an average parking rate of 0.85 spaces/dwelling is proposed, but rather an indication that developments of this nature can generate lower car parking demands than those set out in the DCP.

ABS Census Car Ownership

With consideration to the parking requirements of the proposed residential dwellings, additional guidance has been taken from the car ownership data contained within the Australian Bureau of Statistics 2016 national census. A summary of the average car ownership rates for apartment type dwellings in Fairfield and similar surrounding town centres is provided as Table 6.3.

Table 6.3: ABS Census 2016 Apartment Average Car Ownership Data

Location	1 Bedroom Apartments	2 Bedroom Apartments	3 Bedroom Apartments
Fairfield	0.70	0.93	1.23
Cabramatta	0.58	0.93	1.20
Liverpool	0.72	1.03	1.40
Paramatta	0.53	0.91	1.16
Average	0.63	0.95	1.25

A review of the above data indicates that a significant proportion of apartment type dwellings in Fairfield and the surrounding areas currently have reduced car ownership below the DCP rates, and indeed, a number of dwellings do not even own a vehicle. This data again provides an indication that developments of this nature can generate lower car parking demands than the rates set out in the DCP.

Parking Limitation Summary

In light of the preceding it is considered that, based on the location of the site in the context of a walkable town centre with rail and bus connections, and the available RMS and ABS data, opportunity exists for the subject site to operate with reduced car parking ratios from those set out within the DCP.

To support the potential reduction in car parking supply ratios for residential dwellings, additional opportunities to provide on-site car share schemes or additional bicycle parking beyond the minimum requirements in high quality bicycle compounds would be required. Similarly, reduced car parking rates would be informed by the preparation of a Green Travel Plan (GTP) that would set out the alternate transport opportunities provided by the development and the location within the Town Centre.

Any reduction in car parking supply rates, and the inclusion of associated supporting initiatives will be further investigated when detailed site analysis and design is undertaken at a later date. It is noted that any reduction in the DCP parking rates remains subject to Council consent.

7.1 DCP Bicycle Parking Requirements

Section 5.2.3 of the Fairfield City Centre DCP 2013 sets out specific minimum bicycle parking rates for developments identified as being located within the Fairfield Town Centre.

As previously identified, the subject site is situated within the Fairfield Town centre and is subject to the rates as set out within Section 5.2.3 of the Fairfield City Centre DCP 2013 and as summarised in Table 6.1.

Table 7.1: DCP Minimum Car Parking Rates

Use	DCP Minimum Car Parking Rate
Retail	1 space per 300 sqm
Dwellings	1 space per 3 dwellings

The above bicycle parking rates are the current minimum supply rates set out by Council, and any change in these rates is subject to Council consent.

Application of the DCP bicycle parking rates to the Master Plan development schedules results in the parking allocations as summarised in Table 7.2.

Table 7.2: DCP Minimum Bicycle Parking Allocation

Use	Schedule	DCP Parking Rate	Parking
Retail	17,593sqm	1 space per 300 sqm	58 spaces
Dwellings	1,489 no.	1 bicycle space per 3 dwellings	496 spaces
Total			554 spaces

It is noted that Section 5.2.3 (b) the DCP states that for residential bicycle parking “*This requirement will be waived if the applicant can demonstrate that each residential unit has sufficient storage within the garage for a bicycle and the required number of vehicles and that there is a safe path for cyclists to leave the garage area.*”

It is therefore expected that bicycle parking associated with the proposal will comprise a number of solutions including:

- Secure bicycle parking areas within lockable compounds located conveniently to building access locations generally as per AS2890.3;
- Resident bicycle parking within appropriately sized storage cages; and
- Bicycle hoops located at grade throughout the development to cater for visitors to the site.

It is expected that the exact locations and layout of these bicycle facilities will be determined in the next stage of the project.

8 Conclusion:

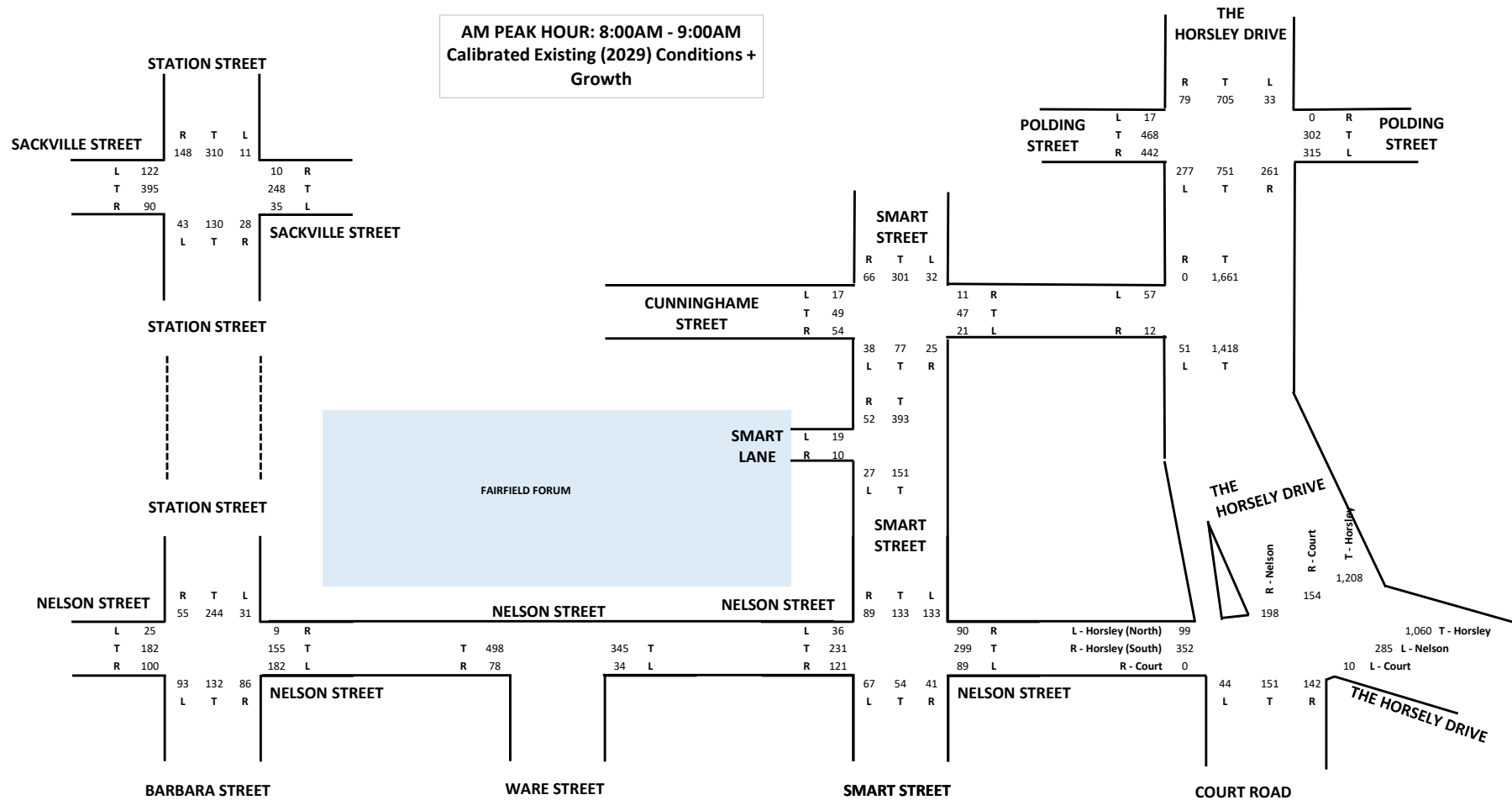
Based on the preceding assessment, the following summary of the proposed Fairfield Forum development is provided:

- The proposal seeks to redevelop the existing retail site to provide a mixed-use precinct comprising the retention of the existing retail floor area with in the order of 1,489 new residential dwellings, a new open space, a pedestrian mall and new basement car parking.
- The subject site is situated within a highly walkable precinct, with many facilities (education, retail, commercial, community, etc) situated within close proximity to the site. The location of the site within the surrounding precinct subsequently supports walking as a viable alternative means of transport to private vehicle.
- The subject site is serviced by multiple public transport options that will provide a viable alternative means of transport to private vehicle.
- Retail traffic as generated by the proposal is anticipated to be in line with existing conditions as the retail floor area is not increasing.
- Traffic generation data from a number of sources have been reviewed to identify applicable rates, however, for the purposes of presenting a robust assessment, the Council specified traffic generation rates of 0.3 movements/dwelling in a peak hour, and 2 movement/dwelling per day, have been adopted.
- Based on the Council specified traffic generation rates, the residential aspect of the development generates up to 447vph during the peak hours, and up to 2,978vpd.
- Traffic distribution, generation and growth assumptions have been adopted as per the agreed position with Council as set out in the Ratio Modelling Assumptions Report.
- An intersection capacity assessment has been undertaken during the weekday AM and PM, and Saturday peak hours for the intersections of:
 - o Nelson Street / The Horsley Drive / Court Road;
 - o Nelson Street / Smart Street;
 - o Nelson Street / Ware Street;
 - o Nelson Street / Station Street;
 - o Sackville Street / Station Street;
 - o Cunninghame Street / The Horsley Drive; and
 - o Polding Street / The Horsley Drive.
- The SIDRA assessment indicates that the assessed intersections will largely continue to operate within capacity when considering the additional traffic generated by the residential component of the proposal.
- The intersection of Station Street/Sackville Street is identified as exceeding capacity under base case conditions and would require modifications irrespective of the additional residential traffic. Increases to lane lengths at the intersection will increase capacity to accommodate existing and future traffic volumes.
- Based on the location of the site within Fairfield Town Centre in conjunction with supporting case study data, it is considered that opportunity may exist for the site to operate with a reduced provision of on-site parking than specified within the DCP rates, subject to Council consent.

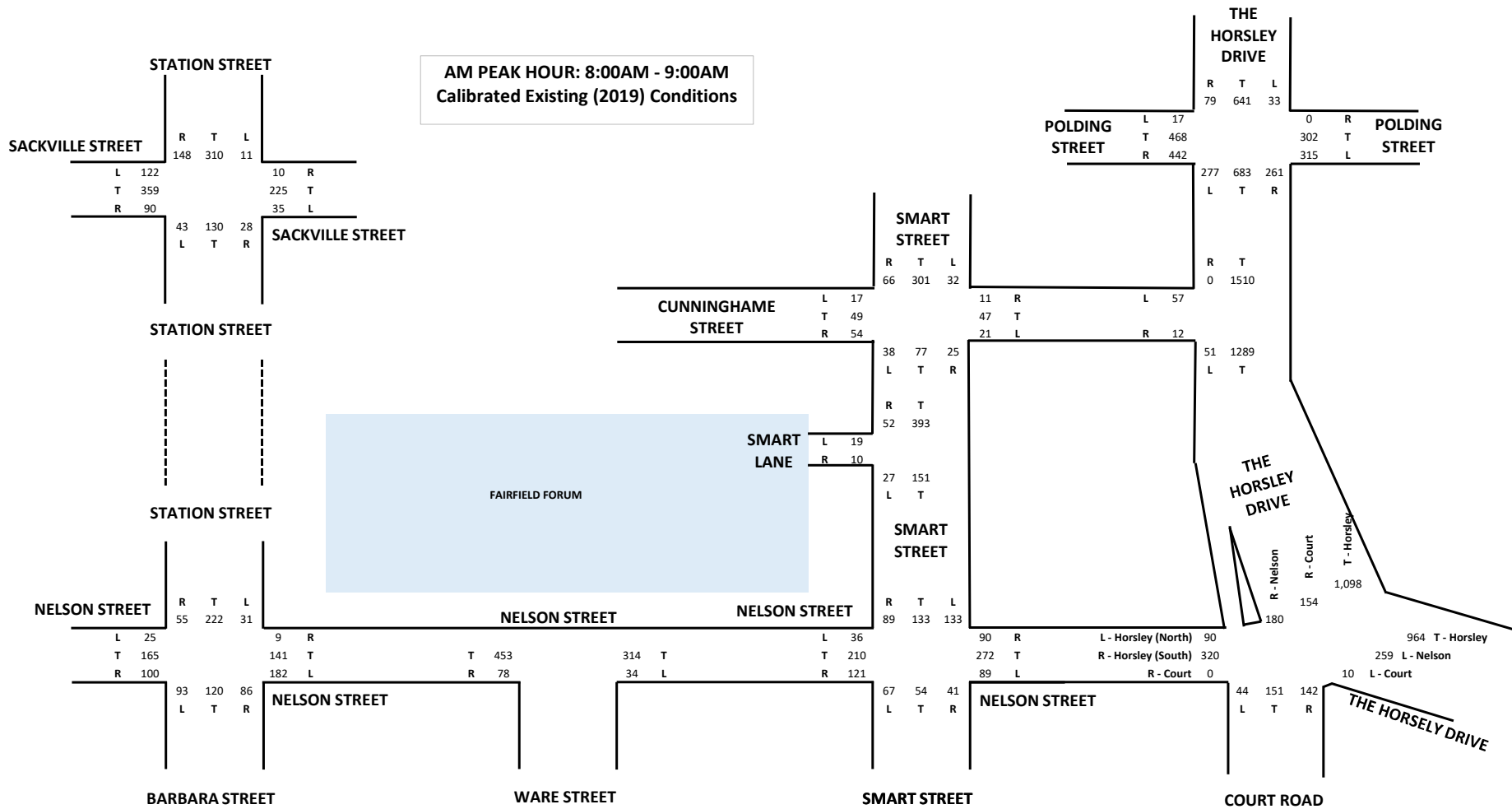


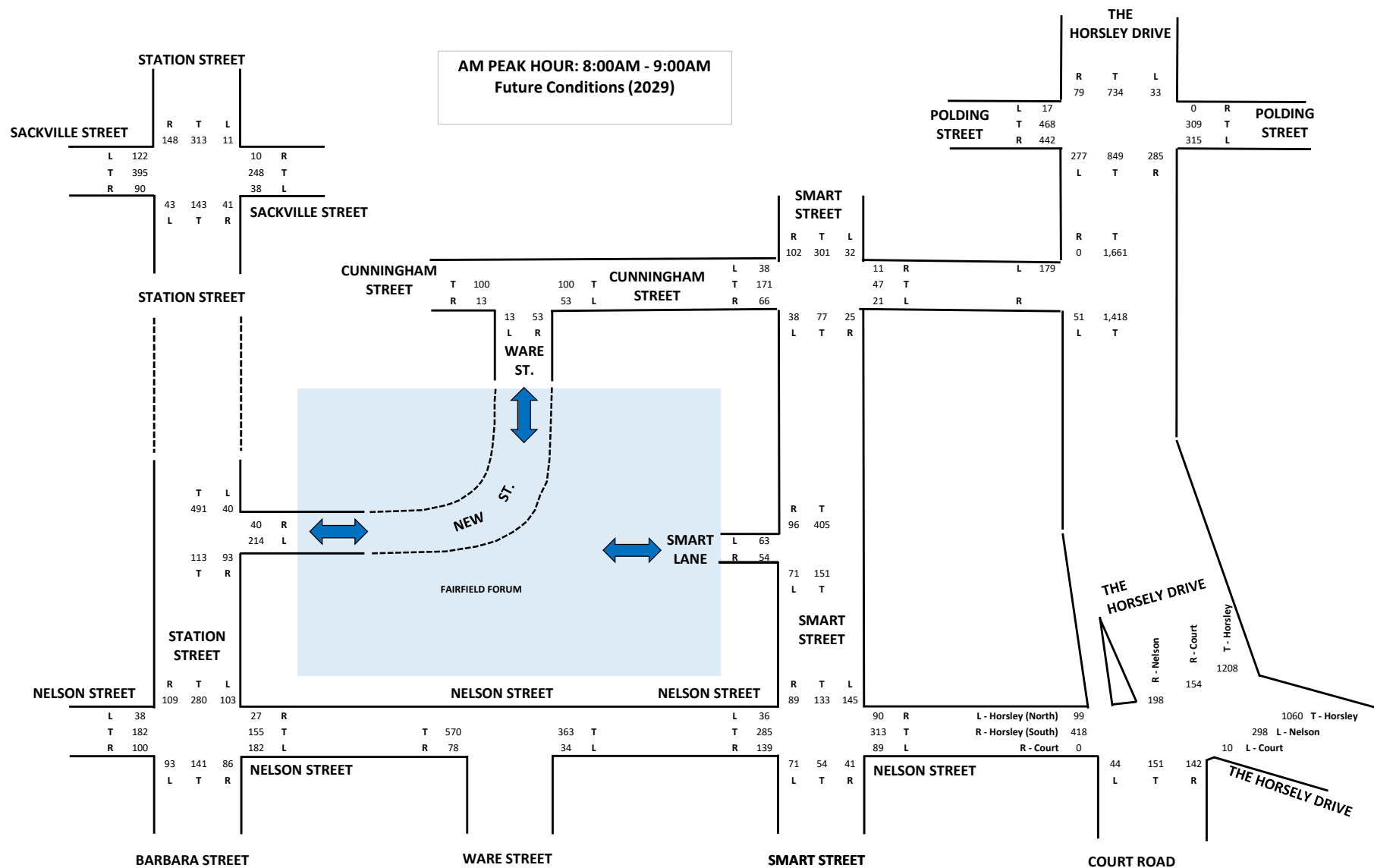
Appendix A Existing Conditions Traffic Volumes:

AM PEAK HOUR: 8:00AM - 9:00AM
Calibrated Existing (2029) Conditions + Growth

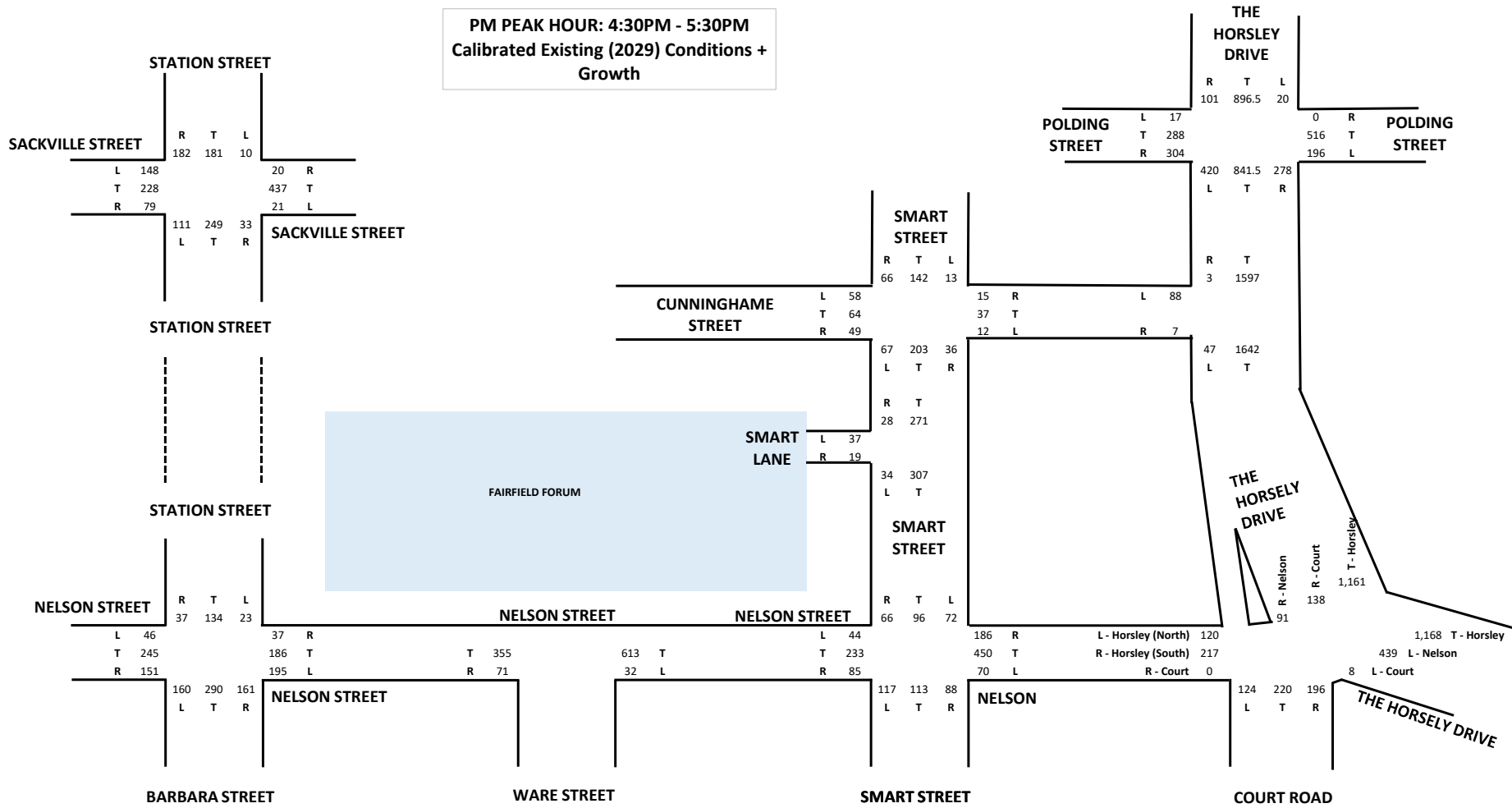


AM PEAK HOUR: 8:00AM - 9:00AM
Calibrated Existing (2019) Conditions

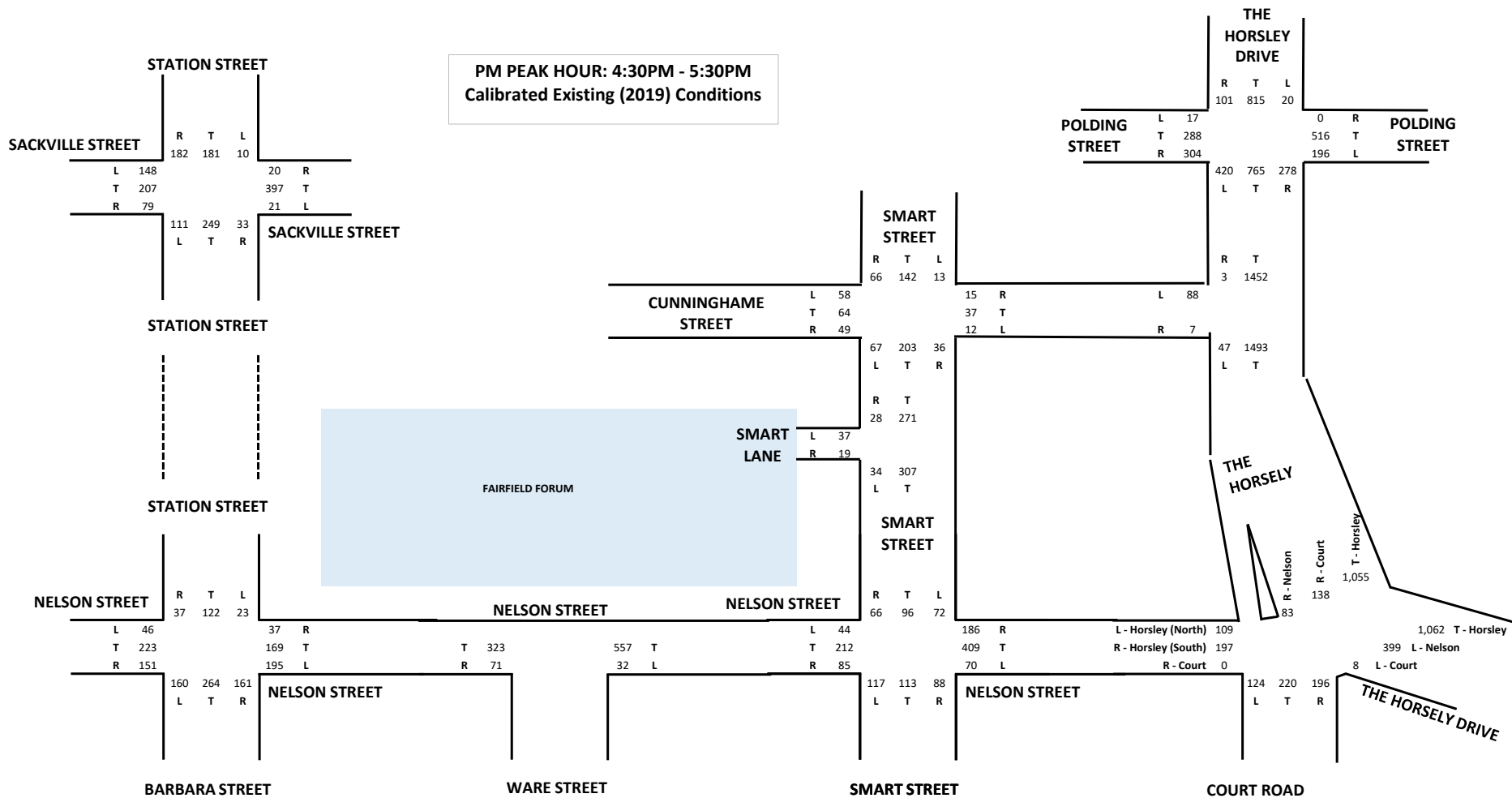


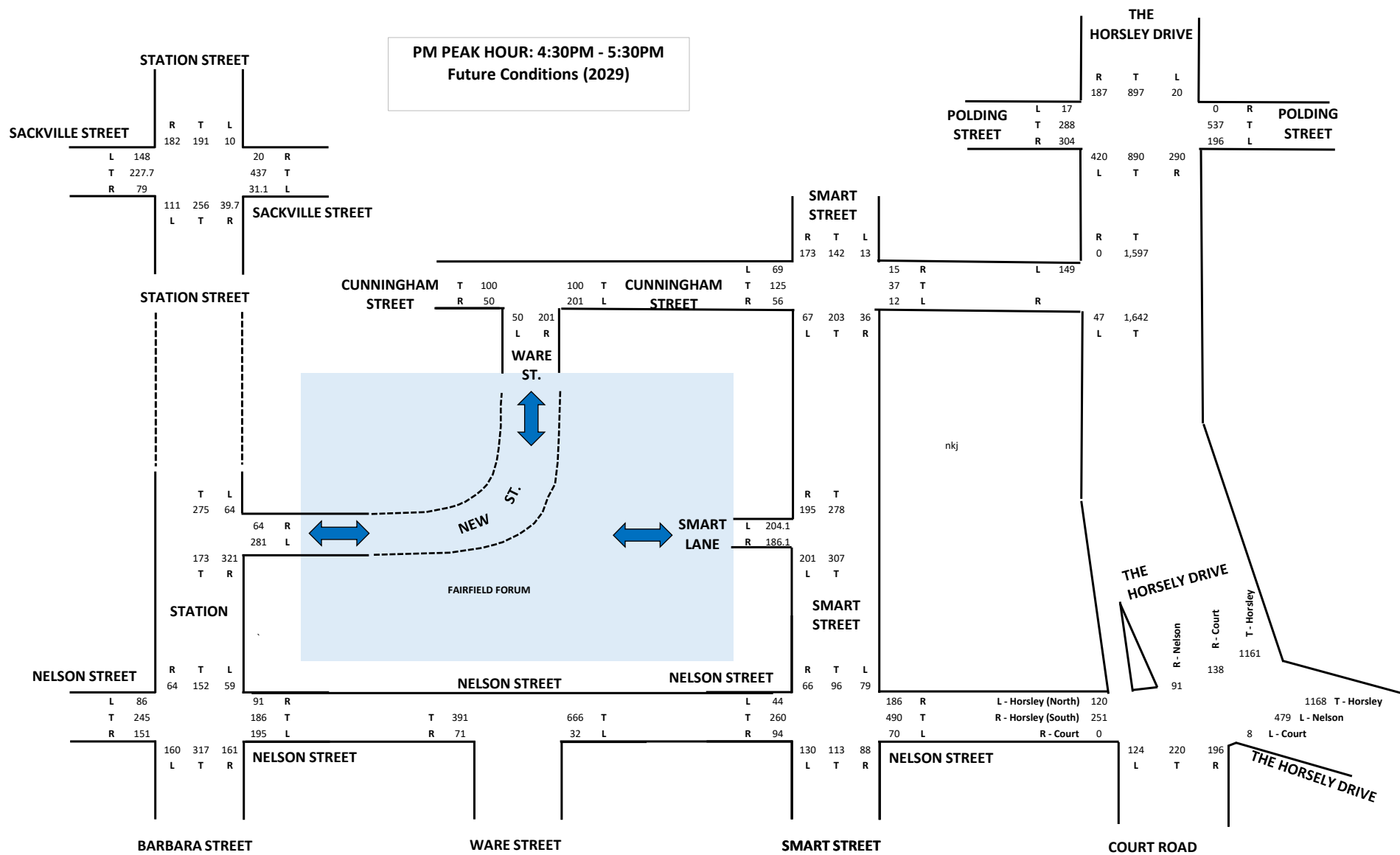


PM PEAK HOUR: 4:30PM - 5:30PM
Calibrated Existing (2029) Conditions +
Growth

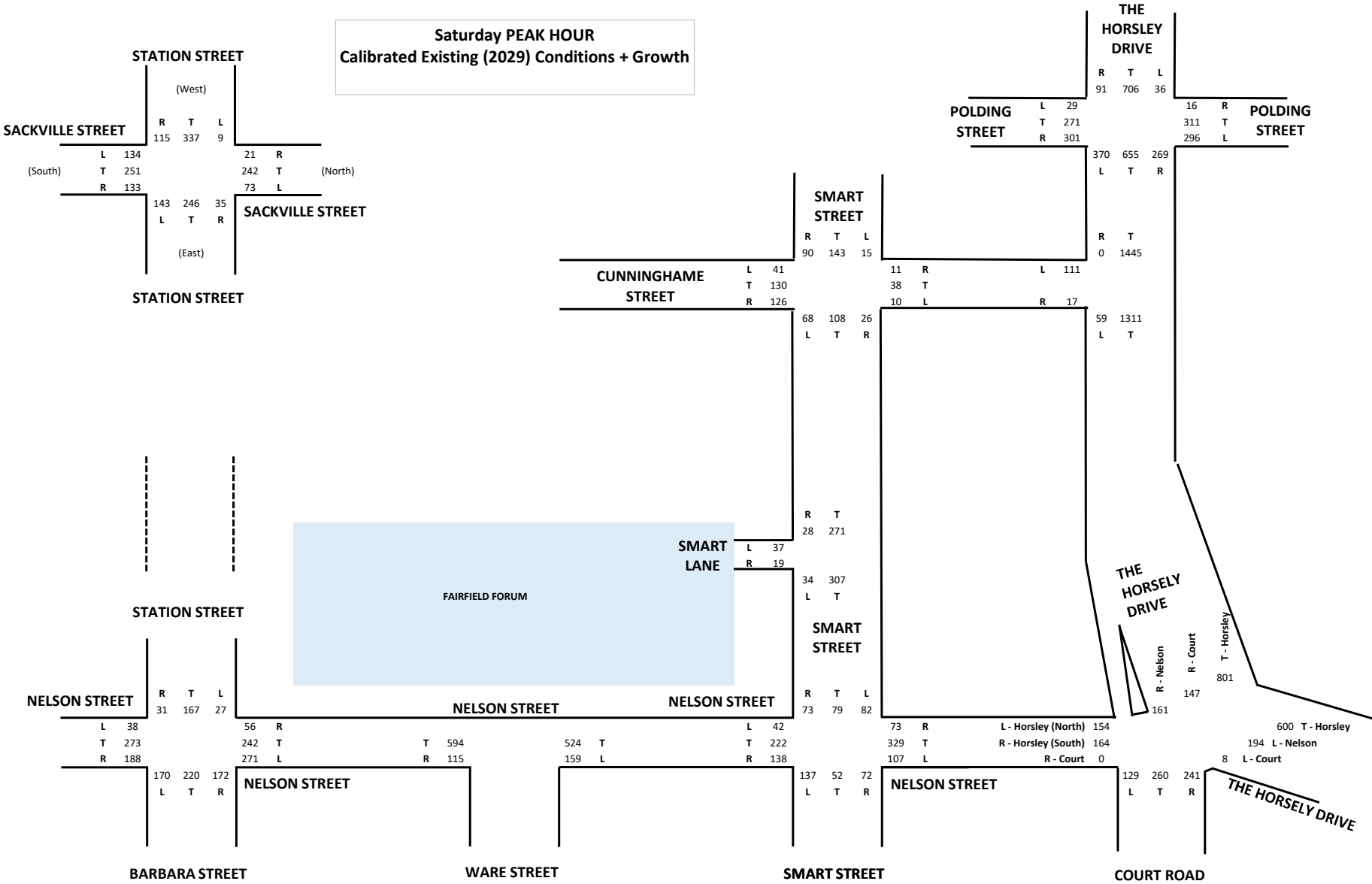


PM PEAK HOUR: 4:30PM - 5:30PM
Calibrated Existing (2019) Conditions

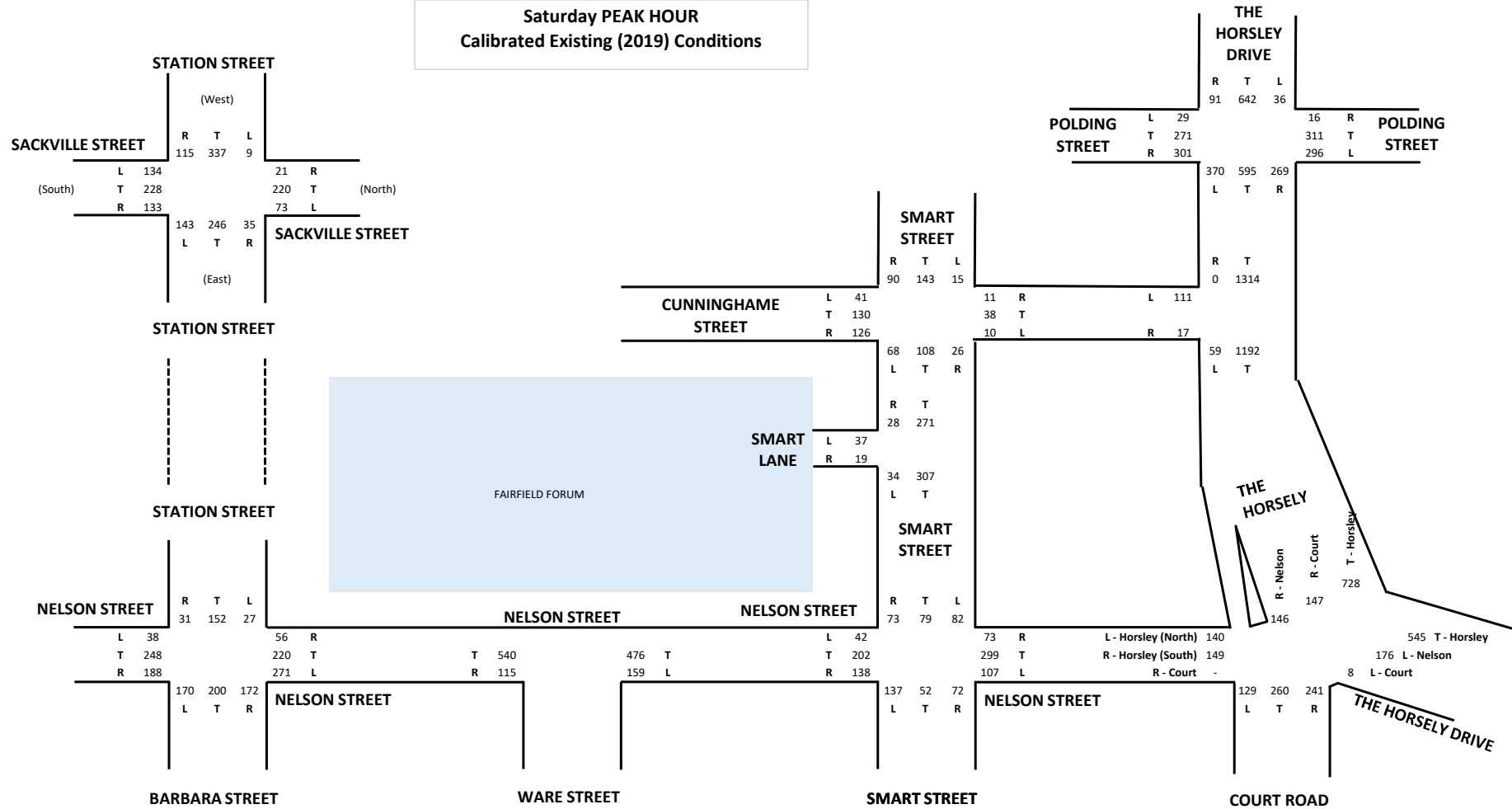


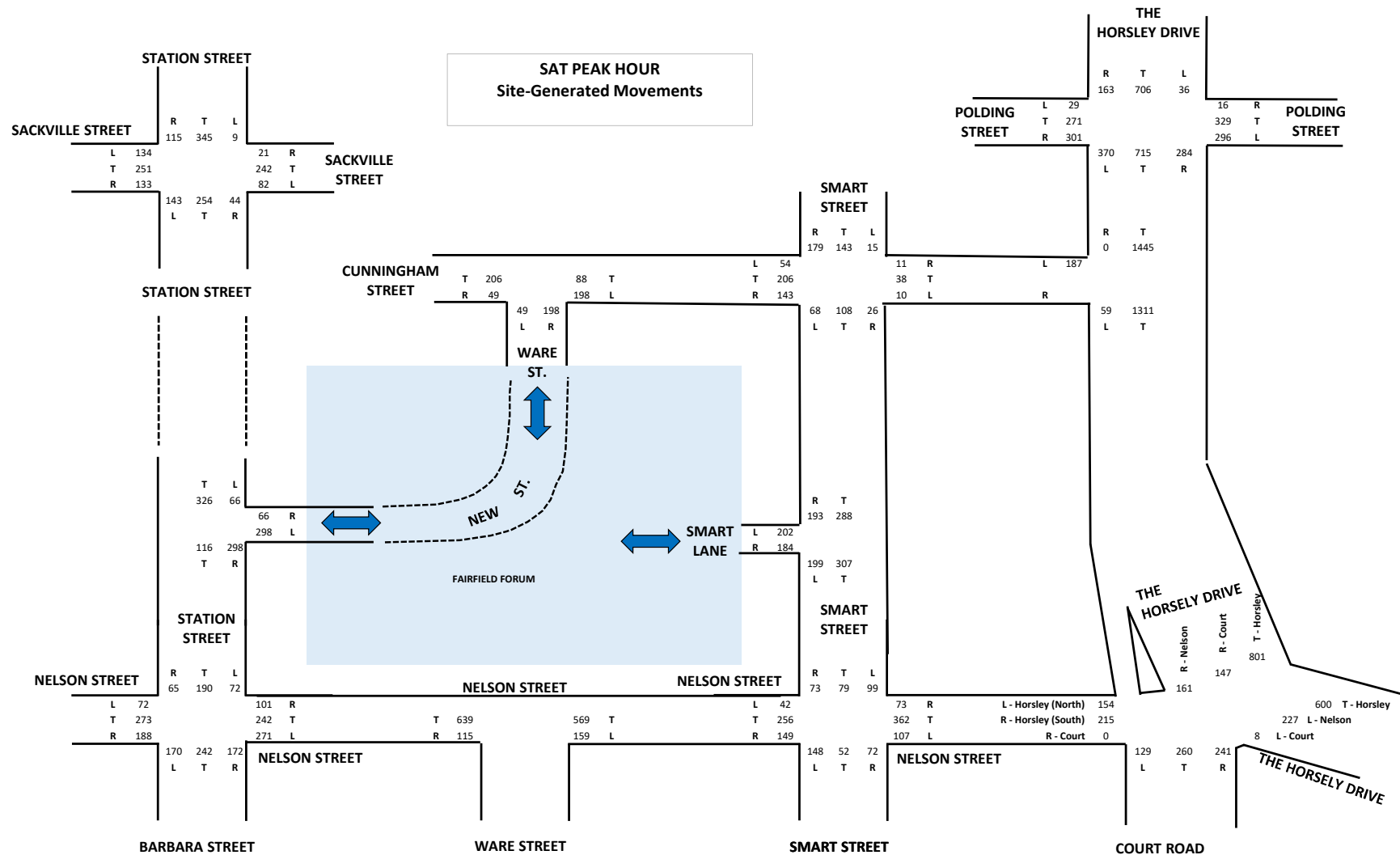


Saturday PEAK HOUR
Calibrated Existing (2029) Conditions + Growth



Saturday PEAK HOUR
Calibrated Existing (2019) Conditions





Appendix B Existing Conditions SIDRA Results :

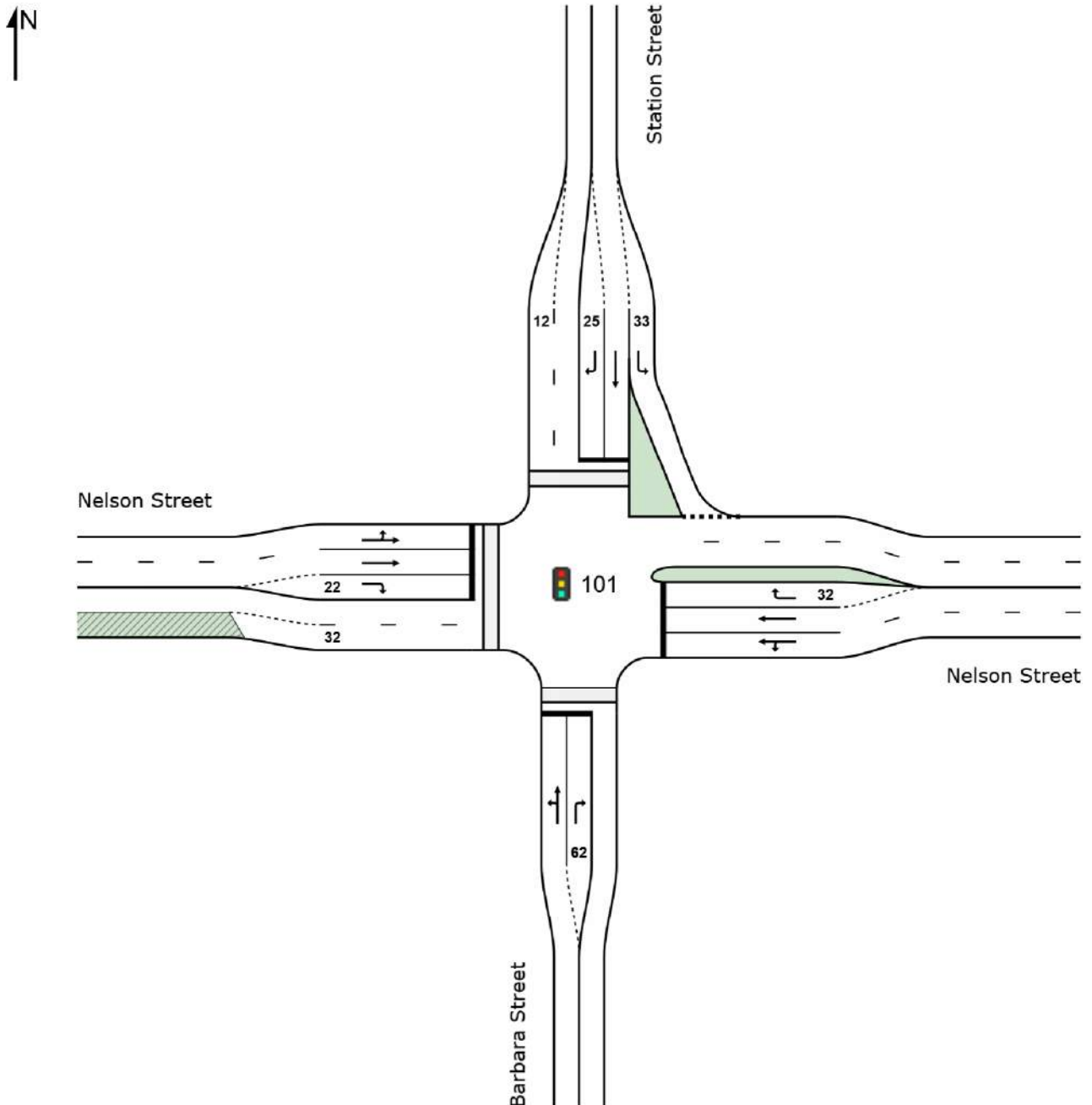
SITE LAYOUT

 **Site: 101 [EX AM Nelson/Station/Barbara]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 101 [EX AM Nelson/Station/Barbara]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed			
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m					km/h
South: Barbara Street														
1	L2	98	0.0	98	0.0	0.511	40.1	LOS D	5.9	41.6	0.92	0.78	0.92	15.1
2	T1	126	0.0	126	0.0	0.511	36.7	LOS D	5.9	41.6	0.92	0.78	0.92	28.2
3	R2	91	0.0	91	0.0	0.141	16.5	LOS B	1.3	9.0	0.68	0.68	0.68	29.5
Approach		315	0.0	315	0.0	0.511	31.9	LOS C	5.9	41.6	0.85	0.75	0.85	23.5
East: Nelson Street														
4	L2	192	5.0	192	5.0	0.243	14.8	LOS B	2.3	16.8	0.43	0.62	0.43	31.2
5	T1	148	5.0	148	5.0	0.524	24.6	LOS C	3.0	22.1	0.69	0.56	0.69	13.1
6	R2	9	5.0	9	5.0	0.044	50.9	LOS D	0.3	2.1	1.00	0.68	1.00	20.2
Approach		349	5.0	349	5.0	0.524	20.0	LOS B	3.0	22.1	0.56	0.59	0.56	25.7
North: Station Street														
7	L2	33	5.0	33	5.0	0.026	4.2	LOS A	0.1	0.9	0.20	0.48	0.20	36.7
8	T1	234	5.0	234	5.0	0.524	34.0	LOS C	6.0	43.5	0.90	0.75	0.90	29.2
9	R2	58	5.0	58	5.0	0.124	33.9	LOS C	1.3	9.7	0.80	0.70	0.80	23.9
Approach		324	5.0	324	5.0	0.524	31.0	LOS C	6.0	43.5	0.81	0.71	0.81	28.8
West: Nelson Street														
10	L2	26	5.0	26	5.0	0.348	41.5	LOS D	2.4	17.5	0.93	0.79	1.17	23.0
11	T1	174	5.0	174	5.0	0.348	41.2	LOS D	2.7	19.8	0.94	0.77	1.04	5.4
12	R2	105	5.0	105	5.0	0.489	50.1	LOS D	3.1	22.4	0.98	0.78	0.98	20.5
Approach		305	5.0	305	5.0	0.489	44.3	LOS D	3.1	22.4	0.95	0.77	1.03	14.9
All Vehicles		1294	3.8	1294	3.8	0.524	31.4	LOS C	6.0	43.5	0.78	0.71	0.80	24.0

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	Prop. Queued Distance m	Effective Stop Rate	
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	
All Pedestrians		158	44.3	LOS E			0.94	

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: 101 [EX AM Nelson/Station/Barbara]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E, F1*

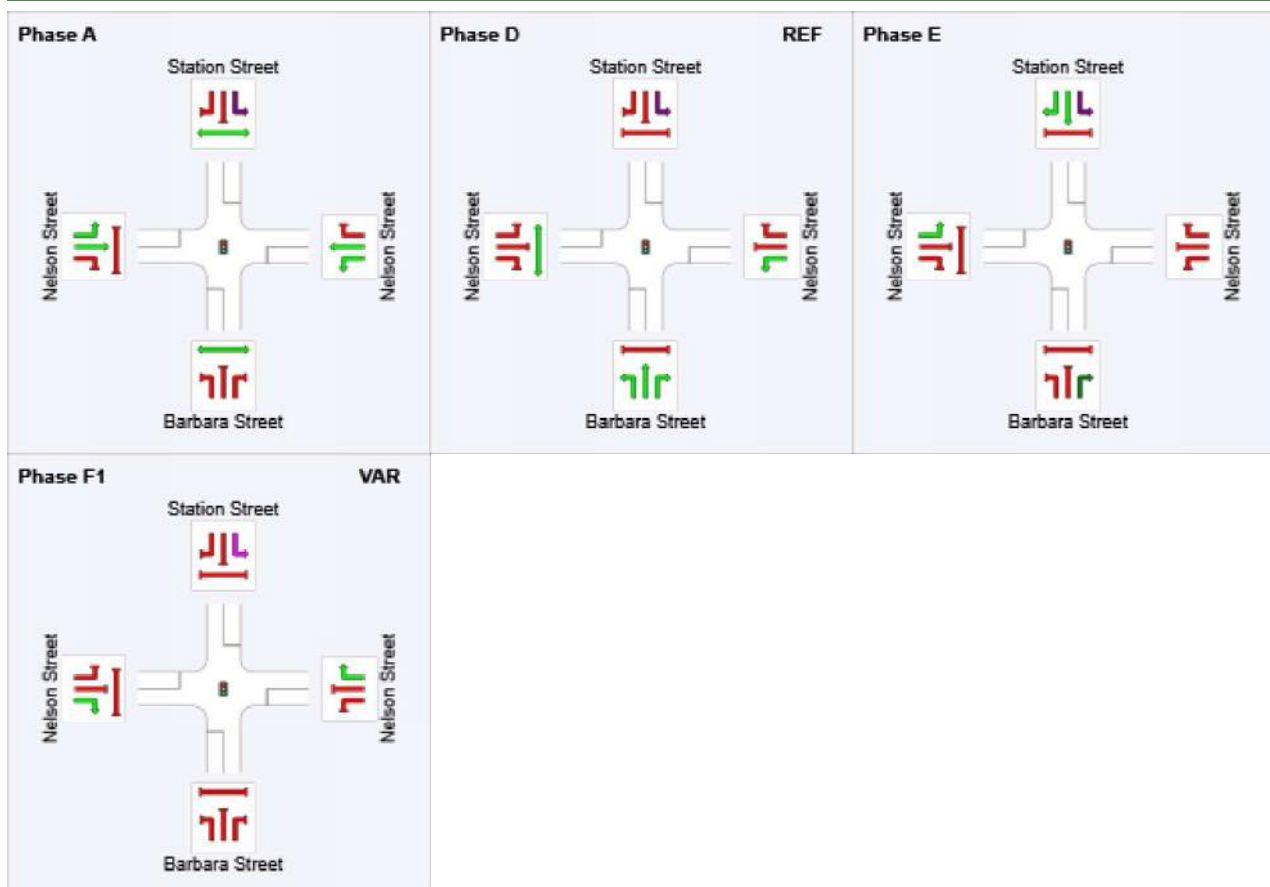
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F1
Phase Change Time (sec)	79	0	29	61
Green Time (sec)	15	23	26	12
Phase Time (sec)	21	29	32	18
Phase Split	21%	29%	32%	18%

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

 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

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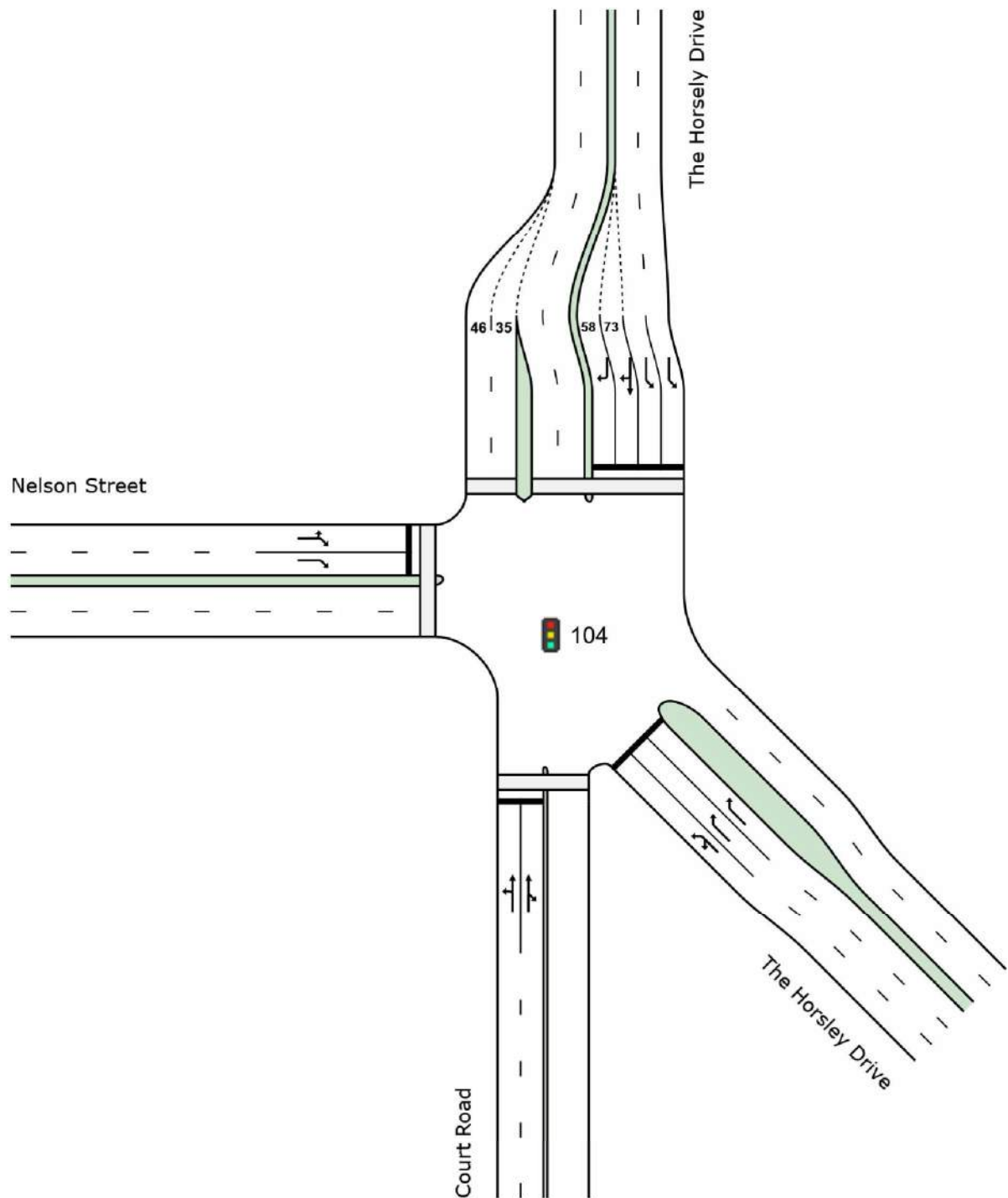
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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

SITE LAYOUT

 **Site: 104 [EX AM Nelson/Horsely/Court]**

New Site
Site Category: (None)
Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 104 [EX AM Nelson/Horsely/Court]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Court Road														
21	L2	46	5.0	46	5.0	0.838	65.8	LOS E	8.0	58.2	1.00	1.00	1.24	10.1
22	T1	159	5.0	159	5.0	0.838	62.4	LOS E	8.0	58.2	1.00	1.00	1.24	10.1
23b	R3	149	5.0	149	5.0	0.724	62.0	LOS E	5.5	40.2	1.00	0.87	1.11	23.1
Approach		355	5.0	355	5.0	0.838	62.6	LOS E	8.0	58.2	1.00	0.95	1.19	16.6
SouthEast: The Horsley Drive														
4b	L3	11	5.0	11	5.0	0.303	24.1	LOS C	5.7	41.8	0.61	0.73	0.61	36.8
4a	L1	273	5.0	273	5.0	0.303	22.1	LOS C	5.7	41.8	0.61	0.73	0.61	34.9
6a	R1	1015	5.0	1015	5.0	0.837	49.8	LOS D	18.3	133.5	0.99	0.94	1.10	23.0
Approach		1298	5.0	1298	5.0	0.837	43.8	LOS D	18.3	133.5	0.91	0.89	0.99	24.9
North: The Horsely Drive														
27a	L1	1156	5.0	1154	5.0	0.589	20.8	LOS C	14.0	102.4	0.66	0.78	0.66	41.7
28	T1	162	5.0	162	5.0	0.486	48.8	LOS D	5.8	42.2	0.94	0.79	0.94	23.3
29	R2	189	5.0	189	5.0	0.486	52.1	LOS D	5.8	42.2	0.94	0.80	0.94	18.0
Approach		1507	5.0	1506 ^{N1}	5.0	0.589	27.8	LOS C	14.0	102.4	0.73	0.78	0.73	36.4
West: Nelson Street														
30	L2	95	5.0	95	5.0	0.845	58.9	LOS E	8.1	59.0	1.00	1.03	1.40	6.9
32a	R1	337	5.0	337	5.0	0.845	61.8	LOS E	8.1	59.0	1.00	1.02	1.31	21.9
Approach		432	5.0	432	5.0	0.845	61.1	LOS E	8.1	59.0	1.00	1.02	1.33	19.5
All Vehicles		3592	5.0	3590 ^{N1}	5.0	0.845	41.0	LOS D	18.3	133.5	0.85	0.87	0.94	27.7

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.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Prop. Queued	Effective Stop Rate	
P5	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P71	North Stage 1	53	54.3	LOS E	0.2	0.2	0.95	0.95
P72	North Stage 2	53	54.3	LOS E	0.2	0.2	0.95	0.95
P8	West Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	54.3	LOS E			0.95	0.95

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: 104 [EX AM Nelson/Horsely/Court]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Split Phasing

Reference Phase: Phase C

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	52	98	0	22
Green Time (sec)	40	16	16	24
Phase Time (sec)	46	22	22	30
Phase Split	38%	18%	18%	25%

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

 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

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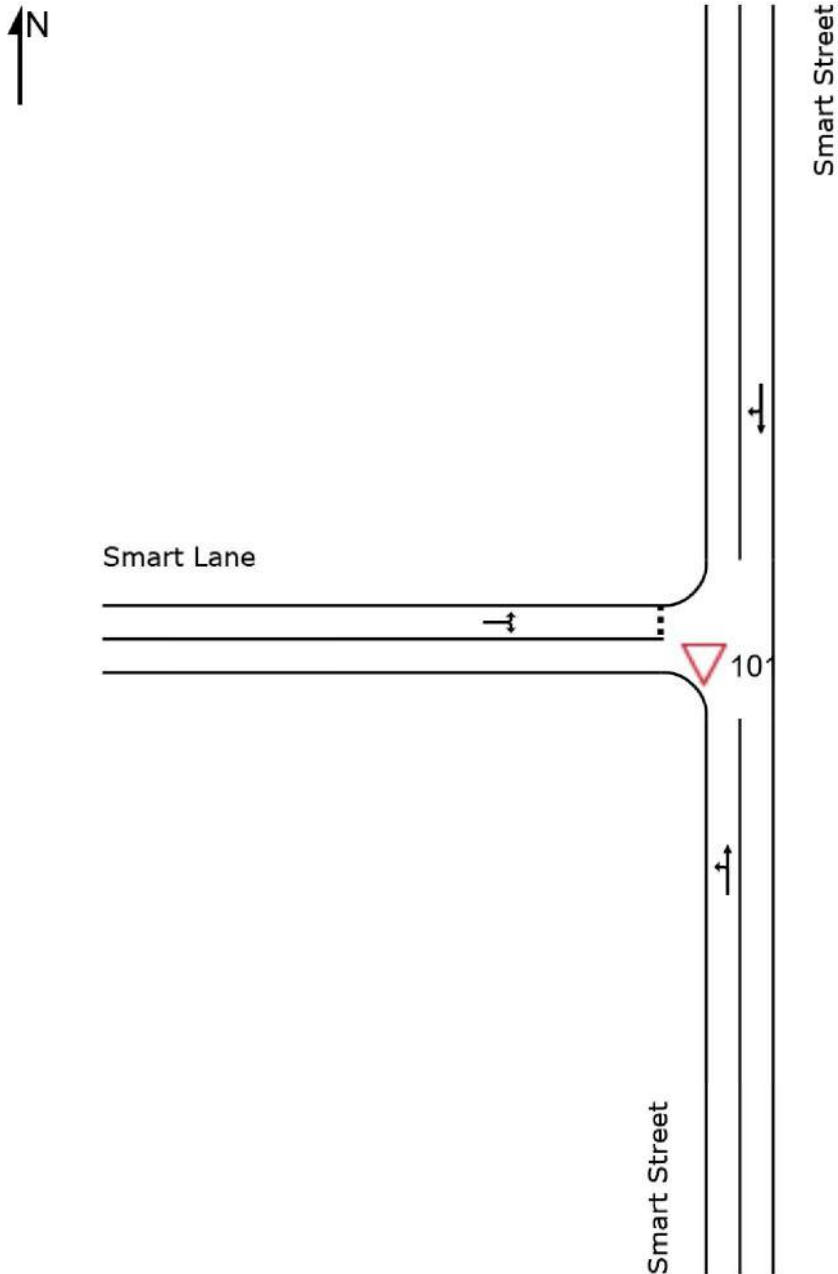
SITE LAYOUT

 **Site: 101 [EX AM Smart Lane]**

New Site

Site Category: (None)

Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

 Site: 101 [EX AM Smart Lane]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Smart Street														
1	L2	28	5.0	28	5.0	0.100	3.7	LOS A	0.0	0.0	0.00	0.09	0.00	55.7
2	T1	159	5.0	159	5.0	0.100	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	51.4
Approach		187	5.0	187	5.0	0.100	0.6	NA	0.0	0.0	0.00	0.09	0.00	54.1
North: Smart Street														
8	T1	414	5.0	414	5.0	0.382	0.2	LOS A	0.2	1.8	0.11	0.07	0.11	56.0
9	R2	55	5.0	55	5.0	0.382	6.4	LOS A	0.2	1.8	0.11	0.07	0.11	55.4
Approach		468	5.0	468	5.0	0.382	0.9	NA	0.2	1.8	0.11	0.07	0.11	55.9
West: Smart Lane														
10	L2	20	5.0	20	5.0	0.036	6.1	LOS A	0.0	0.4	0.25	0.58	0.25	49.0
12	R2	11	5.0	11	5.0	0.036	8.7	LOS A	0.0	0.4	0.25	0.58	0.25	49.0
Approach		31	5.0	31	5.0	0.036	7.0	LOS A	0.0	0.4	0.25	0.58	0.25	49.0
All Vehicles		686	5.0	686	5.0	0.382	1.1	NA	0.2	1.8	0.08	0.10	0.08	55.0

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.

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.

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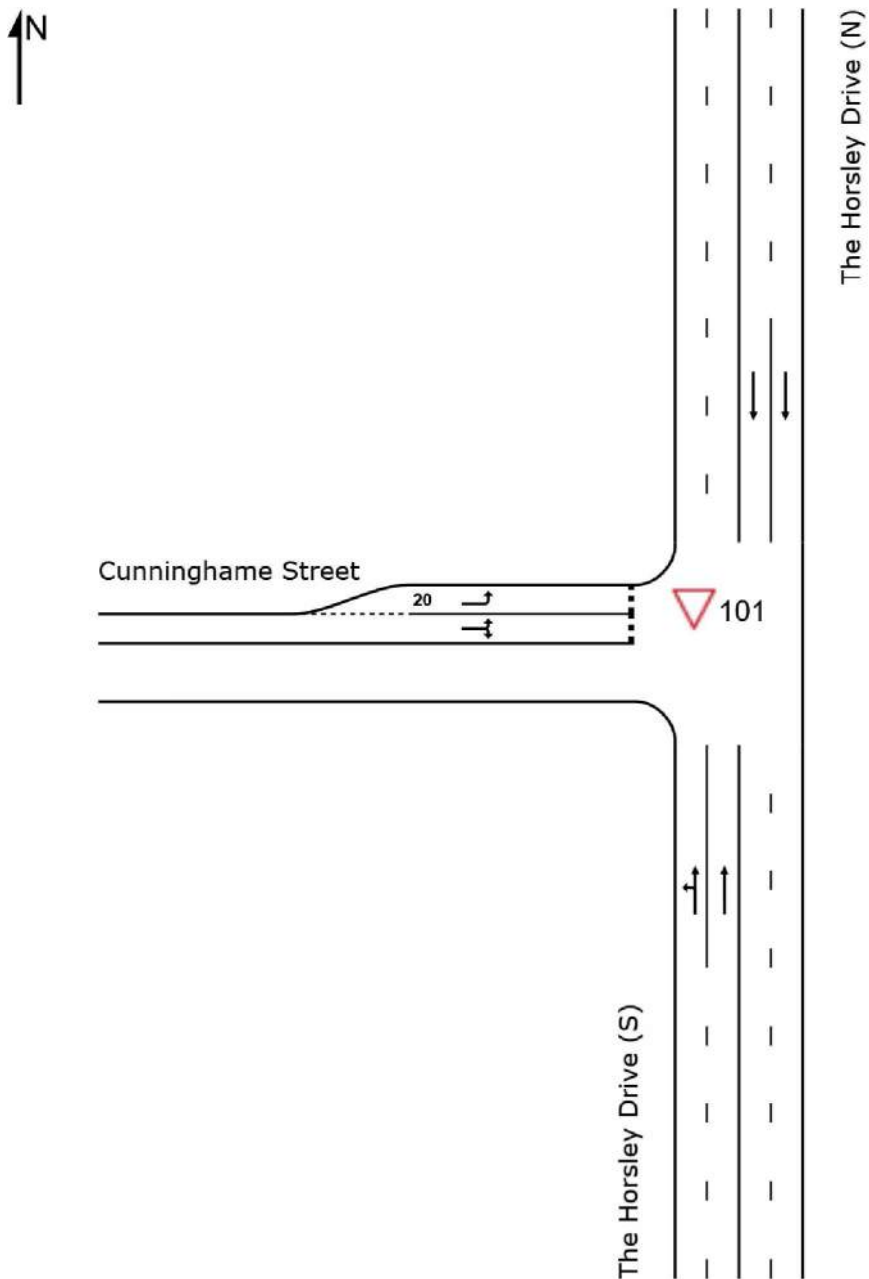
SITE LAYOUT

▽ Site: 101 [EX AM Cunninghame/Horsley]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

 Site: 101 [EX AM Cunninghame/Horsley]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	54	0.0	54	0.0	0.476	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	58.6
2	T1	1357	5.0	1357	5.0	0.476	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.2
Approach		1411	4.8	1411	4.8	0.476	0.3	NA	0.0	0.0	0.00	0.02	0.00	59.2
North: The Horsley Drive (N)														
8	T1	1589	5.0	1589	5.0	0.421	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1589	5.0	1589	5.0	0.421	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Cunninghame Street														
10	L2	60	0.0	60	0.0	0.116	9.5	LOS A	0.1	1.0	0.56	0.77	0.56	28.3
12	R2	13	0.0	13	0.0	1.173	793.2	LOS F	1.8	12.7	1.00	1.16	1.78	0.6
Approach		73	0.0	73	0.0	1.173	145.8	LOS F	1.8	12.7	0.64	0.84	0.77	3.1
All Vehicles		3073	4.8	3073	4.8	1.173	3.6	NA	1.8	12.7	0.02	0.03	0.02	47.6

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.

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.

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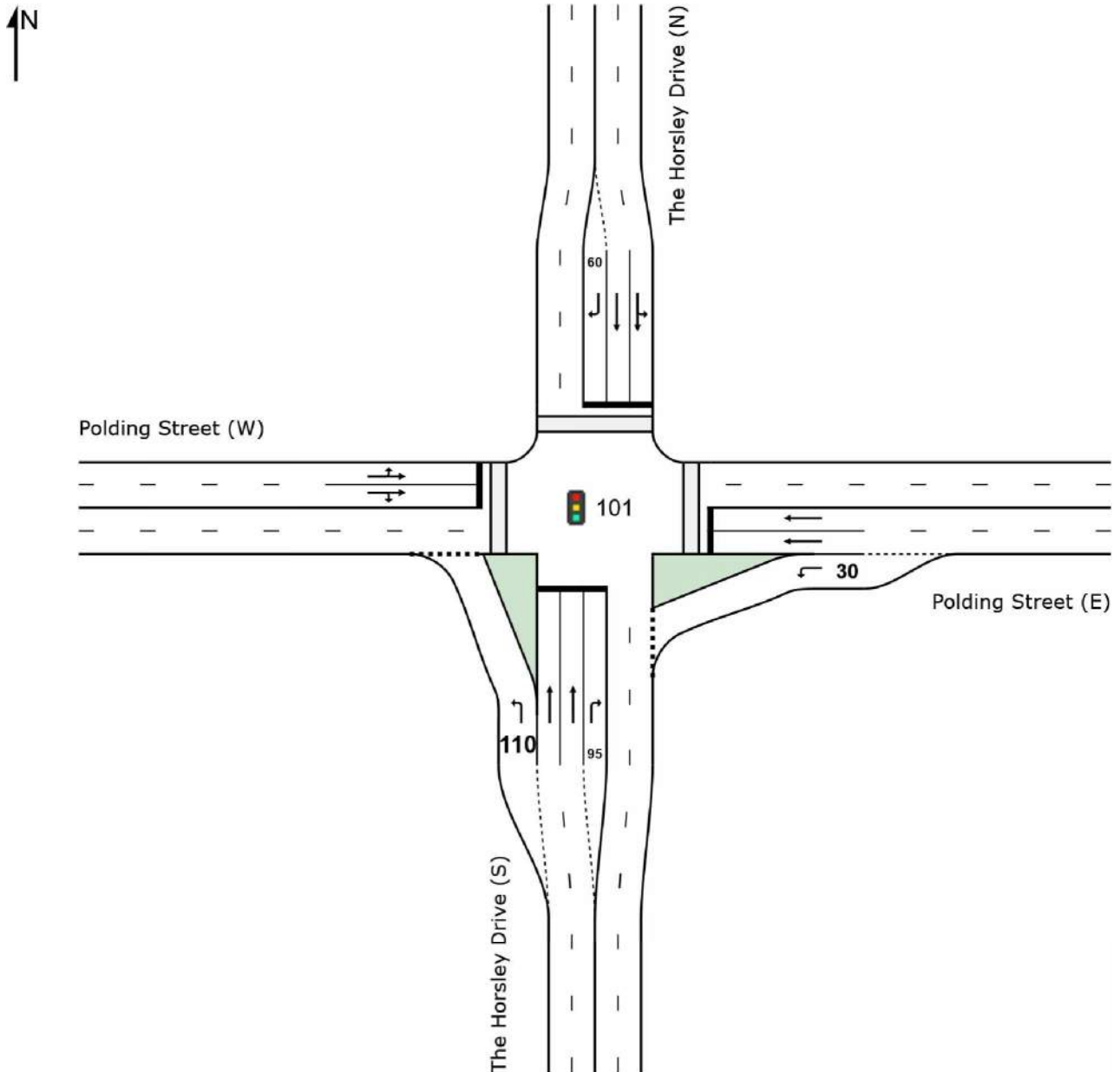
SITE LAYOUT

 **Site: 101 [EX AM Horsley/Polding]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 101 [EX AM Horsley/Polding]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	292	0.0	292	0.0	0.188	8.7	LOS A	2.7	18.9	0.28	0.63	0.28	48.0
2	T1	719	5.0	719	5.0	0.564	40.0	LOS D	12.2	88.8	0.87	0.76	0.87	29.4
3	R2	275	0.0	275	0.0	0.842	72.9	LOS E	12.1	85.0	1.00	0.92	1.17	20.4
Approach		1285	2.8	1285	2.8	0.842	39.9	LOS D	12.2	88.8	0.76	0.76	0.80	29.2
East: Polding Street (E)														
4	L2	332	0.0	332	0.0	0.419	23.4	LOS C	7.7	54.0	0.67	0.76	0.67	34.4
5	T1	318	0.0	318	0.0	0.822	70.8	LOS E	8.5	59.3	1.00	0.92	1.21	27.9
Approach		649	0.0	649	0.0	0.822	46.6	LOS D	8.5	59.3	0.83	0.84	0.94	29.8
North: The Horsley Drive (N)														
7	L2	35	0.0	35	0.0	0.831	65.2	LOS E	15.9	115.9	1.00	0.95	1.11	29.8
8	T1	675	5.0	675	5.0	0.831	59.3	LOS E	15.9	115.9	0.99	0.95	1.11	20.6
9	R2	83	0.0	83	0.0	0.579	75.6	LOS E	3.5	24.6	1.00	0.78	1.01	26.4
Approach		793	4.3	793	4.3	0.831	61.3	LOS E	15.9	115.9	0.99	0.93	1.10	22.0
West: Polding Street (W)														
10	L2	18	0.0	18	0.0	0.591	35.5	LOS D	15.7	109.7	0.80	0.72	0.80	39.5
11	T1	493	0.0	493	0.0	0.591	30.0	LOS C	15.7	109.7	0.80	0.72	0.80	40.2
12	R2	465	0.0	465	0.0	0.801	45.0	LOS D	16.0	112.1	0.98	0.90	1.06	24.6
Approach		976	0.0	976	0.0	0.801	37.2	LOS D	16.0	112.1	0.89	0.81	0.93	33.5
All Vehicles		3703	1.9	3703	1.9	0.842	45.0	LOS D	16.0	115.9	0.86	0.82	0.92	28.7

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [EX AM Horsley/Polding]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, D, E, F, F1*

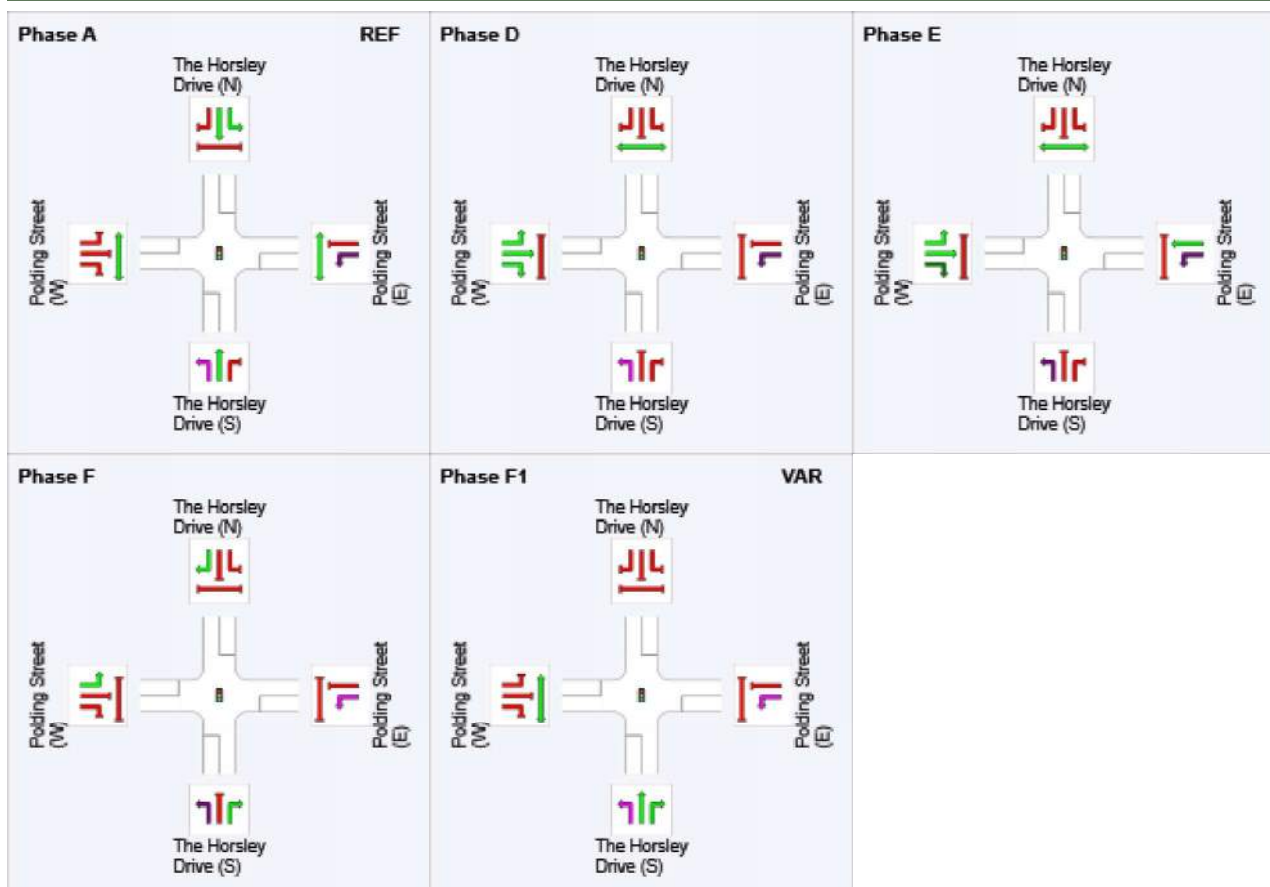
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F	F1
Phase Change Time (sec)	0	40	86	109	126
Green Time (sec)	34	40	17	11	8
Phase Time (sec)	40	46	23	17	14
Phase Split	29%	33%	16%	12%	10%

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

 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

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SITE LAYOUT

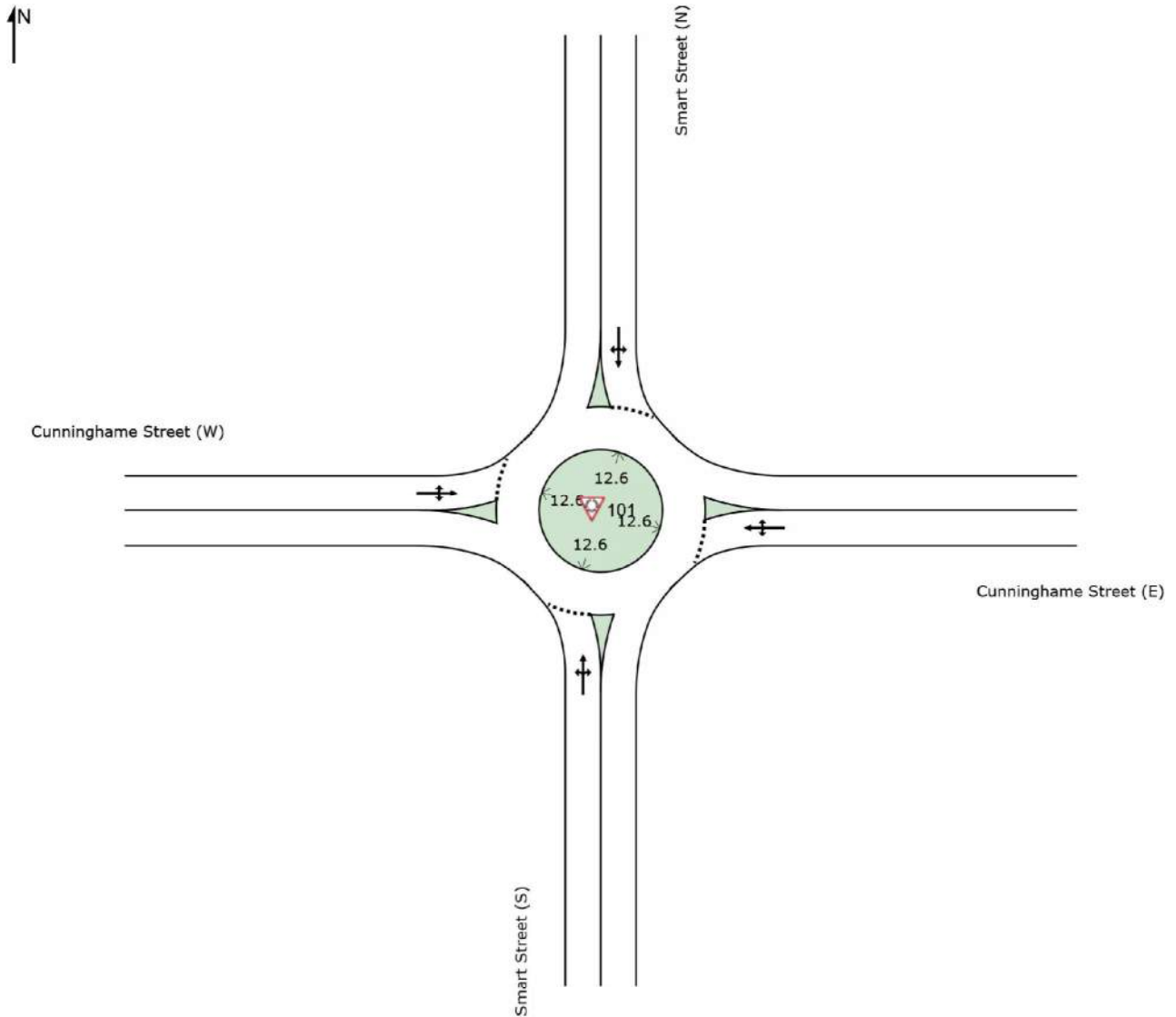


Site: 101 [EX AM Cunninghame/Smart]

New Site

Site Category: (None)

Roundabout



MOVEMENT SUMMARY

 Site: 101 [EX AM Cunninghame/Smart]

 Network: N101 [EX AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Smart Street (S)														
1	L2	40	0.0	40	0.0	0.125	4.7	LOS A	0.2	1.1	0.18	0.53	0.18	51.6
2	T1	81	0.0	81	0.0	0.125	4.7	LOS A	0.2	1.1	0.18	0.53	0.18	53.0
3	R2	26	0.0	26	0.0	0.125	8.5	LOS A	0.2	1.1	0.18	0.53	0.18	44.1
Approach		147	0.0	147	0.0	0.125	5.4	LOS A	0.2	1.1	0.18	0.53	0.18	51.8
East: Cunninghame Street (E)														
4	L2	22	0.0	22	0.0	0.083	5.9	LOS A	0.1	0.8	0.37	0.61	0.37	33.9
5	T1	49	0.0	49	0.0	0.083	5.8	LOS A	0.1	0.8	0.37	0.61	0.37	50.7
6	R2	12	0.0	12	0.0	0.083	9.4	LOS A	0.1	0.8	0.37	0.61	0.37	50.3
Approach		83	0.0	83	0.0	0.083	6.4	LOS A	0.1	0.8	0.37	0.61	0.37	48.8
North: Smart Street (N)														
7	L2	34	0.0	34	0.0	0.324	4.9	LOS A	0.5	3.4	0.22	0.53	0.22	50.1
8	T1	317	0.0	317	0.0	0.324	5.0	LOS A	0.5	3.4	0.22	0.53	0.22	50.1
9	R2	69	0.0	69	0.0	0.324	8.5	LOS A	0.5	3.4	0.22	0.53	0.22	53.9
Approach		420	0.0	420	0.0	0.324	5.6	LOS A	0.5	3.4	0.22	0.53	0.22	51.1
West: Cunninghame Street (W)														
10	L2	18	0.0	18	0.0	0.119	4.8	LOS A	0.1	1.0	0.18	0.58	0.18	52.7
11	T1	52	0.0	52	0.0	0.119	4.8	LOS A	0.1	1.0	0.18	0.58	0.18	49.3
12	R2	57	0.0	57	0.0	0.119	8.5	LOS A	0.1	1.0	0.18	0.58	0.18	49.3
Approach		126	0.0	126	0.0	0.119	6.5	LOS A	0.1	1.0	0.18	0.58	0.18	50.1
All Vehicles		777	0.0	777	0.0	0.324	5.8	LOS A	0.5	3.4	0.22	0.55	0.22	50.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

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.

Roundabout Capacity Model: SIDRA Standard.

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.

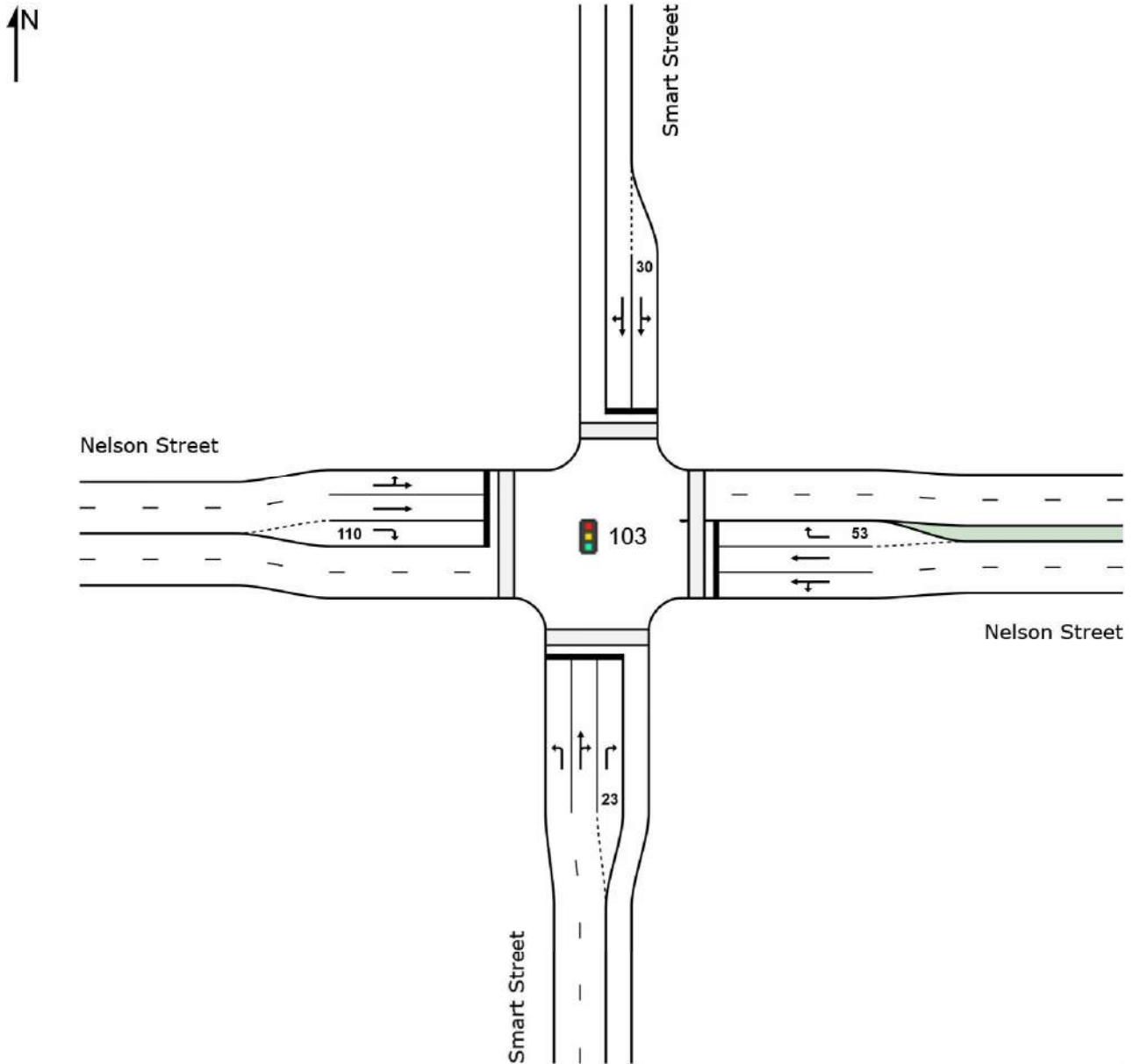
SITE LAYOUT

 **Site: 103 [EX AM Nelson/Smart]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 103 [EX AM Nelson/Smart]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Smart Street														
1	L2	71	5.0	71	5.0	0.303	47.3	LOS D	2.0	14.4	0.95	0.75	19.8	
2	T1	57	5.0	57	5.0	0.232	43.2	LOS D	1.6	11.5	0.93	0.71	20.8	
3	R2	43	5.0	43	5.0	0.185	46.4	LOS D	1.2	8.6	0.93	0.73	20.0	
Approach		171	5.0	171	5.0	0.303	45.7	LOS D	2.0	14.4	0.94	0.73	20.2	
East: Nelson Street														
4	L2	94	5.0	94	5.0	0.291	28.5	LOS C	4.0	29.3	0.76	0.69	27.3	
5	T1	286	5.0	286	5.0	0.291	25.2	LOS C	4.2	30.3	0.76	0.65	12.6	
6	R2	95	5.0	95	5.0	0.272	33.5	LOS C	2.2	16.3	0.81	0.74	10.4	
Approach		475	5.0	475	5.0	0.291	27.5	LOS C	4.2	30.3	0.77	0.68	17.2	
North: Smart Street														
7	L2	140	5.0	140	5.0	0.230	28.8	LOS C	3.0	21.9	0.76	0.73	6.4	
8	T1	140	5.0	140	5.0	0.412	26.9	LOS C	5.3	38.6	0.80	0.71	25.7	
9	R2	94	5.0	94	5.0	0.412	30.2	LOS C	5.3	38.6	0.80	0.71	6.7	
Approach		374	5.0	374	5.0	0.412	28.4	LOS C	5.3	38.6	0.78	0.72	17.7	
West: Nelson Street														
10	L2	38	5.0	38	5.0	0.195	34.1	LOS C	3.3	24.3	0.91	0.75	11.5	
11	T1	221	5.0	221	5.0	0.195	31.3	LOS C	3.4	24.5	0.92	0.75	11.5	
12	R2	127	5.0	127	5.0	0.421	45.5	LOS D	3.8	27.5	1.00	0.83	22.6	
Approach		386	5.0	386	5.0	0.421	36.2	LOS D	3.8	27.5	0.94	0.77	17.4	
All Vehicles		1405	5.0	1405	5.0	0.421	32.4	LOS C	5.3	38.6	0.84	0.72	17.9	

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		211	44.3	LOS E			0.94	0.94

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: 103 [EX AM Nelson/Smart]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E

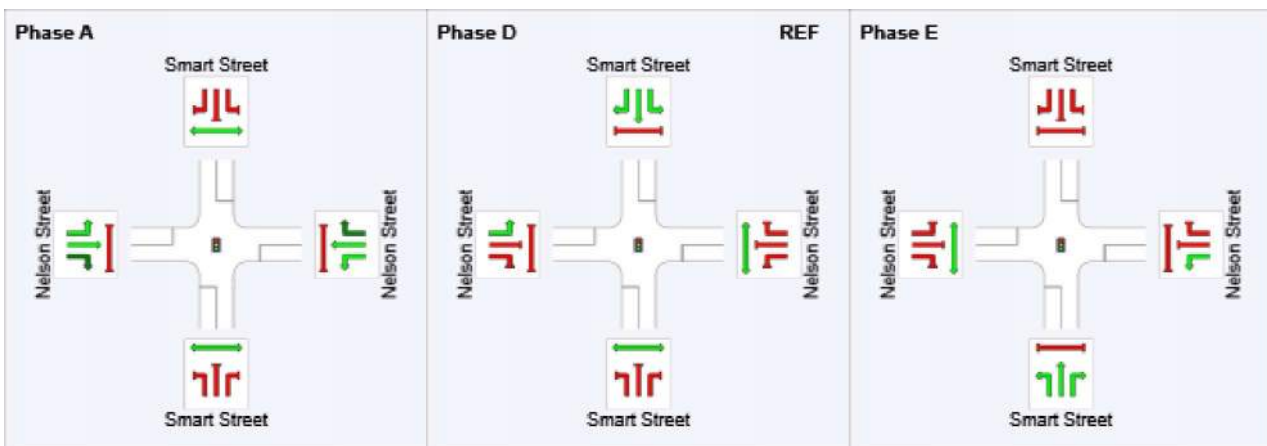
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E
Phase Change Time (sec)	59	0	40
Green Time (sec)	35	34	13
Phase Time (sec)	41	40	19
Phase Split	41%	40%	19%

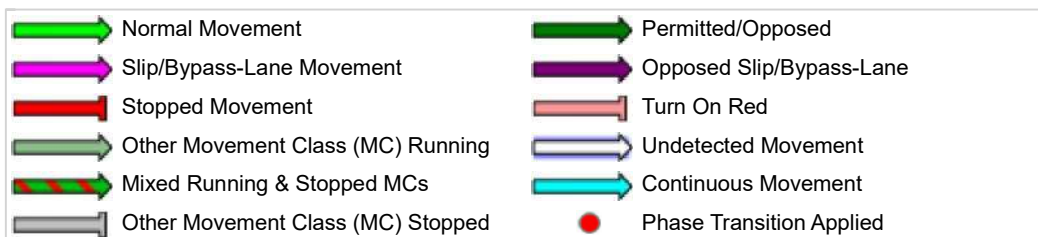
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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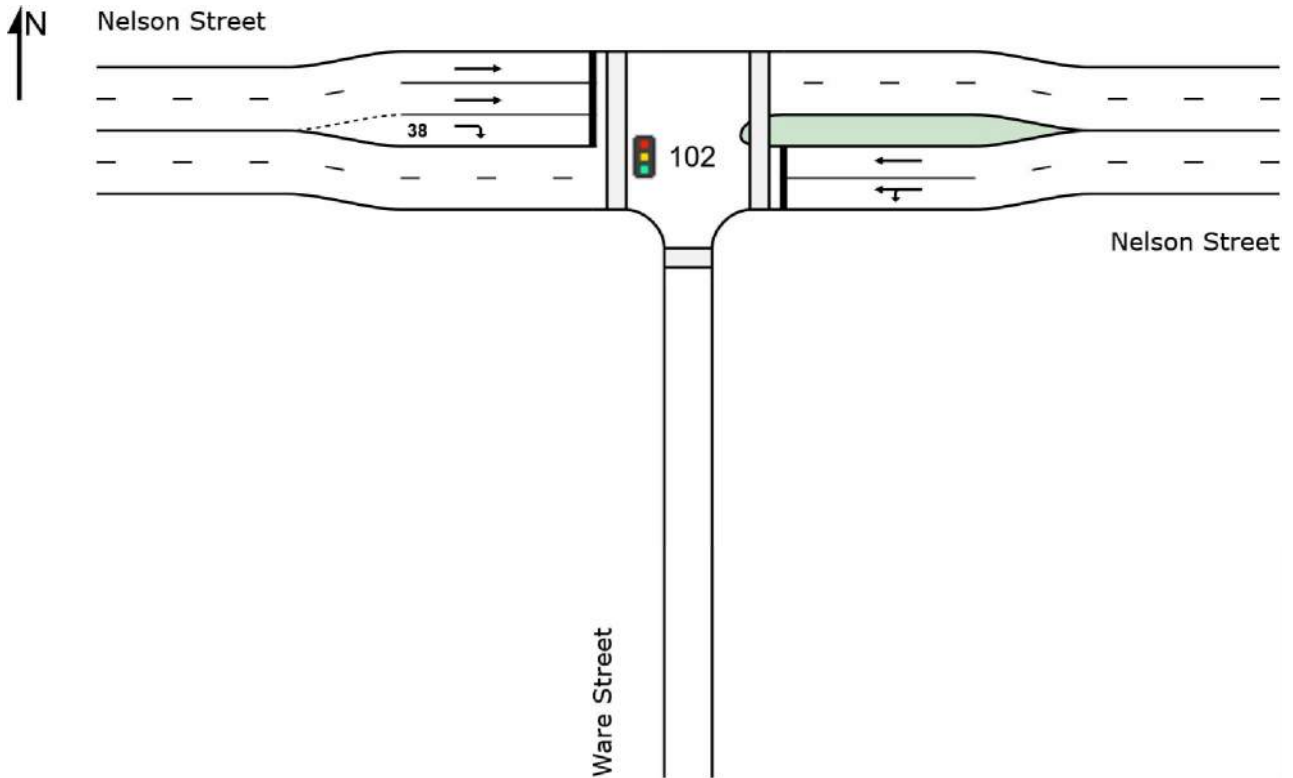
SITE LAYOUT

 **Site: 102 [EX AM Nelson/Ware]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



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MOVEMENT SUMMARY

 Site: 102 [EX AM Nelson/Ware]

 Network: N101 [EX AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m				km/h
East: Nelson Street														
4	L2	36	5.0	36	5.0	0.130	9.8	LOS A	2.7	19.6	0.54	0.49	0.54	35.8
5	T1	331	5.0	330	5.0	0.130	6.6	LOS A	2.9	20.9	0.55	0.48	0.55	25.7
Approach		366	5.0	366	5.0	0.130	6.9	LOS A	2.9	20.9	0.55	0.49	0.55	28.4
West: Nelson Street														
11	T1	477	5.0	477	5.0	0.168	2.5	LOS A	1.4	10.0	0.18	0.15	0.18	27.5
12	R2	82	5.0	82	5.0	0.118	6.4	LOS A	0.4	2.8	0.17	0.54	0.17	35.4
Approach		559	5.0	559	5.0	0.168	3.1	LOS A	1.4	10.0	0.18	0.21	0.18	31.9
All Vehicles		925	5.0	925	5.0	0.168	4.6	LOS A	2.9	20.9	0.33	0.32	0.33	30.1

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate		
		ped/h	sec		Pedestrian ped	Distance m			
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
All Pedestrians		158	44.3	LOS E			0.94	0.94	

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.

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PHASING SUMMARY

 **Site: 102 [EX AM Nelson/Ware]**

 **Network: N101 [EX AM]**

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B*, C

Output Phase Sequence: A, C

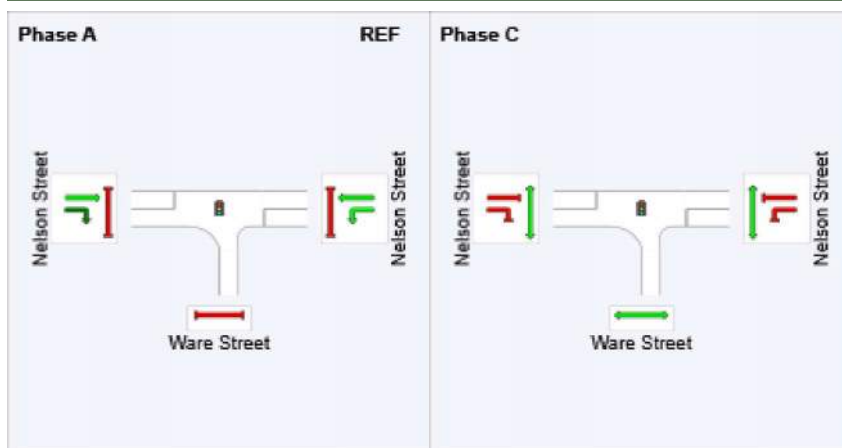
(* Variable Phase)

Phase Timing Summary

Phase	A	C
Phase Change Time (sec)	82	63
Green Time (sec)	75	14
Phase Time (sec)	80	20
Phase Split	80%	20%

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

 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

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MOVEMENT SUMMARY

 Site: 101 [EX PM Nelson/Station/Barbara]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Barbara Street														
1	L2	168	5.0	168	5.0	0.745	34.1	LOS C	11.7	85.4	0.91	0.84	0.94	15.9
2	T1	278	5.0	278	5.0	0.745	30.6	LOS C	11.7	85.4	0.91	0.84	0.94	29.7
3	R2	169	5.0	169	5.0	0.245	19.2	LOS B	2.8	20.4	0.72	0.72	0.72	28.3
Approach		616	5.0	616	5.0	0.745	28.4	LOS C	11.7	85.4	0.86	0.80	0.88	25.0
East: Nelson Street														
4	L2	205	5.0	205	5.0	0.244	12.0	LOS B	2.0	14.6	0.50	0.64	0.50	32.6
5	T1	178	5.0	178	5.0	0.725	34.4	LOS C	4.8	35.1	0.91	0.76	0.94	10.1
6	R2	39	5.0	39	5.0	0.310	56.7	LOS E	1.2	8.9	1.00	0.73	1.00	19.1
Approach		422	5.0	422	5.0	0.725	25.6	LOS C	4.8	35.1	0.72	0.70	0.73	23.3
North: Station Street														
7	L2	24	5.0	24	5.0	0.022	5.0	LOS A	0.1	0.9	0.25	0.49	0.25	36.1
8	T1	128	5.0	128	5.0	0.681	50.2	LOS D	4.0	29.0	1.00	0.86	1.10	25.9
9	R2	39	5.0	39	5.0	0.217	49.8	LOS D	1.1	8.2	0.96	0.73	0.96	20.1
Approach		192	5.0	192	5.0	0.681	44.4	LOS D	4.0	29.0	0.90	0.78	0.96	25.4
West: Nelson Street														
10	L2	48	5.0	48	5.0	0.305	36.6	LOS D	3.0	22.1	0.85	0.80	1.20	24.3
11	T1	235	5.0	235	5.0	0.305	33.9	LOS C	3.3	24.3	0.85	0.75	1.00	6.4
12	R2	159	5.0	159	5.0	0.682	33.5	LOS C	3.6	26.2	1.00	0.83	1.08	24.6
Approach		442	5.0	442	5.0	0.682	34.0	LOS C	3.6	26.2	0.90	0.79	1.05	18.2
All Vehicles		1672	5.0	1672	5.0	0.745	31.0	LOS C	11.7	85.4	0.84	0.77	0.90	23.5

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		158	44.3	LOS E			0.94	0.94

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: 101 [EX PM Nelson/Station/Barbara]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, C*, D, E, F1*

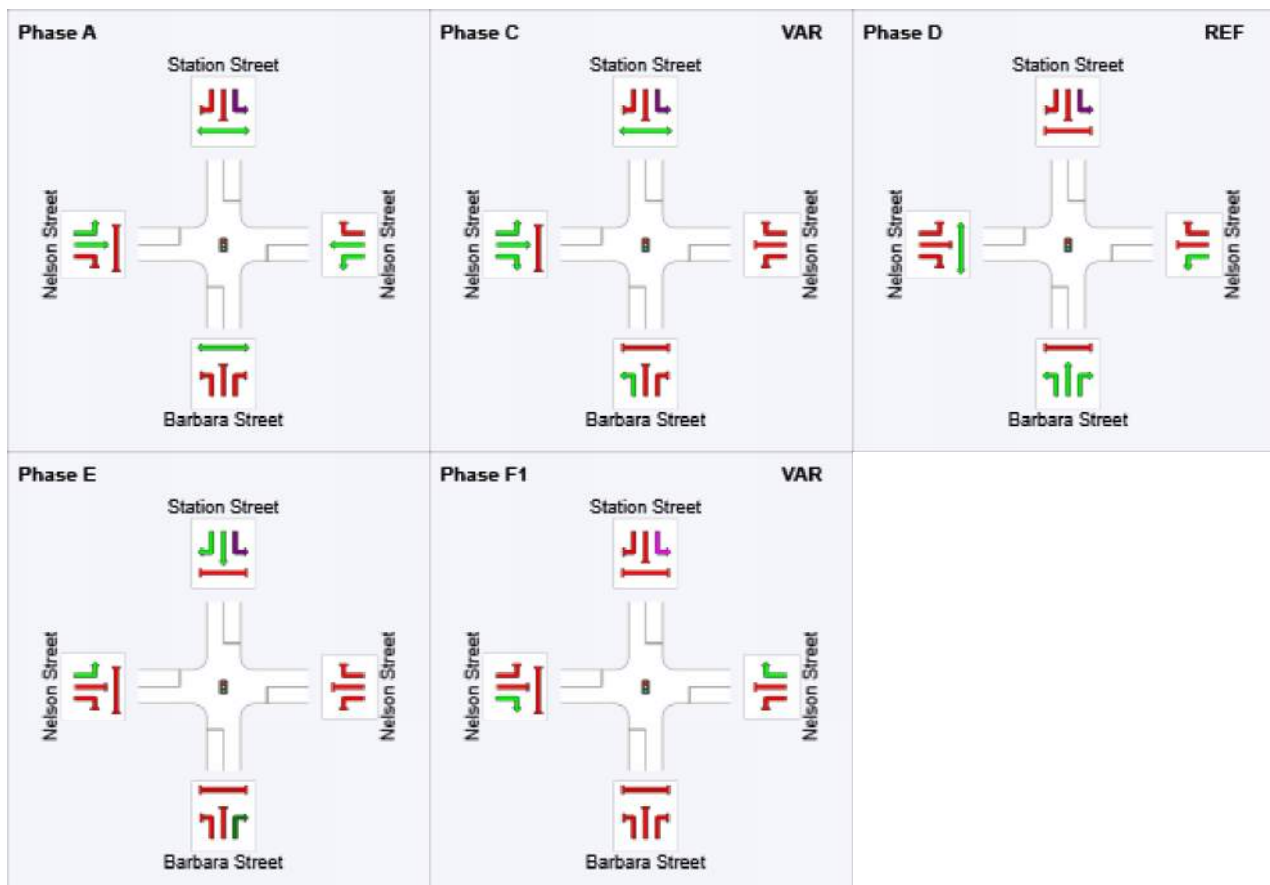
(* Variable Phase)

Phase Timing Summary

Phase	A	C	D	E	F1
Phase Change Time (sec)	100	19	31	71	87
Green Time (sec)	13	6	34	10	7
Phase Time (sec)	19	12	40	16	13
Phase Split	19%	12%	40%	16%	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



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

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MOVEMENT SUMMARY

 Site: 104 [EX PM Nelson/Horsely/Court]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Court Road														
21	L2	131	5.0	131	5.0	0.855	61.3	LOS E	12.6	91.8	1.00	1.00	1.20	10.6
22	T1	232	5.0	232	5.0	0.855	56.7	LOS E	12.6	91.8	1.00	0.98	1.18	10.8
23b	R3	206	5.0	206	5.0	0.737	54.9	LOS D	8.6	62.9	0.99	0.88	1.06	24.8
Approach		568	5.0	568	5.0	0.855	57.1	LOS E	12.6	91.8	1.00	0.95	1.14	16.8
SouthEast: The Horsley Drive														
4b	L3	8	5.0	8	5.0	0.473	27.4	LOS C	9.9	72.6	0.70	0.77	0.70	35.3
4a	L1	420	5.0	420	5.0	0.473	25.4	LOS C	9.9	72.6	0.70	0.77	0.70	32.9
6a	R1	1118	5.0	1118	5.0	0.878	53.9	LOS D	21.5	157.2	1.00	0.97	1.16	21.9
Approach		1546	5.0	1546	5.0	0.878	46.0	LOS D	21.5	157.2	0.92	0.92	1.03	24.2
North: The Horsely Drive														
27a	L1	1111	5.0	1111	5.0	0.610	23.9	LOS C	14.6	106.3	0.71	0.80	0.71	40.0
28	T1	145	5.0	145	5.0	0.552	55.4	LOS E	5.0	36.4	0.98	0.80	0.98	21.8
29	R2	87	5.0	87	5.0	0.349	56.9	LOS E	2.9	21.2	0.95	0.77	0.95	16.9
Approach		1343	5.0	1343	5.0	0.610	29.5	LOS C	14.6	106.3	0.76	0.79	0.76	36.1
West: Nelson Street														
30	L2	115	5.0	115	5.0	0.773	43.1	LOS D	5.0	36.2	1.00	0.92	1.21	8.8
32a	R1	207	5.0	207	5.0	0.773	56.6	LOS E	5.3	38.9	1.00	0.93	1.19	23.0
Approach		322	5.0	322	5.0	0.773	51.8	LOS D	5.3	38.9	1.00	0.92	1.20	19.7
All Vehicles		3780	5.0	3780	5.0	0.878	42.3	LOS D	21.5	157.2	0.88	0.88	0.97	26.7

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P5	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P71	North Stage 1	53	54.3	LOS E	0.2	0.2	0.95	0.95
P72	North Stage 2	53	54.3	LOS E	0.2	0.2	0.95	0.95
P8	West Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	54.3	LOS E			0.95	0.95

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: 104 [EX PM Nelson/Horsely/Court]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase C

Input Phase Sequence: A, B*, C, D, E

Output Phase Sequence: A, C, D, E

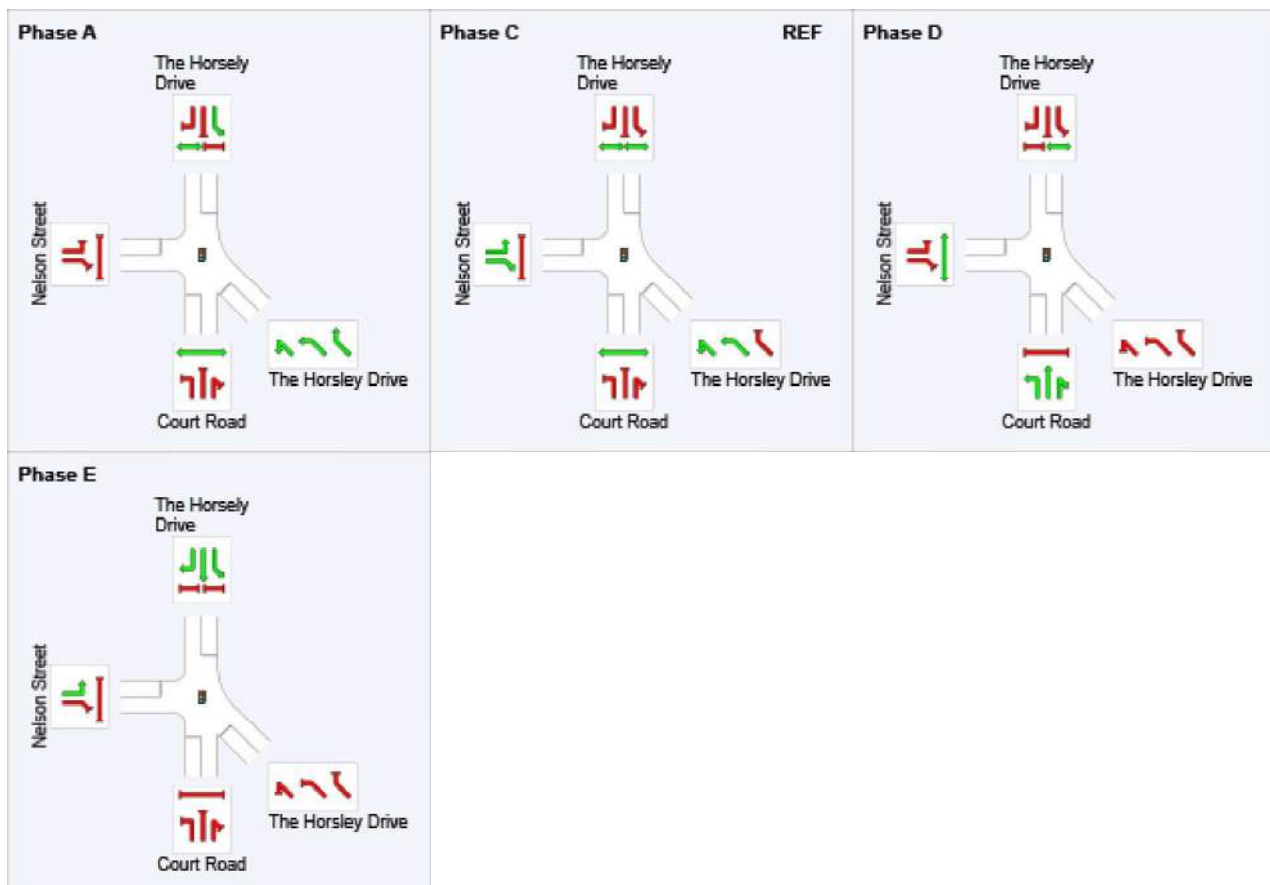
(* Variable Phase)

Phase Timing Summary

Phase	A	C	D	E
Phase Change Time (sec)	72	0	18	49
Green Time (sec)	42	12	25	17
Phase Time (sec)	48	18	31	23
Phase Split	40%	15%	26%	19%

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

 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

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MOVEMENT SUMMARY

 Site: 101 [EX PM Smart Lane]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed			
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m					km/h
South: Smart Street														
1	L2	36	5.0	36	5.0	0.191	3.7	LOS A	0.0	0.0	0.00	0.06	0.00	56.0
2	T1	323	5.0	323	5.0	0.191	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	54.0
Approach		359	5.0	359	5.0	0.191	0.4	NA	0.0	0.0	0.00	0.06	0.00	55.0
North: Smart Street														
8	T1	285	5.0	285	5.0	0.217	0.3	LOS A	0.1	1.0	0.12	0.06	0.12	56.3
9	R2	29	5.0	29	5.0	0.217	7.2	LOS A	0.1	1.0	0.12	0.06	0.12	55.5
Approach		315	5.0	315	5.0	0.217	0.9	NA	0.1	1.0	0.12	0.06	0.12	56.1
West: Smart Lane														
10	L2	39	5.0	39	5.0	0.066	6.8	LOS A	0.1	0.7	0.40	0.63	0.40	48.5
12	R2	20	5.0	20	5.0	0.066	8.6	LOS A	0.1	0.7	0.40	0.63	0.40	48.5
Approach		59	5.0	59	5.0	0.066	7.4	LOS A	0.1	0.7	0.40	0.63	0.40	48.5
All Vehicles		733	5.0	733	5.0	0.217	1.2	NA	0.1	1.0	0.08	0.10	0.08	54.3

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.

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.

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 101 [EX PM Cunninghame/Horsley]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Back of Queue Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		veh	m				km/h
South: The Horsley Drive (S)														
1	L2	49	0.0	49	0.0	0.626	5.7	LOS A	0.0	0.0	0.00	0.04	0.00	58.7
2	T1	1572	5.0	1572	5.0	0.626	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.1
Approach		1621	4.8	1621	4.8	0.626	0.3	NA	0.0	0.0	0.00	0.02	0.00	59.1
North: The Horsley Drive (N)														
8	T1	1528	5.0	1528	5.0	0.405	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1528	5.0	1528	5.0	0.405	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Cunninghame Street														
10	L2	93	0.0	93	0.0	0.241	11.2	LOS B	0.3	1.8	0.62	0.85	0.65	25.9
12	R2	7	0.0	7	0.0	0.947	898.6	LOS F	1.1	7.8	1.00	1.07	1.33	0.6
Approach		100	0.0	100	0.0	0.947	76.5	LOS F	1.1	7.8	0.65	0.87	0.70	6.0
All Vehicles		3249	4.8	3249	4.8	0.947	2.5	NA	1.1	7.8	0.02	0.04	0.02	51.4

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.

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.

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MOVEMENT SUMMARY

 Site: 101 [EX PM Horsley/Polding]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	442	0.0	442	0.0	0.322	13.0	LOS B	6.7	47.2	0.43	0.68	0.43	44.1
2	T1	805	5.0	805	5.0	0.594	38.5	LOS D	13.6	99.0	0.87	0.76	0.87	29.9
3	R2	293	0.0	293	0.0	0.896	79.9	LOS E	13.8	96.6	1.00	0.97	1.27	19.2
Approach		1540	2.6	1540	2.6	0.896	39.1	LOS D	13.8	99.0	0.77	0.78	0.82	29.5
East: Polding Street (E)														
4	L2	206	0.0	206	0.0	0.231	20.6	LOS C	4.1	28.9	0.58	0.72	0.58	36.3
5	T1	543	0.0	543	0.0	0.868	67.4	LOS E	15.0	104.9	0.98	0.98	1.21	28.6
Approach		749	0.0	749	0.0	0.868	54.5	LOS D	15.0	104.9	0.87	0.90	1.04	29.6
North: The Horsley Drive (N)														
7	L2	21	0.0	21	0.0	0.883	67.6	LOS E	21.1	153.8	1.00	1.01	1.17	29.3
8	T1	858	5.0	858	5.0	0.883	61.8	LOS E	21.1	153.8	0.99	1.01	1.17	20.1
9	R2	106	0.0	106	0.0	0.582	72.5	LOS E	4.4	30.8	1.00	0.79	1.00	27.0
Approach		985	4.4	985	4.4	0.883	63.1	LOS E	21.1	153.8	0.99	0.98	1.15	21.4
West: Polding Street (W)														
10	L2	18	0.0	18	0.0	0.411	36.2	LOS D	9.4	65.5	0.75	0.66	0.75	39.1
11	T1	303	0.0	303	0.0	0.411	30.7	LOS C	9.4	65.5	0.75	0.66	0.75	39.9
12	R2	320	0.0	320	0.0	0.876	57.3	LOS E	12.0	83.7	1.00	0.95	1.25	21.2
Approach		641	0.0	641	0.0	0.876	44.1	LOS D	12.0	83.7	0.88	0.81	1.00	30.7
All Vehicles		3916	2.1	3916	2.1	0.896	48.9	LOS D	21.1	153.8	0.86	0.86	0.97	27.5

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [EX PM Horsley/Polding]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, D, E, F, F1*

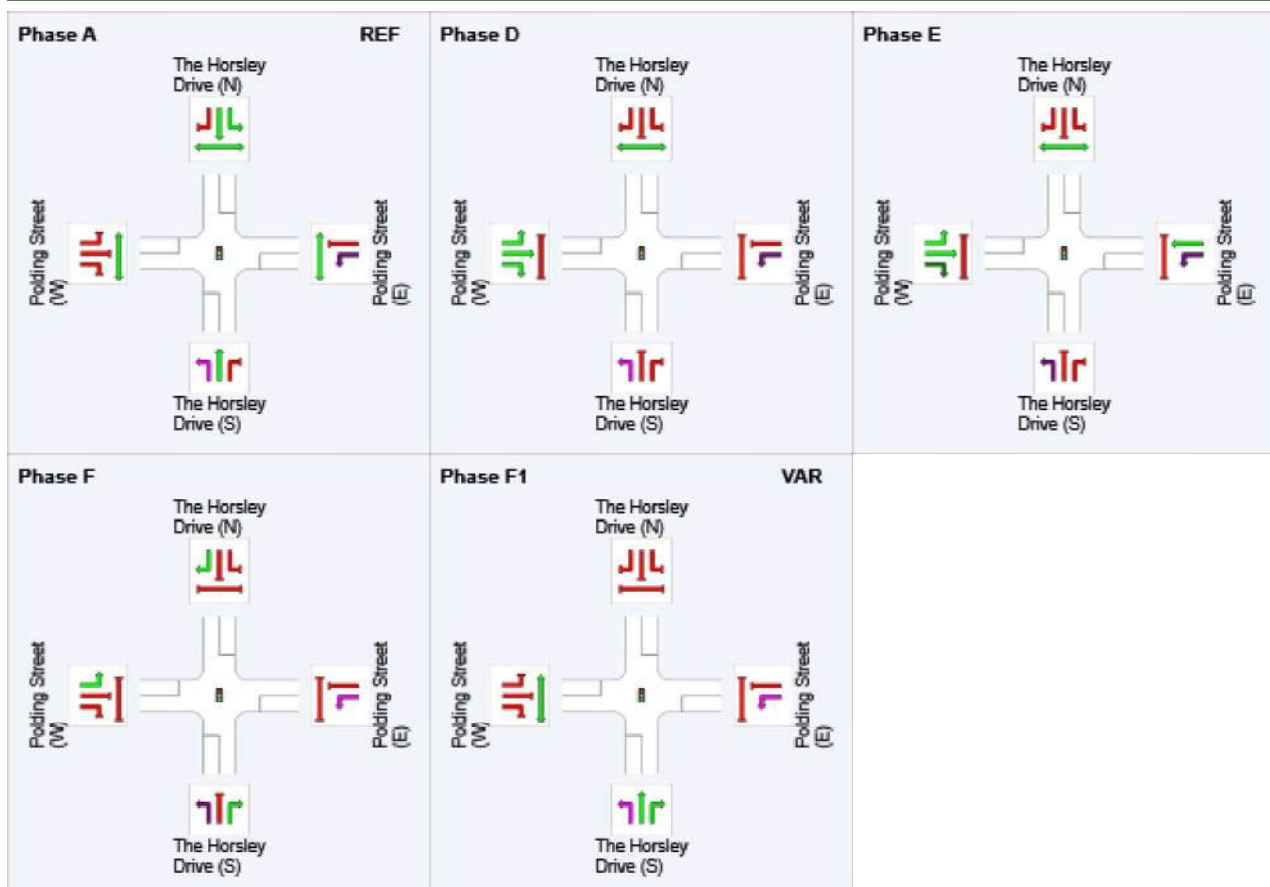
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F	F1
Phase Change Time (sec)	0	46	75	109	129
Green Time (sec)	40	23	28	14	5
Phase Time (sec)	46	29	34	20	11
Phase Split	33%	21%	24%	14%	8%

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

	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

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MOVEMENT SUMMARY

 Site: 103 [EX PM Nelson/Smart]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed			
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m					
South: Smart Street														
1	L2	123	5.0	123	5.0	0.429	45.4	LOS D	3.4	25.0	0.95	0.78	0.95	20.2
2	T1	119	5.0	119	5.0	0.394	41.6	LOS D	3.3	23.9	0.94	0.75	0.94	21.2
3	R2	93	5.0	93	5.0	0.323	44.5	LOS D	2.5	18.4	0.93	0.76	0.93	20.4
Approach		335	5.0	335	5.0	0.429	43.8	LOS D	3.4	25.0	0.94	0.76	0.94	20.6
East: Nelson Street														
4	L2	74	5.0	74	5.0	0.299	21.9	LOS C	4.7	34.1	0.67	0.62	0.67	29.9
5	T1	431	5.0	431	5.0	0.299	18.6	LOS B	4.8	34.9	0.67	0.59	0.67	15.4
6	R2	196	5.0	196	5.0	0.438	28.0	LOS C	4.4	32.0	0.78	0.76	0.78	11.9
Approach		700	5.0	700	5.0	0.438	21.6	LOS C	4.8	34.9	0.70	0.64	0.70	17.4
North: Smart Street														
7	L2	76	5.0	76	5.0	0.201	38.9	LOS D	1.9	13.8	0.86	0.74	0.86	4.9
8	T1	101	5.0	101	5.0	0.440	37.7	LOS D	4.5	33.0	0.92	0.77	0.92	22.6
9	R2	69	5.0	69	5.0	0.440	41.0	LOS D	4.5	33.0	0.92	0.77	0.92	5.1
Approach		246	5.0	246	5.0	0.440	39.0	LOS D	4.5	33.0	0.90	0.76	0.90	15.3
West: Nelson Street														
10	L2	46	5.0	46	5.0	0.158	28.2	LOS C	3.3	24.4	0.89	0.74	0.89	13.2
11	T1	223	5.0	223	5.0	0.158	20.9	LOS C	3.3	24.4	0.78	0.64	0.78	15.0
12	R2	89	5.0	89	5.0	0.259	35.9	LOS D	2.4	17.6	0.93	0.79	0.93	24.9
Approach		359	5.0	359	5.0	0.259	25.6	LOS C	3.3	24.4	0.83	0.69	0.83	19.5
All Vehicles		1640	5.0	1640	5.0	0.440	29.6	LOS C	4.8	34.9	0.81	0.70	0.81	18.5

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	Prop. Queued Distance m	Effective Stop Rate	
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		211	44.3	LOS E			0.94	0.94

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: 103 [EX PM Nelson/Smart]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E

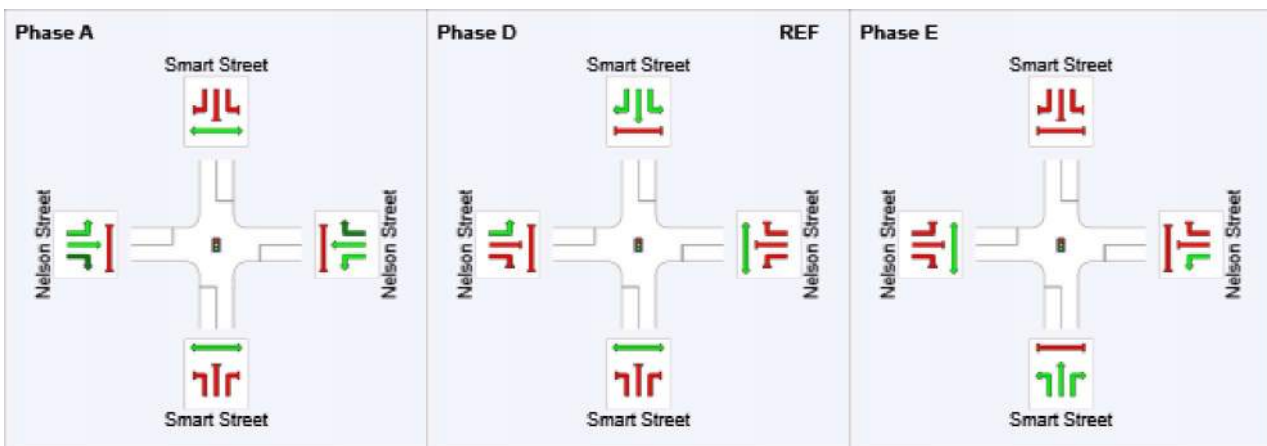
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E
Phase Change Time (sec)	49	0	27
Green Time (sec)	45	21	16
Phase Time (sec)	51	27	22
Phase Split	51%	27%	22%

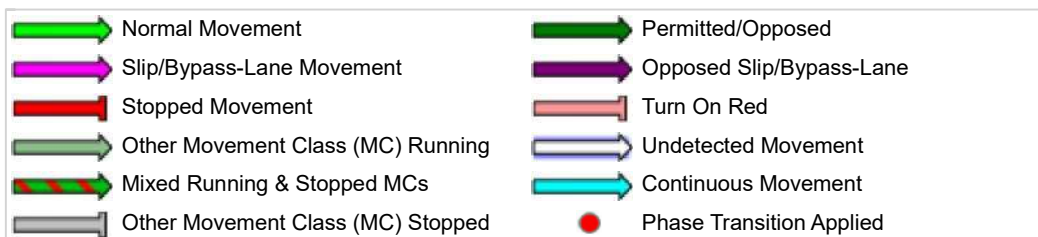
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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MOVEMENT SUMMARY

 Site: 102 [EX PM Nelson/Ware]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m				km/h
East: Nelson Street														
4	L2	34	5.0	34	5.0	0.238	9.2	LOS A	4.5	32.5	0.49	0.45	0.49	36.3
5	T1	586	5.0	586	5.0	0.238	6.6	LOS A	4.7	34.6	0.54	0.49	0.54	25.8
Approach		620	5.0	620	5.0	0.238	6.7	LOS A	4.7	34.6	0.54	0.49	0.54	27.4
West: Nelson Street														
11	T1	340	5.0	340	5.0	0.120	2.3	LOS A	0.8	5.8	0.17	0.14	0.17	28.1
12	R2	75	5.0	75	5.0	0.150	6.9	LOS A	0.4	2.6	0.17	0.54	0.17	35.1
Approach		415	5.0	415	5.0	0.150	3.2	LOS A	0.8	5.8	0.17	0.21	0.17	32.4
All Vehicles		1035	5.0	1035	5.0	0.238	5.3	LOS A	4.7	34.6	0.39	0.38	0.39	29.2

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate		
		ped/h	sec		Pedestrian ped	Distance m			
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
All Pedestrians		158	44.3	LOS E			0.94	0.94	

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.

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PHASING SUMMARY

 Site: 102 [EX PM Nelson/Ware]

 Network: N101 [EX PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B*, C

Output Phase Sequence: A, C

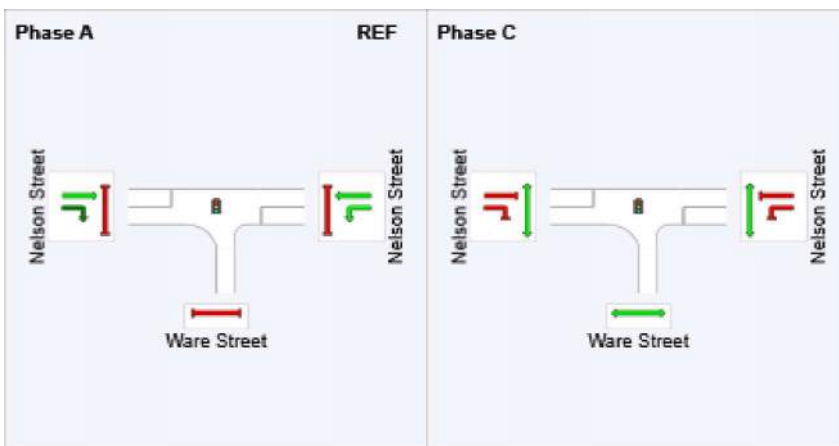
(* Variable Phase)

Phase Timing Summary

Phase	A	C
Phase Change Time (sec)	89	70
Green Time (sec)	75	14
Phase Time (sec)	80	20
Phase Split	80%	20%

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

	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

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MOVEMENT SUMMARY

 Site: 101 [EX SAT Nelson/Station/Barbara]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Barbara Street														
1	L2	179	5.0	179	5.0	0.779	41.1	LOS D	11.2	81.8	0.96	0.90	1.05	15.0
2	T1	211	5.0	211	5.0	0.779	37.7	LOS D	11.2	81.8	0.96	0.90	1.05	28.0
3	R2	181	5.0	181	5.0	0.298	21.6	LOS C	3.2	23.5	0.78	0.74	0.78	27.3
Approach		571	5.0	571	5.0	0.779	33.7	LOS C	11.2	81.8	0.90	0.85	0.96	22.9
East: Nelson Street														
4	L2	285	5.0	285	5.0	0.306	18.7	LOS B	5.3	38.8	0.67	0.73	0.67	29.4
5	T1	232	5.0	232	5.0	0.753	32.2	LOS C	6.1	44.5	0.89	0.76	0.92	10.7
6	R2	59	5.0	59	5.0	0.183	48.8	LOS D	1.8	12.9	1.00	0.77	1.00	20.6
Approach		576	5.0	576	5.0	0.753	27.2	LOS C	6.1	44.5	0.79	0.75	0.81	22.9
North: Station Street														
7	L2	28	5.0	28	5.0	0.025	5.2	LOS A	0.2	1.1	0.27	0.50	0.27	36.0
8	T1	160	5.0	160	5.0	0.737	49.5	LOS D	5.0	36.2	1.00	0.91	1.15	26.0
9	R2	33	5.0	33	5.0	0.152	47.1	LOS D	0.9	6.6	0.93	0.71	0.93	20.7
Approach		221	5.0	221	5.0	0.737	43.4	LOS D	5.0	36.2	0.90	0.82	1.00	25.9
West: Nelson Street														
10	L2	40	5.0	40	5.0	0.503	46.1	LOS D	4.2	30.9	0.95	0.84	1.30	21.9
11	T1	261	5.0	261	5.0	0.503	42.6	LOS D	4.2	30.9	0.95	0.80	1.11	5.3
12	R2	198	5.0	198	5.0	0.784	49.9	LOS D	6.0	43.8	0.97	0.90	1.17	20.5
Approach		499	5.0	499	5.0	0.784	45.8	LOS D	6.0	43.8	0.96	0.85	1.15	15.3
All Vehicles		1866	5.0	1866	5.0	0.784	36.1	LOS D	11.2	81.8	0.88	0.81	0.97	21.7

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		158	44.3	LOS E			0.94	0.94

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: 101 [EX SAT Nelson/Station/Barbara]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E, F1*

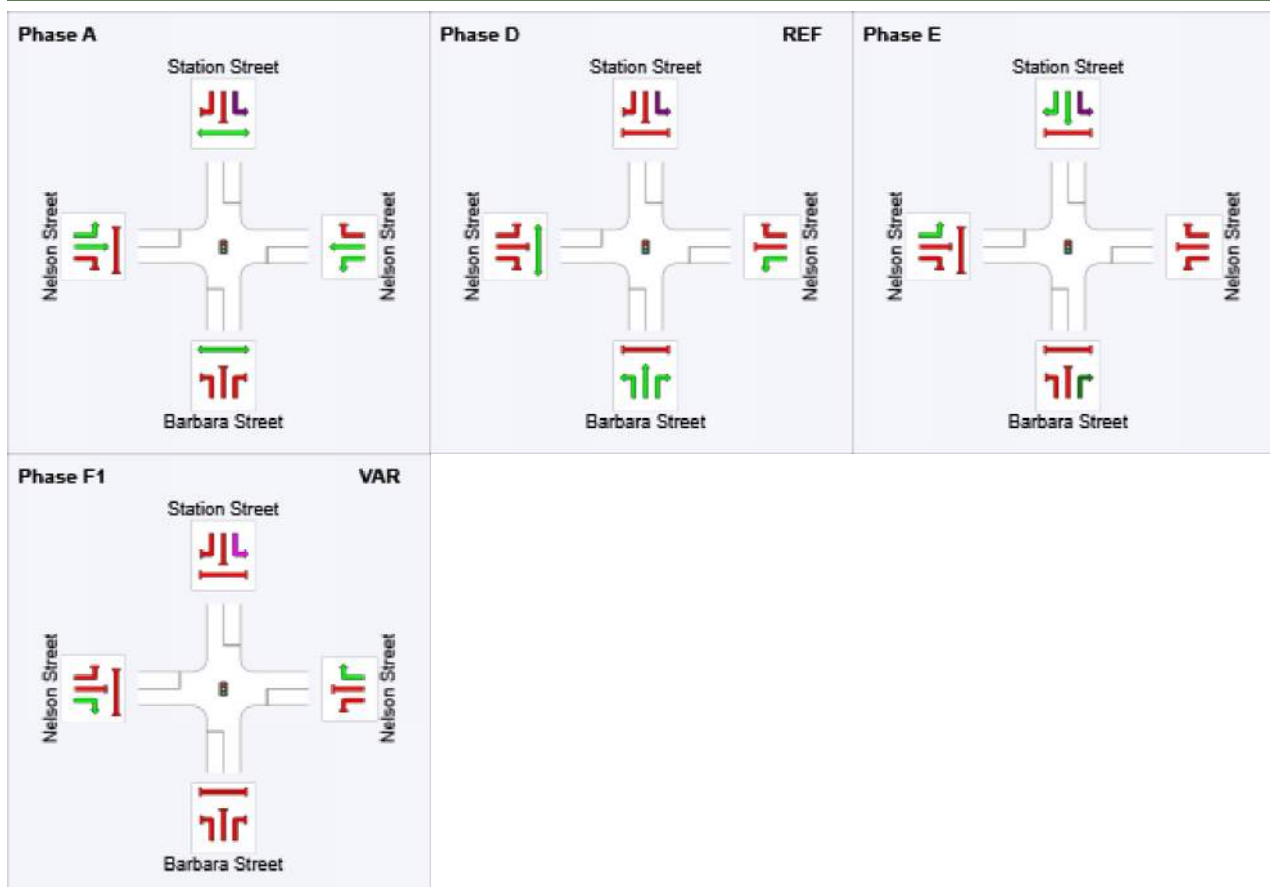
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F1
Phase Change Time (sec)	90	13	48	66
Green Time (sec)	17	29	12	18
Phase Time (sec)	23	35	18	24
Phase Split	23%	35%	18%	24%

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

	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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 104 [EX SAT Nelson/Horsely/Court]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Queue	Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m				km/h
South: Court Road														
21	L2	136	5.0	136	5.0	0.834	55.6	LOS E	14.1	103.3	1.00	0.96	1.14	11.5
22	T1	274	5.0	274	5.0	0.834	51.5	LOS D	14.1	103.3	1.00	0.95	1.13	11.5
23b	R3	254	5.0	254	5.0	0.718	50.2	LOS D	9.6	70.0	0.97	0.86	1.01	25.9
Approach		663	5.0	663	5.0	0.834	51.8	LOS D	14.1	103.3	0.99	0.92	1.08	18.1
SouthEast: The Horsley Drive														
4b	L3	8	5.0	8	5.0	0.321	35.7	LOS D	5.4	39.7	0.76	0.76	0.76	31.7
4a	L1	204	5.0	204	5.0	0.321	33.6	LOS C	5.4	39.7	0.76	0.76	0.76	28.7
6a	R1	632	5.0	632	5.0	0.802	57.0	LOS E	11.5	84.2	1.00	0.91	1.12	21.2
Approach		844	5.0	844	5.0	0.802	51.1	LOS D	11.5	84.2	0.94	0.88	1.03	22.7
North: The Horsely Drive														
27a	L1	843	5.0	843	5.0	0.464	25.3	LOS C	9.7	71.0	0.70	0.78	0.70	39.3
28	T1	155	5.0	155	5.0	0.384	44.4	LOS D	5.0	36.8	0.89	0.77	0.89	24.5
29	R2	169	5.0	169	5.0	0.384	47.7	LOS D	5.0	36.8	0.89	0.79	0.89	19.2
Approach		1167	5.0	1167	5.0	0.464	31.1	LOS C	9.7	71.0	0.75	0.78	0.75	34.5
West: Nelson Street														
30	L2	162	5.0	162	5.0	0.709	32.3	LOS C	4.4	31.8	1.00	0.85	1.06	10.9
32a	R1	173	5.0	173	5.0	0.709	54.0	LOS D	4.8	34.8	1.00	0.87	1.10	23.6
Approach		335	5.0	335	5.0	0.709	43.5	LOS D	4.8	34.8	1.00	0.86	1.08	19.8
All Vehicles		3009	5.0	3009	5.0	0.834	42.7	LOS D	14.1	103.3	0.88	0.85	0.94	25.8

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P5	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P71	North Stage 1	53	54.3	LOS E	0.2	0.2	0.95	0.95
P72	North Stage 2	53	54.3	LOS E	0.2	0.2	0.95	0.95
P8	West Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	54.3	LOS E			0.95	0.95

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: 104 [EX SAT Nelson/Horsely/Court]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase C

Input Phase Sequence: A, B*, C, D, E

Output Phase Sequence: A, C, D, E

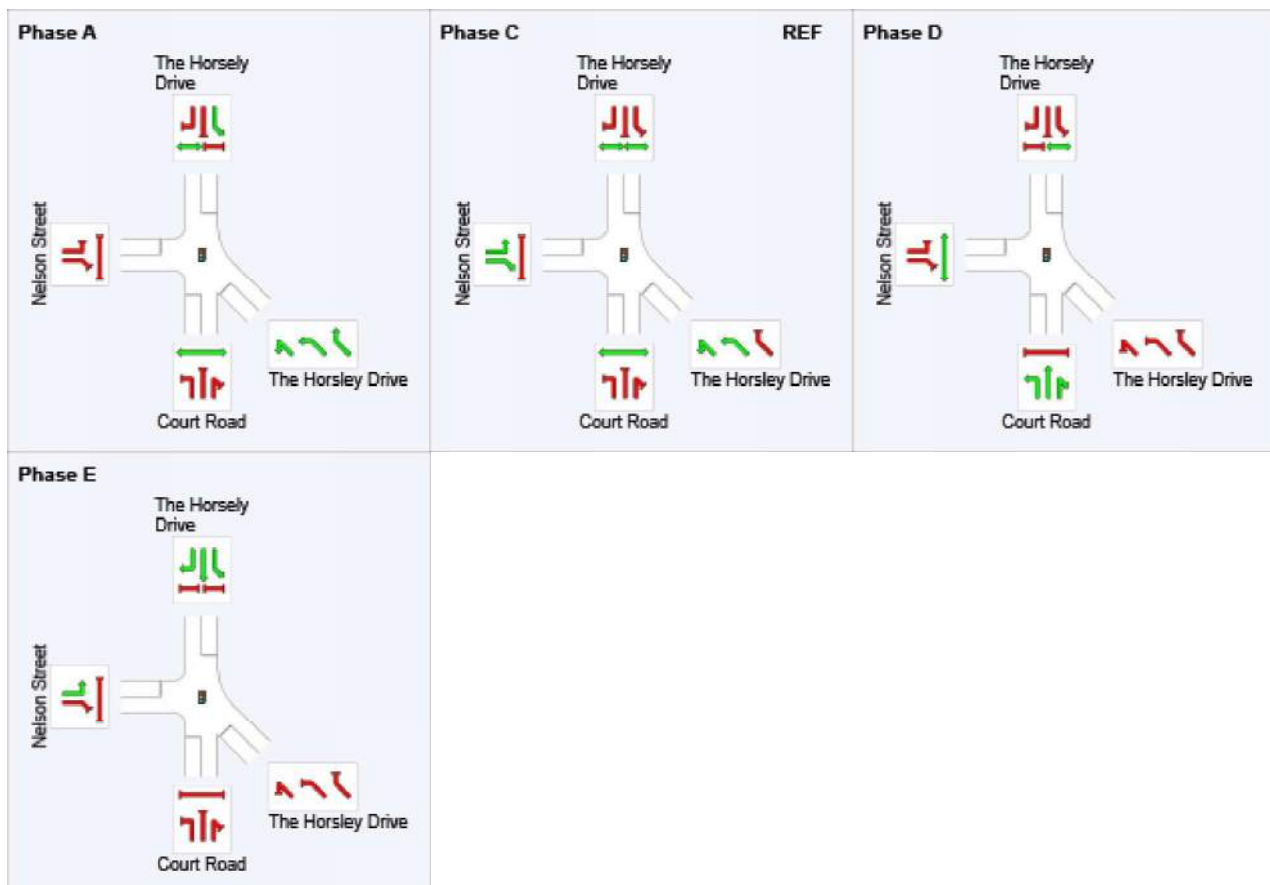
(* Variable Phase)

Phase Timing Summary

Phase	A	C	D	E
Phase Change Time (sec)	88	0	18	54
Green Time (sec)	26	12	30	28
Phase Time (sec)	32	18	36	34
Phase Split	27%	15%	30%	28%

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

 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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 101 [EX SAT Smart Lane]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed			
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m					km/h
South: Smart Street														
1	L2	36	5.0	36	5.0	0.191	3.7	LOS A	0.0	0.0	0.00	0.06	0.00	56.0
2	T1	323	5.0	323	5.0	0.191	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	54.0
Approach		359	5.0	359	5.0	0.191	0.4	NA	0.0	0.0	0.00	0.06	0.00	55.0
North: Smart Street														
8	T1	285	5.0	285	5.0	0.203	0.3	LOS A	0.1	0.9	0.11	0.06	0.11	56.3
9	R2	29	5.0	29	5.0	0.203	7.1	LOS A	0.1	0.9	0.11	0.06	0.11	55.5
Approach		315	5.0	315	5.0	0.203	0.9	NA	0.1	0.9	0.11	0.06	0.11	56.1
West: Smart Lane														
10	L2	39	5.0	39	5.0	0.067	6.8	LOS A	0.1	0.7	0.41	0.65	0.41	48.4
12	R2	20	5.0	20	5.0	0.067	8.8	LOS A	0.1	0.7	0.41	0.65	0.41	48.4
Approach		59	5.0	59	5.0	0.067	7.5	LOS A	0.1	0.7	0.41	0.65	0.41	48.4
All Vehicles		733	5.0	733	5.0	0.203	1.2	NA	0.1	0.9	0.08	0.11	0.08	54.3

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.

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.

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 101 [EX SAT Cunninghame/Horsley]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	62	0.0	62	0.0	0.416	5.6	LOS A	0.0	0.0	0.00	0.06	0.00	58.4
2	T1	1255	5.0	1255	5.0	0.416	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.2
Approach		1317	4.8	1317	4.8	0.416	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.1
North: The Horsley Drive (N)														
8	T1	1383	5.0	1383	5.0	0.366	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1383	5.0	1383	5.0	0.366	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Cunninghame Street														
10	L2	117	0.0	117	0.0	0.192	9.1	LOS A	0.3	1.9	0.56	0.77	0.56	28.8
12	R2	18	0.0	18	0.0	0.719	274.1	LOS F	0.9	6.2	0.99	1.06	1.30	1.8
Approach		135	0.0	135	0.0	0.719	44.3	LOS E	0.9	6.2	0.62	0.81	0.66	9.6
All Vehicles		2835	4.7	2835	4.7	0.719	2.3	NA	0.9	6.2	0.03	0.05	0.03	51.9

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.

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.

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MOVEMENT SUMMARY

 Site: 101 [EX SAT Horsley/Polding]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles													
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h
South: The Horsley Drive (S)													
1	L2	389	0.0	389	0.0	0.267	9.0	LOS A	3.9	27.3	0.31	0.65	47.7
2	T1	626	5.0	626	5.0	0.621	48.1	LOS D	11.5	83.8	0.93	0.80	26.6
3	R2	283	0.0	283	0.0	0.748	63.6	LOS E	11.5	80.2	1.00	0.87	22.2
Approach		1299	2.4	1299	2.4	0.748	39.7	LOS D	11.5	83.8	0.76	0.77	29.3
East: Polding Street (E)													
4	L2	312	0.0	312	0.0	0.342	16.7	LOS B	5.6	39.3	0.54	0.72	39.1
5	T1	327	0.0	327	0.0	0.747	63.7	LOS E	8.7	61.0	0.98	0.86	29.4
6	R2	17	0.0	17	0.0	0.747	70.0	LOS E	8.7	61.0	1.00	0.88	28.8
Approach		656	0.0	656	0.0	0.747	41.5	LOS D	8.7	61.0	0.78	0.80	31.9
North: The Horsley Drive (N)													
7	L2	38	0.0	38	0.0	0.742	56.1	LOS E	14.4	104.6	0.97	0.86	32.2
8	T1	676	5.0	676	5.0	0.742	50.2	LOS D	14.4	104.6	0.96	0.85	22.9
9	R2	96	0.0	96	0.0	0.253	55.6	LOS E	3.4	23.5	0.88	0.77	30.9
Approach		809	4.2	809	4.2	0.742	51.1	LOS D	14.4	104.6	0.95	0.84	24.7
West: Polding Street (W)													
10	L2	31	0.0	31	0.0	0.419	37.7	LOS D	9.4	65.8	0.77	0.68	38.5
11	T1	285	0.0	285	0.0	0.419	32.1	LOS C	9.4	65.8	0.77	0.68	39.1
12	R2	317	0.0	317	0.0	0.696	41.5	LOS D	9.9	69.0	0.96	0.84	25.8
Approach		633	0.0	633	0.0	0.696	37.1	LOS D	9.9	69.0	0.87	0.76	33.3
All Vehicles		3397	1.9	3397	1.9	0.748	42.3	LOS D	14.4	104.6	0.83	0.79	29.4

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [EX SAT Horsley/Polding]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, D, E, F

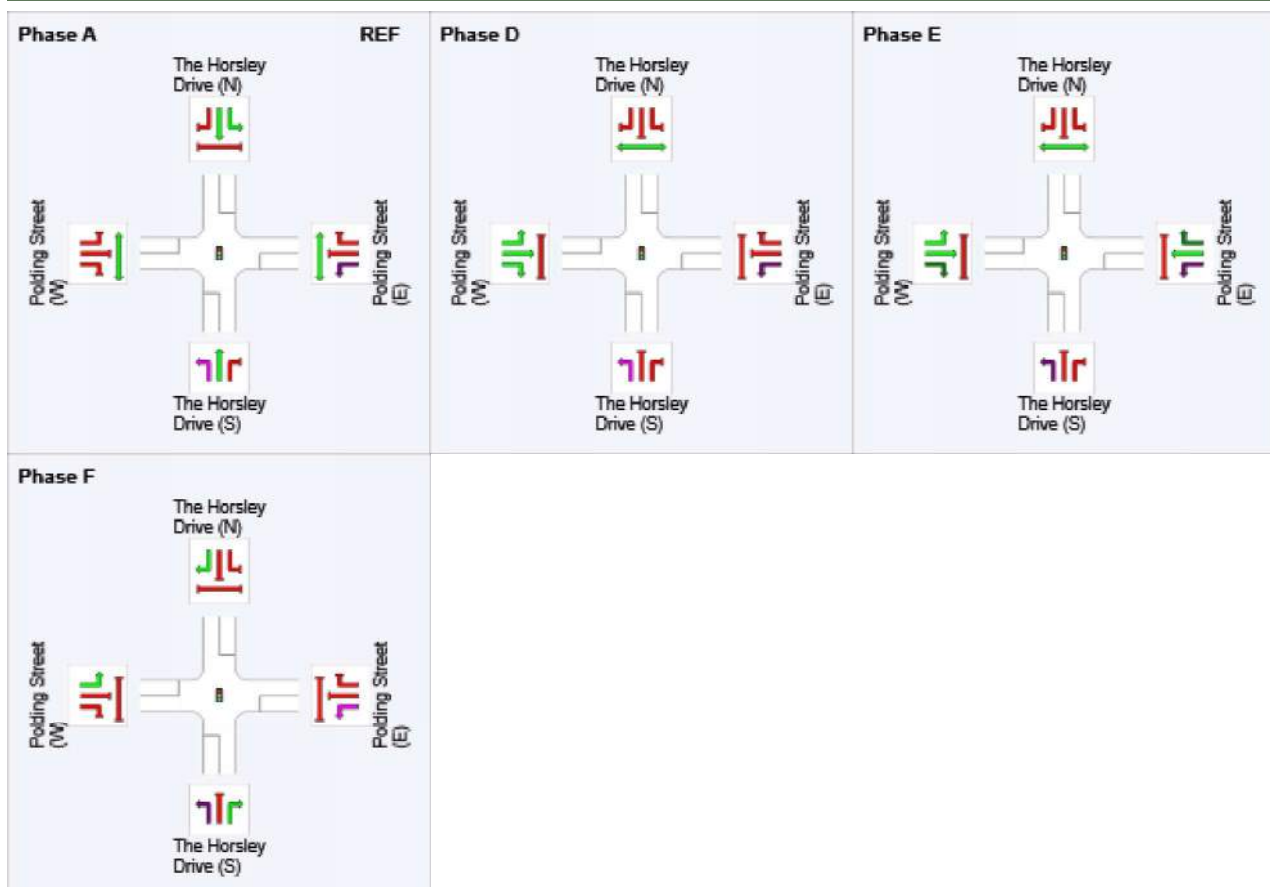
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	44	78	105
Green Time (sec)	38	28	21	29
Phase Time (sec)	44	34	27	35
Phase Split	31%	24%	19%	25%

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

 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

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MOVEMENT SUMMARY

 Site: 103 [EX SAT Nelson/Smart]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed		
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m				km/h	
South: Smart Street														
1	L2	144	5.0	144	5.0	0.423	42.7	LOS D	3.9	28.4	0.93	0.78	0.93	20.8
2	T1	55	5.0	55	5.0	0.187	37.1	LOS D	1.7	12.4	0.88	0.69	0.88	22.1
3	R2	76	5.0	76	5.0	0.187	40.6	LOS D	1.7	12.4	0.88	0.72	0.88	21.5
Approach		275	5.0	275	5.0	0.423	41.0	LOS D	3.9	28.4	0.90	0.75	0.90	21.3
East: Nelson Street														
4	L2	113	5.0	113	5.0	0.273	23.6	LOS C	4.1	29.6	0.69	0.66	0.69	29.0
5	T1	315	5.0	315	5.0	0.273	20.2	LOS C	4.2	30.8	0.69	0.61	0.69	14.6
6	R2	77	5.0	77	5.0	0.179	26.6	LOS C	1.6	11.4	0.71	0.70	0.71	12.3
Approach		504	5.0	504	5.0	0.273	22.0	LOS C	4.2	30.8	0.70	0.63	0.70	20.0
North: Smart Street														
7	L2	86	5.0	86	5.0	0.229	39.2	LOS D	2.2	15.9	0.87	0.74	0.87	4.9
8	T1	83	5.0	83	5.0	0.414	37.4	LOS D	4.2	30.8	0.91	0.76	0.91	22.6
9	R2	77	5.0	77	5.0	0.414	40.8	LOS D	4.2	30.8	0.91	0.76	0.91	5.1
Approach		246	5.0	246	5.0	0.414	39.1	LOS D	4.2	30.8	0.90	0.76	0.90	13.9
West: Nelson Street														
10	L2	44	5.0	44	5.0	0.161	25.5	LOS C	2.9	21.4	0.81	0.69	0.81	14.2
11	T1	213	5.0	213	5.0	0.161	22.9	LOS C	3.0	21.9	0.83	0.69	0.83	14.2
12	R2	145	5.0	145	5.0	0.411	34.8	LOS C	3.9	28.5	0.93	0.81	0.93	25.2
Approach		402	5.0	402	5.0	0.411	27.5	LOS C	3.9	28.5	0.86	0.73	0.86	20.7
All Vehicles		1427	5.0	1427	5.0	0.423	30.1	LOS C	4.2	30.8	0.82	0.70	0.82	19.5

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	Prop. Queued Distance m	Effective Stop Rate	
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		211	44.3	LOS E			0.94	0.94

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: 103 [EX SAT Nelson/Smart]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E

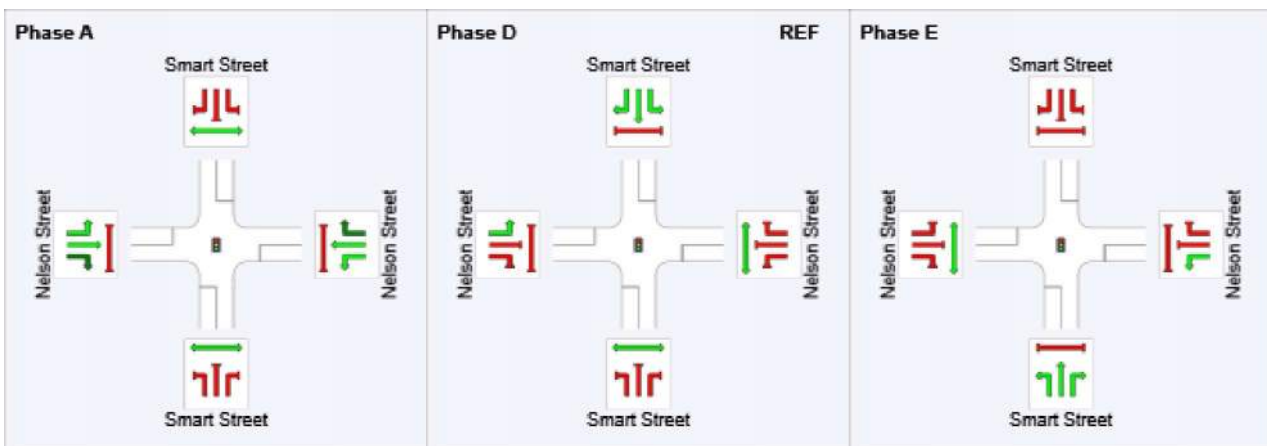
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E
Phase Change Time (sec)	52	0	27
Green Time (sec)	42	21	19
Phase Time (sec)	48	27	25
Phase Split	48%	27%	25%

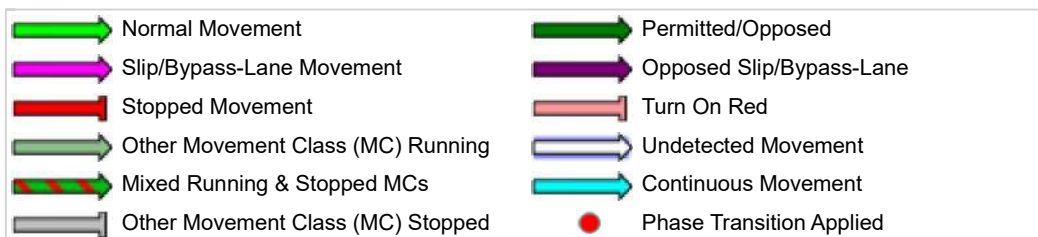
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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MOVEMENT SUMMARY

 Site: 102 [EX SAT Nelson/Ware]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed		
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m					km/h
East: Nelson Street														
4	L2	167	5.0	167	5.0	0.325	9.0	LOS A	4.8	35.3	0.46	0.52	0.46	35.8
5	T1	501	5.0	501	5.0	0.325	6.8	LOS A	4.9	35.8	0.55	0.53	0.55	24.9
Approach		668	5.0	668	5.0	0.325	7.4	LOS A	4.9	35.8	0.53	0.53	0.53	30.6
West: Nelson Street														
11	T1	568	5.0	568	5.0	0.201	2.7	LOS A	1.7	12.1	0.20	0.17	0.20	26.7
12	R2	121	5.0	121	5.0	0.272	8.5	LOS A	0.8	6.0	0.24	0.57	0.24	34.1
Approach		689	5.0	689	5.0	0.272	3.8	LOS A	1.7	12.1	0.20	0.24	0.20	31.2
All Vehicles		1358	5.0	1358	5.0	0.325	5.5	LOS A	4.9	35.8	0.36	0.38	0.36	30.8

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	Prop. Queued Distance m	Effective Stop Rate	
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	
All Pedestrians		158	44.3	LOS E			0.94	

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.

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PHASING SUMMARY

 Site: 102 [EX SAT Nelson/Ware]

 Network: N101 [EX SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B*, C

Output Phase Sequence: A, C

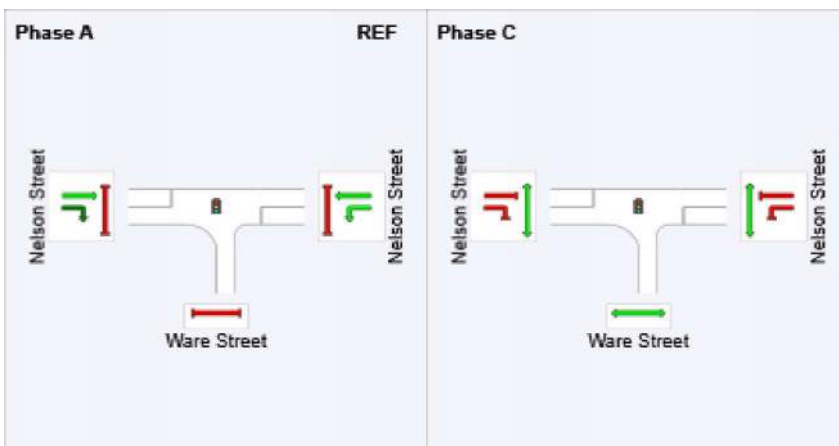
(* Variable Phase)

Phase Timing Summary

Phase	A	C
Phase Change Time (sec)	79	60
Green Time (sec)	75	14
Phase Time (sec)	80	20
Phase Split	80%	20%

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

 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

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Appendix C Base Case SIDRA Assessment :

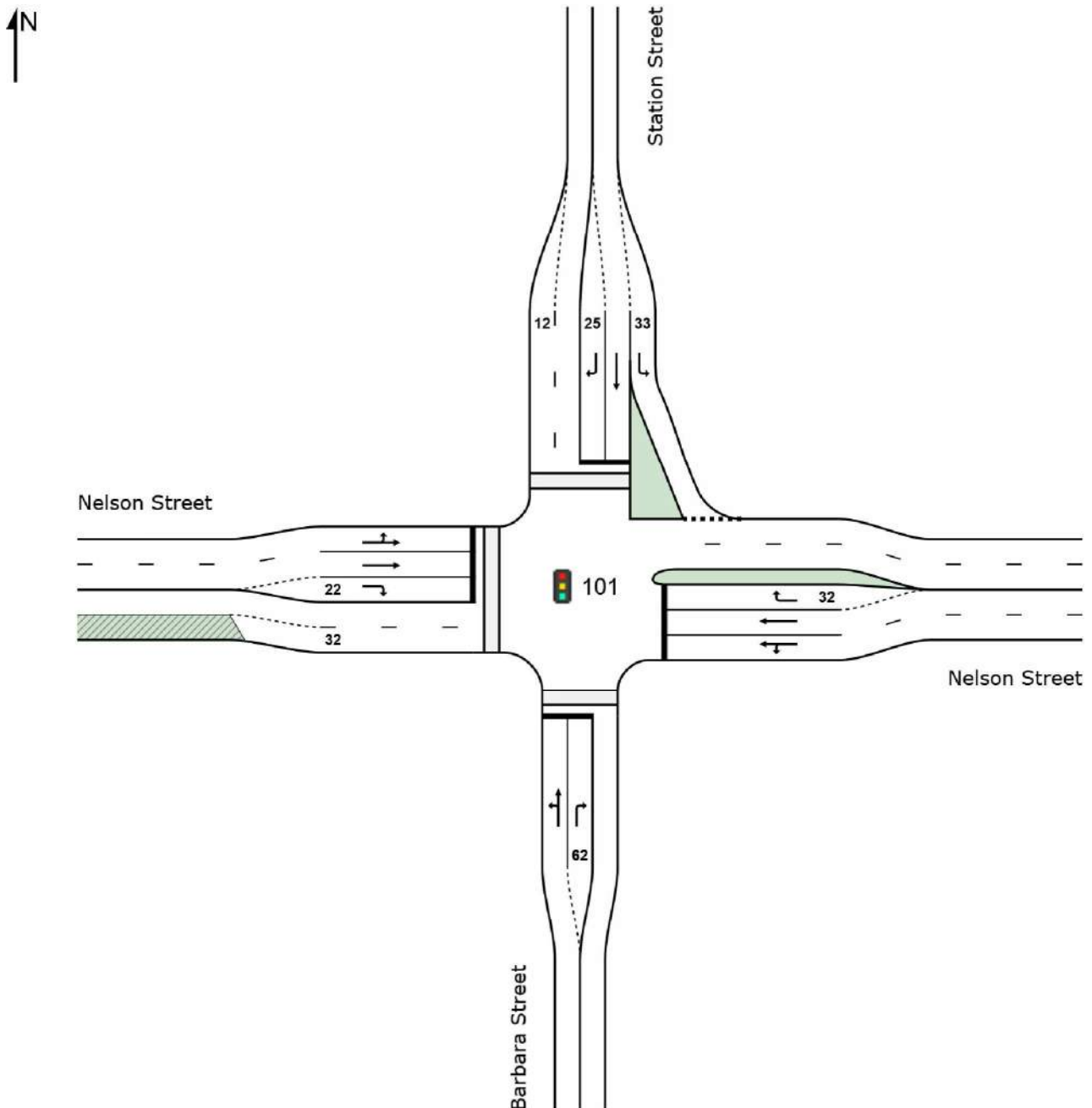
SITE LAYOUT

 **Site: 101 [Base AM Nelson/Station/Barbara]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 101 [Base AM Nelson/Station/Barbara]

 Network: N101 [Base AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Barbara Street														
1	L2	98	5.0	98	5.0	0.557	40.7	LOS D	6.4	46.4	0.94	0.79	0.94	15.1
2	T1	139	5.0	139	5.0	0.557	37.2	LOS D	6.4	46.4	0.94	0.79	0.94	28.1
3	R2	91	5.0	91	5.0	0.146	16.3	LOS B	1.3	9.3	0.68	0.68	0.68	29.6
Approach		327	5.0	327	5.0	0.557	32.5	LOS C	6.4	46.4	0.86	0.76	0.86	23.7
East: Nelson Street														
4	L2	192	5.0	191	5.0	0.243	13.9	LOS B	2.1	15.5	0.40	0.61	0.40	31.6
5	T1	163	5.0	163	5.0	0.575	23.3	LOS C	3.3	24.2	0.69	0.56	0.69	13.6
6	R2	9	5.0	9	5.0	0.048	51.6	LOS D	0.3	2.1	1.00	0.68	1.00	20.1
Approach		364	5.0	364	5.0	0.575	19.1	LOS B	3.3	24.2	0.55	0.59	0.55	25.9
North: Station Street														
7	L2	33	5.0	33	5.0	0.026	4.4	LOS A	0.1	0.9	0.21	0.48	0.21	36.6
8	T1	257	5.0	257	5.0	0.556	33.5	LOS C	6.6	47.8	0.90	0.75	0.90	29.3
9	R2	58	5.0	58	5.0	0.120	33.0	LOS C	1.3	9.5	0.79	0.70	0.79	24.1
Approach		347	5.0	347	5.0	0.556	30.7	LOS C	6.6	47.8	0.81	0.72	0.81	29.0
West: Nelson Street														
10	L2	26	5.0	26	5.0	0.379	43.2	LOS D	2.7	19.7	0.94	0.80	1.20	22.6
11	T1	192	5.0	192	5.0	0.379	42.1	LOS D	3.0	21.7	0.94	0.78	1.06	5.3
12	R2	105	5.0	105	5.0	0.534	51.4	LOS D	3.1	22.8	0.99	0.78	0.99	20.2
Approach		323	5.0	323	5.0	0.534	45.2	LOS D	3.1	22.8	0.96	0.78	1.05	14.3
All Vehicles		1362	5.0	1362	5.0	0.575	31.5	LOS C	6.6	47.8	0.79	0.71	0.81	24.0

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		158	44.3	LOS E			0.94	0.94

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: 101 [Base AM Nelson/Station/Barbara]**

 **Network: N101 [Base AM]**

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E, F1*

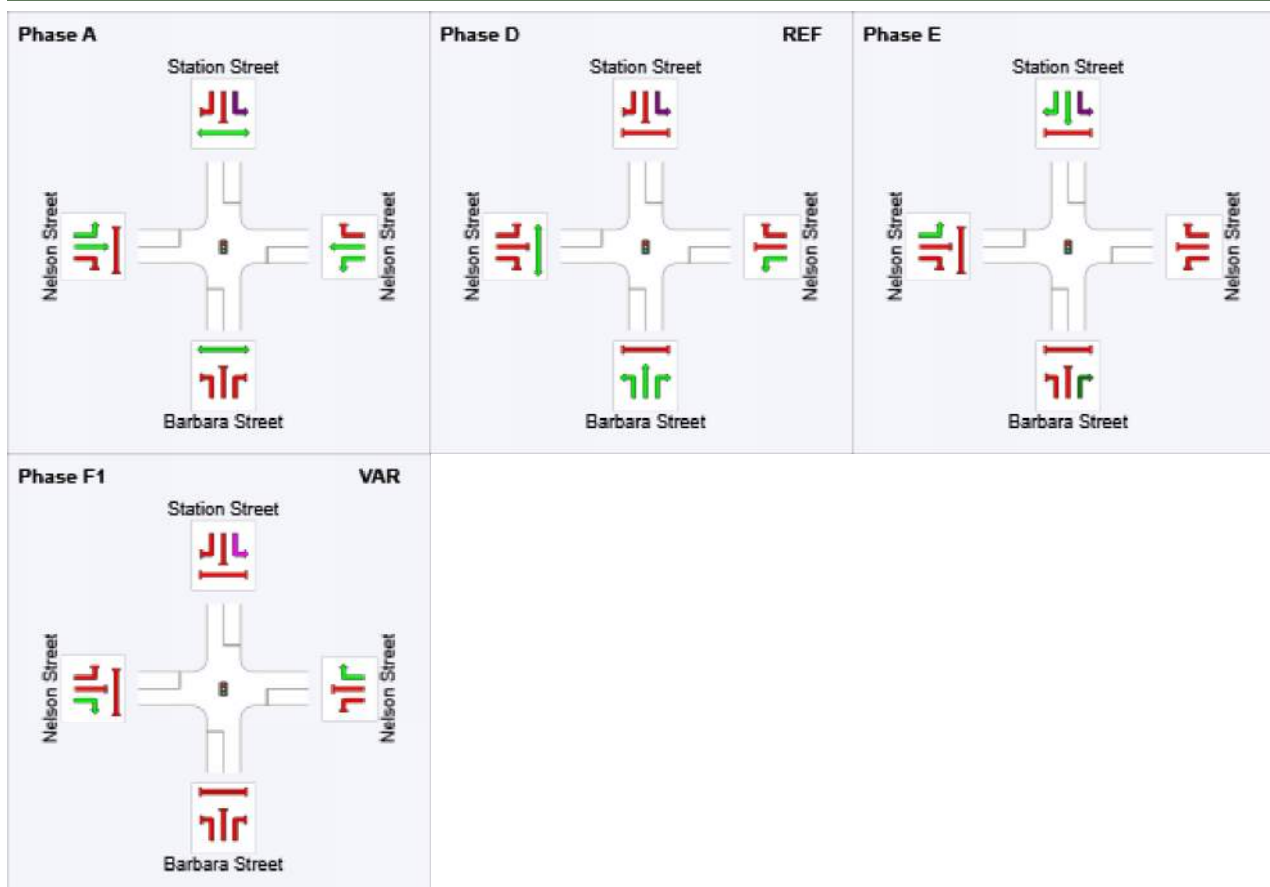
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F1
Phase Change Time (sec)	79	0	29	62
Green Time (sec)	15	23	27	11
Phase Time (sec)	21	29	33	17
Phase Split	21%	29%	33%	17%

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

 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

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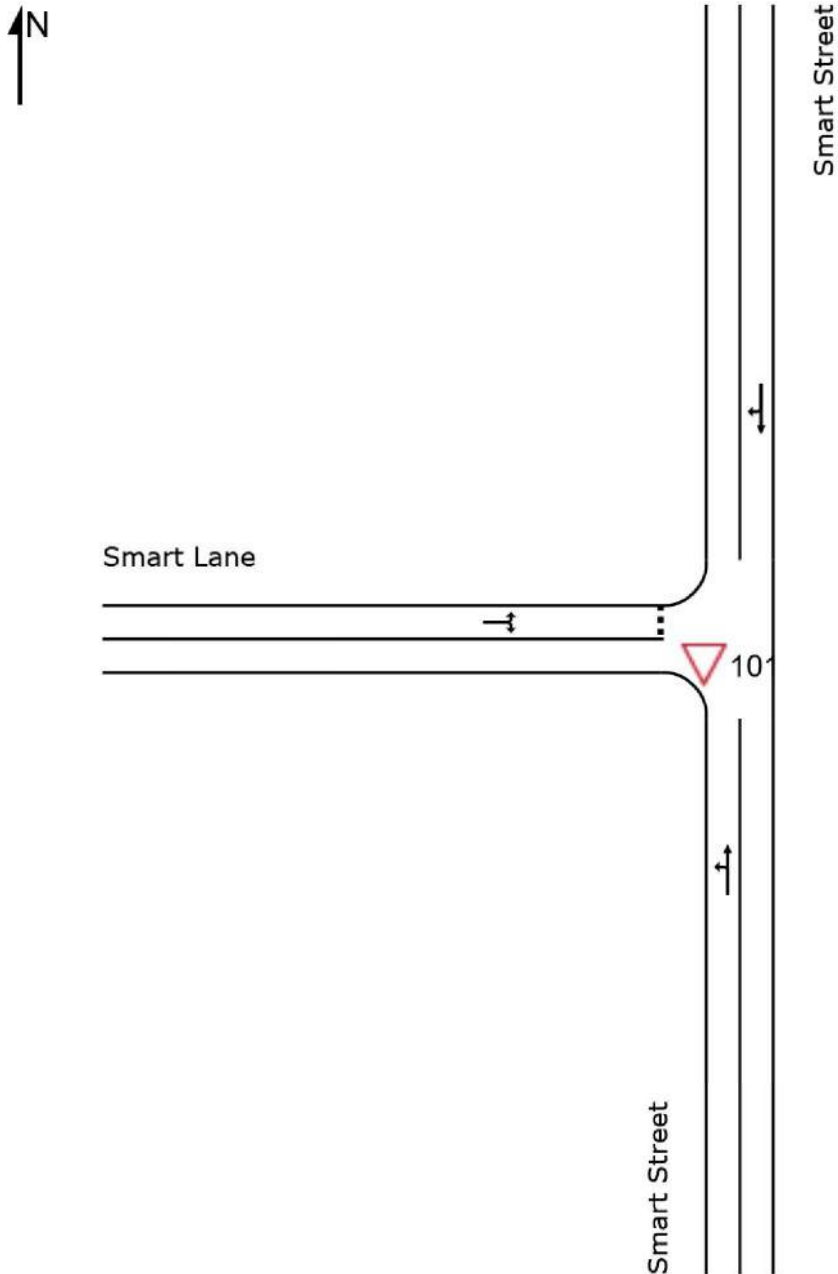
SITE LAYOUT

 **Site: 101 [Base AM Smart Lane]**

New Site

Site Category: (None)

Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

 Site: 101 [Base AM Smart Lane]

 Network: N101 [Base AM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed			
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m					km/h
South: Smart Street														
1	L2	28	5.0	28	5.0	0.100	3.7	LOS A	0.0	0.0	0.00	0.09	0.00	55.7
2	T1	159	5.0	159	5.0	0.100	0.0	LOS A	0.0	0.0	0.00	0.09	0.00	51.4
Approach		187	5.0	187	5.0	0.100	0.6	NA	0.0	0.0	0.00	0.09	0.00	54.1
North: Smart Street														
8	T1	414	5.0	414	5.0	0.391	0.2	LOS A	0.2	1.8	0.11	0.07	0.11	56.0
9	R2	55	5.0	55	5.0	0.391	6.4	LOS A	0.2	1.8	0.11	0.07	0.11	55.4
Approach		468	5.0	468	5.0	0.391	0.9	NA	0.2	1.8	0.11	0.07	0.11	55.9
West: Smart Lane														
10	L2	20	5.0	20	5.0	0.036	6.1	LOS A	0.0	0.4	0.25	0.58	0.25	49.0
12	R2	11	5.0	11	5.0	0.036	8.7	LOS A	0.0	0.4	0.25	0.58	0.25	49.0
Approach		31	5.0	31	5.0	0.036	7.0	LOS A	0.0	0.4	0.25	0.58	0.25	49.0
All Vehicles		686	5.0	686	5.0	0.391	1.1	NA	0.2	1.8	0.08	0.10	0.08	55.0

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.

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.

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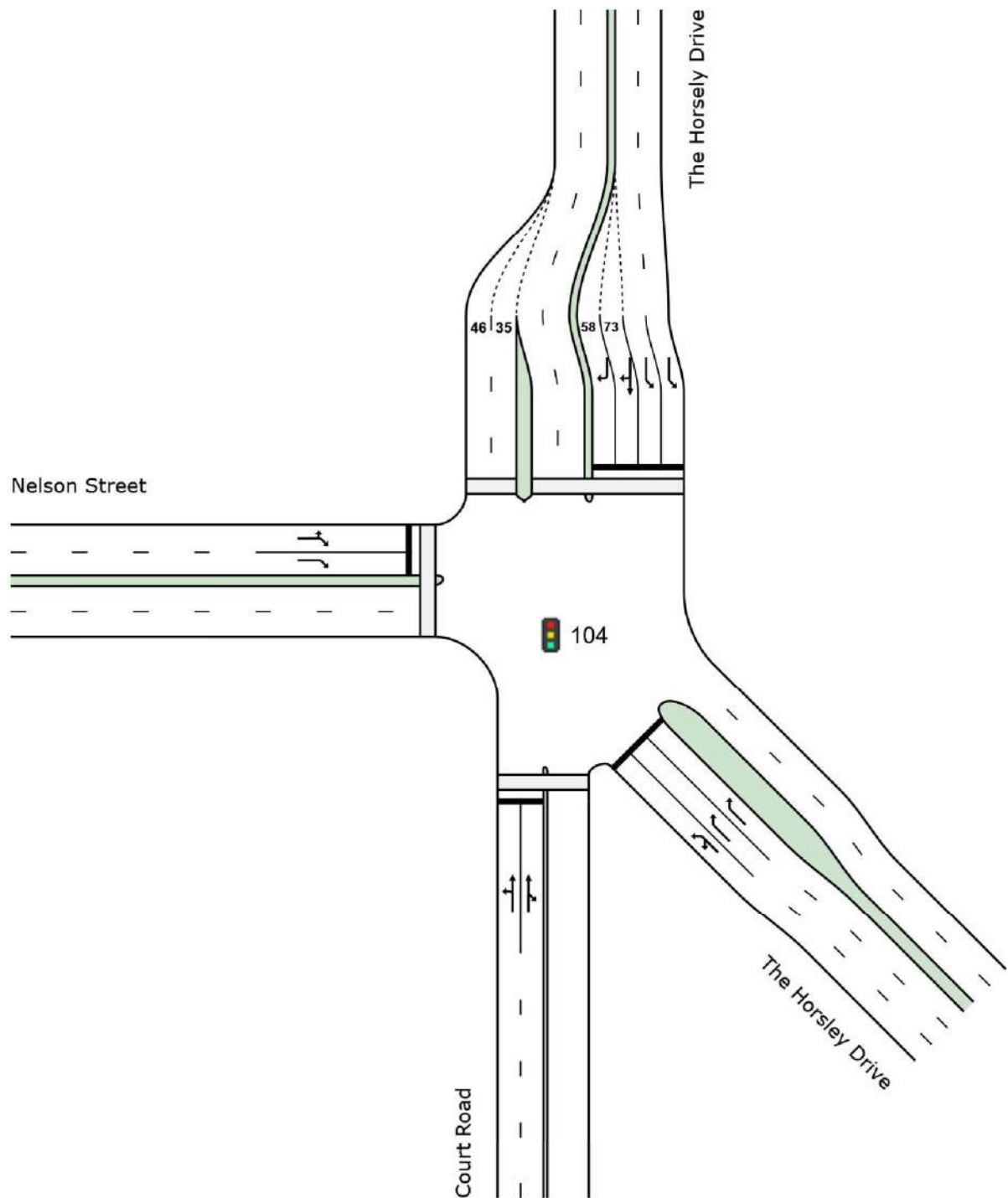
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SITE LAYOUT

 **Site: 104 [Base AM Nelson/Horsely/Court]**

New Site
Site Category: (None)
Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 104 [Base AM Nelson/Horsely/Court]

 Network: N101 [Base AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Court Road														
21	L2	46	5.0	46	5.0	0.894	72.1	LOS E	8.4	61.6	1.00	1.10	1.37	9.4
22	T1	159	5.0	159	5.0	0.894	68.7	LOS E	8.4	61.6	1.00	1.10	1.37	9.4
23b	R3	149	5.0	149	5.0	0.772	64.6	LOS E	5.7	41.3	1.00	0.91	1.18	22.6
Approach		355	5.0	355	5.0	0.894	67.4	LOS E	8.4	61.6	1.00	1.02	1.29	15.8
SouthEast: The Horsley Drive														
4b	L3	11	5.0	11	5.0	0.312	22.1	LOS C	6.0	43.4	0.58	0.72	0.58	37.9
4a	L1	300	5.0	300	5.0	0.312	20.0	LOS C	6.0	43.4	0.58	0.72	0.58	36.4
6a	R1	1116	5.0	1116	5.0	0.877	53.6	LOS D	21.4	156.3	1.00	0.97	1.16	22.0
Approach		1426	5.0	1426	5.0	0.877	46.3	LOS D	21.4	156.3	0.91	0.92	1.03	24.1
North: The Horsely Drive														
27a	L1	1272	5.0	1267	5.0	0.664	22.4	LOS C	16.9	123.2	0.71	0.80	0.71	40.8
28	T1	162	5.0	161	5.0	0.584	52.4	LOS D	6.3	46.3	0.97	0.81	0.97	22.4
29	R2	208	5.0	208	5.0	0.584	55.6	LOS E	6.3	46.3	0.97	0.81	0.97	17.2
Approach		1642	5.0	1636 ^{N1}	5.0	0.664	29.5	LOS C	16.9	123.2	0.77	0.80	0.77	35.6
West: Nelson Street														
30	L2	104	5.0	104	5.0	0.829	57.0	LOS E	8.7	63.8	1.00	1.00	1.35	7.1
32a	R1	371	5.0	371	5.0	0.829	59.5	LOS E	8.7	63.8	1.00	1.00	1.27	22.4
Approach		475	5.0	475	5.0	0.829	58.9	LOS E	8.7	63.8	1.00	1.00	1.28	20.0
All Vehicles		3898	5.0	3892 ^{N1}	5.0	0.894	42.7	LOS D	21.4	156.3	0.87	0.89	0.98	27.2

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.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue pedestrian	Prop. Queued	Effective Stop Rate	
P5	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P71	North Stage 1	53	54.3	LOS E	0.2	0.2	0.95	0.95
P72	North Stage 2	53	54.3	LOS E	0.2	0.2	0.95	0.95
P8	West Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	54.3	LOS E			0.95	0.95

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: 104 [Base AM Nelson/Horsely/Court]

 Network: N101 [Base AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Split Phasing

Reference Phase: Phase C

Input Phase Sequence: A, B, C, D

Output Phase Sequence: A, B, C, D

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	48	96	0	21
Green Time (sec)	42	18	15	21
Phase Time (sec)	48	24	21	27
Phase Split	40%	20%	18%	23%

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

 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

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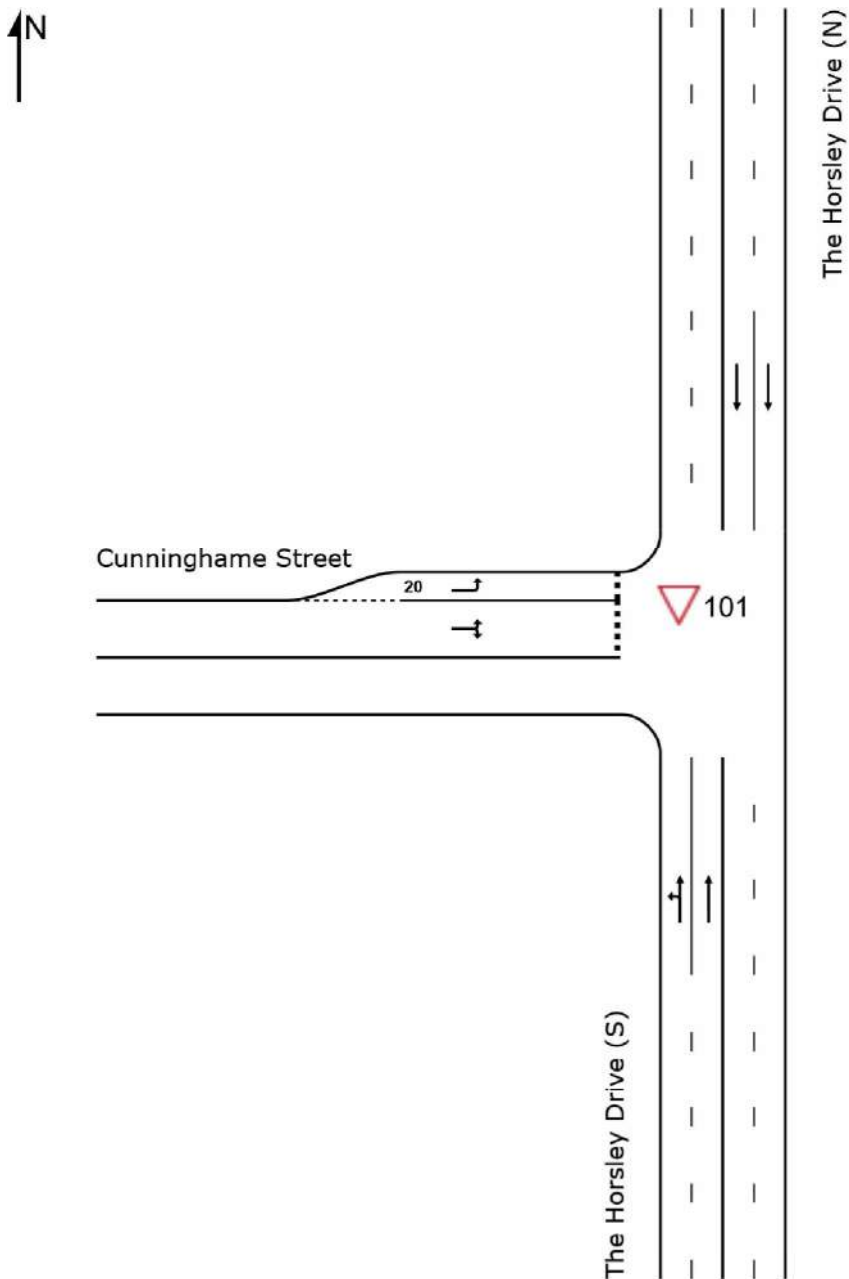
SITE LAYOUT

▽ Site: 101 [Base AM Cunninghame/Horsley]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)



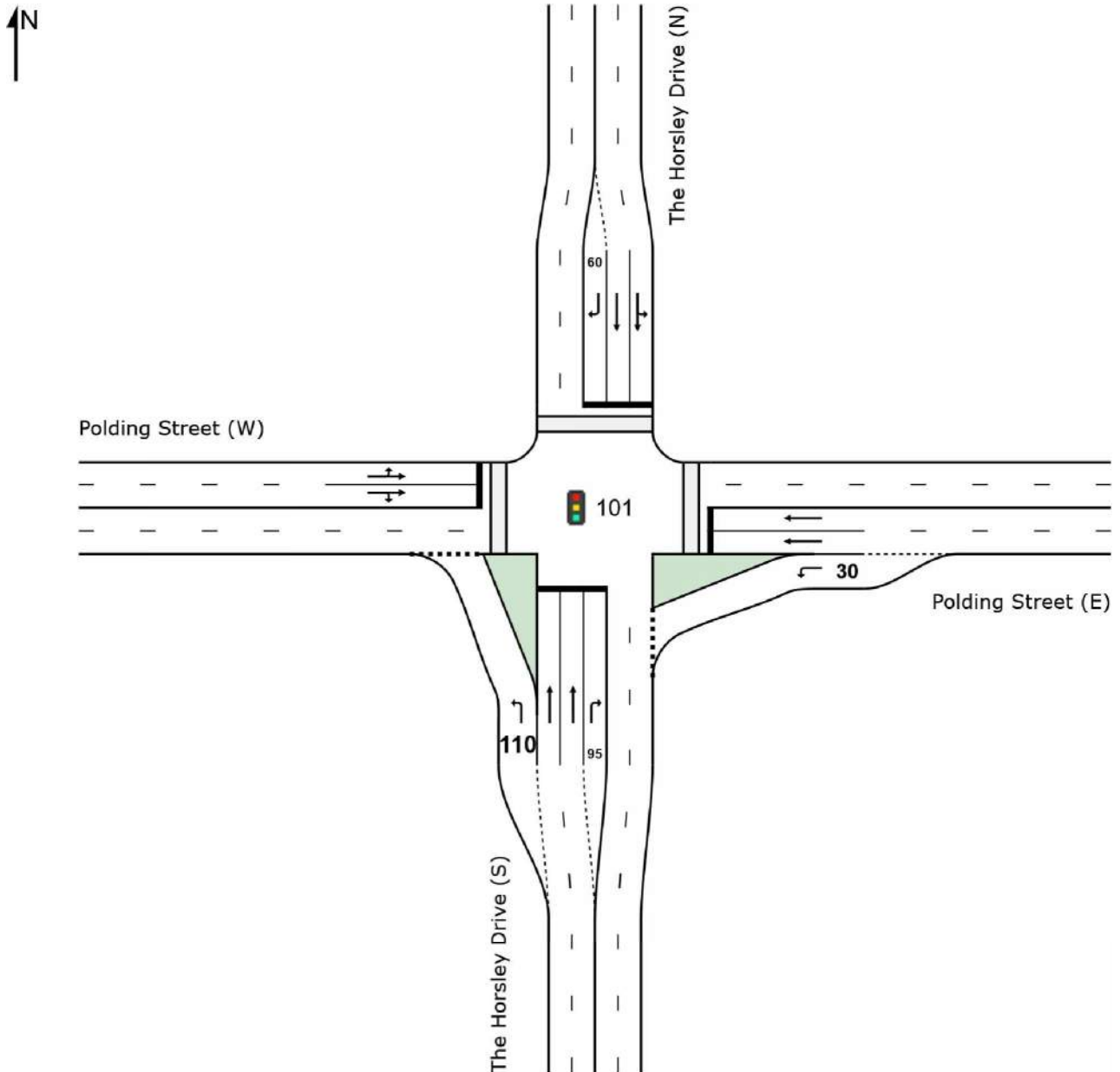
SITE LAYOUT

 **Site: 101 [Base AM Horsley/Polding]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 101 [Base AM Horsley/Polding]

 Network: N101 [Base AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles													
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h
South: The Horsley Drive (S)													
1	L2	292	0.0	292	0.0	0.188	8.7	LOS A	2.7	18.8	0.28	0.63	48.0
2	T1	791	5.0	791	5.0	0.595	39.2	LOS D	13.4	97.8	0.87	0.77	29.7
3	R2	275	0.0	275	0.0	0.842	72.9	LOS E	12.1	85.0	1.00	0.92	20.4
Approach		1357	2.9	1357	2.9	0.842	39.5	LOS D	13.4	97.8	0.77	0.77	29.4
East: Polding Street (E)													
4	L2	332	0.0	332	0.0	0.432	25.3	LOS C	8.1	56.9	0.70	0.77	33.2
5	T1	318	0.0	318	0.0	0.820	70.7	LOS E	8.4	59.1	1.00	0.92	27.9
Approach		649	0.0	649	0.0	0.820	47.5	LOS D	8.4	59.1	0.84	0.84	29.5
North: The Horsley Drive (N)													
7	L2	35	0.0	35	0.0	0.858	66.7	LOS E	17.9	130.3	1.00	0.98	29.5
8	T1	742	5.0	742	5.0	0.858	60.9	LOS E	17.9	130.3	0.99	0.98	20.3
9	R2	83	0.0	83	0.0	0.579	75.6	LOS E	3.5	24.6	1.00	0.78	26.4
Approach		860	4.3	860	4.3	0.858	62.5	LOS E	17.9	130.3	1.00	0.96	21.6
West: Polding Street (W)													
10	L2	18	0.0	18	0.0	0.611	37.2	LOS D	16.1	112.7	0.82	0.74	38.8
11	T1	493	0.0	493	0.0	0.611	31.6	LOS C	16.1	112.7	0.82	0.74	39.5
12	R2	465	0.0	465	0.0	0.837	49.1	LOS D	16.9	118.6	1.00	0.92	23.4
Approach		976	0.0	976	0.0	0.837	40.0	LOS D	16.9	118.6	0.91	0.83	32.4
All Vehicles		3842	2.0	3842	2.0	0.858	46.1	LOS D	17.9	130.3	0.87	0.84	28.2

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [Base AM Horsley/Polding]

 Network: N101 [Base AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, D, E, F, F1*

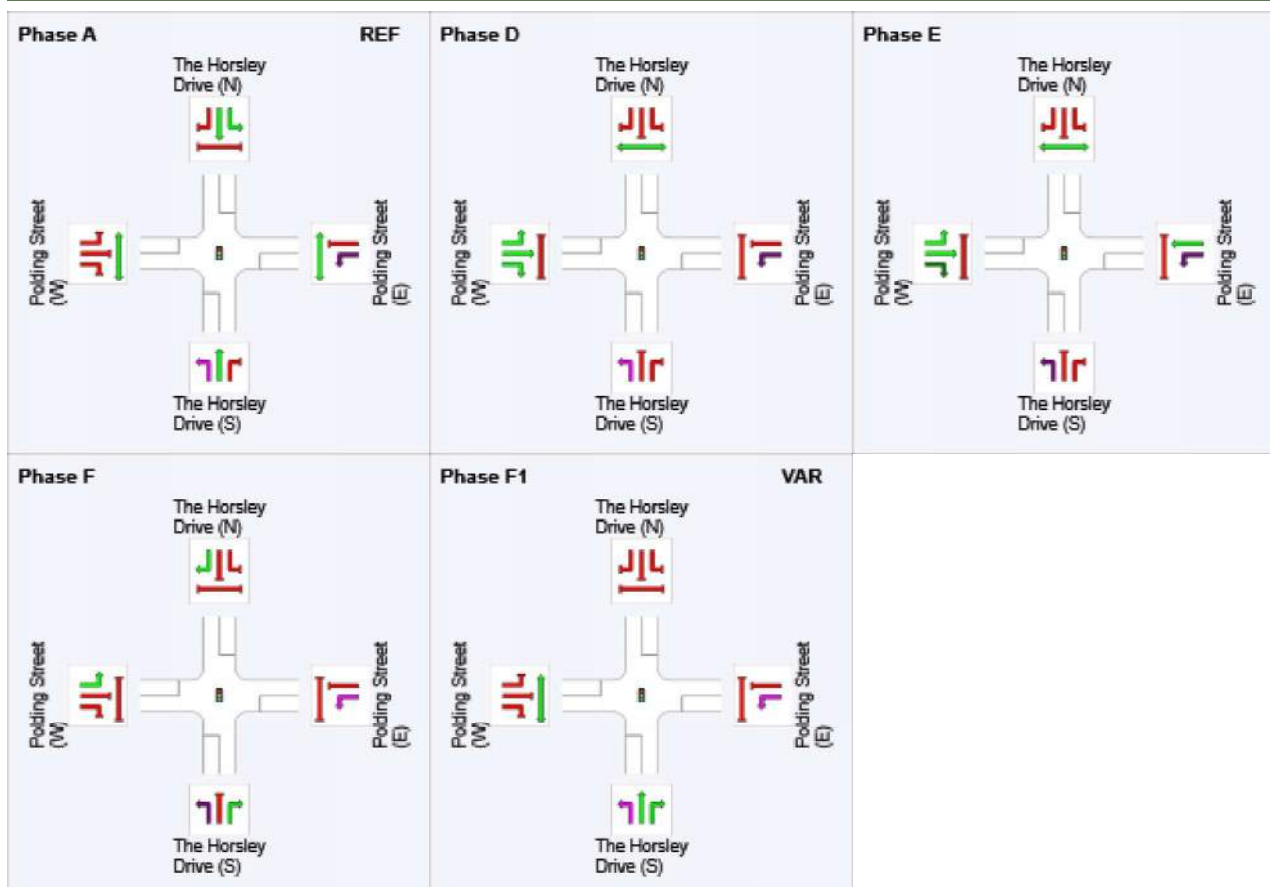
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F	F1
Phase Change Time (sec)	0	42	86	109	126
Green Time (sec)	36	38	17	11	8
Phase Time (sec)	42	44	23	17	14
Phase Split	30%	31%	16%	12%	10%

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

 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

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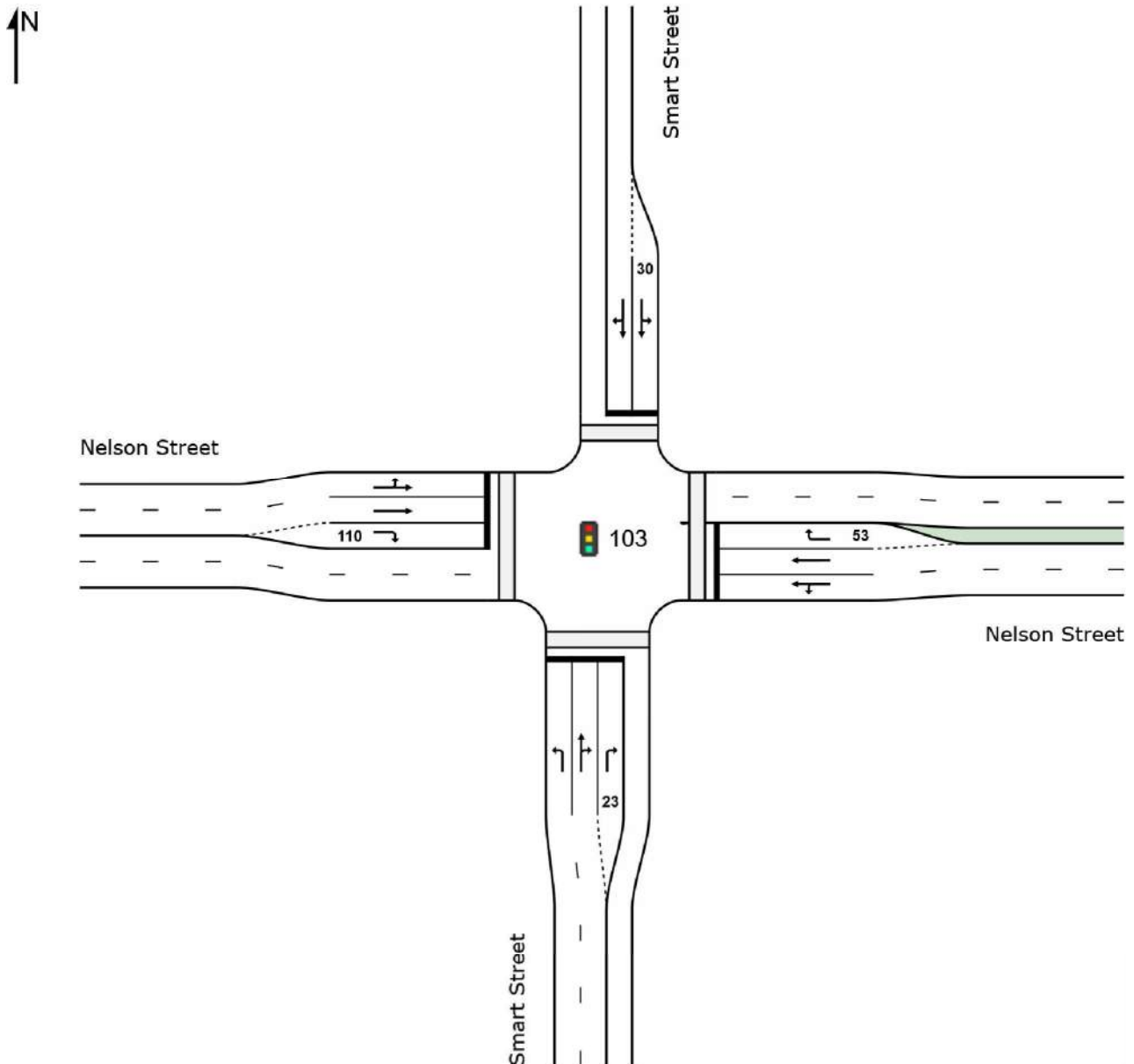
SITE LAYOUT

 **Site: 103 [Base AM Nelson/Smart]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 103 [Base AM Nelson/Smart]

 Network: N101 [Base AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed		
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m				km/h	
South: Smart Street														
1	L2	71	5.0	71	5.0	0.303	47.3	LOS D	2.0	14.4	0.95	0.75	0.95	19.8
2	T1	57	5.0	57	5.0	0.232	43.2	LOS D	1.6	11.5	0.93	0.71	0.93	20.8
3	R2	43	5.0	43	5.0	0.185	46.4	LOS D	1.2	8.6	0.93	0.73	0.93	20.0
Approach		171	5.0	171	5.0	0.303	45.7	LOS D	2.0	14.4	0.94	0.73	0.94	20.2
East: Nelson Street														
4	L2	94	5.0	94	5.0	0.304	27.9	LOS C	4.3	31.3	0.76	0.68	0.76	27.5
5	T1	315	5.0	314	5.0	0.304	24.6	LOS C	4.4	32.3	0.76	0.65	0.76	12.9
6	R2	95	5.0	95	5.0	0.272	32.8	LOS C	2.2	16.1	0.80	0.74	0.80	10.6
Approach		503	5.0	502 ^{N1}	5.0	0.304	26.8	LOS C	4.4	32.3	0.77	0.68	0.77	17.3
North: Smart Street														
7	L2	140	5.0	140	5.0	0.237	29.6	LOS C	3.0	22.2	0.77	0.73	0.77	6.2
8	T1	140	5.0	140	5.0	0.428	27.7	LOS C	5.4	39.2	0.81	0.72	0.81	25.4
9	R2	94	5.0	94	5.0	0.428	31.1	LOS C	5.4	39.2	0.81	0.72	0.81	6.6
Approach		374	5.0	374	5.0	0.428	29.3	LOS C	5.4	39.2	0.80	0.72	0.80	17.4
West: Nelson Street														
10	L2	38	5.0	38	5.0	0.206	33.6	LOS C	3.6	26.2	0.90	0.75	0.90	11.7
11	T1	243	5.0	243	5.0	0.206	30.8	LOS C	3.6	26.6	0.91	0.75	0.91	11.7
12	R2	127	5.0	127	5.0	0.419	44.7	LOS D	3.7	27.3	1.00	0.83	1.00	22.7
Approach		408	5.0	408	5.0	0.419	35.4	LOS D	3.7	27.3	0.94	0.78	0.94	17.3
All Vehicles		1456	5.0	1455 ^{N1}	5.0	0.428	32.1	LOS C	5.4	39.2	0.84	0.72	0.84	17.9

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.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

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	44.3	LOS E	0.1	0.1	0.94	0.94
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		211	44.3	LOS E			0.94	0.94

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: 103 [Base AM Nelson/Smart]

 Network: N101 [Base AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E

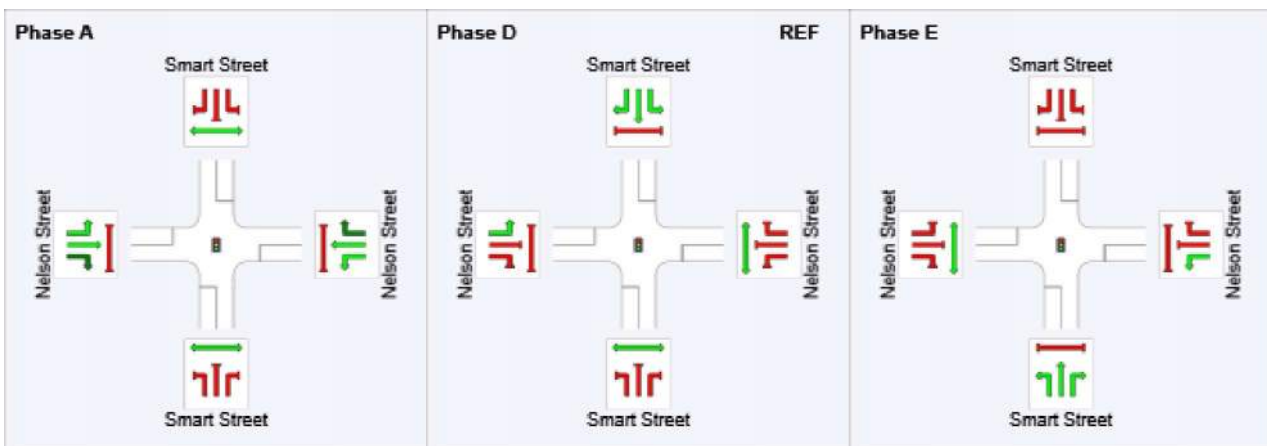
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E
Phase Change Time (sec)	58	0	39
Green Time (sec)	36	33	13
Phase Time (sec)	42	39	19
Phase Split	42%	39%	19%

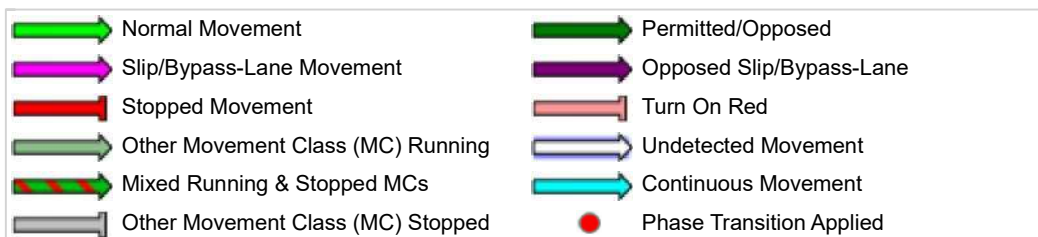
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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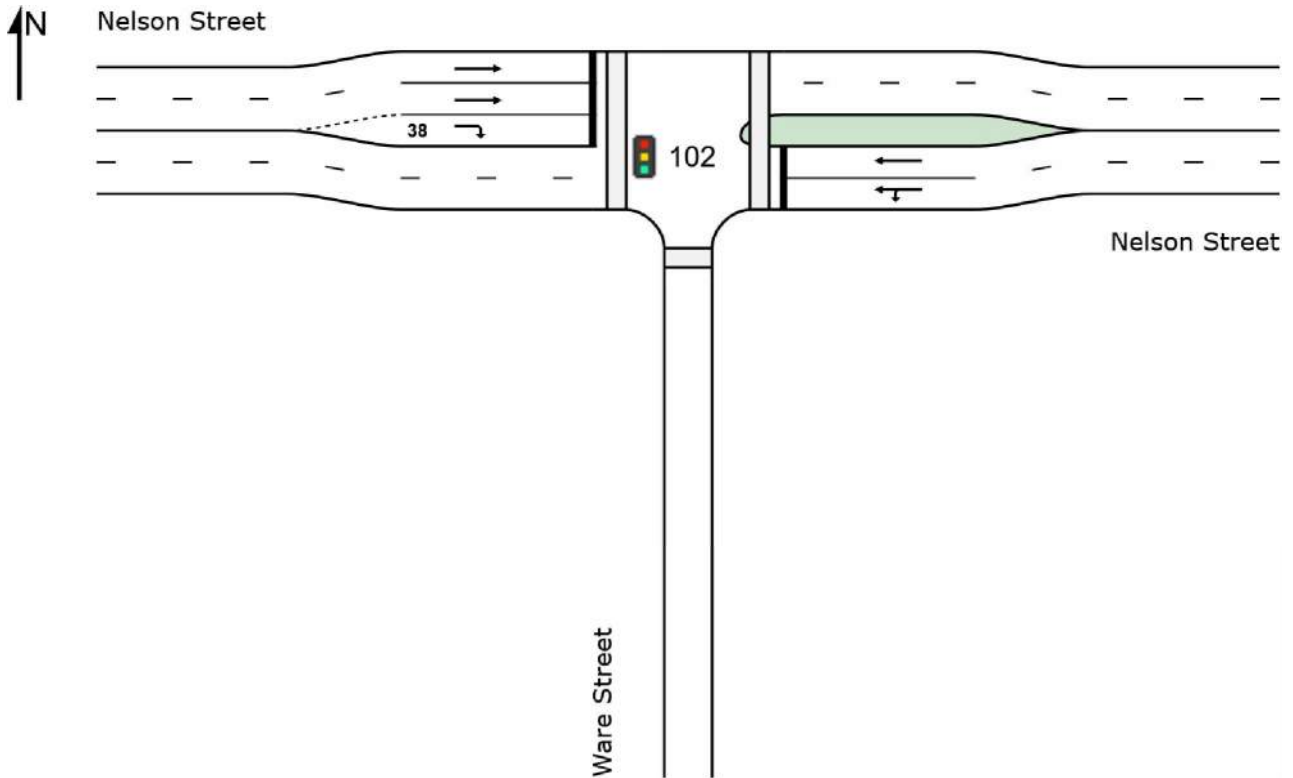
SITE LAYOUT

 **Site: 102 [Base AM Nelson/Ware]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



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MOVEMENT SUMMARY

 Site: 102 [Base AM Nelson/Ware]

 Network: N101 [Base AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
East: Nelson Street														
4	L2	36	5.0	36	5.0	0.141	10.1	LOS B	3.1	22.3	0.56	0.51	0.56	35.6
5	T1	363	5.0	363	5.0	0.141	6.8	LOS A	3.2	23.3	0.57	0.50	0.57	25.3
Approach		399	5.0	399	5.0	0.141	7.1	LOS A	3.2	23.3	0.57	0.50	0.57	27.9
West: Nelson Street														
11	T1	524	5.0	524	5.0	0.185	2.6	LOS A	1.5	11.1	0.19	0.16	0.19	27.2
12	R2	82	5.0	82	5.0	0.122	6.5	LOS A	0.4	2.9	0.17	0.54	0.17	35.4
Approach		606	5.0	606	5.0	0.185	3.1	LOS A	1.5	11.1	0.18	0.21	0.18	31.5
All Vehicles		1005	5.0	1005	5.0	0.185	4.7	LOS A	3.2	23.3	0.34	0.33	0.34	29.7

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate		
		ped/h	sec		Pedestrian ped	Distance m			
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
All Pedestrians		158	44.3	LOS E			0.94	0.94	

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.

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PHASING SUMMARY

 Site: 102 [Base AM Nelson/Ware]

 Network: N101 [Base AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B*, C

Output Phase Sequence: A, C

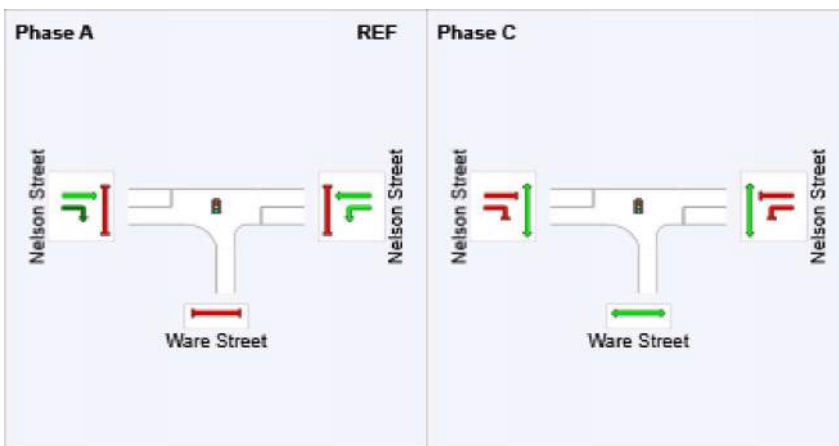
(* Variable Phase)

Phase Timing Summary

Phase	A	C
Phase Change Time (sec)	82	63
Green Time (sec)	75	14
Phase Time (sec)	80	20
Phase Split	80%	20%

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

	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

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MOVEMENT SUMMARY

 Site: 101 [Base PM Nelson/Station/Barbara]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Barbara Street														
1	L2	168	5.0	168	5.0	0.748	39.5	LOS D	15.8	115.4	0.87	0.79	0.87	15.2
2	T1	305	5.0	305	5.0	0.748	36.1	LOS D	15.8	115.4	0.87	0.79	0.87	28.4
3	R2	169	5.0	169	5.0	0.212	20.7	LOS C	3.4	24.9	0.65	0.70	0.65	27.7
Approach		643	5.0	643	5.0	0.748	32.9	LOS C	15.8	115.4	0.81	0.76	0.81	24.3
East: Nelson Street														
4	L2	205	5.0	205	5.0	0.205	24.0	LOS C	5.9	42.9	0.75	0.75	0.75	27.3
5	T1	196	5.0	196	5.0	0.749	64.0	LOS E	7.0	51.0	1.00	0.89	1.09	6.0
6	R2	39	5.0	39	5.0	0.132	57.3	LOS E	1.5	10.6	0.92	0.73	0.92	19.0
Approach		440	5.0	440	5.0	0.749	44.8	LOS D	7.0	51.0	0.88	0.81	0.92	17.3
North: Station Street														
7	L2	24	5.0	24	5.0	0.021	5.1	LOS A	0.2	1.1	0.21	0.48	0.21	36.1
8	T1	141	5.0	141	5.0	0.721	67.3	LOS E	5.9	43.3	1.00	0.87	1.09	23.1
9	R2	39	5.0	39	5.0	0.190	64.9	LOS E	1.5	11.0	0.94	0.73	0.94	17.5
Approach		204	5.0	204	5.0	0.721	59.5	LOS E	5.9	43.3	0.90	0.80	0.96	22.8
West: Nelson Street														
10	L2	48	5.0	48	5.0	0.633	69.5	LOS E	6.9	50.4	0.99	0.89	1.43	17.5
11	T1	258	5.0	258	5.0	0.633	63.8	LOS E	6.9	50.4	0.97	0.84	1.22	3.7
12	R2	159	5.0	159	5.0	0.734	65.0	LOS E	6.4	46.7	0.97	0.85	1.07	17.8
Approach		465	5.0	465	5.0	0.734	64.8	LOS E	6.9	50.4	0.97	0.85	1.19	11.7
All Vehicles		1753	5.0	1753	5.0	0.749	47.4	LOS D	15.8	115.4	0.88	0.80	0.95	19.7

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P1	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [Base PM Nelson/Station/Barbara]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E, F1*

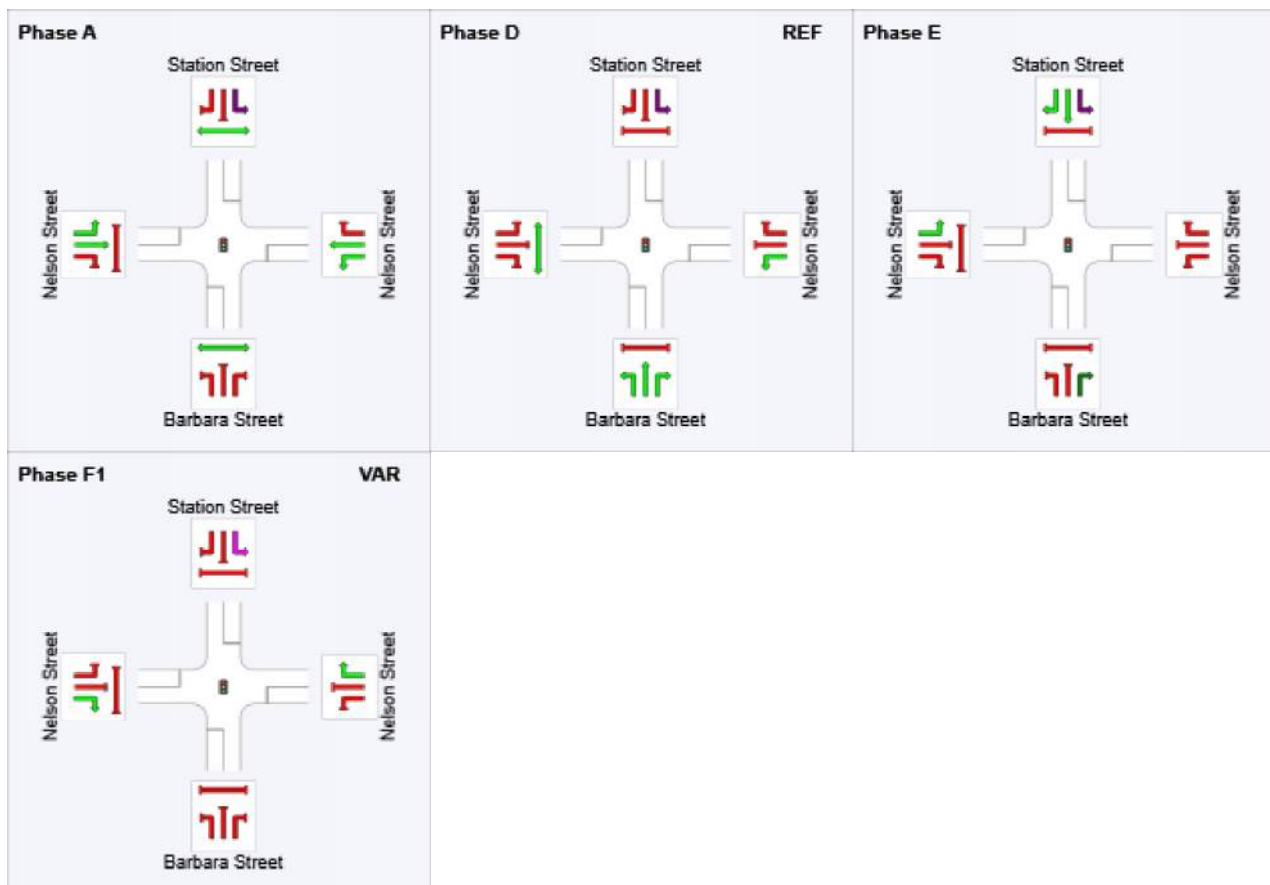
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F1
Phase Change Time (sec)	4	31	93	115
Green Time (sec)	21	56	16	23
Phase Time (sec)	27	62	22	29
Phase Split	19%	44%	16%	21%

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

	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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 101 [Base PM Smart Lane]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed			
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m					km/h
South: Smart Street														
1	L2	36	5.0	36	5.0	0.191	3.7	LOS A	0.0	0.0	0.00	0.06	0.00	56.0
2	T1	323	5.0	323	5.0	0.191	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	54.0
Approach		359	5.0	359	5.0	0.191	0.4	NA	0.0	0.0	0.00	0.06	0.00	55.0
North: Smart Street														
8	T1	285	5.0	285	5.0	0.319	0.3	LOS A	0.1	1.0	0.12	0.06	0.12	56.3
9	R2	29	5.0	29	5.0	0.319	7.2	LOS A	0.1	1.0	0.12	0.06	0.12	55.5
Approach		315	5.0	315	5.0	0.319	0.9	NA	0.1	1.0	0.12	0.06	0.12	56.1
West: Smart Lane														
10	L2	39	5.0	39	5.0	0.080	6.8	LOS A	0.1	0.7	0.40	0.63	0.40	48.5
12	R2	20	5.0	20	5.0	0.080	8.6	LOS A	0.1	0.7	0.40	0.63	0.40	48.5
Approach		59	5.0	59	5.0	0.080	7.4	LOS A	0.1	0.7	0.40	0.63	0.40	48.5
All Vehicles		733	5.0	733	5.0	0.319	1.2	NA	0.1	1.0	0.08	0.10	0.08	54.3

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.

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.

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 104 [Base PM Nelson/Horsely/Court]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Court Road														
21	L2	131	5.0	131	5.0	0.891	66.6	LOS E	13.2	96.5	1.00	1.05	10.0	
22	T1	232	5.0	232	5.0	0.891	61.5	LOS E	13.2	96.5	1.00	1.03	10.1	
23b	R3	206	5.0	206	5.0	0.767	57.1	LOS E	8.8	64.6	1.00	0.91	24.3	
Approach		568	5.0	568	5.0	0.891	61.1	LOS E	13.2	96.5	1.00	0.99	16.1	
SouthEast: The Horsley Drive														
4b	L3	8	5.0	8	5.0	0.502	26.6	LOS C	10.9	79.4	0.70	0.78	35.6	
4a	L1	462	5.0	462	5.0	0.502	24.6	LOS C	10.9	79.4	0.70	0.78	33.4	
6a	R1	1229	5.0	1229	5.0	0.922	62.1	LOS E	26.1	190.5	1.00	1.03	20.0	
Approach		1700	5.0	1700	5.0	0.922	51.7	LOS D	26.1	190.5	0.92	0.96	22.5	
North: The Horsely Drive														
27a	L1	1222	5.0	1221	5.0	0.657	24.1	LOS C	16.4	119.6	0.73	0.81	39.9	
28	T1	145	5.0	145	5.0	0.586	56.6	LOS E	5.0	36.8	0.99	0.80	21.5	
29	R2	96	5.0	96	5.0	0.407	58.4	LOS E	3.2	23.6	0.96	0.78	16.6	
Approach		1463	5.0	1462 ^{N1}	5.0	0.657	29.6	LOS C	16.4	119.6	0.77	0.80	36.1	
West: Nelson Street														
30	L2	126	5.0	126	5.0	0.852	49.7	LOS D	6.1	44.4	1.00	1.01	7.9	
32a	R1	228	5.0	228	5.0	0.852	61.6	LOS E	6.1	44.8	1.00	1.02	21.9	
Approach		355	5.0	355	5.0	0.852	57.3	LOS E	6.1	44.8	1.00	1.02	18.5	
All Vehicles		4086	5.0	4085 ^{N1}	5.0	0.922	45.6	LOS D	26.1	190.5	0.89	0.91	25.8	

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.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P5	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P71	North Stage 1	53	54.3	LOS E	0.2	0.2	0.95	0.95
P72	North Stage 2	53	54.3	LOS E	0.2	0.2	0.95	0.95
P8	West Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	54.3	LOS E			0.95	0.95

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: 104 [Base PM Nelson/Horsely/Court]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase C

Input Phase Sequence: A, B*, C, D, E

Output Phase Sequence: A, C, D, E

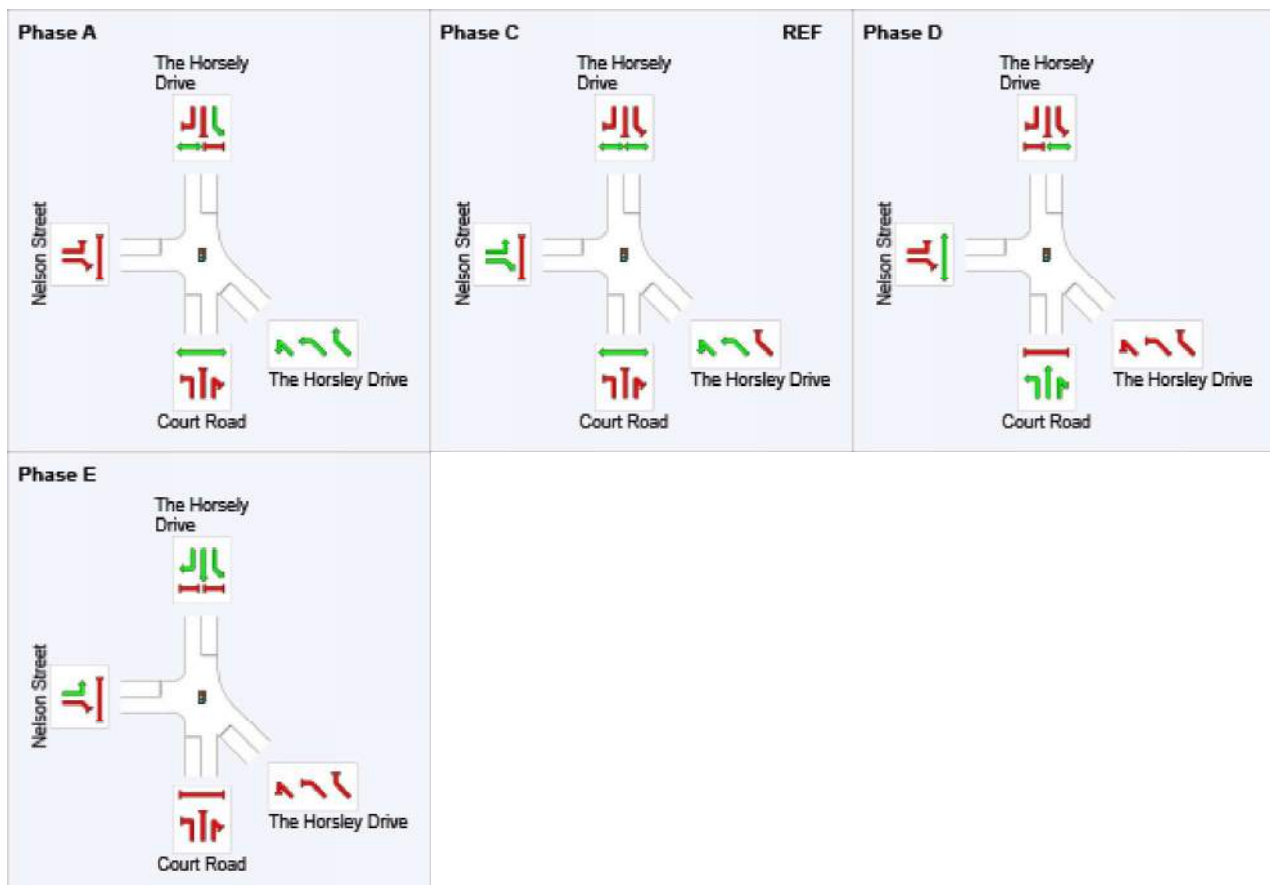
(* Variable Phase)

Phase Timing Summary

Phase	A	C	D	E
Phase Change Time (sec)	70	0	18	48
Green Time (sec)	44	12	24	16
Phase Time (sec)	50	18	30	22
Phase Split	42%	15%	25%	18%

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

 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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 101 [Base PM Cunninghame/Horsley]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Back of Queue Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		veh	m				km/h
South: The Horsley Drive (S)														
1	L2	49	0.0	49	0.0	0.778	5.8	LOS A	0.0	0.0	0.00	0.03	0.00	58.1
2	T1	1728	5.0	1728	5.0	0.778	0.4	LOS A	0.0	0.0	0.00	0.02	0.00	58.6
Approach		1778	4.9	1778	4.9	0.778	0.5	NA	0.0	0.0	0.00	0.02	0.00	58.6
North: The Horsley Drive (N)														
8	T1	1681	5.0	1681	5.0	0.445	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1681	5.0	1681	5.0	0.445	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Cunninghame Street														
10	L2	93	0.0	93	0.0	0.304	12.1	LOS B	0.3	2.0	0.64	0.88	0.73	24.7
12	R2	7	0.0	7	0.0	1.228	1150.4	LOS F	1.6	11.0	1.00	1.11	1.54	0.4
Approach		100	0.0	100	0.0	1.228	96.0	LOS F	1.6	11.0	0.66	0.89	0.79	4.6
All Vehicles		3559	4.8	3559	4.8	1.228	3.0	NA	1.6	11.0	0.02	0.03	0.02	49.6

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.

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.

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MOVEMENT SUMMARY

 Site: 101 [Base PM Horsley/Polding]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles													
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h
South: The Horsley Drive (S)													
1	L2	442	0.0	442	0.0	0.320	13.0	LOS B	6.7	47.1	0.43	0.68	44.1
2	T1	886	5.0	886	5.0	0.637	37.0	LOS D	15.4	112.6	0.87	0.76	30.6
3	R2	293	0.0	293	0.0	0.896	79.9	LOS E	13.8	96.6	1.00	0.97	19.2
Approach		1621	2.7	1621	2.7	0.896	38.2	LOS D	15.4	112.6	0.77	0.78	29.9
East: Polding Street (E)													
4	L2	206	0.0	206	0.0	0.239	23.1	LOS C	4.5	31.4	0.61	0.72	34.6
5	T1	543	0.0	543	0.0	0.895	72.3	LOS E	15.5	108.3	0.98	1.02	27.6
Approach		749	0.0	749	0.0	0.895	58.7	LOS E	15.5	108.3	0.88	0.93	28.5
North: The Horsley Drive (N)													
7	L2	21	0.0	21	0.0	0.921	74.5	LOS E	24.8	180.8	1.00	1.07	27.8
8	T1	944	5.0	944	5.0	0.921	68.8	LOS E	24.8	180.8	1.00	1.07	18.7
9	R2	106	0.0	106	0.0	0.626	74.2	LOS E	4.5	31.3	1.00	0.80	26.7
Approach		1072	4.4	1072	4.4	0.921	69.5	LOS E	24.8	180.8	1.00	1.05	19.9
West: Polding Street (W)													
10	L2	18	0.0	18	0.0	0.426	37.8	LOS D	9.6	67.1	0.77	0.68	38.5
11	T1	303	0.0	303	0.0	0.426	32.3	LOS C	9.6	67.1	0.77	0.68	39.2
12	R2	320	0.0	320	0.0	0.925	68.5	LOS E	13.3	93.4	1.00	1.38	18.8
Approach		641	0.0	641	0.0	0.925	50.5	LOS D	13.3	93.4	0.89	0.84	28.7
All Vehicles		4083	2.2	4083	2.2	0.925	52.1	LOS D	24.8	180.8	0.87	0.89	26.5

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [Base PM Horsley/Polding]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, D, E, F, F1*

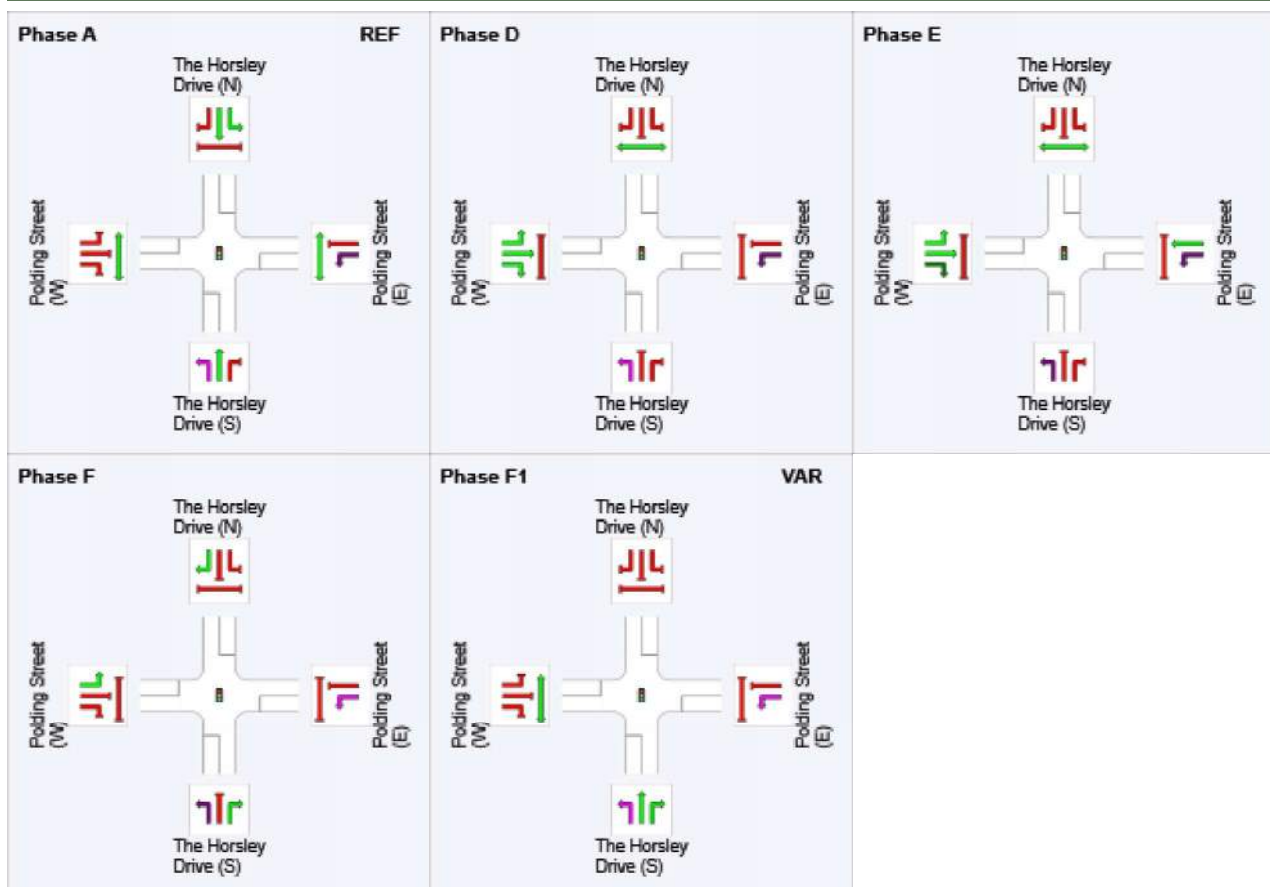
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F	F1
Phase Change Time (sec)	0	48	76	109	128
Green Time (sec)	42	22	27	13	6
Phase Time (sec)	48	28	33	19	12
Phase Split	34%	20%	24%	14%	9%

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

 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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 103 [Base PM Nelson/Smart]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Smart Street														
1	L2	123	5.0	123	5.0	0.401	59.6	LOS E	4.6	33.9	0.94	0.78	0.94	17.5
2	T1	119	5.0	119	5.0	0.440	55.7	LOS E	4.4	32.4	0.93	0.74	0.93	18.3
3	R2	93	5.0	93	5.0	0.301	58.5	LOS E	3.4	25.0	0.92	0.76	0.92	17.7
Approach		335	5.0	335	5.0	0.440	57.9	LOS E	4.6	33.9	0.93	0.76	0.93	17.8
East: Nelson Street														
4	L2	74	5.0	74	5.0	0.314	28.1	LOS C	6.9	50.7	0.66	0.61	0.66	27.7
5	T1	474	5.0	474	5.0	0.314	24.8	LOS C	7.1	51.9	0.67	0.59	0.67	12.9
6	R2	196	5.0	196	5.0	0.452	36.7	LOS D	6.0	44.0	0.78	0.77	0.78	9.8
Approach		743	5.0	743	5.0	0.452	28.2	LOS C	7.1	51.9	0.70	0.64	0.70	14.7
North: Smart Street														
7	L2	76	5.0	76	5.0	0.179	49.2	LOS D	2.5	18.4	0.84	0.73	0.84	4.0
8	T1	101	5.0	101	5.0	0.440	48.5	LOS D	6.0	43.9	0.89	0.75	0.89	20.2
9	R2	69	5.0	69	5.0	0.440	51.9	LOS D	6.0	43.9	0.89	0.75	0.89	4.1
Approach		246	5.0	246	5.0	0.440	49.6	LOS D	6.0	43.9	0.87	0.75	0.87	13.1
West: Nelson Street														
10	L2	46	5.0	46	5.0	0.167	39.0	LOS D	5.1	37.6	0.92	0.77	0.92	10.4
11	T1	245	5.0	245	5.0	0.167	32.5	LOS C	5.1	37.6	0.87	0.73	0.87	11.2
12	R2	89	5.0	89	5.0	0.278	41.9	LOS D	3.2	23.1	0.88	0.78	0.88	23.4
Approach		381	5.0	381	5.0	0.278	35.5	LOS D	5.1	37.6	0.88	0.74	0.88	16.0
All Vehicles		1705	5.0	1705	5.0	0.452	38.8	LOS D	7.1	51.9	0.81	0.70	0.81	15.7

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	Prop. Queued Distance m	Effective Stop Rate	
P1	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	
All Pedestrians		211	64.3	LOS F			0.96	

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: 103 [Base PM Nelson/Smart]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E

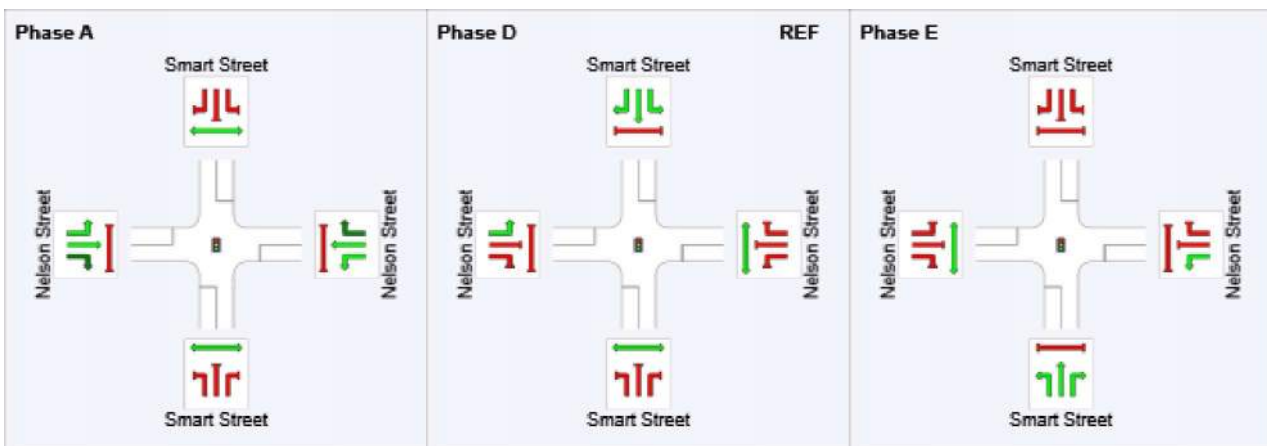
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E
Phase Change Time (sec)	69	0	39
Green Time (sec)	65	33	24
Phase Time (sec)	71	39	30
Phase Split	51%	28%	21%

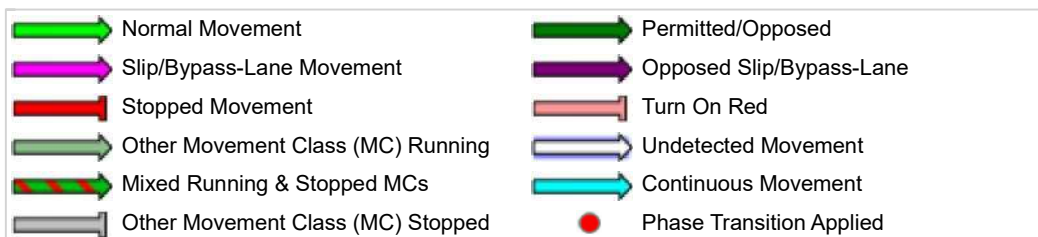
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



MOVEMENT SUMMARY

 Site: 102 [Base PM Nelson/Ware]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
East: Nelson Street														
4	L2	34	5.0	34	5.0	0.382	8.9	LOS A	6.1	44.6	0.41	0.39	0.41	36.5
5	T1	645	5.0	645	5.0	0.382	5.4	LOS A	6.1	44.6	0.41	0.38	0.41	27.5
Approach		679	5.0	679	5.0	0.382	5.6	LOS A	6.1	44.6	0.41	0.38	0.41	28.9
West: Nelson Street														
11	T1	374	5.0	374	5.0	0.124	1.5	LOS A	1.0	7.2	0.10	0.08	0.10	31.5
12	R2	75	5.0	75	5.0	0.160	7.8	LOS A	0.5	3.7	0.17	0.54	0.17	34.6
Approach		448	5.0	448	5.0	0.160	2.5	LOS A	1.0	7.2	0.11	0.16	0.11	33.4
All Vehicles		1127	5.0	1127	5.0	0.382	4.4	LOS A	6.1	44.6	0.29	0.29	0.29	30.4

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate		
		ped/h	sec		Pedestrian ped	Distance m			
P1	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96	
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96	
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96	
All Pedestrians		158	64.3	LOS F			0.96	0.96	

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.

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PHASING SUMMARY

 Site: 102 [Base PM Nelson/Ware]

 Network: N101 [Base PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B*, C

Output Phase Sequence: A, C

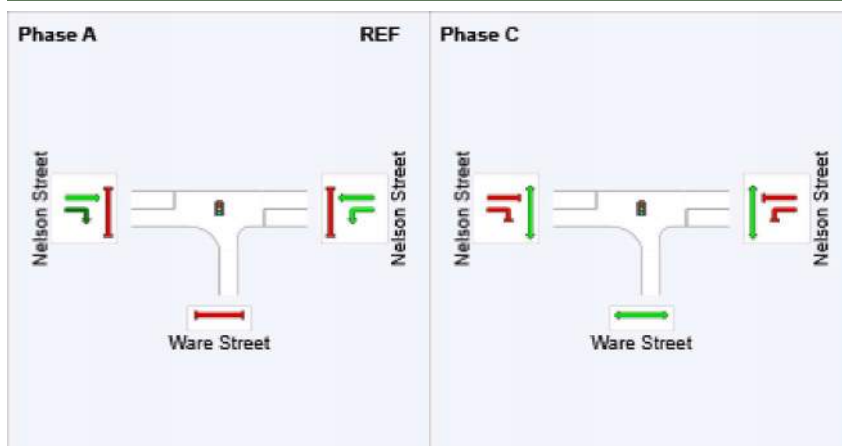
(* Variable Phase)

Phase Timing Summary

Phase	A	C
Phase Change Time (sec)	89	67
Green Time (sec)	112	16
Phase Time (sec)	118	22
Phase Split	84%	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

	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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 101 [Base SAT Nelson/Station/Barbara]

 Network: N101 [Base SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Barbara Street														
1	L2	179	5.0	179	5.0	0.805	50.7	LOS D	15.6	113.8	0.92	0.87	0.99	14.0
2	T1	232	5.0	232	5.0	0.805	47.2	LOS D	15.6	113.8	0.92	0.87	0.99	26.1
3	R2	181	5.0	181	5.0	0.272	25.7	LOS C	4.2	30.5	0.74	0.73	0.74	25.8
Approach		592	5.0	592	5.0	0.805	41.7	LOS D	15.6	113.8	0.87	0.83	0.91	21.7
East: Nelson Street														
4	L2	285	5.0	285	5.0	0.285	28.3	LOS C	7.0	51.0	0.81	0.79	0.81	25.8
5	T1	255	5.0	255	5.0	0.823	64.1	LOS E	7.0	51.0	1.00	0.96	1.15	6.0
6	R2	59	5.0	59	5.0	0.177	42.7	LOS D	1.6	12.0	0.69	0.67	0.69	22.0
Approach		599	5.0	598 ^{N1}	5.0	0.823	44.9	LOS D	7.0	51.0	0.88	0.85	0.94	17.5
North: Station Street														
7	L2	28	5.0	28	5.0	0.026	5.7	LOS A	0.2	1.5	0.24	0.49	0.24	35.7
8	T1	176	5.0	176	5.0	0.792	68.5	LOS E	7.6	55.2	1.00	0.94	1.16	22.9
9	R2	33	5.0	33	5.0	0.142	62.3	LOS E	1.2	9.0	0.92	0.72	0.92	17.9
Approach		237	5.0	237	5.0	0.792	60.1	LOS E	7.6	55.2	0.90	0.85	1.02	22.9
West: Nelson Street														
10	L2	40	5.0	40	5.0	0.564	65.4	LOS E	7.4	53.8	0.96	0.86	1.35	18.2
11	T1	287	5.0	287	5.0	0.564	59.2	LOS E	7.4	53.8	0.94	0.81	1.16	3.9
12	R2	198	5.0	198	5.0	0.810	66.8	LOS E	8.2	60.2	0.97	0.90	1.15	17.5
Approach		525	5.0	525	5.0	0.810	62.5	LOS E	8.2	60.2	0.95	0.85	1.17	12.1
All Vehicles		1953	5.0	1952 ^{N1}	5.0	0.823	50.5	LOS D	15.6	113.8	0.90	0.84	1.00	18.7

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.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P1	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [Base SAT Nelson/Station/Barbara]

 Network: N101 [Base SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E, F1*

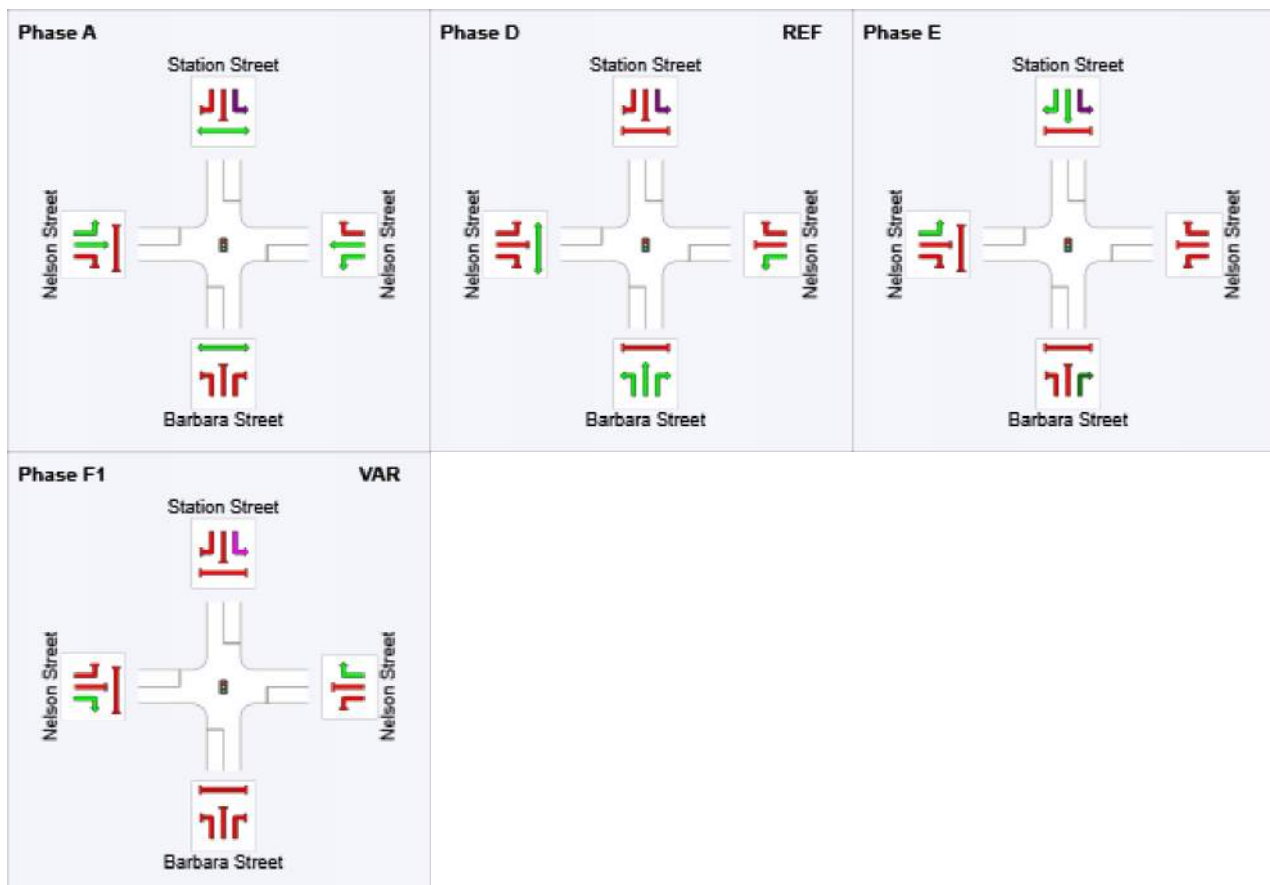
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F1
Phase Change Time (sec)	121	13	65	89
Green Time (sec)	26	46	18	26
Phase Time (sec)	32	52	24	32
Phase Split	23%	37%	17%	23%

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

 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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 101 [Base SAT Smart Lane]

 Network: N101 [Base SAT]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed			
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m					km/h
South: Smart Street														
1	L2	36	5.0	36	5.0	0.191	3.7	LOS A	0.0	0.0	0.00	0.06	0.00	56.0
2	T1	323	5.0	323	5.0	0.191	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	54.0
Approach		359	5.0	359	5.0	0.191	0.4	NA	0.0	0.0	0.00	0.06	0.00	55.0
North: Smart Street														
8	T1	285	5.0	285	5.0	0.286	0.3	LOS A	0.1	0.9	0.11	0.06	0.11	56.3
9	R2	29	5.0	29	5.0	0.286	7.1	LOS A	0.1	0.9	0.11	0.06	0.11	55.5
Approach		315	5.0	315	5.0	0.286	0.9	NA	0.1	0.9	0.11	0.06	0.11	56.1
West: Smart Lane														
10	L2	39	5.0	39	5.0	0.078	6.8	LOS A	0.1	0.7	0.41	0.65	0.41	48.4
12	R2	20	5.0	20	5.0	0.078	8.8	LOS A	0.1	0.7	0.41	0.65	0.41	48.4
Approach		59	5.0	59	5.0	0.078	7.5	LOS A	0.1	0.7	0.41	0.65	0.41	48.4
All Vehicles		733	5.0	732 ^{N1}	5.0	0.286	1.2	NA	0.1	0.9	0.08	0.11	0.08	54.3

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.

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.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

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MOVEMENT SUMMARY



Site: 104 [Base SAT Nelson/Horsely/Court]



Network: N101 [Base SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Court Road														
21	L2	136	5.0	136	5.0	0.807	52.7	LOS D	13.7	99.8	1.00	0.94	1.10	11.9
22	T1	274	5.0	274	5.0	0.807	48.7	LOS D	13.7	99.8	1.00	0.93	1.09	12.0
23b	R3	254	5.0	254	5.0	0.695	48.5	LOS D	9.4	68.4	0.96	0.85	0.98	26.3
Approach		663	5.0	663	5.0	0.807	49.4	LOS D	13.7	99.8	0.98	0.90	1.05	18.7
SouthEast: The Horsley Drive														
4b	L3	8	5.0	8	5.0	0.321	35.7	LOS D	5.4	39.7	0.76	0.76	0.76	31.7
4a	L1	204	5.0	204	5.0	0.321	33.6	LOS C	5.4	39.7	0.76	0.76	0.76	28.7
6a	R1	632	5.0	632	5.0	0.802	57.0	LOS E	11.5	84.2	1.00	0.91	1.12	21.2
Approach		844	5.0	844	5.0	0.802	51.1	LOS D	11.5	84.2	0.94	0.88	1.03	22.7
North: The Horsely Drive														
27a	L1	843	5.0	838	5.0	0.469	26.0	LOS C	9.8	71.6	0.71	0.78	0.71	39.0
28	T1	155	5.0	154	5.0	0.396	45.3	LOS D	5.1	37.0	0.90	0.77	0.90	24.2
29	R2	169	5.0	168	5.0	0.396	48.6	LOS D	5.1	37.0	0.90	0.79	0.90	18.9
Approach		1167	5.0	1160 ^{N1}	5.0	0.469	31.9	LOS C	9.8	71.6	0.76	0.78	0.76	34.2
West: Nelson Street														
30	L2	162	5.0	162	5.0	0.709	32.2	LOS C	4.3	31.3	1.00	0.85	1.06	10.9
32a	R1	173	5.0	173	5.0	0.709	54.0	LOS D	4.8	34.8	1.00	0.87	1.10	23.6
Approach		335	5.0	335	5.0	0.709	43.5	LOS D	4.8	34.8	1.00	0.86	1.08	19.8
All Vehicles		3009	5.0	3002 ^{N1}	5.0	0.807	42.5	LOS D	13.7	99.8	0.89	0.84	0.93	25.9

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.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P5	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P71	North Stage 1	53	54.3	LOS E	0.2	0.2	0.95	0.95
P72	North Stage 2	53	54.3	LOS E	0.2	0.2	0.95	0.95
P8	West Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	54.3	LOS E			0.95	0.95

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: 104 [Base SAT Nelson/Horsely/Court]

 Network: N101 [Base SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase C

Input Phase Sequence: A, B*, C, D, E

Output Phase Sequence: A, C, D, E

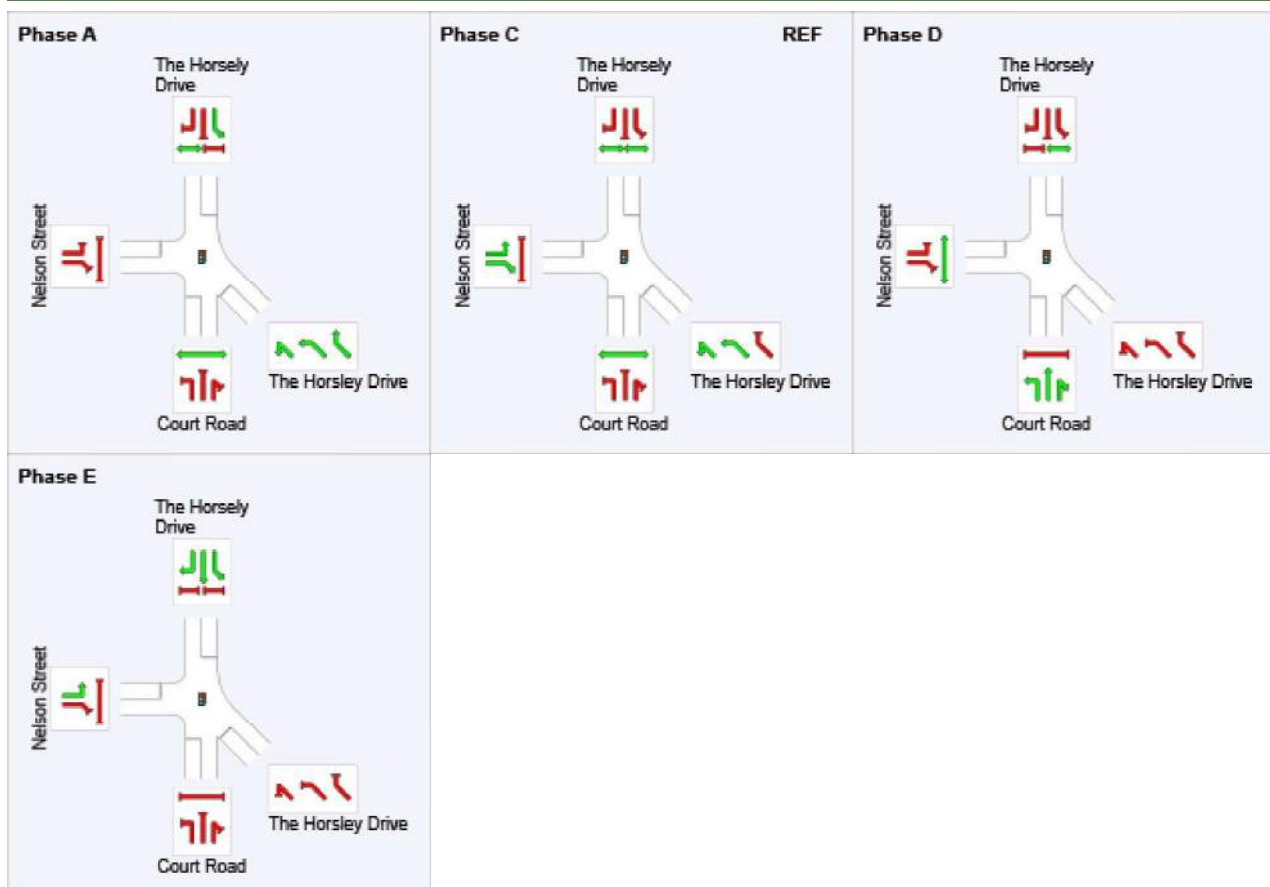
(* Variable Phase)

Phase Timing Summary

Phase	A	C	D	E
Phase Change Time (sec)	88	0	18	55
Green Time (sec)	26	12	31	27
Phase Time (sec)	32	18	37	33
Phase Split	27%	15%	31%	28%

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

 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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 101 [Base SAT Cunninghame/Horsley]

 Network: N101 [Base SAT]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	62	0.0	62	0.0	0.427	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	58.6
2	T1	1380	5.0	1380	5.0	0.427	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.2
Approach		1442	4.8	1442	4.8	0.427	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.2
North: The Horsley Drive (N)														
8	T1	1521	5.0	1521	5.0	0.403	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1521	5.0	1521	5.0	0.403	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Cunninghame Street														
10	L2	117	0.0	117	0.0	0.205	10.0	LOS B	0.3	2.0	0.59	0.83	0.59	27.4
12	R2	18	0.0	18	0.0	2.216	1584.7	LOS F	4.7	32.7	1.00	1.30	2.46	0.3
Approach		135	0.0	135	0.0	2.216	219.2	LOS F	4.7	32.7	0.65	0.89	0.84	2.0
All Vehicles		3098	4.7	3098	4.7	2.216	9.7	NA	4.7	32.7	0.03	0.05	0.04	34.3

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.

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.

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID07-Existing Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 101 [Base SAT Horsley/Polding]

 Network: N101 [Base SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	389	0.0	389	0.0	0.260	9.0	LOS A	3.8	26.3	0.31	0.65	0.31	47.7
2	T1	626	5.0	626	5.0	0.513	40.6	LOS D	10.5	76.7	0.86	0.74	0.86	29.2
3	R2	283	0.0	283	0.0	0.748	63.6	LOS E	11.5	80.2	1.00	0.87	1.04	22.2
Approach		1299	2.4	1299	2.4	0.748	36.1	LOS D	11.5	80.2	0.73	0.74	0.74	30.7
East: Polding Street (E)														
4	L2	312	0.0	312	0.0	0.341	16.7	LOS B	5.6	39.2	0.54	0.72	0.54	39.2
5	T1	327	0.0	327	0.0	0.748	63.7	LOS E	8.7	61.2	0.98	0.86	1.09	29.4
6	R2	17	0.0	17	0.0	0.748	70.0	LOS E	8.7	61.2	1.00	0.88	1.08	28.8
Approach		656	0.0	656	0.0	0.748	41.5	LOS D	8.7	61.2	0.78	0.80	0.83	31.9
North: The Horsley Drive (N)														
7	L2	38	0.0	38	0.0	0.736	55.7	LOS E	14.6	102.0	0.97	0.85	0.98	32.3
8	T1	676	0.0	676	0.0	0.736	49.6	LOS D	14.6	102.0	0.96	0.84	0.97	23.1
9	R2	96	0.0	96	0.0	0.489	39.6	LOS D	2.2	15.1	0.98	0.77	0.98	35.7
Approach		809	0.0	809	0.0	0.736	48.7	LOS D	14.6	102.0	0.96	0.83	0.97	25.4
West: Polding Street (W)														
10	L2	31	0.0	31	0.0	0.418	37.0	LOS D	9.3	65.2	0.76	0.67	0.76	38.7
11	T1	285	0.0	285	0.0	0.418	31.5	LOS C	9.3	65.2	0.76	0.67	0.76	39.4
12	R2	317	0.0	317	0.0	0.696	41.5	LOS D	9.9	69.0	0.96	0.84	0.96	25.8
Approach		633	0.0	633	0.0	0.696	36.8	LOS D	9.9	69.0	0.86	0.76	0.86	33.4
All Vehicles		3397	0.9	3397	0.9	0.748	40.3	LOS D	14.6	102.0	0.82	0.78	0.83	30.2

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [Base SAT Horsley/Polding]

 Network: N101 [Base SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, C*, D, E, F, F1*

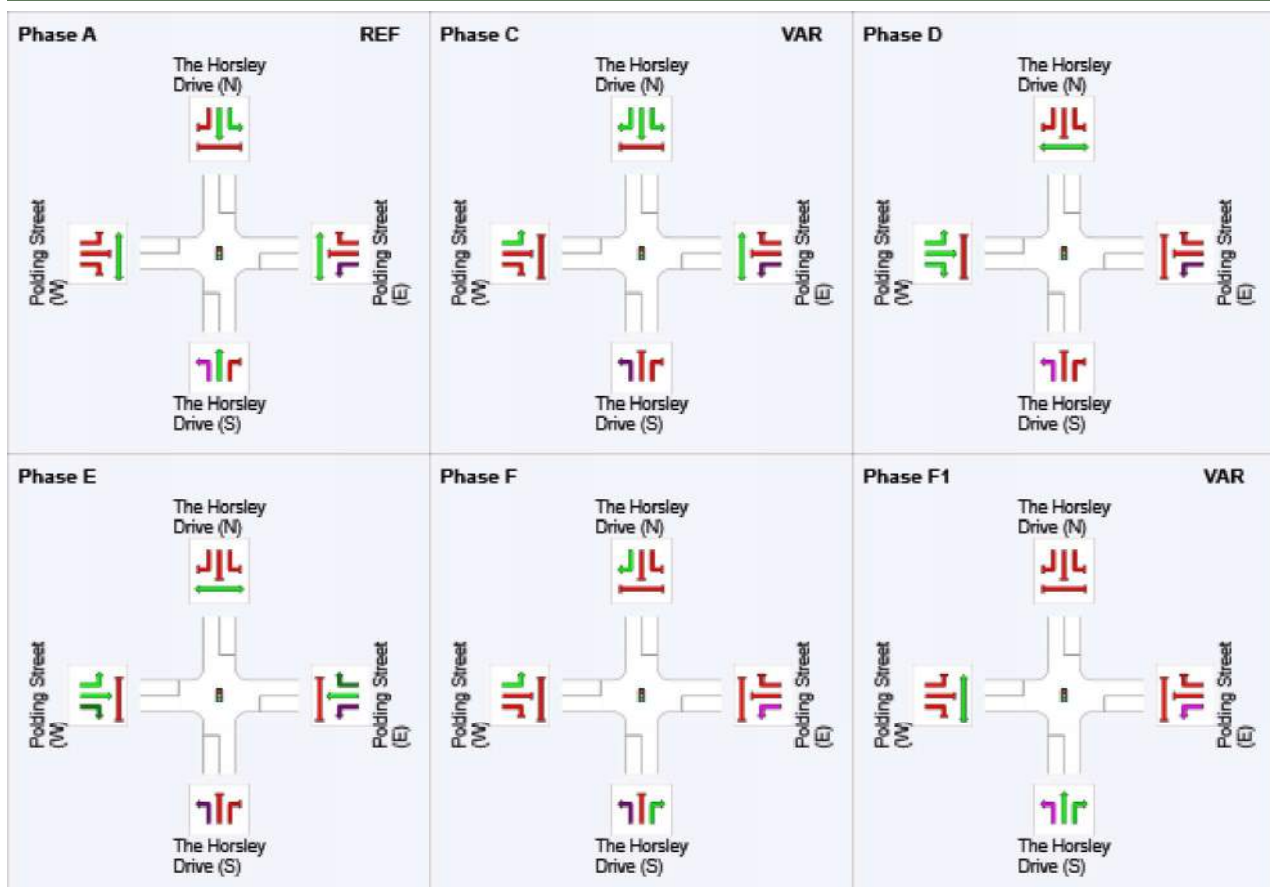
(* Variable Phase)

Phase Timing Summary

Phase	A	C	D	E	F	F1
Phase Change Time (sec)	0	31	44	78	105	119
Green Time (sec)	25	7	28	21	8	15
Phase Time (sec)	31	13	34	27	14	21
Phase Split	22%	9%	24%	19%	10%	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

 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

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MOVEMENT SUMMARY

 Site: 103 [Base SAT Nelson/Smart]

 Network: N101 [Base SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed		
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m			km/h		
South: Smart Street														
1	L2	144	5.0	144	5.0	0.417	57.2	LOS E	5.3	39.0	0.93	0.79	0.93	17.9
2	T1	55	5.0	55	5.0	0.185	50.9	LOS D	2.3	17.0	0.88	0.69	0.88	19.0
3	R2	76	5.0	76	5.0	0.185	54.4	LOS D	2.3	17.0	0.88	0.73	0.88	18.5
Approach		275	5.0	275	5.0	0.417	55.2	LOS E	5.3	39.0	0.90	0.75	0.90	18.3
East: Nelson Street														
4	L2	113	5.0	112	5.0	0.277	29.4	LOS C	5.8	42.7	0.67	0.65	0.67	27.0
5	T1	346	5.0	346	5.0	0.277	26.1	LOS C	6.1	44.2	0.67	0.60	0.67	12.4
6	R2	77	5.0	77	5.0	0.179	34.0	LOS C	2.1	15.4	0.70	0.70	0.70	10.3
Approach		536	5.0	535 ^{N1}	5.0	0.277	27.9	LOS C	6.1	44.2	0.68	0.62	0.68	17.4
North: Smart Street														
7	L2	86	5.0	86	5.0	0.204	49.5	LOS D	2.9	21.1	0.84	0.74	0.84	4.0
8	T1	83	5.0	83	5.0	0.414	48.2	LOS D	5.6	40.9	0.88	0.75	0.88	20.2
9	R2	77	5.0	77	5.0	0.414	51.6	LOS D	5.6	40.9	0.88	0.75	0.88	4.1
Approach		246	5.0	246	5.0	0.414	49.7	LOS D	5.6	40.9	0.87	0.75	0.87	11.8
West: Nelson Street														
10	L2	44	5.0	44	5.0	0.166	33.4	LOS C	4.4	31.9	0.81	0.70	0.81	11.7
11	T1	234	5.0	234	5.0	0.166	30.2	LOS C	4.4	32.1	0.82	0.68	0.82	11.8
12	R2	145	5.0	145	5.0	0.420	42.4	LOS D	5.1	37.3	0.88	0.80	0.88	23.3
Approach		423	5.0	423	5.0	0.420	34.7	LOS C	5.1	37.3	0.84	0.73	0.84	18.0
All Vehicles		1480	5.0	1479 ^{N1}	5.0	0.420	38.6	LOS D	6.1	44.2	0.80	0.70	0.80	16.8

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.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Prop. Queued Distance m	Effective Stop Rate	
P1	South Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		211	64.3	LOS F			0.96	0.96

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: 103 [Base SAT Nelson/Smart]

 Network: N101 [Base SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E

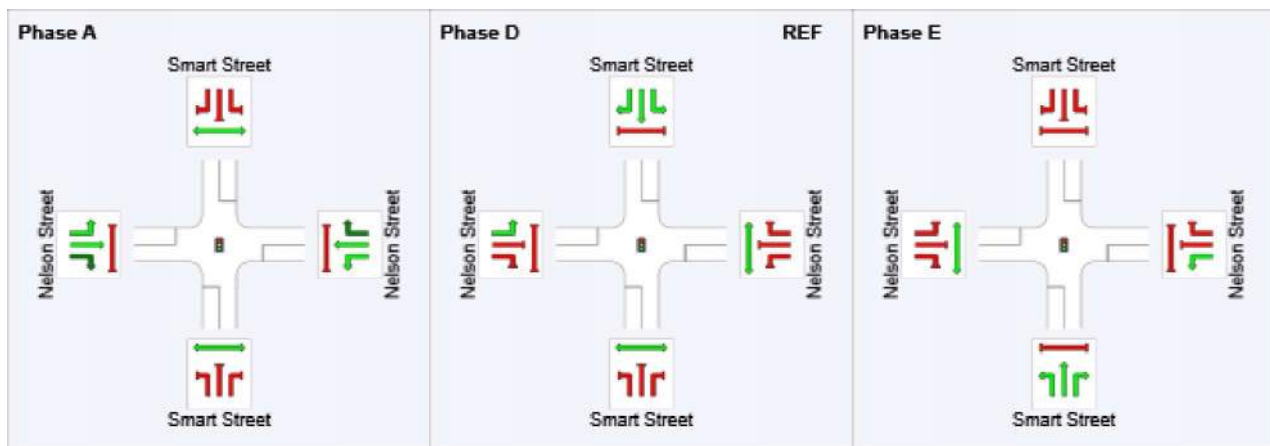
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E
Phase Change Time (sec)	72	0	39
Green Time (sec)	62	33	27
Phase Time (sec)	68	39	33
Phase Split	49%	28%	24%

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

	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

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MOVEMENT SUMMARY

 Site: 102 [Base SAT Nelson/Ware]

 Network: N101 [Base SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
East: Nelson Street														
4	L2	167	5.0	167	5.0	0.425	11.8	LOS B	8.8	64.4	0.58	0.61	0.58	34.3
5	T1	552	5.0	551	5.0	0.425	4.1	LOS A	8.8	64.4	0.29	0.29	0.29	29.0
Approach		719	5.0	718 ^{N1}	5.0	0.425	5.9	LOS A	8.8	64.4	0.35	0.37	0.35	31.9
West: Nelson Street														
11	T1	625	5.0	625	5.0	0.207	2.2	LOS A	1.8	13.0	0.14	0.13	0.14	28.5
12	R2	121	5.0	121	5.0	0.297	12.8	LOS B	1.5	11.0	0.32	0.60	0.32	31.9
Approach		746	5.0	746	5.0	0.297	3.9	LOS A	1.8	13.0	0.17	0.20	0.17	30.6
All Vehicles		1465	5.0	1465	5.0	0.425	4.9	LOS A	8.8	64.4	0.26	0.28	0.26	31.4

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.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

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	64.3	LOS F	0.2	0.2	0.96	0.96
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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.

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PHASING SUMMARY

 **Site: 102 [Base SAT Nelson/Ware]**

 **Network: N101 [Base SAT]**

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B*, C

Output Phase Sequence: A, C

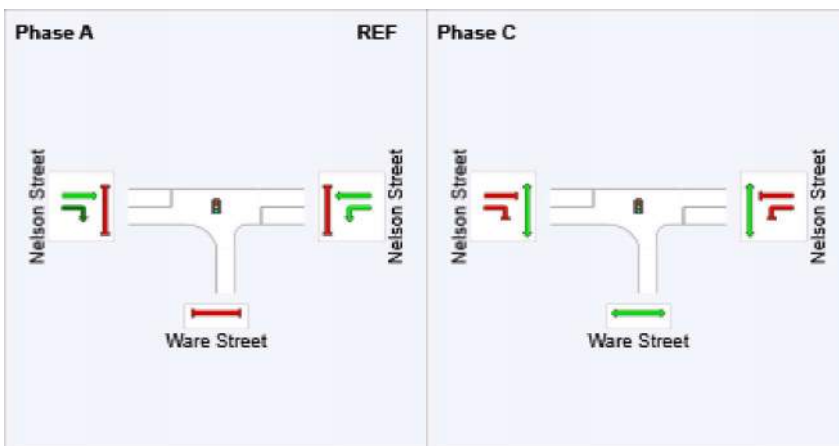
(* Variable Phase)

Phase Timing Summary

Phase	A	C
Phase Change Time (sec)	79	57
Green Time (sec)	112	16
Phase Time (sec)	118	22
Phase Split	84%	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

 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

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Appendix D Future Conditions SIDRA Assessment :

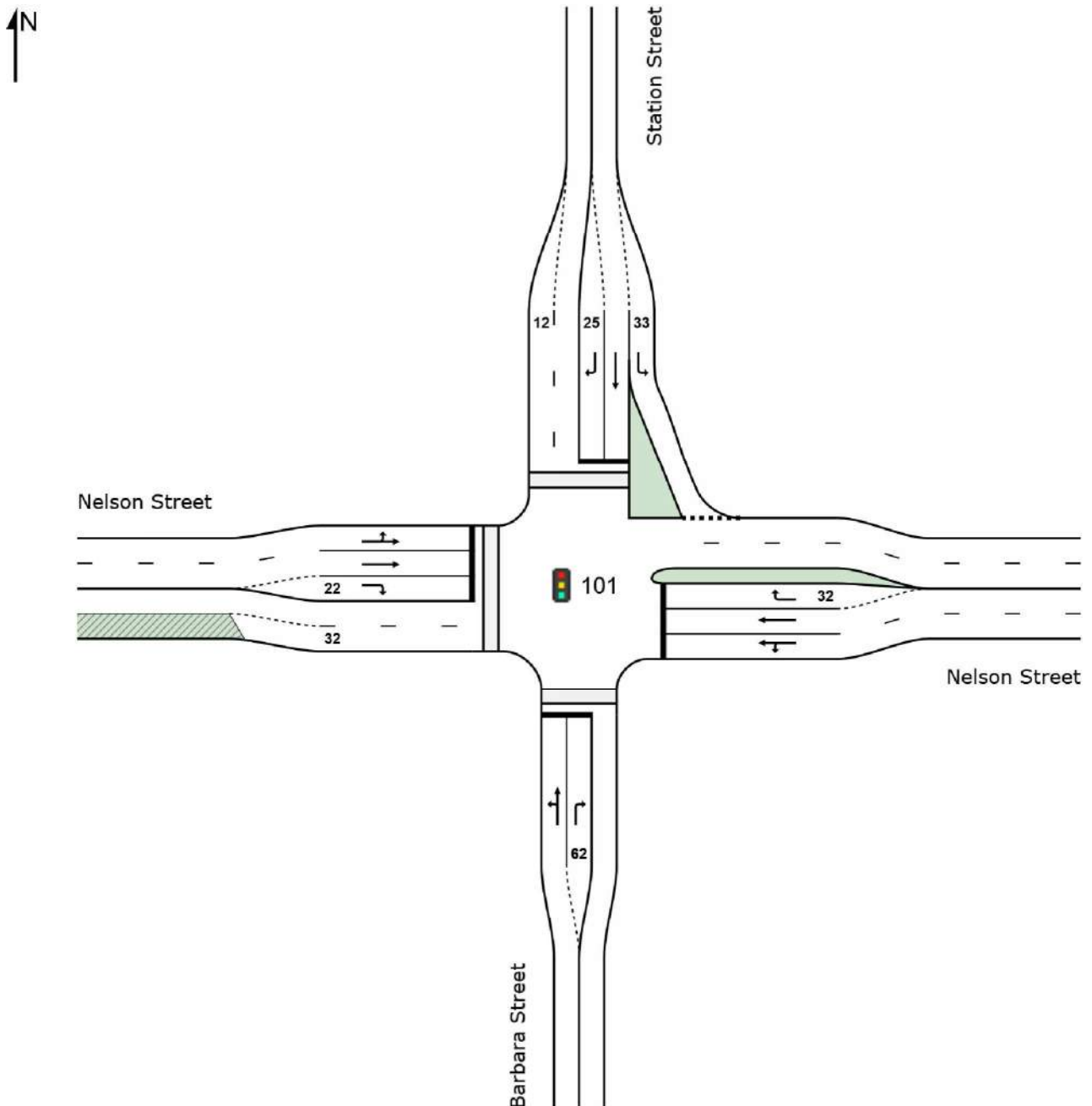
SITE LAYOUT

 **Site: 101 [FU AM Nelson/Station/Barbara]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 101 [FU AM Nelson/Station/Barbara]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Barbara Street														
1	L2	98	5.0	98	5.0	0.605	41.9	LOS D	6.8	49.3	0.95	0.81	0.95	15.0
2	T1	148	5.0	148	5.0	0.605	38.5	LOS D	6.8	49.3	0.95	0.81	0.95	27.9
3	R2	91	5.0	91	5.0	0.148	15.5	LOS B	1.2	8.8	0.67	0.68	0.67	30.0
Approach		337	5.0	337	5.0	0.605	33.3	LOS C	6.8	49.3	0.88	0.77	0.88	23.7
East: Nelson Street														
4	L2	192	5.0	192	5.0	0.254	14.6	LOS B	2.2	16.1	0.41	0.61	0.41	31.3
5	T1	163	5.0	163	5.0	0.617	27.2	LOS C	3.7	27.2	0.78	0.63	0.78	12.1
6	R2	9	5.0	9	5.0	0.053	52.4	LOS D	0.3	2.1	1.00	0.68	1.00	19.9
Approach		364	5.0	364	5.0	0.617	21.2	LOS C	3.7	27.2	0.59	0.62	0.59	24.9
North: Station Street														
7	L2	108	5.0	108	5.0	0.088	4.5	LOS A	0.5	3.3	0.23	0.50	0.23	36.5
8	T1	295	5.0	295	5.0	0.630	31.5	LOS C	7.4	53.7	0.88	0.75	0.88	29.8
9	R2	115	5.0	115	5.0	0.213	31.6	LOS C	2.6	18.8	0.79	0.73	0.79	24.5
Approach		518	5.0	518	5.0	0.630	25.8	LOS C	7.4	53.7	0.72	0.69	0.72	29.5
West: Nelson Street														
10	L2	40	5.0	40	5.0	0.427	40.4	LOS D	2.8	20.2	0.95	0.81	1.16	23.2
11	T1	192	5.0	192	5.0	0.427	41.8	LOS D	3.2	23.3	0.96	0.79	1.04	5.4
12	R2	105	5.0	105	5.0	0.587	52.9	LOS D	3.2	23.2	1.00	0.80	1.03	19.9
Approach		337	5.0	337	5.0	0.587	45.1	LOS D	3.2	23.3	0.97	0.79	1.05	14.8
All Vehicles		1556	5.0	1556	5.0	0.630	30.5	LOS C	7.4	53.7	0.78	0.71	0.80	24.6

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		158	44.3	LOS E			0.94	0.94

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: 101 [FU AM Nelson/Station/Barbara]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E, F1*

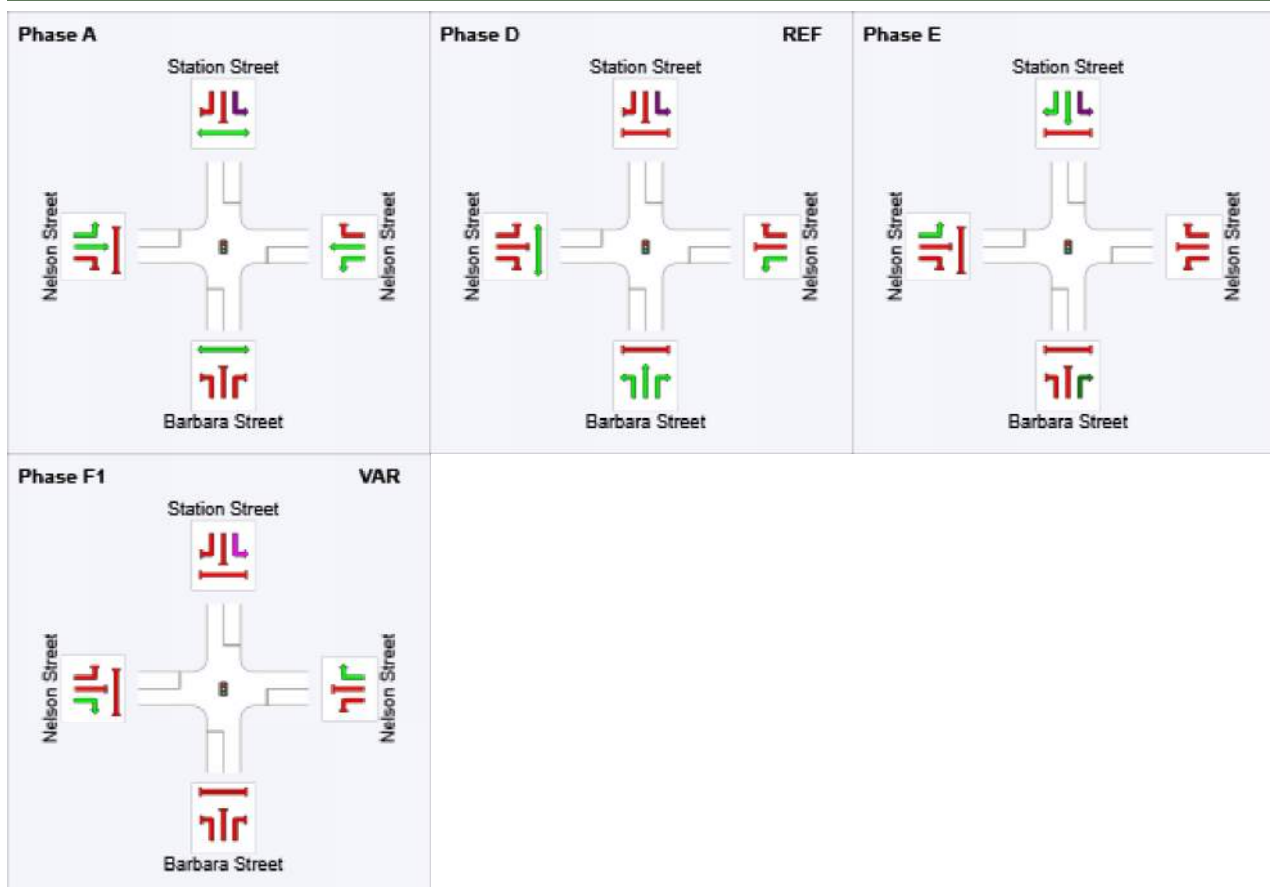
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F1
Phase Change Time (sec)	80	0	28	64
Green Time (sec)	14	22	30	10
Phase Time (sec)	20	28	36	16
Phase Split	20%	28%	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

 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

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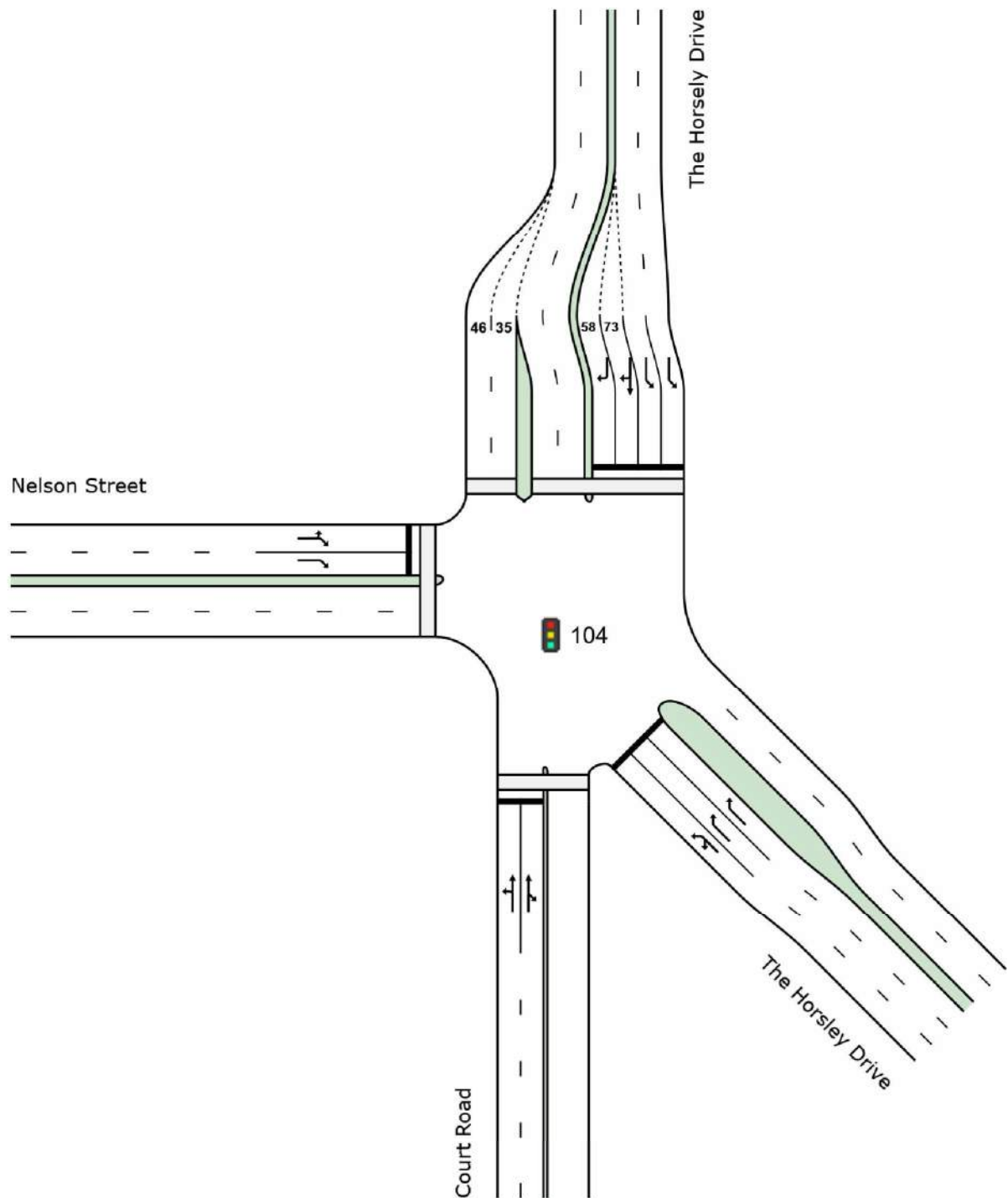
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SITE LAYOUT

 **Site: 104 [FU AM Nelson/Horsely/Court]**

New Site
Site Category: (None)
Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 104 [FU AM Nelson/Horsely/Court]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Court Road														
21	L2	46	5.0	46	5.0	0.894	72.1	LOS E	8.4	61.6	1.00	1.10	1.37	9.4
22	T1	159	5.0	159	5.0	0.894	68.7	LOS E	8.4	61.6	1.00	1.10	1.37	9.4
23b	R3	149	5.0	149	5.0	0.772	64.6	LOS E	5.7	41.3	1.00	0.91	1.18	22.6
Approach		355	5.0	355	5.0	0.894	67.4	LOS E	8.4	61.6	1.00	1.02	1.29	15.8
SouthEast: The Horsley Drive														
4b	L3	11	5.0	11	5.0	0.326	22.2	LOS C	6.3	45.8	0.59	0.72	0.59	37.9
4a	L1	314	5.0	314	5.0	0.326	20.2	LOS C	6.3	45.8	0.59	0.72	0.59	36.3
6a	R1	1116	5.0	1116	5.0	0.920	64.2	LOS E	23.7	173.2	1.00	1.03	1.26	19.6
Approach		1440	5.0	1440	5.0	0.920	54.3	LOS D	23.7	173.2	0.91	0.96	1.11	21.9
North: The Horsely Drive														
27a	L1	1272	5.0	1272	5.0	0.685	23.8	LOS C	17.6	128.7	0.74	0.81	0.74	40.1
28	T1	162	5.0	162	5.0	0.586	52.4	LOS D	6.4	46.5	0.97	0.81	0.97	22.4
29	R2	208	5.0	208	5.0	0.586	55.7	LOS E	6.4	46.5	0.97	0.81	0.97	17.2
Approach		1642	5.0	1642	5.0	0.685	30.7	LOS C	17.6	128.7	0.79	0.81	0.79	35.1
West: Nelson Street														
30	L2	104	5.0	104	5.0	0.864	61.4	LOS E	10.5	76.9	1.00	1.05	1.43	6.7
32a	R1	440	5.0	440	5.0	0.864	62.2	LOS E	10.5	76.9	1.00	1.05	1.33	21.8
Approach		544	5.0	544	5.0	0.864	62.0	LOS E	10.5	76.9	1.00	1.05	1.35	19.7
All Vehicles		3981	5.0	3981	5.0	0.920	46.8	LOS D	23.7	173.2	0.88	0.92	1.03	25.9

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P5	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P71	North Stage 1	53	54.3	LOS E	0.2	0.2	0.95	0.95
P72	North Stage 2	53	54.3	LOS E	0.2	0.2	0.95	0.95
P8	West Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	54.3	LOS E			0.95	0.95

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: 104 [FU AM Nelson/Horsely/Court]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Split Phasing

Reference Phase: Phase C

Input Phase Sequence: A, B, C, D

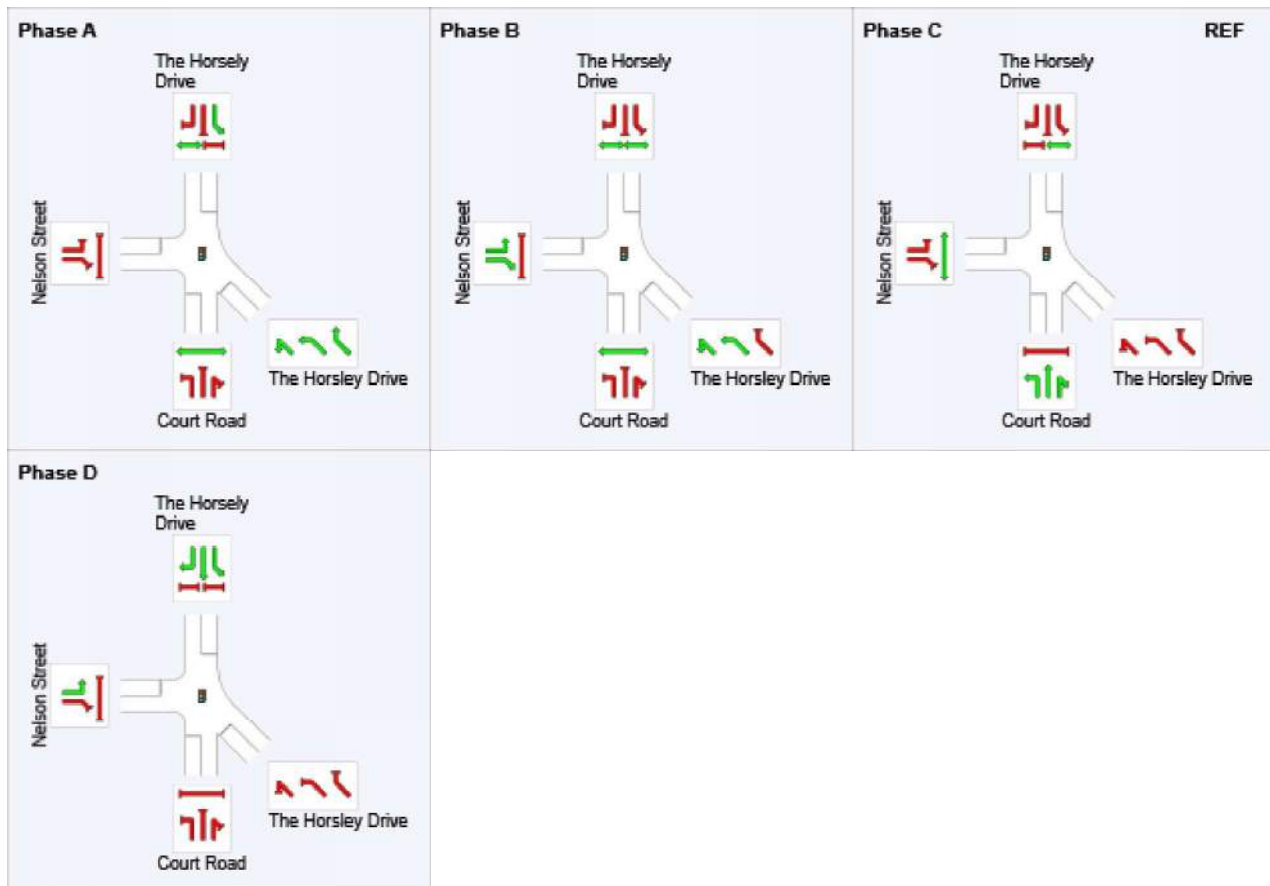
Output Phase Sequence: A, B, C, D

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	48	94	0	21
Green Time (sec)	40	20	15	21
Phase Time (sec)	46	26	21	27
Phase Split	38%	22%	18%	23%

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

 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

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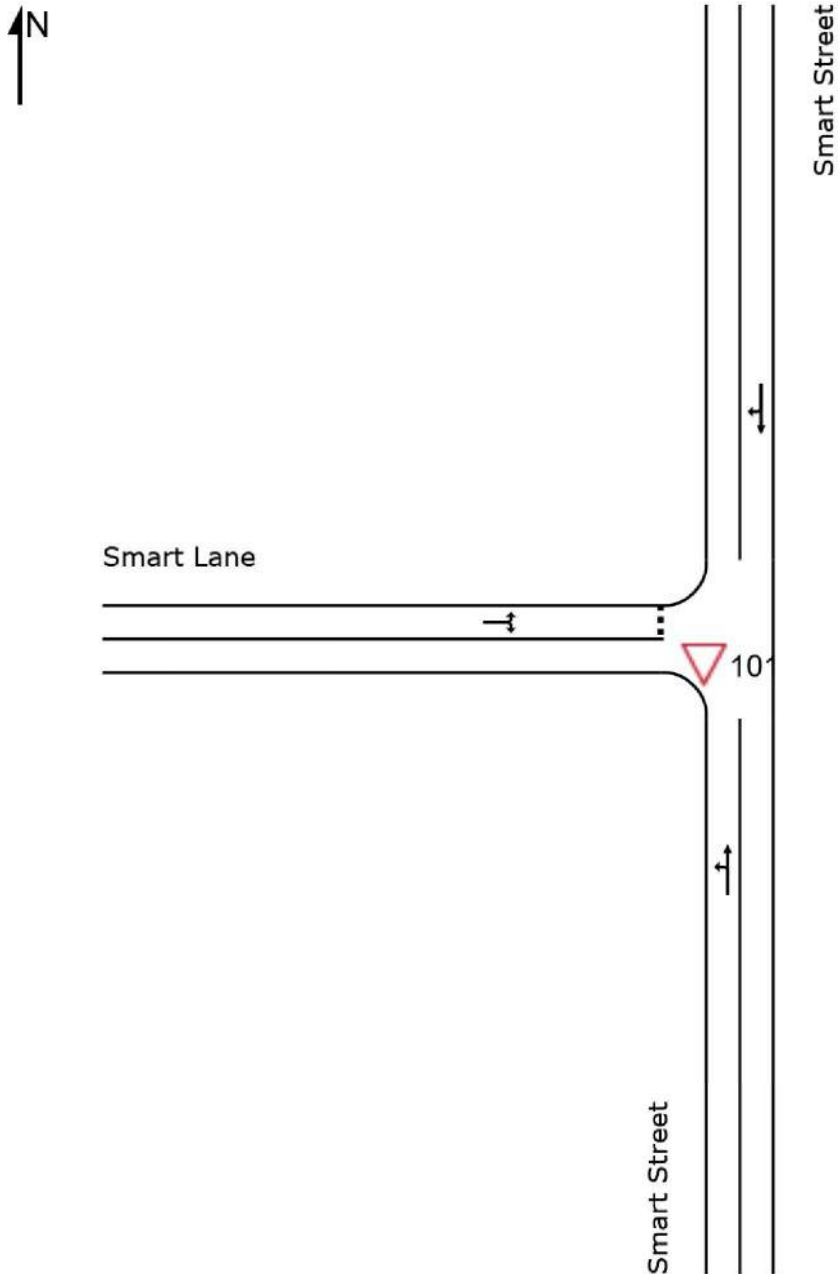
SITE LAYOUT

▽ Site: 101 [FU AM Smart Lane]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

 Site: 101 [FU AM Smart Lane]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed			
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m					km/h
South: Smart Street														
1	L2	75	5.0	75	5.0	0.126	3.7	LOS A	0.0	0.0	0.00	0.18	0.00	54.8
2	T1	159	5.0	159	5.0	0.126	0.0	LOS A	0.0	0.0	0.00	0.18	0.00	44.5
Approach		234	5.0	234	5.0	0.126	1.2	NA	0.0	0.0	0.00	0.18	0.00	52.6
North: Smart Street														
8	T1	426	5.0	426	5.0	0.460	0.4	LOS A	0.4	3.2	0.19	0.12	0.19	53.6
9	R2	101	5.0	101	5.0	0.460	6.7	LOS A	0.4	3.2	0.19	0.12	0.19	54.6
Approach		527	5.0	527	5.0	0.460	1.6	NA	0.4	3.2	0.19	0.12	0.19	54.0
West: Smart Lane														
10	L2	66	5.0	66	5.0	0.188	6.2	LOS A	0.2	1.6	0.30	0.63	0.30	47.8
12	R2	57	5.0	57	5.0	0.188	9.9	LOS A	0.2	1.6	0.30	0.63	0.30	47.8
Approach		123	5.0	123	5.0	0.188	7.9	LOS A	0.2	1.6	0.30	0.63	0.30	47.8
All Vehicles		884	5.0	884	5.0	0.460	2.4	NA	0.4	3.2	0.16	0.21	0.16	52.3

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.

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.

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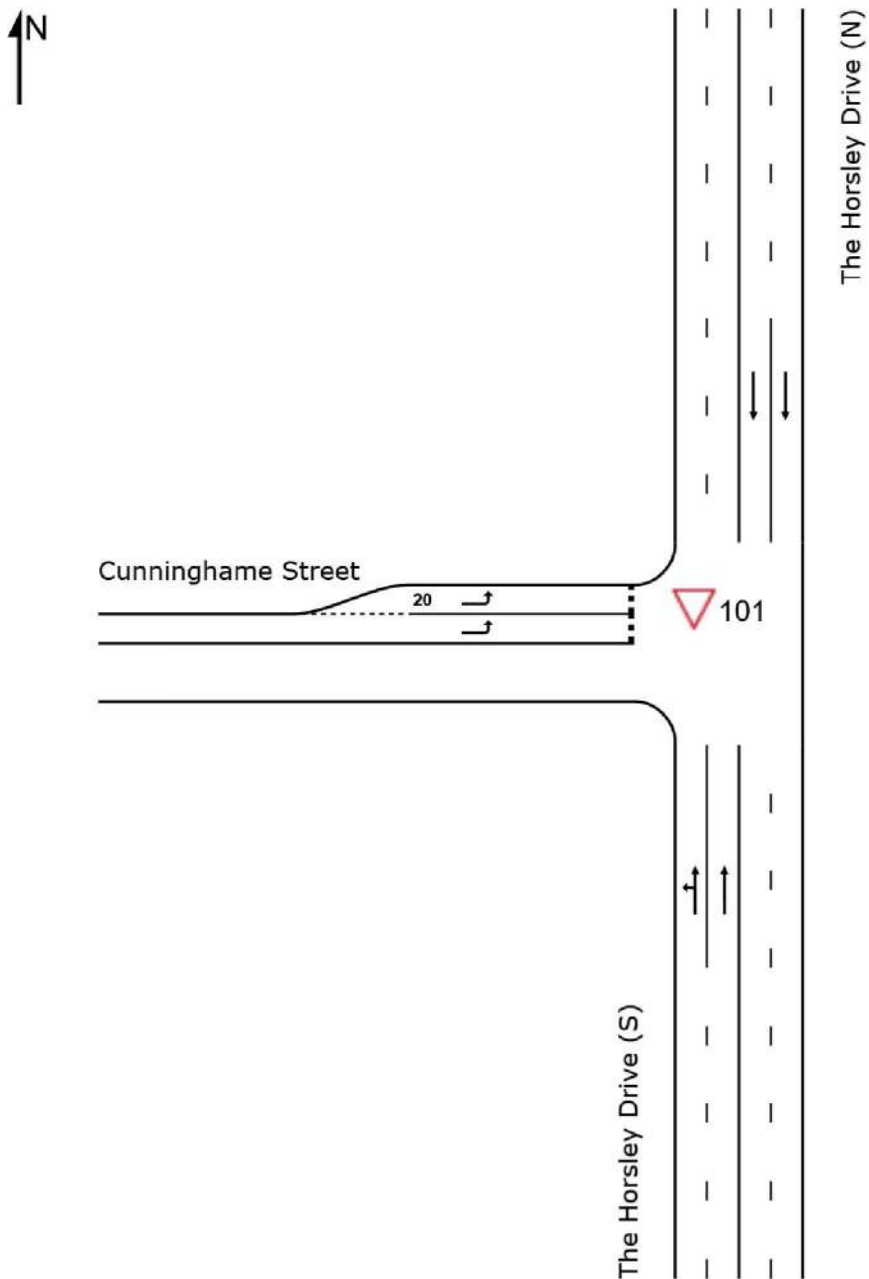
SITE LAYOUT

▽ Site: 101 [FU AM Cunninghame/Horsley]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

 Site: 101 [FU AM Cunninghame/Horsley]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	54	0.0	54	0.0	0.485	5.6	LOS A	0.0	0.0	0.00	0.00	58.5	
2	T1	1493	5.0	1493	5.0	0.485	0.1	LOS A	0.6	4.6	0.00	0.00	59.3	
Approach		1546	4.8	1546	4.8	0.485	0.3	NA	0.6	4.6	0.00	0.00	59.3	
North: The Horsley Drive (N)														
8	T1	1748	5.0	1748	5.0	0.463	0.0	LOS A	0.0	0.0	0.00	0.00	59.9	
Approach		1748	5.0	1748	5.0	0.463	0.0	NA	0.0	0.0	0.00	0.00	59.9	
West: Cunninghame Street														
10	L2	211	0.0	211	0.0	0.342	12.5	LOS B	0.4	3.1	0.62	0.86	24.2	
Approach		211	0.0	211	0.0	0.342	12.5	LOS B	0.4	3.1	0.62	0.86	24.2	
All Vehicles		3505	4.6	3505	4.6	0.485	0.9	NA	0.6	4.6	0.04	0.06	56.5	

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.

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.

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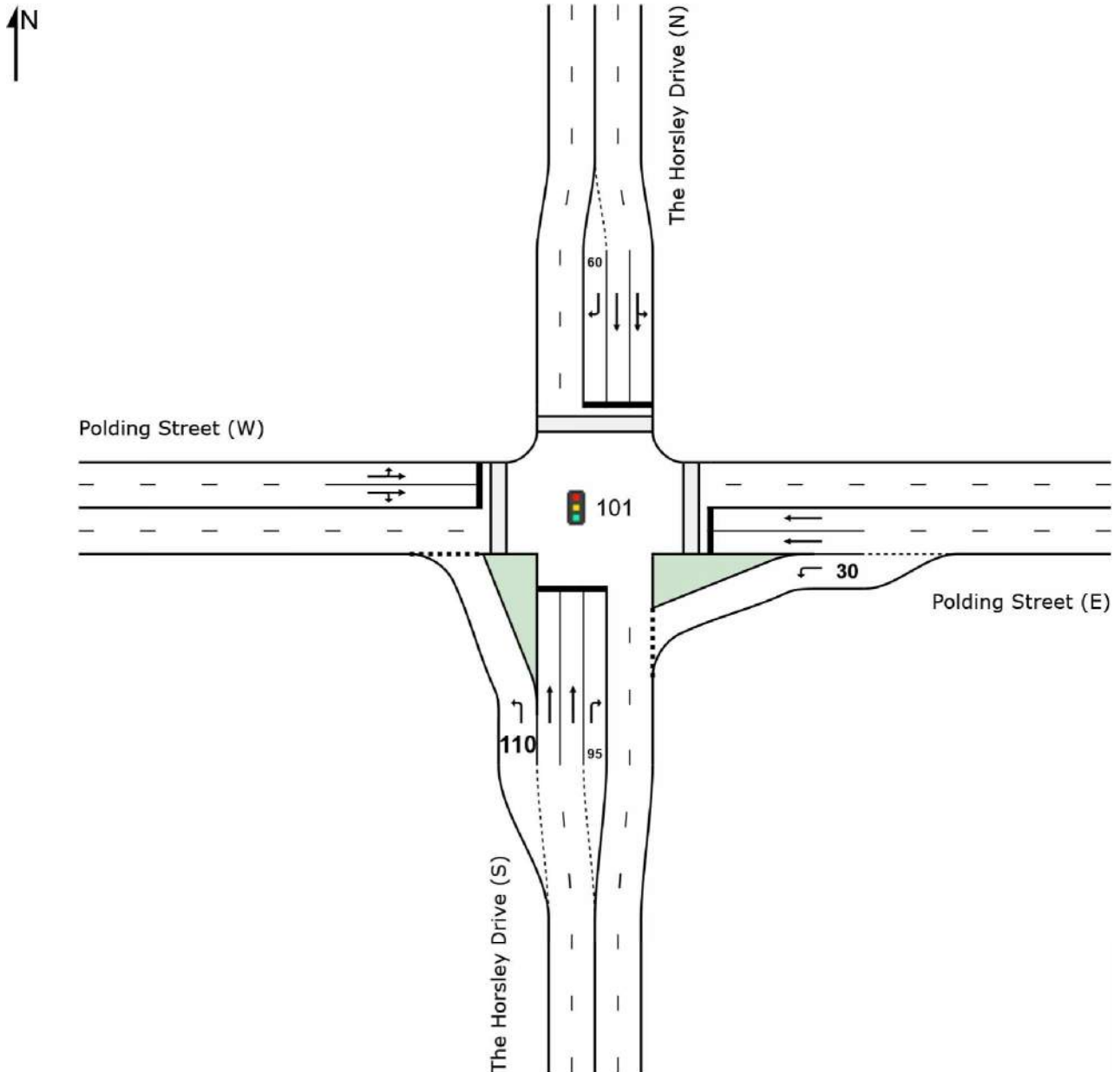
SITE LAYOUT

 **Site: 101 [FU AM Horsley/Polding]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 101 [FU AM Horsley/Polding]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m				km/h
South: The Horsley Drive (S)														
1	L2	292	5.0	292	5.0	0.195	9.3	LOS A	2.9	21.2	0.29	0.63	0.29	47.3
2	T1	894	5.0	894	5.0	0.701	39.0	LOS D	16.4	120.0	0.89	0.79	0.89	29.8
3	R2	300	5.0	300	5.0	0.915	83.5	LOS F	14.6	106.6	1.00	0.99	1.32	18.6
Approach		1485	5.0	1485	5.0	0.915	42.1	LOS D	16.4	120.0	0.80	0.80	0.86	28.4
East: Polding Street (E)														
4	L2	332	5.0	332	5.0	0.445	28.2	LOS C	8.7	63.6	0.72	0.77	0.72	31.6
5	T1	325	5.0	325	5.0	0.934	87.0	LOS F	9.9	72.2	1.00	1.06	1.48	24.8
Approach		657	5.0	657	5.0	0.934	57.4	LOS E	9.9	72.2	0.86	0.92	1.10	26.8
North: The Horsley Drive (N)														
7	L2	35	5.0	35	5.0	0.917	78.0	LOS E	20.5	149.8	1.00	1.07	1.26	27.0
8	T1	773	5.0	773	5.0	0.917	72.3	LOS E	20.5	149.8	1.00	1.08	1.27	18.0
9	R2	83	5.0	83	5.0	0.733	80.7	LOS F	3.7	27.0	1.00	0.84	1.17	25.4
Approach		891	5.0	891	5.0	0.917	73.3	LOS E	20.5	149.8	1.00	1.05	1.26	19.4
West: Polding Street (W)														
10	L2	18	5.0	18	5.0	0.631	37.6	LOS D	16.3	119.1	0.83	0.75	0.83	38.5
11	T1	493	5.0	493	5.0	0.631	32.0	LOS C	16.3	119.1	0.83	0.75	0.83	39.3
12	R2	465	5.0	465	5.0	0.870	56.9	LOS E	18.7	136.6	1.00	0.96	1.21	21.3
Approach		976	5.0	976	5.0	0.870	44.0	LOS D	18.7	136.6	0.91	0.85	1.01	31.0
All Vehicles		4008	5.0	4008	5.0	0.934	52.0	LOS D	20.5	149.8	0.88	0.88	1.02	26.4

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [FU AM Horsley/Polding]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, D, E, F, F1*

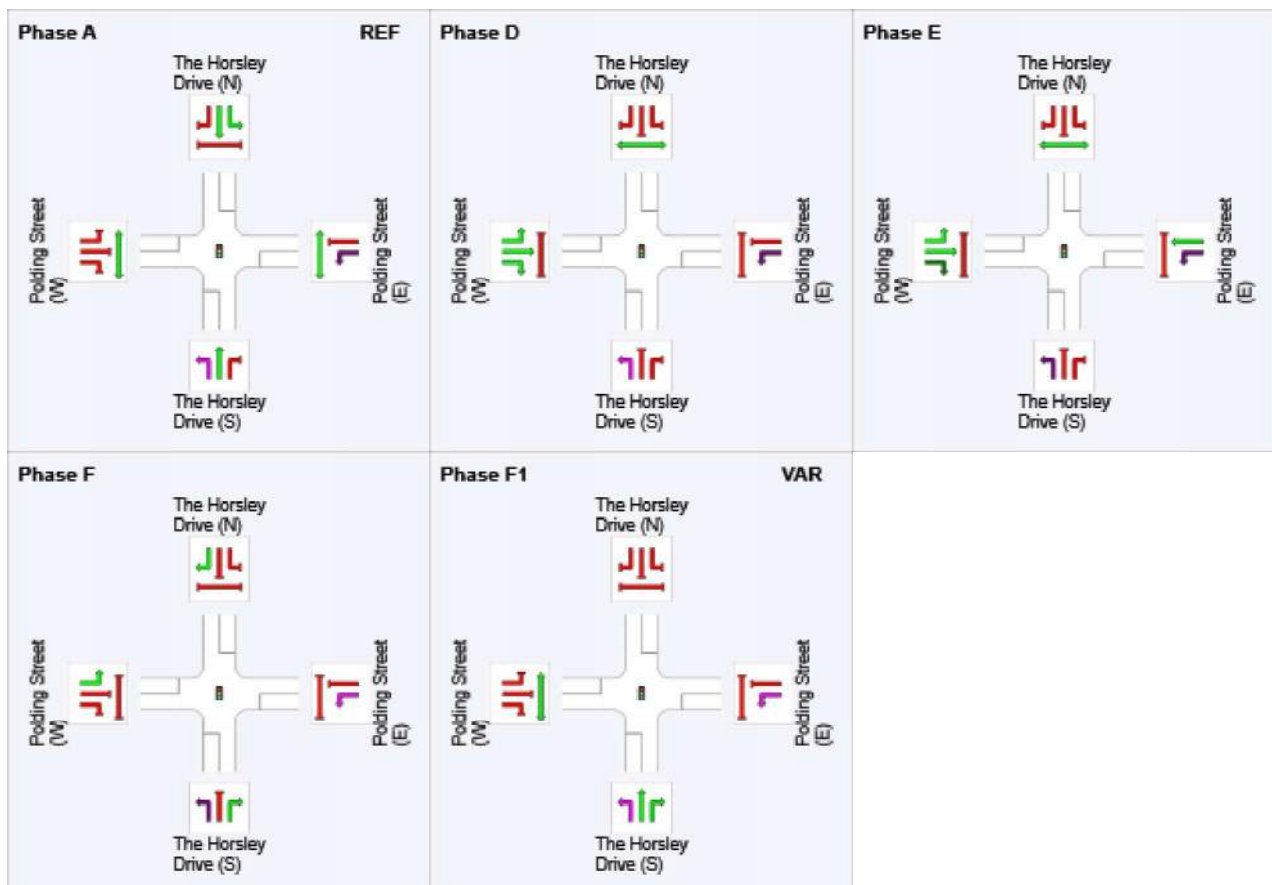
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F	F1
Phase Change Time (sec)	0	41	86	108	123
Green Time (sec)	35	39	16	9	11
Phase Time (sec)	41	45	22	15	17
Phase Split	29%	32%	16%	11%	12%

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

 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

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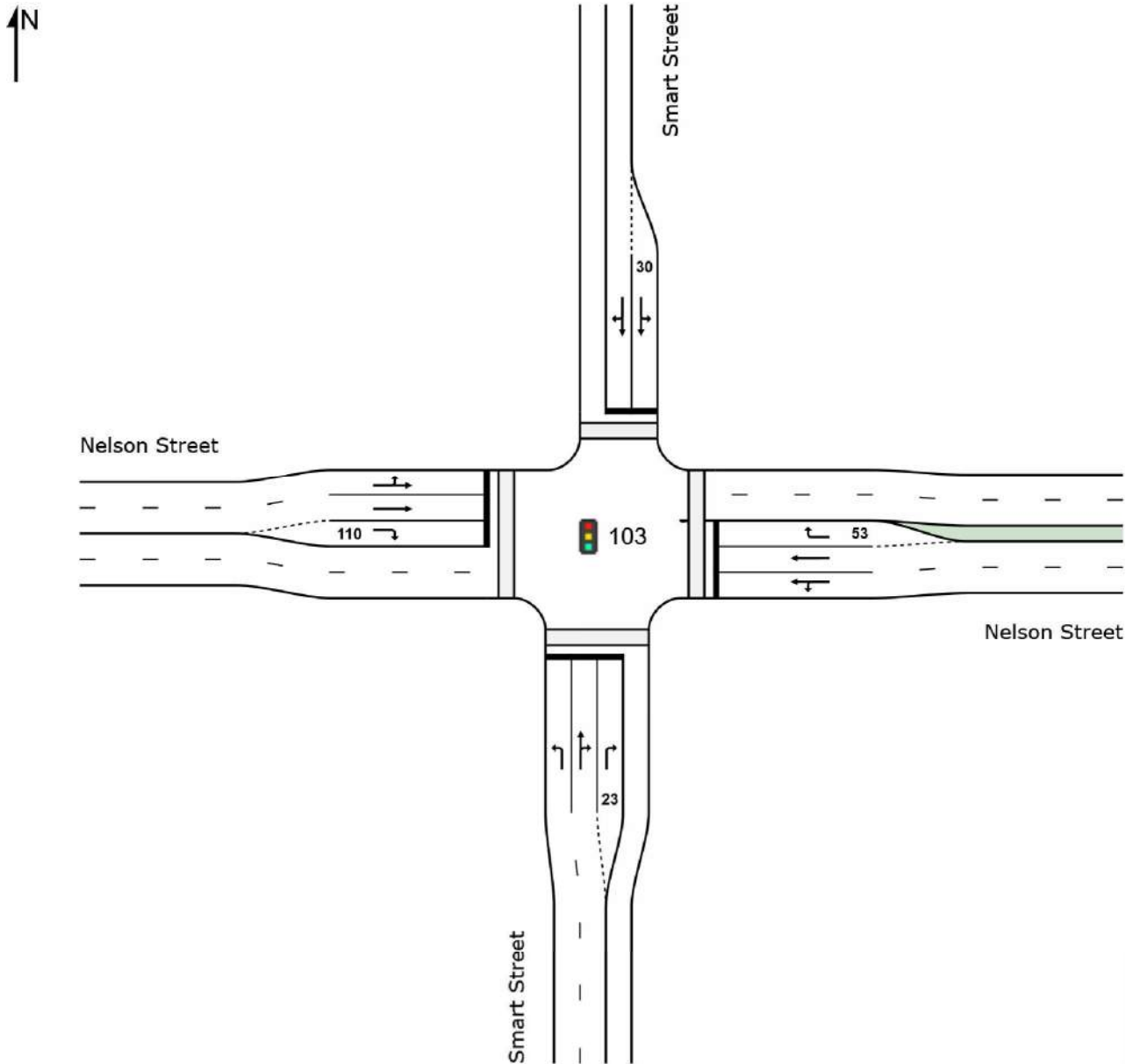
SITE LAYOUT

 **Site: 103 [FU AM Nelson/Smart]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 103 [FU AM Nelson/Smart]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Arrival Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Vehicles veh	Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Smart Street														
1	L2	75	5.0	75	5.0	0.321	47.4	LOS D	2.1	15.3	0.95	0.76	0.95	19.8
2	T1	57	5.0	57	5.0	0.232	43.2	LOS D	1.6	11.5	0.93	0.71	0.93	20.8
3	R2	43	5.0	43	5.0	0.207	46.8	LOS D	1.2	8.7	0.93	0.73	0.93	19.9
Approach		175	5.0	175	5.0	0.321	45.9	LOS D	2.1	15.3	0.94	0.73	0.94	20.1
East: Nelson Street														
4	L2	94	5.0	94	5.0	0.298	26.5	LOS C	4.3	31.5	0.74	0.67	0.74	28.0
5	T1	329	5.0	329	5.0	0.298	23.2	LOS C	4.5	32.5	0.74	0.64	0.74	13.4
6	R2	95	5.0	95	5.0	0.288	33.0	LOS C	2.2	16.2	0.81	0.74	0.81	10.6
Approach		518	5.0	518	5.0	0.298	25.6	LOS C	4.5	32.5	0.75	0.66	0.75	17.6
North: Smart Street														
7	L2	153	5.0	153	5.0	0.313	32.0	LOS C	3.5	25.7	0.81	0.75	0.81	5.8
8	T1	140	5.0	140	5.0	0.476	29.5	LOS C	5.5	40.5	0.84	0.73	0.84	24.9
9	R2	94	5.0	94	5.0	0.476	32.8	LOS C	5.5	40.5	0.84	0.73	0.84	6.3
Approach		386	5.0	386	5.0	0.476	31.3	LOS C	5.5	40.5	0.83	0.74	0.83	16.5
West: Nelson Street														
10	L2	38	5.0	38	5.0	0.262	33.0	LOS C	4.3	31.6	0.90	0.76	0.90	11.9
11	T1	300	5.0	300	5.0	0.262	30.4	LOS C	4.4	32.0	0.92	0.77	0.92	11.8
12	R2	146	5.0	146	5.0	0.462	44.1	LOS D	4.3	31.3	1.00	0.84	1.00	22.9
Approach		484	5.0	484	5.0	0.462	34.7	LOS C	4.4	32.0	0.94	0.79	0.94	17.4
All Vehicles		1563	5.0	1563	5.0	0.476	32.1	LOS C	5.5	40.5	0.85	0.73	0.85	17.7

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 Pedestrian ped	Back of Queue Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		211	44.3	LOS E			0.94	0.94

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: 103 [FU AM Nelson/Smart]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E

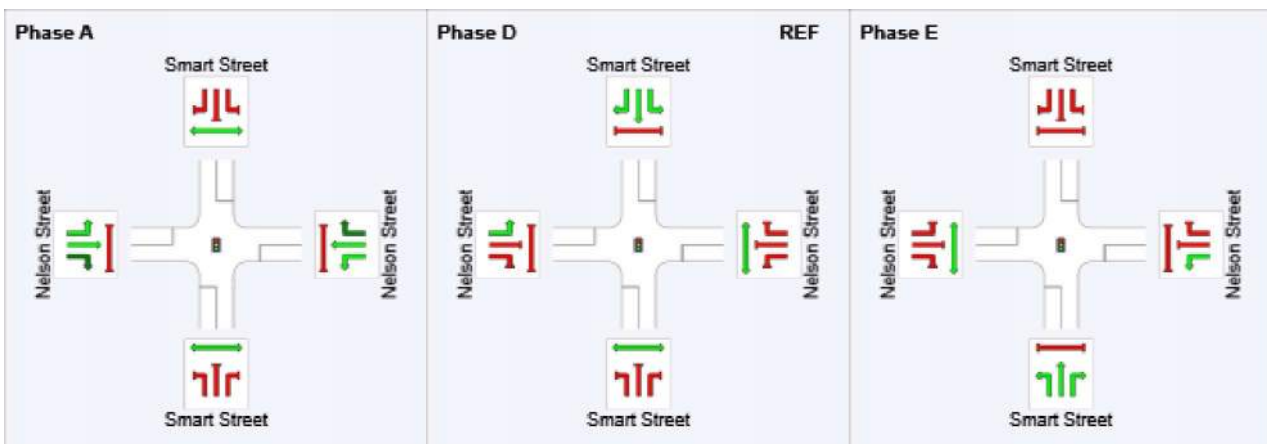
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E
Phase Change Time (sec)	56	0	37
Green Time (sec)	38	31	13
Phase Time (sec)	44	37	19
Phase Split	44%	37%	19%

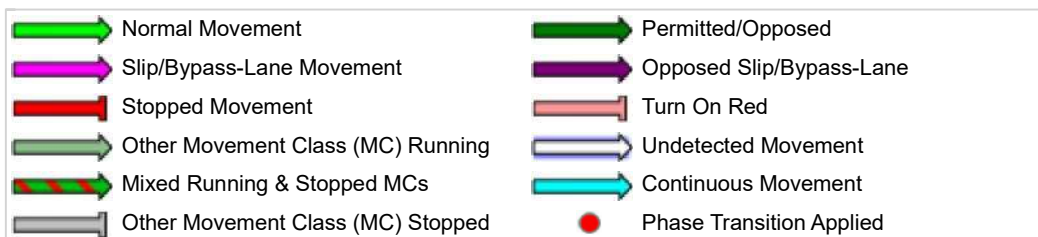
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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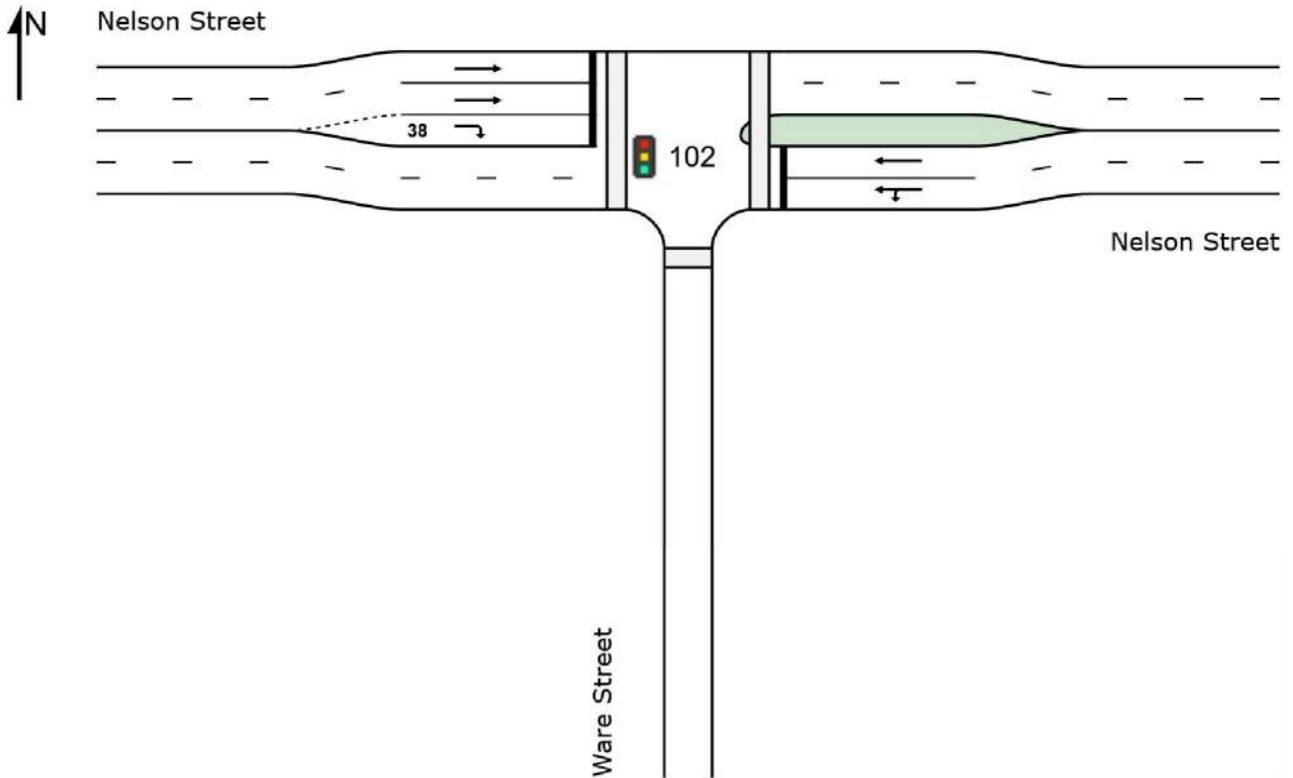
SITE LAYOUT

 **Site: 102 [FU AM Nelson/Ware]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



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MOVEMENT SUMMARY



Site: 102 [FU AM Nelson/Ware]



Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles															
Mov ID	Turn	Demand		Flows		Arrival Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total	HV	Total	HV					Vehicles	Distance				
		veh/h	%	veh/h	%		v/c	sec		veh	m				km/h
East: Nelson Street															
4	L2	36	5.0	36	5.0	0.148		10.1	LOS B	3.2	23.3	0.56	0.51	0.56	35.7
5	T1	382	5.0	382	5.0	0.148		6.9	LOS A	3.4	24.8	0.58	0.51	0.58	25.3
Approach		418	5.0	418	5.0	0.148		7.2	LOS A	3.4	24.8	0.58	0.51	0.58	27.7
West: Nelson Street															
11	T1	600	5.0	600	5.0	0.212		2.9	LOS A	2.0	14.8	0.21	0.18	0.21	26.1
12	R2	82	5.0	82	5.0	0.126		6.8	LOS A	0.4	3.2	0.19	0.54	0.19	35.1
Approach		682	5.0	682	5.0	0.212		3.4	LOS A	2.0	14.8	0.21	0.23	0.21	30.5
All Vehicles		1100	5.0	1100	5.0	0.212		4.8	LOS A	3.4	24.8	0.35	0.33	0.35	29.1

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate		
		ped/h	sec		Pedestrian ped	Distance m			
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
All Pedestrians		158	44.3	LOS E			0.94	0.94	

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.

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PHASING SUMMARY

 Site: 102 [FU AM Nelson/Ware]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B*, C

Output Phase Sequence: A, C

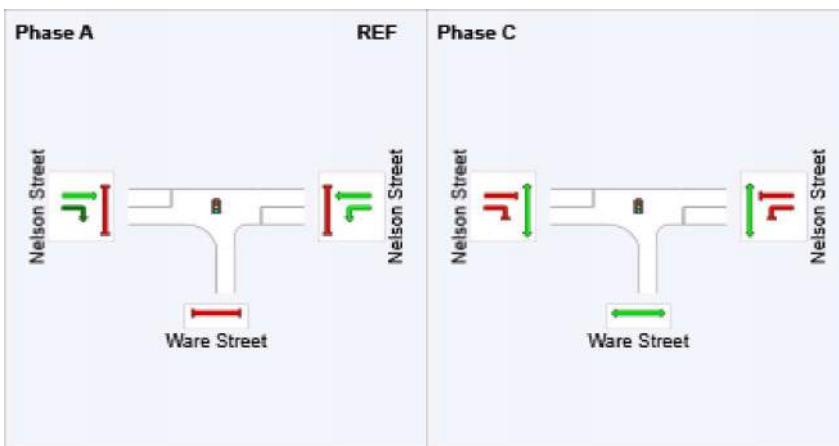
(* Variable Phase)

Phase Timing Summary

Phase	A	C
Phase Change Time (sec)	82	63
Green Time (sec)	75	14
Phase Time (sec)	80	20
Phase Split	80%	20%

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

 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

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MOVEMENT SUMMARY

 Site: 101 [FU PM Nelson/Station/Barbara]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Barbara Street														
1	L2	168	5.0	168	5.0	0.840	40.6	LOS D	14.9	108.9	0.94	0.94	1.09	15.1
2	T1	334	5.0	334	5.0	0.840	37.2	LOS D	14.9	108.9	0.94	0.94	1.09	28.2
3	R2	169	5.0	169	5.0	0.231	17.2	LOS B	2.6	18.8	0.70	0.71	0.70	29.2
Approach		672	5.0	672	5.0	0.840	33.0	LOS C	14.9	108.9	0.88	0.88	0.99	24.5
East: Nelson Street														
4	L2	205	5.0	205	5.0	0.222	19.3	LOS B	4.1	29.9	0.71	0.73	0.71	29.2
5	T1	196	5.0	196	5.0	0.828	50.1	LOS D	6.2	45.3	1.00	0.97	1.21	7.4
6	R2	96	5.0	96	5.0	0.382	31.9	LOS C	2.0	14.6	0.71	0.68	0.71	24.9
Approach		497	5.0	497	5.0	0.828	33.8	LOS C	6.2	45.3	0.83	0.82	0.91	20.7
North: Station Street														
7	L2	62	5.0	62	5.0	0.055	5.3	LOS A	0.3	2.5	0.27	0.51	0.27	35.9
8	T1	160	5.0	160	5.0	0.770	50.4	LOS D	5.0	36.6	1.00	0.94	1.20	25.8
9	R2	67	5.0	67	5.0	0.313	48.3	LOS D	1.9	14.0	0.95	0.75	0.95	20.4
Approach		289	5.0	289	5.0	0.770	40.3	LOS D	5.0	36.6	0.83	0.80	0.94	25.7
West: Nelson Street														
10	L2	91	5.0	91	5.0	0.700	46.9	LOS D	5.1	37.6	1.00	0.94	1.43	21.5
11	T1	258	5.0	258	5.0	0.700	45.9	LOS D	5.1	37.6	0.99	0.89	1.24	4.9
12	R2	159	5.0	159	5.0	0.797	53.8	LOS D	5.0	36.4	0.99	0.92	1.25	19.7
Approach		507	5.0	507	5.0	0.797	48.6	LOS D	5.1	37.6	0.99	0.91	1.27	15.0
All Vehicles		1965	5.0	1965	5.0	0.840	38.3	LOS D	14.9	108.9	0.89	0.86	1.04	22.0

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		158	44.3	LOS E			0.94	0.94

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: 101 [FU PM Nelson/Station/Barbara]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E, F1*

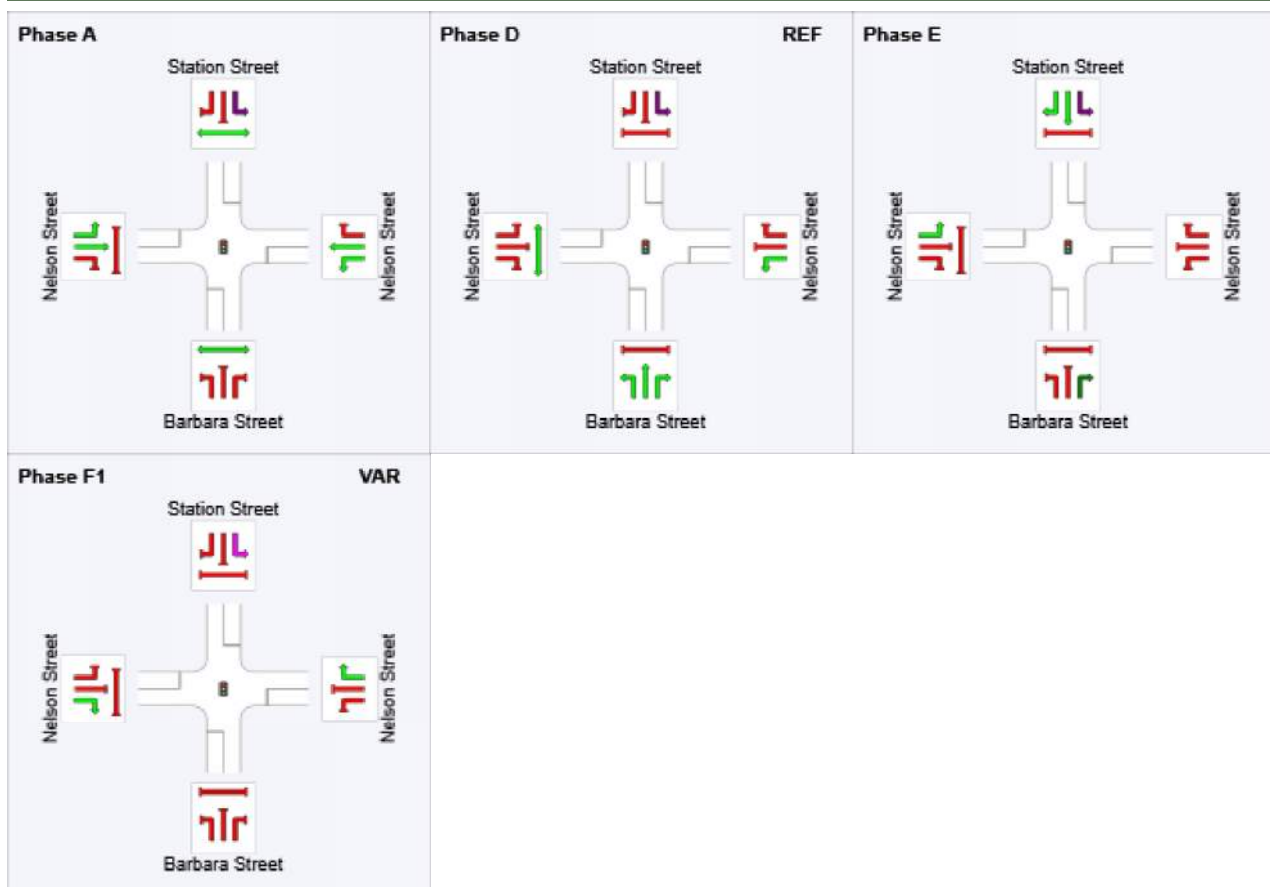
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F1
Phase Change Time (sec)	11	31	73	91
Green Time (sec)	14	36	12	14
Phase Time (sec)	20	42	18	20
Phase Split	20%	42%	18%	20%

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

 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

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MOVEMENT SUMMARY

 Site: 104 [FU PM Nelson/Horsely/Court]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed		
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m			km/h		
South: Court Road														
21	L2	131	5.0	131	5.0	0.930	75.0	LOS E	14.2	103.5	1.00	1.13	1.40	9.1
22	T1	232	5.0	232	5.0	0.930	69.0	LOS E	14.2	103.5	1.00	1.10	1.36	9.3
23b	R3	206	5.0	206	5.0	0.801	59.9	LOS E	9.1	66.6	1.00	0.93	1.16	23.7
Approach		568	5.0	568	5.0	0.930	67.1	LOS E	14.2	103.5	1.00	1.05	1.29	15.1
SouthEast: The Horsley Drive														
4b	L3	8	5.0	8	5.0	0.522	25.2	LOS C	11.6	84.6	0.69	0.78	0.69	36.3
4a	L1	504	5.0	504	5.0	0.522	23.1	LOS C	11.6	84.6	0.69	0.78	0.69	34.3
6a	R1	1229	5.0	1229	5.0	0.901	56.3	LOS E	24.7	180.5	1.00	1.00	1.19	21.3
Approach		1742	5.0	1742	5.0	0.901	46.6	LOS D	24.7	180.5	0.91	0.93	1.05	24.0
North: The Horsely Drive														
27a	L1	1222	5.0	1222	5.0	0.667	24.8	LOS C	16.7	121.9	0.75	0.81	0.75	39.6
28	T1	145	5.0	145	5.0	0.670	59.8	LOS E	5.2	38.2	1.00	0.83	1.05	20.8
29	R2	96	5.0	96	5.0	0.465	60.8	LOS E	3.3	24.3	0.98	0.78	0.98	16.1
Approach		1463	5.0	1463	5.0	0.670	30.7	LOS C	16.7	121.9	0.79	0.81	0.79	35.6
West: Nelson Street														
30	L2	126	5.0	126	5.0	0.832	51.1	LOS D	6.8	49.3	1.00	1.00	1.34	7.7
32a	R1	264	5.0	264	5.0	0.832	60.0	LOS E	6.9	50.1	1.00	1.00	1.28	22.2
Approach		391	5.0	391	5.0	0.832	57.1	LOS E	6.9	50.1	1.00	1.00	1.30	19.0
All Vehicles		4164	5.0	4164	5.0	0.930	44.8	LOS D	24.7	180.5	0.89	0.91	1.01	26.0

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	Prop. Queued Distance m	Effective Stop Rate	
P5	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P71	North Stage 1	53	54.3	LOS E	0.2	0.2	0.95	0.95
P72	North Stage 2	53	54.3	LOS E	0.2	0.2	0.95	0.95
P8	West Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	54.3	LOS E			0.95	0.95

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: 104 [FU PM Nelson/Horsely/Court]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase C

Input Phase Sequence: A, B*, C, D, E

Output Phase Sequence: A, C, D, E

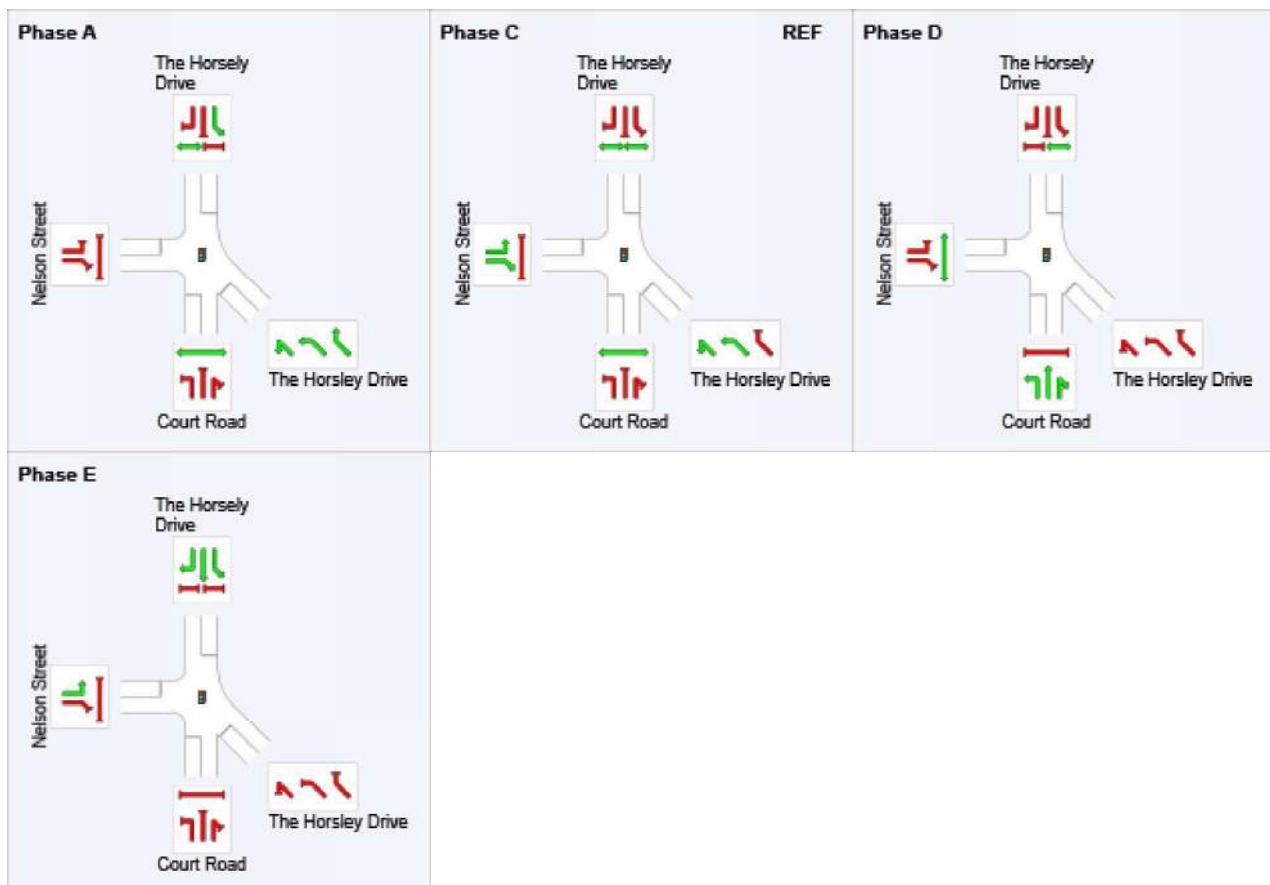
(* Variable Phase)

Phase Timing Summary

Phase	A	C	D	E
Phase Change Time (sec)	69	0	20	49
Green Time (sec)	45	14	23	14
Phase Time (sec)	51	20	29	20
Phase Split	43%	17%	24%	17%

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

 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

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MOVEMENT SUMMARY

 Site: 101 [FU PM Smart Lane]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Smart Street														
1	L2	212	5.0	212	5.0	0.289	3.7	LOS A	0.0	0.0	0.00	0.22	0.00	54.4
2	T1	323	5.0	323	5.0	0.289	0.0	LOS A	0.0	0.0	0.00	0.22	0.00	42.0
Approach		535	5.0	535	5.0	0.289	1.5	NA	0.0	0.0	0.00	0.22	0.00	52.3
North: Smart Street														
8	T1	293	5.0	293	5.0	0.418	3.0	LOS A	1.2	8.9	0.56	0.34	0.71	44.2
9	R2	205	5.0	205	5.0	0.418	9.4	LOS A	1.2	8.9	0.56	0.34	0.71	50.8
Approach		498	5.0	498	5.0	0.418	5.6	NA	1.2	8.9	0.56	0.34	0.71	48.4
West: Smart Lane														
10	L2	215	5.0	215	5.0	0.670	11.0	LOS B	1.9	14.1	0.59	0.96	1.17	41.2
12	R2	196	5.0	196	5.0	0.670	17.6	LOS C	1.9	14.1	0.59	0.96	1.17	41.2
Approach		411	5.0	411	5.0	0.670	14.2	LOS B	1.9	14.1	0.59	0.96	1.17	41.2
All Vehicles		1443	5.0	1443	5.0	0.670	6.5	NA	1.9	14.1	0.36	0.48	0.58	46.3

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.

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.

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MOVEMENT SUMMARY

 Site: 101 [FU PM Cunninghame/Horsley]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	49	0.0	49	0.0	0.471	5.6	LOS A	6.8	49.2	0.00	0.03	0.00	59.0
2	T1	1728	5.0	1728	5.0	0.471	0.1	LOS A	6.8	49.2	0.00	0.02	0.00	59.4
Approach		1778	4.9	1778	4.9	0.471	0.2	NA	6.8	49.2	0.00	0.02	0.00	59.4
North: The Horsley Drive (N)														
8	T1	1681	5.0	1681	5.0	0.445	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1681	5.0	1681	5.0	0.445	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Cunninghame Street														
10	L2	168	0.0	168	0.0	0.488	20.4	LOS C	0.5	3.4	0.74	0.97	1.01	17.6
Approach		168	0.0	168	0.0	0.488	20.4	LOS C	0.5	3.4	0.74	0.97	1.01	17.6
All Vehicles		3627	4.7	3627	4.7	0.488	1.1	NA	6.8	49.2	0.03	0.05	0.05	56.0

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.

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.

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MOVEMENT SUMMARY

 Site: 101 [FU PM Horsley/Polding]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	442	5.0	442	5.0	0.361	16.3	LOS B	7.8	57.1	0.51	0.72	0.51	41.3
2	T1	937	5.0	937	5.0	0.950	77.4	LOS E	16.4	120.0	0.98	1.14	1.33	19.9
3	R2	305	5.0	305	5.0	0.968	100.6	LOS F	16.4	120.0	1.00	1.05	1.48	16.3
Approach		1684	5.0	1684	5.0	0.968	65.6	LOS E	16.4	120.0	0.86	1.01	1.14	22.0
East: Polding Street (E)														
4	L2	206	5.0	206	5.0	0.249	25.3	LOS C	4.8	34.9	0.62	0.72	0.62	33.2
5	T1	565	5.0	565	5.0	0.951	87.2	LOS F	17.7	129.2	0.99	1.12	1.43	24.8
Approach		772	5.0	772	5.0	0.951	70.7	LOS E	17.7	129.2	0.89	1.02	1.21	25.8
North: The Horsley Drive (N)														
7	L2	21	5.0	21	5.0	0.986	100.8	LOS F	30.5	222.8	1.00	1.23	1.43	23.2
8	T1	944	5.0	944	5.0	0.986	95.3	LOS F	30.5	222.8	0.99	1.23	1.45	14.8
9	R2	197	5.0	197	5.0	0.976	73.9	LOS E	7.0	51.1	1.00	1.04	1.58	26.7
Approach		1162	5.0	1162	5.0	0.986	91.8	LOS F	30.5	222.8	0.99	1.20	1.47	17.1
West: Polding Street (W)														
10	L2	18	5.0	18	5.0	0.431	36.7	LOS D	9.5	69.1	0.76	0.67	0.76	38.9
11	T1	303	5.0	303	5.0	0.431	31.1	LOS C	9.5	69.1	0.76	0.67	0.76	39.7
12	R2	320	5.0	320	5.0	0.946	77.3	LOS E	14.4	105.0	1.00	1.04	1.48	17.3
Approach		641	5.0	641	5.0	0.946	54.3	LOS D	14.4	105.0	0.88	0.85	1.12	27.6
All Vehicles		4259	5.0	4259	5.0	0.986	71.9	LOS E	30.5	222.8	0.91	1.04	1.24	22.0

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [FU PM Horsley/Polding]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, C*, D, E, F, F1*

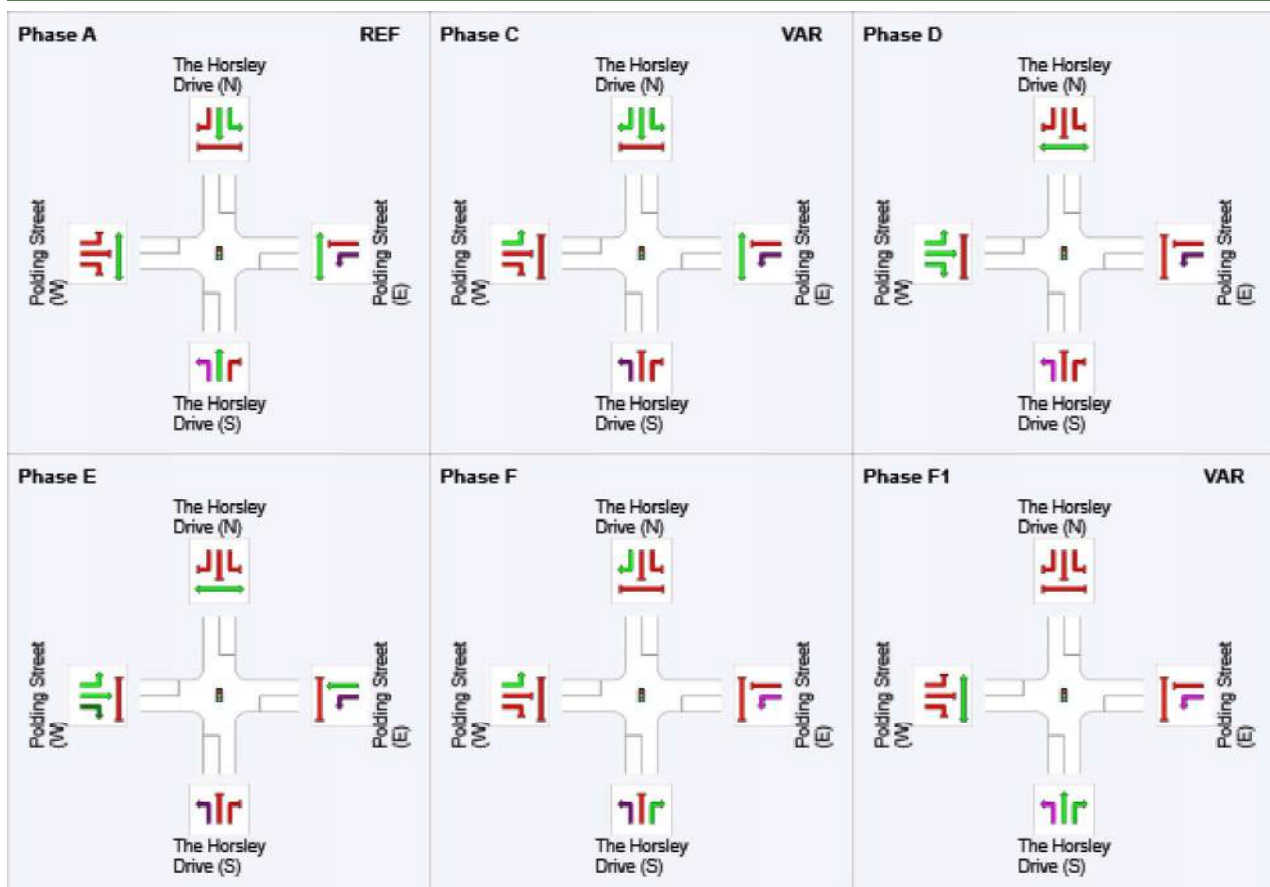
(* Variable Phase)

Phase Timing Summary

Phase	A	C	D	E	F	F1
Phase Change Time (sec)	0	34	47	76	109	124
Green Time (sec)	28	7	23	27	9	10
Phase Time (sec)	34	13	29	33	15	16
Phase Split	24%	9%	21%	24%	11%	11%

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

	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

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MOVEMENT SUMMARY

 Site: 103 [FU PM Nelson/Smart]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Arrival Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Vehicles veh	Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Smart Street														
1	L2	137	5.0	137	5.0	0.477	45.8	LOS D	3.8	28.0	0.96	0.79	0.96	20.1
2	T1	119	5.0	119	5.0	0.394	41.6	LOS D	3.3	23.9	0.94	0.75	0.94	21.2
3	R2	93	5.0	93	5.0	0.323	44.5	LOS D	2.5	18.4	0.93	0.76	0.93	20.4
Approach		348	5.0	348	5.0	0.477	44.0	LOS D	3.8	28.0	0.94	0.77	0.94	20.6
East: Nelson Street														
4	L2	74	5.0	74	5.0	0.342	21.7	LOS C	5.5	40.2	0.68	0.62	0.68	30.0
5	T1	516	5.0	516	5.0	0.342	18.4	LOS B	5.6	41.2	0.68	0.60	0.68	15.5
6	R2	196	5.0	196	5.0	0.462	28.4	LOS C	4.4	32.4	0.79	0.77	0.79	11.8
Approach		785	5.0	785	5.0	0.462	21.2	LOS C	5.6	41.2	0.71	0.64	0.71	17.3
North: Smart Street														
7	L2	83	5.0	83	5.0	0.232	40.1	LOS D	2.1	15.5	0.88	0.74	0.88	4.8
8	T1	101	5.0	101	5.0	0.465	38.7	LOS D	4.6	33.5	0.93	0.77	0.93	22.3
9	R2	69	5.0	69	5.0	0.465	42.1	LOS D	4.6	33.5	0.93	0.77	0.93	5.0
Approach		254	5.0	254	5.0	0.465	40.1	LOS D	4.6	33.5	0.91	0.76	0.91	14.8
West: Nelson Street														
10	L2	46	5.0	46	5.0	0.184	29.5	LOS C	4.1	30.0	0.92	0.77	0.92	12.9
11	T1	274	5.0	274	5.0	0.184	22.1	LOS C	4.1	30.0	0.82	0.68	0.82	14.5
12	R2	99	5.0	99	5.0	0.318	39.4	LOS D	2.8	20.7	0.98	0.82	0.98	24.0
Approach		419	5.0	419	5.0	0.318	27.0	LOS C	4.1	30.0	0.87	0.72	0.87	18.7
All Vehicles		1806	5.0	1806	5.0	0.477	29.6	LOS C	5.6	41.2	0.82	0.70	0.82	18.2

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 Pedestrian ped	Back of Queue Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		211	44.3	LOS E			0.94	0.94

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: 103 [FU PM Nelson/Smart]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E

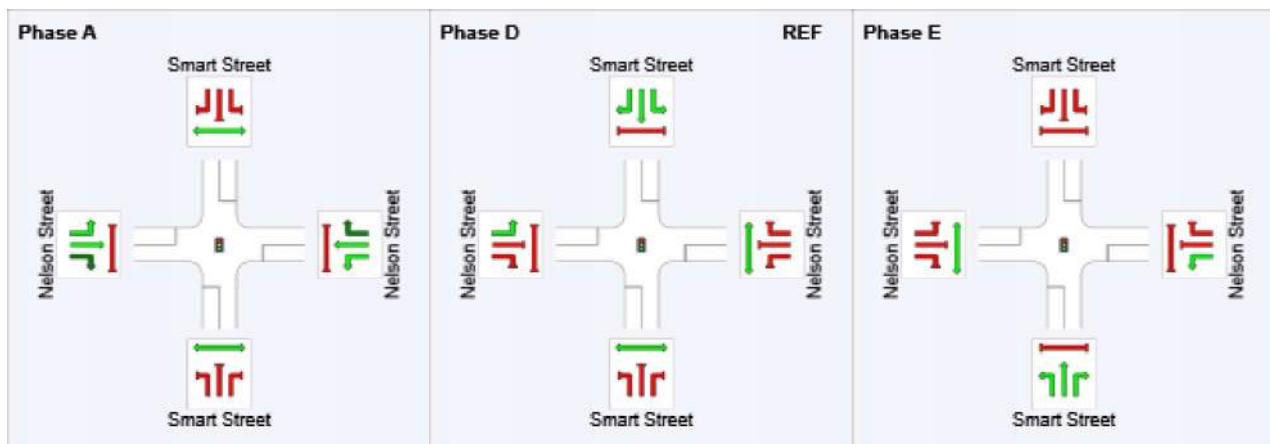
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E
Phase Change Time (sec)	48	0	26
Green Time (sec)	46	20	16
Phase Time (sec)	52	26	22
Phase Split	52%	26%	22%

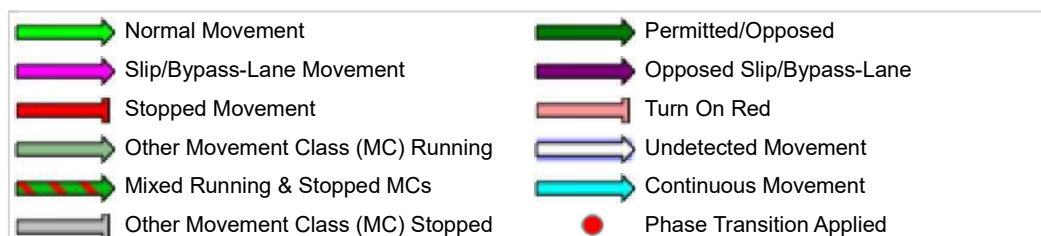
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



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MOVEMENT SUMMARY

 Site: 102 [FU PM Nelson/Ware]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
East: Nelson Street														
4	L2	34	5.0	34	5.0	0.325	9.9	LOS A	6.6	48.0	0.53	0.49	0.53	36.0
5	T1	701	5.0	701	5.0	0.325	7.1	LOS A	6.6	48.0	0.57	0.52	0.57	25.1
Approach		735	5.0	735	5.0	0.325	7.2	LOS A	6.6	48.0	0.57	0.51	0.57	26.6
West: Nelson Street														
11	T1	412	5.0	412	5.0	0.145	1.9	LOS A	1.1	8.1	0.13	0.11	0.13	29.8
12	R2	75	5.0	75	5.0	0.184	7.8	LOS A	0.4	3.1	0.19	0.55	0.19	34.6
Approach		486	5.0	486	5.0	0.184	2.8	LOS A	1.1	8.1	0.14	0.18	0.14	32.6
All Vehicles		1221	5.0	1221	5.0	0.325	5.5	LOS A	6.6	48.0	0.40	0.38	0.40	28.5

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate		
		ped/h	sec		Pedestrian ped	Distance m			
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94	
All Pedestrians		158	44.3	LOS E			0.94	0.94	

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.

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PHASING SUMMARY

 Site: 102 [FU PM Nelson/Ware]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B*, C

Output Phase Sequence: A, C

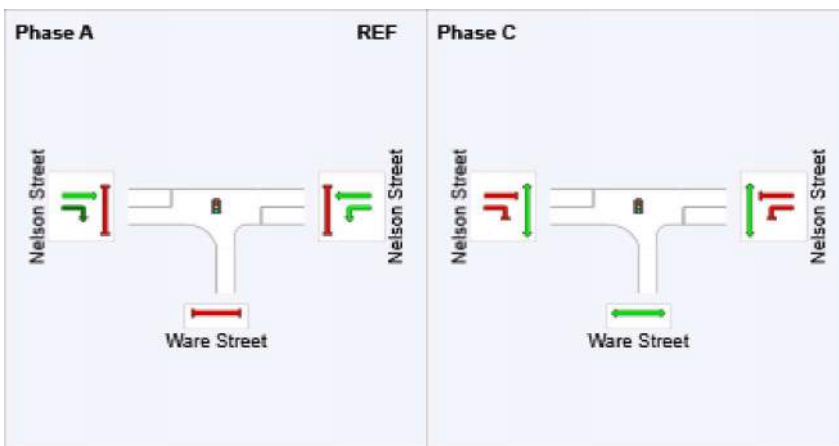
(* Variable Phase)

Phase Timing Summary

Phase	A	C
Phase Change Time (sec)	89	70
Green Time (sec)	75	14
Phase Time (sec)	80	20
Phase Split	80%	20%

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

	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: 101 [FU SAT Nelson/Station/Barbara]



Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Barbara Street														
1	L2	179	5.0	179	5.0	0.902	54.4	LOS D	15.0	109.5	0.99	1.09	1.31	13.7
2	T1	255	5.0	255	5.0	0.902	51.0	LOS D	15.0	109.5	0.99	1.09	1.31	25.4
3	R2	181	5.0	181	5.0	0.298	20.8	LOS C	3.1	22.6	0.78	0.74	0.78	27.7
Approach		615	5.0	615	5.0	0.902	43.1	LOS D	15.0	109.5	0.93	0.98	1.16	21.6
East: Nelson Street														
4	L2	285	5.0	285	5.0	0.306	19.3	LOS B	5.5	39.9	0.69	0.73	0.69	29.2
5	T1	255	5.0	255	5.0	0.880	34.3	LOS C	7.0	51.0	0.93	0.85	1.03	10.1
6	R2	106	5.0	106	5.0	0.371	51.7	LOS D	3.2	23.5	1.00	0.79	1.00	20.0
Approach		646	5.0	646	5.0	0.880	30.5	LOS C	7.0	51.0	0.83	0.79	0.88	21.8
North: Station Street														
7	L2	76	5.0	76	5.0	0.068	5.5	LOS A	0.5	3.3	0.29	0.52	0.29	35.8
8	T1	200	5.0	200	5.0	0.857	53.8	LOS D	6.6	48.3	1.00	1.06	1.34	25.2
9	R2	68	5.0	68	5.0	0.273	46.0	LOS D	1.9	13.8	0.93	0.75	0.93	20.9
Approach		344	5.0	344	5.0	0.857	41.6	LOS D	6.6	48.3	0.83	0.88	1.03	25.6
West: Nelson Street														
10	L2	76	5.0	76	5.0	0.628	44.8	LOS D	5.4	39.3	0.98	0.88	1.31	22.1
11	T1	287	5.0	287	5.0	0.628	42.4	LOS D	5.4	39.3	0.96	0.84	1.14	5.3
12	R2	198	5.0	198	5.0	0.914	64.8	LOS E	7.0	51.4	1.00	1.07	1.53	17.8
Approach		561	5.0	561	5.0	0.914	50.6	LOS D	7.0	51.4	0.98	0.92	1.30	14.5
All Vehicles		2166	5.0	2166	5.0	0.914	41.1	LOS D	15.0	109.5	0.90	0.89	1.09	20.9

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		158	44.3	LOS E			0.94	0.94

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: 101 [FU SAT Nelson/Station/Barbara]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E, F1*

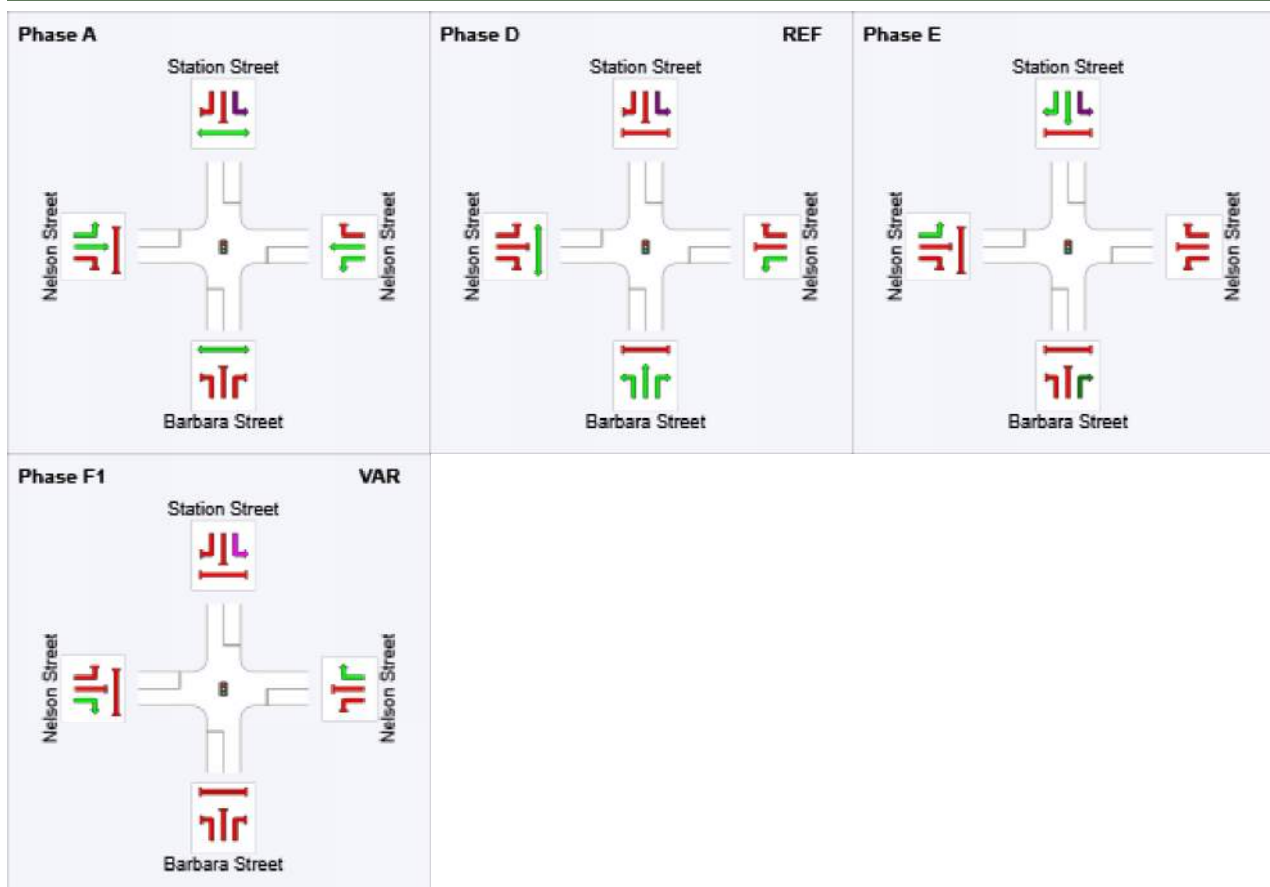
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F1
Phase Change Time (sec)	90	13	48	68
Green Time (sec)	17	29	14	16
Phase Time (sec)	23	35	20	22
Phase Split	23%	35%	20%	22%

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

 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

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MOVEMENT SUMMARY

 Site: 104 [FU SAT Nelson/Horsely/Court]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: Court Road														
21	L2	136	5.0	136	5.0	0.862	59.4	LOS E	14.7	107.5	1.00	1.00	1.19	10.9
22	T1	274	5.0	274	5.0	0.862	55.1	LOS E	14.7	107.5	1.00	0.99	1.18	11.0
23b	R3	254	5.0	254	5.0	0.743	52.1	LOS D	9.8	71.8	0.98	0.88	1.04	25.4
Approach		663	5.0	663	5.0	0.862	54.8	LOS D	14.7	107.5	0.99	0.95	1.13	17.5
SouthEast: The Horsley Drive														
4b	L3	8	5.0	8	5.0	0.365	35.6	LOS D	6.4	46.6	0.77	0.77	0.77	31.8
4a	L1	239	5.0	239	5.0	0.365	33.5	LOS C	6.4	46.6	0.77	0.77	0.77	28.8
6a	R1	632	5.0	632	5.0	0.834	60.2	LOS E	11.9	87.1	1.00	0.94	1.17	20.4
Approach		879	5.0	879	5.0	0.834	52.7	LOS D	11.9	87.1	0.94	0.89	1.06	22.3
North: The Horsely Drive														
27a	L1	843	5.0	843	5.0	0.472	26.0	LOS C	9.9	72.2	0.71	0.78	0.71	39.0
28	T1	155	5.0	155	5.0	0.384	44.4	LOS D	5.0	36.8	0.89	0.77	0.89	24.5
29	R2	169	5.0	169	5.0	0.384	47.7	LOS D	5.0	36.8	0.89	0.79	0.89	19.2
Approach		1167	5.0	1167	5.0	0.472	31.6	LOS C	9.9	72.2	0.76	0.78	0.76	34.3
West: Nelson Street														
30	L2	162	5.0	162	5.0	0.772	38.5	LOS D	5.5	40.2	1.00	0.92	1.17	9.6
32a	R1	226	5.0	226	5.0	0.772	55.1	LOS E	6.1	44.9	1.00	0.93	1.16	23.3
Approach		388	5.0	388	5.0	0.772	48.2	LOS D	6.1	44.9	1.00	0.92	1.17	19.7
All Vehicles		3098	5.0	3098	5.0	0.862	44.6	LOS D	14.7	107.5	0.89	0.87	0.97	25.2

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P5	South Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
P71	North Stage 1	53	54.3	LOS E	0.2	0.2	0.95	0.95
P72	North Stage 2	53	54.3	LOS E	0.2	0.2	0.95	0.95
P8	West Full Crossing	53	54.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	54.3	LOS E			0.95	0.95

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: 104 [FU SAT Nelson/Horsely/Court]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase C

Input Phase Sequence: A, B*, C, D, E

Output Phase Sequence: A, C, D, E

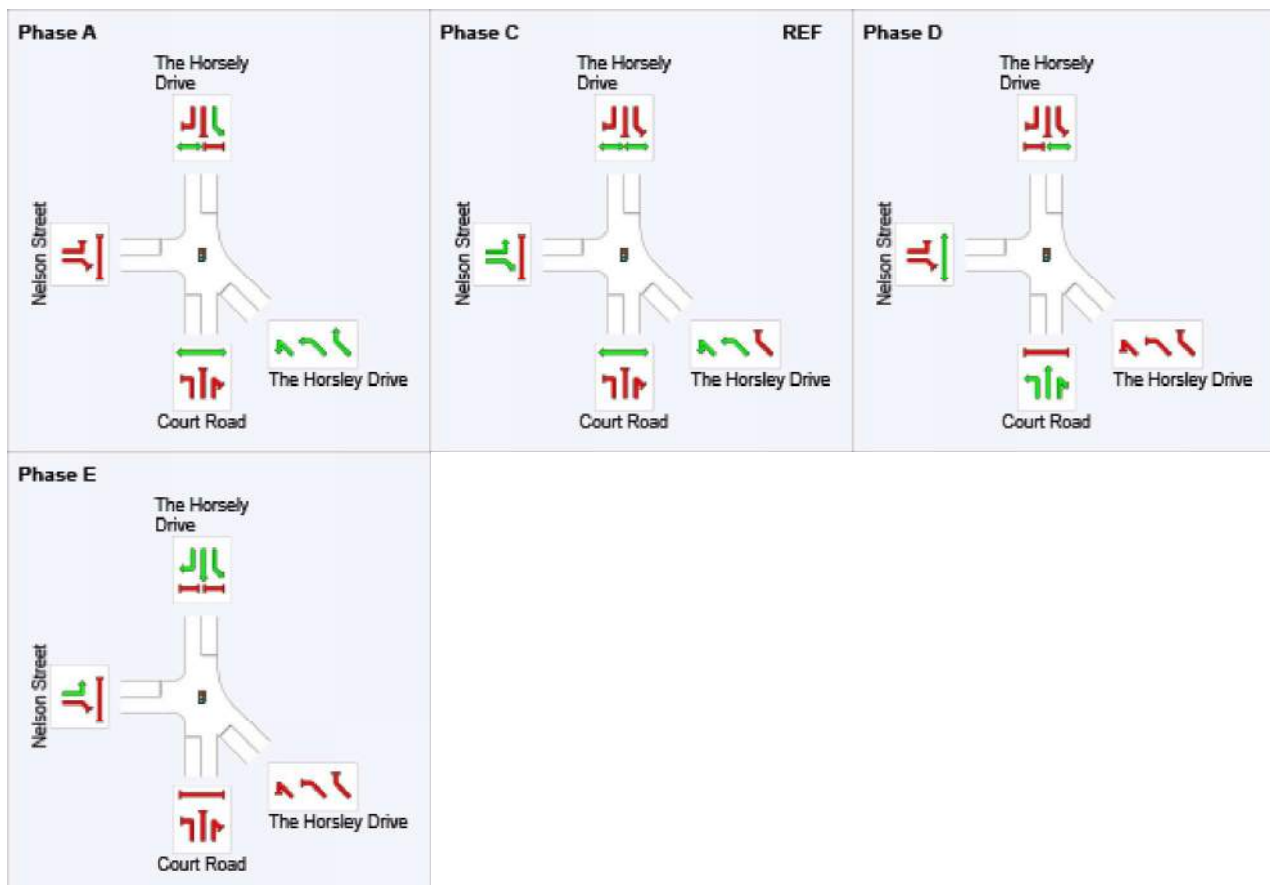
(* Variable Phase)

Phase Timing Summary

Phase	A	C	D	E
Phase Change Time (sec)	89	0	20	55
Green Time (sec)	25	14	29	28
Phase Time (sec)	31	20	35	34
Phase Split	26%	17%	29%	28%

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

 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

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MOVEMENT SUMMARY

 Site: 101 [FU SAT Smart Lane]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows	Arrival Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed			
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec	Vehicles veh	Distance m					km/h
South: Smart Street														
1	L2	209	5.0	209	5.0	0.288	3.7	LOS A	0.0	0.0	0.00	0.22	0.00	54.4
2	T1	323	5.0	323	5.0	0.288	0.0	LOS A	0.0	0.0	0.00	0.22	0.00	42.1
Approach		533	5.0	533	5.0	0.288	1.5	NA	0.0	0.0	0.00	0.22	0.00	52.3
North: Smart Street														
8	T1	303	5.0	303	5.0	0.408	2.8	LOS A	1.2	8.4	0.55	0.34	0.70	44.5
9	R2	203	5.0	203	5.0	0.408	9.3	LOS A	1.2	8.4	0.55	0.34	0.70	51.0
Approach		506	5.0	506	5.0	0.408	5.4	NA	1.2	8.4	0.55	0.34	0.70	48.6
West: Smart Lane														
10	L2	213	5.0	213	5.0	0.664	10.9	LOS B	1.9	13.6	0.61	0.99	1.22	41.0
12	R2	194	5.0	194	5.0	0.664	18.0	LOS C	1.9	13.6	0.61	0.99	1.22	41.0
Approach		406	5.0	406	5.0	0.664	14.3	LOS B	1.9	13.6	0.61	0.99	1.22	41.0
All Vehicles		1445	5.0	1445	5.0	0.664	6.5	NA	1.9	13.6	0.36	0.48	0.59	46.3

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.

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.

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MOVEMENT SUMMARY

 Site: 101 [FU SAT Cunninghame/Horsley]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	62	0.0	62	0.0	0.543	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	58.4
2	T1	1380	5.0	1380	5.0	0.543	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.1
Approach		1442	4.8	1442	4.8	0.543	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.1
North: The Horsley Drive (N)														
8	T1	1521	5.0	1521	5.0	0.403	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1521	5.0	1521	5.0	0.403	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Cunninghame Street														
10	L2	211	0.0	211	0.0	0.316	13.3	LOS B	0.4	2.8	0.67	0.89	0.77	23.3
Approach		211	0.0	211	0.0	0.316	13.3	LOS B	0.4	2.8	0.67	0.89	0.77	23.3
All Vehicles		3174	4.6	3174	4.6	0.543	1.0	NA	0.4	2.8	0.04	0.07	0.05	55.9

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.

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.

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MOVEMENT SUMMARY

 Site: 101 [FU SAT Horsley/Polding]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	389	5.0	389	5.0	0.287	11.5	LOS B	5.2	38.1	0.39	0.67	0.39	45.2
2	T1	753	5.0	753	5.0	0.630	43.3	LOS D	13.3	97.3	0.91	0.79	0.91	28.2
3	R2	299	5.0	299	5.0	0.847	71.6	LOS E	13.2	96.6	1.00	0.92	1.17	20.6
Approach		1441	5.0	1441	5.0	0.847	40.6	LOS D	13.3	97.3	0.79	0.79	0.82	28.9
East: Polding Street (E)														
4	L2	312	5.0	312	5.0	0.368	19.8	LOS B	6.4	46.5	0.60	0.74	0.60	36.8
5	T1	346	5.0	346	5.0	0.830	68.8	LOS E	10.0	72.7	0.99	0.93	1.21	28.2
6	R2	17	5.0	17	5.0	0.830	74.9	LOS E	10.0	72.7	1.00	0.95	1.18	27.7
Approach		675	5.0	675	5.0	0.830	46.3	LOS D	10.0	72.7	0.81	0.84	0.93	30.4
North: The Horsley Drive (N)														
7	L2	38	5.0	38	5.0	0.858	65.4	LOS E	18.8	137.1	1.00	0.98	1.13	29.7
8	T1	743	5.0	743	5.0	0.858	59.4	LOS E	18.8	137.1	0.98	0.97	1.13	20.6
9	R2	172	5.0	172	5.0	0.648	67.3	LOS E	6.9	50.5	0.99	0.82	1.00	28.0
Approach		953	5.0	953	5.0	0.858	61.0	LOS E	18.8	137.1	0.98	0.94	1.11	22.8
West: Polding Street (W)														
10	L2	31	5.0	31	5.0	0.425	37.2	LOS D	9.4	68.3	0.77	0.68	0.77	38.6
11	T1	285	5.0	285	5.0	0.425	31.6	LOS C	9.4	68.3	0.77	0.68	0.77	39.4
12	R2	317	5.0	317	5.0	0.720	41.8	LOS D	9.9	72.1	0.97	0.85	0.98	25.7
Approach		633	5.0	633	5.0	0.720	37.0	LOS D	9.9	72.1	0.87	0.76	0.87	33.3
All Vehicles		3701	5.0	3701	5.0	0.858	46.3	LOS D	18.8	137.1	0.86	0.83	0.92	28.2

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [FU SAT Horsley/Polding]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, D, E, F, F1*

(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F	F1
Phase Change Time (sec)	0	44	79	106	133
Green Time (sec)	38	29	21	21	1
Phase Time (sec)	44	35	27	27	7
Phase Split	31%	25%	19%	19%	5%

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

 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

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MOVEMENT SUMMARY

 Site: 103 [FU SAT Nelson/Smart]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Total veh/h	Flows HV %	Arrival Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Vehicles veh	Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Smart Street														
1	L2	144	5.0	144	5.0	0.423	42.7	LOS D	3.9	28.4	0.93	0.78	0.93	20.8
2	T1	55	5.0	55	5.0	0.187	37.1	LOS D	1.7	12.4	0.88	0.69	0.88	22.1
3	R2	76	5.0	76	5.0	0.187	40.6	LOS D	1.7	12.4	0.88	0.72	0.88	21.5
Approach		275	5.0	275	5.0	0.423	41.0	LOS D	3.9	28.4	0.90	0.75	0.90	21.3
East: Nelson Street														
4	L2	113	5.0	113	5.0	0.286	23.0	LOS C	4.3	31.6	0.69	0.65	0.69	29.2
5	T1	346	5.0	346	5.0	0.286	19.7	LOS B	4.5	32.7	0.69	0.61	0.69	14.8
6	R2	77	5.0	77	5.0	0.179	25.9	LOS C	1.5	11.3	0.70	0.70	0.70	12.6
Approach		536	5.0	536	5.0	0.286	21.3	LOS C	4.5	32.7	0.69	0.63	0.69	20.1
North: Smart Street														
7	L2	104	5.0	104	5.0	0.291	40.6	LOS D	2.7	19.7	0.89	0.76	0.89	4.7
8	T1	83	5.0	83	5.0	0.434	38.5	LOS D	4.3	31.2	0.92	0.77	0.92	22.3
9	R2	77	5.0	77	5.0	0.434	41.8	LOS D	4.3	31.2	0.92	0.77	0.92	5.0
Approach		264	5.0	264	5.0	0.434	40.3	LOS D	4.3	31.2	0.91	0.76	0.91	13.2
West: Nelson Street														
10	L2	44	5.0	44	5.0	0.171	24.5	LOS C	3.1	22.3	0.78	0.67	0.78	14.6
11	T1	234	5.0	234	5.0	0.171	22.3	LOS C	3.2	23.7	0.82	0.68	0.82	14.4
12	R2	145	5.0	145	5.0	0.422	35.2	LOS D	3.9	28.7	0.93	0.81	0.93	25.1
Approach		423	5.0	423	5.0	0.422	27.0	LOS C	3.9	28.7	0.85	0.73	0.85	20.6
All Vehicles		1498	5.0	1498	5.0	0.434	29.9	LOS C	4.5	32.7	0.81	0.70	0.81	19.3

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 Pedestrian ped	Back of Queue Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P3	North Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		211	44.3	LOS E			0.94	0.94

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: 103 [FU SAT Nelson/Smart]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B*, C*, D, E, F1*

Output Phase Sequence: A, D, E

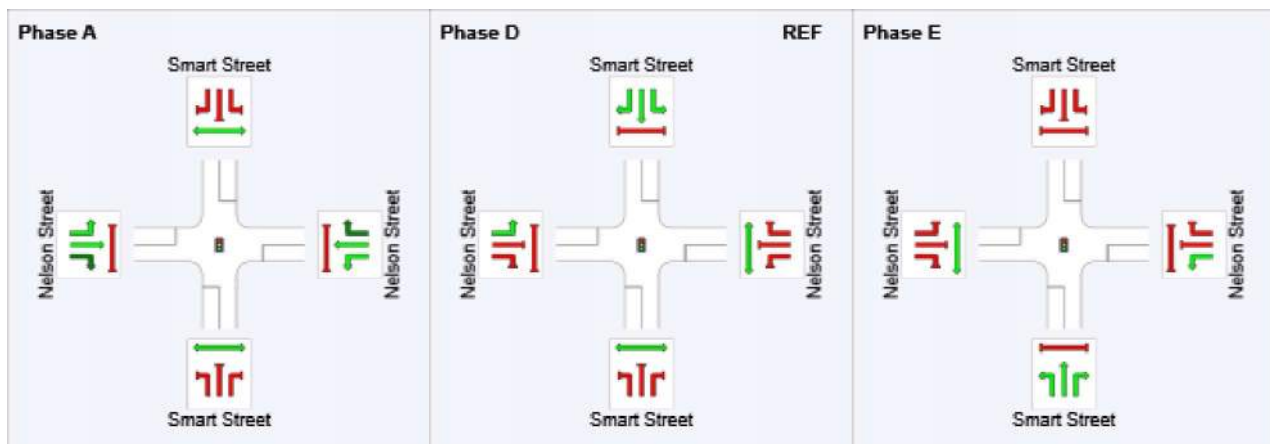
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E
Phase Change Time (sec)	51	0	26
Green Time (sec)	43	20	19
Phase Time (sec)	49	26	25
Phase Split	49%	26%	25%

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

	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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID08-Future Conditions (RMS).sip8

MOVEMENT SUMMARY

 Site: 102 [FU SAT Nelson/Ware]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total veh/h	HV %	Total veh/h	HV %				Vehicles	Distance				
		veh/h		veh/h		v/c	sec		veh	m				km/h
East: Nelson Street														
4	L2	167	5.0	167	5.0	0.392	9.7	LOS A	6.3	45.7	0.52	0.55	0.52	35.5
5	T1	552	5.0	552	5.0	0.392	7.4	LOS A	6.3	45.7	0.58	0.56	0.58	24.2
Approach		719	5.0	719	5.0	0.392	7.9	LOS A	6.3	45.7	0.57	0.56	0.57	29.8
West: Nelson Street														
11	T1	625	5.0	625	5.0	0.221	3.0	LOS A	2.1	15.7	0.22	0.19	0.22	25.8
12	R2	121	5.0	121	5.0	0.306	9.4	LOS A	0.9	6.5	0.26	0.57	0.26	33.7
Approach		746	5.0	746	5.0	0.306	4.1	LOS A	2.1	15.7	0.23	0.25	0.23	30.3
All Vehicles		1465	5.0	1465	5.0	0.392	6.0	LOS A	6.3	45.7	0.39	0.40	0.39	30.0

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
P1	South Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P2	East Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
P4	West Full Crossing	53	44.3	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		158	44.3	LOS E			0.94	0.94

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.

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PHASING SUMMARY

 Site: 102 [FU SAT Nelson/Ware]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Coordinated Cycle Time = 100 seconds (Network User-Given Cycle Time)

Timings based on settings in the Network Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B*, C

Output Phase Sequence: A, C

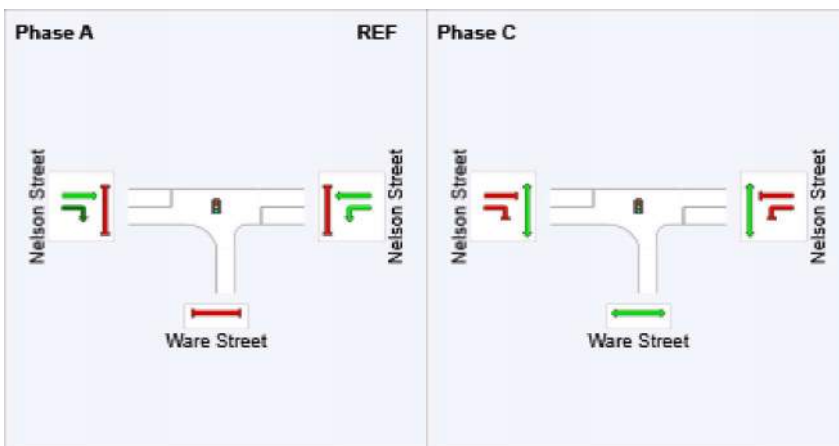
(* Variable Phase)

Phase Timing Summary

Phase	A	C
Phase Change Time (sec)	79	60
Green Time (sec)	75	14
Phase Time (sec)	80	20
Phase Split	80%	20%

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

 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

Appendix E Modified Intersections SIDRA ASSESSMENT :

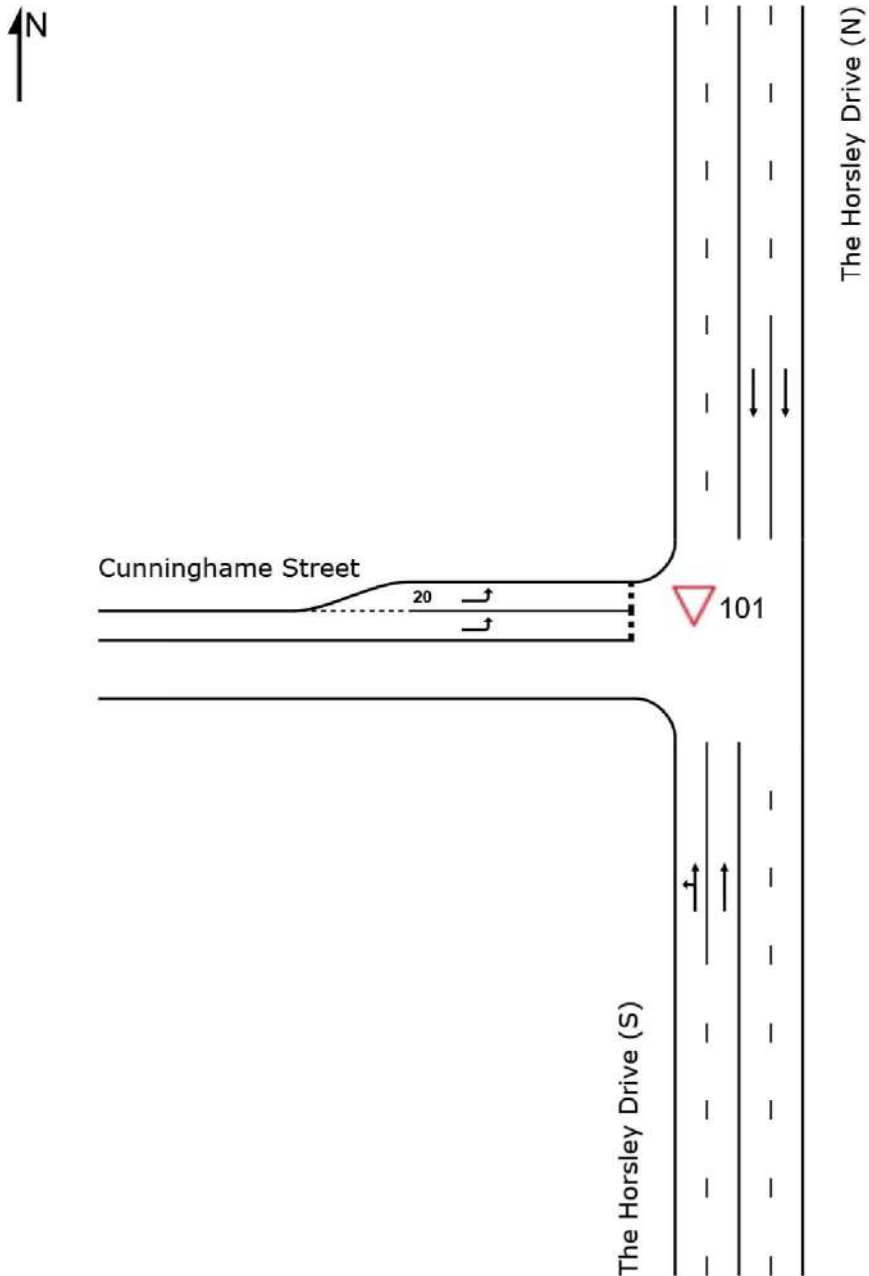
SITE LAYOUT

▽ Site: 101 [FU AM Cunninghame/Horsley]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

 Site: 101 [FU AM Cunninghame/Horsley]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			Speed km/h	
South: The Horsley Drive (S)														
1	L2	54	0.0	54	0.0	0.714	5.7	LOS A	0.0	0.0	0.00	0.04	0.00	58.3
2	T1	1493	5.0	1493	5.0	0.714	0.3	LOS A	0.0	0.0	0.00	0.02	0.00	58.8
Approach		1546	4.8	1546	4.8	0.714	0.5	NA	0.0	0.0	0.00	0.02	0.00	58.8
North: The Horsley Drive (N)														
8	T1	1748	5.0	1748	5.0	0.463	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1748	5.0	1748	5.0	0.463	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Cunninghame Street														
10	L2	211	0.0	211	0.0	0.433	16.0	LOS C	0.5	3.5	0.69	0.94	0.91	20.7
Approach		211	0.0	211	0.0	0.433	16.0	LOS C	0.5	3.5	0.69	0.94	0.91	20.7
All Vehicles		3505	4.6	3505	4.6	0.714	1.2	NA	0.5	3.5	0.04	0.07	0.05	55.4

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.

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.

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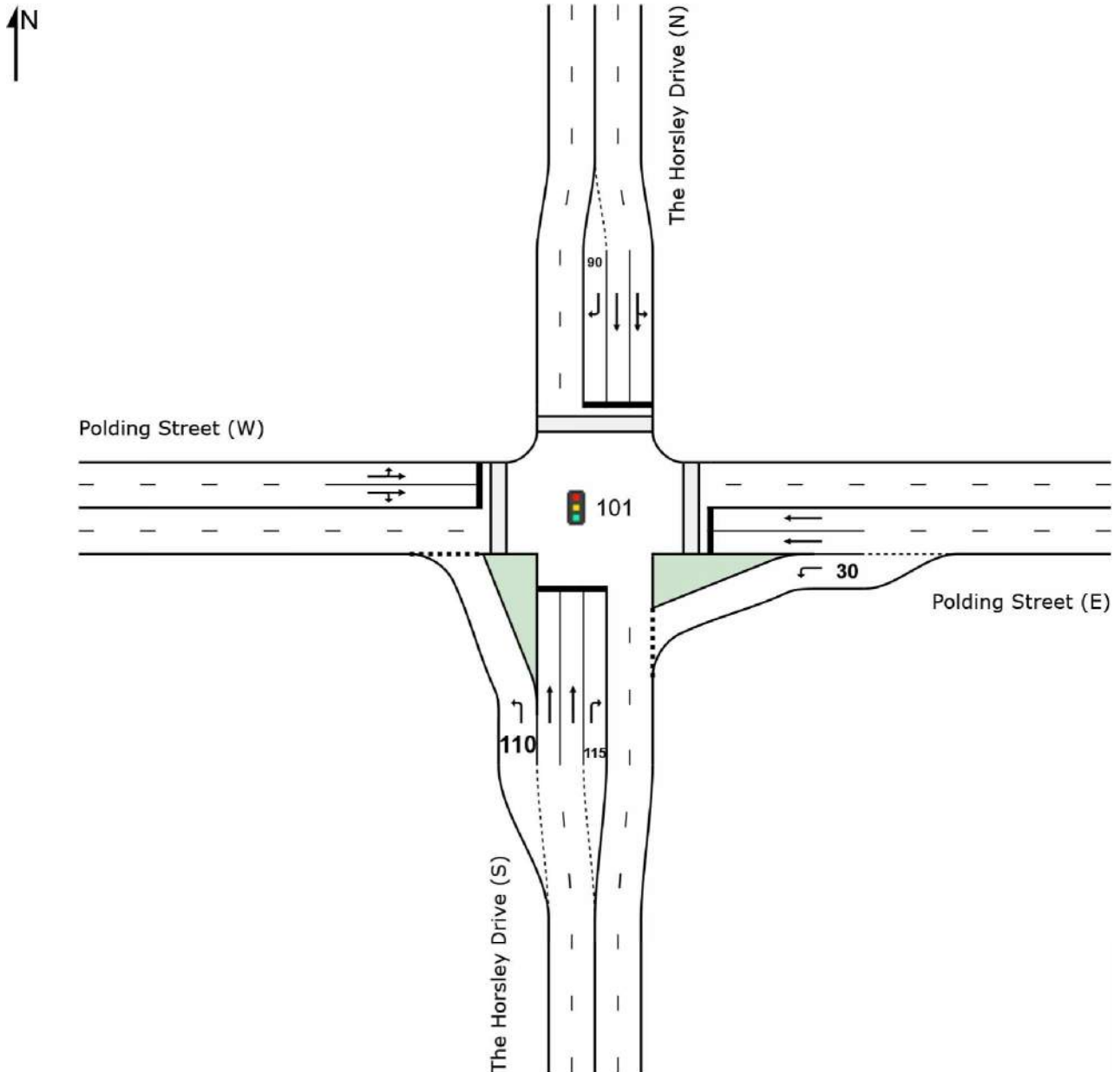
SITE LAYOUT

 **Site: 101 [FU AM Horsley/Polding]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 Site: 101 [FU AM Horsley/Polding]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Queue	Back of	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m				km/h
South: The Horsley Drive (S)														
1	L2	292	0.0	292	0.0	0.187	9.0	LOS A	2.8	19.5	0.28	0.63	0.28	47.8
2	T1	894	5.0	894	5.0	0.647	38.8	LOS D	15.3	112.0	0.89	0.78	0.89	29.8
3	R2	300	0.0	300	0.0	0.884	77.2	LOS E	13.9	97.2	1.00	0.95	1.24	19.6
Approach		1485	3.0	1485	3.0	0.884	40.7	LOS D	15.3	112.0	0.79	0.79	0.84	29.0
East: Polding Street (E)														
4	L2	332	0.0	332	0.0	0.424	26.2	LOS C	8.3	58.1	0.69	0.76	0.69	32.7
5	T1	325	0.0	325	0.0	0.897	79.3	LOS E	9.3	65.1	1.00	1.01	1.38	26.2
Approach		657	0.0	657	0.0	0.897	52.5	LOS D	9.3	65.1	0.84	0.88	1.03	28.1
North: The Horsley Drive (N)														
7	L2	35	0.0	35	0.0	0.871	68.5	LOS E	18.5	134.9	1.00	1.00	1.16	29.1
8	T1	773	5.0	773	5.0	0.871	62.8	LOS E	18.5	134.9	1.00	1.00	1.17	19.9
9	R2	83	0.0	83	0.0	0.637	77.5	LOS E	3.6	25.1	1.00	0.80	1.06	26.0
Approach		891	4.3	891	4.3	0.871	64.4	LOS E	18.5	134.9	1.00	0.98	1.16	21.1
West: Polding Street (W)														
10	L2	18	0.0	18	0.0	0.621	38.0	LOS D	16.3	114.2	0.83	0.75	0.83	38.5
11	T1	493	0.0	493	0.0	0.621	32.5	LOS C	16.3	114.2	0.83	0.75	0.83	39.2
12	R2	465	0.0	465	0.0	0.855	53.8	LOS D	18.0	125.7	1.00	0.94	1.17	22.1
Approach		976	0.0	976	0.0	0.855	42.7	LOS D	18.0	125.7	0.91	0.84	0.99	31.4
All Vehicles		4008	2.1	4008	2.1	0.897	48.4	LOS D	18.5	134.9	0.88	0.86	0.98	27.5

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [FU AM Horsley/Polding]

 Network: N101 [Future AM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn - Copy

Reference Phase: Phase A

Input Phase Sequence: A, D, E, F, F1*

Output Phase Sequence: A, D, E, F, F1*

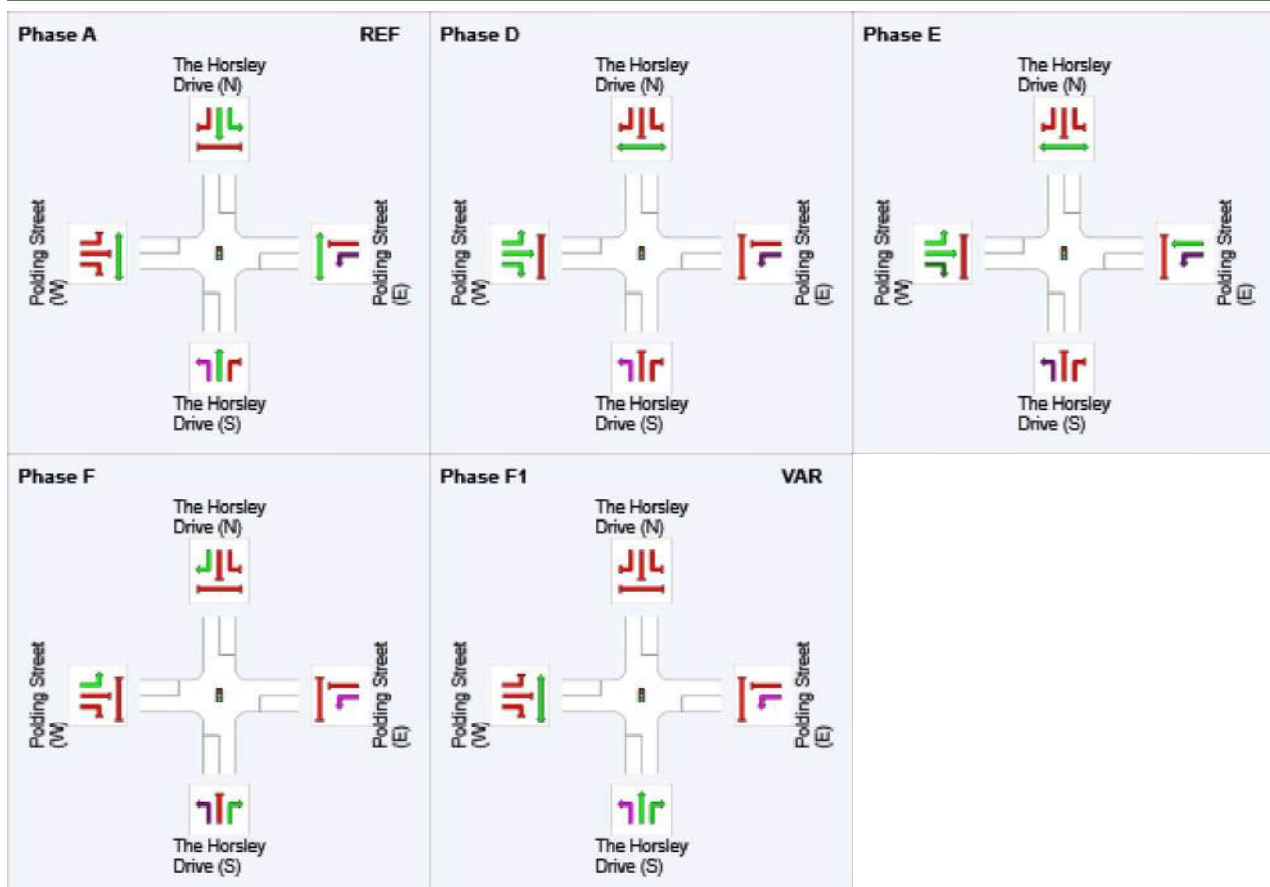
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F	F1
Phase Change Time (sec)	0	42	86	108	124
Green Time (sec)	36	38	16	10	10
Phase Time (sec)	42	44	22	16	16
Phase Split	30%	31%	16%	11%	11%

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

	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

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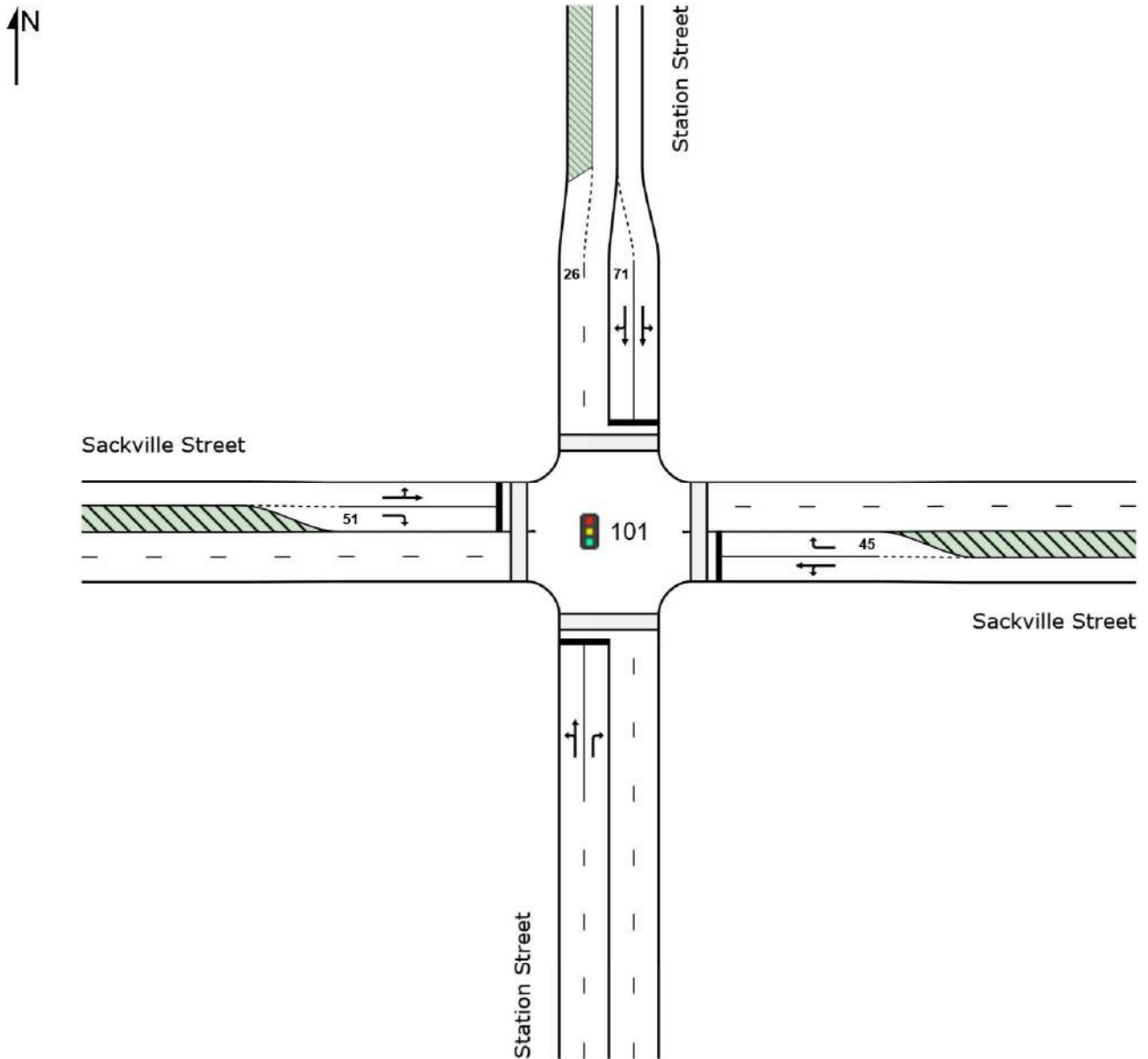
SITE LAYOUT

 **Site: 101 [FU AM Sackville/Station]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated



MOVEMENT SUMMARY

 **Site: 101 [FU AM Sackville/Station]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 92 seconds (Minimum Cycle Time)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows 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: Station Street												
4	L2	45	5.0	0.767	47.9	LOS D	8.8	63.9	1.00	0.94	1.36	30.9
5	T1	151	5.0	0.767	43.3	LOS D	8.8	63.9	1.00	0.94	1.36	31.1
6	R2	43	5.0	0.184	44.3	LOS D	1.8	13.0	0.93	0.73	0.93	30.9
Approach		239	5.0	0.767	44.3	LOS D	8.8	63.9	0.99	0.90	1.28	31.0
East: Sackville Street												
7	L2	40	5.0	0.781	41.6	LOS D	12.0	87.9	1.00	1.02	1.37	32.8
8	T1	261	5.0	0.781	37.0	LOS D	12.0	87.9	1.00	1.02	1.37	33.0
9	R2	11	5.0	0.044	27.1	LOS C	0.3	2.1	0.91	0.65	0.91	36.1
Approach		312	5.0	0.781	37.3	LOS D	12.0	87.9	1.00	1.01	1.36	33.1
North: Station Street												
10	L2	12	5.0	0.722	44.7	LOS D	11.3	82.7	0.99	0.89	1.08	32.0
11	T1	329	5.0	0.722	40.3	LOS D	11.3	82.7	0.99	0.89	1.08	32.0
12	R2	156	5.0	0.722	45.4	LOS D	11.0	80.1	1.00	0.88	1.09	31.0
Approach		497	5.0	0.722	42.0	LOS D	11.3	82.7	1.00	0.89	1.08	31.7
West: Sackville Street												
1	L2	128	5.0	0.869	43.3	LOS D	25.8	188.1	0.97	1.03	1.36	32.2
2	T1	416	5.0	0.869	38.6	LOS D	25.8	188.1	0.97	1.03	1.36	32.4
3	R2	95	5.0	0.207	33.2	LOS C	3.5	25.3	0.82	0.73	0.82	34.1
Approach		639	5.0	0.869	38.8	LOS D	25.8	188.1	0.94	0.99	1.28	32.6
All Vehicles		1686	5.0	0.869	40.2	LOS D	25.8	188.1	0.97	0.95	1.24	32.2

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.

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	South Full Crossing	53	18.0	LOS B	0.1	0.1	0.87	0.87	
P3	East Full Crossing	53	39.4	LOS D	0.1	0.1	0.94	0.94	
P4	North Full Crossing	53	39.4	LOS D	0.1	0.1	0.94	0.94	
P1	West Full Crossing	53	39.4	LOS D	0.1	0.1	0.94	0.94	
All Pedestrians		211	34.0	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.

PHASING SUMMARY

 **Site: 101 [FU AM Sackville/Station]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 92 seconds (Minimum Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B, C, D, E

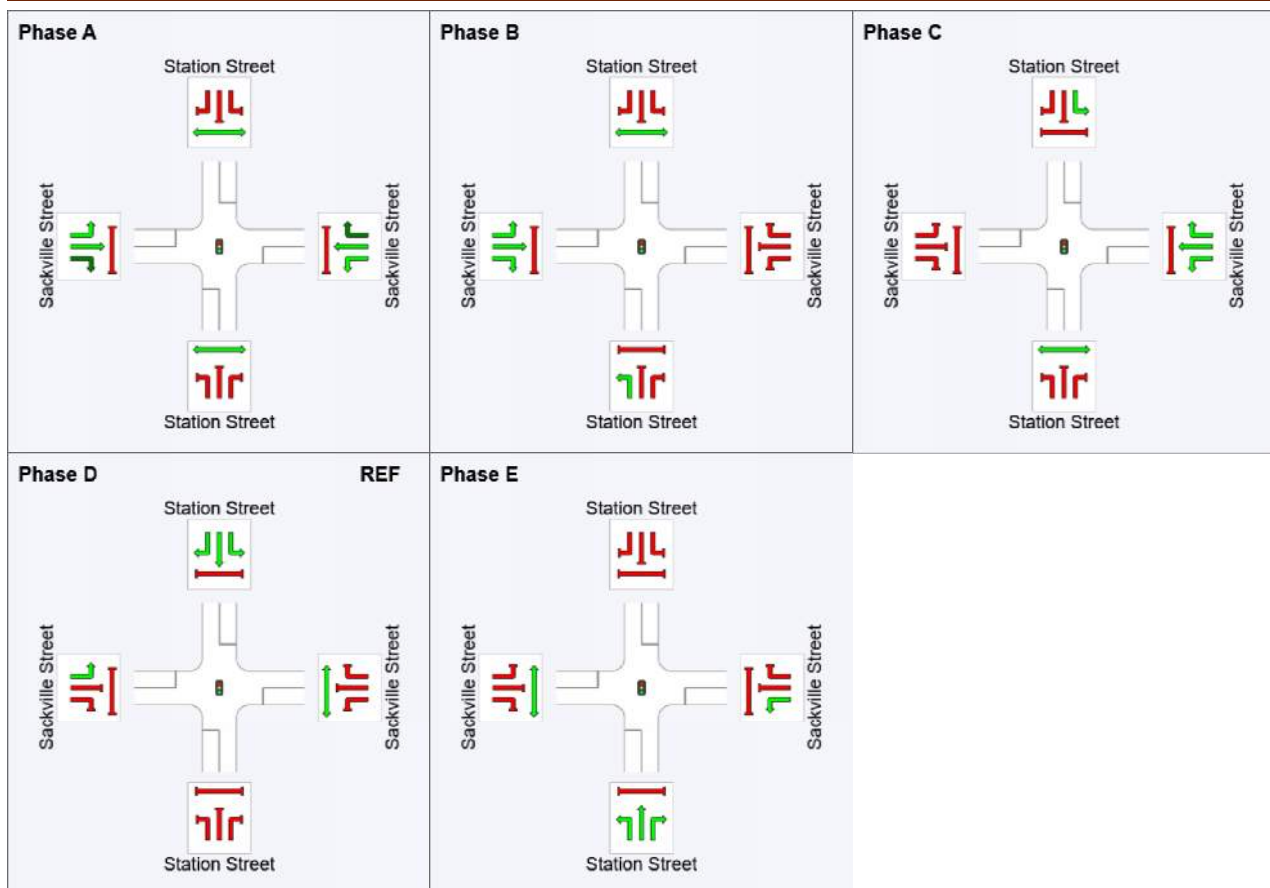
Output Phase Sequence: A, B, C, D, E

Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	40	56	78	0	21
Green Time (sec)	11	18	8	17	13
Phase Time (sec)	15	24	12	23	18
Phase Split	16%	26%	13%	25%	20%

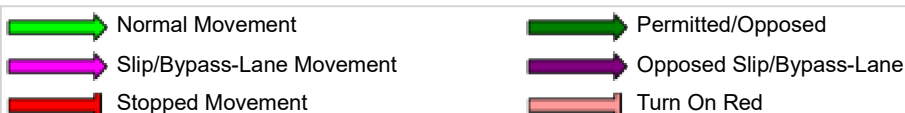
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

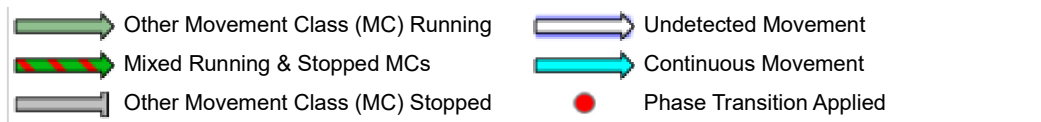
Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase





MOVEMENT SUMMARY

Site: 101 [FU PM Cunninghame/Horsley]

Network: N101 [Future PM]

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

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	49	0.0	49	0.0	0.471	5.6	LOS A	5.5	40.4	0.00	0.03	0.00	59.0
2	T1	1728	5.0	1728	5.0	0.471	0.1	LOS A	7.1	51.6	0.00	0.02	0.00	59.4
Approach		1778	4.9	1778	4.9	0.471	0.2	NA	7.1	51.6	0.00	0.02	0.00	59.4
North: The Horsley Drive (N)														
8	T1	1681	5.0	1681	5.0	0.445	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1681	5.0	1681	5.0	0.445	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Cunninghame Street														
10	L2	168	0.0	168	0.0	0.488	20.4	LOS C	0.5	3.4	0.74	0.97	1.01	17.6
Approach		168	0.0	168	0.0	0.488	20.4	LOS C	0.5	3.4	0.74	0.97	1.01	17.6
All Vehicles		3627	4.7	3627	4.7	0.488	1.1	NA	7.1	51.6	0.03	0.05	0.05	56.0

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.

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.

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID09-Future Modifications (RMS).sip8

MOVEMENT SUMMARY

 Site: 101 [FU PM Horsley/Polding]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles													
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h
South: The Horsley Drive (S)													
1	L2	442	0.0	442	0.0	0.353	16.2	LOS B	8.2	57.1	0.51	0.71	41.5
2	T1	937	5.0	937	5.0	0.945	75.8	LOS E	16.4	120.0	0.99	1.13	20.2
3	R2	305	0.0	305	0.0	0.935	88.5	LOS F	15.3	107.4	1.00	1.01	17.9
Approach		1684	2.8	1684	2.8	0.945	62.4	LOS E	16.4	120.0	0.87	1.00	22.7
East: Polding Street (E)													
4	L2	206	0.0	206	0.0	0.237	23.5	LOS C	4.5	31.8	0.61	0.72	34.3
5	T1	565	0.0	565	0.0	0.930	80.3	LOS F	17.1	119.6	0.99	1.08	26.0
Approach		772	0.0	772	0.0	0.930	65.1	LOS E	17.1	119.6	0.89	0.98	27.0
North: The Horsley Drive (N)													
7	L2	21	0.0	21	0.0	0.908	70.6	LOS E	24.3	177.3	1.00	1.04	28.6
8	T1	944	5.0	944	5.0	0.908	64.9	LOS E	24.3	177.3	0.99	1.04	19.5
9	R2	197	0.0	197	0.0	0.603	63.2	LOS E	7.7	53.8	0.97	0.82	29.0
Approach		1162	4.1	1162	4.1	0.908	64.7	LOS E	24.3	177.3	0.99	1.01	21.7
West: Polding Street (W)													
10	L2	18	0.0	18	0.0	0.434	38.6	LOS D	9.7	68.0	0.78	0.68	38.2
11	T1	303	0.0	303	0.0	0.434	33.0	LOS C	9.7	68.0	0.78	0.68	38.9
12	R2	320	0.0	320	0.0	0.979	89.0	LOS F	15.4	108.0	1.00	1.08	15.6
Approach		641	0.0	641	0.0	0.979	61.1	LOS E	15.4	108.0	0.89	0.88	25.9
All Vehicles		4259	2.2	4259	2.2	0.979	63.3	LOS E	24.3	177.3	0.91	0.98	23.8

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [FU PM Horsley/Polding]

 Network: N101 [Future PM]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, D, E, F

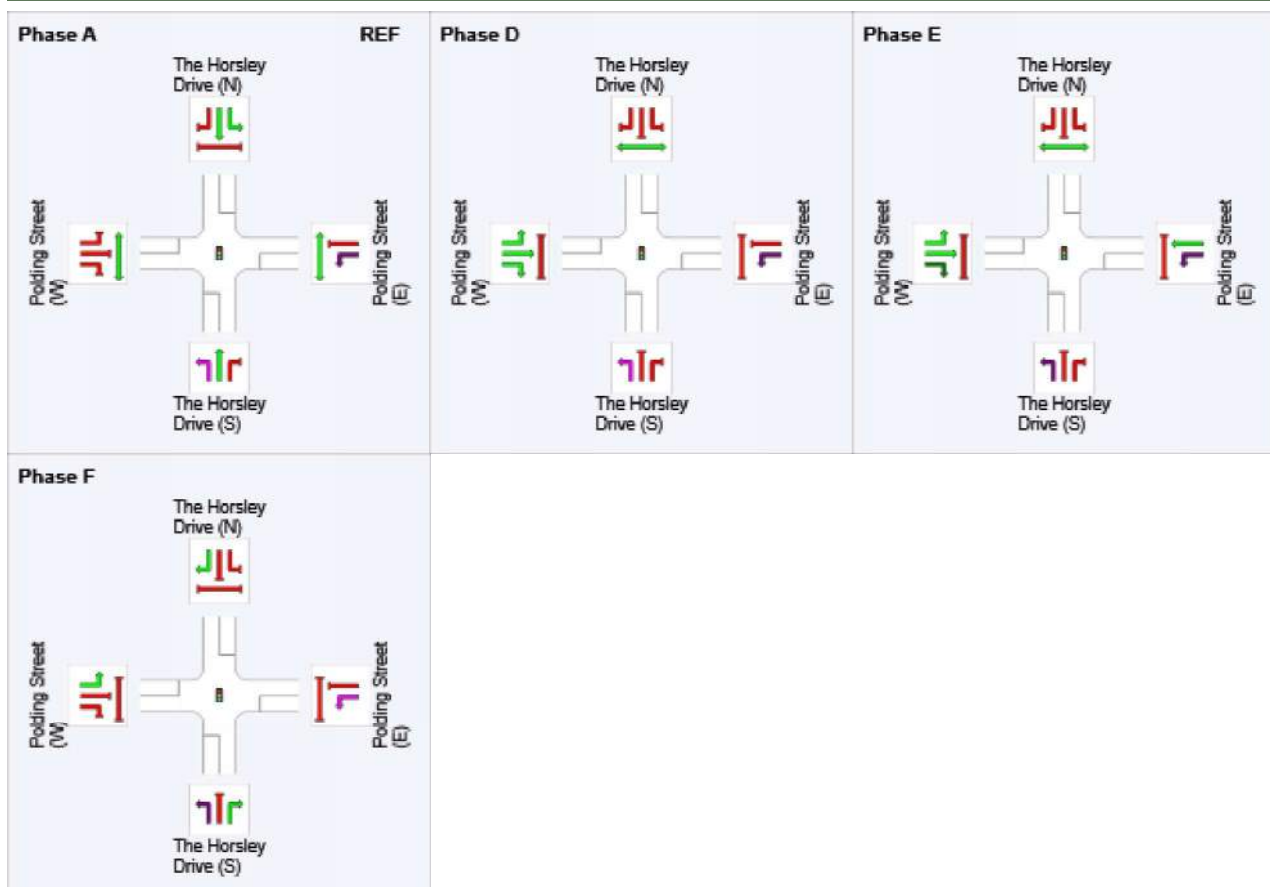
(* Variable Phase)

Phase Timing Summary

Phase	A	D	E	F
Phase Change Time (sec)	0	49	76	109
Green Time (sec)	43	21	27	25
Phase Time (sec)	49	27	33	31
Phase Split	35%	19%	24%	22%

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

 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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID09-Future Modifications (RMS).sip8

MOVEMENT SUMMARY

 **Site: 101 [FU PM Sackville/Station]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 93 seconds (Site User-Given Phase Times)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows 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: Station Street												
4	L2	117	5.0	0.937	63.1	LOS E	22.0	160.5	1.00	1.22	1.68	27.3
5	T1	269	5.0	0.937	58.5	LOS E	22.0	160.5	1.00	1.22	1.68	27.5
6	R2	42	5.0	0.110	36.5	LOS D	1.6	11.3	0.84	0.72	0.84	33.0
Approach		428	5.0	0.937	57.6	LOS E	22.0	160.5	0.98	1.17	1.60	27.9
East: Sackville Street												
7	L2	33	5.0	0.921	50.8	LOS D	24.0	174.9	1.00	1.18	1.50	30.3
8	T1	460	5.0	0.921	46.2	LOS D	24.0	174.9	1.00	1.18	1.50	30.6
9	R2	21	5.0	0.054	26.4	LOS C	0.6	4.6	0.83	0.67	0.83	36.4
Approach		514	5.0	0.921	45.7	LOS D	24.0	174.9	0.99	1.16	1.47	30.7
North: Station Street												
10	L2	11	5.0	0.932	66.8	LOS E	11.9	86.9	1.00	1.16	1.60	26.8
11	T1	201	5.0	0.932	62.2	LOS E	11.9	86.9	1.00	1.16	1.60	27.0
12	R2	192	5.0	0.932	66.8	LOS E	11.2	81.6	1.00	1.10	1.61	26.0
Approach		403	5.0	0.932	64.5	LOS E	11.9	86.9	1.00	1.13	1.61	26.5
West: Sackville Street												
1	L2	156	5.0	0.828	44.8	LOS D	17.9	130.9	1.00	1.03	1.44	31.5
2	T1	240	5.0	0.828	40.2	LOS D	17.9	130.9	1.00	1.03	1.44	31.8
3	R2	83	5.0	0.350	44.5	LOS D	3.6	26.5	0.95	0.74	0.95	30.8
Approach		479	5.0	0.828	42.5	LOS D	17.9	130.9	0.99	0.98	1.35	31.5
All Vehicles		1824	5.0	0.937	51.8	LOS D	24.0	174.9	0.99	1.11	1.50	29.2

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.

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	South Full Crossing	53	19.4	LOS B	0.1	0.1	0.87	0.87
P3	East Full Crossing	53	40.8	LOS E	0.1	0.1	0.94	0.94
P4	North Full Crossing	53	40.8	LOS E	0.1	0.1	0.94	0.94
P1	West Full Crossing	53	40.8	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		211	35.4	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.

PHASING SUMMARY

 **Site: 101 [FU PM Sackville/Station]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 93 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B, C, D, E

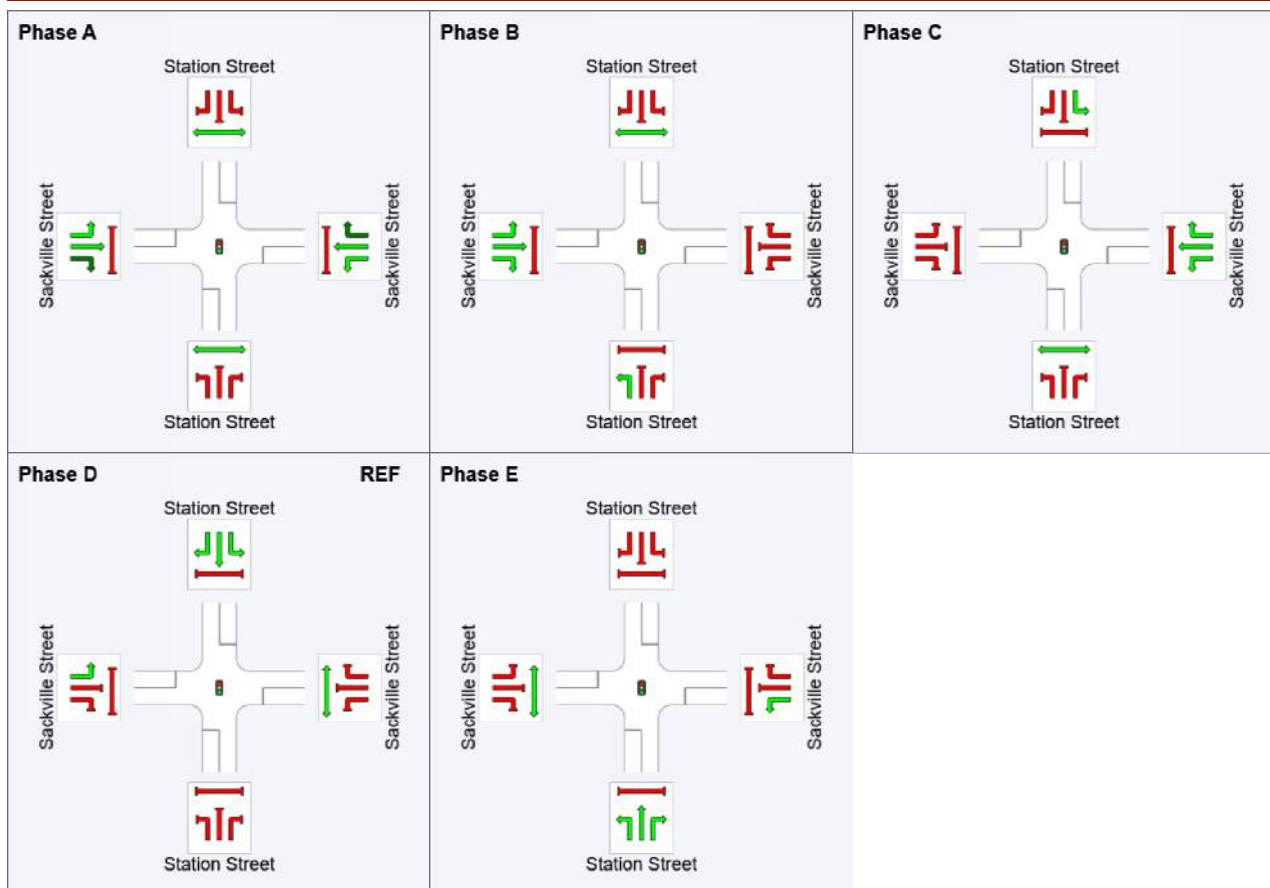
Output Phase Sequence: A, B, C, D, E

Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	42	59	71	0	17
Green Time (sec)	11	8	16	11	20
Phase Time (sec)	15	14	22	16	26
Phase Split	16%	15%	24%	17%	28%

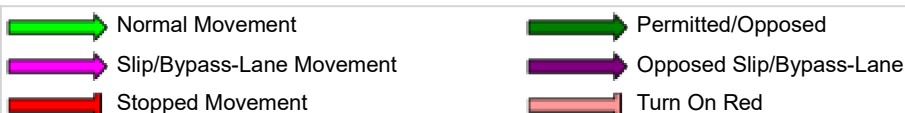
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase





MOVEMENT SUMMARY

 Site: 101 [FU SAT Cunninghame/Horsley]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Giveway / Yield (Two-Way)

Movement Performance - Vehicles														
Mov ID	Turn	Demand Flows		Arrival Flows		Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	62	0.0	62	0.0	0.584	5.6	LOS A	0.0	0.0	0.00	0.05	0.00	58.4
2	T1	1380	5.0	1380	5.0	0.584	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.0
Approach		1442	4.8	1442	4.8	0.584	0.4	NA	0.0	0.0	0.00	0.03	0.00	59.0
North: The Horsley Drive (N)														
8	T1	1521	5.0	1521	5.0	0.403	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		1521	5.0	1521	5.0	0.403	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
West: Cunninghame Street														
10	L2	211	0.0	211	0.0	0.341	13.5	LOS B	0.4	2.9	0.67	0.90	0.80	23.0
Approach		211	0.0	211	0.0	0.341	13.5	LOS B	0.4	2.9	0.67	0.90	0.80	23.0
All Vehicles		3174	4.6	3174	4.6	0.584	1.1	NA	0.4	2.9	0.04	0.07	0.05	55.8

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.

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.

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MOVEMENT SUMMARY

 Site: 101 [FU SAT Horsley/Polding]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Movement Performance - Vehicles														
Mov ID	Turn	Demand	Flows	Arrival	Flows	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed	
		Total veh/h	HV %	Total veh/h	HV %	v/c	sec		Vehicles veh	Distance m			km/h	
South: The Horsley Drive (S)														
1	L2	389	5.0	389	5.0	0.287	11.4	LOS B	4.9	36.0	0.39	0.67	0.39	45.3
2	T1	753	5.0	753	5.0	0.708	48.1	LOS D	14.1	102.9	0.96	0.83	0.96	26.6
3	R2	299	5.0	299	5.0	0.847	71.6	LOS E	13.2	96.6	1.00	0.92	1.17	20.6
Approach		1441	5.0	1441	5.0	0.847	43.1	LOS D	14.1	102.9	0.81	0.81	0.85	28.1
East: Polding Street (E)														
4	L2	312	5.0	312	5.0	0.363	18.8	LOS B	6.2	44.9	0.58	0.73	0.58	37.6
5	T1	346	5.0	346	5.0	0.835	69.2	LOS E	10.0	73.4	0.99	0.94	1.21	28.1
6	R2	17	5.0	17	5.0	0.835	75.3	LOS E	10.0	73.4	1.00	0.95	1.19	27.6
Approach		675	5.0	675	5.0	0.835	46.1	LOS D	10.0	73.4	0.80	0.84	0.92	30.5
North: The Horsley Drive (N)														
7	L2	38	5.0	38	5.0	0.846	64.7	LOS E	17.8	129.8	1.00	0.96	1.12	29.9
8	T1	743	5.0	743	5.0	0.846	58.7	LOS E	17.8	129.8	0.99	0.96	1.12	20.7
9	R2	172	5.0	172	5.0	0.716	40.8	LOS D	4.3	31.1	1.00	0.83	1.07	35.2
Approach		953	5.0	953	5.0	0.846	55.7	LOS E	17.8	129.8	0.99	0.94	1.11	24.1
West: Polding Street (W)														
10	L2	31	5.0	31	5.0	0.416	35.8	LOS D	9.2	66.8	0.75	0.67	0.75	39.1
11	T1	285	5.0	285	5.0	0.416	30.2	LOS C	9.2	66.8	0.75	0.67	0.75	40.0
12	R2	317	5.0	317	5.0	0.701	40.6	LOS D	9.7	70.7	0.96	0.84	0.96	26.1
Approach		633	5.0	633	5.0	0.701	35.7	LOS D	9.7	70.7	0.86	0.75	0.86	33.9
All Vehicles		3701	5.0	3701	5.0	0.847	45.6	LOS D	17.8	129.8	0.86	0.84	0.93	28.4

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	Average Delay	Level of Service	Average Back of Queue	Prop. Queued	Effective Stop Rate	
		ped/h	sec		Pedestrian ped	Distance m		
P2	East Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	53	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		158	64.3	LOS F			0.96	0.96

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: 101 [FU SAT Horsley/Polding]

 Network: N101 [Future SAT]

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Downstream lane blockage effects included in determining phase times

Phase Sequence: Leading Right Turn

Reference Phase: Phase A

Input Phase Sequence: A, B*, C*, D, E, F, F1*, F2*

Output Phase Sequence: A, C*, D, E, F, F1*

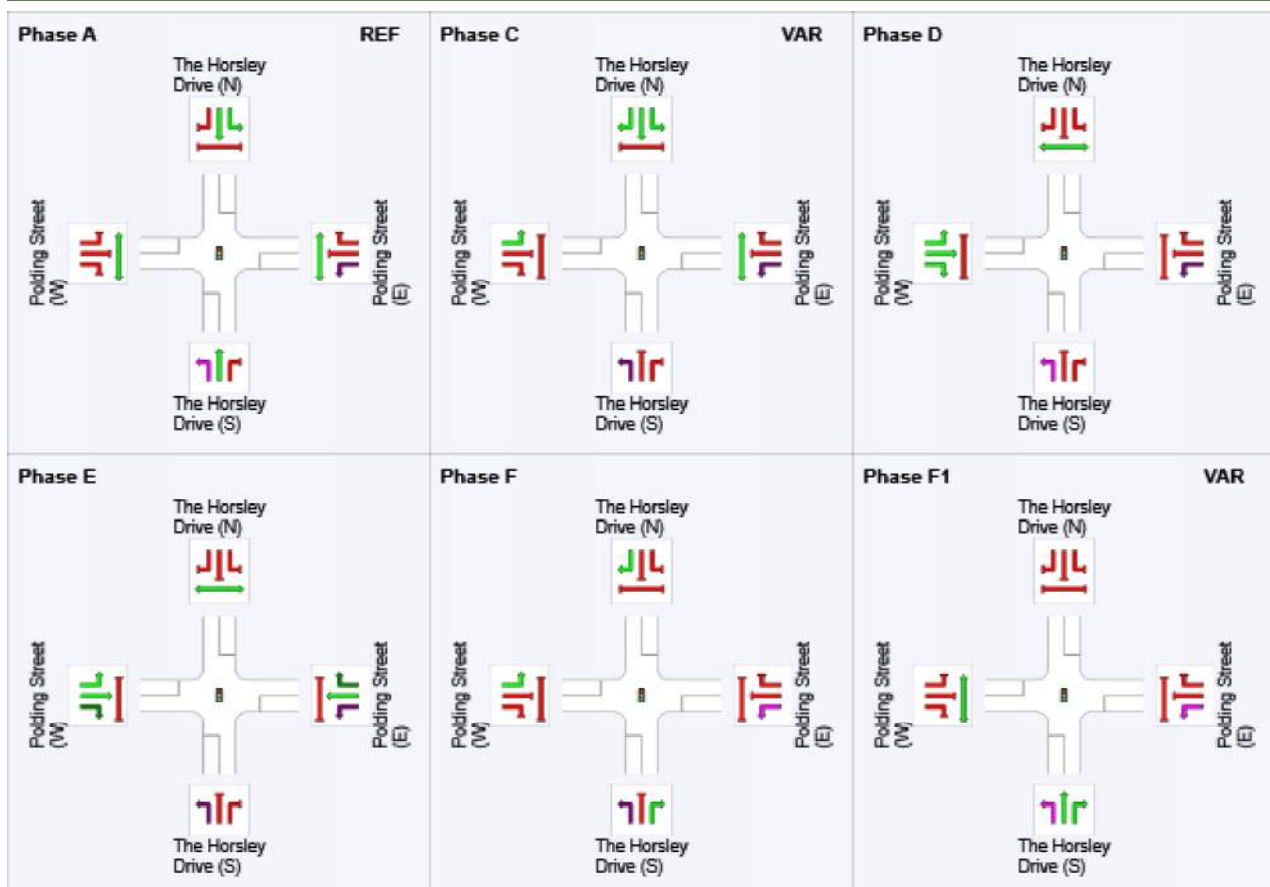
(* Variable Phase)

Phase Timing Summary

Phase	A	C	D	E	F	F1
Phase Change Time (sec)	0	29	43	79	106	123
Green Time (sec)	23	8	30	21	11	11
Phase Time (sec)	29	14	36	27	17	17
Phase Split	21%	10%	26%	19%	12%	12%

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

 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

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Project: Y:\15501-16000\15881T - Fairfield Forum\Work\SIDRA\15881T-SID09-Future Modifications (RMS).sip8

MOVEMENT SUMMARY

 **Site: 101 [FU SAT Sackville/Station]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 92 seconds (Minimum Cycle Time)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows 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: Station Street												
4	L2	151	5.0	0.928	60.1	LOS E	23.1	169.0	1.00	1.20	1.65	27.9
5	T1	267	5.0	0.928	55.5	LOS E	23.1	169.0	1.00	1.20	1.65	28.1
6	R2	46	5.0	0.112	35.2	LOS D	1.7	12.1	0.83	0.72	0.83	33.5
Approach		464	5.0	0.928	54.9	LOS D	23.1	169.0	0.98	1.15	1.57	28.5
East: Sackville Street												
7	L2	86	5.0	0.899	46.1	LOS D	14.0	102.2	1.00	1.12	1.53	31.4
8	T1	255	5.0	0.899	41.5	LOS D	14.0	102.2	1.00	1.12	1.53	31.6
9	R2	22	5.0	0.084	31.2	LOS C	0.7	5.3	0.90	0.68	0.90	34.7
Approach		363	5.0	0.899	42.0	LOS D	14.0	102.2	0.99	1.09	1.49	31.7
North: Station Street												
10	L2	9	5.0	0.752	46.6	LOS D	11.5	84.1	1.00	0.92	1.12	31.5
11	T1	363	5.0	0.752	42.2	LOS D	11.5	84.1	1.00	0.92	1.12	31.5
12	R2	121	5.0	0.752	47.2	LOS D	11.2	82.0	1.00	0.91	1.12	30.7
Approach		494	5.0	0.752	43.5	LOS D	11.5	84.1	1.00	0.91	1.12	31.3
West: Sackville Street												
1	L2	141	5.0	0.862	47.8	LOS D	19.5	142.6	1.00	1.06	1.42	30.8
2	T1	264	5.0	0.862	43.2	LOS D	19.5	142.6	1.00	1.06	1.42	31.0
3	R2	140	5.0	0.587	47.9	LOS D	6.2	45.0	0.99	0.89	1.30	30.0
Approach		545	5.0	0.862	45.6	LOS D	19.5	142.6	1.00	1.02	1.39	30.7
All Vehicles		1866	5.0	0.928	46.7	LOS D	23.1	169.0	0.99	1.04	1.38	30.4

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	
P2	South Full Crossing	53	20.1	LOS C	0.1	0.1	0.87	0.87	
P3	East Full Crossing	53	38.4	LOS D	0.1	0.1	0.94	0.94	
P4	North Full Crossing	53	38.4	LOS D	0.1	0.1	0.94	0.94	
P1	West Full Crossing	53	38.4	LOS D	0.1	0.1	0.94	0.94	
All Pedestrians		211	33.8	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.

PHASING SUMMARY

 **Site: 101 [FU PM Sackville/Station]**

New Site

Site Category: (None)

Signals - Fixed Time Isolated Cycle Time = 93 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times specified by the user

Phase Sequence: Variable Phasing

Reference Phase: Phase D

Input Phase Sequence: A, B, C, D, E

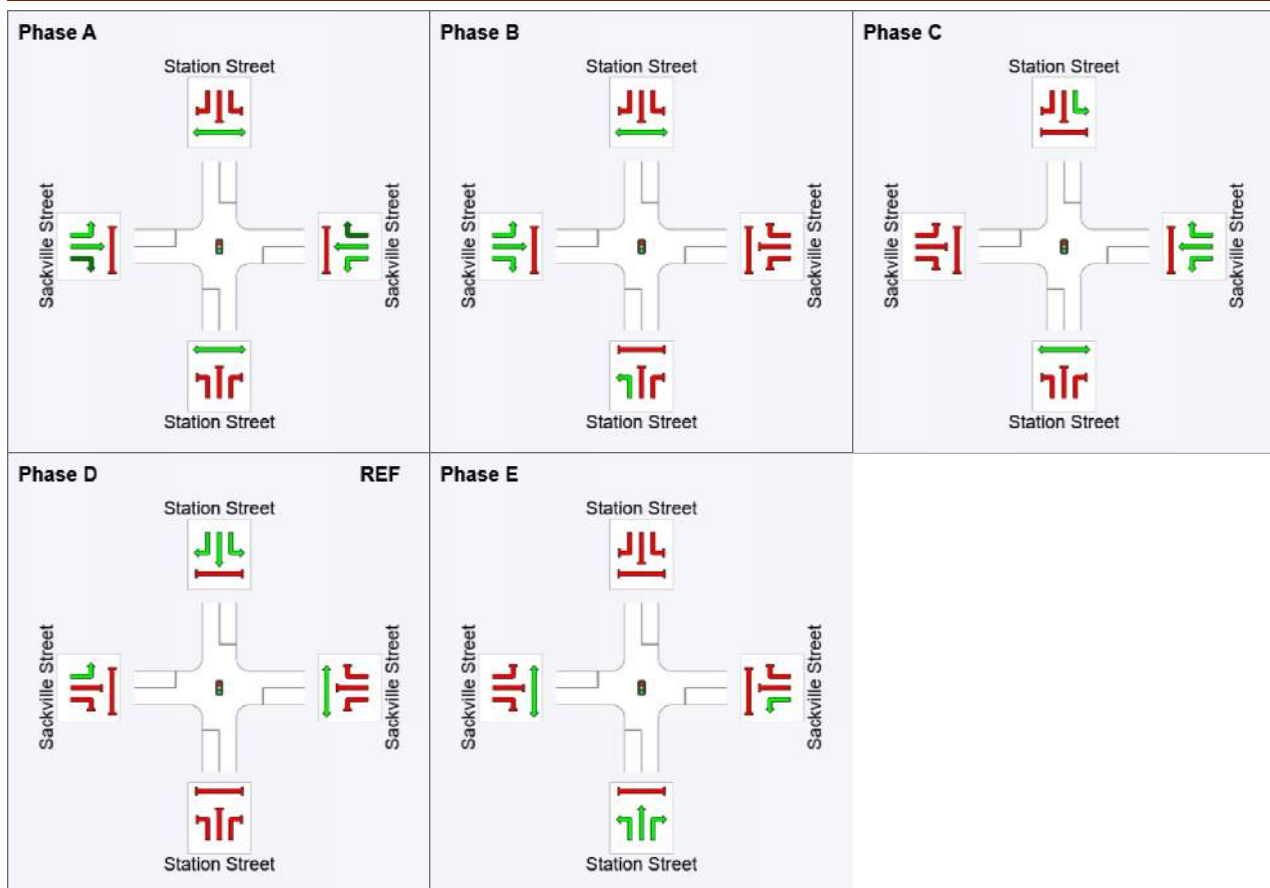
Output Phase Sequence: A, B, C, D, E

Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	42	59	71	0	17
Green Time (sec)	11	8	16	11	20
Phase Time (sec)	15	14	22	16	26
Phase Split	16%	15%	24%	17%	28%

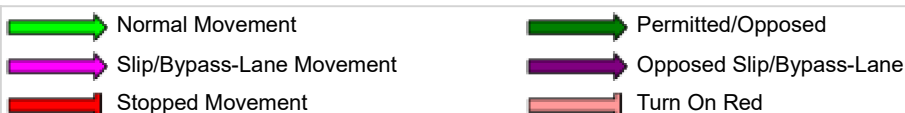
See the Phase Information section in the Detailed Output report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Phase Actuation and Phase Frequency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

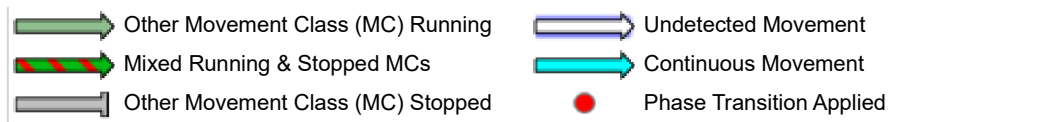
Output Phase Sequence



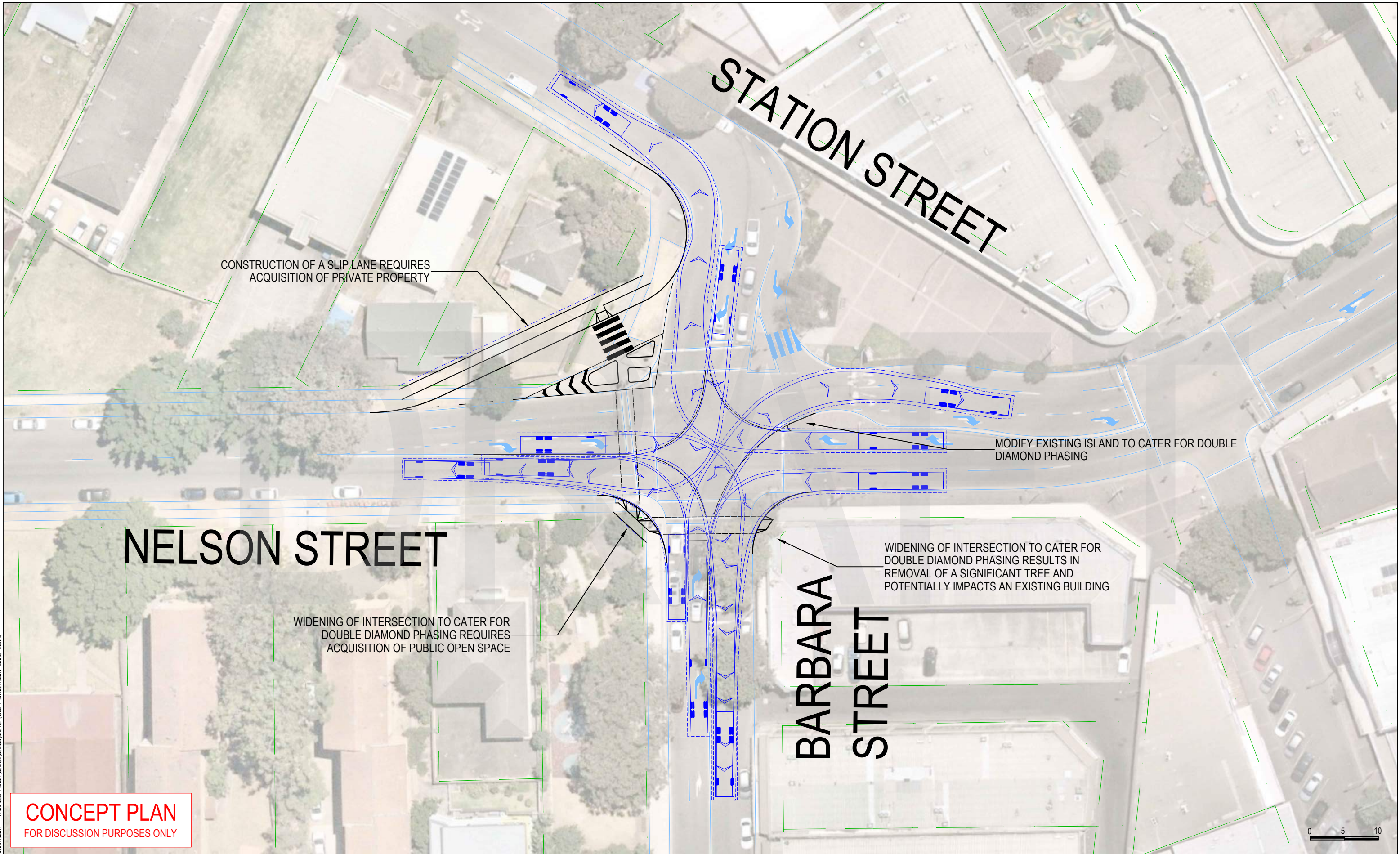
REF: Reference Phase

VAR: Variable Phase





Appendix F Concept Intersection Plans :



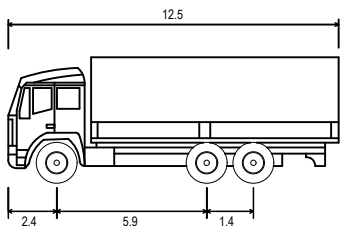
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CONCEPT PLAN
FOR DISCUSSION PURPOSES ONLY

ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
8 GWYNNE STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

HRV - Heavy Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)
500mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
500mm CLEARANCE (REVERSE)

Overall Length
Overall Width
Track Width
Lock to Lock Time
Curb to Curb Turning Radius

12.500m
2.500m
2.500m
6.00 sec
12.500m

Fairfield Forum
Station Street, Fairfield, NSW
Station Street/Nelson Street Modifications Concept Plan

NOTE:
1) Base aerial photography and cadastral boundary information. FOR DISCUSSION PURPOSES ONLY
2) Maximum Design Speed 15km/h

RATIO REFERENCE
15881T-SK002-A

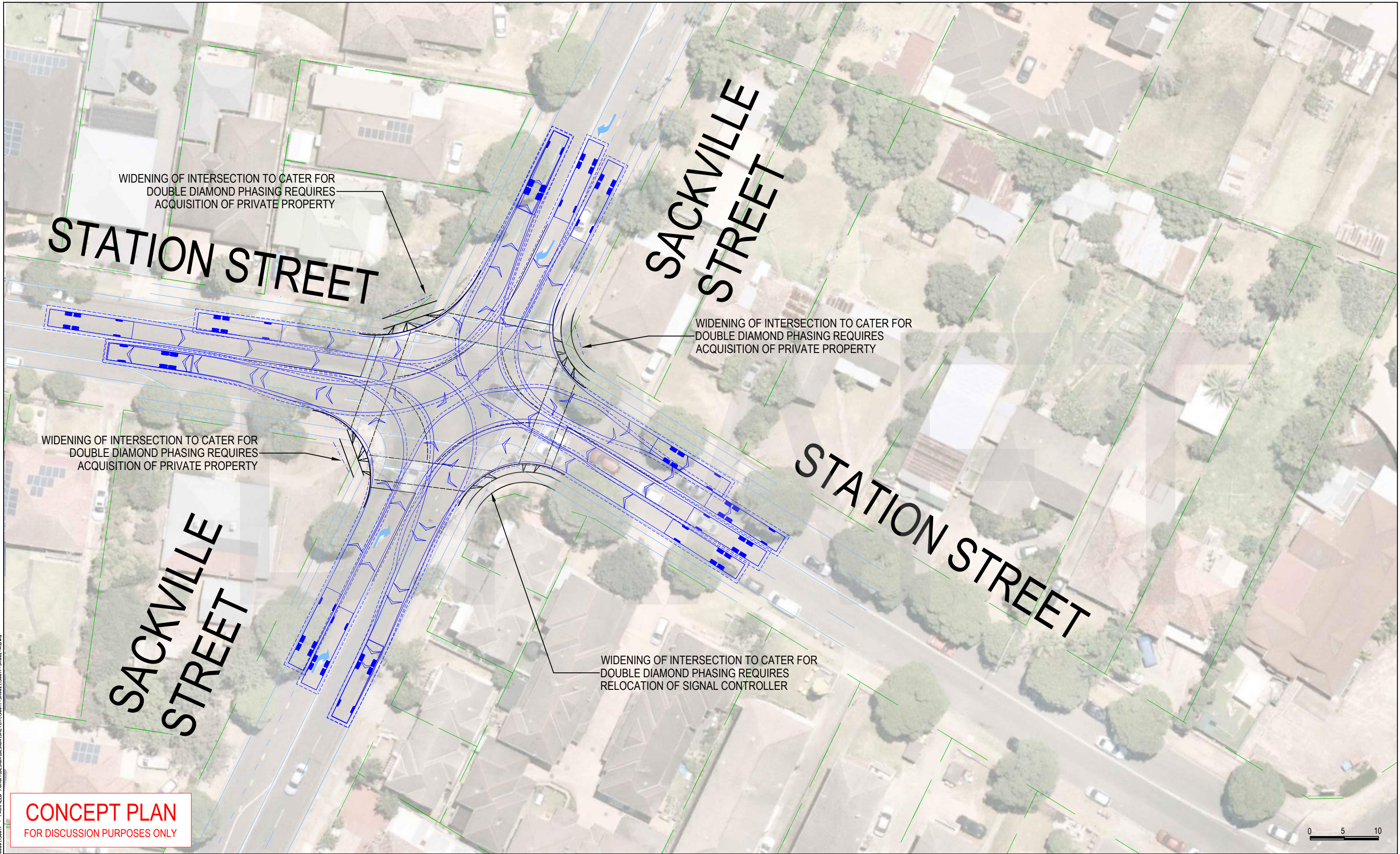
SHEET No.
1 of 3

PREPARED BY
P.M.

SCALE
1:500@A3

DATE
30/03/2021



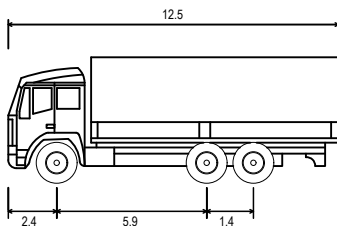


CONCEPT PLAN
FOR DISCUSSION PURPOSES ONLY

ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
8 GWYNNE STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

HRV - Heavy Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)
500mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
500mm CLEARANCE (REVERSE)

Overall Length
Overall Width
Track Width
Lock to Lock Time
Curb to Curb Turning Radius

12.500m
2.500m
2.500m
6.00 sec
12.500m

Fairfield Forum
Station Street, Fairfield, NSW
Station Street/Sackville Street Modifications Concept Plan

NOTE:
1) Base aerial photography and cadastral boundary information. FOR DISCUSSION PURPOSES ONLY
2) Maximum Design Speed 15km/h

RATIO REFERENCE
15881T-SK002-A

SHEET No.
2 of 3

PREPARED BY
P.M.

SCALE
1:500@A3

DATE
30/03/2021





ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
8 GWYNNE STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)

8.8

VEHICLE ENVELOPE (FORWARD)

500mm CLEARANCE (FORWARD)

VEHICLE ENVELOPE (REVERSE)

500mm CLEARANCE (REVERSE)

Overall Length

Overall Width

Track Width

Lock to Lock Time

Curb to Curb Turning Radius

8.800m

2.500m

2.500m

4.00 sec

10.000m

Fairfield Forum
Station Street, Fairfield, NSW
Polding Street/The Horsley Drive Modifications Concept Plan

NOTE:

1) Base aerial photography and cadastral boundary information. FOR DISCUSSION PURPOSES ONLY
2) Maximum Design Speed 15km/h

RATIO REFERENCE

15881T-SK002-A

SHEET No.

3 of 3

PREPARED BY

P.M.

SCALE

1:500@A3

DATE

30/03/2021

0 5 10