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Northern Transitway
Northern Transitway Traffic Modelling Report
Queensland Department of Transport and Main
Roads (TMR)

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*Bringing ideas
to life*

Document control record

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Vissim Intersections Result Outputs
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Acronyms and Abbreviations

NTW Northern Transitway
DOS Degree of Saturation
LILO Left-in Left-out
LOS Level Of Service
NWC North West Corridor
VHT Vehicle Hours Travelled
VKT Vehicle Kilometres Travelled
PHT Passenger Hours Travelled
PKT Passenger Kilometres Travelled

1 Introduction

1.1 Project Background

The proposed Northern Transitway (NTW) project extends along Gympie Road between Sadiier Street, Kedron and Hamilton Road, Chermiside, north of the Brisbane CBD. The project involves creating peak period (weekdays between 06:00 – 09:00 and 15:00 – 18:30) bus lanes in each direction by reallocating the existing kerbside parking and shoulder area in both directions on Gympie Road.

1.2 Aurecon Commission

Aurecon has been engaged by the QLD Department of Transport and Main Roads (TMR) to prepare the preliminary and detailed design for the NTW project. As part of this commission, Aurecon have updated (“re-based”) the Vissim traffic simulation models (previously developed for this project and used in the 2013 Business Case) from 2013 to 2018 “base year” traffic conditions. The model rebasing exercise involved model calibration of traffic volumes and travel time validation (separately for general traffic and buses) to ensure that the models were reflective of the existing traffic conditions along the corridor.

The re-based models have been used to develop future year models to compare the operation and benefits of the proposed Transitway project with those reported in the Business Case.

1.3 Purpose of Report

The purpose of this report is to document the traffic modelling undertaken as part of this project, both in terms of Vissim microsimulation undertaken for the corridor to estimate the benefits from the proposed NTW project, and the SIDRA intersection analysis undertaken for each of the signalised intersections within the corridor to evaluate the intersection performances with and without the proposed project.

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2 Vissim Traffic Modelling

2.1 Introduction

Vissim models of the NTW project were developed for the Business Case by AECOM and provided to Aurecon for the purposes of this study. The models developed for this study used Vissim version 9.00-14.

2.2 Project Description (2021 day-of-opening onwards)

The proposed Gympie Road Transitway project extends along Gympie Road between Sadlier Street, Kedron and Hamilton Road, Chermside, north of the Brisbane CBD. The project involves creating peak period bus lanes in each direction by reallocating the existing kerbside parking and shoulder area in both directions on Gympie Road. The bus lanes will be operational in both directions weekdays between 06:00 – 09:00 and 15:00 – 18:30.

- The new northbound bus lane will start at Sadlier Street and end at Sparkes Street;
- The new southbound bus lane will commence at Hamilton Road and finish near Seabrook Street; and,
- To optimise the project benefits, including improvement of the bus lane travel times, the existing bus stops along Gympie Road will be rationalised from 7 to 4 high quality bus stop pairs. These 4 bus stop pairs are to be located at approximate chainages:
 - Ch 650 (southbound) south of Sadlier Street and Ch 900 (northbound) just south of Howell Street.
 - Ch 1500 (southbound) just north of Sports Street and Ch 1400 (northbound) just south of Kitchener Road.
 - Ch 2170 (southbound) just south of Rode Road and Ch 2260 (northbound) just north of Rode Road.
 - Ch 2570 for north and southbound (just south of Wallace / Kuran Streets).

Further key traffic changes incorporated in the NTW project are:

- A modification to the Gympie Road / Sport Street / Kitchener Road intersection (Ch 1500) to signalise the left in and left out movements at Kitchener Road.
- The signalisation of the existing priority-controlled intersection of Gympie Road / Boothby Street (Ch 1730) which will improve access into / out of Boothby Street. This includes a new signalised pedestrian crossing of Gympie Road. This will be beneficial for pedestrians needing to cross Gympie Road at this point and traffic generated by the light industry along Boothby Street.
- No change to the existing signalised intersection mid-block crossing located to the south of Sparkes Street.

It is noted that outside of the operational bus lane times, the transit lane is proposed to be used as a parking lane.

2.2.1 Intersection Changes

The following changes have been undertaken for some of the key intersections in the study area as per the detailed design:

- All intersections – the existing outside shoulders are converted to bus lanes in the both directions, with general purpose vehicles permitted to turn left from these lanes;
- Sport Street / Kitchener Road (refer Figure 2-1)

- Left turn slip lanes on the southern and western approaches have been removed and replaced with signal controlled stand-up lanes.
- The right turn lane on the northern approach has been extended by approximately 40m.
- The right turn lane on the southern approach has been extended by approximately 80m.

■ Rode Road (Refer Figure 2-2)

- Extension of right turn lane on southern approach (Gympie Road) by approximately 90m.

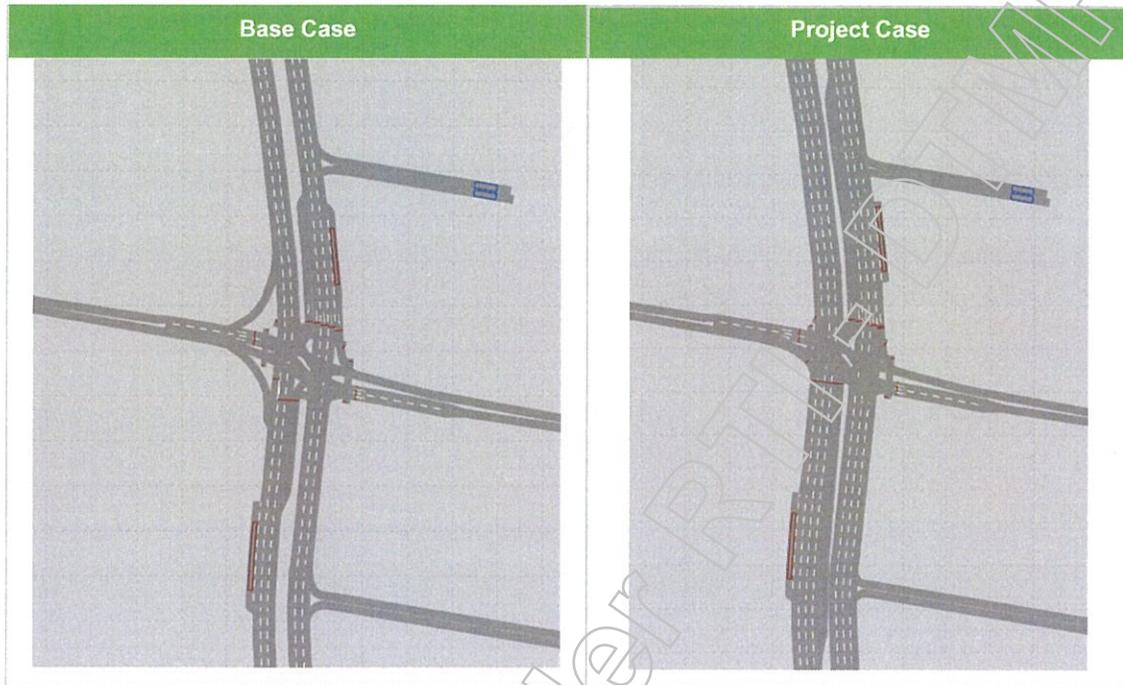


Figure 2-1 Intersection of Gympie Road / Sports Street / Kitchener Road

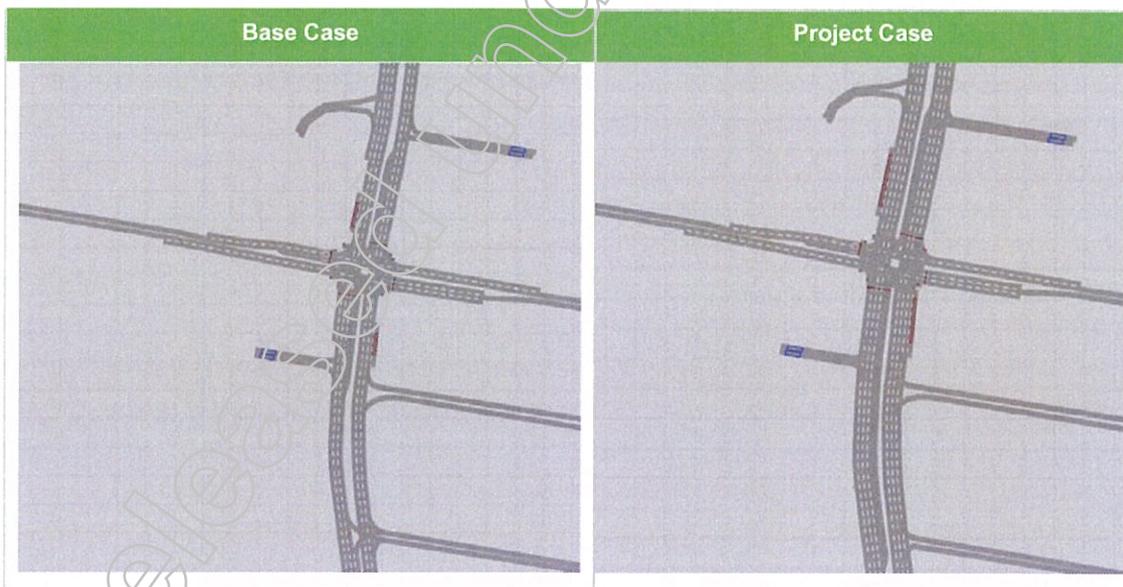


Figure 2-2 Intersection of Gympie Road / Rode Road

Pedestrian protection has also been implemented for the signalised intersections for both the Base Case and Project Case models in accordance with Appendix A: Safety Intervention and Improvement Guidelines (Interim) in the TMR Road Safety Policy – Organisational Policy 2018.

Several changes were also incorporated in the Project Case models for the minor intersections that are currently priority controlled. These changes are summarised in Table 2-1 and Table 2-2 for the northbound and southbound directions respectively.

Table 2-1 Summary of Changes for the Minor Intersections in Northbound Direction

Intersections along Gympie Road	Existing Configuration	Project Case Configuration
Cremorne Road	LILO	No change
Howell Street	Priority controlled, all movement	Ban right turn in and right turn out (LILO)
Wallin Street	LILO	No change
Lawley Street	Priority controlled, all movement	Ban right turn in and right turn out (LILO)
Bromilow Street	LILO	No change
Abarth Street	LILO	No change
Norman Drive	LILO	No change
Sparkes Street	LILO	No change
Latham Street	LILO	No change

* LILO = Left-in left-out intersection

Table 2-2 Summary of Changes for the Minor Intersections in Southbound Direction

Intersections along Gympie Road	Existing Configuration	Project Case Configuration
Hall Street	LILO	No change
Mermaid Street	LILO	No change
Pilba Street	LILO	No change
Sydney Street	LILO	No change
Mellor Street	Priority controlled, all movement	Ban right turn in and right turn out (LILO)
Boothby Street	Priority controlled, all movement	Upgraded to signalised intersection
Childers Street	Priority controlled, all movement	Ban right turn in and right turn out (LILO)
Kedron Street	LILO	No change
Nundah Street	LILO	No change
Edinburgh Castle Road	Priority controlled, all movement	Ban right turn in and right turn out (LILO)
Oliver Street	LILO	No change
Seabrook Street	LILO	No change

* LILO = Left-in left-out intersection

2.3 Vissim Model Network

The Vissim model network for Gympie Road is shown in Figure 2-3 and extends from Hamilton Road to the north, to Sadlier Street to the south. The models have been developed for weekday AM (07:00 – 09:00) and PM (16:00 – 18:00) peak periods, with a 15-minute warm-up and 15-minute cool-down period included before and after the main model periods. It is noted that while this differs from the proposed hours of operation for the bus lanes (which are 06:00 – 09:00 and 15:00 – 18:30), the model periods are considered appropriate as they cover the busiest network periods and can therefore be used to quantify the travel time benefits for buses as a result of the proposed Transitway project.

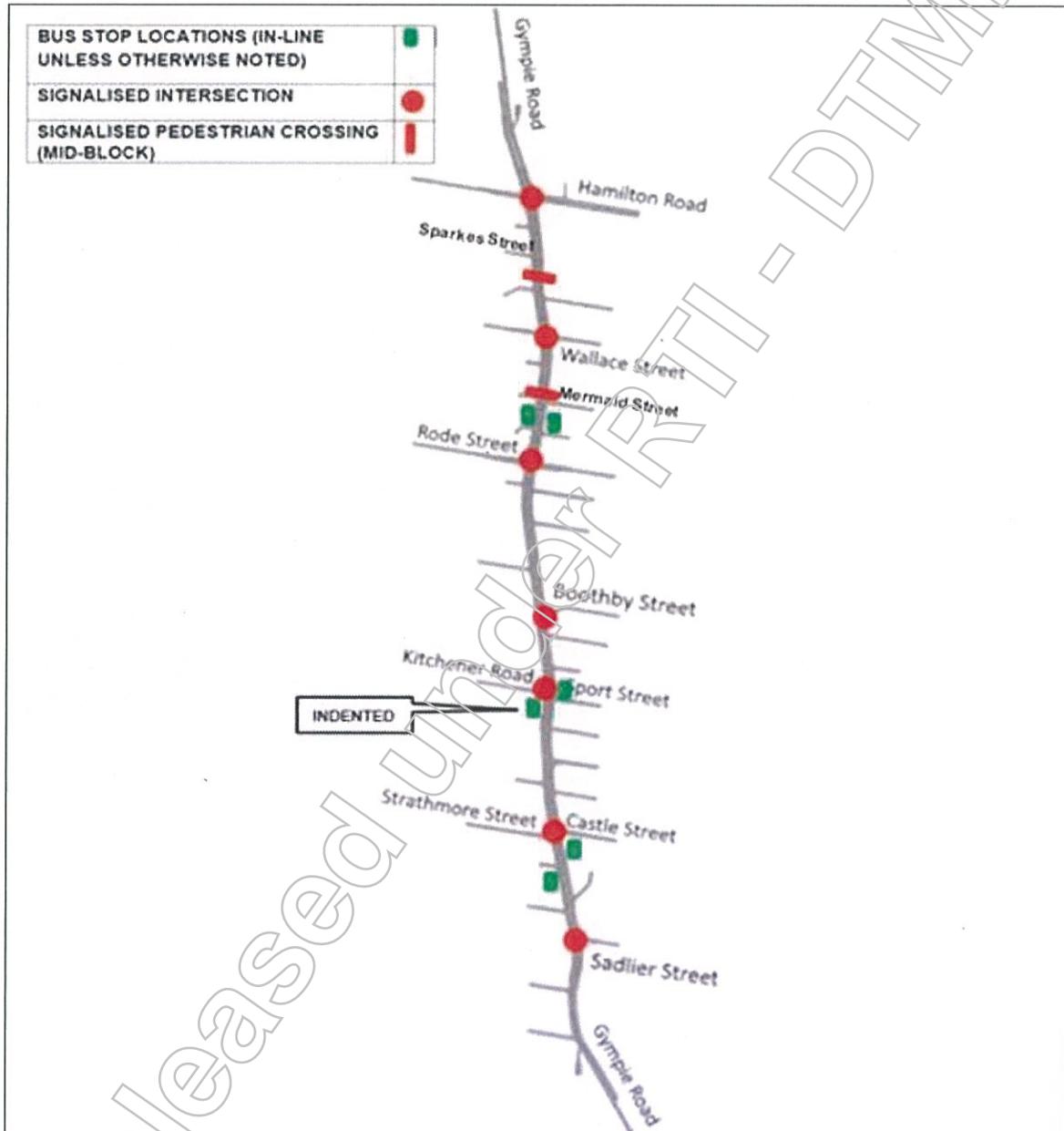


Figure 2-3 Extents of Model Area and Key Model Features (Business Case Model)

As the previous models were developed in 2013/14, changes have since been proposed for the proposed Transitway project, including changes to the number of bus stop along the routes.

A schematic representation of the proposed bus stop locations is shown in Figure 2-4.

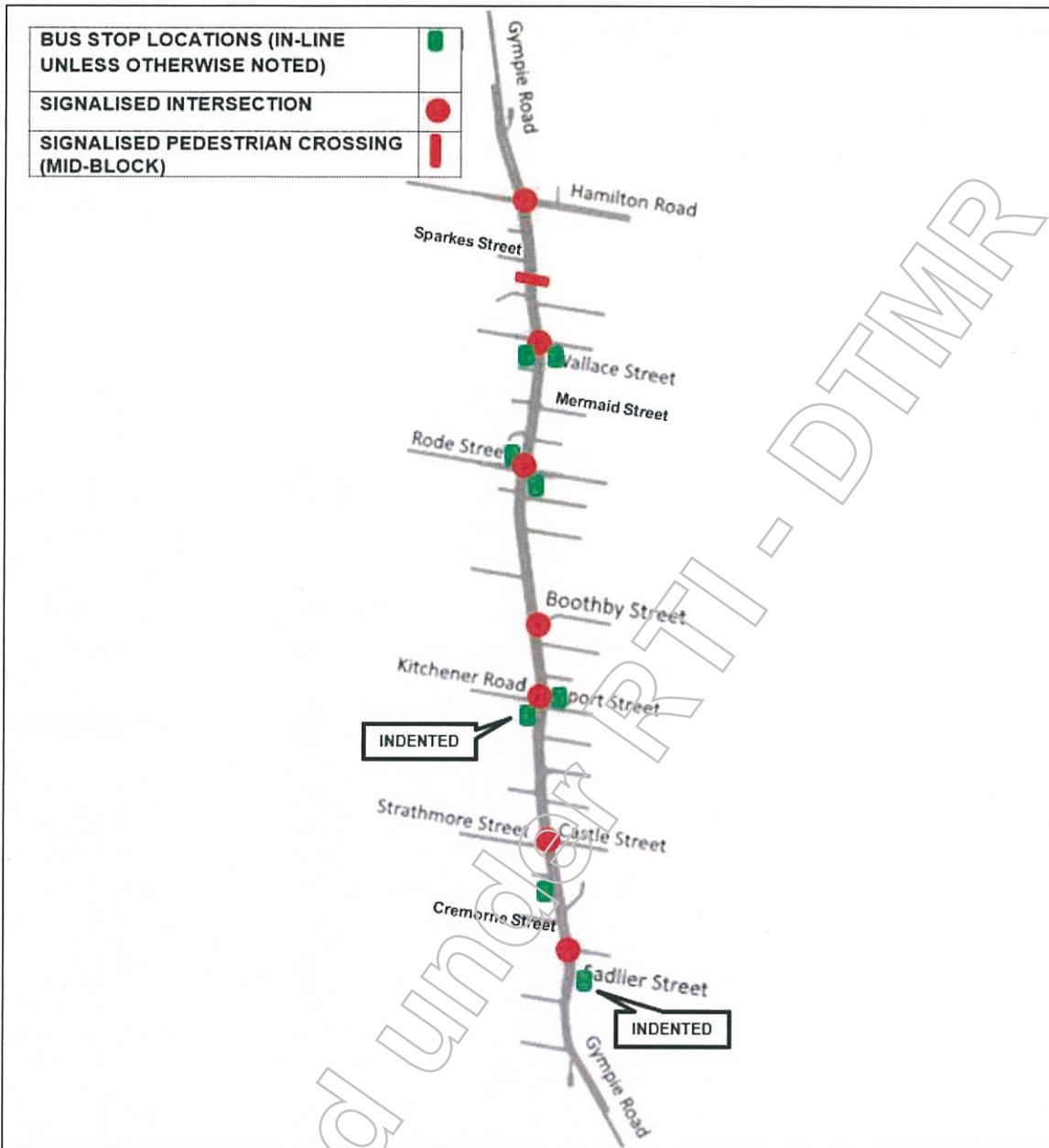


Figure 2-4 Final Extent of Model Area and Key Model Features (Project Case Model)

Compared to the Business Case, the key changes in the model are:

- Bus stops to remain in their original locations but consolidated to the following four pairs of bus stops:
 - Chermside Place (Hastus IDs 3873 and 3874) – the Wallace Street/Kuran Street stops
 - Rode Road (Hastus IDs 3872 and 3875)
 - Kedron North (Hastus IDs 3870 and 10900) – the Kitchener Rd/Sports Street stops
 - Cremorne Road (Hastus ID 11194) and Sadlier Street (Hastus ID 11070)
- Removal of the proposed mid-block pedestrian crossing at Mermaid Street (which was associated with a previously proposed bus stop pair).
- Removal of the southbound U-turn on approach to Boothby Street.
- Extension of the southbound bus lane to Hamilton Road.
- Kitchener Road northbound bus stop changed from indented to inline.

3 Model Inputs and Assumptions

A summary of the data sources used for this transport modelling exercise is provided in Table 3-1.

Table 3-1 Model Data Sources

Data Source	Data/File Name	Model Use
2013 Base model files	<i>Northern Transitway Base Models.zip</i> , received 13/11/2018	Base model files to be re-based.
Traffic signal plans	<p>"<i>Traffic Signals – Operations & Electrical</i>" plans, as well as "<i>Intersection Detail</i>" outputs (dated September 2018) for the following existing signalised intersections:</p> <ul style="list-style-type: none"> ■ Gympie Road and Hamilton Road (M1116); ■ Gympie Road and Sparkes Street signalised pedestrian crossing (M1115); ■ Gympie Road and Wallace Street / Kuran Street (M1114); ■ Gympie Road and Rode Road (M1113); ■ Gympie Road and Kitchener Road / Sport Street (M1111); ■ Gympie Road and Strathmore Street / Castle Street (M1108); and ■ Gympie Road and Sadlier Street (M1107). 	Provides input to the signal phasing for the signalised intersections within the models. These traffic signal plans have been included in Appendix E.
Project Layout	<i>X-504050-0000-DROA_CAD.dwg</i>	Development of Project Case Vissim networks.
Existing and future public transport headways	<i>Northern Transitway Future Headways.xlsx</i> , received 21/11/2018	Public transport headways for existing, 2021 and 2031 model scenarios.
General traffic travel times for Gympie Road	<p><i>Travel Times - Gympie Road from Hamilton Road to Rode Road - March 2018.pdf</i>, received 23/05/2019;</p> <p><i>Travel Times - Gympie Road from Rode Road to Sadlier Street - March 2018.pdf</i>, received 23/05/2019;</p> <p><i>Travel Times - Gympie Road from Sadlier Street to Rode Road - March 2018.pdf</i>, received 23/05/2019; and</p> <p><i>Travel Times - Gympie Road from Rode Road to Hamilton Road - March 2018.pdf</i>, received 23/05/2019</p>	Validation of modelled travel times for general traffic on Gympie Road.

Bus travel times for Gympie Road	SEQ Bus corridor analytics Ntway.xlsx, received 20/09/2018	Validation of modelled travel times for buses on Gympie Road.
Gympie Road Transitway – Traffic Modelling Report	60313909-RPT-0014-0.1_TrafficModellingReport.pdf, received 20/09/2018	Comparison of reported model results for Reference Design (2013/14).
Cost Benefit Analysis Report – Northern Transitway	Gympie_TransitwayX.docx, received 20/09/2018	Public transport patronage assumptions.
Classified intersection counts	Intersection Analysis Reports - U14 - 20181127.zip, received 10/12/2018	Calibration of traffic volumes for Gympie Road.
Pedestrian protection at signalised intersections	TMR Road Safety Policy 2018.pdf, version 0.18 (dated 23/7/2018) https://www.tmr.qld.gov.au/Safety/Road-safety/Road-Safety-Policy	Guidelines for pedestrian protection crossings for signalised intersections.

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3.1 Traffic Signal Data

Aurecon undertook a general review of the traffic signal data in the previous models compared to the 2018 intersection operational signal data provided by TMR – a summary of key issues identified is provided below:

- The signal cycle times for the AM peak period increased from 150 seconds to 160 seconds for the corridor. There was no change to the cycle time for the PM peak period (i.e. 160 seconds);
- No traffic signal offsets have been included in the 2013 models; and,
- Pedestrian protection had been included in the signal phasing at the Hamilton Road and Rode Road intersections.

As shown in the Intersection Details summary (dated 20/9/2018 – refer Appendix E), Control Plan 4 was adopted for the AM peak hours and Control Plan 6 was adopted for the PM peak hours.

While the phase times were adjusted to achieve the required model calibration and validation criteria as part of the model calibration and validation exercise (refer section 4.2), these adjustments were less than 10% of the observed phase times and therefore within the suggested modelling guidelines thresholds.

3.2 Public Transport

Headways for the existing (2017) and future public transport services are summarised in Table 3-2.

Table 3-2 Public Transport Headway (minutes) for the Existing, 2021 and 2031 Model Scenarios

Bus Service No	Direction	AM Peak			PM Peak		
		Existing	2021	2031	Existing	2021	2031
77	Southbound	17	17	17	17	17	17
	Northbound	15	15	15	15	15	15
330	Southbound	11	10	9	15	13	11
	Northbound	15	13	11	10	9	8
333	Southbound	8	8	7	10	9	8
	Northbound	15	13	11	10	9	8
335	Southbound	40	30	30	60	60	60
	Northbound	60	60	60	24	20	17
340	Southbound	11	10	9	15	15	12
	Northbound	15	13	11	10	9	8
370	Southbound	15	13	11	30	30	24
	Northbound	20	20	20	13	12	10
P331	Southbound	60	40	30	15	15	15
P332	Southbound	20	17	13	15	15	15
P341	Southbound	40	40	30	20	20	20

Source: TransLink, received 21 November 2018

The existing public transport stop patterns for each of the bus stops are summarised in Table 3-3 while it has been assumed that all buses (with the exception of the “Rocket” service which does not stop in the study area) for the Project Case scenarios will all stop at all four (consolidated) bus stops along the corridor as shown in Table 3-4.

Any increased passenger demand is not captured in the Vissim models but may be confirmed by evaluating the Transitway project in a 4-step strategic model (not undertaken as part of this project).

Table 3-3 Summary of Existing Bus Stop Patterns

Bus Stops	Services				
	Limited Stops	Express 1	Express 2	Rocket	All Stops
Northbound direction					
Bus Stop 11194 - Cremorne Road					X
Bus Stop 11042 - Strathmore Street					X
Bus Stop 3870 - Kitchener Road	X	X			X
Bus Stop 3871 - Boothby Street					X
Bus Stop 3872 - Rode Road					X
Bus Stop 3873 - Wallace Street					X
Bus Stop 3934 – Bouchard Street					X
Southbound direction					
Bus Stop 3943 - Hamilton Road		X	X		X
Bus Stop 3874 - Kuran Street					X
Bus Stop 3875 - Rode Road					X
Bus Stop 3876 - Boothby Street					X
Bus Stop 10900 - Sport Street	X	X			X
Bus Stop 3877 - Castle Street					X
Bus Stop 11070 – Sadlier Street					X
* Limited Stops = 77, Express 1 = 331 & 341, Express 2 = 332,333 & 340, Rocket = 330, All Stops = 370					

Table 3-4 Summary of Bus Stop Patterns for Project Case

Bus Stops	Services				
	Limited Stops	Express 1	Express 2	Rocket	All Stops
Northbound direction					
Bus Stop 11194 - Cremorne Road	X	X	X		X
Bus Stop 3870 - Kitchener Road	X	X	X		X
Bus Stop 3872 - Rode Road	X	X	X		X
Bus Stop 3873 - Wallace Street	X	X	X		X
Southbound direction					
Bus Stop 3874 - Kuran Street	X	X	X		X
Bus Stop 3875 - Rode Road	X	X	X		X
Bus Stop 10900 - Sport Street	X	X	X		X
Bus Stop 11070 – Sadlier Street	X	X	X		X
* Limited Stops = 77, Express 1 = 331 & 341, Express 2 = 332,333 & 340, Rocket = 330, All Stops = 370					

3.3 EMME Strategic Model Outputs

The following linear growth rates for the AM and PM periods were calculated from TMR's EMME (BSTM-MM) strategic model (data provided by TMR, BSTM-MM version reference not provided) outputs and adopted in the future year models (both Base Case and Project Case):

- 2016 to 2021: 1.3% (AM) and 1.1% (PM);
- 2021 to 2031: 0.7% for both AM and PM peaks. The 2021 or 2031 model networks do not consider the North West Transport Corridor (NWC) upgrade scenario as it is understood in discussion with TMR the NWC will not be constructed prior to 2031; and,
- 2031 to 2051: 0.7% for both AM and PM peaks.

3.3.1 North West Transport Corridor (NWC)

The NWC is a proposed multi-modal rail, road and active transport corridor to be located to the west of Gympie Road. The proposed alignment for the NWC is shown in Figure 3-1-1 and extend from the north near Gympie Road and Strathpine Station through Bridgeman Downs, McDowall and Everton Park to connect with Alderley Station and Shand Street in Alderley to the south*.

*Source: <https://www.tmr.qld.gov.au/Community-and-environment/Planning-for-the-future/Preserved-transport-corridors/North-West-Transport-Corridor>

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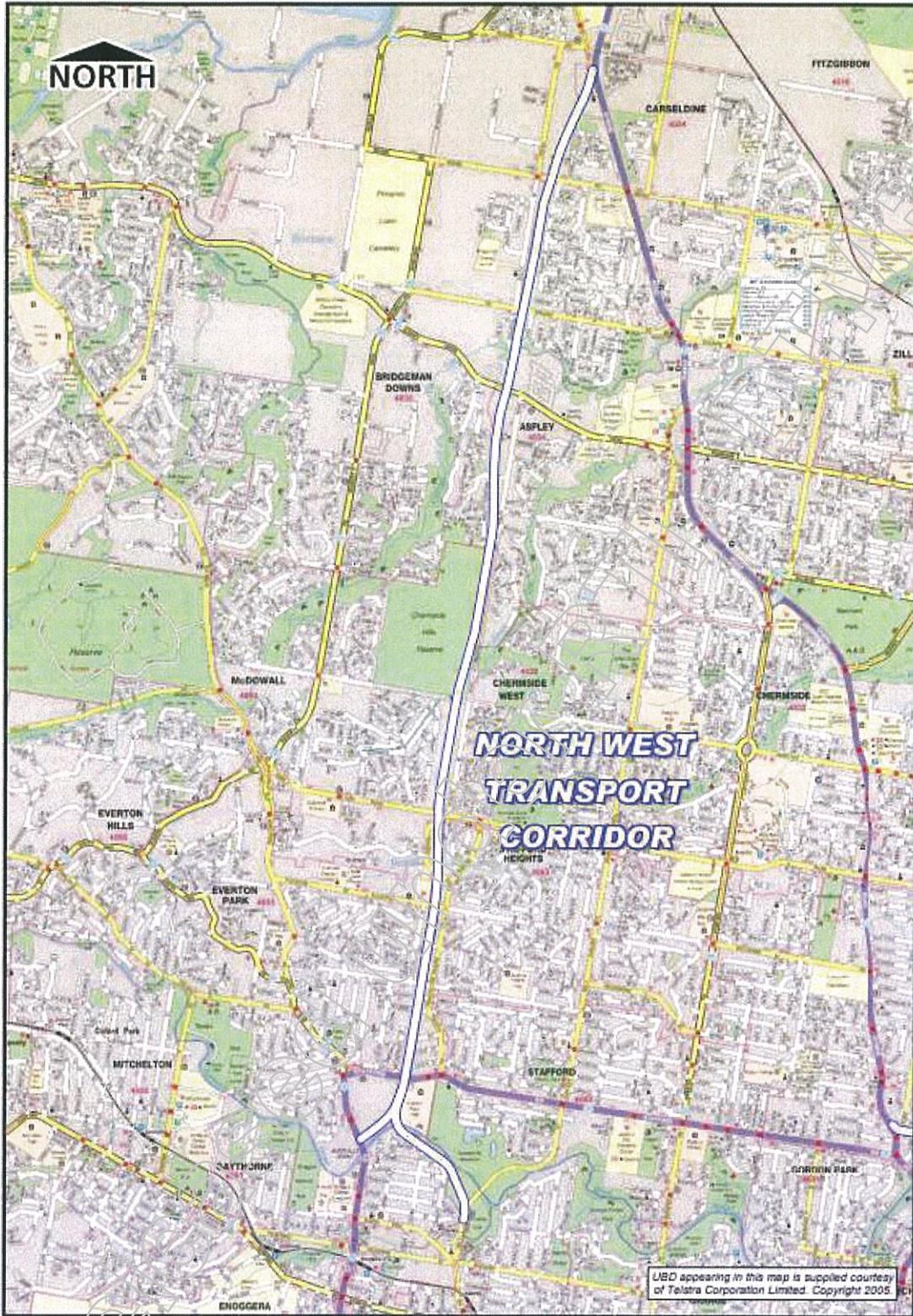


Figure 3-1 Proposed Alignment for North West Transport Corridor (source: <https://www.tmr.qld.gov.au/-/media/communityandenvironment/Planning-for-the-future/Preserved-transport-corridors/North-west-transport-corridor/north-west-transport-corridor-map.pdf?la=en>)

4 Vissim Model Analysis

The section summarises the proposed NTW Project Case based on the results of the updated Vissim models.

4.1 Model Peak Periods

While the models were developed for the 2-hourly AM and PM peak periods (as described in Section 2.3), the model results were extracted for the “busiest” peak hour for each of the model peak periods (i.e. 8:00 – 9:00 and 17:00 – 18:00).

4.2 Base Model Re-Calibration and Validation

As part of the base model “re-basing”, Aurecon undertook a model calibration and validation exercise to ensure that the model was reflective of 2018 observed traffic conditions.

Model calibration and validation criteria for the Gympie Road Vissim model was based on the Main Roads Western Australia Operational Modelling Guidelines Section 5.6.3 criteria for Category 1 models, with Category 1 models defined as ‘*Single intersection or short corridor model*’. This description aligns with the model extent and nature of the Gympie Road Vissim models.

The model calibration and validation criteria for Category A models are replicated in Table 4-1 for reference.

Table 4-1 Model Category 1 Calibration and Validation Criteria

	Criteria	Category 1 Requirements
Model Calibration	GEH <5	95%
	GEH <10	100%
	< 700 vph within 100 vph	95%
	700 – 2,700 vph within 15%	95%
	> 2,700 vph within 400 vph	95%
	R squared value	>0.95
Model Validation	Travel time	Routes to be within 15% of average travel time or 1 minute (whichever is greater)

4.2.1 Traffic Volume Calibration

The base model has been calibrated adjusting a number of parameters within the model as follows:

- Changes to received O/D matrices to reflect observed traffic counts;
- Desired vehicle speed reduced from 60-70km/h (default) to 50-60 km/h;
- Slight (less than 10%) adjustments to signal phase times;
- Adjustments to priority rules within intersections to minimise the number of vehicles queuing within the intersections;
- Slight (up to additional 3 seconds) increase to bus dwell times; and
- Adjustments to node split connectors to provide better vehicle storage at intersections.

The calibration criteria were assessed for all turn movements for the six main signalised intersections in the model.

Table 4-2 and Table 4-3 summarise the model calibration results for the AM peak and PM peak periods respectively and show that the model calibration criteria is achieved for both model periods.

Table 4-2 AM Peak Period Calibration Results - All Vehicles Classes

Criteria	Category 1 Criteria	AM Peak Results	Met Criteria
GEH <5	95%	97.3%	Pass
GEH <10	100%	100%	Pass
< 700 vph within 100 vph	95%	100%	Pass
700 – 2,700 vph within 15%	95%	100%	Pass
> 2,700 vph within 400 vph	95%	100%	Pass
R squared value	>0.95	0.997	Pass

Table 4-3 PM Peak Period Calibration Results - All Vehicles Classes

Criteria	Category 1 Criteria	PM Peak Results	Met Criteria
GEH <5	95%	96.0%	Pass
GEH <10	100%	100%	Pass
< 700 vph within 100 vph	95%	100%	Pass
700 – 2,700 vph within 15%	95%	100%	Pass
> 2,700 vph within 400 vph	95%	100%	Pass
R squared value	>0.95	0.998	Pass

Scatter-plots of modelled and observed traffic volumes are shown in Figure 4-1 and Figure 4-2 for the AM and PM peak periods respectively and shows a very high degree of correlation modelled and observed data.

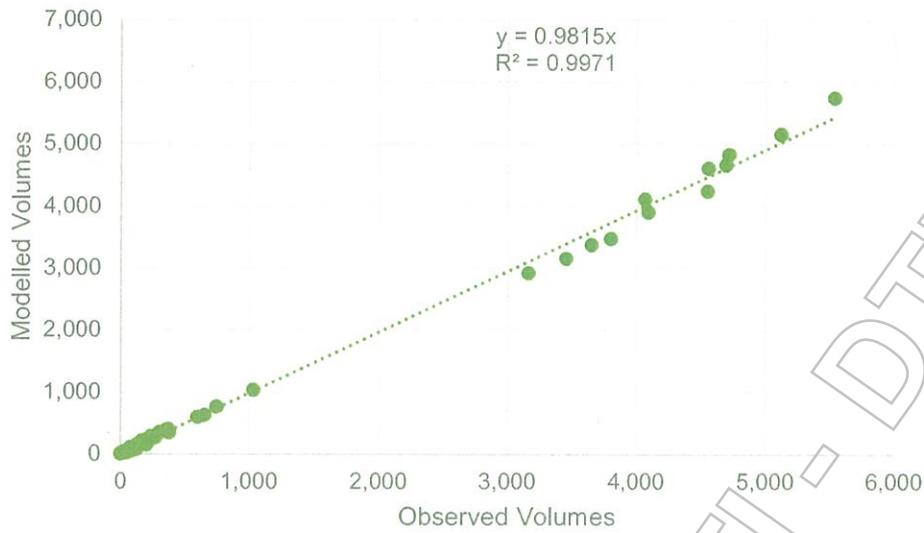


Figure 4-1 Comparison of observed and modelled volumes - AM Peak - All Vehicle Classes

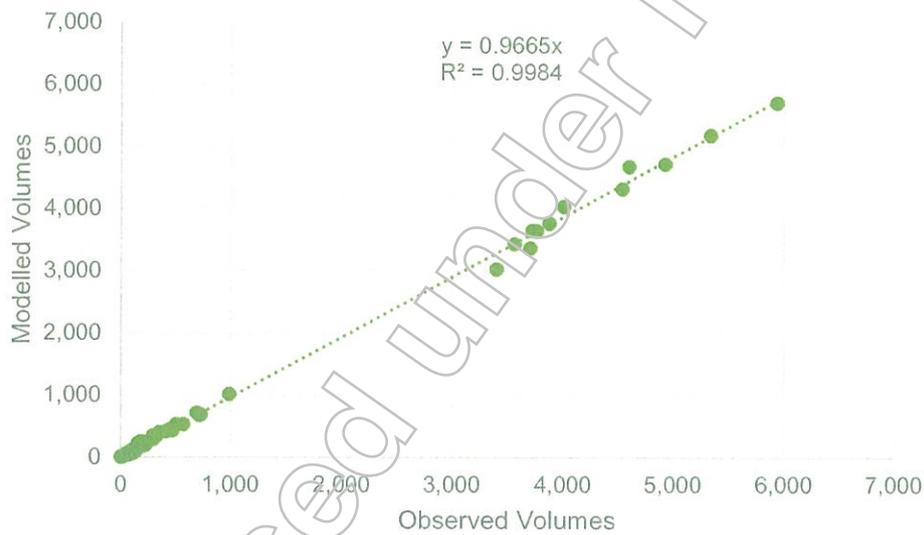


Figure 4-2 Comparison of observed and modelled volumes - PM Peak - All Vehicle Classes

4.2.2 Travel Time Validation

As part of the model validation process, a comparison of the modelled and observed travel times was undertaken separately for both general traffic and buses on Gympie Road, between Hamilton Road and Sadlier Street.

The validation results for travel times are summarised in Table 4-4 and Table 4-5 for the AM and PM peak periods respectively and show that the travel times for all routes achieve the recommended validation criteria, although it is noted that the difference between the observed and modelled travel times for buses in the southbound direction during the PM peak hour is 14.8% of the observed travel time, while the upper threshold for achieving this criteria is 15.0%. Continuing to refine the model to further improve the validation below the upper threshold could potentially have negative impacts on other model calibration and validation metrics for the remaining time periods and directions. Model calibration is an iterative process which requires finding a point at which as many metrics as possible are within published thresholds, which Aurecon believe have been reasonably fulfilled, all being within criteria recommended in the TMR modelling guidelines.

As the model results show that both the model calibration and validation criteria is achieved for both the AM and PM peak hours, the model is considered to be replicating existing traffic conditions and therefore suitable to be used as a basis for the NTW scheme evaluation.

Table 4-4 - Travel Time Validation for General Traffic - AM Peak

Vehicle Types	Route	Observed Travel Time	Modelled Travel Time	Difference	Validation Criteria Assessment
All Vehicles	Northbound	0:05:09	0:05:46	0:00:37	Pass (difference less than 1 minute)
	Southbound	0:07:27	0:07:22	0:00:05	Pass (difference less than 1 minute)
Buses	Northbound	0:08:24	0:08:25	0:00:01	Pass (difference less than 1 minute)
	Southbound	0:08:55	0:09:44	0:00:49	Pass (difference less than 1 minute)

Table 4-5 - Travel Time Validation for General Traffic - PM Peak

Vehicle Types	Route	Observed Travel Time	Modelled Travel Time	Difference	Validation Criteria Assessment
All Vehicles	Northbound	0:06:15	0:05:44	0:00:31	Pass (difference less than 1 minute)
	Southbound	0:05:37	0:04:53	0:00:44	Pass (difference less than 1 minute)
Buses	Northbound	0:07:36	0:07:07	0:00:29	Pass (difference less than 1 minute)
	Southbound	0:07:08	0:06:05	0:01:03	Pass (difference less than 15%)

4.3 Future Year Models

4.3.1 Model Scenarios

The future year scenarios developed and analysed as part of this assessment are summarised in Table 4-6.

Table 4-6 Summary of Model Scenarios

Model Name	Modelled Network	Bus Lanes (peak periods)	Bus Stops	Rebase – 2018	Year of Opening – 2021	10 Year Post-Opening – 2031	Economic Analysis – 2051
Base Case	Existing	None	7 stops			AM Peak and PM Peak	
Project Case	Transit Lane Project	Both directions	4 stops				

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4.3.1.1 Base Case Network

The Base Case network assumes that the existing transport infrastructure will not be upgraded or changed for any of the future year scenarios, with the bus stop locations also assumed to remain as per existing as shown in Figure 4-3.

The assumed service frequencies for the future year scenarios are described in section 3.2 of this report.

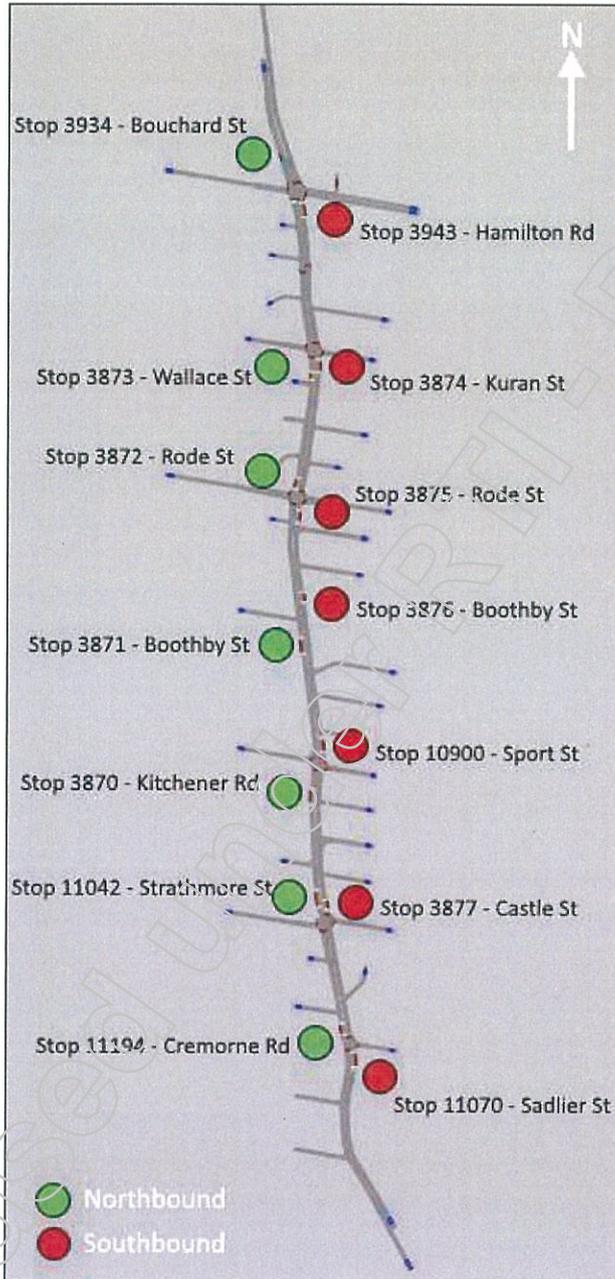


Figure 4-3 Existing Seven Bus Stop Configuration

4.3.1.2 Project Case Network

The Project Case network assumptions are summarised in Section 2.2.1. The Project Case is the introduction of Transitway lanes along Gympie Road between Sadlier Street and Hamilton Road, along with the consolidation from the existing seven bus stops to four bus stops. The Project Case network is schematically shown in Figure 4-4.

The assumed service frequencies for the future year scenarios are described in section 3.2 of this report.

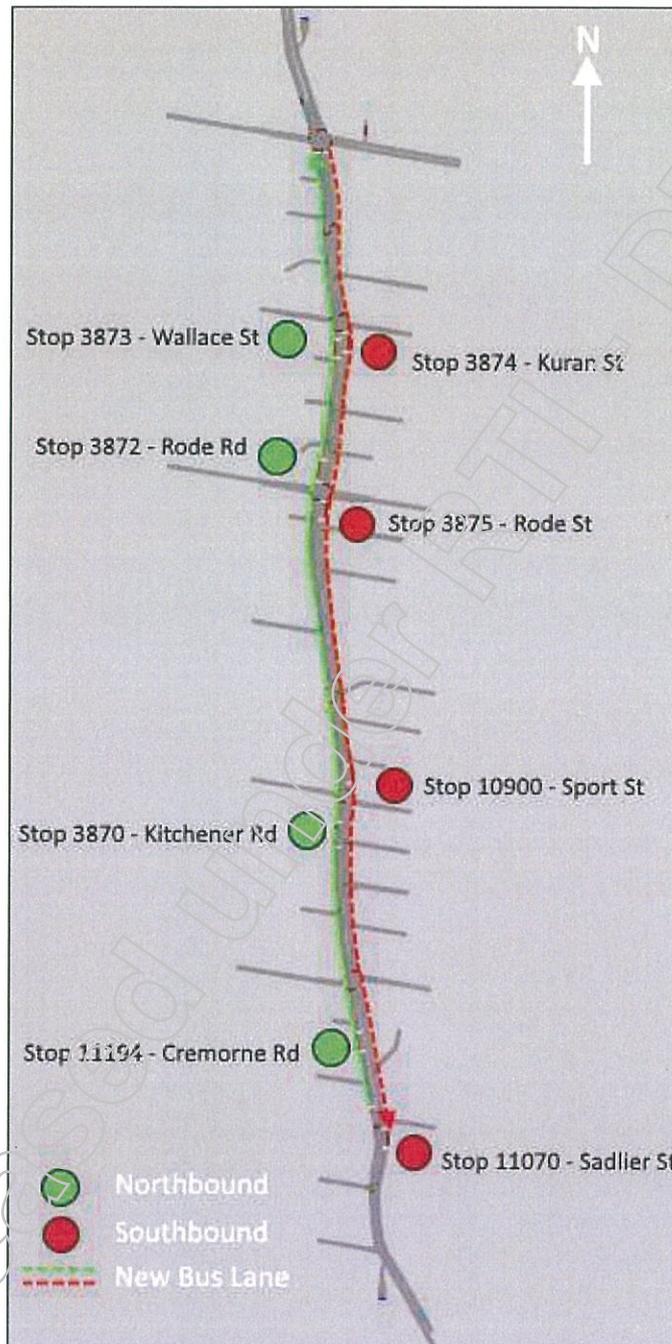


Figure 4-4 Project Case Four Bus Stop Configuration

4.4 Model Output

4.4.1 Bus Travel Time

To compare the modelled travel time for public transport, the service routes along Gympie Road were segregated into several sections as tabulated in Table 4-7 to Table 4-10 for the Base Case and Project Case scenarios in northbound and southbound directions and are schematically shown in Figure 4-5 and Figure 4-6.

Table 4-7 Northbound Bus Travel Time Sections – Base Case

Section Name	Section Start Point	Section End Point
NB – Section 1	Bus Stop 11194 - Cremorne Road	Bus Stop 11042 - Strathmore Street
NB – Section 2	Bus Stop 11042 - Strathmore Street	Bus Stop 3870 - Kitchener Road
NB – Section 3	Bus Stop 3870 - Kitchener Road	Bus Stop 3871 - Boothby Street
NB – Section 4	Bus Stop 3871 - Boothby Street	Bus Stop 3872 - Rode Road
NB – Section 5	Bus Stop 3872 - Rode Road	Bus Stop 3873 - Wallace Street
NB – Section 6	Bus Stop 3873 - Wallace Street	End of Corridor (Hamilton Road intersection)

Table 4-8 Southbound Bus Travel Time Sections – Base Case

Section Name	Section Start Point	Section End Point
SB – Section 1	Bus Stop 3943 - Hamilton Road	Bus Stop 3874 - Kuran Street
SB – Section 2	Bus Stop 3874 - Kuran Street	Bus Stop 3875 - Rode Road
SB – Section 3	Bus Stop 3875 - Rode Road	Bus Stop 3876 - Boothby Street
SB – Section 4	Bus Stop 3876 - Boothby Street	Bus Stop 10900 - Sport Street
SB – Section 5	Bus Stop 10900 - Sport Street	Bus Stop 3877 - Castle Street
SB – Section 6	Bus Stop 3877 - Castle Street	End of Corridor (Sadlier Street intersection)

Table 4-9 Northbound Bus Travel Time Sections – Project Case

Section Name	Section Start Point	Section End Point
NB – Section 1	Bus Stop 11194 - Cremorne Road	Bus Stop 3870 - Kitchener Road
NB – Section 2	Bus Stop 3870 - Kitchener Road	Bus Stop 3872 - Rode Road
NB – Section 3	Bus Stop 3872 - Rode Road	Bus Stop 3873 - Wallace Street
NB – Section 4	Bus Stop 3873 - Wallace Street	End of Corridor (Hamilton Road intersection)

Table 4-10 Southbound Bus Travel Time Sections – Project Case

Section Name	Section Start Point	Section End Point
SB – Section 1	Start of Corridor (Hamilton Street intersection)	Bus Stop 3874 - Kuran Street
SB – Section 2	Bus Stop 3874 - Kuran Street	Bus Stop 3875 - Rode Road
SB – Section 3	Bus Stop 3875 - Rode Road	Bus Stop 3873 - Sport Street
SB – Section 4	Bus Stop 3873 - Sport Street	End of Corridor (Sadlier Street intersection)

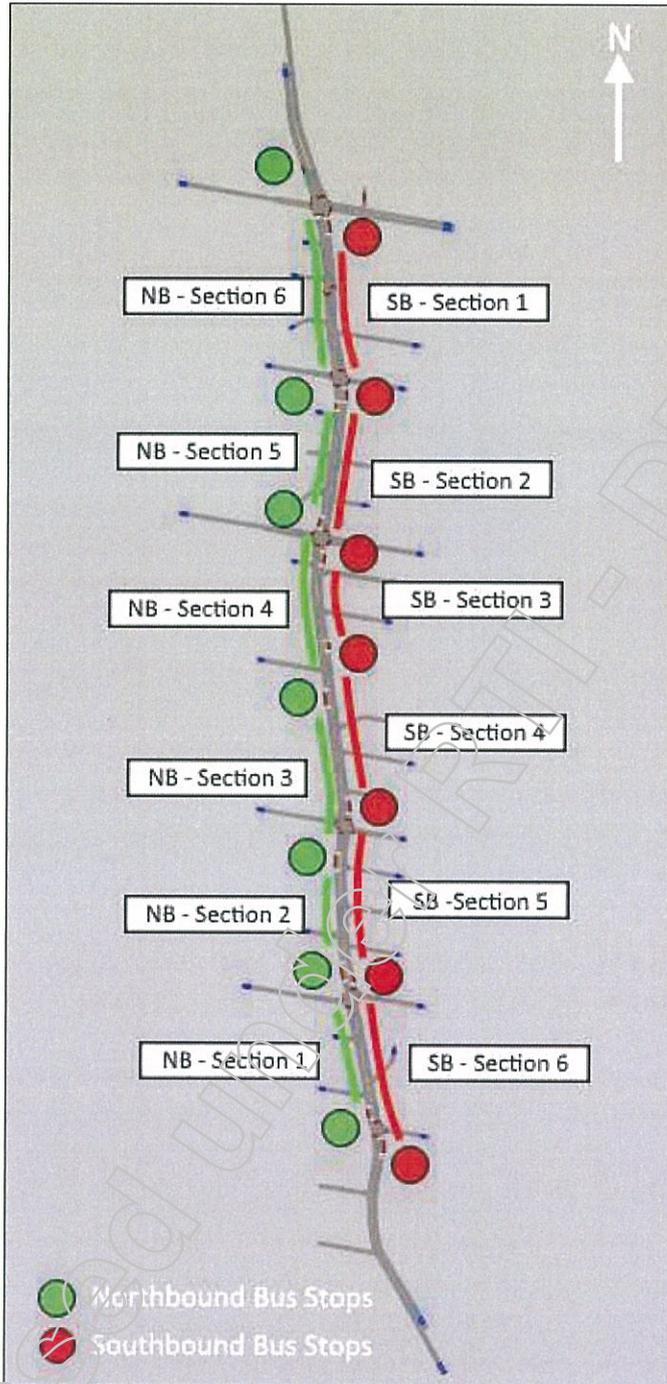


Figure 4-5 Bus Travel Time Sections – Base Case

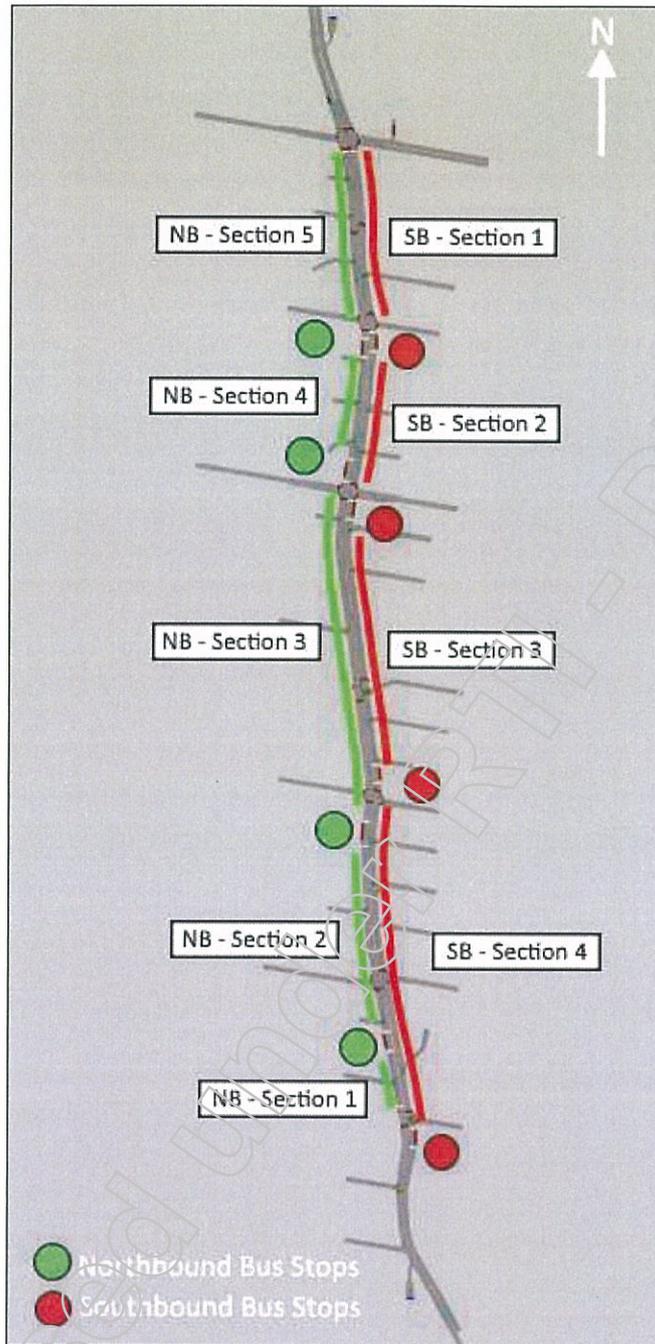


Figure 4-6 Bus Travel Time Sections – Project Case

The modelled overall bus travel time on the key direction is summarised in Table 4-11 (average) and Table 4-12 (maximum) for the AM and PM peak periods respectively. Detailed graphs are included in Appendix F.

Table 4-11 Modelled Overall Average Bus Travel Time (Format h:mm:ss)

Model Name	AM Peak Hour - Southbound				PM Peak Hour - Northbound			
	2018	2021	2031	2051	2018	2021	2031	2051
Base Case	0:09:44	0:10:28	0:11:42	0:11:51	0:07:07	0:07:09	0:07:12	0:07:20
2019 Project Case	-	0:06:28	0:06:37	0:06:49	-	0:06:05	0:06:00	0:05:59
Difference	-	0:04:00	0:05:06	0:05:01	-	0:01:04	0:01:12	0:01:20

* Average travel time for all bus services

Table 4-12 Modelled Maximum Bus Travel Time (Format h:mm:ss)

Model Name	AM Peak Hour - Southbound				PM Peak Hour - Northbound			
	2018	2021	2031	2051	2018	2021	2031	2051
Base Case	0:13:32	0:13:35	0:15:40	0:15:30	0:10:22	0:10:19	0:10:18	0:10:23
2019 Project Case	-	0:06:48	0:06:57	0:07:14	-	0:06:38	0:06:27	0:06:27
Difference	-	0:06:46	0:08:42	0:08:16	-	0:03:41	0:03:51	0:03:56

**** The maximum travel time was based on bus service 370 that stops at all stops along the corridor.**

The model results suggest that the average bus travel times will reduce between 1 to 2 minutes and up to 3 to 5 minutes for the all-stop service. This is comparable to the reported travel time reductions in the “Gympie Road Transitway – Traffic Modelling Report”, which have been reproduced in Table 4-13 for reference purposes.

It is observed that the Base Case journey time from 2031 onwards does not increase significantly despite the continual growth in traffic on the network. It would be expected that significant congestion would occur reducing travel times as buses get caught in general traffic. Network statistics extracted from the model (reported later in 4.4.2) reveal that in 2051 a significant amount of traffic demand (between 2,400 and 2,900 vehicles) is unable to access the model during the simulation period. This is likely due to the network reaching capacity around 2031, unable to accommodate additional demand.

Table 4-13 Difference between Business Case and Project Case Modelled Travel Times (all-stop services)

Model Name	AM Peak Hour - Southbound				PM Peak Hour - Northbound			
	2013	2018	2026	2046	2013	2018	2026	2046
Difference	0:03:19	0:04:02	0:04:00	0:03:56	0:04:01	0:03:53	0:04:49	0:04:46

Source: reproduced from Table 49 in Gympie Road Transitway – Traffic Modelling Report (AECOM, 2014)

It is noted that while the previous business case models only included three consolidated bus stops and the current Project Case includes four consolidated bus stops (which increases the route times), the introduction of signal offsets in the re-based Vissim models improves the travel times along the corridor. This compensates for the additional travel time resulting from the additional bus stop along the routes.

As general traffic volumes increase in the future year scenarios on Gympie Road, the bus travel times are shown to increase for the Base Case models but remain relatively constant for the Project Case models, thereby indicating that they continue to operate efficiently and provide greater benefits for the future year scenarios as general traffic conditions along Gympie Road deteriorate.

A summary of the Business Case and the 2019 Project Case bus travel time savings are included in Table 4-14. This should be treated with caution as the exact metric used in the Business Case has not been confirmed.

Table 4-14 Comparison of Business Case and 2019 Project Case Modelled Bus Travel Time Savings

Bus travel time difference (Base Case – Project Case)						
	2018	2021	2026	2031	2046	2051
AM Peak (southbound)						
Business Case	0:04:02	-	0:04:00	-	0:03:56	-
2019 Project Case	-	0:04:00	-	0:05:06	-	0:05:01
PM Peak (northbound)						
Business Case	0:04:01	-	0:04:49	-	0:04:46	-
2019 Project Case	-	0:03:41	-	0:03:51	-	0:03:56

4.4.2 Network Statistics

Network-wide model statistics, in terms of Vehicle Kilometres Travelled (VKT) and Vehicle Hours Travelled (VHT) were extracted from the models to evaluate the overall network impacts as a result of the NTW. Passenger Kilometres Travelled (PKT) and Passenger Hours Travelled (PHT) for the public transport services were also extracted from the models based on an assumptions of an average bus occupancy of 45 passengers per bus, which is consistent with the assumptions adopted for the “Cost Benefits Analysis Report - Northern Transitway” (1 August 2014) previously prepared by TMR.

Table 4-18 and Table 4-16 summarise the model outputs for AM and PM peak periods respectively. The model results suggest that particularly during the AM peak hours, the bus lanes on Gympie Road will substantially reduce the PHT statistics as the bus lanes provide almost free-flowing conditions for buses, while general traffic conditions deteriorate along Gympie Road as traffic volumes increase in the future year scenarios.

It is also noted that the 2051 model results show a substantial number of unreleased vehicles at the end of the similar runs indicating that traffic demand exceeds capacity.

Table 4-15 PHT, PKT, VHT, VKT Model Output for each Scenario – AM Peak

	2018	2021		2031		2051	
	Base	Base	Project	Base	Project	Base	Project
**Bus Passenger Trips	4,275	4,635	4,860	5,220	6,210	5,085	6,255
PHT	651	749	542	908	713	906	732
PKT	20,042	21,730	22,785	24,473	24,473	23,840	29,325
Vehicle Trips (Total)	18,607	19,043	19,018	19,800	19,763	20,978	20,862
VHT (Total)	821	916	921	1,098	1,096	1,296	1,324
VKT (Total)	35,951	36,844	36,844	38,125	38,194	40,106	39,975
Unreleased Vehicles	87	247	207	728	776	2,424	2,569

Table 4-16 PHT, PKT, VHT, VKT Model Output for each Scenario – PM Peak

	2018	2021		2031		2051	
	Base	Base	Project	Base	Project	Base	Project
**Bus Passenger Trips	5,040	5,400	5,710	5,715	6,030	5,625	5,940
PHT	554	595	539	641	573	638	564
PKT	23,629	25,317	24,895	26,793	28,270	26,371	27,848
Vehicle Trips (Total)	19,855	20,067	20,012	20,830	20,781	21,709	21,827
VHT (Total)	780	823	826	909	897	1,052	1,026
VKT (Total)	36,855	37,234	37,298	38,539	38,638	39,711	39,862
Unreleased Vehicles	111	353	369	908	980	2,960	2,903

4.4.3 Intersection Performance

While it is noted the primary purpose of the microsimulation models is to evaluate the impact of the Transitway lanes on the public transport travel times, the overall intersection delay Level Of Service (LOS) for general traffic was extracted from each of the models to provide an indication of the changes to the intersection performance across each of the future year scenarios.

Table 4-17 and

Table 4-18 summarise the overall performance for the key intersections from the Vissim model within the study area for the AM and PM peak hours respectively for both the Base Case and Project Case scenarios. The Vissim LOS differs from the SIDRA LOS due to the network nature of the Vissim model, queues from adjacent intersections (in Vissim) directly impact on intersection performance.

Table 4-17 Summary of the LoS for Project Case Key Intersections – AM Peak Hour

	2018	2021		2031		2051	
	Base	Base	Project	Base	Project	Base	Project
Sadlier St	D	D	D	D	D	E	E
Strathmore St/ Castle St	D	E	E	E	E	F	F
Kitchener St/ Sport St	E	E	E	F	F	E	F
Boothby St	-	F	F	F	F	F	F
Rode Rd	E	F	F	F	F	F	F
Wallace St/ Kuran St	D	F	F	F	F	F	F
Hamilton Rd	E	E	E	F	F	F	F

Table 4-18 Summary of the LoS for Project Case Key Intersections – PM Peak Hour

	2018	2021		2031		2051	
	Base	Base	Project	Base	Project	Base	Project
Sadlier St	E	E	E	E	E	E	E
Strathmore St/ Castle St	F	F	F	F	F	F	F
Kitchener St/ Sport St	E	E	F	F	F	F	F
Boothby St	-	A	A	A	A	A	A
Rode Rd	E	E	F	F	F	F	F
Wallace St/ Kuran St	D	D	D	E	E	E	E
Hamilton Rd	E	E	E	E	E	F	F

The model results suggest that several intersections along the corridor currently operate with LOS D/E as queues regularly extends between intersections and result in high delays and travel times between the intersections. While the intersection performance generally deteriorates as traffic volumes increase through the corridor, the Project Case models show minor improvements to the intersection delays when compared to the Base Case models as buses are removed from the general traffic lanes and some of the right-turn lanes have been extended.

Detailed Vissim intersection performance outputs are included in Appendix A.

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5 SIDRA

SIDRA intersection analysis was undertaken for the key intersections for the 2021 and 2031 scenarios to evaluate the impact of the Transitway lanes. Traffic volumes from the Vissim models form the demand input to the SIDRA models. Additional SIDRA analysis for the project case was also undertaken using Vissim models that include reassigned traffic from planned median closure of unsignalised intersections.

Whilst this section looks to compare the results of the Vissim and SIDRA models each has been used for a different purpose in this study and therefore comparable results are to be expected over matching results. Vissim, micro-simulation software, has been used to model the traffic flow along the whole corridor and SIDRA, a micro-analytical tool, has been used to establish the operation characteristics of each intersection in isolation. Data from the Vissim model is used directly within SIDRA for the assessment. Vissim and SIDRA use different methods of calculating delay (SIDRA, for example, includes an element of geometric delay which Vissim does not) which is the reason for establishing comparable and not matching outputs from the different models.

A number of analysed intersections demonstrate only a "minor impact on performance". This generally occurs because the demand flows have increased between the Base and Project cases. Data extracted from the Vissim model and used in the SIDRA analysis captures wider network traffic behaviour, such as 'supressed' general traffic demand being released and up/ down stream impacts of adjacent intersection changes. The traffic data is not able to capture wider reassignment of traffic that will occur in instances of extreme delay and congestion, assuming the wider network is not also suffering and viable alternates exist.

To investigate consistency between the Vissim and SIDRA model outputs, comparison of reported queue lengths was undertaken for the critical lanes where lane modifications are proposed.

A summary of the reported queue lengths is shown in Table 5-1 and Table 5-2 and show relative consistency between the reported queue lengths in the different software packages. It is noted that there is some variation in the modelled queue lengths (up to around 40m).

Table 5-1 Comparison of SIDRA and Vissim Maximum Queue Lengths - Project Case – AM Peak Hour

Intersection	Lane	Queue length (m)			
		SIDRA		Vissim	
		2021	2031	2021	2031
Gympie Road / Sport Street / Kitchener Road	Right turn, northern approach	35.9	44.5	70.2	83.6
	Right turn, southern approach	63.3	68.1	88.1	99.2
Gympie Road / Rode Road	Right turn, southern approach	61.4	64.9	103.2	96.1

Table 5-2 Comparison of SIDRA and Vissim Maximum Queue Lengths - Project Case – PM Peak Hour

Intersection	Lane	Queue length (m)			
		SIDRA		Vissim	
		2021	2031	2021	2031
Gympie Road / Sport Street / Kitchener Road	Right turn, northern approach	100.8	130.4	104.8	177.1
	Right turn, southern approach	66.3	67.2	58.7	68.9

Gympie Road / Rode Road	Right turn, southern approach	36.3	41.6	49.6	68.2
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It is noted that pedestrian crossings were also included in the SIDRA models, with the traffic signal phase walk and clearance times based on the vehicle/ pedestrian clearance times as shown on the traffic signal plans (included in Appendix E for reference). The Start Loss Time parameter for the conflicting left turns was increased by six seconds in the SIDRA models to account for the delayed start for the left turn as part of the pedestrian protection. The delayed start times for the left turns were also adopted in the Vissim models.

5.1 Model Outputs (Vissim Volumes Only)

Intersection capacity analysis has been undertaken using SIDRA version 8.0.5.7916, to ascertain the potential impact of changes on infrastructure and traffic demand on the key intersections. Three outputs from SIDRA analysis have been adopted for the traffic analysis:

- Degree of Saturation (DoS): an output that represents the ratio of flow to capacity, where signalised intersection is generally considered satisfactory below or equal to 0.9;
- Level of Service (LOS): Highway Capacity Manual definition which ranks movement performance from "A", being a low level of delay, to "F" being a high level of delay. It is generally considered satisfactory for an intersection performs lower of equal to LOS D; and,
- 95th Percentile Queue: An indication of potential queue length at 95th percentile over the modelled period.

Detailed SIDRA analysis results are included in Sections 5.1.1 to 5.1.7.

5.1.1 Gympie Road / Sadlier Street

The modelled layout configurations for Gympie Road/ Sadlier Street are as shown in Table 5-3 for the respective cases with overall intersections summarised in Table 5-4 and Table 5-5. Whilst there is no change in the effective general traffic capacity at the intersection (the number of stop lines remain the same), as the traffic data has been extracted from the Vissim model wider network traffic flow influences impact on demand at the intersection which accounts for the observed change in performance.

The Project Case model results suggest that the intersection will operate with an overall LOS B during the 2021 and 2031 AM peak hours and an overall LOS C during the 2021 and 2031 PM peak hours as the intersection operates with a relatively simple phasing arrangement and the traffic volumes from Sadlier Street are relatively low, although it is noted that the queue lengths for the right turn from Gympie Road to Sadlier Street in the PM scenarios exceed the storage available in the short right turn lane and therefore spills over to the median-side through lane on Gympie Road.

The Project Case model results also suggest that the proposed changes at this intersection will only have a minor impact on the performance of this intersection and it has sufficient capacity to accommodate the 2021 and 2031 peak hour volumes.

Anecdotal evidence from TMR suggests that southbound queues from downstream intersections extend back and impact on the Sadlier Street intersection, this behaviour is not reflected in the model as the agreed model extents do not include any intersections south of Sadlier Street.

Table 5-3 Gympie Road/ Sadlier Street Modelled Intersection Configurations

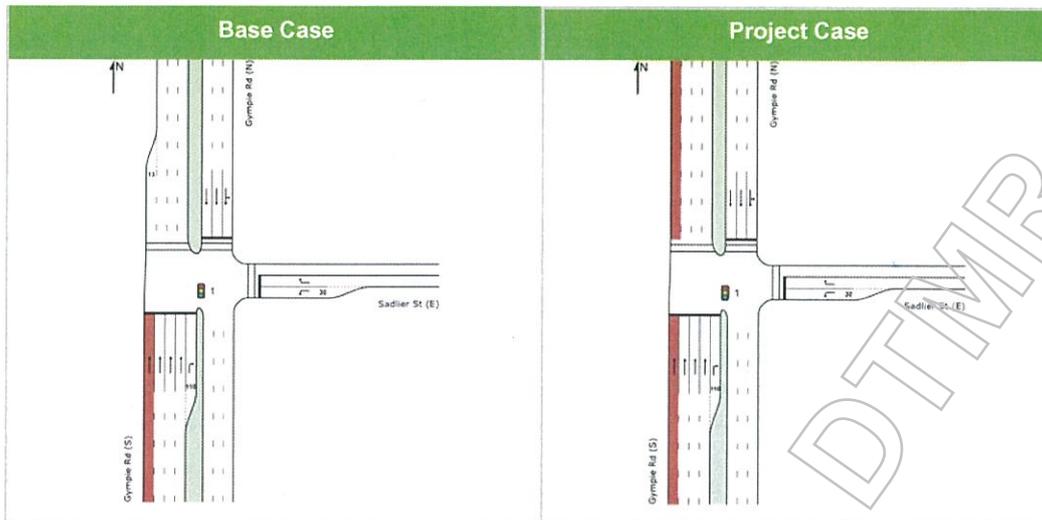


Table 5-4 Gympie Road/ Sadlier Street Intersection Traffic Performance – AM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	T	0.60	A	43	0.73	A	188
		R	0.73	F	96	0.88	F	114
	East	L	0.28	D	57	0.62	E	114
		R	0.50	E	59	0.82	F	71
	North	L	0.88	B	375	0.87	B	383
Project Case	South	T	0.64	A	75	0.68	A	91
		R	0.73	F	95	0.79	F	107
	East	L	0.28	D	57	0.59	D	112
		R	0.53	E	62	0.69	E	66
	North	L	0.88	C	352	0.89	C	335
		T	0.88	B	352	0.89	B	335

Table 5-5 Gympie Road/ Sadlier Street Intersection Traffic Performance – PM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	T	0.72	A	38	0.73	A	39
		R	1.15	F	421	1.07	F	403
	East	L	0.09	D	21	0.10	D	24
		R	0.26	E	29	0.25	E	27
	North	L	0.68	C	202	0.72	C	226
Project Case	South	T	0.68	B	202	0.72	B	226
		T	0.77	A	76	0.77	A	77
	R	1.10	F	376	1.13	F	345	
	East	L	0.09	D	20	0.10	D	24
		R	0.26	E	29	0.26	E	29
	North	L	0.68	C	202	0.72	C	230
		T	0.68	B	202	0.72	B	230

5.1.2 Gympie Road / Strathmore Street / Castle Street

The modelled layout configurations for Gympie Road/ Strathmore Street/ Castle Street are as shown in Table 5-6 for the respective cases with overall intersections summarised in Table 5-7 and Table 5-8.

The Project Case model results suggest that while the intersection will overall perform satisfactorily during the 2021 and 2031 AM peak hours (overall LOS C) and PM peak hours (overall LOS D), several turning movements at the intersections are shown to operate with LOS F during the 2031 PM peak hour. The model results also suggest that the queues on southern intersection approach will occasionally extend to the intersection of Gympie Road / Sadlier Street during both the 2031 AM and PM peak hours. This is consistent with the general model observations for the 2031 model runs which show high levels of network congestion, with queues regularly extending to and impacting on the performance of upstream and downstream intersections.

However, as the Project Case layout will not result in any changes to the existing signal phasing, the proposed changes at this intersection are only shown to have a minor impact on the performance of the intersection.

Table 5-6 Gympie Road/ Strathmore Street Modelled Intersection Configurations

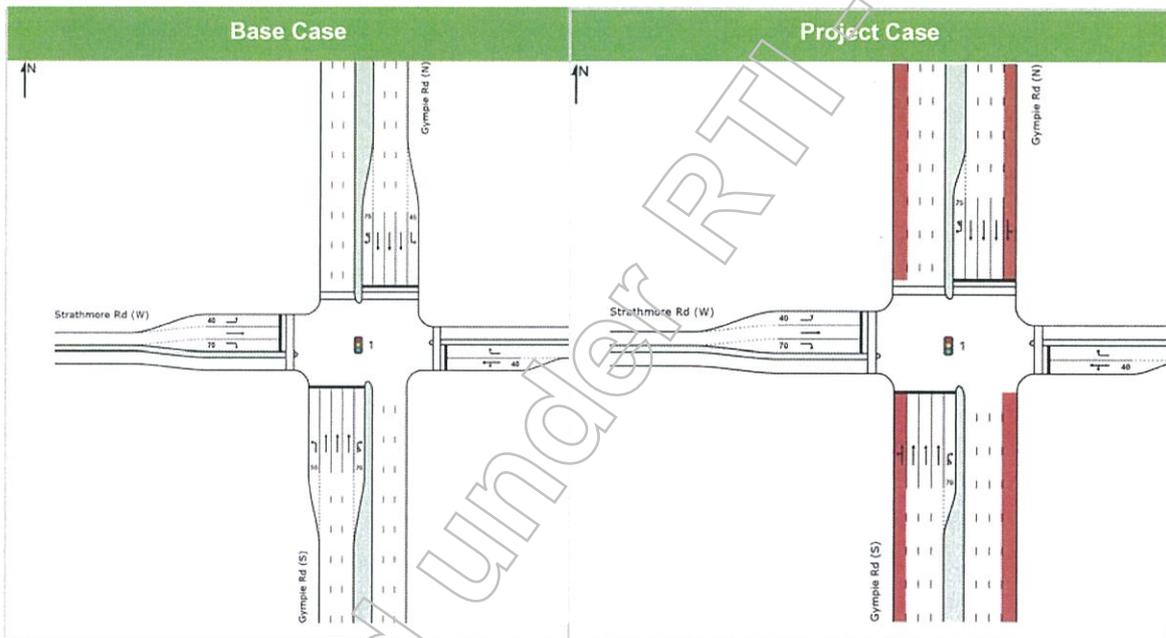


Table 5-7 Gympie Road/ Strathmore Street/ Castle Street Intersection Traffic Performance – AM Peak

Model	Approach	Movement	2021			2031			
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)	
Base Case	South	L	0.06	B	8	0.07	B	9	
		T	0.79	B	283	0.85	B	340	
		R	0.60	F	52	0.67	F	59	
		U	0.60	F	52	0.67	F	59	
	East	L	1.05	F	194	1.12	F	244	
		T	1.05	F	194	1.12	F	244	
		R	0.23	F	20	0.22	F	18	
	North	L	0.01	B	3	0.01	B	3	
		T	0.88	C	381	0.87	C	368	
		R	0.26	F	22	0.23	F	19	
		U	0.26	F	22	0.23	F	19	
	West	L	0.24	E	28	0.24	E	27	
		T	0.86	F	111	0.94	F	133	
		R	0.84	F	81	0.89	F	88	
	Project Case	South	L	0.09	B	12	0.11	B	14
			T	0.77	B	265	0.82	B	310
R			0.61	F	53	0.67	F	59	
U			0.61	F	53	0.67	F	59	
East		L	1.14	F	230	1.13	F	247	
		T	1.14	F	230	1.13	F	247	
		R	0.23	F	19	0.24	F	21	
North		L	0.07	B	14	0.07	B	14	
		T	0.86	C	352	0.86	C	347	
		R	0.22	F	18	0.22	F	18	
		U	0.22	F	18	0.22	F	18	
West		L	0.40	F	30	0.36	F	31	
		T	0.99	F	137	0.97	F	145	
		R	0.86	F	83	0.92	F	95	

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Table 5-8 Gympie Road/ Strathmore Street/ Castle Street Traffic Performance – PM Peak

Model	Approach	Movement	2021			2031			
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)	
Base Case	South	L	0.14	B	36	0.15	B	38	
		T	0.96	D	495	0.97	D	565	
		R	0.34	E	43	0.35	E	43	
		U	0.34	E	43	0.35	E	43	
	East	L	1.03	F	182	1.10	F	230	
		T	1.03	F	182	1.10	F	230	
		R	0.60	F	35	0.63	F	38	
	North	L	0.07	B	11	0.08	B	12	
		T	0.73	B	239	0.77	C	270	
		R	0.49	E	56	0.48	E	54	
		U	0.49	E	56	0.48	E	54	
	West	L	0.43	F	40	0.42	F	39	
		T	0.99	F	157	1.01	F	168	
		R	0.98	F	70	0.99	F	74	
	Project Case	South	L	0.22	C	59	0.22	C	59
			T	0.92	C	480	0.92	C	588
R			0.37	E	44	0.37	E	45	
U			0.37	E	44	0.37	E	45	
East		L	1.05	F	198	1.11	F	233	
		T	1.05	F	198	1.11	F	233	
		R	0.61	F	37	0.65	F	39	
North		L	0.11	B	18	0.12	B	18	
		T	0.70	B	221	0.75	B	253	
		R	0.49	E	56	0.50	E	56	
		U	0.49	E	56	0.50	E	56	
West		L	0.42	F	39	0.41	F	38	
	T	0.99	F	155	1.00	F	168		
	R	0.93	F	62	0.96	F	66		

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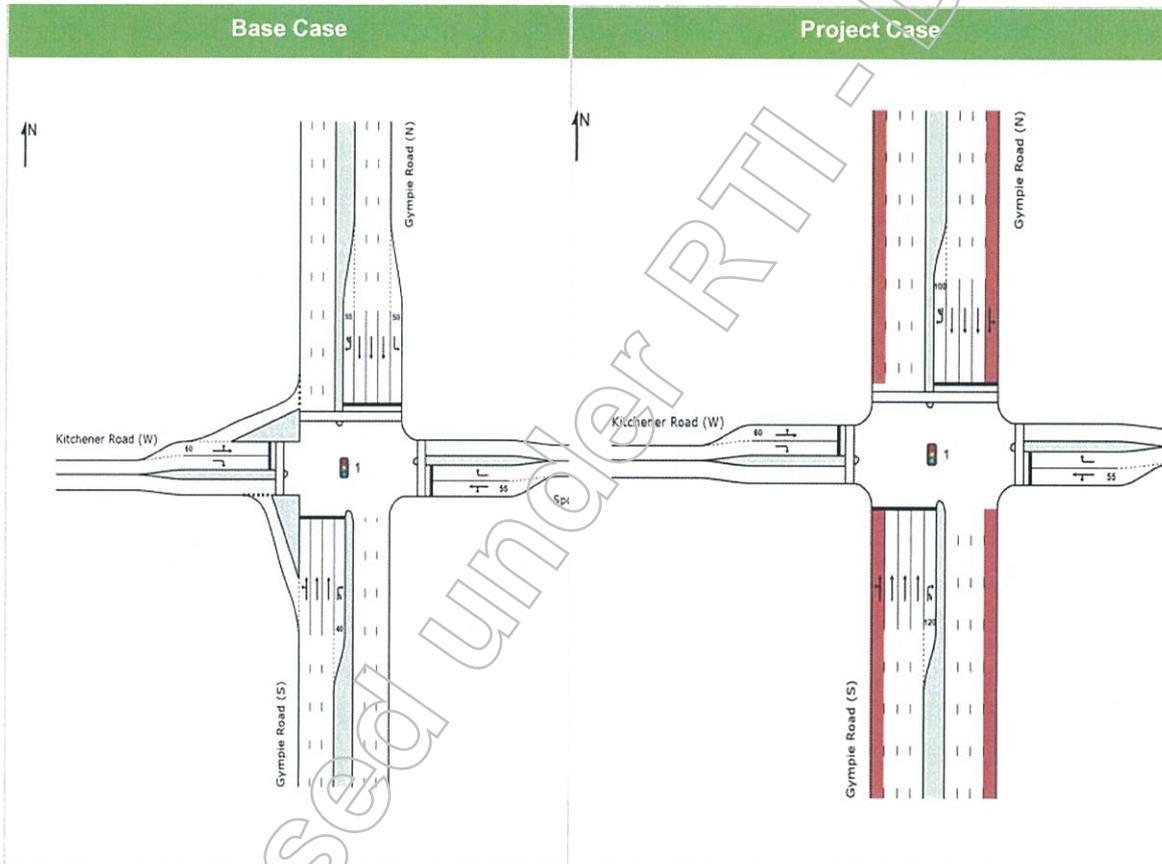
5.1.3 Gympie Road / Kitchener Road / Sport Street

The modelled layout configurations for Gympie Road/ Kitchener Road/ Sport Street are as shown in Table 5-9 for the respective cases with overall intersections summarised in Table 5-10 and Table 5-11.

The model results suggest that the Project Case intersection will operate with an overall LOS E for the 2021 AM and PM scenarios and an overall LOS F for the 2031 AM and PM scenarios. It is noted that the increases in delays primarily occur on the western approach during the AM peak and on the eastern approach during the PM peak as the intersection is unable to provide sufficient green time for the right turns on these approaches without impacting on north-south through movements on Gympie Road.

It is also noted that while the queue lengths in the right turn/U-turn lane increase as a result of the proposed modification of the Gympie Road / Edinburgh Castle Road intersection to only allow left-in, left-out movements, the SIDRA results show that these queue lengths can be contained within the proposed extension of this lane to avoid impacts on the northbound through lanes on Gympie Road.

Table 5-9 Gympie Road/ Kitchener Road/ Sport Street Modelled Intersection Configurations



Released under RTI

Table 5-10 Gympie Road/ Kitchener Road/ Sport Street Intersection Traffic Performance – AM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	L	0.73	C	229	0.78	C	267
		T	0.73	B	229	0.78	B	267
		R	0.19	E	18	0.20	E	20
		U	0.19	E	18	0.20	E	20
	East	L	0.48	E	55	0.53	E	61
		T	0.48	E	55	0.53	E	61
		R	0.53	F	34	0.57	F	37
	North	L	0.01	B	3	0.01	B	3
		T	0.77	B	253	0.76	B	248
		R	0.30	E	29	0.27	E	27
		U	0.30	E	29	0.27	E	27
	West	L	1.23	F	228	1.05	F	161
T		1.23	F	228	1.05	F	161	
R		2.60	F	703	2.62	F	710	
Project Case	South	L	0.17	C	43	0.19	C	48
		T	0.70	B	219	0.78	B	277
		R	0.71	F	63	0.75	F	68
		U	0.71	F	63	0.75	F	68
	East	L	0.42	E	57	0.45	E	61
		T	0.42	E	57	0.45	E	61
		R	0.57	F	37	0.61	F	40
	North	L	0.07	B	14	0.07	B	15
		T	0.85	C	340	0.84	C	332
		R	0.38	E	36	0.46	F	45
		U	0.38	F	36	0.46	F	45
	West	L	1.15	F	238	1.11	F	214
T		1.15	F	238	1.11	F	214	
R		2.61	F	708	2.59	F	701	

Released Under ERM

Table 5-11 Gympie Road/ Kitchener Road/ Sport Street Intersection Traffic Performance – PM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	L	0.76	B	221	0.77	B	231
		T	0.76	B	221	0.77	B	231
		R	0.10	E	8	0.10	E	8
		U	0.10	F	8	0.10	F	8
	East	L	1.62	F	472	1.64	F	483
		T	1.62	F	472	1.64	F	483
		R	0.93	F	62	0.96	F	66
	North	L	0.01	B	2	0.01	B	2
		T	0.59	A	117	0.64	A	138
		R	0.73	F	64	0.79	F	71
		U	0.73	F	64	0.79	F	71
	West	L	1.31	F	281	1.37	F	314
T		1.31	F	281	1.37	F	314	
R		1.65	F	295	1.66	F	297	
Project Case	South	L	0.20	B	47	0.20	B	48
		T	0.75	B	228	0.78	B	254
		R	0.87	F	66	0.88	F	67
		U	0.87	F	66	0.88	F	67
	East	L	1.28	F	348	1.31	F	368
		T	1.28	F	348	1.31	F	368
		R	0.94	F	64	0.99	F	73
	North	L	0.04	B	7	0.05	B	9
		T	0.60	B	139	0.64	B	165
		R	0.98	F	101	1.06	F	130
		U	0.98	F	101	1.06	F	130
	West	L	1.41	F	355	1.49	F	402
T		1.41	F	355	1.49	F	402	
R		1.65	F	295	1.74	F	326	

Released Under RTI

5.1.4 Gympie Road / Boothby Street

The modelled layout configurations for Gympie Road/ Boothby Street are as shown in Table 5-12 for the respective cases with overall intersections summarised in Table 5-13 and Table 5-14.

The Base Case intersection suffers significant congestion on the Boothby Street leg as traffic cannot find safe gaps to exit. The right turn into Boothby Street also suffers from limited gaps in the southbound traffic. In reality, traffic on the Boothby Street leg would take an alternate route through the local road network, however our model scope does enable this traffic reassignment.

The model results suggest that the Project Case intersection will operate satisfactorily with LOS A during the AM and PM peak hours as the intersection operates with a relatively simple phasing arrangement and relatively low volumes from Boothby Street.

Table 5-12 Gympie Road/ Boothby Street Modelled Intersection Configurations

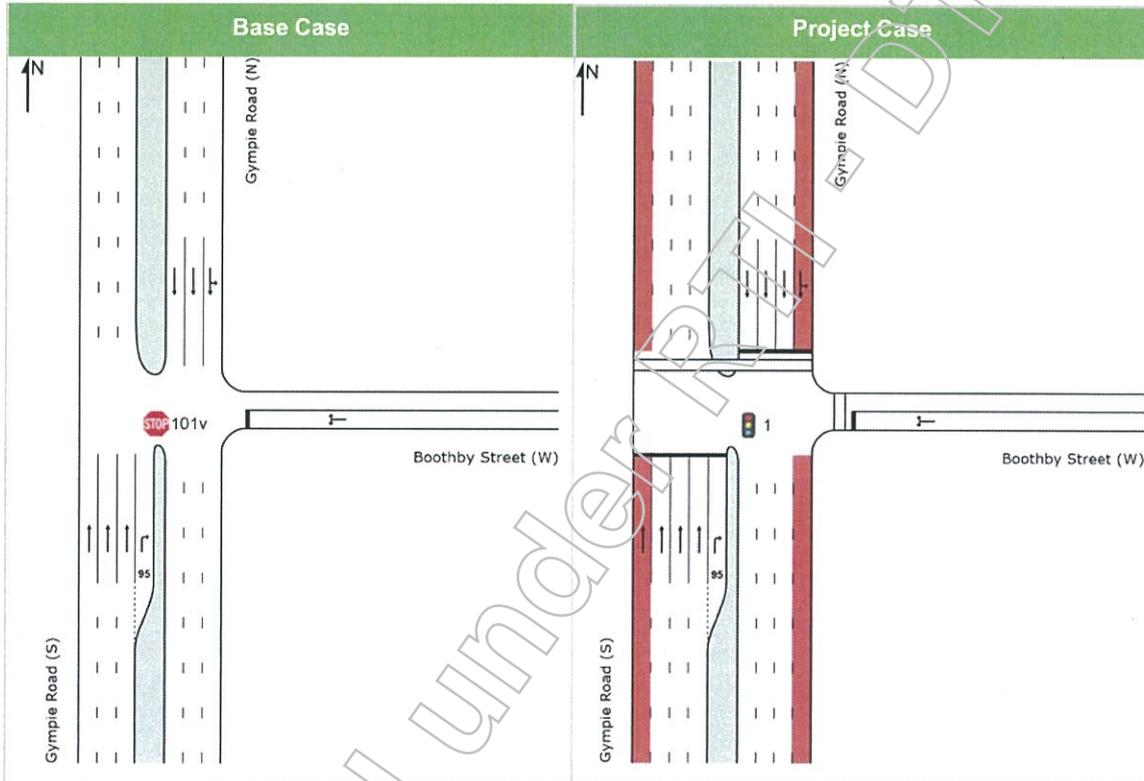


Table 5-13 Gympie Road/ Boothby Street Intersection Traffic Performance – AM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	T	0.62	A	36	0.66	A	39
		R	10.35	F	400	3.59	F	273
	East	L	3.20	F	386	3.11	F	371
		R	8.25	F	336	7.19	F	286
	North	L	0.45	A	0	0.45	A	0
		T	0.45	A	0	0.45	A	0
Project Case	South	T	0.40	A	11	0.43	A	13
		R	0.25	E	33	0.27	E	36
	East	L	1.00	F	116	0.92	F	91
		R	1.00	F	116	0.92	F	91
	North	L	0.48	A	36	0.48	A	39
		T	0.48	A	36	0.48	A	39

Table 5-14 Gympie Road/ Boothby Street Intersection Traffic Performance – PM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	T	0.73	A	74	0.74	A	73
		R	2.21	F	252	2.71	F	279
	East	L	1.70	F	171	1.93	F	251
		R	4.38	F	105	5.26	F	170
	North	L	0.40	A	0	0.42	A	0
		T	0.40	A	0	0.42	A	0
Project Case	South	T	0.48	A	16	0.49	A	16
		R	0.33	E	44	0.33	E	43
	East	L	0.26	E	47	0.28	E	51
		R	0.26	E	47	0.28	E	51
	North	L	0.42	A	34	0.45	A	38
		T	0.42	A	34	0.45	A	38

Released under Project 504050

5.1.5 Gympie Road / Rode Road

Gympie Road/ Rode Road has been modelled as shown in Table 5-15 for the respective cases with overall intersections summarised in Table 5-16 and Table 5-17 for AM and PM Peak respectively.

This intersection is shown to operate with an overall LOS F (worst possible) for 2021 and 2031 Project and Base Case scenarios. It is noted that the increases in delays primarily occur on the eastern and western intersection approaches as the intersection has insufficient capacity to accommodate the forecast increase in traffic demands on these approaches.

The model results suggest that the intersection performance will improve marginally for the Project Case scenarios as the extension of the right turn lanes on the southern intersection approach will provide additional storage capacity and therefore reduce the queue lengths on this approach. It is noted that the intersection performance for the 2021 and 2031 scenarios is relatively similar (with both scenarios showing DOS above 1.0) which indicates that the intersection will have reached practical capacity by 2021 due to the high volume of conflicting traffic movements and pedestrian crossings on all legs of the intersection.

It should be noted that both the AM and PM models show substantial queues on the eastern and western approaches as there is insufficient green time / capacity for the demand, which results in long queues for both peaks.

Table 5-15 Gympie Road/ Rode Road Modelled Intersection Configurations

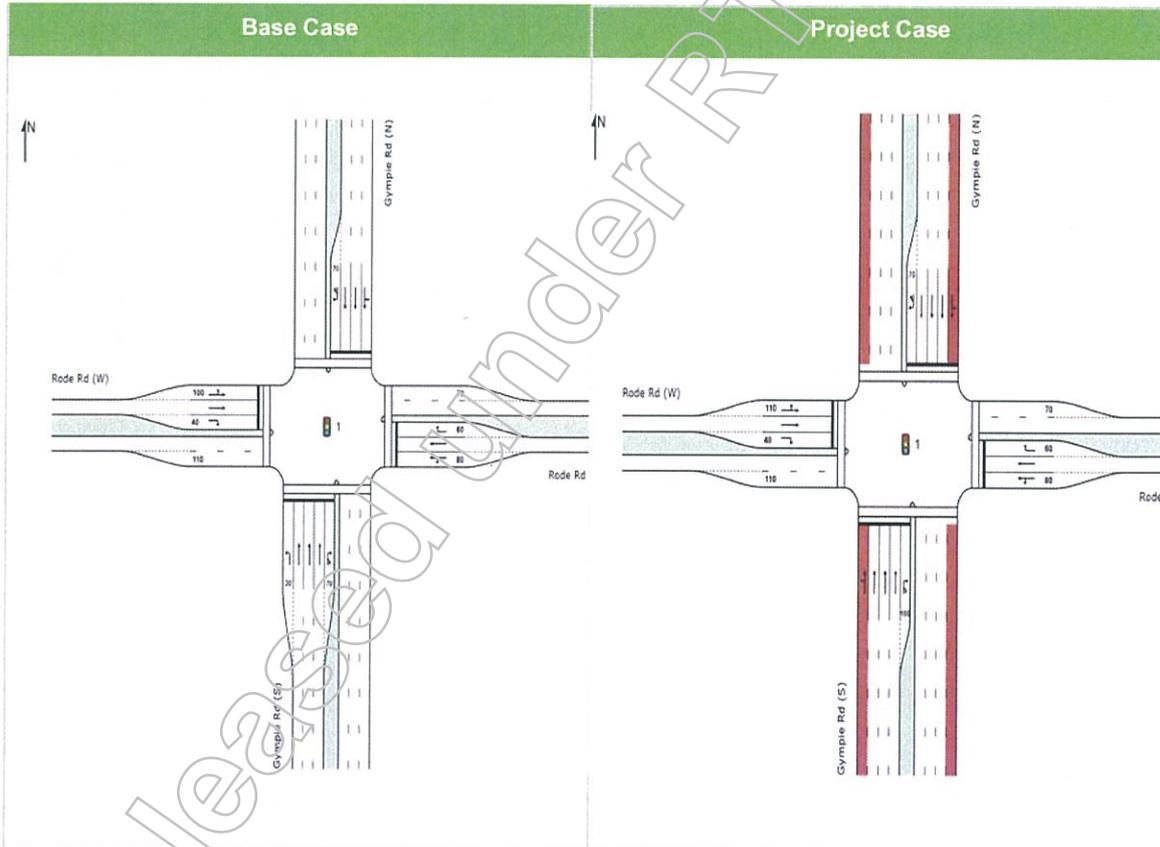


Table 5-16 Gympie Road/ Rode Road Intersection Traffic Performance – AM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	L	0.19	C	51	0.33	C	56
		T	0.84	C	326	0.90	D	405
		R	0.48	E	53	0.50	E	56
		U	0.48	E	53	0.50	E	56
	East	L	0.59	E	107	0.62	E	115
		T	0.89	E	155	0.95	F	181
		R	1.19	F	179	1.28	F	221
	North	L	0.96	E	538	0.96	E	528
		T	0.96	E	549	0.96	E	538
		R	0.59	E	68	0.56	E	64
		U	0.59	F	68	0.56	F	64
	West	L	0.59	E	106	0.61	E	110
T		1.28	F	500	1.32	F	535	
R		0.88	F	74	0.89	F	76	
Project Case	South	L	0.24	C	65	0.28	C	78
		T	0.74	C	253	0.80	C	290
		R	0.56	E	61	0.59	E	65
		U	0.56	F	61	0.59	F	65
	East	L	0.60	E	111	0.63	E	117
		T	0.90	E	158	0.93	F	176
		R	1.21	F	191	1.24	F	203
	North	L	0.20	C	52	0.20	C	52
		T	0.89	D	388	0.89	D	395
		R	0.60	E	69	0.60	E	68
		U	0.60	F	69	0.60	F	68
	West	L	0.70	E	130	0.68	E	125
T		1.48	F	705	1.43	F	646	
R		1.07	F	120	1.07	F	120	

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Table 5-17 Gympie Road/ Rode Road Intersection Traffic Performance – PM Peak

Model	Approach	Movement	2021			2031			
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)	
Base Case	South	L	0.18	B	46	0.18	B	47	
		T	0.82	B	308	0.84	B	326	
		R	0.20	E	23	0.20	E	23	
		U	0.20	E	23	0.20	E	23	
	East	L	1.55	F	546	1.58	F	573	
		T	1.55	F	546	1.58	F	573	
		R	1.05	F	88	1.06	F	92	
	North	L	0.72	C	237	0.76	C	267	
		T	0.72	B	237	0.76	B	267	
		R	0.54	E	67	0.55	E	68	
		U	0.54	E	67	0.55	E	68	
	West	L	0.78	F	94	0.80	F	98	
		T	1.68	F	600	1.74	F	636	
		R	0.74	F	45	0.80	F	50	
	Project Case	South	L	0.26	C	71	0.26	C	72
			T	0.75	B	252	0.76	B	261
R			0.34	E	36	0.38	E	42	
U			0.34	E	36	0.38	E	42	
East		L	1.06	F	195	1.13	F	241	
		T	1.57	F	553	1.68	F	627	
		R	0.93	F	69	1.01	F	86	
North		L	0.15	C	38	0.16	C	42	
		T	0.68	B	203	0.72	B	231	
		R	0.54	E	67	0.56	E	69	
		U	0.54	E	67	0.56	E	69	
West		L	0.80	F	97	0.73	F	87	
		T	1.67	F	589	1.53	F	487	
		R	0.74	F	50	0.77	F	52	

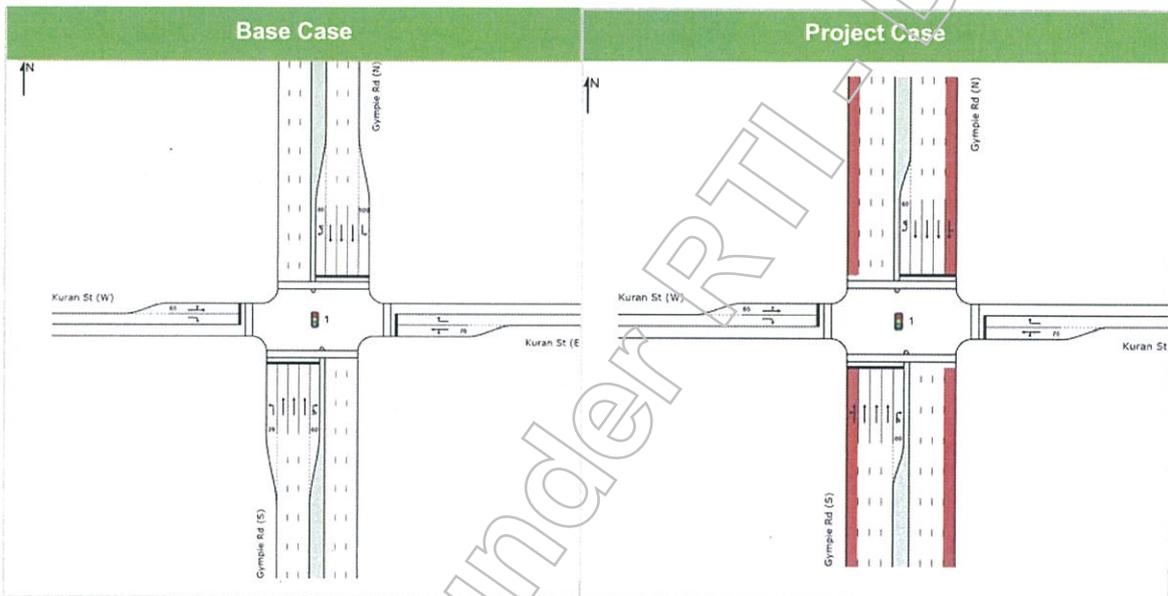
Released Under EOI

5.1.6 Gympie Road/ Wallace Street / Kuran Street

Gympie Road/ Wallace Street/ Kuran Street has been modelled as shown in Table 5-18 for the respective cases with overall intersections summarised in Table 5-19 and Table 5-20 for AM and PM Peak respectively. It is noted that the signal phasing for this has been modified from the existing Filter phasing for the Kuran Street and Wallace Street intersection approaches has been modified to instead operate with split phasing in accordance with the TMR Road Safety Policy which states that “Filtered green arrows for right turns to be excluded unless justified through a risk assessment.”

The model results suggest that the Project Case layout will result in marginally better intersection performance as the bus lanes provide additional storage for left-turning vehicles on the northern and southern approaches. It is noted that the intersection performance for the 2021 and 2031 scenarios is relatively similar (with both scenarios showing DOS above 1.0) which indicates that the intersection will have reached practical capacity by 2021 due to the high volume of conflicting traffic movements and pedestrian crossings on all legs of the intersection.

Table 5-18 Gympie Road/ Wallace Street/ Kuran Street Modelled Intersection Configurations



Released under RTI

Table 5-19 Gympie Road/ Wallace Street/ Kuran Street Intersection Traffic Performance – AM Peak

Model	Approach	Movement	2021			2031			
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)	
Base Case	South	L	0.06	D	14	0.05	C	13	
		T	0.92	D	432	0.95	D	498	
		R	0.91	F	76	1.20	F	146	
		U	0.91	F	76	1.20	F	146	
	East	L	0.52	E	71	0.54	E	75	
		T	0.52	E	71	0.54	E	75	
		R	0.15	E	21	0.17	E	25	
	North	L	0.06	D	15	0.06	C	14	
		T	1.01	F	645	0.98	E	573	
		R	0.44	F	29	0.52	F	30	
		U	0.44	F	29	0.52	F	30	
	West	L	0.83	F	132	0.89	F	147	
		T	0.83	E	132	0.89	F	147	
		R	0.22	E	32	0.24	E	36	
	Project Case	South	L	0.10	C	25	0.13	C	32
			T	0.90	D	406	0.95	E	507
R			0.96	F	86	1.03	F	107	
U			0.96	F	86	1.03	F	107	
East		L	0.53	E	73	0.48	E	67	
		T	0.53	E	73	0.48	E	67	
		R	0.15	E	22	0.13	E	18	
North		L	0.13	C	34	0.14	C	35	
		T	0.98	E	570	0.98	E	571	
		R	0.47	F	31	0.48	F	32	
		U	0.47	F	31	0.48	F	32	
West		L	0.81	F	129	0.92	F	159	
		T	0.81	E	129	0.92	F	159	
		R	0.23	E	34	0.25	E	37	

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Table 5-20 Gympie Road/ Wallace Street/ Kuran Street Intersection Traffic Performance – PM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	L	0.11	D	27	0.12	D	28
		T	1.07	F	765	1.09	F	821
		R	0.67	F	60	0.62	F	54
		U	0.67	F	60	0.62	F	54
	East	L	0.72	E	107	0.76	E	115
		T	0.72	E	107	0.76	E	115
		R	0.21	E	31	0.23	E	34
	North	L	0.05	D	11	0.05	D	11
		T	0.89	D	382	0.95	E	474
		R	0.45	F	39	0.45	F	38
		U	0.45	F	39	0.45	F	38
	West	L	0.59	E	86	0.63	E	93
T		0.59	E	86	0.63	E	93	
R		0.18	E	27	0.19	E	28	
Project Case	South	L	0.19	D	50	0.20	D	50
		T	1.01	F	633	1.03	F	669
		R	0.63	F	55	0.61	F	53
		U	0.63	F	55	0.61	F	53
	East	L	0.73	E	110	0.76	E	115
		T	0.73	E	110	0.76	E	115
		R	0.21	E	31	0.23	E	34
	North	L	0.09	D	22	0.10	D	24
		T	0.88	D	366	0.94	E	462
		R	0.46	F	39	0.47	F	41
		U	0.46	F	39	0.47	F	41
	West	L	0.60	E	88	0.64	E	95
T		0.60	E	88	0.64	E	95	
R		0.19	E	27	0.20	E	29	

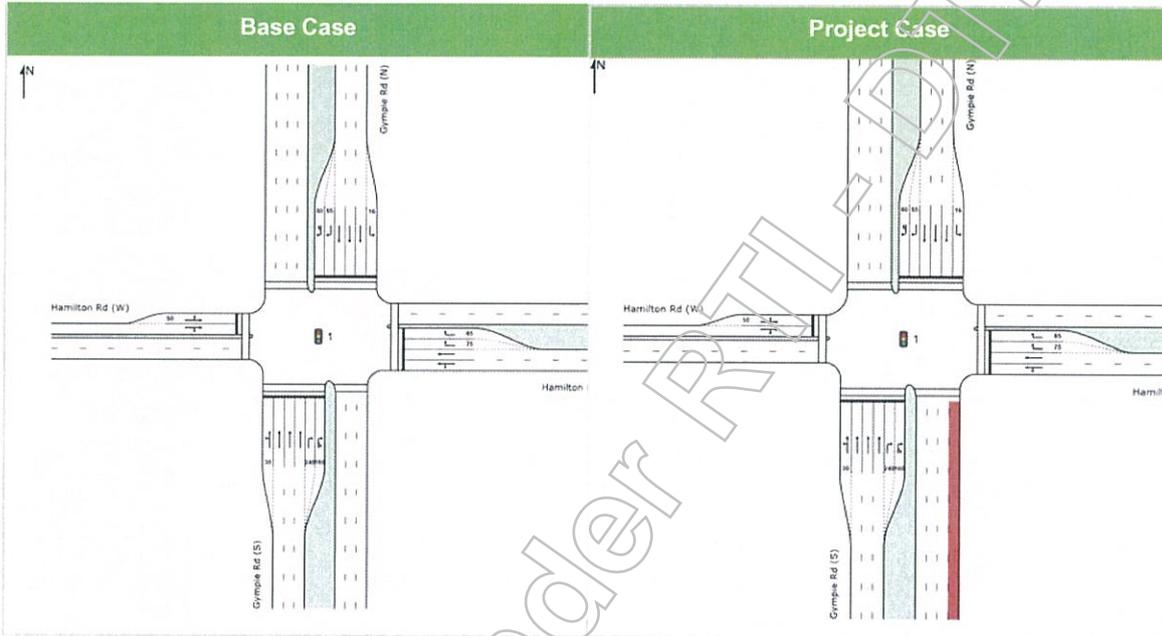
Released Under ERM

5.1.7 Gympie Road/ Hamilton Road

Gympie Road/ Hamilton Road has been modelled as shown in Table 5-21 for the respective cases with overall intersections summarised in Table 5-22 and Table 5-23 for AM and PM Peak respectively.

This intersection is shown to operate with LOS E for all 2021 and 2031 scenarios. It is noted that there is no difference in the Base Case and Project Case model results as the southbound bus lane commences to the south of Hamilton Road and therefore does not provide any additional capacity for the intersection. While pedestrian protection was recently introduced at this intersection, it is not considered likely that this would substantially impact on the intersection performance, noting that several of the intersections are shown to operate with LOS E or F for all 2021 and 2031 scenarios.

Table 5-21 Gympie Road/ Hamilton Road Modelled Intersection Configurations



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Table 5-22 Gympie Road/ Hamilton Road Intersection Traffic Performance – AM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	L	0.63	C	96	0.67	C	102
		T	0.63	C	183	0.67	C	208
		R	0.96	F	88	0.99	F	96
		U	0.96	F	86	0.99	F	94
	East	L	0.79	F	54	0.74	F	54
		T	0.79	F	76	0.74	F	70
		R	0.52	F	45	0.54	F	47
	North	L	0.60	C	44	0.57	C	43
		T	0.89	C	412	0.87	C	382
		R	0.41	F	30	0.39	F	28
		U	0.41	F	30	0.39	F	28
	West	L	1.21	F	290	1.30	F	353
T		1.21	F	327	1.30	F	398	
R		1.21	F	327	1.30	F	398	
Project Case	South	L	0.63	C	96	0.67	C	102
		T	0.63	C	183	0.67	C	208
		R	0.96	F	88	0.99	F	96
		U	0.96	F	86	0.99	F	94
	East	L	0.79	F	54	0.74	F	54
		T	0.79	F	76	0.74	F	70
		R	0.52	F	45	0.54	F	47
	North	L	0.60	C	44	0.57	C	43
		T	0.89	C	412	0.87	C	382
		R	0.41	F	30	0.39	F	28
		U	0.41	F	30	0.39	F	28
	West	L	1.21	F	290	1.30	F	353
T		1.21	F	327	1.30	F	398	
R		1.21	F	327	1.30	F	398	

Released Under EOI

Table 5-23 Gympie Road/ Hamilton Road Intersection Traffic Performance – PM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	L	0.80	D	134	0.84	D	147
		T	0.80	C	297	0.84	C	323
		R	0.55	E	80	0.55	E	80
		U	0.55	E	77	0.55	E	77
	East	L	0.98	F	173	1.03	F	206
		T	0.98	F	195	1.03	F	233
		R	0.31	E	43	0.34	E	48
	North	L	0.57	D	42	0.67	D	49
		T	0.92	E	390	0.97	E	481
		R	1.06	F	108	1.09	F	120
		U	1.06	F	107	1.09	F	120
	West	L	1.25	F	292	1.33	F	341
T		1.25	F	329	1.33	F	386	
R		1.25	F	329	1.33	F	386	
Project Case	South	L	0.80	D	134	0.84	D	147
		T	0.80	C	297	0.84	C	323
		R	0.55	E	80	0.55	E	80
		U	0.55	E	77	0.55	E	77
	East	L	0.98	F	173	1.03	F	206
		T	0.98	F	195	1.03	F	233
		R	0.31	E	43	0.34	E	48
	North	L	0.57	D	42	0.67	D	49
		T	0.92	E	390	0.97	E	481
		R	1.06	F	108	1.09	F	120
		U	1.06	F	107	1.09	F	120
	West	L	1.25	F	292	1.33	F	341
T		1.25	F	329	1.33	F	386	
R		1.25	F	329	1.33	F	386	

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5.1.8 Signalised Pedestrian Crossing (South of Sparkes Street)

The signalised pedestrian crossing located to the south of Sparkes Street has been modelled as shown in Table 5-24 for the respective cases with overall intersections summarised in Table 5-25 and Table 5-26 for AM and PM Peak respectively. This pedestrian crossing is proposed to continue to operate as a staggered facility and is shown to operate with LOS A for all 2021 and 2031 scenarios.

Table 5-24 Signalised Pedestrian Crossing (South of Sparkes Street)

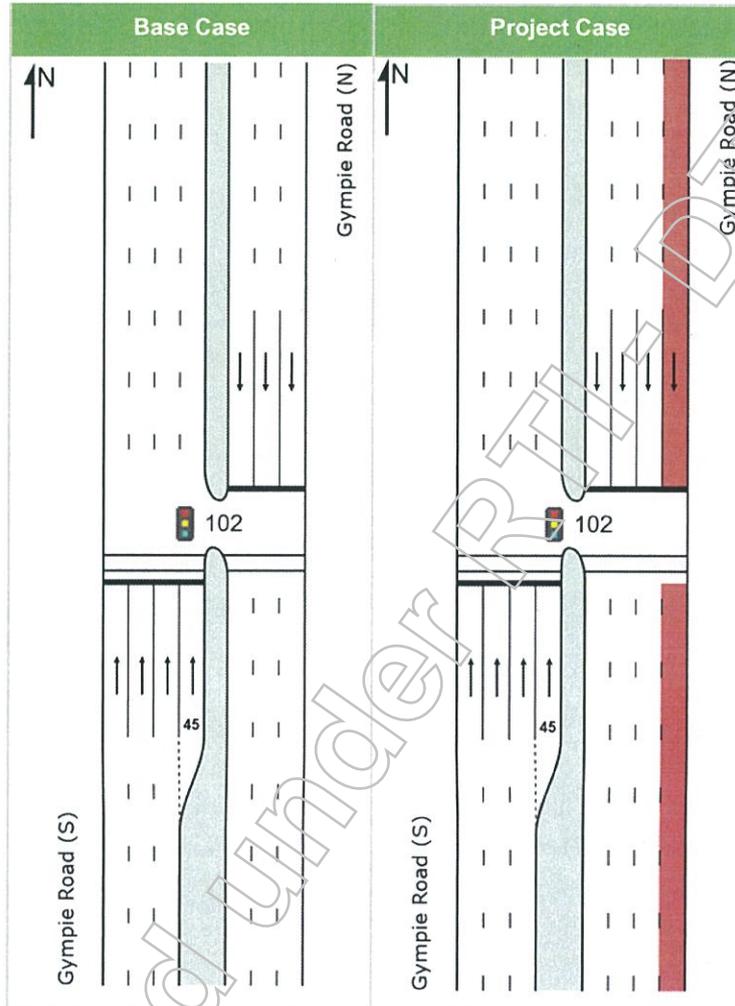


Table 5-25 Signalised Pedestrian Crossing south of Sparkes Street - AM

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	T	0.40	A	88.4	0.44	A	101.4
	North	T	0.58	A	158.9	0.57	A	153.3
Project Case	South	T	0.40	A	88.1	0.45	A	104.7
	North	T	0.58	A	152.0	0.57	A	153.3

Table 5-26 Signalised Pedestrian Crossing south of Sparkes Street - PM

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Base Case	South	T	0.42	A	94.8	0.48	A	121.6
	North	T	0.46	A	108.4	0.48	A	113.1
Project Case	South	T	0.45	A	105.6	0.50	A	128.8
	North	T	0.46	A	105.4	0.48	A	113.1

5.2 Model Outputs (Vissim Volume plus Traffic Reassignment)

As part of the NTW project, there are several locations along the corridor where existing unsignalized T-junctions are planned to be converted to left-in left-out (LILO) operation. These intersections along Gympie Road include:

- Howell Street
- Edinburgh Castle Road
- Childers Street
- Lawley Street
- Mellor Street

As a result, right-turn movements from these intersections will need to be reassigned to use alternative routes. Within the calibrated and validated Vissim model, traffic reassignment was implemented automatically by searching new paths, generally using U-turns (where allowed) on the next signalised intersection.

The current Vissim base models were calibrated using the six signalised intersections within the study area as the primary function of the Vissim (corridor) model has been to check that the journey time savings are still realised. At the future project individual intersection operation level local traffic reassignments (as mentioned above) are required for the assessment of intersection traffic performance and design. To augment the Vissim model to more accurately model the reassigned traffic into and out of the four intersections converted to LILO, 2019 traffic counts were adjusted for growth and added to the future year project Vissim volumes. Assumption on the traffic assignment for each converted intersection is detailed below:

Howell Street Traffic Reassignment: Right turn traffic out of Howell Street is assumed to take a left turn and U-turn at Strathmore Street / Castle Street signalised intersection. Right turn traffic into Howell Street is assumed to take Strathmore Street, Goodall Street, Cremorne Road and Gympie Road since U-turn is not allowed at Sadlier Street signalised intersection.

Edinburgh Castle Road Traffic Reassignment: Right turn traffic out of Edinburgh Castle Road is assumed to take a left turn and U-turn at Strathmore Street / Castle Street intersection. Right turn traffic

into Edinburgh Castle Road is assumed to take the U-turn at Kitchener Road / Sport Street intersection and turn left turn at Edinburgh Castle Road.

Childers Street Traffic Reassignment: Right turn traffic out of Childers Street is assumed to take a left turn and U-turn at Kitchener Road /Sport Street intersection. Right turn traffic into Childers Street is assumed to take the U-turn at Rode Road intersection and turn left turn at Childers Street.

Lawley Street Traffic Reassignment: Right turn traffic out of Lawley Street is assumed to take a left turn and U-turn at Rode Road intersection. Right turn traffic into Lawley Street is assumed to take the U-turn at Kitchener Road / Sport Street intersection and turn left turn at Lawley Street.

Mellor Street Traffic Reassignment: Right turn traffic out of Mellor Street is assumed to take the backstreets Maggs Street, Bristol Road and left turn into Rode Road to take the right turn into Gympie Road. Right turn traffic into Mellor Street is assumed to take the U-turn at Rode Road intersection and turn left turn at Mellor Street.

The following intersections are expected to be affected by the traffic reassignment:

- ▣ Strathmore Street / Castle Street
- ▣ Kitchener Road / Sport Street
- ▣ Boothby Street
- ▣ Rode Road

Detailed SIDRA results for the four intersections are shown in Appendix C and summary reported in the succeeding sections.

5.2.1 Gympie Road / Strathmore Street / Castle Street

The Project Case model results incorporating reassigned traffic as shown in

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Table 5-27 and Table 5-28 (AM and PM peaks respectively) suggest that while the intersection will perform satisfactorily overall during the 2021 and 2031 AM peak hours (overall LOS C) and PM peak hours (overall LOS D), several turning movements at the intersections are shown to operate with LOS F during the 2031 PM peak hour. The model results also suggest that the queues on southern intersection approach will occasionally extend to the intersection of Gympie Road / Sadlier Street during both the 2031 AM and PM peak hours consistent with previous results.

U-turn movements affected by the traffic reassignments are highlighted in yellow in

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Table 5-27 and Table 5-28. 95th percentile back of queue results for these movements show that queue spillback will occasionally occur on the north approach right-turn/U-turn lane. Extending the right turn lane by around 10 metres will be able to contain anticipated queues from the increase in traffic.

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Table 5-27 Strathmore Street/ Castle Street Intersection Traffic Performance (Revised Volumes) – AM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Project Case	South	L	0.09	B	12	0.11	B	14
		T	0.77	B	265	0.82	B	310
		R	0.61	F	53	0.67	F	59
		U	0.61	F	53	0.67	F	59
	East	L	1.14	F	230	1.13	F	247
		T	1.14	F	230	1.13	F	247
		R	0.23	F	19	0.24	F	21
	North	L	0.07	B	14	0.07	B	14
		T	0.86	C	352	0.86	C	348
		R	0.23	F	19	0.24	F	19
		U	0.23	F	19	0.24	F	19
	West	L	0.40	F	30	0.36	F	31
T		0.99	F	137	0.97	F	145	
R		0.86	F	83	0.92	F	95	

Table 5-28 Strathmore Street/ Castle Street Intersection Traffic Performance (Revised Volumes) – PM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Project Case	South	L	0.22	C	58	0.22	C	59
		T	0.91	C	456	0.92	C	489
		R	0.36	E	44	0.38	E	45
		U	0.36	E	44	0.38	E	45
	East	L	1.05	F	198	1.11	F	233
		T	1.05	F	198	1.11	F	233
		R	0.61	F	37	0.65	F	39
	North	L	0.11	B	18	0.12	B	18
		T	0.71	B	230	0.76	C	264
		R	0.75	F	83	0.78	F	86
		J	0.75	F	83	0.78	F	86
	West	L	0.42	F	39	0.41	F	38
T		0.99	F	155	1.00	F	168	
R		0.93	F	62	0.96	F	66	

5.2.2 Gympie Road / Kitchener Road / Sport Street

The Project Case model results incorporating reassigned traffic as shown in

Table 5-29 and Table 5-30 suggest that while the intersection will operate with an overall LOS E for the 2021 PM peak and an overall LOS F for the 2021 AM and 2031 AM and PM scenarios.

U-turn movements affected by the traffic reassignments are highlighted in yellow in

Table 5-29 and Table 5-30. 95th percentile back of queue results for the south approach right turn/U-turn movement show that queue lengths can be contained within the proposed storage. For the north approach right turn/U-turn movement, back of queue results suggest that available storage will be exceeded frequently for 2021 and 2031 PM peak. Southbound through movements will be blocked and

may cause a potential safety issue. To resolve this spillback issue, the following remediation measures could be implemented:

- Increasing the phase time for the southbound right turn/U-turn movement
- Right turn/U-turn lane storage extension by reducing the right turn lane into Boothby Street.
- Installing a U-turn facility on the northern approach in Boothby Street intersection to allow access to Lawley Street
- Combination of the above measures

Table 5-29 Kitchener Road/ Sport Street Intersection Traffic Performance (Revised Volumes) – AM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Project Case	South	L	0.17	C	43	0.19	C	48
		T	0.70	B	218	0.78	B	276
		R	0.93	F	95	0.96	F	101
		U	0.93	F	95	0.96	F	101
	East	L	0.42	E	57	0.45	E	61
		T	0.42	E	57	0.45	E	61
		R	0.57	F	37	0.61	F	40
	North	L	0.07	B	14	0.07	B	15
		T	0.79	B	283	0.79	B	283
		R	0.48	F	44	0.57	F	52
		U	0.48	F	44	0.57	F	52
	West	L	1.15	F	238	1.11	F	214
		T	1.15	F	238	1.11	F	214
		R	2.61	F	708	2.59	F	701

Table 5-30 Kitchener Road/ Sport Street Intersection Traffic Performance (Revised Volumes) – PM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Project Case	South	L	0.20	B	47	0.20	B	48
		T	0.75	B	228	0.78	B	255
		R	0.90	F	71	0.96	F	81
		U	0.90	F	71	0.96	F	81
	East	L	1.28	F	348	1.31	F	368
		T	1.28	F	348	1.31	F	368
		R	0.94	F	64	0.99	F	73
	North	L	0.04	B	7	0.05	B	9
		T	0.60	B	139	0.64	B	165
		R	1.28	F	222	1.38	F	272
		U	1.28	F	222	1.38	F	272
	West	L	1.41	F	355	1.49	F	402
		T	1.41	F	355	1.49	F	402
		R	1.65	F	295	1.74	F	326

To reduce queues for the north approach right turn/U-turn movement, the phase time has been increased for this movement. Table 5-31 shows the updated SIDRA results. Back of queue results for 2031 PM peak reduced to 149 metres which still exceeds proposed storage. Increasing the storage by reducing the right turn lane into Boothby Street could potentially resolve the spillback issue.

Table 5-31 Kitchener Road/ Sport Street Intersection Traffic Performance (Revised Volumes) – PM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Project Case	South	L	0.21	B	52	0.21	B	52
		T	0.81	B	298	0.82	B	306
		R	0.67	F	61	0.71	F	66
		U	0.67	F	61	0.71	F	66
	East	L	1.28	F	348	1.31	F	368
		T	1.28	F	348	1.31	F	368
		R	0.94	F	64	0.99	F	73
	North	L	0.04	B	8	0.05	B	10
		T	0.63	B	169	0.68	B	196
		R	0.94	F	118	1.02	F	149
		U	0.94	F	118	1.02	F	149
	West	L	1.41	F	355	1.49	F	402
		T	1.41	F	355	1.49	F	402
R		1.65	F	295	1.74	F	326	

5.2.3 Gympie Road / Boothby Street

The model results with the reassigned traffic as shown in Table 5-32 and Table 5-33 suggest that the intersection will operate satisfactorily with LOS A during the AM and PM peak hours as previously reported. Though movements (highlighted yellow in the tables) on Boothby Street intersection will increase because of the traffic reassignment. The increase in traffic resulted in minimal impact on the performance of the intersection.

Table 5-32 Boothby Street Intersection Traffic Performance (Revised Volumes) – AM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Project Case	South	T	0.41	A	12	0.44	A	13
		R	0.25	E	33	0.27	E	36
	East	L	1.00	F	116	0.92	F	91
		R	1.00	F	116	0.92	F	91
	North	L	0.49	A	37	0.49	A	40
		T	0.49	A	37	0.49	A	40

Table 5-33 Boothby Street Intersection Traffic Performance (Revised Volumes) – PM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Project Case	South	T	0.49	A	17	0.50	A	17
		R	0.33	E	44	0.33	E	43
	East	L	0.26	E	47	0.28	E	51
		R	0.26	E	47	0.28	E	51
	North	L	0.44	A	35	0.46	A	40
		T	0.44	A	35	0.46	A	40

5.2.4 Gympie Road / Rode Road

This intersection is shown to operate with an overall LOS F (worst possible) for 2021 and 2031 Project Case with revised volumes scenarios as shown in Table 5-34 and

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Table 5-35. It is noted that the increases in delays primarily occur on the eastern and western intersection approaches as the intersection has insufficient capacity to accommodate the forecast increase in traffic demands on these approaches, consistent with previous reported results.

U-turn and right turn movements affected by the traffic reassignments are highlighted in yellow in Table 5-34 and

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Table 5-35. 95th percentile back of queue results for the south approach right turn/U-turn movement show that queue lengths can be contained within the proposed storage. For the right turn movement from Rode Road east approach, storage will not be able to contain anticipated queue lengths. It should be noted that the eastern and western approach of the intersection has insufficient capacity to accommodate the forecast traffic demands.

Table 5-34 Rode Road Intersection Traffic Performance (Revised Volumes) – AM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Project Case	South	L	0.24	C	65	0.28	C	78
		T	0.74	C	253	0.80	C	290
		R	0.89	F	105	0.95	F	120
		U	0.89	F	105	0.95	F	120
	East	L	0.61	E	111	0.63	E	117
		T	0.90	E	158	0.94	F	176
		R	1.22	F	194	1.25	F	207
	North	L	0.20	C	52	0.20	C	52
		T	0.89	D	394	0.89	D	401
		R	0.67	F	76	0.67	F	76
		U	0.67	F	76	0.67	F	76
	West	L	0.70	E	130	0.68	E	125
		T	1.48	F	705	1.43	F	646
		R	1.07	F	120	1.07	F	120

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Table 5-35 Rode Road Intersection Traffic Performance (Revised Volumes) – PM Peak

Model	Approach	Movement	2021			2031		
			DoS	LoS	95% Queue (m)	DoS	LoS	95% Queue (m)
Project Case	South	L	0.26	C	71	0.26	C	72
		T	0.75	B	252	0.76	B	261
		R	0.58	E	60	0.59	E	62
		U	0.58	E	60	0.59	E	62
	East	L	1.06	F	196	1.13	F	243
		T	1.58	F	553	1.68	F	627
		R	1.06	F	101	1.15	F	134
	North	L	0.15	C	38	0.16	C	42
		T	0.68	B	204	0.73	B	232
		R	0.58	E	71	0.60	E	73
		U	0.58	E	71	0.60	E	73
	West	L	0.80	F	97	0.73	F	87
		T	1.67	F	589	1.53	F	487
		R	0.74	F	50	0.77	F	52

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6 Summary and Conclusions

The base models were successfully calibrated and validated to ensure that they replicated existing traffic conditions along Gympie Road and therefore suitable to be used as a basis for the Northern Transitway scheme evaluation.

Following analysis of the traffic modelling, the following conclusions have been reached from the future year analysis:

- The proposed Transitway lanes are shown to substantially reduce the travel times for the public transport services, particularly for the AM peak hours, and improve the reliability of the travel times across each of the future year scenarios as the bus lanes provide almost free-flowing conditions for the buses, while general traffic conditions deteriorate along Gympie Road as traffic volumes increase in the future year scenarios.
 - The travel time savings are shown to increase substantially across the future year scenarios as the buses can bypass the increased levels of general traffic congestion at the intersections, with average bus travel time savings of 4 minutes for the 2021 AM peak hour scenarios and over 5 minutes for the 2031 AM peak hours, up in excess of 8 minutes for the services that stop at all stops along the corridor.
 - The increased bus stop frequency for the Project Case will likely increase passenger demand as it will increase the catchments for potential passengers along the corridor.
- The resulting reduction in travel times are shown to substantially reduce the key PHT network statistics and thus provide an economic benefit in terms of travel times savings for passengers.
- The 2051 future year Vissim models include a large number of unreleased vehicles at the end of the simulation period, thus indicating that the intersections along the corridor are currently likely operating at their practical capacity during the 2051 AM and PM peak hours.
 - This finding is also confirmed by the SIDRA analysis which shows several of the intersection will be operating with DOS greater than 1.0 in the future year scenarios.
- As the purpose of the project is to improve travel times and reliability for public transport services along the corridor, no substantial differences were identified for general intersection and traffic performance between the Base Case and Project Case scenarios.

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Appendix A

Vissim Intersections Result Outputs

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AM Base Case – 2018

Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS	
Gympie Rd/ Sadlier St	South	T	2219	26	147	18	B	D	
		R	161	20	71	73	E		
	East	L	120	14	52	43	D		
		R	106	14	52	59	E		
	North	L	51	147	315	54	D		
		T	2825	147	315	52	D		
Gympie Rd/ Castle St/ Strathmore St	South	L	56	60	263	24	C	D	
		T	2161	60	263	28	C		
		R	82	44	246	126	F		
		U	0	44	246	0	A		
	East	L	67	25	90	72	E		
		T	145	25	90	66	E		
		R	34	25	90	48	D		
		L	19	174	386	46	D		
	North	T	2559	174	386	55	D		
		R	34	2	17	70	E		
		U	0	2	17	0	A		
		L	50	32	107	72	E		
	West	T	175	32	107	68	E		
		R	124	32	107	64	E		
Gympie Rd/ Sport St/ Kitchener Rd	South	L	135	0	0	53	D	E	
		T	2022	96	232	59	E		
		R	31	4	22	112	F		
		U	0	4	22	0	A		
	East	L	8	12	45	62	E		
		T	91	12	45	62	E		
		R	58	12	45	44	D		
		L	15	139	250	54	D		
	North	T	2343	139	250	51	D		
		R	51	10	58	105	F		
		U	0	10	58	0	A		
		L	80	1	18	62	E		
	West	T	126	67	162	98	F		
		R	259	67	162	105	F		
Gympie Rd/ Rode Rd	South	L	164	26	83	17	B	E	
		U	0	1	8	0	A		
		T	1796	26	83	22	C		
		R	15	1	8	49	D		
	East	R	93	14	51	89	F		
		U	0	14	51	0	A		
		L	45	38	95	60	E		
		T	390	38	95	60	E		
	North	R	151	38	95	108	F		
		L	98	93	280	35	D		
		U	0	6	29	0	A		
		T	2112	93	280	37	D		
				56	6	29	116		F

Gympie Rd/ Wallace St/ Kuran St	West	R	115	27	134	95	F	D
		L	0	6	29	0	A	
	West	L	131	96	240	112	F	
		T	471	96	240	107	F	
	West	R	122	91	233	197	F	
		L	42	84	248	45	D	
	South	L	0	1	12	0	A	
		T	1987	84	248	49	D	
	South	L	21	1	12	30	C	
		R	102	20	105	99	F	
	South	U	10	20	105	91	F	
		L	66	14	56	54	D	
	East	T	67	14	56	53	D	
		R	42	14	56	64	E	
	North	L	42	22	99	15	B	
		T	2271	22	99	14	B	
North	R	32	7	31	79	E		
	U	19	7	31	73	E		
West	L	60	22	84	53	D		
	T	148	22	84	56	E		
West	R	62	22	84	61	E		
	L	103	41	127	61	E		
South	T	1733	41	127	32	C		
	R	225	19	56	81	F		
South	U	8	19	56	70	E		
	L	42	19	48	90	F		
East	T	167	19	48	78	E		
	R	150	19	48	70	E		
North	L	136	5	85	26	C		
	T	2232	53	222	30	C		
North	R	100	7	27	74	E		
	U	0	7	27	0	A		
West	L	81	36	108	77	E		
	T	315	36	108	70	E		
West	R	91	36	108	68	E		
	L	136	5	85	26	C		

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AM Base Case – 2021

Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS	
Gympie Rd/ Sadlier St	South	T	2305	29	157	19	B	D	
		R	165	21	70	74	E		
	East	L	128	15	63	41	D		
		R	111	15	63	61	E		
	North	L	46	150	313	53	D		
		T	2852	150	313	52	D		
Gympie Rd/ Castle St/ Strathmore St	South	L	58	71	283	27	C	E	
		T	2242	71	283	30	C		
		R	88	58	281	126	F		
		U	0	58	281	0	A		
	East	L	70	31	95	79	E		
		T	150	31	95	75	E		
		R	36	31	95	49	D		
		L	17	184	392	52	D		
	North	T	2573	184	392	56	E		
		R	35	2	19	67	E		
		U	0	2	19	0	A		
		L	52	33	119	71	E		
	West	T	182	33	119	68	E		
		R	128	33	119	66	E		
Gympie Rd/ Sport St/ Kitchener Rd	South	L	141	0	0	55	E	E	
		T	2095	104	245	60	E		
		R	35	4	21	118	F		
		U	0	4	21	0	A		
	East	L	7	12	46	59	E		
		T	95	12	46	61	E		
		R	58	12	46	41	D		
		L	16	140	251	60	E		
	North	T	2322	140	251	53	D		
		R	54	10	40	109	F		
		U	0	10	40	0	A		
		L	83	1	12	81	F		
	West	T	132	93	185	119	F		
		R	282	93	185	133	F		
Gympie Rd/ Rode Rd	South	L	171	32	110	18	B	F	
		L	0	1	9	0	A		
		T	1865	32	110	23	C		
		R	15	1	9	59	E		
	East	R	94	14	47	89	F		
		U	0	14	47	0	A		
		L	46	51	115	69	E		
		T	404	51	115	66	E		
	North	R	157	51	115	148	F		
		L	101	246	412	96	F		
		L	0	56	71	0	A		
		T	2140	246	412	97	F		
			T	27	56	71	566		F

	R	119	127	303	149	F		
		0	56	71	0	A		
	L	122	223	332	200	F		
West	T	448	223	332	197	F		
	R	115	218	332	364	F		
Gympie Rd/ Wallace St/ Kuran St	L	41	89	261	48	D		
		0	1	11	0	A		
	South	T	2049	89	261	49	D	
		24	1	11	41	D		
		R	106	23	127	100	F	
		U	8	23	127	96	F	
	East	L	65	34	93	127	F	
		T	65	34	93	121	F	
		R	42	34	93	91	F	F
		L	44	55	157	25	C	
	North	T	2316	55	157	32	C	
		R	33	7	31	94	F	
		U	20	7	31	94	F	
	West	L	62	23	84	55	D	
		T	154	23	84	56	E	
		R	66	23	84	70	E	
Gympie Rd/ Hamilton Rd	L	109	45	134	63	E		
	South	T	1775	45	134	34	C	
		R	235	19	54	81	F	
		U	8	19	54	69	E	
	East	L	41	21	51	118	F	
		T	171	21	51	77	E	
		R	157	21	51	67	E	E
		L	139	9	161	28	C	
	North	T	2296	60	236	33	C	
		R	102	7	27	72	E	
		U	0	7	27	0	A	
	West	L	84	42	132	81	F	
	T	328	42	132	75	E		
	R	94	42	132	75	E		
Gympie Rd/ Boothby St	South	T	2150	0	1	1	A	
		R	56	4	29	49	D	
	East	L	95	217	227	742	F	
		R	45	218	228	703	F	F
	North	L	30	268	455	89	F	
		T	2282	282	470	99	F	

AM Base Case – 2031

Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS		
Gympie Rd/ Sadlier St	South	T	2471	36	188	22	C	D		
		R	177	23	81	74	E			
	East	L	135	17	73	45	D			
		R	117	17	73	61	E			
	North	L	44	152	316	52	D			
		T	2869	152	316	52	D			
Gympie Rd/ Castle St/ Strathmore St	South	L	63	97	314	30	C	E		
		T	2399	97	314	35	C			
		R	96	76	298	131	F			
		U	0	76	298	0	A			
	East	L	74	33	105	81	F			
		T	159	33	105	73	E			
		R	35	33	105	56	E			
		L	14	187	393	49	D			
	North	T	2556	187	393	57	E			
		R	35	2	21	73	E			
		U	0	2	21	0	A			
		L	53	42	133	74	E			
	West	T	197	42	133	75	E			
		R	137	42	133	79	E			
L		145	0	0	58	E				
T		2243	121	261	62	E				
Gympie Rd/ Sport St/ Kitchener Rd	South	R	36	6	30	120	F	F		
		U	0	6	30	0	A			
		L	7	13	53	55	E			
		T	102	13	53	61	E			
	East	R	64	13	53	44	D			
		L	15	141	251	70	E			
		T	2304	141	251	54	D			
		R	49	9	48	112	F			
	North	U	0	9	48	0	A			
		L	87	0	0	126	F			
		T	138	144	197	161	F			
		R	284	144	197	179	F			
	Gympie Rd/ Rode Rd	South	L	184	31	90	17		B	F
			U	0	1	10	0		A	
T			1982	31	90	22	C			
R			16	1	10	70	E			
East		R	99	14	48	87	F			
		U	0	14	48	0	A			
		L	47	78	153	86	F			
		T	430	78	153	82	F			
North		R	166	78	153	188	F			
		L	100	299	421	109	F			
		U	0	72	72	0	A			
		T	2155	299	421	117	F			
				0	72	72	0	A		

	R	112	272	402	164	F		
		0	72	72	0	A		
	L	120	241	334	206	F		
West	T	461	241	334	204	F		
	R	119	241	334	376	F		
Gympie Rd/ Wallace St/ Kuran St	L	42	97	271	48	D		
		0	2	14	0	A		
	South	T	2160	97	271	50	D	
		25	2	14	46	D		
		R	118	27	132	100	F	
		U	8	27	132	95	F	
		L	65	72	128	229	F	
	East	T	71	72	128	226	F	
		R	45	72	128	149	F	F
		L	43	129	225	53	D	
	North	T	2305	129	225	66	E	
		R	32	7	31	131	F	
		U	17	7	31	137	F	
		L	65	25	88	53	D	
	West	T	167	25	88	56	E	
		R	70	25	88	82	F	
Gympie Rd/ Hamilton Rd	L	113	50	142	61	E		
	South	T	1886	50	142	35	D	
		R	239	21	58	82	F	
		U	10	21	58	67	E	
		L	29	117	164	987	F	
	East	T	177	117	164	218	F	
		R	162	117	164	147	F	F
		L	133	424	511	114	F	
	North	T	2249	424	511	128	F	
		R	98	5	26	127	F	
		U	0	5	26	0	A	
		L	91	61	165	96	F	
West	T	353	61	165	90	F		
	R	101	61	165	91	F		
Gympie Rd/ Boothby St	South	T	2301	0	2	1	A	
		R	59	5	33	44	D	
		L	90	218	226	839	F	
	East	R	40	218	227	792	F	F
		L	32	274	447	90	F	
	North	T	2271	288	462	102	F	

AM Base Case – 2051

Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS
Gympie Rd/ Sadlier St	South	T	2671	284	445	71	E	E
		R	195	109	361	109	F	
	East	L	158	20	77	46	D	
		R	132	20	77	63	E	
	North	L	34	153	324	52	D	
		T	2926	153	324	51	D	
Gympie Rd/ Castle St/ Strathmore St	South	L	63	148	342	38	D	F
		T	2597	148	342	45	D	
		R	101	119	345	148	F	
		U	0	119	345	0	A	
	East	L	82	46	122	93	F	
		T	178	46	122	87	F	
		R	39	46	122	69	E	
		L	18	186	391	43	D	
	North	T	2573	186	391	56	E	
		R	29	2	19	80	F	
		U	0	2	19	0	A	
		L	60	60	166	93	F	
West	T	222	60	166	87	F		
	R	155	60	166	97	F		
	L	161	0	0	63	E		
	T	2418	154	306	67	E		
Gympie Rd/ Sport St/ Kitchener Rd	South	R	37	6	34	128	F	E
		U	0	6	34	0	A	
		L	9	14	57	57	E	
		T	116	14	57	58	E	
	East	R	71	14	57	41	D	
		L	14	141	251	72	E	
		T	2323	141	251	52	D	
		R	46	7	37	107	F	
	North	U	0	7	37	0	A	
		L	85	1	10	132	F	
		T	123	146	197	167	F	
		R	289	146	197	185	F	
Gympie Rd/ Rode Rd	South	L	197	54	211	21	C	F
		U	0	3	14	0	A	
		T	2137	54	211	29	C	
		R	17	3	14	121	F	
	East	U	107	18	95	90	F	
		L	49	113	204	106	F	
		T	442	113	204	106	F	
		R	172	113	204	238	F	
	North	L	97	300	419	110	F	
		U	0	72	72	0	A	
		T	2203	300	419	114	F	
		R	0	72	72	4289	F	

	R	105	291	418	164	F		
		0	72	72	0	A		
	L	109	240	332	200	F		
West	T	496	240	332	198	F		
	R	113	235	332	357	F		
Gympie Rd/ Wallace St/ Kuran St	L	45	114	301	49	D		
		0	2	15	0	A		
	South	T	2314	114	301	52	D	
		29	2	15	43	D		
		R	124	44	204	121	F	
		U	9	44	204	106	F	
	East	L	76	79	132	232	F	
		T	77	79	132	232	F	
		R	50	79	132	162	F	F
	North	L	39	128	225	46	D	
		T	2319	128	225	65	E	
		R	31	7	28	122	F	
		U	15	7	28	130	F	
	West	L	77	31	118	59	E	
		T	190	31	118	56	E	
		R	79	31	118	88	F	
Gympie Rd/ Hamilton Rd	L	126	57	172	59	E		
	South	T	2048	57	172	36	D	
		R	257	22	62	83	F	
		U	11	22	62	71	E	
	East	L	31	293	303	1127	F	
		T	169	293	303	921	F	
		R	144	293	303	564	F	F
	North	L	119	434	511	113	F	
		T	2235	435	511	131	F	
		R	96	4	23	126	F	
		U	0	4	23	0	A	
	West	L	94	230	330	223	F	
T		403	230	330	214	F		
R		113	230	330	213	F		
Gympie Rd/ Boothby St	South	T	2480	0	3	A		
		R	62	6	35	53	D	
	East	L	94	217	227	808	F	
		R	40	217	227	766	F	F
	North	L	41	253	447	86	F	
		T	2291	267	462	97	F	

PM Base Case – 2018

Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS
Gympie Rd/ Sadlier St	South	T	2885	287	486	53	D	E
		R	374	264	484	127	F	
	East	L	53	7	28	36	D	
		R	49	7	28	63	E	
	North	L	45	61	185	48	D	
		T	1973	61	185	41	D	
Gympie Rd/ Castle St/ Strathmore St	South	L	152	149	338	55	E	F
		T	2660	149	338	53	D	
		R	77	7	65	83	F	
		U	0	7	65	0	A	
	East	L	49	32	102	71	E	
		T	162	32	102	72	E	
		R	58	32	102	106	F	
		U	0	16	51	0	A	
	North	L	70	9	49	6	A	
		T	1904	9	49	8	A	
		R	92	16	51	93	F	
		U	0	16	51	0	A	
	West	L	68	174	239	239	F	
		T	201	174	239	229	F	
R		94	174	239	281	F		
U		0	16	51	0	A		
Gympie Rd/ Sport St/ Kitchener Rd	South	L	151	0	0	47	D	E
		T	2396	112	283	52	D	
		R	13	2	10	122	F	
		U	0	2	10	0	A	
	East	L	13	60	121	109	F	
		T	240	60	121	108	F	
		R	91	60	121	98	F	
		U	12	70	243	38	D	
	North	T	1884	70	243	29	C	
		R	99	27	187	90	F	
		U	9	27	187	119	F	
		L	111	3	37	31	C	
	West	T	114	29	105	73	E	
		R	148	29	105	85	F	
L		189	12	102	12	B		
U		0	0	0	0	A		
Gympie Rd/ Rode Rd	South	T	2254	12	102	12	B	E
		L	1	0	0	62	E	
		R	43	6	24	87	F	
		U	0	6	24	0	A	
	East	L	25	54	151	86	F	
		T	474	54	151	93	F	
		R	99	54	151	122	F	
		L	108	12	129	16	B	
	North	L	0	1	14	0	A	
		T	1865	12	129	15	B	
			36	1	14	31	C	

Gympie Rd/ Wallace St/ Kuran St	West	R	118	21	55	108	F	D
		L	0	1	14	0	A	
	West	L	86	71	170	110	F	
		T	385	71	170	121	F	
	West	R	73	37	134	167	F	
		L	74	59	197	35	D	
	South	L	0	0	7	0	A	
		T	2247	59	197	35	C	
		L	11	0	7	40	D	
		R	82	11	51	75	E	
		U	17	11	51	78	E	
	East	L	71	19	80	54	D	
		T	110	19	80	53	D	
		R	59	19	80	67	E	
	North	L	30	36	209	18	B	
		T	1925	36	209	20	B	
R		51	11	31	105	F		
U		15	11	31	110	F		
L		52	16	60	52	D		
West	T	103	16	60	57	E		
	R	55	16	60	63	E		
Gympie Rd/ Hamilton Rd	South	L	202	49	189	35	D	E
		T	1894	49	189	29	C	
		R	273	18	59	62	E	
		U	19	18	59	69	E	
	East	L	87	30	94	65	E	
		T	396	30	94	62	E	
		R	156	30	94	56	E	
	North	L	107	9	151	41	D	
		T	1681	73	216	50	D	
		R	234	21	59	97	F	
		U	0	21	59	0	A	
	West	L	79	34	97	80	E	
		T	298	34	97	72	E	
		R	86	34	97	74	E	

Released Under RTI

PM Base Case – 2021

Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS
Gympie Rd/ Sadlier St	South	T	2876	317	511	57	E	E
		R	370	288	511	130	F	
	East	L	55	7	29	36	D	
		R	51	7	29	60	E	
	North	L	48	66	195	46	D	
		T	2045	66	195	42	D	
Gympie Rd/ Castle St/ Strathmore St	South	L	151	148	339	55	D	F
		T	2654	148	339	52	D	
		R	77	9	99	82	F	
		U	0	9	99	0	A	
	East	L	49	33	101	75	E	
		T	166	33	101	75	E	
		R	59	33	101	68	E	
		L	68	9	44	7	A	
	North	T	1967	9	44	8	A	
		R	96	15	39	94	F	
		U	0	15	39	0	A	
		L	71	175	235	234	F	
	West	T	207	175	235	226	F	
		R	97	175	235	223	F	
Gympie Rd/ Sport St/ Kitchener Rd	South	L	147	0	0	48	D	E
		T	2403	112	280	52	D	
		R	14	2	12	111	F	
		U	0	2	12	0	A	
	East	L	12	69	125	122	F	
		T	246	69	125	120	F	
		R	92	69	125	111	F	
		L	13	73	242	34	C	
	North	T	1936	73	242	28	C	
		R	97	30	218	91	F	
		U	9	30	218	106	F	
		L	113	5	58	34	C	
	West	T	118	32	106	76	E	
		R	156	32	106	85	F	
Gympie Rd/ Rode Rd	South	L	189	11	97	12	B	E
		T	2265	11	97	12	B	
		R	2	0	0	63	E	
		U	45	6	23	87	F	
	East	L	28	110	219	141	F	
		T	495	110	219	148	F	
		R	101	110	219	176	F	
		L	114	15	122	16	B	
	North	L	0	1	15	0	A	
		T	1915	15	122	16	B	
		R	38	1	15	38	D	

Gympie Rd/ Wallace St/ Kuran St	West	R	116	22	55	111	F	D		
		L	0	1	15	0	A			
	West	L	87	86	199	131	F			
		T	388	86	199	137	F			
	South	R	74	56	174	187	F			
		L	76	61	193	37	D			
	South	L	0	0	8	0	A			
		T	2275	61	193	35	D			
	East	L	11	0	8	45	D			
		R	78	12	63	81	F			
	East	U	17	12	63	84	F			
		L	72	20	79	54	D			
	North	T	111	20	79	56	E			
		R	62	20	79	66	E			
	North	L	32	39	212	19	B			
		T	1978	39	212	19	B			
West	R	53	11	35	104	F				
	U	14	11	35	99	F				
West	L	52	17	61	54	D				
	T	108	17	61	55	E				
Gympie Rd/ Hamilton Rd	South	R	53	17	61	69	E	E		
		L	192	47	183	34	C			
	South	T	1922	47	183	29	C			
		R	273	18	56	61	E			
	East	U	17	18	56	69	E			
		L	87	32	98	67	E			
	East	T	406	32	98	64	E			
		R	164	32	98	55	E			
	North	L	109	5	104	44	D			
		T	1726	78	220	51	D			
	West	R	244	21	57	97	F			
		U	0	21	57	0	A			
	West	L	81	40	116	88	F			
		T	307	40	116	77	E			
	Gympie Rd/ Boothby St	South	R	88	40	116	79		E	A
			T	2561	0	15	1		A	
East		R	77	1	23	11	B			
		L	86	2	19	26	C			
North		R	0	1	19	0	A			
		L	43	0	21	3	A			
North		L	43	0	21	3	A			
		T	1984	0	21	13	B			

PM Base Case – 2031

Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS
Gympie Rd/ Sadlier St	South	T	2910	327	511	58	E	E
		R	365	276	510	123	F	
	East	L	58	7	32	38	D	
		R	52	7	32	62	E	
	North	L	46	72	204	48	D	
		T	2162	72	204	42	D	
Gympie Rd/ Castle St/ Strathmore St	South	L	154	149	339	51	D	F
		T	2698	149	339	51	D	
		R	78	10	99	78	E	
		U	0	10	99	0	A	
	East	L	53	44	126	92	F	
		T	179	44	126	89	F	
		R	61	44	126	75	E	
		U	0	16	51	0	A	
	North	L	74	9	53	7	A	
		T	2083	9	53	8	A	
		R	94	16	51	96	F	
		U	0	16	51	0	A	
	West	L	70	209	247	264	F	
		T	213	209	247	265	F	
R		97	209	247	260	F		
U		0	16	51	0	A		
Gympie Rd/ Sport St/ Kitchener Rd	South	L	143	0	0	49	D	F
		T	2438	112	280	52	D	
		R	14	2	10	128	F	
		U	0	2	10	0	A	
	East	L	11	84	131	140	F	
		T	252	84	131	138	F	
		R	95	84	131	128	F	
		U	13	80	251	33	C	
	North	T	2053	80	251	27	C	
		R	104	33	190	95	F	
		U	11	33	190	105	F	
		L	118	3	39	73	E	
	West	T	122	65	153	116	F	
		R	160	65	153	123	F	
Gympie Rd/ Rode Rd	South	L	190	15	131	13	B	F
		T	2310	15	131	14	B	
		R	3	0	1	63	E	
		U	0	6	24	0	A	
	East	L	24	154	229	179	F	
		T	510	154	229	186	F	
		R	104	154	229	207	F	
		U	116	18	142	16	B	
	North	L	0	1	13	0	A	
		T	2024	17	142	16	B	
		R	42	1	13	40	D	
		U	0	6	24	0	A	

	R	122	21	55	107	F		
		0	1	13	0	A		
	L	92	211	306	239	F		
West	T	400	211	306	242	F		
	R	77	200	305	286	F		
Gympie Rd/ Wallace St/ Kuran St	L	79	65	201	37	D		
		0	0	9	0	A		
	South	T	2317	65	201	36	D	
		13	0	9	45	D		
		R	76	11	57	81	F	
		U	18	11	57	82	F	
	East	L	76	23	83	58	E	
		T	120	23	83	59	E	
		R	66	23	83	66	E	E
		L	32	42	219	19	B	
	North	T	2093	42	219	19	B	
		R	53	11	33	100	F	
		U	15	11	33	114	F	
	West	L	55	17	68	53	D	
		T	117	17	68	56	E	
		R	55	17	68	68	E	
Gympie Rd/ Hamilton Rd	L	193	53	195	35	C		
	South	T	1988	53	195	29	C	
		R	275	18	55	64	E	
		U	15	18	55	60	E	
	East	L	92	35	106	68	E	
		T	434	35	106	65	E	
		R	172	35	106	56	E	E
		L	116	58	222	74	E	
	North	T	1819	168	342	84	F	
		R	256	27	80	139	F	
		U	0	27	80	0	A	
	West	L	89	47	134	97	F	
	T	328	47	134	84	F		
	R	92	47	134	85	F		
Gympie Rd/ Boothby St	South	T	2604	0	21	1	A	
		R	77	1	27	14	B	
	East	L	91	2	25	29	C	
		R	0	2	25	0	A	A
	North	L	46	0	20	3	A	
		T	2097	0	20	15	B	

PM Base Case – 2051

Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS
Gympie Rd/ Sadlier St	South	T	2879	325	511	59	E	E
		R	365	251	510	124	F	
	East	L	69	8	33	40	D	
		R	59	8	33	66	E	
	North	L	45	80	220	50	D	
		T	2301	80	220	42	D	
Gympie Rd/ Castle St/ Strathmore St	South	L	145	155	340	56	E	F
		T	2687	155	340	53	D	
		R	75	5	55	80	F	
		U	0	5	55	0	A	
	East	L	63	79	148	132	F	
		T	199	79	148	128	F	
		R	68	79	148	128	F	
		L	70	11	63	7	A	
	North	T	2212	11	63	10	A	
		R	96	16	52	95	F	
		U	0	16	52	0	A	
		L	66	212	248	284	F	
West	T	209	212	248	275	F		
	R	99	212	248	268	F		
	L	145	0	0	50	D		
	T	2445	116	291	52	D		
Gympie Rd/ Sport St/ Kitchener Rd	South	R	9	1	9	101	F	F
		U	0	1	9	0	A	
		L	11	102	130	162	F	
		T	262	102	130	164	F	
	East	R	94	102	130	159	F	
		L	13	86	258	34	C	
		T	2151	86	258	26	C	
		R	107	38	230	93	F	
	North	U	9	38	230	103	F	
		L	130	3	45	116	F	
		T	134	112	189	159	F	
		R	178	112	189	176	F	
Gympie Rd/ Rode Rd	South	L	188	15	145	13	B	F
		U	0	0	0	0	A	
		T	2345	15	145	13	B	
		R	2	0	0	71	E	
	East	U	44	6	25	90	F	
		L	24	162	231	178	F	
		T	514	162	231	190	F	
		R	100	162	231	219	F	
	North	L	124	19	136	17	B	
		U	0	2	17	0	A	
		T	2090	19	136	17	B	
		R	45	2	17	38	D	

Gympie Rd/ Wallace St/ Kuran St	West	R	125	22	59	110	F	E	
		L	0	2	17	0	A		
	West	L	91	257	333	274	F		
		T	393	257	333	282	F		
	Gympie Rd/ Wallace St/ Kuran St	South	R	86	257	333	346		F
			L	68	67	203	37		D
		South	L	0	1	10	0		A
			T	2354	67	203	36		D
		East	L	14	1	10	49		D
			R	74	10	53	82		F
U			13	10	53	74	E		
L			88	29	99	61	E		
East		T	139	29	99	62	E		
		R	74	29	99	76	E		
North	L	33	45	219	19	B			
	T	2146	45	219	19	B			
	R	58	12	38	102	F			
	U	17	12	38	96	F			
West	L	65	21	78	55	D			
	T	133	21	78	55	D			
Gympie Rd/ Hamilton Rd	South	R	62	21	78	81	F		
		L	177	55	198	35	C		
		T	2071	55	198	29	C		
		R	278	17	54	60	E		
	East	U	12	17	54	67	E		
		L	102	46	126	78	E		
		T	493	46	126	72	E		
		R	196	46	126	66	E		
	North	L	114	423	511	135	F		
		T	1830	444	511	144	F		
R		246	106	149	185	F			
U		0	106	149	0	A			
West	L	98	118	257	158	F			
	T	363	118	257	143	F			
Gympie Rd/ Boothby St	South	R	102	118	257	144	F		
		T	2626	0	15	1	A		
	East	R	69	1	26	16	B		
		L	107	4	32	31	C		
	North	R	0	3	32	0	A		
		L	47	0	21	3	A		
	North	L	47	0	21	3	A		
		T	2175	0	21	15	B		

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Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS
Gympie Rd/ Sadlier St	South	T	2305	28	157	18	B	D
		R	164	22	75	74	E	
	East	L	126	15	63	45	D	
		R	110	15	63	61	E	
	North	L	44	136	280	55	E	
		T	2830	156	305	54	D	
Gympie Rd/ Castle St/ Strathmore St	South	L	57	88	272	37	D	E
		T	2233	88	272	33	C	
		R	86	18	95	130	F	
		U	0	18	95	0	A	
	East	L	67	28	93	73	E	
		T	148	28	93	70	E	
		R	35	28	93	53	D	
	North	L	14	241	393	79	E	
		T	2539	241	393	75	E	
		R	31	2	17	85	F	
		U	0	2	17	0	A	
	West	L	52	30	111	68	E	
		T	182	30	111	65	E	
		R	129	30	111	62	E	
Gympie Rd/ Sport St/ Kitchener Rd	South	L	142	95	225	60	E	E
		T	2071	95	225	58	E	
		R	34	13	58	71	E	
		U	98	13	58	69	E	
	East	L	8	12	50	63	E	
		T	95	12	50	60	E	
		R	59	12	50	41	D	
	North	L	15	167	246	54	D	
		T	34	167	246	24	C	
		R	51	7	33	83	F	
		U	12	7	33	85	F	
	West	L	83	131	196	161	F	
		T	128	131	196	162	F	
R	276	131	196	179	F			
Gympie Rd/ Rode Rd	South	L	171	24	71	15	B	F
		U	0	1	8	0	A	
		T	1839	25	71	20	C	
		R	17	1	8	43	D	
		U	94	17	54	89	F	
	East	L	13	17	54	90	F	
		L	45	47	115	61	E	
		T	400	47	115	63	E	
	North	R	157	47	115	137	F	
		L	102	135	211	28	C	
		U	0	37	56	0	A	
T		2092	135	211	53	D		
T	28	37	56	318	F			

	R	118	21	68	94	F		
		0	21	68	0	A		
	L	136	197	324	174	F		
West	T	504	197	324	164	F		
	R	130	188	324	234	F		
Gympie Rd/ Wallace St/ Kuran St	L	43	83	207	41	D		
		0	0	13	0	A		
	South	T	2047	83	207	40	D	
		23	0	13	40	D		
		R	108	22	98	93	F	
		U	9	22	98	85	F	
	East	L	63	32	84	119	F	
		T	67	32	84	119	F	
		R	42	32	84	88	F	F
		L	45	47	137	20	C	
	North	T	2294	47	137	27	C	
		R	35	7	32	86	F	
		U	20	7	32	94	F	
	West	L	60	23	80	60	E	
		T	155	23	80	54	D	
		R	64	23	80	70	E	
Gympie Rd/ Hamilton Rd	L	108	45	133	61	E		
	South	T	1781	45	133	34	C	
		R	231	19	56	82	F	
		U	9	19	56	68	E	
	East	L	40	20	51	82	F	
		T	170	20	51	77	E	
		R	158	20	51	67	E	E
	North	L	138	11	130	29	C	
		T	2285	61	233	33	C	
		R	103	7	29	70	E	
		U	0	7	29	0	A	
	West	L	82	36	102	74	E	
	T	325	36	102	67	E		
	R	94	36	102	66	E		
Gympie Rd/ Boothby St	South	T	2159	8	34	1	A	
		R	57	8	34	69	E	
	East	L	97	210	221	804	F	
		R	39	211	222	738	F	F
	North	L	27	265	446	52	D	
		T	2270	272	465	112	F	

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Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS
Gympie Rd/ Sadlier St	South	T	2462	36	197	21	C	D
		R	178	24	79	76	E	
	East	L	138	16	65	43	D	
		R	117	16	65	59	E	
	North	L	44	136	282	55	E	
		T	2840	155	307	54	D	
Gympie Rd/ Castle St/ Strathmore St	South	L	61	111	304	39	D	E
		T	2371	111	304	37	D	
		R	94	19	82	131	F	
		U	0	19	82	0	A	
	East	L	74	33	100	77	E	
		T	159	33	100	75	E	
		R	36	33	100	60	E	
		L	15	244	393	80	E	
	North	T	2530	244	393	77	E	
		R	32	2	16	81	F	
		U	0	2	16	0	A	
		L	53	36	130	72	E	
	West	T	195	36	130	68	E	
		R	138	36	130	69	E	
Gympie Rd/ Sport St/ Kitchener Rd	South	L	146	106	248	63	E	F
		T	2226	106	248	59	E	
		R	34	15	63	79	E	
		U	105	15	63	79	E	
	East	L	7	13	50	67	E	
		T	102	13	50	62	E	
		R	62	13	50	42	D	
		L	15	168	247	54	D	
	North	T	37	168	247	27	C	
		R	53	8	39	83	F	
		U	15	8	39	78	E	
		L	78	147	197	173	F	
	West	T	127	147	197	175	F	
		R	274	147	197	200	F	
Gympie Rd/ Rode Rd	South	L	184	32	127	18	B	F
		T	0	1	10	0	A	
		R	1963	32	126	24	C	
		U	17	1	10	53	D	
	East	R	99	18	60	91	F	
		U	14	18	60	100	F	
		L	45	85	170	83	F	
		T	422	85	170	85	F	
	North	R	159	85	170	195	F	
		L	100	179	212	31	C	
		T	0	71	71	0	A	
	North	T	2120	179	212	67	E	
		L	1	71	71	3882	F	

	R	115	18	63	107	F		
		0	18	63	0	A		
	L	127	235	334	199	F		
West	T	493	235	334	192	F		
	R	128	222	335	279	F		
Gympie Rd/ Wallace St/ Kuran St	L	43	87	208	40	D		
		0	1	10	0	A		
	South	T	2157	87	208	38	D	
		26	1	10	42	D		
		R	116	28	136	93	F	
		U	9	28	136	88	F	
	East	L	56	91	130	327	F	
		T	58	91	130	339	F	
		R	37	91	130	207	F	F
		L	44	127	225	42	D	
	North	T	2289	127	225	65	E	
		R	33	10	59	129	F	
		U	19	10	59	124	F	
	West	L	68	26	92	55	D	
		T	166	26	92	57	E	
		R	70	26	92	75	E	
Gympie Rd/ Hamilton Rd	L	107	51	147	61	E		
	South	T	1878	51	147	35	D	
		R	253	21	59	82	F	
		U	8	21	59	79	E	
	East	L	34	82	126	647	F	
		T	188	82	126	198	F	
		R	168	82	126	131	F	F
		L	136	306	456	104	F	
	North	T	2228	322	456	112	F	
		R	100	5	26	112	F	
		U	0	5	26	0	A	
	West	L	89	40	107	77	E	
	T	349	40	107	69	E		
	R	100	40	107	69	E		
Gympie Rd/ Boothby St	South	T	2315	8	37	1	A	
		R	59	8	37	68	E	
	East	L	85	211	221	893	F	
		R	39	212	223	825	F	F
	North	L	33	286	475	54	D	
		T	2269	294	494	117	F	

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Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS	
Gympie Rd/ Sadlier St	South	T	2626	286	450	78	E	E	
		R	195	87	284	110	F		
	East	L	157	21	81	47	D		
		R	133	21	81	62	E		
	North	L	37	137	283	52	D		
		T	2881	157	308	54	D		
Gympie Rd/ Castle St/ Strathmore St	South	L	63	179	340	56	E	F	
		T	2558	179	340	53	D		
		R	101	22	106	147	F		
		U	0	22	106	0	A		
	East	L	82	43	119	87	F		
		T	180	43	119	82	F		
		R	40	43	119	68	E		
		L	18	245	393	83	F		
	North	T	2524	245	393	77	E		
		R	32	2	19	87	F		
		U	0	2	19	0	A		
		L	60	68	177	106	F		
	West	T	225	68	177	101	F		
		R	158	68	177	104	F		
Gympie Rd/ Sport St/ Kitchener Rd	South	L	161	130	279	64	E	F	
		T	2389	130	279	62	E		
		R	37	21	74	101	F		
		U	113	21	74	96	F		
	East	L	9	15	60	54	D		
		T	116	15	60	62	E		
		R	71	15	60	45	D		
		L	14	170	246	42	D		
	North	T	39	170	246	29	C		
		R	45	8	39	79	E		
		U	20	8	39	73	E		
		L	76	149	198	171	F		
	West	T	107	149	198	180	F		
		R	279	149	198	211	F		
Gympie Rd/ Rode Rd	South	L	196	32	99	15	B	F	
		U	0	2	12	0	A		
		T	2111	32	98	21	C		
		R	19	2	12	86	F		
	East	R	103	18	57	89	F		
		U	16	18	57	96	F		
		L	48	132	214	122	F		
		T	437	132	214	119	F		
	North	R	170	132	214	266	F		
		L	99	180	211	35	C		
		U	0	71	71	0	A		
		T	2111	180	211	69	E		
				0	71	71	0		A

Gympie Rd/ Wallace St/ Kuran St	West	R	103	15	58	109	F	F	
		L	0	15	58	0	A		
	West	L	118	230	334	186	F		
		T	529	230	334	181	F		
	South	West	R	135	220	334	261		F
			L	42	90	208	38		D
		South	L	0	1	12	0		A
			T	2297	90	208	36		D
		South	L	28	1	12	40		D
			R	122	34	158	97		F
East		U	8	34	158	82	F		
		L	57	114	136	418	F		
East		T	62	114	136	412	F		
		R	36	114	136	281	F		
North	L	36	136	226	53	D			
	T	2247	136	226	71	E			
North	R	29	8	45	139	F			
	U	17	8	45	145	F			
West	L	76	30	115	55	E			
	T	191	30	115	59	E			
Gympie Rd/ Hamilton Rd	West	R	77	30	115	77	E	F	
		L	119	58	165	60	E		
	South	T	2036	58	165	36	D		
		R	255	24	67	86	F		
	South	U	10	24	67	87	F		
		L	31	285	303	1224	F		
	East	T	141	285	303	976	F		
		R	130	285	303	563	F		
	North	L	115	444	510	139	F		
		T	2166	444	510	141	F		
North	R	94	5	26	131	F			
	U	0	5	26	0	A			
West	L	102	68	170	106	F			
	T	400	68	170	96	F			
Gympie Rd/ Boothby St	South	R	114	68	170	97	F	F	
		T	2481	10	42	1	A		
	South	R	66	10	42	73	E		
		L	92	210	221	814	F		
	East	R	43	211	222	747	F		
		L	37	296	485	52	D		
North	L	37	296	485	52	D			
	T	2257	301	503	118	F			

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Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS
Gympie Rd/ Sadlier St	South	T	2879	331	510	62	E	E
		R	372	290	510	137	F	
	East	L	54	7	30	36	D	
		R	51	7	30	66	E	
	North	L	47	54	165	45	D	
		T	2032	68	191	43	D	
Gympie Rd/ Castle St/ Strathmore St	South	L	151	138	334	54	D	F
		T	2657	138	334	51	D	
		R	77	6	38	79	E	
		U	0	6	38	0	A	
	East	L	51	29	98	71	E	
		T	168	29	98	65	E	
		R	59	29	98	61	E	
		U	0	15	40	0	A	
	North	L	70	7	38	8	A	
		T	1955	8	41	8	A	
		R	96	15	40	88	F	
		U	0	15	40	0	A	
	West	L	68	178	241	240	F	
		T	203	178	241	235	F	
R		92	178	241	226	F		
U		0	15	40	0	A		
Gympie Rd/ Sport St/ Kitchener Rd	South	L	148	105	286	53	D	F
		T	2398	105	286	51	D	
		R	12	52	159	172	F	
		U	142	52	159	158	F	
	East	L	12	68	126	113	F	
		T	245	68	126	118	F	
		R	90	68	126	112	F	
		U	10	41	224	29	C	
	North	T	1928	41	224	22	C	
		R	100	25	66	95	F	
		U	35	25	66	96	F	
		L	110	48	133	91	F	
	West	T	117	48	133	94	F	
		R	156	48	133	91	F	
U		0	0	1	0	A		
L		188	10	102	16	B		
Gympie Rd/ Rode Rd	South	T	2254	11	102	13	B	F
		R	41	11	34	90	F	
		U	27	11	34	108	F	
		L	26	13	48	50	D	
	East	T	498	16	48	3	A	
		R	101	15	48	82	F	
		L	111	13	117	14	B	
		U	0	1	11	0	A	
	North	T	1909	14	117	15	B	
		R	39	1	11	36	D	

	R	117	22	56	109	F		
		0	22	56	0	A		
	L	85	260	334	290	F		
West	T	379	260	334	294	F		
	R	79	260	334	440	F		
Gympie Rd/ Wallace St/ Kuran St	L	74	59	186	39	D		
		0	0	6	0	A		
	South	T	2245	59	186	35	D	
		12	0	6	40	D		
		R	80	12	60	80	E	
		U	17	12	60	81	F	
	East	L	73	19	74	54	D	
		T	112	19	74	53	D	
		R	61	19	74	63	E	
		L	32	40	212	17	B	
	North	T	1968	40	212	19	B	
		R	54	11	30	103	F	
		U	16	11	30	106	F	
		L	52	17	64	55	E	
	West	T	110	17	64	55	E	
		R	54	17	64	64	E	
Gympie Rd/ Hamilton Rd	L	198	49	194	34	C		
	South	T	1903	49	194	29	C	
		R	266	17	56	61	E	
		U	16	17	56	58	E	
	East	L	86	32	97	69	E	
		T	400	32	97	63	E	
		R	162	32	97	57	E	
		L	109	7	135	43	D	
	North	T	1725	80	234	52	D	
		R	239	22	62	102	F	
		U	0	22	62	0	A	
		L	81	35	91	81	F	
West	T	307	35	91	70	E		
	R	87	35	91	72	E		
Gympie Rd/ Boothby St	South	T	2567	13	42	1	A	
		R	76	13	42	81	F	
		L	83	9	38	60	E	
	East	R	0	10	39	0	A	
		L	42	26	154	15	B	
	North	T	2006	26	154	21	C	

PM Project Case – 2031

Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS
Gympie Rd/ Sadlier St	South	T	2884	318	510	62	E	E
		R	370	258	510	133	F	
	East	L	59	7	32	41	D	
		R	53	7	32	59	E	
	North	L	47	61	182	45	D	
		T	2160	76	208	43	D	
Gympie Rd/ Castle St/ Strathmore St	South	L	154	136	337	53	D	F
		T	2662	136	337	50	D	
		R	78	6	33	79	E	
		U	0	6	33	0	A	
	East	L	55	36	112	73	E	
		T	176	36	112	75	E	
		R	61	36	112	63	E	
		U	0	16	42	0	A	
	North	L	72	7	43	8	A	
		T	2092	9	44	8	A	
		R	95	16	42	91	F	
		U	0	16	42	0	A	
	West	L	67	212	248	282	F	
		T	208	212	248	275	F	
R		95	212	248	270	F		
U		0	16	42	0	A		
Gympie Rd/ Sport St/ Kitchener Rd	South	L	148	105	289	51	D	F
		T	2412	105	289	50	D	
		R	13	66	182	169	F	
		U	152	66	182	186	F	
	East	L	9	93	131	149	F	
		T	252	93	131	151	F	
		R	95	93	131	144	F	
		U	12	44	236	32	C	
	North	T	2055	44	236	21	C	
		R	104	27	74	98	F	
		U	37	27	74	94	F	
		L	117	68	157	114	F	
	West	T	123	68	157	113	F	
		R	165	68	157	114	F	
Gympie Rd/ Rode Rd	South	L	188	12	123	16	B	F
		T	2281	13	128	13	B	
		R	44	11	36	89	F	
		U	24	11	36	107	F	
	East	L	26	18	49	43	D	
		T	531	20	50	3	A	
		R	107	20	50	97	F	
		U	120	13	102	14	B	
	North	L	0	1	13	0	A	
		T	2026	14	102	15	B	
		R	42	1	13	40	D	
		U	0	0	0	0	A	

	R	122	22	56	107	F		
		0	22	56	0	A		
	L	79	266	333	318	F		
West	T	341	266	333	314	F		
	R	84	266	333	488	F		
Gympie Rd/ Wallace St/ Kuran St	L	76	60	195	41	D		
		0	0	7	0	A		
	South	T	2276	60	195	36	D	
		12	0	7	33	C		
		R	75	11	63	77	E	
		U	17	11	63	78	E	
	East	L	75	22	92	59	E	
		T	119	22	92	57	E	
		R	67	22	92	68	E	E
		L	32	48	216	17	B	
	North	T	2096	48	216	19	B	
		R	55	12	34	105	F	
		U	15	12	34	118	F	
		L	56	19	71	58	E	
	West	T	115	19	71	57	E	
		R	58	19	71	72	E	
Gympie Rd/ Hamilton Rd	L	191	53	191	35	C		
	South	T	1957	53	191	29	C	
		R	267	18	56	61	E	
		U	17	18	56	68	E	
	East	L	92	37	111	69	E	
		T	433	37	111	67	E	
		R	175	37	111	60	E	E
		L	114	58	214	76	E	
	North	T	1827	160	330	82	F	
		R	254	32	99	144	F	
		U	0	32	99	0	A	
		L	88	40	100	86	F	
West	T	328	40	100	75	E		
	R	92	40	100	75	E		
Gympie Rd/ Boothby St	South	T	2594	13	42	1	A	
		R	76	13	42	82	F	
	East	L	89	10	45	64	E	
		R	0	11	46	0	A	A
	North	L	46	29	169	16	B	
		T	2126	29	169	23	C	

PM Project Case – 2051

Intersection	Approach	Turn	Vehicles	Avg Queue (m)	Max Queue (m)	Avg Delays (s)	LoS	LoS		
Gympie Rd/ Sadlier St	South	T	2836	342	510	64	E	E		
		R	368	288	510	138	F			
	East	L	68	8	32	37	D			
		R	61	8	32	64	E			
	North	L	47	68	191	49	D			
		T	2298	84	217	44	D			
Gympie Rd/ Casile St/ Strathmore St	South	L	153	133	333	54	D	F		
		T	2651	133	333	50	D			
		R	77	6	35	80	F			
		U	0	6	35	0	A			
	East	L	61	48	129	88	F			
		T	199	48	129	84	F			
		R	68	48	129	83	F			
		L	71	8	44	8	A			
	North	T	2215	9	46	8	A			
		R	102	16	45	89	F			
		U	0	16	45	0	A			
		L	65	211	248	269	F			
	West	T	213	211	248	271	F			
		R	103	211	248	259	F			
L		147	108	287	52	D				
T		2410	108	287	51	D				
Gympie Rd/ Sport St/ Kitchener Rd	South	R	7	41	126	139	F	F		
		U	143	41	126	135	F			
		L	11	103	130	173	F			
		T	258	103	130	165	F			
	East	R	91	103	130	163	F			
		L	13	48	248	28	C			
		T	2161	48	248	20	C			
		R	108	26	73	94	F			
	North	U	38	26	73	97	F			
		L	122	128	194	173	F			
		T	133	128	194	173	F			
		R	171	128	194	183	F			
	Gympie Rd/ Rode Rd	South	L	194	12	124	16		B	F
			U	0	0	1	0		A	
T			2297	13	123	14	B			
R			3	0	1	110	F			
East		R	48	11	34	88	F			
		U	22	11	34	101	F			
		L	32	31	87	56	E			
		T	602	33	87	6	A			
North		R	123	33	86	128	F			
		L	119	15	110	14	B			
		U	0	1	14	0	A			
		T	2091	16	109	16	B			
				48	1	14	40	D		

	West	R	127	23	55	107	F	
			0	23	55	0	A	
		L	78	269	333	288	F	
		T	330	269	333	303	F	
		R	91	269	333	545	F	
Gympie Rd/ Wallace St/ Kuran St	South	L	72	63	195	40	D	E
			0	0	8	0	A	
		T	2336	63	195	36	D	
	East		13	0	8	46	D	
		R	72	11	62	79	E	
		U	14	11	62	72	E	
		L	89	28	103	61	E	
		T	136	28	103	59	E	
	North	R	77	28	103	78	E	
		L	31	48	219	19	B	
		T	2140	48	219	20	B	
		R	56	13	37	106	F	
		U	17	13	37	105	F	
	West	L	63	22	83	58	E	
		T	132	22	83	56	E	
R		63	22	83	84	F		
Gympie Rd/ Hamilton Rd	South	L	177	57	203	36	D	F
		T	2062	57	203	29	C	
		R	263	17	56	61	E	
	East	U	12	17	56	65	E	
		L	103	45	123	75	E	
		T	492	45	123	70	E	
		R	196	45	123	62	E	
		L	113	446	510	144	F	
	North	T	1825	447	510	145	F	
		R	250	25	73	189	F	
		U	0	25	73	0	A	
	West	L	99	57	143	106	F	
		T	370	57	143	95	F	
R		102	57	143	92	F		
Gympie Rd/ Boothby St	South	T	2605	11	35	2	A	A
		R	64	11	35	74	E	
	East	L	102	12	51	67	E	
		R	0	13	52	0	A	
	North	L	47	31	173	16	B	
		T	2215	31	173	23	C	

Appendix B

SIDRA Modelling Results (Vissim Volumes)

Sadlier Street – 2021 AM – Base Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
2	T1	2426	5.0	0.596	2.0	LOS A	6.0	43.1	0.11	0.10	0.11	57.7
3	R2	171	3.5	0.730	80.5	LOS F	13.3	96.1	1.00	0.85	1.07	20.4
Approach		2597	4.9	0.730	7.2	LOS A	13.3	96.1	0.16	0.15	0.17	52.2
East: Sadlier St (E)												
4	L2	134	4.5	0.277	50.6	LOS D	7.8	56.8	0.80	0.77	0.80	26.8
6	R2	115	3.5	0.497	72.7	LOS E	8.2	59.3	0.95	0.79	0.95	17.3
Approach		249	4.0	0.497	60.8	LOS E	8.2	59.3	0.87	0.78	0.87	22.2
North: Gympie Rd (N)												
7	L2	49	6.1	0.875	19.6	LOS B	48.2	351.7	0.68	0.65	0.68	38.7
8	T1	2996	4.8	0.875	13.6	LOS B	48.2	351.7	0.68	0.64	0.68	46.9
Approach		3045	4.8	0.875	13.7	LOS B	48.2	351.7	0.68	0.64	0.68	46.8
All Vehicles		5891	4.8	0.875	12.8	LOS B	48.2	351.7	0.46	0.43	0.46	47.2

Sadlier Street – 2031 AM – Base Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
2	T1	2615	5.9	0.726	9.7	LOS A	25.8	187.6	0.42	0.39	0.42	50.0
3	R2	185	3.8	0.875	91.8	LOS F	15.8	114.3	1.00	0.93	1.27	18.7
Approach		2800	5.7	0.875	15.2	LOS B	25.8	187.6	0.46	0.43	0.48	45.6
East: Sadlier St (E)												
4	L2	247	3.6	0.622	55.8	LOS E	15.8	114.0	0.88	0.81	0.88	25.4
6	R2	123	4.9	0.824	84.3	LOS F	9.8	71.4	0.98	0.89	1.23	15.6
Approach		370	4.1	0.824	65.3	LOS E	15.8	114.0	0.91	0.84	0.99	21.8
North: Gympie Rd (N)												
7	L2	45	2.2	0.870	18.0	LOS B	45.6	335.1	0.64	0.61	0.64	40.5
8	T1	3022	6.0	0.870	12.0	LOS B	45.6	335.1	0.63	0.60	0.63	48.1
Approach		3067	6.0	0.870	12.1	LOS B	45.6	335.1	0.63	0.60	0.63	48.0
All Vehicles		6237	5.7	0.875	16.6	LOS B	45.6	335.1	0.57	0.54	0.59	44.4

Sadlier Street – 2021 PM – Base Case

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: Gympie Rd (S)												
2	T1	3030	5.1	0.722	1.1	LOS A	5.2	37.5	0.07	0.07	0.07	58.7
3	R2	387	4.4	1.092	183.0	LOS F	50.9	369.4	1.00	1.21	1.82	10.9
Approach		3417	5.0	1.092	21.7	LOS C	50.9	369.4	0.18	0.20	0.27	40.8
East: Sadlier St (E)												
4	L2	57	3.5	0.090	42.3	LOS D	2.9	21.1	0.70	0.72	0.70	29.4
6	R2	54	5.6	0.255	75.5	LOS E	3.9	28.5	0.95	0.75	0.95	16.9
Approach		111	4.5	0.255	58.5	LOS E	3.9	28.5	0.82	0.74	0.82	22.6
North: Gympie Rd (N)												
7	L2	49	2.0	0.685	22.0	LOS C	28.0	203.6	0.55	0.52	0.55	37.0
8	T1	2144	4.6	0.685	16.1	LOS B	28.0	203.6	0.54	0.50	0.54	45.1
Approach		2193	4.6	0.685	16.2	LOS B	28.0	203.6	0.54	0.50	0.54	44.9
All Vehicles		5721	4.8	1.092	20.3	LOS C	50.9	369.4	0.33	0.33	0.38	41.8

Sadlier Street – 2031 PM – Base Case

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: Gympie Rd (S)												
2	T1	3075	6.2	0.737	1.1	LOS A	5.5	40.4	0.08	0.07	0.08	58.7
3	R2	389	4.9	1.102	190.6	LOS F	52.2	380.9	1.00	1.23	1.85	10.5
Approach		3464	6.1	1.102	22.4	LOS C	52.2	380.9	0.18	0.20	0.28	40.4
East: Sadlier St (E)												
4	L2	63	6.3	0.101	42.6	LOS D	3.2	24.0	0.71	0.73	0.71	29.2
6	R2	55	3.6	0.256	75.5	LOS E	4.0	28.6	0.95	0.75	0.95	16.9
Approach		118	5.1	0.256	57.9	LOS E	4.0	28.6	0.82	0.74	0.82	22.8
North: Gympie Rd (N)												
7	L2	49	4.1	0.733	22.8	LOS C	32.2	236.1	0.59	0.56	0.59	36.3
8	T1	2286	5.5	0.733	16.8	LOS B	32.2	236.1	0.58	0.54	0.58	44.5
Approach		2335	5.5	0.733	16.9	LOS B	32.2	236.1	0.58	0.54	0.58	44.4
All Vehicles		5917	5.8	1.102	20.9	LOS C	52.2	380.9	0.35	0.35	0.41	41.4

Released Under RTI

Sadlier Street – 2021 AM – Project Case

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: Gympie Rd (S)												
2	T1	2438	5.5	0.635	3.5	LOS A	10.2	74.5	0.23	0.23	0.27	55.9
3	R2	170	3.5	0.726	80.4	LOS F	13.2	95.4	1.00	0.85	1.06	20.4
Approach		2608	5.3	0.726	8.6	LOS A	13.2	95.4	0.28	0.27	0.32	50.9
East: Sadlier St (E)												
4	L2	133	5.3	0.277	50.6	LOS D	7.8	56.7	0.80	0.77	0.80	26.8
6	R2	117	6.0	0.529	72.9	LOS E	8.4	61.8	0.96	0.79	0.96	17.3
Approach		250	5.6	0.529	61.1	LOS E	8.4	61.8	0.87	0.78	0.87	22.1
North: Gympie Rd (N)												
7	L2	47	6.4	0.884	20.8	LOS C	50.0	375.4	0.70	0.67	0.71	37.8
8	T1	3009	5.9	0.884	14.4	LOS B	50.2	365.7	0.70	0.66	0.70	46.3
Approach		3056	6.0	0.884	14.5	LOS B	50.2	375.4	0.70	0.66	0.70	46.2
All Vehicles		5914	5.7	0.884	13.8	LOS B	50.2	375.4	0.52	0.49	0.54	46.5

Sadlier Street – 2031 AM – Project Case

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: Gympie Rd (S)												
2	T1	2615	5.9	0.679	3.9	LOS A	12.5	91.3	0.26	0.26	0.31	55.5
3	R2	185	3.8	0.792	83.3	LOS F	14.8	107.3	1.00	0.88	1.13	19.9
Approach		2800	5.7	0.792	9.2	LOS A	14.8	107.3	0.31	0.30	0.36	50.3
East: Sadlier St (E)												
4	L2	247	3.6	0.591	54.0	LOS D	15.5	111.8	0.86	0.81	0.86	25.9
6	R2	123	4.9	0.691	74.7	LOS E	9.0	65.8	0.96	0.82	1.03	17.0
Approach		370	4.1	0.691	60.9	LOS E	15.5	111.8	0.90	0.81	0.92	22.8
North: Gympie Rd (N)												
7	L2	45	2.2	0.887	21.2	LOS C	51.0	382.9	0.71	0.68	0.72	37.7
8	T1	3022	6.0	0.887	14.8	LOS B	51.2	373.3	0.70	0.67	0.71	46.0
Approach		3067	6.0	0.887	14.9	LOS B	51.2	382.9	0.70	0.67	0.71	45.9
All Vehicles		6237	5.7	0.887	15.1	LOS B	51.2	382.9	0.54	0.51	0.56	45.5

Sadlier Street – 2021 PM – Project Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
2	T1	3065	6.1	0.767	2.0	LOS A	10.4	75.6	0.23	0.21	0.23	57.6
3	R2	393	5.3	1.148	226.1	LOS F	57.4	420.6	1.00	1.30	2.02	9.1
Approach		3458	6.0	1.148	27.5	LOS C	57.4	420.6	0.31	0.34	0.44	37.5
East: Sadlier St (E)												
4	L2	55	1.8	0.087	43.0	LOS D	2.8	20.2	0.71	0.72	0.71	29.2
6	R2	54	5.6	0.255	75.5	LOS E	3.9	28.5	0.95	0.75	0.95	16.9
Approach		109	3.7	0.255	59.1	LOS E	3.9	28.5	0.83	0.74	0.83	22.4
North: Gympie Rd (N)												
7	L2	49	4.1	0.681	21.3	LOS C	27.1	201.5	0.53	0.51	0.53	37.4
8	T1	2149	5.4	0.681	15.3	LOS B	27.1	201.5	0.52	0.49	0.52	45.6
Approach		2198	5.4	0.681	15.4	LOS B	27.1	201.5	0.52	0.49	0.52	45.4
All Vehicles		5765	5.7	1.148	23.5	LOS C	57.4	420.6	0.40	0.40	0.48	39.8

Sadlier Street – 2031 PM – Project Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
2	T1	3075	6.2	0.770	2.1	LOS A	10.6	77.2	0.23	0.22	0.24	57.6
3	R2	389	4.9	1.133	213.9	LOS F	55.2	402.6	1.00	1.27	1.96	9.6
Approach		3464	6.1	1.133	25.8	LOS C	55.2	402.6	0.32	0.34	0.43	38.4
East: Sadlier St (E)												
4	L2	63	6.3	0.103	43.3	LOS D	3.3	24.2	0.71	0.73	0.71	29.0
6	R2	55	3.6	0.256	75.5	LOS E	4.0	28.6	0.95	0.75	0.95	16.9
Approach		118	5.1	0.256	58.3	LOS E	4.0	28.6	0.82	0.74	0.82	22.7
North: Gympie Rd (N)												
7	L2	49	4.1	0.723	22.0	LOS C	30.8	229.5	0.57	0.54	0.57	37.0
8	T1	2286	5.5	0.723	16.0	LOS B	30.8	229.5	0.56	0.52	0.56	45.1
Approach		2335	5.5	0.723	16.1	LOS B	30.8	229.5	0.56	0.52	0.56	45.0
All Vehicles		5917	5.8	1.133	22.6	LOS C	55.2	402.6	0.42	0.42	0.49	40.3

Castle Street and Strathmore Road – 2021 AM – Base Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	61	4.9	0.060	13.8	LOS B	1.1	7.9	0.46	0.67	0.46	45.4
2	T1	2356	4.8	0.791	18.4	LOS B	39.1	283.3	0.62	0.58	0.62	42.0
3	R2	91	3.3	0.597	83.9	LOS F	7.2	51.5	1.00	0.79	1.01	18.1
3u	U	1	0.0	0.597	85.2	LOS F	7.2	51.5	1.00	0.79	1.01	18.1
Approach		2509	4.8	0.791	20.7	LOS C	39.1	283.3	0.63	0.59	0.63	40.4
East: Castle St (E)												
4	L2	74	5.4	1.050	156.1	LOS F	26.7	193.5	1.00	1.28	1.74	11.5
5	T1	155	3.2	1.050	150.5	LOS F	26.7	193.5	1.00	1.28	1.74	14.4
6	R2	37	2.7	0.232	80.5	LOS F	2.8	19.7	0.97	0.73	0.97	20.8
Approach		266	3.8	1.050	142.3	LOS F	26.7	193.5	1.00	1.20	1.63	14.2
North: Gympie Rd (N)												
7	L2	17	0.0	0.014	15.8	LOS B	0.5	3.2	0.37	0.63	0.37	42.6
8	T1	2704	4.8	0.876	22.2	LOS C	52.2	380.9	0.77	0.73	0.78	39.5
9	R2	38	7.9	0.262	81.1	LOS F	2.9	21.8	0.97	0.74	0.97	24.0
9u	U	1	0.0	0.262	82.3	LOS F	2.9	21.8	0.97	0.74	0.97	22.3
Approach		2760	4.9	0.876	23.0	LOS C	52.2	380.9	0.77	0.73	0.78	39.1
West: Strathmore Rd (W)												
10	L2	54	3.7	0.239	74.3	LOS E	3.8	27.8	0.94	0.75	0.94	25.1
11	T1	187	2.7	0.855	82.3	LOS F	15.5	111.0	1.00	0.96	1.23	22.6
12	R2	133	3.8	0.840	91.9	LOS F	11.2	80.7	1.00	0.91	1.25	20.8
Approach		374	3.2	0.855	84.5	LOS F	15.5	111.0	0.99	0.91	1.19	22.3
All Vehicles		5909	4.7	1.050	31.3	LOS C	52.2	380.9	0.74	0.70	0.78	34.8

Castle Street and Strathmore Road – 2031 AM – Base Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	66	4.5	0.065	13.8	LOS B	1.2	8.5	0.46	0.67	0.46	45.4
2	T1	2522	4.9	0.848	19.5	LOS B	46.9	339.8	0.69	0.64	0.69	41.3
3	R2	101	5.0	0.669	85.4	LOS F	8.1	58.9	1.00	0.81	1.06	17.9
3u	U	1	0.0	0.669	86.6	LOS F	8.1	58.9	1.00	0.81	1.06	17.9
Approach		2690	4.9	0.848	21.8	LOS C	46.9	339.8	0.70	0.65	0.70	39.7
East: Castle St (E)												
4	L2	78	5.1	1.120	206.1	LOS F	33.4	243.5	1.00	1.43	1.97	9.0
5	T1	167	4.8	1.120	200.5	LOS F	33.4	243.5	1.00	1.43	1.97	11.4
6	R2	35	0.0	0.215	80.3	LOS F	2.6	18.2	0.97	0.73	0.97	20.8
Approach		280	4.3	1.120	187.0	LOS F	33.4	243.5	1.00	1.34	1.85	11.3
North: Gympie Rd (N)												
7	L2	14	0.0	0.012	15.8	LOS B	0.4	2.6	0.37	0.63	0.37	42.7
8	T1	2688	4.9	0.869	21.4	LOS C	50.5	368.4	0.76	0.71	0.77	40.1
9	R2	35	0.0	0.230	80.5	LOS F	2.7	18.8	0.97	0.73	0.97	24.2
9u	U	1	0.0	0.230	81.8	LOS F	2.7	18.8	0.97	0.73	0.97	22.4
Approach		2738	4.8	0.869	22.1	LOS C	50.5	368.4	0.76	0.71	0.77	39.6
West: Strathmore Rd (W)												
10	L2	54	1.9	0.236	74.2	LOS E	3.8	27.3	0.94	0.75	0.94	25.2
11	T1	203	3.0	0.938	96.3	LOS F	18.5	132.9	1.00	1.07	1.40	20.4
12	R2	141	2.8	0.885	96.0	LOS F	12.2	87.6	1.00	0.95	1.33	20.2
Approach		398	2.8	0.938	93.2	LOS F	18.5	132.9	0.99	0.98	1.31	20.9
All Vehicles		6106	4.7	1.120	34.2	LOS C	50.5	368.4	0.76	0.73	0.82	33.4

Castle Street and Strathmore Road – 2021 PM – Base Case

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: Gympie Rd (S)												
1	L2	156	3.2	0.142	19.3	LOS B	5.0	36.1	0.45	0.69	0.45	41.9
2	T1	2801	5.2	0.956	42.8	LOS D	81.4	595.3	0.84	0.90	0.98	30.1
3	R2	81	4.9	0.342	73.7	LOS E	5.9	42.8	0.95	0.77	0.95	19.8
3u	U	1	0.0	0.342	75.0	LOS E	5.9	42.8	0.95	0.77	0.95	19.7
Approach		3039	5.1	0.956	42.5	LOS D	81.4	595.3	0.83	0.88	0.96	30.2
East: Castle St (E)												
4	L2	51	3.9	1.027	142.2	LOS F	25.0	181.6	1.00	1.23	1.66	12.5
5	T1	174	4.6	1.027	136.6	LOS F	25.0	181.6	1.00	1.23	1.66	15.7
6	R2	61	3.3	0.598	89.5	LOS F	4.9	35.4	1.00	0.77	1.04	19.4
Approach		286	4.2	1.027	127.6	LOS F	25.0	181.6	1.00	1.14	1.53	15.7
North: Gympie Rd (N)												
7	L2	70	2.9	0.074	16.3	LOS B	1.6	11.4	0.52	0.68	0.52	42.2
8	T1	2063	4.7	0.727	19.4	LOS B	32.8	238.5	0.59	0.54	0.59	41.4
9	R2	101	5.0	0.493	78.2	LOS E	7.6	55.5	0.95	0.79	0.98	24.6
9u	U	1	0.0	0.493	79.4	LOS E	7.6	55.5	0.95	0.79	0.98	22.8
Approach		2235	4.6	0.727	21.9	LOS C	32.8	238.5	0.61	0.56	0.61	39.8
West: Strathmore Rd (W)												
10	L2	73	2.7	0.427	81.2	LOS F	5.5	39.6	0.99	0.77	0.99	23.9
11	T1	215	3.7	0.990	116.5	LOS F	21.7	156.7	1.00	1.16	1.55	17.9
12	R2	100	3.0	0.978	119.0	LOS F	9.7	63.8	1.00	1.06	1.62	17.4
Approach		388	3.4	0.990	110.5	LOS F	21.7	156.7	1.00	1.06	1.46	18.8
All Vehicles		5948	4.8	1.027	43.3	LOS D	81.4	595.3	0.76	0.78	0.89	30.1

Castle Street and Strathmore Road – 2031 PM – Base Case

Movement Performance - Vehicles												
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South: Gympie Rd (S)												
1	L2	161	4.3	0.148	19.4	LOS B	5.2	37.8	0.45	0.70	0.45	41.8
2	T1	2849	5.3	0.974	51.4	LOS D	90.9	664.9	0.87	0.97	1.06	27.3
3	R2	82	4.9	0.347	73.8	LOS E	5.9	43.3	0.95	0.78	0.95	19.7
3u	U	1	0.0	0.347	75.0	LOS E	5.9	43.3	0.95	0.78	0.95	19.7
Approach		3093	5.2	0.974	50.4	LOS D	90.9	664.9	0.85	0.95	1.03	27.6
East: Castle St (E)												
4	L2	57	7.0	1.102	192.3	LOS F	31.8	230.3	1.00	1.39	1.91	9.6
5	T1	185	3.2	1.102	186.6	LOS F	31.8	230.3	1.00	1.39	1.91	12.1
6	R2	64	4.7	0.633	90.1	LOS F	5.2	37.8	1.00	0.79	1.07	19.3
Approach		306	4.2	1.102	167.5	LOS F	31.8	230.3	1.00	1.26	1.73	12.6
North: Gympie Rd (N)												
7	L2	76	2.6	0.081	16.4	LOS B	1.7	12.4	0.52	0.68	0.52	42.1
8	T1	2187	4.8	0.769	20.1	LOS C	37.1	270.0	0.63	0.58	0.63	40.9
9	R2	99	5.1	0.484	78.1	LOS E	7.5	54.4	0.98	0.79	0.98	24.6
9u	U	1	0.0	0.484	79.4	LOS E	7.5	54.4	0.98	0.79	0.98	22.8
Approach		2363	4.7	0.769	22.4	LOS C	37.1	270.0	0.64	0.59	0.64	39.5
West: Strathmore Rd (W)												
10	L2	72	2.8	0.422	81.2	LOS F	5.4	39.0	0.99	0.77	0.99	23.9
11	T1	220	3.2	1.006	125.8	LOS F	23.3	167.7	1.00	1.19	1.60	16.9
12	R2	101	3.0	0.994	126.3	LOS F	10.2	73.5	1.00	1.08	1.67	16.7
Approach		393	3.3	1.006	117.7	LOS F	23.3	167.7	1.00	1.08	1.51	17.9
All Vehicles		6155	4.9	1.102	49.8	LOS D	90.9	664.9	0.79	0.83	0.94	28.0

Castle Street and Strathmore Road – 2021 AM – Project Case

Movement Performance - Vehicles												
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South: Gympie Rd (S)												
1	L2	60	5.0	0.090	13.9	LOS B	1.4	11.7	0.43	0.54	0.43	46.5
2	T1	2360	5.4	0.769	18.2	LOS B	36.4	264.7	0.62	0.57	0.62	42.1
3	R2	91	5.5	0.606	84.2	LOS F	7.2	52.6	1.00	0.79	1.01	18.2
3u	U	1	0.0	0.606	85.7	LOS F	7.2	52.6	1.00	0.79	1.01	18.2
Approach		2512	5.4	0.769	20.5	LOS C	36.4	264.7	0.63	0.58	0.63	40.5
East: Castle St (E)												
4	L2	69	2.9	1.138	219.5	LOS F	31.6	229.9	1.00	1.44	2.04	8.5
5	T1	156	5.1	1.138	213.9	LOS F	31.6	229.9	1.00	1.44	2.04	10.8
6	R2	36	2.8	0.226	80.5	LOS F	2.7	19.2	0.97	0.73	0.97	20.8
Approach		261	4.2	1.138	197.0	LOS F	31.6	229.9	1.00	1.34	1.89	10.9
North: Gympie Rd (N)												
7	L2	14	0.0	0.067	18.7	LOS B	1.2	13.5	0.34	0.34	0.34	43.4
8	T1	2702	6.0	0.858	20.3	LOS C	48.2	351.5	0.75	0.69	0.75	40.8
9	R2	32	3.1	0.215	60.5	LOS F	2.5	17.6	0.97	0.73	0.97	24.3
9u	U	1	0.0	0.215	82.1	LOS F	2.5	17.6	0.97	0.73	0.97	22.6
Approach		2749	6.0	0.858	21.0	LOS C	48.2	351.5	0.75	0.69	0.75	40.3
West: Strathmore Rd (W)												
10	L2	54	3.7	0.398	84.2	LOS F	4.2	30.1	0.99	0.75	0.99	23.4
11	T1	190	4.2	0.985	114.4	LOS F	18.9	137.1	1.00	1.14	1.55	18.2
12	R2	135	4.4	0.857	93.2	LOS F	11.5	83.3	1.00	0.93	1.28	20.6
Approach		379	4.2	0.985	102.5	LOS F	18.9	137.1	1.00	1.01	1.37	19.7
All Vehicles		5901	5.5	1.138	33.8	LOS C	48.2	351.5	0.72	0.69	0.79	33.6

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South: Gympie Rd (S)												
1	L2	64	4.7	0.108	13.8	LOS B	1.5	14.0	0.43	0.52	0.43	46.8
2	T1	2517	5.8	0.819	19.1	LOS B	42.5	309.5	0.67	0.62	0.67	41.5
3	R2	100	6.0	0.667	85.4	LOS F	8.0	58.8	1.00	0.81	1.06	18.0
3u	U	1	0.0	0.667	86.9	LOS F	8.0	58.8	1.00	0.81	1.06	18.0
Approach		2682	5.8	0.819	21.4	LOS C	42.5	309.5	0.68	0.63	0.68	39.9
East: Castle St (E)												
4	L2	77	3.9	1.128	211.6	LOS F	33.9	247.0	1.00	1.44	2.00	8.8
5	T1	168	5.4	1.128	206.8	LOS F	33.9	247.0	1.00	1.44	2.00	11.2
6	R2	38	5.3	0.243	80.7	LOS F	2.8	20.7	0.97	0.74	0.97	20.7
Approach		283	4.9	1.128	198.7	LOS F	33.9	247.0	1.00	1.35	1.86	11.2
North: Gympie Rd (N)												
7	L2	15	0.0	0.071	18.8	LOS B	1.3	14.4	0.35	0.34	0.35	43.3
8	T1	2693	6.1	0.855	20.2	LOS C	47.7	347.4	0.74	0.69	0.74	40.8
9	R2	33	3.0	0.221	80.6	LOS F	2.5	18.2	0.97	0.73	0.97	24.3
9u	U	1	0.0	0.221	82.1	LOS F	2.5	18.2	0.97	0.73	0.97	22.6
Approach		2742	6.0	0.855	20.9	LOS C	47.7	347.4	0.74	0.69	0.74	40.4
West: Strathmore Rd (W)												
10	L2	56	5.4	0.358	81.7	LOS F	4.2	31.0	0.98	0.76	0.98	23.8
11	T1	205	4.9	0.972	108.2	LOS F	19.9	145.1	1.00	1.12	1.50	18.9
12	R2	145	4.8	0.923	102.1	LOS F	13.1	95.3	1.00	0.99	1.41	19.4
Approach		406	4.9	0.972	102.4	LOS F	19.9	145.1	1.00	1.03	1.40	19.7
All Vehicles		6113	5.8	1.128	34.4	LOS C	47.7	347.4	0.74	0.71	0.81	33.3

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South: Gympie Rd (S)												
1	L2	160	5.6	0.222	21.7	LOS C	6.8	58.3	0.47	0.61	0.47	41.3
2	T1	2631	6.1	0.910	27.9	LOS C	62.4	454.6	0.82	0.80	0.86	36.4
3	R2	82	6.1	0.349	73.9	LOS E	6.0	43.8	0.95	0.77	0.95	19.9
3u	U	1	0.0	0.349	75.4	LOS E	6.0	43.8	0.95	0.77	0.95	19.9
Approach		3074	6.1	0.910	28.8	LOS C	62.4	454.6	0.80	0.79	0.85	35.9
East: Castle St (E)												
4	L2	54	5.6	1.053	158.2	LOS F	27.1	197.6	1.00	1.29	1.75	11.4
5	T1	176	4.5	1.053	152.6	LOS F	27.1	197.6	1.00	1.29	1.75	14.4
6	R2	62	4.8	0.614	89.8	LOS F	5.0	36.5	1.00	0.78	1.05	19.3
Approach		292	4.8	1.053	140.3	LOS F	27.1	197.6	1.00	1.18	1.60	14.5
North: Gympie Rd (N)												
7	L2	74	5.4	0.113	15.8	LOS B	2.1	17.7	0.48	0.57	0.48	43.5
8	T1	2071	5.6	0.701	19.2	LOS B	30.4	221.1	0.59	0.54	0.59	41.5
9	R2	101	5.0	0.493	78.2	LOS E	7.6	55.5	0.98	0.79	0.98	24.7
9u	U	1	0.0	0.493	79.7	LOS E	7.6	55.5	0.98	0.79	0.98	23.0
Approach		2247	5.6	0.701	21.7	LOS C	30.4	221.1	0.60	0.55	0.60	39.9
West: Strathmore Rd (W)												
10	L2	71	4.2	0.420	81.2	LOS F	5.4	39.0	0.99	0.77	0.99	23.9
11	T1	213	4.7	0.986	114.4	LOS F	21.3	155.1	1.00	1.15	1.54	18.2
12	R2	95	3.2	0.930	105.6	LOS F	8.6	62.0	1.00	1.00	1.50	19.0
Approach		379	4.2	0.986	105.9	LOS F	21.3	155.1	1.00	1.04	1.42	19.3
All Vehicles		5992	5.7	1.053	36.5	LOS D	62.4	454.6	0.75	0.73	0.83	32.6

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South: Gympie Rd (S)												
1	L2	161	4.3	0.222	22.2	LOS C	7.0	58.7	0.48	0.61	0.48	41.0
2	T1	2637	6.2	0.923	32.0	LOS C	67.0	488.2	0.85	0.85	0.92	34.4
3	R2	83	6.0	0.370	75.0	LOS E	6.1	44.7	0.96	0.78	0.96	19.7
3u	U	1	0.0	0.370	76.6	LOS E	6.1	44.7	0.96	0.78	0.96	19.7
Approach		3082	6.1	0.923	32.6	LOS C	67.0	488.2	0.83	0.83	0.89	34.1
East: Castle St (E)												
4	L2	57	3.5	1.106	195.8	LOS F	32.1	233.4	1.00	1.40	1.93	9.5
5	T1	165	4.9	1.106	190.2	LOS F	32.1	233.4	1.00	1.40	1.93	12.0
6	R2	65	6.2	0.650	90.4	LOS F	5.3	39.0	1.00	0.80	1.08	19.2
Approach		307	4.9	1.106	170.1	LOS F	32.1	233.4	1.00	1.27	1.75	12.4
North: Gympie Rd (N)												
7	L2	74	2.7	0.115	15.7	LOS B	2.1	18.0	0.48	0.57	0.48	43.6
8	T1	2215	5.6	0.748	20.0	LOS B	34.8	253.3	0.63	0.58	0.63	40.9
9	R2	101	5.9	0.496	78.3	LOS E	7.6	56.0	0.98	0.79	0.98	24.7
9u	U	1	0.0	0.496	79.8	LOS E	7.6	56.0	0.98	0.79	0.98	23.0
Approach		2391	5.5	0.748	22.3	LOS C	34.8	253.3	0.64	0.59	0.64	39.6
West: Strathmore Rd (W)												
10	L2	70	4.3	0.414	81.2	LOS F	5.3	38.4	0.99	0.77	0.99	23.9
11	T1	218	4.6	1.004	125.1	LOS F	23.0	167.6	1.00	1.19	1.59	17.1
12	R2	98	3.1	0.959	112.5	LOS F	9.2	66.3	1.00	1.03	1.57	18.2
Approach		366	4.1	1.004	113.9	LOS F	23.0	167.6	1.00	1.07	1.48	18.4
All Vehicles		6166	5.7	1.106	40.6	LOS D	67.0	488.2	0.78	0.77	0.87	31.0

Sport Street and Kitchener Road – 2021 AM – Base Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Road (S)												
1	L2	148	4.7	0.726	23.2	LOS C	31.4	228.9	0.57	0.60	0.77	45.4
2	T1	2201	4.8	0.726	15.7	LOS B	31.4	228.9	0.54	0.52	0.60	47.5
3	R2	35	0.0	0.189	76.8	LOS E	2.6	18.2	0.95	0.73	0.95	26.3
3u	U	1	0.0	0.189	78.2	LOS E	2.6	18.2	0.95	0.73	0.95	26.2
Approach		2385	4.7	0.726	17.1	LOS B	31.4	228.9	0.55	0.53	0.62	46.8
East: Sport Street (E)												
4	L2	7	0.0	0.482	78.6	LOS E	7.8	55.2	0.98	0.76	0.96	27.0
5	T1	97	2.1	0.482	73.0	LOS E	7.8	55.2	0.98	0.76	0.96	27.4
6	R2	60	3.3	0.529	87.6	LOS F	4.8	34.2	1.00	0.76	1.00	24.5
Approach		164	2.4	0.529	78.6	LOS E	7.8	55.2	0.99	0.77	0.99	26.2
North: Gympie Road (N)												
7	L2	16	0.0	0.013	15.8	LOS B	0.4	3.0	0.37	0.63	0.37	46.6
8	T1	2448	5.1	0.766	15.5	LOS B	34.6	252.9	0.57	0.53	0.57	47.8
9	R2	55	1.8	0.297	78.0	LOS E	4.1	29.2	0.96	0.76	0.96	26.0
9u	U	1	0.0	0.297	79.3	LOS E	4.1	29.2	0.96	0.76	0.96	26.0
Approach		2520	5.0	0.766	16.9	LOS B	34.6	252.9	0.58	0.53	0.58	46.9
West: Kitchener Road (W)												
10	L2	86	3.5	1.230	274.7	LOS F	31.7	228.0	1.00	1.43	2.36	9.9
11	T1	136	2.9	1.230	269.0	LOS F	31.7	228.0	1.00	1.43	2.36	9.9
12	R2	291	3.1	2.603	1493.2	LOS F	97.9	703.3	1.00	2.35	4.57	2.3
Approach		513	3.1	2.603	964.4	LOS F	97.9	703.3	1.00	1.95	3.61	3.4
All Vehicles		5582	4.7	2.603	105.8	LOS F	97.9	703.3	0.62	0.67	0.89	21.3

Sport Street and Kitchener Road – 2031 AM – Base Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Road (S)												
1	L2	151	4.0	0.776	24.1	LOS C	36.6	266.9	0.62	0.64	0.83	44.9
2	T1	2359	4.9	0.776	16.5	LOS B	36.6	266.9	0.59	0.57	0.66	47.0
3	R2	37	2.7	0.203	77.1	LOS E	2.8	19.7	0.95	0.74	0.95	26.2
3u	U	1	0.0	0.203	78.4	LOS E	2.8	19.7	0.95	0.74	0.95	26.1
Approach		2548	4.8	0.776	17.8	LOS B	36.6	266.9	0.60	0.58	0.67	46.4
East: Sport Street (E)												
4	L2	7	0.0	0.529	79.1	LOS E	8.5	61.2	0.99	0.79	0.99	26.9
5	T1	106	3.8	0.529	73.6	LOS E	8.5	61.2	0.99	0.79	0.99	27.3
6	R2	65	1.5	0.566	87.8	LOS F	5.2	36.6	1.00	0.76	1.01	24.5
Approach		178	2.8	0.566	79.0	LOS E	8.5	61.2	0.99	0.78	1.00	26.2
North: Gympie Road (N)												
7	L2	15	0.0	0.013	15.8	LOS B	0.4	2.8	0.37	0.63	0.37	46.6
8	T1	2431	5.2	0.760	15.4	LOS B	33.9	247.7	0.56	0.52	0.56	47.9
9	R2	50	2.0	0.271	77.8	LOS E	3.7	26.6	0.96	0.75	0.96	26.1
9u	U	1	0.0	0.271	79.1	LOS E	3.7	26.6	0.96	0.75	0.96	26.0
Approach		2497	5.1	0.760	16.7	LOS B	33.9	247.7	0.57	0.53	0.57	47.1
West: Kitchener Road (W)												
10	L2	90	3.3	1.053	135.5	LOS F	22.3	160.5	1.00	1.19	1.75	16.2
11	T1	143	3.5	1.053	129.9	LOS F	22.3	160.5	1.00	1.19	1.75	16.3
12	R2	293	3.4	2.620	1508.8	LOS F	98.9	710.2	1.00	2.36	4.58	2.3
Approach		526	3.2	2.620	898.9	LOS F	98.9	710.2	1.00	1.84	3.33	3.7
All Vehicles		5749	4.7	2.620	99.8	LOS F	98.9	710.2	0.64	0.68	0.88	22.2

Sport Street and Kitchener Road – 2021 PM – Base Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Road (S)												
1	L2	152	3.3	0.761	19.2	LOS B	30.4	221.4	0.48	0.53	0.75	47.8
2	T1	2536	5.2	0.761	11.2	LOS B	30.4	221.4	0.47	0.46	0.54	50.5
3	R2	14	0.0	0.097	79.1	LOS E	1.1	7.7	0.95	0.70	0.95	25.8
3u	U	1	0.0	0.097	80.4	LOS F	1.1	7.7	0.95	0.70	0.95	25.8
Approach		2703	5.1	0.761	12.0	LOS B	30.4	221.4	0.47	0.46	0.56	50.1
East: Sport Street (E)												
4	L2	12	0.0	1.622	627.8	LOS F	65.1	471.5	1.00	2.10	3.33	5.2
5	T1	257	4.3	1.622	622.2	LOS F	65.1	471.5	1.00	2.10	3.33	5.2
6	R2	95	3.2	0.930	105.6	LOS F	8.6	62.0	1.00	1.00	1.50	21.9
Approach		364	3.8	1.622	487.6	LOS F	65.1	471.5	1.00	1.81	2.65	6.4
North: Gympie Road (N)												
7	L2	13	0.0	0.010	13.3	LOS B	0.3	2.1	0.32	0.62	0.32	48.1
8	T1	2031	4.7	0.591	8.3	LOS A	16.1	117.3	0.32	0.29	0.32	52.8
9	R2	101	4.0	0.732	87.1	LOS F	8.9	64.0	1.00	0.84	1.12	24.4
9u	U	9	0.0	0.732	88.4	LOS F	8.9	64.0	1.00	0.84	1.12	24.4
Approach		2154	4.6	0.732	12.3	LOS B	16.1	117.3	0.35	0.32	0.36	49.8
West: Kitchener Road (W)												
10	L2	117	3.4	1.314	347.3	LOS F	39.1	281.2	1.00	1.55	2.61	8.2
11	T1	122	3.3	1.314	341.6	LOS F	39.1	281.2	1.00	1.55	2.61	8.2
12	R2	164	4.9	1.650	652.6	LOS F	40.5	295.3	1.00	1.83	3.41	4.9
Approach		403	4.0	1.650	469.8	LOS F	40.5	295.3	1.00	1.67	2.94	6.4
All Vehicles		5624	4.7	1.650	75.7	LOS E	65.1	471.5	0.50	0.58	0.80	25.9

Sport Street and Kitchener Road – 2031 PM – Base Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Road (S)												
1	L2	151	5.3	0.773	19.5	LOS B	31.5	230.9	0.50	0.54	0.77	47.6
2	T1	2576	5.4	0.773	11.4	LOS B	31.5	230.9	0.48	0.47	0.56	50.4
3	R2	14	0.0	0.097	79.1	LOS E	1.1	7.7	0.95	0.70	0.95	25.8
3u	U	1	0.0	0.097	80.4	LOS F	1.1	7.7	0.95	0.70	0.95	25.8
Approach		2742	5.3	0.773	12.2	LOS B	31.5	230.9	0.48	0.47	0.57	49.9
East: Sport Street (E)												
4	L2	11	0.0	1.641	644.6	LOS F	66.8	482.6	1.00	2.12	3.37	5.0
5	T1	262	3.8	1.641	639.0	LOS F	66.8	482.6	1.00	2.12	3.37	5.0
6	R2	98	3.1	0.959	112.5	LOS F	9.2	66.3	1.00	1.03	1.57	21.0
Approach		371	3.5	1.641	500.1	LOS F	66.8	482.6	1.00	1.83	2.89	6.3
North: Gympie Road (N)												
7	L2	13	0.0	0.010	13.3	LOS B	0.3	2.1	0.32	0.62	0.32	48.1
8	T1	2159	4.9	0.637	8.6	LOS A	18.9	137.6	0.34	0.31	0.34	52.6
9	R2	108	3.7	0.793	89.4	LOS F	9.8	70.6	1.00	0.87	1.19	24.0
9u	U	11	0.0	0.793	90.7	LOS F	9.8	70.6	1.00	0.87	1.19	24.0
Approach		2291	4.8	0.793	12.8	LOS B	18.9	137.6	0.37	0.34	0.38	49.5
West: Kitchener Road (W)												
10	L2	121	2.5	1.373	396.3	LOS F	43.5	313.8	1.00	1.62	2.77	7.4
11	T1	128	4.7	1.373	390.7	LOS F	43.5	313.8	1.00	1.62	2.77	7.4
12	R2	166	3.6	1.656	657.4	LOS F	41.1	296.7	1.00	1.84	3.42	4.9
Approach		415	3.6	1.656	499.0	LOS F	43.5	313.8	1.00	1.70	3.03	6.1
All Vehicles		5819	4.9	1.656	78.3	LOS E	66.8	482.6	0.51	0.60	0.82	25.4

Sport Street and Kitchener Road – 2021 AM – Project Case

Movement Performance - Vehicles												
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South: Gympie Road (S)												
1	L2	149	4.7	0.171	20.3	LOS C	5.5	43.4	0.46	0.64	0.46	44.4
2	T1	2189	5.4	0.704	18.1	LOS B	30.1	219.3	0.58	0.53	0.58	46.2
3	R2	35	2.9	0.712	84.8	LOS F	8.6	63.3	1.00	0.84	1.10	24.8
3u	U	72	8.3	0.712	86.4	LOS F	8.6	63.3	1.00	0.84	1.10	24.7
Approach		2445	5.4	0.712	21.2	LOS C	30.1	219.3	0.59	0.55	0.60	44.4
East: Sport Street (E)												
4	L2	8	0.0	0.416	74.3	LOS E	7.8	56.8	0.96	0.77	0.96	27.9
5	T1	100	5.0	0.416	68.7	LOS E	7.8	56.8	0.96	0.77	0.96	28.3
6	R2	63	6.3	0.567	88.0	LOS F	5.0	37.0	1.00	0.77	1.01	24.4
Approach		171	5.3	0.567	76.1	LOS E	7.8	56.8	0.98	0.77	0.98	26.7
North: Gympie Road (N)												
7	L2	15	0.0	0.069	19.3	LOS B	1.3	14.1	0.36	0.35	0.36	46.8
8	T1	2648	4.3	0.849	20.7	LOS C	47.4	340.4	0.73	0.68	0.73	44.8
9	R2	56	1.8	0.378	79.0	LOS E	5.1	35.9	0.97	0.77	0.97	25.9
9u	U	12	0.0	0.378	80.5	LOS F	5.1	35.9	0.97	0.77	0.97	25.9
Approach		2731	4.2	0.849	22.1	LOS C	47.4	340.4	0.74	0.68	0.74	44.0
West: Kitchener Road (W)												
10	L2	87	4.6	1.150	230.0	LOS F	32.4	238.1	1.00	1.47	2.09	12.3
11	T1	137	6.6	1.150	224.5	LOS F	32.4	238.1	1.00	1.47	2.09	12.4
12	R2	289	4.5	2.610	1499.9	LOS F	97.3	707.7	1.00	2.44	4.58	2.3
Approach		513	5.1	2.610	943.9	LOS F	97.3	707.7	1.00	2.01	3.49	3.5
All Vehicles		5860	4.8	2.610	104.0	LOS F	97.3	707.7	0.71	0.75	0.93	21.7

Sport Street and Kitchener Road – 2031 AM – Project Case

Movement Performance - Vehicles												
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South: Gympie Road (S)												
1	L2	153	4.6	0.190	20.2	LOS C	5.9	47.8	0.45	0.62	0.45	44.6
2	T1	2367	6.0	0.782	19.2	LOS B	38.0	277.3	0.64	0.59	0.64	45.6
3	R2	46	2.2	0.747	85.9	LOS F	9.4	68.1	1.00	0.86	1.13	24.6
3u	U	70	5.7	0.747	87.5	LOS F	9.4	68.1	1.00	0.86	1.13	24.5
Approach		2636	5.8	0.782	22.2	LOS C	38.0	277.3	0.64	0.60	0.65	43.9
East: Sport Street (E)												
4	L2	7	0.0	0.445	74.6	LOS E	8.3	61.0	0.97	0.77	0.97	27.9
5	T1	108	5.6	0.445	65.0	LOS E	8.3	61.0	0.97	0.77	0.97	28.3
6	R2	67	7.5	0.608	88.6	LOS F	5.4	40.0	1.00	0.78	1.04	24.3
Approach		182	6.0	0.608	76.5	LOS E	8.3	61.0	0.98	0.78	0.99	26.6
North: Gympie Road (N)												
7	L2	15	0.0	0.073	19.3	LOS B	1.3	15.0	0.35	0.35	0.35	46.9
8	T1	2674	1.4	0.843	20.5	LOS C	47.5	332.2	0.72	0.67	0.72	44.9
9	R2	64	6.3	0.463	80.0	LOS F	6.0	44.5	0.98	0.78	0.98	25.7
9u	U	16	6.3	0.463	81.6	LOS F	6.0	44.5	0.98	0.78	0.98	25.6
Approach		2769	1.5	0.843	22.2	LOS C	47.5	332.2	0.73	0.67	0.73	43.9
West: Kitchener Road (W)												
10	L2	84	7.1	1.113	201.4	LOS F	29.2	213.8	1.00	1.39	1.97	13.7
11	T1	133	4.5	1.113	195.7	LOS F	29.2	213.8	1.00	1.39	1.97	13.8
12	R2	287	4.5	2.593	1484.3	LOS F	96.4	700.8	1.00	2.43	4.56	2.3
Approach		504	5.0	2.593	930.4	LOS F	96.4	700.8	1.00	1.98	3.44	3.6
All Vehicles		6091	3.8	2.593	99.0	LOS F	96.4	700.8	0.72	0.75	0.93	22.4

Sport Street and Kitchener Road – 2021 PM – Project Case

Movement Performance - Vehicles												
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South: Gympie Road (S)												
1	L2	155	4.5	0.195	17.2	LOS B	5.5	46.7	0.40	0.57	0.40	46.4
2	T1	2556	6.2	0.749	13.3	LOS B	31.4	228.3	0.52	0.49	0.52	49.2
3	R2	12	0.0	0.869	97.3	LOS F	8.9	66.3	1.00	0.93	1.36	22.8
3u	U	89	9.0	0.869	99.0	LOS F	8.9	66.3	1.00	0.93	1.36	22.7
Approach		2812	6.2	0.869	16.5	LOS B	31.4	228.3	0.53	0.51	0.54	47.1
East: Sport Street (E)												
4	L2	12	0.0	1.282	336.8	LOS F	47.8	347.6	1.00	1.73	2.49	9.0
5	T1	257	4.7	1.282	331.3	LOS F	47.8	347.6	1.00	1.73	2.49	9.0
6	R2	95	5.3	0.944	108.7	LOS F	8.8	64.2	1.00	1.01	1.54	21.5
Approach		364	4.7	1.282	273.3	LOS F	47.8	347.6	1.00	1.54	2.24	10.6
North: Gympie Road (N)												
7	L2	10	0.0	0.039	15.3	LOS B	0.6	7.1	0.29	0.30	0.29	49.3
8	T1	2044	5.7	0.597	11.4	LOS B	19.1	138.8	0.40	0.37	0.40	50.5
9	R2	105	4.8	0.981	121.3	LOS F	14.0	100.8	1.00	1.05	1.59	19.9
9u	U	35	0.0	0.981	122.8	LOS F	14.0	100.8	1.00	1.05	1.59	19.9
Approach		2194	5.5	0.981	18.5	LOS B	19.1	138.8	0.44	0.41	0.48	46.0
West: Kitchener Road (W)												
10	L2	114	3.5	1.409	444.3	LOS F	48.8	355.1	1.00	1.85	2.85	7.0
11	T1	124	5.6	1.409	438.7	LOS F	48.8	355.1	1.00	1.85	2.85	7.0
12	R2	164	4.9	1.650	652.6	LOS F	40.5	295.3	1.00	1.86	3.41	4.9
Approach		402	4.7	1.650	527.5	LOS F	48.8	355.1	1.00	1.85	3.08	6.0
All Vehicles		5772	5.7	1.650	69.1	LOS E	48.8	355.1	0.56	0.63	0.80	27.5

Sport Street and Kitchener Road – 2031 PM – Project Case

Movement Performance - Vehicles												
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South: Gympie Road (S)												
1	L2	156	5.1	0.198	17.7	LOS B	5.7	48.2	0.41	0.58	0.41	46.2
2	T1	2573	6.3	0.775	14.2	LOS B	34.8	253.6	0.55	0.51	0.55	48.6
3	R2	13	0.0	0.876	98.1	LOS F	9.0	67.2	1.00	0.94	1.37	22.7
3u	U	89	9.0	0.876	99.7	LOS F	9.0	67.2	1.00	0.94	1.37	22.6
Approach		2831	6.3	0.876	17.4	LOS B	34.8	253.6	0.56	0.53	0.57	46.5
East: Sport Street (E)												
4	L2	9	0.0	1.310	360.1	LOS F	50.5	367.6	1.00	1.78	2.57	8.5
5	T1	265	4.9	1.310	354.6	LOS F	50.5	367.6	1.00	1.78	2.57	8.5
6	R2	100	5.0	0.991	125.1	LOS F	10.0	73.0	1.00	1.07	1.67	19.6
Approach		374	4.8	1.310	293.4	LOS F	50.5	367.6	1.00	1.59	2.33	10.0
North: Gympie Road (N)												
7	L2	12	0.0	0.046	15.9	LOS B	0.8	8.5	0.30	0.31	0.30	48.9
8	T1	2180	5.7	0.643	12.6	LOS B	22.6	164.5	0.45	0.41	0.45	49.7
9	R2	110	5.5	1.062	165.7	LOS F	17.8	130.4	1.00	1.16	1.84	15.7
9u	U	39	5.1	1.062	167.2	LOS F	17.8	130.4	1.00	1.16	1.84	15.7
Approach		2341	5.7	1.062	22.4	LOS C	22.6	164.5	0.48	0.46	0.53	43.6
West: Kitchener Road (W)												
10	L2	123	4.9	1.491	514.9	LOS F	55.4	402.2	1.00	1.96	3.05	6.1
11	T1	128	3.0	1.491	509.3	LOS F	55.4	402.2	1.00	1.96	3.05	6.1
12	R2	173	4.6	1.738	728.8	LOS F	44.8	326.3	1.00	1.93	3.57	4.4
Approach		424	4.5	1.738	600.5	LOS F	55.4	402.2	1.00	1.95	3.26	5.3
All Vehicles		5970	5.8	1.738	78.1	LOS E	55.4	402.2	0.59	0.67	0.86	25.7

Boothby Street – 2021 AM – Project Case

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: Gympie Road (S)												
2	T1	2402	5.4	0.401	0.6	LOS A	1.6	11.4	0.04	0.03	0.04	59.4
3	R2	62	3.4	0.247	74.7	LOS E	4.5	32.5	0.93	0.76	0.93	26.7
Approach		2464	5.3	0.401	2.5	LOS A	4.5	32.5	0.06	0.05	0.06	57.6
East: Boothby Street (W)												
4	L2	107	4.9	1.000	132.3	LOS F	16.0	116.4	1.00	1.06	1.61	18.7
6	R2	43	4.9	1.000	132.4	LOS F	16.0	116.4	1.00	1.06	1.61	18.8
Approach		151	4.9	1.000	132.3	LOS F	16.0	116.4	1.00	1.06	1.61	18.8
North: Gympie Road (N)												
7	L2	28	0.0	0.479	7.8	LOS A	5.0	36.1	0.11	0.12	0.11	56.1
8	T1	2546	6.2	0.479	2.0	LOS A	5.0	36.1	0.09	0.09	0.09	58.0
Approach		2575	6.1	0.479	2.1	LOS A	5.0	36.1	0.09	0.09	0.09	58.0
All Vehicles		5189	5.7	1.000	6.0	LOS A	16.0	116.4	0.10	0.10	0.12	54.5

Boothby Street – 2031 AM – Project Case

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: Gympie Road (S)												
2	T1	2593	6.0	0.434	0.6	LOS A	1.8	13.0	0.04	0.03	0.04	59.4
3	R2	66	6.3	0.269	75.1	LOS E	4.8	35.8	0.94	0.76	0.94	26.6
Approach		2659	6.0	0.434	2.5	LOS A	4.8	35.8	0.06	0.05	0.06	57.6
East: Boothby Street (W)												
4	L2	95	5.6	0.920	105.2	LOS F	12.6	91.4	1.00	0.97	1.41	21.8
6	R2	41	0.0	0.920	105.1	LOS F	12.6	91.4	1.00	0.97	1.41	21.9
Approach		136	3.9	0.920	105.2	LOS F	12.6	91.4	1.00	0.97	1.41	21.8
North: Gympie Road (N)												
7	L2	38	8.3	0.483	8.1	LOS A	5.3	38.6	0.11	0.13	0.11	55.5
8	T1	2554	6.5	0.483	2.0	LOS A	5.3	38.6	0.09	0.09	0.09	58.0
Approach		2592	6.5	0.483	2.1	LOS A	5.3	38.6	0.10	0.10	0.10	57.9
All Vehicles		5386	6.2	0.920	4.9	LOS A	12.6	91.4	0.10	0.10	0.11	55.4

Boothby Street – 2021 PM – Project Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Road (S)												
2	T1	2877	6.1	0.482	0.7	LOS A	2.2	15.7	0.04	0.04	0.04	59.4
3	R2	83	3.8	0.332	75.8	LOS E	6.1	44.4	0.95	0.77	0.95	26.5
Approach		2960	6.0	0.482	2.8	LOS A	6.1	44.4	0.07	0.06	0.07	57.3
East: Boothby Street (W)												
4	L2	93	5.7	0.264	65.2	LOS E	6.4	46.7	0.88	0.77	0.88	26.6
6	R2	1	0.0	0.264	65.2	LOS E	6.4	46.7	0.88	0.77	0.88	26.7
Approach		94	5.6	0.264	65.2	LOS E	6.4	46.7	0.88	0.77	0.88	26.6
North: Gympie Road (N)												
7	L2	46	4.5	0.424	8.1	LOS A	4.5	33.7	0.11	0.14	0.11	55.6
8	T1	2237	5.6	0.424	2.0	LOS A	4.5	33.7	0.09	0.09	0.09	58.0
Approach		2283	5.6	0.424	2.1	LOS A	4.5	33.7	0.09	0.09	0.09	58.0
All Vehicles		5337	5.8	0.482	3.6	LOS A	6.4	46.7	0.09	0.09	0.09	56.6

Boothby Street – 2031 PM – Project Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Road (S)												
2	T1	2909	6.2	0.488	0.7	LOS A	2.2	16.1	0.04	0.04	0.04	59.3
3	R2	82	2.6	0.325	75.7	LOS E	6.1	43.3	0.95	0.77	0.95	26.6
Approach		2992	6.1	0.488	2.7	LOS A	6.1	43.3	0.07	0.06	0.07	57.4
East: Boothby Street (W)												
4	L2	100	6.3	0.284	65.5	LOS E	6.9	50.9	0.89	0.78	0.89	26.5
6	R2	1	0.0	0.284	65.5	LOS E	6.9	50.9	0.89	0.78	0.89	26.7
Approach		101	6.3	0.284	65.5	LOS E	6.9	50.9	0.89	0.78	0.89	26.5
North: Gympie Road (N)												
7	L2	54	9.8	0.450	8.3	LOS A	5.1	38.3	0.12	0.16	0.12	55.3
8	T1	2372	5.6	0.450	2.0	LOS A	5.1	38.3	0.09	0.09	0.09	58.0
Approach		2425	5.7	0.450	2.2	LOS A	5.1	38.3	0.09	0.10	0.09	57.9
All Vehicles		5518	5.9	0.488	3.6	LOS A	6.9	50.9	0.09	0.09	0.09	56.5

Released under RTI/DMP

Rode Road – 2021 AM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	178	3.9	0.188	26.1	LOS C	7.1	51.0	0.55	0.72	0.55	41.1
2	T1	1974	4.8	0.840	31.9	LOS C	44.8	326.3	0.78	0.72	0.80	37.6
3	R2	98	4.1	0.476	78.0	LOS E	7.4	53.4	0.98	0.79	0.98	26.1
3u	U	1	0.0	0.476	79.2	LOS E	7.4	53.4	0.98	0.79	0.98	26.0
Approach		2251	4.7	0.840	33.5	LOS C	44.8	326.3	0.77	0.72	0.78	37.0
East: Rode Rd (E)												
4	L2	47	2.1	0.586	69.7	LOS E	14.8	106.7	0.97	0.81	0.97	28.7
5	T1	418	3.3	0.888	73.6	LOS E	21.5	154.5	0.99	0.93	1.14	27.2
6	R2	162	3.1	1.189	260.5	LOS F	24.9	178.9	1.00	1.35	2.25	9.8
Approach		627	3.2	1.189	121.6	LOS F	24.9	178.9	0.99	1.03	1.41	19.3
North: Gympie Rd (N)												
7	L2	105	3.8	0.964	69.2	LOS E	73.6	538.1	1.00	1.07	1.19	26.8
8	T1	2289	5.3	0.964	61.4	LOS E	75.0	549.0	0.96	1.03	1.15	27.9
9	R2	123	3.3	0.592	79.2	LOS E	9.4	67.5	1.00	0.80	1.00	23.9
9u	U	1	0.0	0.592	80.4	LOS F	9.4	67.5	1.00	0.80	1.00	21.6
Approach		2518	5.2	0.964	62.6	LOS E	75.0	549.0	0.96	1.02	1.15	27.6
West: Rode Rd (W)												
10	L2	127	3.9	0.593	69.9	LOS E	14.7	106.3	0.97	0.82	0.97	26.0
11	T1	464	3.4	1.284	287.1	LOS F	69.4	500.2	0.99	1.70	2.22	10.2
12	R2	119	3.4	0.875	96.2	LOS F	10.3	73.9	1.00	0.94	1.33	23.2
Approach		710	3.5	1.284	216.3	LOS F	69.4	500.2	0.99	1.42	1.85	12.6
All Vehicles		6106	4.6	1.284	75.8	LOS E	75.0	549.0	0.90	0.96	1.12	25.0

Rode Road – 2031 AM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	193	4.7	0.330	26.3	LOS C	7.7	56.3	0.56	0.72	0.56	41.0
2	T1	2100	4.9	0.897	39.8	LOS D	55.6	405.3	0.83	0.82	0.90	34.4
3	R2	103	3.9	0.499	78.2	LOS E	7.8	56.2	0.98	0.79	0.98	26.1
3u	U	1	0.0	0.499	79.5	LOS E	7.8	56.2	0.98	0.79	0.98	26.0
Approach		2397	4.8	0.897	40.4	LOS D	55.6	405.3	0.82	0.81	0.88	34.3
East: Rode Rd (E)												
4	L2	49	4.1	0.623	70.3	LOS E	15.9	114.6	0.98	0.82	0.98	28.5
5	T1	445	3.4	0.945	82.6	LOS F	25.1	180.6	0.99	0.99	1.22	25.5
6	R2	173	4.0	1.278	333.9	LOS F	30.5	220.9	1.00	1.48	2.52	7.9
Approach		667	3.6	1.278	146.9	LOS F	30.5	220.9	0.99	1.11	1.54	16.9
North: Gympie Rd (N)												
7	L2	104	3.8	0.960	67.3	LOS E	72.1	527.6	1.00	1.06	1.18	27.2
8	T1	2281	5.5	0.960	59.5	LOS E	73.4	538.0	0.96	1.02	1.14	28.3
9	R2	116	3.4	0.560	78.8	LOS E	8.8	63.5	0.99	0.80	0.99	24.0
9u	U	1	0.0	0.560	80.1	LOS F	8.8	63.5	0.99	0.80	0.99	21.7
Approach		2502	5.4	0.960	60.7	LOS E	73.4	538.0	0.96	1.02	1.14	28.0
West: Rode Rd (W)												
10	L2	125	4.0	0.608	70.1	LOS E	15.1	109.6	0.97	0.82	0.97	26.0
11	T1	480	4.0	1.316	307.2	LOS F	73.9	534.9	0.99	1.75	2.28	9.6
12	R2	122	2.5	0.891	98.0	LOS F	10.6	76.1	1.00	0.96	1.36	23.0
Approach		727	3.7	1.316	231.3	LOS F	73.9	534.9	0.99	1.46	1.90	12.0
All Vehicles		6293	4.8	1.316	81.8	LOS F	73.9	538.0	0.91	1.00	1.17	23.8

Rode Road – 2021 PM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	195	3.1	0.178	19.7	LOS B	6.4	46.2	0.46	0.70	0.46	44.3
2	T1	2394	5.3	0.819	17.9	LOS B	42.1	308.1	0.63	0.58	0.63	44.9
3	R2	45	0.0	0.195	72.9	LOS E	3.2	22.6	0.93	0.74	0.93	27.1
3u	U	1	0.0	0.195	74.2	LOS E	3.2	22.6	0.93	0.74	0.93	27.0
Approach		2635	5.0	0.819	19.0	LOS B	42.1	308.1	0.62	0.59	0.62	44.3
East: Rode Rd (E)												
4	L2	28	0.0	1.545	560.8	LOS F	76.0	546.1	1.00	2.15	3.16	5.7
5	T1	512	3.3	1.545	382.3	LOS F	76.0	546.1	1.00	1.76	2.54	8.0
6	R2	106	4.7	1.049	155.8	LOS F	12.1	88.0	1.00	1.15	1.84	14.9
Approach		646	3.4	1.545	352.8	LOS F	76.0	546.1	1.00	1.68	2.45	8.4
North: Gympie Rd (N)												
7	L2	119	4.2	0.722	25.0	LOS C	32.6	237.2	0.63	0.61	0.63	42.4
8	T1	2050	4.7	0.722	17.4	LOS B	32.6	237.2	0.57	0.53	0.57	45.1
9	R2	122	4.9	0.538	76.9	LOS E	9.1	66.7	0.98	0.80	0.98	24.3
9u	U	1	0.0	0.538	78.1	LOS E	9.1	66.7	0.98	0.80	0.98	22.0
Approach		2292	4.7	0.722	20.9	LOS C	32.6	237.2	0.59	0.55	0.59	43.0
West: Rode Rd (W)												
10	L2	90	3.3	0.777	84.7	LOS F	13.0	93.7	1.00	0.89	1.12	23.3
11	T1	403	3.7	1.681	568.2	LOS F	83.0	599.7	1.00	2.02	3.02	5.6
12	R2	76	2.6	0.741	92.0	LOS F	6.3	46.0	1.00	0.84	1.17	23.8
Approach		569	3.5	1.681	428.1	LOS F	83.0	599.7	1.00	1.68	2.47	7.1
All Vehicles		6142	4.6	1.681	92.7	LOS F	83.0	599.7	0.69	0.79	0.98	21.8

Rode Road – 2031 PM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	196	3.1	0.179	19.7	LOS B	6.5	46.5	0.46	0.70	0.46	44.3
2	T1	2445	5.4	0.836	18.4	LOS B	44.6	326.3	0.65	0.60	0.65	44.6
3	R2	45	0.0	0.195	72.9	LOS E	3.2	22.6	0.93	0.74	0.93	27.1
3u	U	1	0.0	0.195	74.2	LOS E	3.2	22.6	0.93	0.74	0.93	27.0
Approach		2687	5.1	0.836	19.4	LOS B	44.6	326.3	0.64	0.61	0.64	44.1
East: Rode Rd (E)												
4	L2	24	0.0	1.579	590.9	LOS F	79.6	572.7	1.00	2.19	3.23	5.5
5	T1	528	3.4	1.579	407.0	LOS F	79.6	572.7	1.00	1.81	2.62	7.6
6	R2	108	3.7	1.061	163.8	LOS F	12.7	91.6	1.00	1.17	1.88	14.3
Approach		660	3.3	1.579	373.5	LOS F	79.6	572.7	1.00	1.72	2.52	8.0
North: Gympie Rd (N)												
7	L2	120	3.3	0.763	25.7	LOS C	36.6	266.5	0.67	0.65	0.67	42.0
8	T1	2173	4.9	0.763	18.0	LOS B	36.6	266.5	0.61	0.57	0.61	44.7
9	R2	126	3.2	0.548	76.9	LOS E	9.4	67.9	0.99	0.80	0.99	24.3
9u	U	1	0.0	0.548	78.2	LOS E	9.4	67.9	0.99	0.80	0.99	22.0
Approach		2420	4.8	0.763	21.5	LOS C	36.6	266.5	0.63	0.58	0.63	42.7
West: Rode Rd (W)												
10	L2	97	5.2	0.803	86.1	LOS F	13.5	98.0	1.00	0.90	1.16	23.0
11	T1	412	2.9	1.738	615.7	LOS F	88.6	635.7	1.00	2.08	3.14	5.2
12	R2	81	4.9	0.803	94.2	LOS F	6.8	49.7	1.00	0.88	1.25	23.5
Approach		590	3.6	1.738	457.1	LOS F	88.6	635.7	1.00	1.73	2.55	6.7
All Vehicles		6357	4.7	1.738	97.6	LOS F	88.6	635.7	0.71	0.82	1.01	21.1

Rode Road – 2021 AM – Project Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	178	3.9	0.236	28.9	LOS C	8.3	64.5	0.59	0.70	0.59	40.2
2	T1	1964	5.5	0.742	29.7	LOS C	34.8	253.1	0.75	0.69	0.75	38.5
3	R2	99	5.1	0.556	79.0	LOS E	8.4	61.4	0.99	0.80	0.99	26.0
3u	U	13	0.0	0.556	80.4	LOS F	8.4	61.4	0.99	0.80	0.99	25.9
Approach		2254	5.3	0.742	32.0	LOS C	34.8	253.1	0.75	0.69	0.75	37.7
East: Rode Rd (E)												
4	L2	47	4.3	0.604	70.0	LOS E	15.2	111.0	0.97	0.81	0.97	28.6
5	T1	421	5.0	0.895	74.5	LOS E	21.6	157.6	0.99	0.94	1.15	27.1
6	R2	164	4.3	1.213	280.6	LOS F	26.3	190.7	1.00	1.42	2.32	9.2
Approach		632	4.7	1.213	127.6	LOS F	26.3	190.7	0.99	1.05	1.94	18.7
North: Gympie Rd (N)												
7	L2	109	6.4	0.195	30.7	LOS C	6.0	51.8	0.58	0.64	0.58	37.9
8	T1	2258	6.1	0.886	37.9	LOS D	53.3	388.0	0.87	0.84	0.92	35.1
9	R2	124	4.8	0.603	79.4	LOS E	9.5	69.1	1.00	0.80	1.00	24.0
9u	U	1	0.0	0.603	80.8	LOS F	9.5	69.1	1.00	0.80	1.00	21.7
Approach		2492	6.1	0.886	39.6	LOS D	53.3	388.0	0.86	0.83	0.91	34.4
West: Rode Rd (W)												
10	L2	144	5.6	0.703	71.8	LOS E	17.8	130.2	0.99	0.84	1.00	25.7
11	T1	534	5.6	1.477	419.4	LOS F	96.0	704.5	1.00	1.99	2.63	7.4
12	R2	136	4.4	1.074	173.2	LOS F	16.6	120.4	1.00	1.21	1.89	15.2
Approach		814	5.4	1.477	316.8	LOS F	96.0	704.5	1.00	1.66	2.22	9.2
All Vehicles		6192	5.6	1.477	82.3	LOS F	96.0	704.5	0.85	0.91	1.08	23.7

Rode Road – 2031 AM – Project Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	194	5.2	0.276	30.5	LOS C	9.7	77.9	0.61	0.70	0.61	39.6
2	T1	2010	6.5	0.759	30.0	LOS C	36.2	264.3	0.77	0.70	0.77	38.4
3	R2	104	4.8	0.588	79.3	LOS E	8.9	64.9	1.00	0.80	1.00	25.9
3u	U	14	0.0	0.588	80.8	LOS F	8.9	64.9	1.00	0.80	1.00	25.9
Approach		2322	6.2	0.759	32.5	LOS C	36.2	264.3	0.77	0.71	0.77	37.4
East: Rode Rd (E)												
4	L2	48	6.3	0.631	70.4	LOS E	16.0	116.5	0.98	0.82	0.98	28.5
5	T1	442	4.5	0.934	80.4	LOS F	24.2	175.7	0.99	0.98	1.21	26.0
6	R2	167	4.8	1.240	302.5	LOS F	27.9	203.3	1.00	1.45	2.41	8.6
Approach		657	4.7	1.240	136.1	LOS F	27.9	203.3	0.99	1.09	1.49	17.9
North: Gympie Rd (N)												
7	L2	104	3.8	0.200	30.5	LOS C	5.9	52.4	0.58	0.62	0.58	38.1
8	T1	2772	5.4	1.076	131.3	LOS F	117.4	850.7	0.99	1.38	1.57	17.3
9	R2	122	5.7	0.597	79.3	LOS E	9.3	68.4	1.00	0.80	1.00	24.0
9u	U	1	0.0	0.597	80.8	LOS F	9.3	68.4	1.00	0.80	1.00	21.7
Approach		2999	5.4	1.076	125.6	LOS F	117.4	850.7	0.98	1.33	1.51	17.6
West: Rode Rd (W)												
10	L2	133	4.5	0.679	71.1	LOS E	17.1	124.6	0.99	0.83	0.99	25.9
11	T1	521	5.4	1.425	378.0	LOS F	88.2	646.0	1.00	1.90	2.50	8.1
12	R2	135	5.2	1.072	171.9	LOS F	16.4	119.7	1.00	1.20	1.89	15.3
Approach		789	5.2	1.425	291.0	LOS F	88.2	646.0	1.00	1.60	2.14	9.9
All Vehicles		6787	5.6	1.425	114.0	LOS F	117.4	850.7	0.91	1.13	1.33	19.2

Rode Road – 2021 PM – Project Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	198	5.1	0.260	22.8	LOS C	8.6	71.1	0.50	0.64	0.50	43.3
2	T1	2407	6.3	0.752	18.4	LOS B	34.6	251.9	0.62	0.58	0.62	44.6
3	R2	43	4.7	0.339	74.9	LOS E	5.1	36.3	0.95	0.77	0.95	26.7
3u	U	27	0.0	0.339	76.4	LOS E	5.1	36.3	0.95	0.77	0.95	26.6
Approach		2675	6.1	0.752	20.1	LOS C	34.6	251.9	0.62	0.59	0.62	43.6
East: Rode Rd (E)												
4	L2	27	3.7	1.062	163.1	LOS F	26.8	194.9	1.00	1.30	1.78	16.4
5	T1	522	4.6	1.573	419.8	LOS F	76.0	552.6	1.00	1.84	2.67	7.4
6	R2	105	3.8	0.929	105.1	LOS F	9.5	68.8	1.00	1.00	1.48	20.1
Approach		654	4.4	1.573	358.6	LOS F	76.0	552.6	1.00	1.68	2.44	8.3
North: Gympie Rd (N)												
7	L2	116	4.3	0.148	21.7	LOS C	4.6	37.7	0.47	0.61	0.47	42.2
8	T1	2063	5.6	0.681	16.8	LOS B	27.9	202.7	0.53	0.48	0.53	45.6
9	R2	123	4.9	0.542	76.9	LOS E	9.2	67.2	0.98	0.80	0.98	24.4
9u	U	1	0.0	0.542	78.4	LOS E	9.2	67.2	0.98	0.80	0.98	22.1
Approach		2303	5.5	0.681	20.2	LOS C	27.9	202.7	0.55	0.51	0.55	43.4
West: Rode Rd (W)												
10	L2	90	5.6	0.796	85.8	LOS F	13.3	97.2	1.00	0.90	1.15	23.2
11	T1	398	4.8	1.671	556.8	LOS F	80.8	588.7	1.00	2.00	3.00	5.7
12	R2	83	4.8	0.740	91.0	LOS F	6.8	49.7	1.00	0.84	1.15	24.0
Approach		571	4.9	1.671	414.9	LOS F	80.8	588.7	1.00	1.66	2.44	7.3
All Vehicles		6203	5.6	1.671	92.2	LOS F	80.8	588.7	0.67	0.77	0.96	21.9

Rode Road – 2031 PM – Project Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	198	5.1	0.262	22.8	LOS C	8.6	71.6	0.50	0.64	0.50	43.3
2	T1	2440	6.4	0.763	18.6	LOS B	35.7	260.5	0.63	0.59	0.63	44.5
3	R2	56	3.6	0.377	75.3	LOS E	5.8	41.6	0.96	0.78	0.96	26.6
3u	U	24	0.0	0.377	76.8	LOS E	5.8	41.6	0.96	0.78	0.96	26.6
Approach		2718	6.2	0.763	20.5	LOS C	35.7	260.5	0.63	0.60	0.63	43.4
East: Rode Rd (E)												
4	L2	28	7.1	1.130	212.3	LOS F	33.1	241.0	1.00	1.44	2.01	13.2
5	T1	556	4.5	1.675	493.7	LOS F	86.2	626.8	1.00	1.97	2.88	6.4
6	R2	113	5.3	1.010	134.2	LOS F	11.8	86.4	1.00	1.11	1.71	16.9
Approach		697	4.7	1.675	424.1	LOS F	86.2	626.8	1.00	1.81	2.66	7.2
North: Gympie Rd (N)												
7	L2	126	4.8	0.163	21.8	LOS C	5.1	41.8	0.47	0.62	0.47	42.1
8	T1	2195	5.8	0.725	17.4	LOS B	31.7	230.5	0.57	0.52	0.57	45.2
9	R2	127	3.9	0.556	77.0	LOS E	9.5	69.0	0.99	0.80	0.99	24.4
9u	U	1	0.0	0.556	78.5	LOS E	9.5	69.0	0.99	0.80	0.99	22.1
Approach		2449	5.6	0.723	20.7	LOS C	31.7	230.5	0.58	0.54	0.58	43.1
West: Rode Rd (W)												
10	L2	84	6.0	0.729	83.0	LOS F	11.8	86.6	1.00	0.86	1.08	23.6
11	T1	359	5.0	1.531	458.5	LOS F	66.7	487.0	1.00	1.85	2.76	6.8
12	R2	87	3.4	0.768	91.8	LOS F	7.2	51.9	1.00	0.86	1.19	23.9
Approach		530	4.9	1.531	338.8	LOS F	66.7	487.0	1.00	1.53	2.23	8.7
All Vehicles		6394	5.7	1.675	91.0	LOS F	86.2	626.8	0.68	0.79	0.97	22.1

Kuran Street – 2021 AM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Safn 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: Gympie Rd (S)												
1	L2	42	2.4	0.057	35.2	LOS D	1.9	13.7	0.63	0.70	0.63	35.4
2	T1	2175	4.7	0.918	47.3	LOS D	59.3	431.7	0.91	0.91	1.01	25.8
3	R2	110	3.6	0.910	101.2	LOS F	10.5	75.8	1.00	0.96	1.42	20.4
3u	U	8	0.0	0.910	102.5	LOS F	10.5	75.8	1.00	0.96	1.42	18.3
Approach		2335	4.6	0.918	49.8	LOS D	59.3	431.7	0.91	0.91	1.02	25.4
East: Kuran St (E)												
4	L2	68	4.4	0.521	74.8	LOS E	9.9	71.4	0.97	0.80	0.97	25.2
5	T1	67	3.0	0.521	69.2	LOS E	9.9	71.4	0.97	0.80	0.97	27.6
6	R2	44	4.5	0.147	66.6	LOS E	2.9	21.3	0.89	0.74	0.89	23.5
Approach		179	3.9	0.521	70.7	LOS E	9.9	71.4	0.95	0.78	0.95	25.8
North: Gympie Rd (N)												
7	L2	46	4.3	0.063	35.3	LOS D	2.1	15.3	0.63	0.70	0.63	32.4
8	T1	2447	5.4	1.007	87.5	LOS F	88.1	644.9	1.00	1.18	1.33	17.3
9	R2	33	0.0	0.440	85.0	LOS F	4.1	28.9	1.00	0.76	1.00	20.0
9u	U	20	0.0	0.440	86.4	LOS F	4.1	28.9	1.00	0.76	1.00	13.8
Approach		2546	5.2	1.007	86.5	LOS F	88.1	644.9	0.99	1.16	1.31	17.5
West: Kuran St (W)												
10	L2	64	3.1	0.825	82.4	LOS F	18.2	131.8	1.00	0.94	1.15	21.2
11	T1	161	4.3	0.825	76.8	LOS E	18.2	131.8	1.00	0.94	1.15	26.4
12	R2	67	1.5	0.219	67.5	LOS E	4.5	32.1	0.90	0.76	0.90	26.3
Approach		292	3.4	0.825	75.9	LOS E	18.2	131.8	0.98	0.89	1.09	25.3
All Vehicles		5352	4.8	1.007	69.4	LOS E	88.1	644.9	0.95	1.03	1.16	21.1

Kuran Street – 2031 AM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Safn 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: Gympie Rd (S)												
1	L2	42	0.0	0.054	33.9	LOS C	1.9	13.1	0.62	0.70	0.62	35.9
2	T1	2298	4.9	0.946	53.9	LOS D	68.3	498.0	0.93	0.97	1.08	23.9
3	R2	122	3.3	1.199	269.2	LOS F	20.4	146.2	1.00	1.33	2.30	9.4
3u	U	8	0.0	1.199	270.5	LOS F	20.4	146.2	1.00	1.33	2.30	8.2
Approach		2470	4.7	1.199	64.9	LOS E	68.3	498.0	0.93	0.99	1.14	21.5
East: Kuran St (E)												
4	L2	67	3.0	0.538	74.9	LOS E	10.4	74.7	0.98	0.80	0.98	25.2
5	T1	74	4.1	0.538	69.3	LOS E	10.4	74.7	0.98	0.80	0.98	27.6
6	R2	49	8.2	0.168	67.0	LOS E	3.3	24.5	0.89	0.74	0.89	23.3
Approach		190	4.7	0.538	70.7	LOS E	10.4	74.7	0.96	0.78	0.96	25.8
North: Gympie Rd (N)												
7	L2	44	2.3	0.058	34.0	LOS C	2.0	14.1	0.62	0.70	0.62	32.9
8	T1	2436	5.4	0.975	66.7	LOS E	78.3	573.0	0.99	1.08	1.21	20.9
9	R2	33	3.0	0.518	88.1	LOS F	4.1	29.5	1.00	0.75	1.00	19.6
9u	U	18	5.6	0.518	89.5	LOS F	4.1	29.5	1.00	0.75	1.00	13.4
Approach		2531	5.3	0.975	66.5	LOS E	78.3	573.0	0.98	1.07	1.19	20.9
West: Kuran St (W)												
10	L2	67	3.0	0.885	89.0	LOS F	20.4	146.6	1.00	1.00	1.25	20.1
11	T1	172	2.9	0.885	83.5	LOS F	20.4	146.6	1.00	1.00	1.25	25.2
12	R2	73	4.1	0.244	67.9	LOS E	5.0	35.9	0.91	0.76	0.91	26.2
Approach		312	3.2	0.885	81.0	LOS F	20.4	146.6	0.98	0.95	1.17	24.3
All Vehicles		5503	4.9	1.199	66.7	LOS E	78.3	573.0	0.96	1.02	1.16	21.6

Kuran Street – 2021 PM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	78	2.6	0.110	37.9	LOS D	3.8	27.0	0.67	0.72	0.67	34.3
2	T1	2410	5.1	1.068	132.3	LOS F	104.6	764.8	1.00	1.37	1.57	12.5
3	R2	84	7.1	0.667	84.7	LOS F	8.1	59.7	1.00	0.81	1.06	22.8
3u	U	18	5.6	0.667	86.0	LOS F	8.1	59.7	1.00	0.81	1.06	20.6
Approach		2590	5.1	1.068	127.6	LOS F	104.6	764.8	0.99	1.33	1.53	13.2
East: Kuran St (E)												
4	L2	75	4.0	0.719	77.5	LOS E	14.7	107.0	1.00	0.86	1.04	24.8
5	T1	117	5.1	0.719	71.9	LOS E	14.7	107.0	1.00	0.86	1.04	27.2
6	R2	64	3.1	0.212	67.4	LOS E	4.3	31.0	0.90	0.75	0.90	23.3
Approach		256	4.3	0.719	72.5	LOS E	14.7	107.0	0.98	0.83	1.01	25.6
North: Gympie Rd (N)												
7	L2	33	3.0	0.047	37.0	LOS D	1.5	11.1	0.65	0.69	0.65	31.7
8	T1	2077	4.8	0.894	45.1	LOS D	52.4	382.1	0.91	0.89	0.99	26.4
9	R2	56	5.4	0.453	81.9	LOS F	5.3	38.8	0.99	0.77	0.99	20.5
9u	U	14	0.0	0.453	83.2	LOS F	5.3	38.8	0.99	0.77	0.99	14.3
Approach		2180	4.7	0.894	46.2	LOS D	52.4	382.1	0.91	0.88	0.98	26.2
West: Kuran St (W)												
10	L2	54	3.7	0.593	74.7	LOS E	12.1	86.4	0.98	0.81	0.98	22.5
11	T1	110	1.8	0.593	69.1	LOS E	12.1	86.4	0.98	0.81	0.98	27.8
12	R2	55	3.6	0.183	67.1	LOS E	3.7	26.6	0.90	0.75	0.90	26.3
Approach		219	2.7	0.593	70.0	LOS E	12.1	86.4	0.96	0.79	0.96	26.3
All Vehicles		5245	4.8	1.068	88.7	LOS F	104.6	764.8	0.96	1.10	1.25	17.8

Kuran Street – 2031 PM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	81	2.5	0.115	38.0	LOS D	3.9	28.1	0.67	0.73	0.67	34.3
2	T1	2462	5.4	1.090	148.9	LOS F	112.2	821.3	1.00	1.44	1.66	11.4
3	R2	79	3.8	0.620	83.6	LOS F	7.6	54.4	1.00	0.80	1.02	23.0
3u	U	18	0.0	0.620	84.9	LOS F	7.6	54.4	1.00	0.80	1.02	20.8
Approach		2640	5.2	1.090	143.1	LOS F	112.2	821.3	0.99	1.40	1.60	12.0
East: Kuran St (E)												
4	L2	78	2.6	0.758	79.1	LOS E	15.9	115.1	1.00	0.88	1.08	24.5
5	T1	126	4.8	0.758	73.5	LOS E	15.9	115.1	1.00	0.88	1.08	26.9
6	R2	69	4.3	0.231	67.7	LOS E	4.7	33.9	0.91	0.76	0.91	23.2
Approach		273	4.0	0.758	73.6	LOS E	15.9	115.1	0.98	0.85	1.03	25.4
North: Gympie Rd (N)												
7	L2	33	3.0	0.047	37.0	LOS D	1.5	11.1	0.65	0.69	0.65	31.7
8	T1	2201	4.9	0.947	59.0	LOS E	65.0	474.2	0.97	1.01	1.13	22.6
9	R2	55	3.6	0.451	81.8	LOS F	5.3	38.3	0.99	0.77	0.99	20.5
9u	U	15	0.0	0.451	83.1	LOS F	5.3	38.3	0.99	0.77	0.99	14.3
Approach		2304	4.8	0.947	59.4	LOS E	65.0	474.2	0.97	1.00	1.12	22.5
West: Kuran St (W)												
10	L2	55	0.0	0.631	75.1	LOS E	13.1	93.2	0.99	0.82	0.99	22.6
11	T1	121	3.3	0.631	69.6	LOS E	13.1	93.2	0.99	0.82	0.99	27.8
12	R2	57	3.5	0.189	67.2	LOS E	3.8	27.6	0.90	0.75	0.90	26.3
Approach		233	2.6	0.631	70.3	LOS E	13.1	93.2	0.97	0.80	0.97	26.3
All Vehicles		5450	4.9	1.090	101.1	LOS F	112.2	821.3	0.98	1.18	1.34	16.2

Kuran Street – 2021 AM – Project Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	45	4.4	0.102	33.6	LOS C	2.8	25.0	0.59	0.60	0.59	36.8
2	T1	2191	5.5	0.903	43.8	LOS D	55.8	405.9	0.90	0.89	0.98	26.9
3	R2	114	5.3	0.960	113.2	LOS F	11.7	85.5	1.00	1.03	1.55	19.0
3u	U	9	0.0	0.960	114.6	LOS F	11.7	85.5	1.00	1.03	1.55	17.1
Approach		2359	5.5	0.960	47.2	LOS D	55.8	405.9	0.90	0.89	1.00	26.2
East: Kuran St (E)												
4	L2	66	4.5	0.529	74.9	LOS E	10.0	73.4	0.98	0.80	0.98	25.2
5	T1	71	5.6	0.529	69.3	LOS E	10.0	73.4	0.98	0.80	0.98	27.6
6	R2	45	6.7	0.153	66.8	LOS E	3.0	22.2	0.89	0.74	0.89	23.4
Approach		182	5.5	0.529	70.7	LOS E	10.0	73.4	0.96	0.78	0.96	25.8
North: Gympie Rd (N)												
7	L2	47	4.3	0.134	33.6	LOS C	3.5	33.6	0.58	0.57	0.58	34.2
8	T1	2446	6.2	0.980	70.1	LOS E	78.2	570.2	0.98	1.09	1.22	20.2
9	R2	36	2.8	0.467	85.3	LOS F	4.4	31.1	1.00	0.76	1.00	20.1
9u	U	20	0.0	0.467	86.8	LOS F	4.4	31.1	1.00	0.76	1.00	13.9
Approach		2549	6.1	0.980	69.7	LOS E	78.2	570.2	0.98	1.07	1.20	20.3
West: Kuran St (W)												
10	L2	61	1.6	0.810	81.1	LOS F	17.8	128.7	1.00	0.92	1.13	21.5
11	T1	162	4.3	0.810	75.6	LOS E	17.8	128.7	1.00	0.92	1.13	26.6
12	R2	68	5.9	0.230	67.7	LOS E	4.6	33.9	0.91	0.76	0.91	26.2
Approach		291	4.1	0.810	74.9	LOS E	17.8	128.7	0.98	0.88	1.08	25.5
All Vehicles		5381	5.7	0.980	60.2	LOS E	78.2	570.2	0.94	0.97	1.10	23.1

Kuran Street – 2031 AM – Project Case

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	Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gympie Rd (S)												
1	L2	45	4.4	0.127	33.5	LOS C	3.3	31.8	0.58	0.57	0.58	37.1
2	T1	2325	6.1	0.954	58.6	LOS E	69.6	507.3	0.95	1.01	1.12	22.7
3	R2	123	5.7	1.032	146.3	LOS F	14.6	106.9	1.00	1.13	1.76	15.7
3u	U	9	0.0	1.032	147.8	LOS F	14.6	106.9	1.00	1.13	1.76	14.0
Approach		2502	6.0	1.032	62.8	LOS E	69.6	507.3	0.95	1.01	1.15	22.1
East: Kuran St (E)												
4	L2	61	8.2	0.464	74.4	LOS E	9.0	66.6	0.97	0.79	0.97	25.3
5	T1	62	6.5	0.484	68.8	LOS E	9.0	66.6	0.97	0.79	0.97	27.7
6	R2	38	2.6	0.125	66.3	LOS E	2.5	18.0	0.88	0.73	0.88	23.6
Approach		161	6.2	0.484	70.3	LOS E	9.0	66.6	0.95	0.77	0.95	25.9
North: Gympie Rd (N)												
7	L2	45	2.2	0.140	32.8	LOS C	3.5	34.7	0.57	0.55	0.57	34.6
8	T1	2449	6.5	0.980	70.2	LOS E	78.3	571.3	0.98	1.09	1.22	20.2
9	R2	34	2.9	0.475	85.6	LOS F	4.3	31.6	1.00	0.76	1.00	20.0
9u	U	21	9.6	0.475	87.2	LOS F	4.3	31.6	1.00	0.76	1.00	13.8
Approach		2549	6.4	0.980	69.8	LOS E	78.3	571.3	0.98	1.07	1.20	20.3
West: Kuran St (W)												
10	L2	71	4.2	0.922	96.4	LOS F	21.9	159.0	1.00	1.06	1.33	19.1
11	T1	173	4.0	0.922	90.8	LOS F	21.9	159.0	1.00	1.06	1.33	24.0
12	R2	74	5.4	0.249	68.0	LOS E	5.0	36.8	0.91	0.76	0.91	26.1
Approach		318	4.4	0.922	86.8	LOS F	21.9	159.0	0.98	0.99	1.23	23.3
All Vehicles		5530	6.1	1.032	67.7	LOS E	78.3	571.3	0.96	1.03	1.17	21.5

Kuran Street – 2021 PM – Project Case

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: Gympie Rd (S)												
1	L2	78	5.1	0.194	36.8	LOS D	5.4	49.7	0.64	0.63	0.64	35.5
2	T1	2404	6.1	1.014	93.3	LOS F	87.0	633.0	0.99	1.20	1.35	16.6
3	R2	82	2.4	0.626	83.6	LOS F	7.7	55.0	1.00	0.80	1.02	23.1
3u	U	17	0.0	0.626	85.1	LOS F	7.7	55.0	1.00	0.80	1.02	20.9
Approach		2581	5.9	1.014	91.2	LOS F	87.0	633.0	0.98	1.16	1.32	17.1
East: Kuran St (E)												
4	L2	77	5.2	0.733	78.1	LOS E	15.0	109.8	1.00	0.86	1.06	24.7
5	T1	118	5.1	0.733	72.5	LOS E	15.0	109.8	1.00	0.86	1.06	27.1
6	R2	64	4.7	0.214	67.5	LOS E	4.3	31.4	0.90	0.76	0.90	23.3
Approach		259	5.0	0.733	72.9	LOS E	15.0	109.8	0.98	0.84	1.02	25.5
North: Gympie Rd (N)												
7	L2	33	3.0	0.091	35.1	LOS D	2.3	22.0	0.59	0.57	0.59	33.4
8	T1	2086	5.7	0.882	43.1	LOS D	50.2	365.8	0.91	0.87	0.96	27.1
9	R2	56	3.6	0.464	82.0	LOS F	5.5	39.4	0.99	0.77	0.99	20.6
9u	U	16	0.0	0.464	83.5	LOS F	5.5	39.4	0.99	0.77	0.99	14.4
Approach		2191	5.5	0.882	44.2	LOS D	50.2	365.8	0.90	0.86	0.96	26.8
West: Kuran St (W)												
10	L2	54	3.7	0.599	74.8	LOS E	12.3	87.5	0.99	0.81	0.99	22.6
11	T1	112	1.8	0.599	69.2	LOS E	12.3	87.5	0.99	0.81	0.99	27.9
12	R2	56	3.6	0.186	67.1	LOS E	3.8	27.1	0.90	0.75	0.90	26.3
Approach		222	2.7	0.599	70.0	LOS E	12.3	87.5	0.96	0.79	0.96	26.3
All Vehicles		5253	5.6	1.014	69.8	LOS E	87.0	633.0	0.95	1.01	1.14	21.1

Kuran Street – 2031 PM – Project Case

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: Gympie Rd (S)												
1	L2	79	3.8	0.197	36.8	LOS D	5.5	50.4	0.64	0.63	0.64	35.5
2	T1	2742	5.6	1.151	194.8	LOS F	135.3	981.2	0.99	1.62	1.87	9.3
3	R2	77	2.6	0.609	83.4	LOS F	7.4	53.2	1.00	0.79	1.01	23.1
3u	U	18	5.6	0.609	85.0	LOS F	7.4	53.2	1.00	0.79	1.01	20.9
Approach		2916	5.5	1.151	186.9	LOS F	135.3	981.2	0.99	1.56	1.81	9.6
East: Kuran St (E)												
4	L2	78	3.8	0.757	79.1	LOS E	15.8	115.0	1.00	0.88	1.08	24.5
5	T1	125	4.8	0.757	73.5	LOS E	15.8	115.0	1.00	0.88	1.08	26.9
6	R2	70	4.3	0.234	67.8	LOS E	4.7	34.4	0.91	0.76	0.91	23.2
Approach		273	4.4	0.757	73.6	LOS E	15.8	115.0	0.98	0.85	1.03	25.4
North: Gympie Rd (N)												
7	L2	34	5.9	0.099	35.2	LOS D	2.5	24.3	0.59	0.57	0.59	33.4
8	T1	2227	5.9	0.941	56.6	LOS E	63.3	461.5	0.97	1.00	1.11	23.2
9	R2	58	5.2	0.473	82.1	LOS F	5.6	40.5	0.99	0.77	0.99	20.6
9u	U	15	0.0	0.473	83.6	LOS F	5.6	40.5	0.99	0.77	0.99	14.4
Approach		2334	5.8	0.941	57.0	LOS E	63.3	461.5	0.96	0.99	1.10	23.1
West: Kuran St (W)												
10	L2	58	3.4	0.643	75.3	LOS E	13.2	94.9	0.99	0.82	0.99	22.5
11	T1	119	3.4	0.643	69.8	LOS E	13.2	94.9	0.99	0.82	0.99	27.7
12	R2	60	3.3	0.199	67.3	LOS E	4.0	29.0	0.90	0.75	0.90	26.3
Approach		237	3.4	0.643	70.5	LOS E	13.2	94.9	0.97	0.80	0.97	26.2
All Vehicles		5760	5.5	1.151	124.1	LOS F	135.3	981.2	0.98	1.26	1.45	13.8

Hamilton Road – 2021 AM – Base Case

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: Gympie Rd (S)												
1	L2	113	3.5	0.627	26.8	LOS C	13.2	95.8	0.53	0.55	0.53	42.7
2	T1	1868	5.0	0.627	20.1	LOS C	25.0	182.7	0.55	0.50	0.55	39.1
3	R2	244	3.7	0.962	113.5	LOS F	12.1	87.6	1.00	1.04	1.55	12.3
3u	U	8	0.0	0.962	114.9	LOS F	11.9	86.0	1.00	1.04	1.55	20.8
Approach		2233	4.7	0.962	30.9	LOS C	25.0	182.7	0.60	0.56	0.66	32.1
East: Hamilton Rd (E)												
4	L2	42	2.4	0.787	91.9	LOS F	7.5	53.5	1.00	0.87	1.21	17.1
5	T1	177	3.4	0.787	83.9	LOS F	10.6	76.0	1.00	0.88	1.18	18.1
6	R2	162	3.1	0.518	82.7	LOS F	6.2	44.8	1.00	0.78	1.00	7.9
Approach		381	3.1	0.787	84.3	LOS F	10.6	76.0	1.00	0.84	1.10	14.2
North: Gympie Rd (N)												
7	L2	143	2.8	0.598	29.5	LOS C	6.1	43.5	0.59	0.71	0.59	16.6
8	T1	2424	5.3	0.891	30.3	LOS C	56.3	412.2	0.79	0.76	0.83	33.3
9	R2	106	3.8	0.406	84.4	LOS F	4.1	30.0	0.99	0.75	0.99	18.3
9u	U	1	0.0	0.406	86.0	LOS F	4.1	29.8	0.99	0.75	0.99	8.5
Approach		2674	5.1	0.891	32.4	LOS C	56.3	412.2	0.79	0.76	0.83	31.7
West: Hamilton Rd (W)												
10	L2	88	4.5	1.210	278.3	LOS F	40.0	289.5	1.00	1.60	2.28	7.0
11	T1	341	3.8	1.210	272.6	LOS F	45.1	326.5	1.00	1.62	2.28	6.8
12	R2	98	4.1	1.210	278.1	LOS F	45.1	326.5	1.00	1.63	2.27	10.6
Approach		527	4.0	1.210	274.6	LOS F	45.1	326.5	1.00	1.62	2.28	7.6
All Vehicles		5815	4.7	1.210	57.2	LOS E	56.3	412.2	0.75	0.77	0.91	23.0

Hamilton Road – 2031 AM – Base Case

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: Gympie Rd (S)												
1	L2	117	3.4	0.673	27.0	LOS C	13.9	101.5	0.54	0.55	0.54	42.6
2	T1	1988	5.1	0.673	20.7	LOS C	28.5	208.3	0.57	0.53	0.57	38.7
3	R2	249	4.0	0.993	126.3	LOS F	13.3	96.0	1.00	1.08	1.63	11.5
3u	U	10	0.0	0.993	127.7	LOS F	13.0	93.8	1.00	1.08	1.64	19.4
Approach		2364	4.9	0.993	32.5	LOS C	28.5	208.3	0.62	0.59	0.69	31.4
East: Hamilton Rd (E)												
4	L2	30	3.3	0.735	89.2	LOS F	7.5	54.1	1.00	0.84	1.14	17.6
5	T1	183	3.3	0.735	82.0	LOS F	9.7	69.7	1.00	0.85	1.12	18.4
6	R2	169	4.1	0.544	83.0	LOS F	6.5	47.3	1.00	0.78	1.00	7.9
Approach		382	3.7	0.735	83.0	LOS F	9.7	69.7	1.00	0.82	1.07	14.2
North: Gympie Rd (N)												
7	L2	139	4.3	0.572	29.5	LOS C	5.9	42.7	0.59	0.71	0.59	16.6
8	T1	2378	5.4	0.874	27.7	LOS C	52.2	382.1	0.77	0.73	0.80	34.7
9	R2	101	3.0	0.385	84.2	LOS F	3.9	28.3	0.99	0.75	0.99	18.4
9u	U	1	0.0	0.385	85.8	LOS F	3.9	28.1	0.99	0.75	0.99	8.5
Approach		2619	5.3	0.874	30.0	LOS C	52.2	382.1	0.77	0.73	0.79	32.8
West: Hamilton Rd (W)												
10	L2	93	2.2	1.300	352.7	LOS F	49.1	353.1	1.00	1.76	2.55	5.6
11	T1	367	3.8	1.300	347.1	LOS F	54.7	397.8	1.00	1.78	2.55	5.4
12	R2	107	5.6	1.300	352.8	LOS F	54.7	397.8	1.00	1.81	2.54	8.6
Approach		567	3.9	1.300	349.1	LOS F	54.7	397.8	1.00	1.79	2.55	6.1
All Vehicles		5932	4.9	1.300	64.9	LOS E	54.7	397.8	0.75	0.78	0.94	21.3

Hamilton Road – 2021 PM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	197	2.5	0.802	39.2	LOS D	18.5	134.2	0.66	0.71	0.72	36.8
2	T1	2038	5.7	0.802	29.1	LOS C	40.4	296.9	0.74	0.68	0.75	33.8
3	R2	282	3.2	0.550	73.6	LOS E	11.1	79.8	0.97	0.81	0.97	16.0
3u	U	17	0.0	0.550	74.9	LOS E	10.7	76.9	0.97	0.81	0.97	26.8
Approach		2534	5.1	0.802	35.1	LOS D	40.4	296.9	0.76	0.70	0.77	30.6
East: Hamilton Rd (E)												
4	L2	92	5.4	0.976	115.1	LOS F	23.8	172.6	1.00	1.15	1.46	14.5
5	T1	421	3.6	0.976	108.8	LOS F	27.0	195.0	1.00	1.15	1.47	15.0
6	R2	170	3.5	0.305	70.0	LOS E	5.9	42.7	0.93	0.77	0.93	9.1
Approach		683	3.8	0.976	100.0	LOS F	27.0	195.0	0.98	1.06	1.34	14.0
North: Gympie Rd (N)												
7	L2	112	2.7	0.573	42.9	LOS D	5.9	42.2	0.73	0.74	0.73	12.8
8	T1	1815	4.9	0.916	55.3	LOS E	53.4	389.5	0.91	0.92	1.04	24.4
9	R2	254	3.9	1.055	160.3	LOS F	14.9	107.5	1.00	1.16	1.84	11.1
9u	U	1	0.0	1.055	161.8	LOS F	14.8	107.3	1.00	1.16	1.84	4.7
Approach		2182	4.7	1.055	66.9	LOS E	53.4	389.5	0.91	0.94	1.12	21.0
West: Hamilton Rd (W)												
10	L2	85	4.7	1.250	311.5	LOS F	40.1	291.5	1.00	1.64	2.41	6.3
11	T1	321	4.4	1.250	305.9	LOS F	45.2	329.4	1.00	1.66	2.41	6.1
12	R2	93	5.4	1.250	311.5	LOS F	45.2	329.4	1.00	1.68	2.40	9.6
Approach		499	4.6	1.250	307.9	LOS F	45.2	329.4	1.00	1.66	2.41	6.8
All Vehicles		5898	4.8	1.250	77.5	LOS E	53.4	389.5	0.86	0.91	1.10	19.1

Hamilton Road – 2031 PM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	202	4.5	0.835	43.4	LOS D	20.1	147.1	0.66	0.74	0.76	35.3
2	T1	2111	5.8	0.835	30.7	LOS C	44.0	323.4	0.77	0.72	0.79	33.0
3	R2	284	3.2	0.549	73.5	LOS E	11.1	79.6	0.97	0.81	0.97	16.0
3u	U	15	0.0	0.549	74.8	LOS E	10.7	77.1	0.97	0.81	0.97	26.9
Approach		2612	5.4	0.835	36.6	LOS D	44.0	323.4	0.76	0.73	0.81	30.0
East: Hamilton Rd (E)												
4	L2	96	4.2	1.031	143.2	LOS F	28.6	206.2	1.00	1.26	1.65	12.1
5	T1	447	2.9	1.031	137.6	LOS F	32.4	232.5	1.00	1.27	1.64	12.4
6	R2	184	6.5	0.337	70.4	LOS E	6.5	47.7	0.94	0.78	0.94	9.0
Approach		727	4.0	1.031	121.4	LOS F	32.4	232.5	0.98	1.14	1.46	11.9
North: Gympie Rd (N)												
7	L2	121	4.1	0.674	45.8	LOS D	6.7	48.6	0.73	0.76	0.79	12.2
8	T1	1915	5.0	0.968	73.3	LOS E	65.8	480.7	0.94	1.04	1.18	20.4
9	R2	264	3.0	1.090	184.1	LOS F	16.7	120.1	1.00	1.21	1.95	9.8
9u	U	1	0.0	1.090	185.6	LOS F	16.7	119.8	1.00	1.21	1.95	4.1
Approach		2301	4.7	1.090	84.6	LOS F	65.8	480.7	0.94	1.05	1.25	17.9
West: Hamilton Rd (W)												
10	L2	92	3.3	1.327	375.4	LOS F	47.1	340.7	1.00	1.77	2.64	5.3
11	T1	343	4.4	1.327	369.8	LOS F	53.1	385.5	1.00	1.80	2.63	5.1
12	R2	96	4.2	1.327	375.4	LOS F	53.1	385.5	1.00	1.82	2.63	8.2
Approach		531	4.1	1.327	371.8	LOS F	53.1	385.5	1.00	1.80	2.63	5.7
All Vehicles		6171	4.9	1.327	93.3	LOS F	65.8	480.7	0.88	0.99	1.21	16.8

Hamilton Road – 2021 AM – Project Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	113	4.4	0.639	26.9	LOS C	13.3	97.3	0.53	0.55	0.53	42.6
2	T1	1890	5.8	0.639	20.2	LOS C	25.8	189.3	0.55	0.51	0.55	39.0
3	R2	241	4.1	0.959	112.4	LOS F	12.0	86.9	1.00	1.04	1.54	12.5
3u	U	9	0.0	0.959	114.0	LOS F	11.8	85.0	1.00	1.04	1.54	21.0
Approach		2253	5.5	0.959	30.8	LOS C	25.8	189.3	0.60	0.57	0.66	32.2
East: Hamilton Rd (E)												
4	L2	41	2.4	0.783	91.8	LOS F	7.5	53.6	1.00	0.87	1.20	17.1
5	T1	177	4.0	0.783	83.8	LOS F	10.5	75.7	1.00	0.88	1.17	18.2
6	R2	167	5.4	0.542	83.0	LOS F	6.5	47.3	1.00	0.78	1.00	7.9
Approach		385	4.4	0.783	84.3	LOS F	10.5	75.7	1.00	0.84	1.10	14.1
North: Gympie Rd (N)												
7	L2	145	4.8	0.627	29.6	LOS C	6.2	45.0	0.59	0.72	0.59	16.6
8	T1	2438	6.3	0.903	32.8	LOS C	59.4	438.1	0.80	0.79	0.87	32.2
9	R2	109	5.5	0.422	84.6	LOS F	4.3	31.3	1.00	0.76	1.00	18.3
9u	U	1	0.0	0.422	86.1	LOS F	4.2	31.1	1.00	0.76	1.00	8.5
Approach		2693	6.2	0.903	34.7	LOS C	59.4	438.1	0.80	0.79	0.86	30.7
West: Hamilton Rd (W)												
10	L2	87	5.7	1.225	290.7	LOS F	41.1	300.9	1.00	1.63	2.33	6.7
11	T1	343	5.2	1.225	285.0	LOS F	46.4	339.0	1.00	1.65	2.32	6.5
12	R2	99	5.1	1.225	290.5	LOS F	46.4	339.0	1.00	1.66	2.32	10.2
Approach		529	5.3	1.225	287.0	LOS F	46.4	339.0	1.00	1.65	2.32	7.3
All Vehicles		5860	5.7	1.225	59.2	LOS E	59.4	438.1	0.75	0.78	0.93	22.6

Hamilton Road – 2031 AM – Project Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	111	3.6	0.684	26.4	LOS C	14.0	102.9	0.53	0.54	0.53	42.9
2	T1	2008	6.5	0.684	20.7	LOS C	29.1	215.2	0.58	0.53	0.58	38.6
3	R2	265	4.5	1.048	155.5	LOS F	15.8	114.7	1.00	1.17	1.80	9.8
3u	U	8	0.0	1.048	157.1	LOS F	15.5	112.6	1.00	1.17	1.80	16.6
Approach		2392	6.1	1.048	36.4	LOS D	29.1	215.2	0.62	0.61	0.71	29.7
East: Hamilton Rd (E)												
4	L2	35	2.9	0.817	92.5	LOS F	8.4	61.0	1.00	0.90	1.25	17.1
5	T1	198	5.1	0.817	85.4	LOS F	11.0	80.3	1.00	0.91	1.22	17.9
6	R2	176	4.5	0.568	83.2	LOS F	6.8	49.6	1.00	0.78	1.00	7.9
Approach		409	4.6	0.817	85.1	LOS F	11.0	80.3	1.00	0.85	1.13	14.1
North: Gympie Rd (N)												
7	L2	141	3.5	0.564	29.5	LOS C	6.0	43.1	0.59	0.71	0.59	16.6
8	T1	2382	6.5	0.883	39.7	LOS D	61.2	452.4	0.91	0.88	0.96	29.3
9	R2	106	5.7	0.411	84.5	LOS F	4.1	30.5	0.99	0.76	0.99	18.3
9u	U	1	0.0	0.411	86.1	LOS F	4.1	30.3	0.99	0.76	0.99	8.5
Approach		2630	6.3	0.883	41.0	LOS D	61.2	452.4	0.90	0.87	0.94	28.2
West: Hamilton Rd (W)												
10	L2	83	4.3	1.319	368.8	LOS F	50.4	367.5	1.00	1.79	2.61	5.4
11	T1	368	5.2	1.319	363.2	LOS F	56.2	413.9	1.00	1.82	2.60	5.2
12	R2	108	7.4	1.319	368.9	LOS F	56.2	413.9	1.00	1.84	2.60	8.3
Approach		569	5.4	1.319	365.2	LOS F	56.2	413.9	1.00	1.82	2.60	5.9
All Vehicles		6000	6.0	1.319	72.9	LOS E	61.2	452.4	0.81	0.85	1.02	19.7

Hamilton Road – 2021 PM – Project Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	209	5.3	0.810	40.6	LOS D	18.8	138.1	0.67	0.73	0.73	36.2
2	T1	2032	6.3	0.810	29.4	LOS C	41.1	303.4	0.75	0.69	0.76	33.6
3	R2	278	4.3	0.545	73.5	LOS E	10.9	79.0	0.97	0.81	0.97	16.1
3u	U	16	0.0	0.545	75.0	LOS E	10.6	76.3	0.97	0.81	0.97	27.0
Approach		2535	6.0	0.810	35.5	LOS D	41.1	303.4	0.77	0.71	0.78	30.5
East: Hamilton Rd (E)												
4	L2	92	6.5	0.986	120.0	LOS F	24.4	179.0	1.00	1.17	1.52	14.1
5	T1	421	5.0	0.986	113.7	LOS F	27.6	201.4	1.00	1.17	1.50	14.6
6	R2	172	5.8	0.314	70.1	LOS E	6.0	44.1	0.93	0.77	0.93	9.1
Approach		685	5.4	0.986	103.6	LOS F	27.6	201.4	0.98	1.07	1.36	13.6
North: Gympie Rd (N)												
7	L2	117	6.8	0.636	44.1	LOS D	6.3	46.6	0.75	0.75	0.75	12.5
8	T1	1831	5.8	0.931	59.5	LOS E	56.4	414.2	0.92	0.96	1.08	23.3
9	R2	251	4.8	1.049	156.3	LOS F	14.5	105.5	1.00	1.15	1.82	11.4
9u	U	1	0.0	1.049	157.8	LOS F	14.4	105.2	1.00	1.15	1.82	4.9
Approach		2200	5.7	1.049	69.8	LOS E	56.4	414.2	0.92	0.97	1.15	20.5
West: Hamilton Rd (W)												
10	L2	84	3.6	1.267	325.6	LOS F	41.4	303.4	1.00	1.67	2.47	6.1
11	T1	328	6.4	1.267	320.0	LOS F	46.7	342.6	1.00	1.70	2.46	5.8
12	R2	91	4.4	1.267	325.6	LOS F	46.7	342.6	1.00	1.72	2.46	9.3
Approach		503	5.6	1.267	321.9	LOS F	46.7	342.6	1.00	1.70	2.46	6.5
All Vehicles		5923	5.8	1.267	80.4	LOS F	56.4	414.2	0.87	0.93	1.13	18.6

Hamilton Road – 2031 PM – Project Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	201	5.0	0.909	59.1	LOS E	25.4	186.3	0.67	0.82	0.89	30.7
2	T1	2295	6.0	0.909	42.1	LOS D	58.9	433.5	0.84	0.85	0.94	28.3
3	R2	281	5.0	0.555	73.7	LOS E	11.1	80.7	0.97	0.81	0.97	16.0
3u	U	17	0.0	0.555	75.2	LOS E	10.7	77.9	0.97	0.81	0.97	26.9
Approach		2794	5.8	0.909	46.7	LOS D	58.9	433.5	0.84	0.84	0.94	26.7
East: Hamilton Rd (E)												
4	L2	96	4.2	1.061	162.2	LOS F	31.4	228.8	1.00	1.32	1.75	10.8
5	T1	457	5.3	1.061	156.7	LOS F	35.2	257.6	1.00	1.34	1.74	11.1
6	R2	185	5.4	0.336	70.4	LOS E	6.5	47.5	0.93	0.78	0.93	9.0
Approach		738	5.1	1.061	135.8	LOS F	35.2	257.6	0.98	1.19	1.54	10.8
North: Gympie Rd (N)												
7	L2	121	5.8	0.701	47.6	LOS D	6.9	50.5	0.73	0.78	0.82	11.8
8	T1	1945	6.1	0.990	84.5	LOS F	71.8	528.9	0.95	1.10	1.26	18.6
9	R2	266	5.2	1.123	209.2	LOS F	18.3	133.6	1.00	1.26	2.06	8.8
9u	U	1	0.0	1.123	210.7	LOS F	18.2	133.3	1.00	1.26	2.06	3.7
Approach		2335	6.0	1.123	96.9	LOS F	71.8	528.9	0.94	1.11	1.33	16.3
West: Hamilton Rd (W)												
10	L2	92	4.3	1.345	390.8	LOS F	48.4	353.3	1.00	1.80	2.69	5.1
11	T1	346	5.2	1.345	385.2	LOS F	54.6	399.4	1.00	1.83	2.68	4.9
12	R2	97	5.2	1.345	390.9	LOS F	54.6	399.4	1.00	1.85	2.68	7.9
Approach		535	5.0	1.345	387.2	LOS F	54.6	399.4	1.00	1.83	2.68	5.5
All Vehicles		6402	5.7	1.345	103.8	LOS F	71.8	528.9	0.91	1.06	1.30	15.5

Signalised Pedestrian Cross (South of Sparkes Street) – 2021 AM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
2	T1	2372	5.5	0.400	4.0	LOS A	12.1	88.4	0.30	0.27	0.30	56.3
Approach		2372	5.5	0.400	4.0	LOS A	12.1	88.4	0.30	0.27	0.30	56.3
North: Gympie Road (N)												
8	T1	2714	6.2	0.584	4.6	LOS A	21.6	158.9	0.37	0.34	0.37	55.8
Approach		2714	6.2	0.584	4.6	LOS A	21.6	158.9	0.37	0.34	0.37	55.8
All Vehicles		5085	5.9	0.584	4.3	LOS A	21.6	158.9	0.33	0.31	0.33	56.0

Signalised Pedestrian Cross (South of Sparkes Street) – 2031 AM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
2	T1	2509	6.1	0.438	4.1	LOS A	13.8	101.4	0.31	0.28	0.31	56.2
Approach		2509	6.1	0.438	4.1	LOS A	13.8	101.4	0.31	0.28	0.31	56.2
North: Gympie Road (N)												
8	T1	2658	6.5	0.573	4.5	LOS A	20.7	153.3	0.36	0.34	0.36	55.9
Approach		2658	6.5	0.573	4.5	LOS A	20.7	153.3	0.36	0.34	0.36	55.9
All Vehicles		5167	6.3	0.573	4.3	LOS A	20.7	153.3	0.33	0.31	0.33	56.0

Signalised Pedestrian Cross (South of Sparkes Street) – 2021 PM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
2	T1	2588	4.7	0.415	3.9	LOS A	13.0	94.8	0.29	0.27	0.29	56.4
Approach		2588	4.7	0.415	3.9	LOS A	13.0	94.8	0.29	0.27	0.29	56.4
North: Gympie Road (N)												
8	T1	2165	7.7	0.464	3.6	LOS A	14.5	108.4	0.29	0.27	0.29	56.6
Approach		2165	7.7	0.464	3.6	LOS A	14.5	108.4	0.29	0.27	0.29	56.6
All Vehicles		4754	6.1	0.464	3.8	LOS A	14.5	108.4	0.29	0.27	0.29	56.5

Signalised Pedestrian Cross (South of Sparkes Street) – 2031 PM – Base Case

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
2	T1	2713	6.3	0.484	4.0	LOS A	16.5	121.6	0.30	0.28	0.30	56.2
Approach		2713	6.3	0.484	4.0	LOS A	16.5	121.6	0.30	0.28	0.30	56.2
North: Gympie Road (N)												
8	T1	2251	5.9	0.477	3.7	LOS A	15.4	113.1	0.29	0.27	0.29	56.6
Approach		2251	5.9	0.477	3.7	LOS A	15.4	113.1	0.29	0.27	0.29	56.6
All Vehicles		4963	6.1	0.484	3.9	LOS A	16.5	121.6	0.30	0.28	0.30	56.4

Signalised Pedestrian Cross (South of Sparkes Street) – 2021 AM – Project Case

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: Gympie Road (S)												
2	T1	2372	5.5	0.400	4.0	LOS A	12.1	88.1	0.30	0.27	0.30	56.3
Approach		2372	5.5	0.400	4.0	LOS A	12.1	88.8	0.30	0.27	0.30	56.3
North: Gympie Road (N)												
8	T1	2714	6.2	0.571	4.4	LOS A	20.8	152.0	0.36	0.33	0.36	55.9
Approach		2714	6.2	0.571	4.4	LOS A	20.8	152.0	0.36	0.33	0.36	55.9
All Vehicles		5085	5.9	0.571	4.2	LOS A	20.8	152.0	0.33	0.30	0.33	56.1

Signalised Pedestrian Cross (South of Sparkes Street) – 2031 AM – Project Case

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: Gympie Road (S)												
2	T1	2532	6.9	0.447	4.1	LOS A	14.2	104.7	0.31	0.28	0.31	56.2
Approach		2532	6.9	0.447	4.1	LOS A	14.2	105.3	0.31	0.28	0.31	56.2
North: Gympie Road (N)												
8	T1	2695	7.7	0.573	4.4	LOS A	20.7	153.3	0.36	0.33	0.36	55.9
Approach		2695	7.7	0.573	4.4	LOS A	20.7	153.3	0.36	0.33	0.36	55.9
All Vehicles		5226	7.4	0.573	4.3	LOS A	20.7	153.3	0.33	0.31	0.33	56.0

Signalised Pedestrian Cross (South of Sparkes Street) – 2021 PM – Project Case

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: Gympie Road (S)												
2	T1	2588	4.7	0.445	3.9	LOS A	14.7	105.6	0.29	0.27	0.29	56.4
Approach		2588	4.7	0.445	3.9	LOS A	14.7	106.9	0.29	0.27	0.29	56.4
North: Gympie Road (N)												
8	T1	2165	7.7	0.457	3.6	LOS A	14.2	105.4	0.29	0.26	0.29	56.7
Approach		2165	7.7	0.457	3.6	LOS A	14.2	105.4	0.29	0.26	0.29	56.7
All Vehicles		4754	6.1	0.457	3.7	LOS A	14.7	106.9	0.29	0.26	0.29	56.5

Signalised Pedestrian Cross (South of Sparkes Street) – 2031 PM – Project Case

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: Gympie Road (S)												
2	T1	2755	7.7	0.500	4.1	LOS A	17.5	128.8	0.31	0.28	0.31	56.2
Approach		2755	7.7	0.500	4.1	LOS A	17.5	130.1	0.31	0.28	0.31	56.2
North: Gympie Road (N)												
8	T1	2273	6.9	0.477	3.7	LOS A	15.4	113.1	0.29	0.27	0.29	56.6
Approach		2273	6.9	0.477	3.7	LOS A	15.4	113.1	0.29	0.27	0.29	56.6
All Vehicles		5027	7.3	0.500	3.9	LOS A	17.5	130.1	0.30	0.28	0.30	56.4

Appendix C

SIDRA Modelling Results with Reassigned Traffic

Castle Street and Strathmore Road – 2021 AM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	60	5	0.09	13.9	LOS B	1.4	11.7	0.43	0.54	0.43	46.5
2	T1	2360	5.4	0.769	18.2	LOS B	36.4	264.7	0.62	0.57	0.62	42.1
3	R2	91	5.5	0.606	84.2	LOS F	7.2	52.6	1	0.79	1.01	18.2
3u	U	1	0	0.606	85.7	LOS F	7.2	52.6	1	0.79	1.01	18.2
Approach		2512	5.4	0.769	20.5	LOS C	36.4	264.7	0.63	0.56	0.63	40.5
East: Castle St (E)												
4	L2	69	2.9	1.138	219.5	LOS F	31.6	229.9	1	1.44	2.04	8.5
5	T1	156	5.1	1.138	213.9	LOS F	31.6	229.9	1	1.44	2.04	10.8
6	R2	36	2.8	0.226	80.5	LOS F	2.7	19.2	0.97	0.73	0.97	20.8
Approach		261	4.2	1.138	197	LOS F	31.6	229.9	1	1.34	1.89	10.9
North: Gympie Rd (N)												
7	L2	14	0	0.067	18.7	LOS B	1.2	13.5	0.34	0.34	0.34	43.4
8	T1	2702	6	0.859	20.3	LOS C	48.3	352.2	0.75	0.69	0.75	40.7
9	R2	32	3.1	0.232	80.7	LOS F	2.6	18.7	0.97	0.73	0.97	24.2
9u	U	3	0	0.232	82.3	LOS F	2.6	18.7	0.97	0.73	0.97	22.5
Approach		2751	6	0.859	21.1	LOS C	48.3	352.2	0.75	0.69	0.75	40.3
West: Strathmore Rd (W)												
10	L2	54	3.7	0.398	84.2	LOS F	4.2	30.1	0.99	0.75	0.99	23.4
11	T1	190	4.2	0.985	114.4	LOS F	18.9	137.1	1	1.14	1.55	18.2
12	R2	135	4.4	0.857	93.2	LOS F	11.5	83.3	1	0.93	1.28	20.6
Approach		379	4.2	0.985	102.5	LOS F	18.9	137.1	1	1.01	1.37	19.7
All Vehicles		5903	5.5	1.138	33.9	LOS C	48.3	352.2	0.72	0.69	0.79	33.6

Castle Street and Strathmore Road – 2031 AM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	64	4.7	0.108	13.8	LOS B	1.5	14	0.43	0.52	0.43	46.8
2	T1	2517	5.8	0.819	19.1	LOS B	42.5	309.5	0.67	0.62	0.67	41.5
3	R2	100	6	0.667	85.4	LOS F	8	58.8	1	0.81	1.06	18
3u	U	1	0	0.667	86.9	LOS F	8	58.8	1	0.81	1.06	18
Approach		2682	5.8	0.819	21.4	LOS C	42.5	309.5	0.68	0.63	0.68	39.9
East: Castle St (E)												
4	L2	77	3.9	1.128	211.6	LOS F	33.9	247	1	1.44	2	8.8
5	T1	168	5.4	1.128	206	LOS F	33.9	247	1	1.44	2	11.2
6	R2	38	5.3	0.243	80.7	LOS F	2.8	20.7	0.97	0.74	0.97	20.7
Approach		283	4.9	1.128	190.7	LOS F	33.9	247	1	1.35	1.86	11.2
North: Gympie Rd (N)												
7	L2	15	0	0.071	18.8	LOS B	1.3	14.4	0.35	0.34	0.35	43.3
8	T1	2693	6.1	0.855	20.2	LOS C	47.8	348.1	0.74	0.69	0.74	40.8
9	R2	33	3	0.238	80.8	LOS F	2.7	19.3	0.97	0.74	0.97	24.2
9u	U	3	0	0.238	82.3	LOS F	2.7	19.3	0.97	0.74	0.97	22.5
Approach		2744	6	0.855	20.9	LOS C	47.8	348.1	0.74	0.69	0.74	40.4
West: Strathmore Rd (W)												
10	L2	56	5.4	0.358	81.7	LOS F	4.2	31	0.98	0.76	0.98	23.8
11	T1	205	4.9	0.972	108.2	LOS F	19.9	145.1	1	1.12	1.5	18.9
12	R2	145	4.8	0.923	102.1	LOS F	13.1	95.3	1	0.99	1.41	19.4
Approach		406	4.9	0.972	102.4	LOS F	19.9	145.1	1	1.03	1.4	19.7
All Vehicles		6115	5.8	1.128	34.4	LOS C	47.8	348.1	0.74	0.71	0.81	33.3

Castle Street and Strathmore Road – 2021 PM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	160	5.6	0.222	21.7	LOS C	6.8	58.3	0.47	0.61	0.47	41.3
2	T1	2831	6.1	0.91	28	LOS C	62.5	455.5	0.82	0.8	0.86	36.3
3	R2	82	6.1	0.355	73.9	LOS E	6	44.3	0.95	0.78	0.95	19.9
3u	U	2	0	0.355	75.4	LOS E	6	44.3	0.95	0.78	0.95	19.9
Approach		3075	6.1	0.91	28.9	LOS C	62.5	455.5	0.8	0.79	0.85	35.9
East: Castle St (E)												
4	L2	54	5.6	1.053	158.2	LOS F	27.1	197.6	1	1.29	1.75	11.4
5	T1	176	4.5	1.053	152.6	LOS F	27.1	197.6	1	1.29	1.75	14.4
6	R2	62	4.8	0.614	89.8	LOS F	5	36.5	1	0.78	1.05	19.3
Approach		292	4.8	1.053	140.3	LOS F	27.1	197.6	1	1.18	1.6	14.5
North: Gympie Rd (N)												
7	L2	74	5.4	0.113	15.8	LOS B	2.1	17.7	0.48	0.57	0.48	43.5
8	T1	2071	5.6	0.714	19.2	LOS B	31.6	229.8	0.59	0.54	0.59	41.4
9	R2	101	5	0.754	83.8	LOS F	11.5	83	1	0.86	1.11	23.6
9u	U	43	0	0.754	85.4	LOS F	11.5	83	1	0.86	1.11	22
Approach		2289	5.5	0.754	23.2	LOS C	31.6	229.8	0.61	0.56	0.62	39.1
West: Strathmore Rd (W)												
10	L2	71	4.2	0.42	81.2	LOS F	5.4	39	0.99	0.77	0.99	23.9
11	T1	213	4.7	0.986	114.4	LOS F	21.3	155.1	1	1.15	1.54	18.2
12	R2	95	3.2	0.93	105.6	LOS F	8.6	62	1	1	1.5	19
Approach		379	4.2	0.986	105.9	LOS F	21.3	155.1	1	1.04	1.42	19.3
All Vehicles		6035	5.7	1.053	37	LOS D	62.5	455.5	0.75	0.74	0.83	32.5

Castle Street and Strathmore Road – 2031 PM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	161	4.3	0.222	22.2	LOS C	7	58.7	0.48	0.61	0.48	41
2	T1	2837	6.2	0.923	32.1	LOS C	67.1	489.1	0.85	0.85	0.92	34.4
3	R2	83	6	0.376	75.1	LOS E	6.2	45.3	0.96	0.78	0.96	19.7
3u	U	2	0	0.376	76.6	LOS E	6.2	45.3	0.96	0.78	0.96	19.7
Approach		3083	6.1	0.923	32.7	LOS C	67.1	489.1	0.83	0.83	0.9	34.1
East: Castle St (E)												
4	L2	57	3.5	1.106	195.3	LOS F	32.1	233.4	1	1.4	1.93	9.5
5	T1	185	4.9	1.106	190.2	LOS F	32.1	233.4	1	1.4	1.93	12
6	R2	65	6.2	0.65	90.4	LOS F	5.3	39	1	0.8	1.08	19.2
Approach		307	4.9	1.106	170.1	LOS F	32.1	233.4	1	1.27	1.75	12.4
North: Gympie Rd (N)												
7	L2	74	2.7	0.115	15.7	LOS B	2.1	18	0.48	0.57	0.48	43.6
8	T1	2215	5.5	0.762	20.1	LOS C	36.3	264	0.63	0.58	0.63	40.9
9	R2	101	5.9	0.776	84.9	LOS F	11.9	86	1	0.87	1.14	23.4
9u	U	46	0	0.776	86.4	LOS F	11.9	86	1	0.87	1.14	21.8
Approach		2436	5.4	0.776	23.8	LOS C	36.3	264	0.65	0.6	0.66	38.7
West: Strathmore Rd (W)												
10	L2	70	4.3	0.414	81.2	LOS F	5.3	38.4	0.99	0.77	0.99	23.9
11	T1	218	4.6	1.004	125.1	LOS F	23	167.6	1	1.19	1.59	17.1
12	R2	98	3.1	0.959	112.5	LOS F	9.2	66.3	1	1.03	1.57	18.2
Approach		386	4.1	1.004	113.9	LOS F	23	167.6	1	1.07	1.48	18.4
All Vehicles		6212	5.6	1.106	41.1	LOS D	67.1	489.1	0.78	0.78	0.88	30.8

Sport Street and Kitchener Road – 2021 AM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
1	L2	149	4.7	0.171	20.3	LOS C	5.5	43.4	0.46	0.64	0.46	44.4
2	T1	2189	5.4	0.701	18.1	LOS B	29.9	217.8	0.58	0.53	0.58	46.2
3	R2	35	2.9	0.934	106.7	LOS F	13	95.2	1	0.99	1.47	21.6
3u	U	104	5.8	0.934	108.3	LOS F	13	95.2	1	0.99	1.47	21.5
Approach		2477	5.3	0.934	23.3	LOS C	29.9	217.8	0.6	0.57	0.62	43.3
East: Sport Street (E)												
4	L2	8	0	0.416	74.3	LOS E	7.8	56.8	0.96	0.77	0.96	27.9
5	T1	100	5	0.416	68.7	LOS E	7.8	56.8	0.96	0.77	0.96	28.3
6	R2	63	6.3	0.567	88	LOS F	5	37	1	0.77	1.01	24.4
Approach		171	5.3	0.567	76.1	LOS E	7.8	56.8	0.98	0.77	0.98	26.7
North: Gympie Road (N)												
7	L2	15	0	0.069	19.3	LOS B	1.3	14.1	0.36	0.35	0.36	46.8
8	T1	2417	6.2	0.788	19.4	LOS B	38.8	283.2	0.65	0.6	0.65	45.5
9	R2	52	1.9	0.482	80.2	LOS F	6.2	43.9	0.99	0.78	0.99	25.6
9u	U	30	0	0.482	81.8	LOS F	6.2	43.9	0.99	0.78	0.99	25.6
Approach		2514	6	0.788	21.4	LOS C	38.8	283.2	0.66	0.61	0.66	44.4
West: Kitchener Road (W)												
10	L2	87	4.6	1.15	230	LOS F	32.4	238.1	1	1.47	2.09	12.3
11	T1	137	6.6	1.15	224.5	LOS F	32.4	238.1	1	1.47	2.09	12.4
12	R2	289	4.5	2.61	1499.9	LOS F	97.3	707.7	1	2.44	4.58	2.3
Approach		513	5.1	2.61	943.9	LOS F	97.3	707.7	1	2.01	3.49	3.5
All Vehicles		5675	5.6	2.61	107.3	LOS F	97.3	707.7	0.67	0.72	0.91	21.3

Sport Street and Kitchener Road – 2031 AM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
1	L2	153	4.6	0.19	20.2	LOS C	5.9	47.8	0.45	0.62	0.45	44.6
2	T1	2367	6	0.78	19.2	LOS B	37.9	276.2	0.64	0.59	0.64	45.6
3	R2	35	2.9	0.96	114.6	LOS F	14.1	101.4	1	1.02	1.53	20.6
3u	U	109	3.7	0.96	116.1	LOS F	14.1	101.4	1	1.02	1.53	20.6
Approach		2664	5.7	0.96	24.4	LOS C	37.9	276.2	0.65	0.62	0.68	42.7
East: Sport Street (E)												
4	L2	7	0	0.445	74.6	LOS E	8.3	61	0.97	0.77	0.97	27.9
5	T1	108	5.6	0.445	69	LOS E	8.3	61	0.97	0.77	0.97	28.3
6	R2	67	7.5	0.808	88.6	LOS F	5.4	40	1	0.78	1.04	24.3
Approach		182	6	0.808	76.5	LOS E	8.3	61	0.98	0.78	0.99	26.6
North: Gympie Road (N)												
7	L2	15	0	0.073	19.3	LOS B	1.3	15	0.35	0.35	0.35	46.9
8	T1	2406	6.4	0.788	19.3	LOS B	38.7	282.6	0.65	0.6	0.65	45.5
9	R2	57	7	0.566	81.2	LOS F	7.1	52.2	1	0.79	1	25.4
9u	U	36	2.8	0.566	82.7	LOS F	7.1	52.2	1	0.79	1	25.4
Approach		2514	5.4	0.788	21.6	LOS C	38.7	282.6	0.66	0.6	0.66	44.2
West: Kitchener Road (W)												
10	L2	84	7.1	1.113	201.4	LOS F	29.2	213.8	1	1.39	1.97	13.7
11	T1	133	4.5	1.113	195.7	LOS F	29.2	213.8	1	1.39	1.97	13.8
12	R2	287	4.5	2.593	1484.3	LOS F	96.4	700.8	1	2.43	4.56	2.3
Approach		504	5	2.593	930.4	LOS F	96.4	700.8	1	1.98	3.44	3.6
All Vehicles		5864	6	2.593	102.7	LOS F	96.4	700.8	0.69	0.73	0.92	21.9

Sport Street and Kitchener Road – 2021 PM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
1	L2	155	4.5	0.195	17.2	LOS B	5.5	46.7	0.4	0.57	0.4	46.4
2	T1	2556	6.2	0.749	13.3	LOS B	31.4	228.4	0.52	0.49	0.52	49.2
3	R2	12	0	0.903	102	LOS F	9.5	70.9	1	0.96	1.43	22.2
3u	U	93	8.6	0.903	103.6	LOS F	9.5	70.9	1	0.96	1.43	22.1
Approach		2816	6.1	0.903	16.8	LOS B	31.4	228.4	0.53	0.51	0.55	46.9
East: Sport Street (E)												
4	L2	12	0	1.282	336.8	LOS F	47.8	347.6	1	1.73	2.49	9
5	T1	257	4.7	1.282	331.3	LOS F	47.8	347.6	1	1.73	2.49	9
6	R2	95	5.3	0.944	108.7	LOS F	8.8	64.2	1	1.01	1.54	21.5
Approach		364	4.7	1.282	273.3	LOS F	47.8	347.6	1	1.54	2.24	10.6
North: Gympie Road (N)												
7	L2	10	0	0.039	15.3	LOS B	0.6	7.1	0.29	0.3	0.29	49.3
8	T1	2044	5.7	0.597	11.4	LOS B	19.1	138.8	0.4	0.37	0.4	50.5
9	R2	105	4.8	1.276	333.2	LOS F	30.9	221.8	1	1.44	2.52	8.9
9u	U	70	0	1.276	334.7	LOS F	30.9	221.8	1	1.44	2.52	8.9
Approach		2229	5.4	1.276	36.7	LOS D	30.9	221.8	0.45	0.45	0.57	36.8
West: Kitchener Road (W)												
10	L2	114	3.5	1.409	444.3	LOS F	48.8	355.1	1	1.85	2.85	7
11	T1	124	5.6	1.409	438.7	LOS F	48.8	355.1	1	1.85	2.85	7
12	R2	164	4.9	1.65	652.6	LOS F	40.5	295.3	1	1.86	3.41	4.9
Approach		402	4.7	1.65	527.5	LOS F	48.8	355.1	1	1.85	3.08	6
All Vehicles		5811	5.7	1.65	75.9	LOS E	48.8	355.1	0.56	0.64	0.84	26.1

Sport Street and Kitchener Road – 2031 PM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
1	L2	156	5.1	0.198	17.7	LOS B	5.7	48.2	0.41	0.58	0.41	46.2
2	T1	2573	6.3	0.776	14.2	LOS B	35	254.8	0.55	0.51	0.55	48.6
3	R2	13	0	0.96	116.1	LOS F	10.9	81.3	1	1.02	1.58	20.5
3u	U	99	8.1	0.96	117.8	LOS F	10.9	81.3	1	1.02	1.58	20.4
Approach		2841	6.2	0.96	18.4	LOS B	35	254.8	0.56	0.54	0.58	45.9
East: Sport Street (E)												
4	L2	9	0	1.31	360.1	LOS F	50.5	367.6	1	1.78	2.57	8.5
5	T1	265	4.9	1.31	354.6	LOS F	50.5	367.6	1	1.78	2.57	8.5
6	R2	100	5	0.991	125.1	LOS F	10	73	1	1.07	1.67	19.6
Approach		374	4.8	1.31	293.4	LOS F	50.5	367.6	1	1.59	2.33	10
North: Gympie Road (N)												
7	L2	12	0	0.046	15.9	LOS B	0.8	8.5	0.3	0.31	0.3	48.9
8	T1	2180	5.7	0.643	12.6	LOS B	22.6	164.5	0.45	0.41	0.45	49.7
9	R2	110	5.5	1.382	422.5	LOS F	37.5	271.9	1	1.56	2.81	7.2
9u	U	77	2.6	1.382	424	LOS F	37.5	271.9	1	1.56	2.81	7.2
Approach		2379	5.6	1.382	44.9	LOS D	37.5	271.9	0.49	0.5	0.63	33.9
West: Kitchener Road (W)												
10	L2	123	4.9	1.491	514.9	LOS F	55.4	402.2	1	1.96	3.05	6.1
11	T1	123	3.9	1.491	509.3	LOS F	55.4	402.2	1	1.96	3.05	6.1
12	R2	175	4.6	1.738	728.8	LOS F	44.8	326.3	1	1.93	3.57	4.4
Approach		424	4.5	1.738	600.5	LOS F	55.4	402.2	1	1.95	3.26	5.3
All Vehicles		6018	5.8	1.738	87	LOS F	55.4	402.2	0.59	0.69	0.9	24.1

Sport Street and Kitchener Road – 2021 PM – Project Case (Revised Volumes & Revised Phase Times)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
1	L2	155	4.5	0.205	19.6	LOS B	6.1	51.6	0.44	0.59	0.44	45.1
2	T1	2556	6.2	0.811	17.5	LOS B	41	298.4	0.64	0.59	0.64	46.5
3	R2	12	0	0.665	81.9	LOS F	8.2	61.4	1	0.82	1.05	25.3
3u	U	93	8.6	0.665	83.5	LOS F	8.2	61.4	1	0.82	1.05	25.1
Approach		2816	6.1	0.811	20	LOS C	41	298.4	0.64	0.6	0.64	45
East: Sport Street (E)												
4	L2	12	0	1.282	336.8	LOS F	47.8	347.6	1	1.73	2.49	9
5	T1	257	4.7	1.282	331.3	LOS F	47.8	347.6	1	1.73	2.49	9
6	R2	95	5.3	0.944	108.7	LOS F	8.8	64.2	1	1.04	1.54	21.5
Approach		364	4.7	1.282	273.3	LOS F	47.8	347.6	1	1.54	2.24	10.6
North: Gympie Road (N)												
7	L2	10	0	0.042	17.7	LOS B	0.7	8.1	0.33	0.33	0.33	47.7
8	T1	2044	5.7	0.63	15	LOS B	23.2	169.2	0.49	0.45	0.49	48.1
9	R2	105	4.8	0.94	105.8	LOS F	16.4	117.7	1	1	1.44	21.7
9u	U	70	0	0.94	107.3	LOS F	16.4	117.7	1	1	1.44	21.7
Approach		2229	5.4	0.94	22.2	LOS C	23.2	169.2	0.53	0.49	0.56	43.9
West: Kitchener Road (W)												
10	L2	114	3.5	1.409	444.3	LOS F	48.8	355.1	1	1.85	2.85	7
11	T1	124	5.6	1.409	438.7	LOS F	48.8	355.1	1	1.85	2.85	7
12	R2	164	4.9	1.65	652.6	LOS F	40.5	295.3	1	1.86	3.41	4.9
Approach		402	4.7	1.65	527.5	LOS F	48.8	355.1	1	1.85	3.08	6
All Vehicles		5811	5.7	1.65	71.9	LOS E	48.8	355.1	0.64	0.7	0.88	26.9

Sport Street and Kitchener Road – 2031 PM – Project Case (Revised Volumes & Revised Phase Times)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
1	L2	156	5.1	0.207	19.6	LOS B	6.2	52.1	0.44	0.59	0.44	45.1
2	T1	2573	6.3	0.818	17.6	LOS B	42	305.8	0.65	0.6	0.65	46.5
3	R2	13	0	0.707	83.2	LOS F	8.9	66.2	1	0.84	1.09	25
3u	U	99	8.1	0.707	84.8	LOS F	8.9	66.2	1	0.84	1.09	24.9
Approach		2841	6.2	0.818	20.3	LOS C	42	305.8	0.65	0.61	0.65	44.9
East: Sport Street (E)												
4	L2	9	0	1.31	360.1	LOS F	50.5	367.6	1	1.78	2.57	8.5
5	T1	265	4.9	1.31	354.6	LOS F	50.5	367.6	1	1.78	2.57	8.5
6	R2	100	5	0.991	125.1	LOS F	10	73	1	1.07	1.67	19.6
Approach		374	4.8	1.31	293.4	LOS F	50.5	367.6	1	1.59	2.33	10
North: Gympie Road (N)												
7	L2	12	0	0.048	17.8	LOS B	0.9	9.5	0.33	0.34	0.33	47.6
8	T1	2180	5.7	0.677	15.6	LOS B	26.9	195.7	0.52	0.48	0.52	47.7
9	R2	110	5.5	1.018	139.7	LOS F	20.5	148.9	1	1.1	1.67	18
9u	U	77	2.6	1.018	141.2	LOS F	20.5	148.9	1	1.1	1.67	18
Approach		2379	5.6	1.018	25.4	LOS C	26.9	195.7	0.56	0.53	0.61	42.2
West: Kitchener Road (W)												
10	L2	123	4.9	1.491	514.9	LOS F	55.4	402.2	1	1.96	3.05	6.1
11	T1	128	3.9	1.491	509.3	LOS F	55.4	402.2	1	1.96	3.05	6.1
12	R2	173	4.6	1.738	728.8	LOS F	44.8	326.3	1	1.93	3.57	4.4
Approach		424	4.5	1.738	600.5	LOS F	55.4	402.2	1	1.95	3.26	5.3
All Vehicles		6018	5.8	1.738	80.2	LOS F	55.4	402.2	0.66	0.73	0.92	25.3

Boothby Street – 2021 AM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
2	T1	2431	5.3	0.405	0.6	LOS A	1.6	11.6	0.04	0.03	0.04	59.4
3	R2	62	3.4	0.247	74.7	LOS E	4.5	32.5	0.93	0.76	0.93	26.7
Approach		2493	5.3	0.405	2.4	LOS A	4.5	32.5	0.06	0.05	0.06	57.6
East: Boothby Street (W)												
4	L2	107	4.9	1	132.3	LOS F	16	116.4	1	1.06	1.61	18.7
6	R2	43	4.9	1	132.4	LOS F	16	116.4	1	1.06	1.61	18.8
Approach		151	4.9	1	132.3	LOS F	16	116.4	1	1.06	1.61	18.8
North: Gympie Road (N)												
7	L2	28	0	0.488	7.8	LOS A	5.1	37.2	0.11	0.12	0.11	56.1
8	T1	2595	6	0.488	2	LOS A	5.1	37.2	0.09	0.09	0.09	58
Approach		2623	6	0.488	2.1	LOS A	5.1	37.2	0.09	0.09	0.09	58
All Vehicles		5266	5.6	1	6	LOS A	16	116.4	0.1	0.1	0.12	54.5

Boothby Street – 2031 AM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
2	T1	2622	5.9	0.439	0.6	LOS A	1.8	13.3	0.04	0.04	0.04	59.4
3	R2	66	6.3	0.269	75.1	LOS E	4.8	35.8	0.94	0.76	0.94	26.6
Approach		2688	6	0.439	2.5	LOS A	4.8	35.8	0.06	0.05	0.06	57.6
East: Boothby Street (W)												
4	L2	95	5.6	0.92	105.2	LOS F	12.6	91.4	1	0.97	1.41	21.8
6	R2	41	0	0.92	105.1	LOS F	12.6	91.4	1	0.97	1.41	21.9
Approach		136	3.9	0.92	105.2	LOS F	12.6	91.4	1	0.97	1.41	21.8
North: Gympie Road (N)												
7	L2	38	8.3	0.493	8.1	LOS A	5.4	39.8	0.11	0.13	0.11	55.5
8	T1	2605	6.3	0.493	2.1	LOS A	5.4	39.8	0.1	0.1	0.1	58
Approach		2643	6.4	0.493	2.1	LOS A	5.4	39.8	0.1	0.1	0.1	57.9
All Vehicles		5467	6.1	0.92	4.9	LOS A	12.6	91.4	0.1	0.1	0.11	55.5

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Boothby Street – 2021 PM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
2	T1	2948	5.9	0.494	0.7	LOS A	2.3	16.5	0.04	0.04	0.04	59.3
3	R2	83	3.8	0.332	75.8	LOS E	6.1	44.4	0.95	0.77	0.95	26.5
Approach		3032	5.9	0.494	2.7	LOS A	6.1	44.4	0.07	0.06	0.07	57.4
East: Boothby Street (W)												
4	L2	93	5.7	0.264	65.2	LOS E	6.4	46.7	0.88	0.77	0.88	28.6
6	R2	1	0	0.264	65.2	LOS E	6.4	46.7	0.88	0.77	0.88	28.7
Approach		94	5.6	0.264	65.2	LOS E	6.4	46.7	0.88	0.77	0.88	28.6
North: Gympie Road (N)												
7	L2	46	4.5	0.435	8.1	LOS A	4.7	34.9	0.11	0.14	0.11	55.6
8	T1	2301	5.4	0.435	2	LOS A	4.7	34.9	0.09	0.09	0.09	58
Approach		2347	5.4	0.435	2.1	LOS A	4.7	34.9	0.09	0.09	0.09	58
All Vehicles		5473	5.7	0.494	3.5	LOS A	6.4	46.7	0.09	0.09	0.09	56.6

Boothby Street – 2031 PM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Road (S)												
2	T1	2986	6	0.5	0.7	LOS A	2.3	16.9	0.04	0.04	0.04	59.3
3	R2	82	2.6	0.325	75.7	LOS E	6.1	43.3	0.95	0.77	0.95	26.6
Approach		3068	5.9	0.5	2.7	LOS A	6.1	43.3	0.07	0.06	0.07	57.4
East: Boothby Street (W)												
4	L2	100	6.3	0.284	65.5	LOS E	6.9	50.9	0.89	0.78	0.89	28.5
6	R2	1	0	0.284	65.5	LOS E	6.9	50.9	0.89	0.78	0.89	28.7
Approach		101	6.3	0.284	65.5	LOS E	6.9	50.9	0.89	0.78	0.89	28.5
North: Gympie Road (N)												
7	L2	54	9.8	0.463	8.3	LOS A	5.3	39.7	0.12	0.16	0.12	55.3
8	T1	2441	5.5	0.463	2	LOS A	5.3	39.7	0.09	0.1	0.09	57.9
Approach		2495	5.6	0.463	2.2	LOS A	5.3	39.7	0.09	0.1	0.09	57.9
All Vehicles		5664	5.8	0.5	3.6	LOS A	6.9	50.9	0.09	0.09	0.09	56.6

Rode Road – 2021 AM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	178	3.9	0.236	28.9	LOS C	8.3	64.5	0.59	0.7	0.59	40.2
2	T1	1964	5.5	0.742	29.7	LOS C	34.8	253.1	0.75	0.69	0.75	38.5
3	R2	99	5.1	0.893	95.8	LOS F	14.6	105	1	0.96	1.33	23.2
3u	U	67	0	0.893	97.2	LOS F	14.6	105	1	0.96	1.33	23.1
Approach		2308	5.2	0.893	34.4	LOS C	34.8	253.1	0.76	0.71	0.78	36.7
East: Rode Rd (E)												
4	L2	47	4.3	0.605	70	LOS E	15.2	111	0.97	0.81	0.97	28.6
5	T1	421	5	0.896	74.6	LOS E	21.6	157.6	0.99	0.94	1.15	27.1
6	R2	165	4.2	1.22	286.4	LOS F	26.7	194	1	1.43	2.35	9
Approach		633	4.7	1.22	129.4	LOS F	26.7	194	0.99	1.06	1.45	18.5
North: Gympie Rd (N)												
7	L2	109	6.4	0.195	30.7	LOS C	6	51.8	0.58	0.64	0.58	37.9
8	T1	2258	6.1	0.89	38.4	LOS D	54	393.5	0.87	0.84	0.93	34.9
9	R2	124	4.8	0.665	80.6	LOS F	10.4	75.6	1	0.82	1.03	23.7
9u	U	11	0	0.665	82.1	LOS F	10.4	75.6	1	0.82	1.03	21.5
Approach		2502	6	0.89	40.3	LOS D	54	393.5	0.87	0.83	0.92	34.1
West: Rode Rd (W)												
10	L2	144	5.6	0.703	71.8	LOS E	17.8	130.2	0.99	0.84	1	25.7
11	T1	534	5.6	1.477	419.4	LOS F	96	704.5	1	1.99	2.63	7.4
12	R2	136	4.4	1.074	173.2	LOS F	16.6	120.4	1	1.21	1.89	15.2
Approach		814	5.4	1.477	316.8	LOS F	96	704.5	1	1.66	2.22	9.2
All Vehicles		6257	5.5	1.477	83.1	LOS F	96	704.5	0.86	0.92	1.09	23.6

Rode Road – 2031 AM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	194	5.2	0.276	30.5	LOS C	9.7	77.9	0.61	0.7	0.61	39.6
2	T1	2110	6.2	0.796	30.9	LOS C	39.8	289.9	0.81	0.74	0.81	38
3	R2	104	4.8	0.948	108.2	LOS F	16.7	119.9	1	1.02	1.46	21.5
3u	U	72	0	0.948	109.7	LOS F	16.7	119.9	1	1.02	1.46	21.5
Approach		2480	5.8	0.948	36.3	LOS D	39.8	289.9	0.8	0.75	0.84	35.9
East: Rode Rd (E)												
4	L2	48	6.3	0.631	70.4	LOS E	16	116.5	0.98	0.82	0.98	28.5
5	T1	442	4.5	0.935	80.5	LOS F	24.2	175.8	0.99	0.98	1.21	26
6	R2	168	4.8	1.247	308.4	LOS F	28.4	206.7	1	1.46	2.43	8.5
Approach		658	4.7	1.247	137.9	LOS F	28.4	206.7	0.99	1.09	1.5	17.7
North: Gympie Rd (N)												
7	L2	104	3.8	0.2	30.5	LOS C	5.9	52.4	0.58	0.62	0.58	38.1
8	T1	2272	6.6	0.894	39.2	LOS D	55	401.4	0.88	0.85	0.94	34.6
9	R2	122	5.7	0.666	80.7	LOS F	10.3	75.6	1	0.82	1.03	23.7
9u	U	12	0	0.666	82.1	LOS F	10.3	75.6	1	0.82	1.03	21.4
Approach		2510	5.5	0.894	41	LOS D	55	401.4	0.87	0.84	0.93	33.8
West: Rode Rd (W)												
10	L2	133	4.5	0.679	71.1	LOS E	17.1	124.6	0.99	0.83	0.99	25.9
11	T1	521	5.4	1.425	378	LOS F	88.2	646	1	1.9	2.5	8.1
12	R2	135	5.2	1.072	171.9	LOS F	16.4	119.7	1	1.2	1.89	15.3
Approach		789	5.2	1.425	291	LOS F	88.2	646	1	1.6	2.14	9.9
All Vehicles		6437	5.9	1.425	79.8	LOS E	88.2	646	0.87	0.93	1.1	24.2

Rode Road – 2021 PM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	198	5.1	0.26	22.8	LOS C	8.6	71.1	0.5	0.64	0.5	43.3
2	T1	2407	6.3	0.752	18.4	LOS B	34.6	251.9	0.62	0.58	0.62	44.6
3	R2	43	4.7	0.575	77.8	LOS E	8.4	59.9	0.99	0.8	0.99	26.1
3u	U	69	0	0.575	79.3	LOS E	8.4	59.9	0.99	0.8	0.99	26
Approach		2717	6	0.752	21.1	LOS C	34.6	251.9	0.63	0.59	0.63	43
East: Rode Rd (E)												
4	L2	27	3.7	1.064	164.6	LOS F	27	196.2	1	1.3	1.78	16.2
5	T1	522	4.6	1.576	421.7	LOS F	76	553.2	1	1.34	2.68	7.4
6	R2	120	3.3	1.058	161.9	LOS F	14	100.9	1	1.18	1.85	14.5
Approach		669	4.3	1.576	364.7	LOS F	76	553.2	1	1.7	2.49	8.2
North: Gympie Rd (N)												
7	L2	116	4.3	0.148	21.7	LOS C	4.6	37.7	0.47	0.61	0.47	42.2
8	T1	2063	5.6	0.683	16.8	LOS B	28	203.9	0.53	0.49	0.53	45.6
9	R2	123	4.9	0.575	77.3	LOS E	9.7	70.8	0.99	0.8	0.99	24.3
9u	U	7	0	0.575	78.8	LOS E	9.7	70.8	0.99	0.8	0.99	22
Approach		2309	5.5	0.683	20.4	LOS C	28	203.9	0.55	0.51	0.55	43.3
West: Rode Rd (W)												
10	L2	90	5.6	0.796	85.8	LOS F	13.3	97.2	1	0.9	1.15	23.2
11	T1	398	4.8	1.671	556.8	LOS F	80.8	588.7	1	2	3	5.7
12	R2	83	4.8	0.74	91	LOS F	6.8	49.7	1	0.84	1.15	24
Approach		571	4.9	1.671	414.9	LOS F	80.8	588.7	1	1.66	2.44	7.3
All Vehicles		6266	5.5	1.671	93.5	LOS F	80.8	588.7	0.67	0.78	0.97	21.7

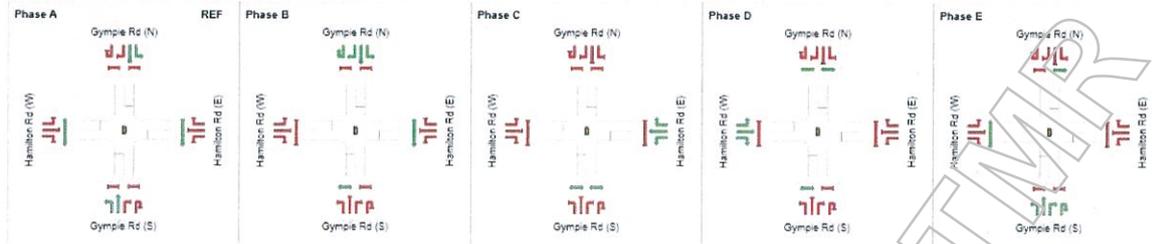
Rode Road – 2031 PM – Project Case (Revised Volumes)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow s		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Gympie Rd (S)												
1	L2	198	5.1	0.262	22.8	LOS C	8.6	71.6	0.5	0.64	0.5	43.3
2	T1	2440	6.4	0.763	18.6	LOS B	35.7	260.5	0.63	0.59	0.63	44.5
3	R2	46	4.3	0.587	77.9	LOS E	8.7	61.6	0.99	0.8	0.99	26
3u	U	69	0	0.587	79.4	LOS E	8.7	61.6	0.99	0.8	0.99	26
Approach		2753	6.1	0.763	21.3	LOS C	35.7	260.5	0.64	0.6	0.64	42.9
East: Rode Rd (E)												
4	L2	28	7.1	1.133	215.1	LOS F	33.3	242.6	1	1.44	2.01	13.1
5	T1	556	4.5	1.678	495.7	LOS F	86.3	627.2	1	1.97	2.89	6.4
6	R2	129	4.7	1.148	228.5	LOS F	18.4	133.8	1	1.32	2.14	10.9
Approach		713	4.6	1.678	436.4	LOS F	86.3	627.2	1	1.83	2.72	7
North: Gympie Rd (N)												
7	L2	126	4.8	0.163	21.8	LOS C	5.1	41.8	0.47	0.62	0.47	42.1
8	T1	2195	5.8	0.725	17.4	LOS B	31.9	232.1	0.57	0.52	0.57	45.2
9	R2	127	3.9	0.595	77.5	LOS E	10.1	73.1	0.99	0.81	0.99	24.3
9u	U	8	0	0.595	79	LOS E	10.1	73.1	0.99	0.81	0.99	22
Approach		2456	5.6	0.725	20.9	LOS C	31.9	232.1	0.59	0.54	0.59	43
West: Rode Rd (W)												
10	L2	64	6	0.729	83	LOS F	11.8	86.6	1	0.86	1.08	23.6
11	T1	359	5	1.531	458.5	LOS F	66.7	487	1	1.85	2.76	6.8
12	R2	87	3.4	0.768	91.8	LOS F	7.2	51.9	1	0.86	1.19	23.9
Approach		530	4.9	1.531	338.8	LOS F	66.7	487	1	1.53	2.23	8.7
All Vehicles		6452	5.7	1.678	93.2	LOS F	86.3	627.2	0.69	0.79	0.98	21.8

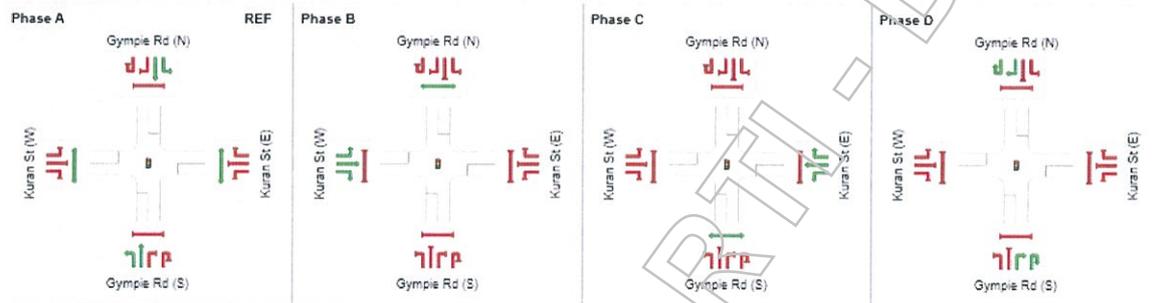
Appendix D

SIDRA Phasing

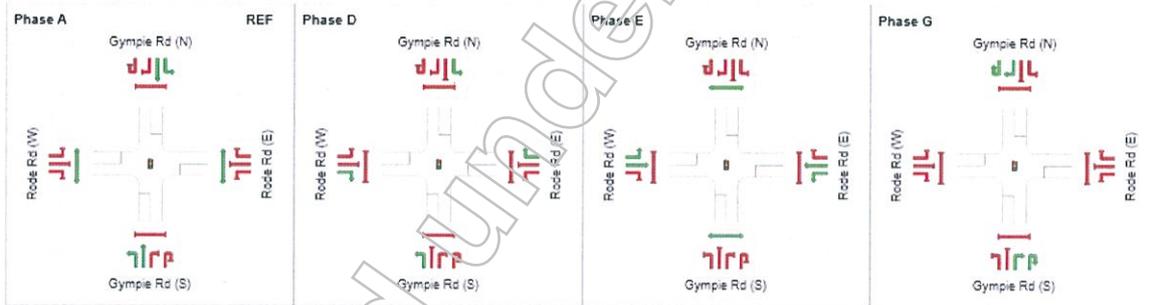
Gympie Road / Hamilton Road



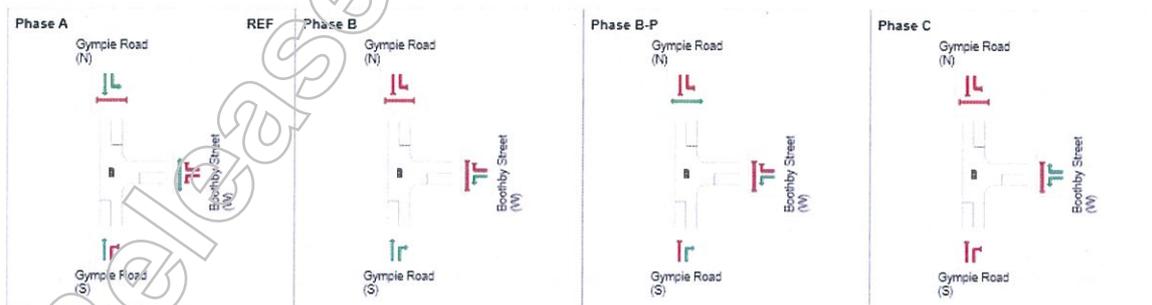
Gympie Road / Kuran Street



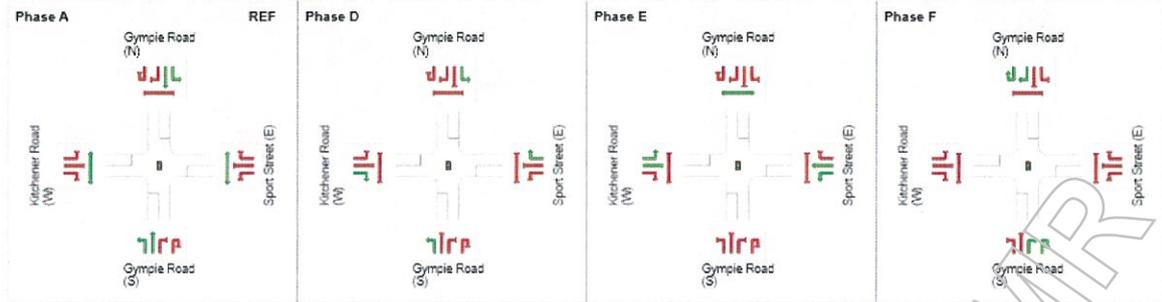
Gympie Road / Rode Road



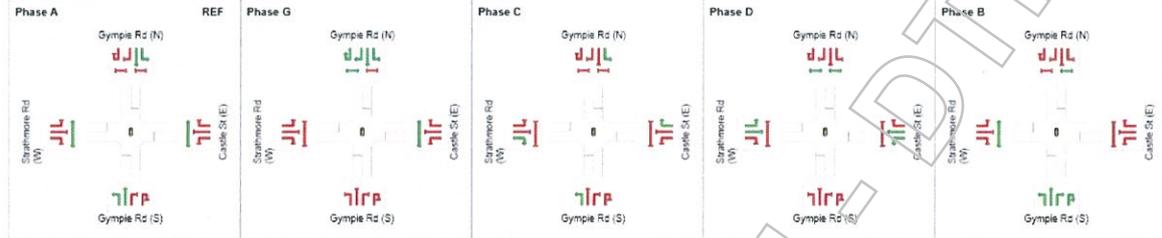
Gympie Road / Boothby Street



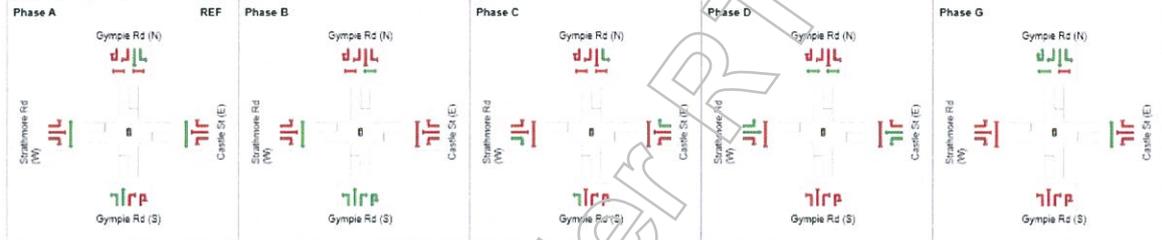
Gympie Road / Kitchener Road



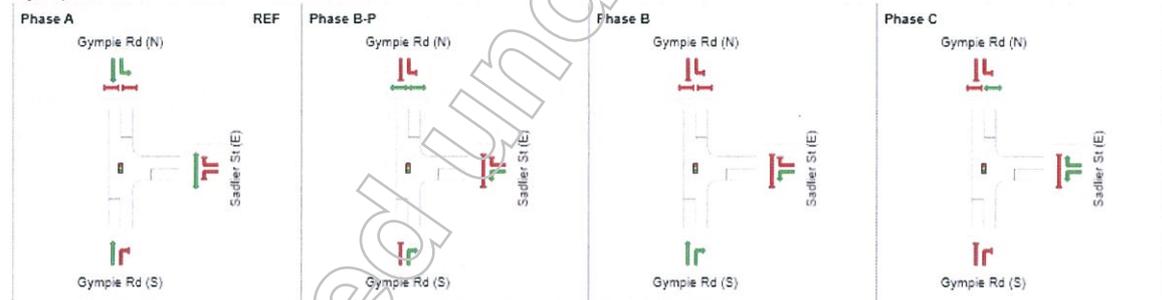
Gympie Road / Strathmore Road / Castle Street – AM



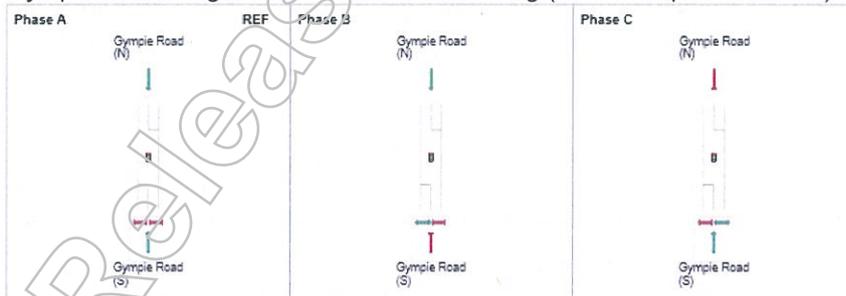
Gympie Road / Strathmore Road / Castle Street – PM



Gympie Road / Sadlier Street



Gympie Road / Signalised Pedestrian Crossing (south of Sparkes Street)



Appendix E

Traffic Signal Plans

Released under RTI - DTMR

Intersection Group Details

Thursday, 20 September 2018

10:01:32AM

Name: BNE - Gympie_Rd_Sth **System:** SE Queensland STREAMS
Description: GYMPIE RD - Kedron Park to Murphy
Default: True **Enabled:** True
Notes: 10/7/15: NB Heavy Plan 6 introduced at 1.30pm Fridays - AG
 26/7/12: NB Heavy plan increased to 160 sec cycle to provide 10 sec extra A Phase time from M1101 to

Intersections

- M1118
- 30/9/11: NB Heavy plan to start at 1400 instead of 1430 and 1330 on Fridays - AG
- 14/8/11 - Loops repaired - faulty loop plan removed and releases for C reinstated - AG
- Faulty loop plan for M1108 implemented 27 June 2011 due to dets 8, 15 & 16 failed - cont releases for C phase to be reinstated when loops repaired. - AG
- Ø 1137 Hamilton and Thomas
- 1108 Gympie and Strathmore / Castle
- 1111 Gympie and Kitchener / Sport
- 1113 Gympie and Rode
- 1114 Gympie and Wallace / Kuran
- 1116 Gympie and Hamilton
- 1117 Gympie and Bouchard
- 1118 Gympie and Murphy
- 1131 Gympie and Banfield
- Ø 1101 Gympie and Kedron Park / Lutwyche
- 1103 Gympie and Stafford
- Ø 1205 Kedron Park and Park
- 1107 Gympie and Sadlier
- 1105 Suez and Northern Busway
- 256 Hamilton and Charlotte - mtce RoadTek
- 326 Hamilton and Kingsmill / Kittyhawk - mtce RoadTek
- Ø 8028 Kittyhawk and Murphy - mtce RoadTek
- 1115 Gympie and Sparkes Ped Xing

Ø Denotes Double Cycling Enabled

Plans

Plan	Cycle Time	Description
	120	# Aspley-IG01 - Plan(5) NB Medium/Bi Heavy
	150	# Aspley-IG01 - Plan(4) SB Heavy
	150	# Aspley-IG01 - Plan(6) NB Heavy_1
	160	# Aspley-IG01 - Plan(6) NB Heavy 160 sec cycle
	160	# Aspley-IG01 - Plan(6) NB Heavy_2
	200	# Aspley-IG01 - Police Escort NB
	200	# Aspley-IG01 - Police Escort SB
0		Aspley-IG01 - Plan(0) Isolated
1		TMR - Gympie_Rd_Sth - Plan(1) Master Isolated
2	100	# Aspley-IG01 - Plan(2) NB/SB/Bi Light and Bi Medium
3	120	# Aspley-IG01 - Plan(3) SB Medium
4	160	# TMR - Gympie Rd Sth - Plan(4) SB Heavy_160
5	140	# Aspley-IG01 - Plan(5) Heavy Bi Directional_1
6	160	# Aspley-IG01 - Plan(6) NB Heavy
7	120	# Aspley-IG01 - Plan(7) Thursday PM Entry
8	120	# Aspley-IG01 - Plan(8) Thursday PM Exit
9	150	# Aspley-IG01 - Plan(9) Saturday Entry
10	120	# Aspley-IG01 - Plan(10) Saturday Exit
14		Aspley-IG01 - Plan(14) Flashing Yellow
15		Aspley-IG01 - Plan(15) Lamps Off
25	130	# Aspley-IG01 - Plan(5) Heavy Bi Directional

Denotes a plan data mismatch

Intersection Group Details

Thursday, 20 September 2018

10:01:31AM

Time of Day Plan Introduction Schedule

Mon		Tue		Wed		Thur		Fri		Sat		Sun	
Time	PI												
00:00	1	00:00	1	00:00	1	00:00	1	00:00	1	00:00	1	00:00	1
04:45	25	04:45	25	04:45	25	04:45	25	04:45	25	06:00	2	06:00	2
05:44	4 *	05:44	4 *	05:44	4 *	05:44	4 *	05:44	4 *	07:45	25*	07:45	25*
09:46	25	09:46	25	09:46	25	09:46	25	09:46	25	08:30	25	08:30	25
11:00	25	11:00	25	11:00	25	11:00	25	11:00	25	18:00	2	18:00	2
13:46	6 *	13:46	6 *	13:46	6 *	13:46	6 *	13:46	6 *	21:00	1	21:00	1
18:24	25	18:24	25	18:24	25	18:24	25	18:24	25				
19:30	2	19:30	2	19:30	2	19:30	25*	19:30	2				
22:30	1	22:30	1	22:30	1	22:00	2	22:30	1				
						23:00	1						

* TOD Forced (Recurring Override)

Configuration

Region: Metropolitan
Tags: Metro

Released under RTI - DPM

Intersection Details

Name: M1111/CTLR **System:** SE Queensland STF
Description: Gympie and Kitchener / Sport
Enabled: True **Double Cycle:** False
Notes: File:517/00192 870/00124

8/5/17:- Plan 5 swapped with temp plan 98 for daytime use until loops repaired.

17/02/10: New Plan 5: 130 sec.
26

April 2006: Bus priority data removed all plans

16/11/05: Base data audited OK plan 302733b DSF,TNMAP incorrect after 2.9 upgrade

07/06/98: Controller changover to PSC,Prom Ser No 93033829F

of 21/5/98,Prom Ser No 1499G

of 9/2/99 installed providing 3asp R/T on Gypm

ie Rd,alt lap on D Ph and audio tactiles. Plan 302733A

24/10/01: Adjusted offsets Plans 2,3,4.SK

26/10/01: Changed offset PL9. SK

19/11/01: Changed offset PL5.Took PL10 off TOD. SK

04/01/02: Changed offset PL5. SK

11/04/03: Moved PL9 to PL6. Created Saturday Entry PL9 and Exit PL10. SK

20/06/03: Add 71 secs to offset PL3 to help co-ord M1103 with St

afford Rd PL 2 & 8. S

Controller & Connection

Model: Eclipse **Firmware:** TRAFF
Owner: DMR - Metropolitan Region **Transport:** serial
Connected To: M1111/FP **Protocol Framing:** None
Trans Cyc. Min: 59 **Network Address:**
Phase Intervention: Yes **Port:** 2 **Baud:** 1200

Intersection Groups

Name	Description	Enable
BNE - Gympie_Rc	GYMPIE RD - Kedron Park to Murphy	Yes

Definition Data

Mnemonic	Description	User Value	Controller Value
INTNUM	Intersection Number (IEN)	1111	1111
REVISN	Personality Revision Number	A	A
NOPH	Number of Phases	6	6
STARPH	Starting Phase	A	A
NOVSG	Number of Vehicle Signal Groups	8	8
NOPSG	Number of Pedestrian Signal Groups	3	3
NOAPPS	Number of Approach Functions	8	8
NOVDS	Number of Vehicle Detectors	13	13
NOPBS	Number of Pedestrian Detectors	3	3
NOAS	Number of Arterial Switches	6	6
PHSEQ1	Phase Sequence #1	ABCDEF	
PHSEQ2	Phase Sequence #2	ABCEDF	
PHSEQ3	Phase Sequence #3		
PHSEQ4	Phase Sequence #4		
PCRC	Memory Checksum	0xd9	0xd9

Configuration

Region: Metropolitan
Tags: BMTMC, Metro, VPP-Metro

Intersection Details

Name: M1111/CTLR

System: SE Queensland STF

Description: Gympie and Kitchener / Sport

Controller Plans

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(1) Master Isolated	MI		ADEF		1	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A				Yes		No
D				No		No
E				No		No
F				No		No
B				No		Yes
C				No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						
SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(2) NB/SB/Bi Light and Bi Medium	C	100	ADEF	98	2	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	54	54	Yes		No
D	54	69	54	No		No
E	69	85	69	No		No
F	85	100	85	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						
SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(3) SB Medium	C	120	ADEF	85	3	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	72	72	Yes		No
D	72	87	72	No		No
E	87	103	87	No		No
F	103	120	103	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						
SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(4) SB Heavy	C	150	ADEF	128		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	92	92	Yes		No
D	92	108	92	No		No
E	108	127	108	No		No
F	127	150	127	No		No

Intersection Details

Name: M1111/CTLR **System:** SE Queensland STF

Description: Gympie and Kitchener / Sport

B	1	0	0	No	Yes
C	1	0	0	No	Yes
Special Features (SSF)					
Extra Special Features (XSF) SG7, Filter, SG8, Filter					

Name 1111 Plan(5) Heavy Bi Directional	Mode C	Cycle Time 130	Sequence ADEF	Offset 103	Plan No. 25	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	55	55	Yes		No
D	55	71	55	No		No
E	71	113	71	No		No
F	113	130	113	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name 1111 Plan(6) NB Heavy_1*	Mode C	Cycle Time 160	Sequence ADEF	Offset 95	Plan No. 6	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	108	108	Yes		No
D	108	123	108	No		No
E	123	140	123	No		No
F	140	160	140	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name 1111 Plan(7)	Mode C	Cycle Time 120	Sequence ADEF	Offset 22	Plan No. 7	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	72	72	Yes		No
D	72	87	72	No		No
E	87	103	87	No		No
F	103	120	103	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name 1111 Plan(8)	Mode C	Cycle Time 120	Sequence ADEF	Offset 22	Plan No. 8	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped

Intersection Details

Name: M1111/CTLR **System:** SE Queensland STF

Description: Gympie and Kitchener / Sport

A	0	72	72	Yes	No
D	72	87	72	No	No
E	87	103	87	No	No
F	103	120	103	No	No
B	1	0	0	No	Yes
C	1	0	0	No	Yes
Special Features (SSF)					
Extra Special Features (XSF) SG7, Filter, SG8, Filter					

Name 1111 Plan(9)	Mode C	Cycle Time 150	Sequence ADEF	Offset 116	Plan No. 9	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	92	92	Yes		No
D	92	108	92	No		No
E	108	127	108	No		No
F	127	150	127	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name 1111 Plan(10)	Mode C	Cycle Time 120	Sequence ADEF	Offset 2	Plan No. 10	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	72	72	Yes		No
D	72	87	72	No		No
E	87	103	87	No		No
F	103	120	103	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name 1111 Plan(5) Heavy Bi Leadlag test	Mode C	Cycle Time 130	Sequence ABDEC	Offset 29	Plan No.	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	38	38	Yes		No
B	38	55	49	No		No
D	55	71	55	No		No
E	71	113	71	No		No
C	113	130	113	No		No
F	1	0	0	No		Yes
Special Features (SSF) Allow, B, Allow, C						
Extra Special Features (XSF)						

Intersection Details

Name: M1111/CTLR

System: SE Queensland STF

Description: Gympie and Kitchener / Sport

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(5) Heavy Bi Leadlag test_1	C	130	ACDEB	103		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	38	38	Yes		No
C	38	55	49	No		No
D	55	71	55	No		No
E	71	113	71	No		No
B	113	130	113	No		No
F	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Allow, B, Allow, C						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(5) Heavy Bi Directional_1*	C	150	ADEF	13		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	68	68	Yes		No
D	68	88	68	No		No
E	88	130	88	No		No
F	130	150	130	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						
SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(5) Heavy Bi Leadlag SB_1*	C	150	ACDEB	80		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	48	48	Yes		No
C	48	68	62	No		No
D	68	88	68	No		No
E	88	130	88	No		No
B	130	150	130	No		No
F	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Allow, B, Allow, C						
Extra Special Features (XSF)						
SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(5) Heavy Bi Leadlag NB_1*	C	150	ABDEC	94		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	48	48	Yes		No
B	48	68	62	No		No
D	68	88	68	No		No
E	88	130	88	No		No
C	130	150	130	No		No
F	1	0	0	No		Yes

Intersection Details

Name: M1111/CTLR

System: SE Queensland STR

Description: Gympie and Kitchener / Sport

Special Features (SSF) Allow, B, Allow, C Extra Special Features (XSF) SG7, Filter, SG8, Filter
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Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(4) SB Heavy_160	C	160	ADEF	128	4	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	100	100	Yes		No
D	100	116	100	No		No
E	116	137	116	No		No
F	137	160	137	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						
SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(99) Faulty Loop	C	100	ADEF	0	99	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	47	47	Yes		No
D	47	65	47	No		No
E	65	83	65	No		No
F	83	100	83	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						
SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(98) Heavy Bi Directional_Temp daytime faulty loop	C	130	ADEF	103	98	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	68	68	Yes		No
D	68	88	68	No		No
E	88	110	88	No		No
F	110	130	110	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						
SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1111 Plan(44) BMTMC AM Peak Kitchener Rd EB to SB Flush	C	160	ADEF	128	44	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	85	85	Yes		No
D	85	116	85	No		No

Intersection Details

Name: M1111/CTLR **System:** SE Queensland STF

Description: Gympie and Kitchener / Sport

E	116	137	116	No	No
F	137	160	137	No	No
B	1	0	0	No	Yes
C	1	0	0	No	Yes
Special Features (SSF)					
Extra Special Features (XSF)					
SG7, Filter, SG8, Filter					

Name	Mode	Cycle Time	Sequence	Offset	Plan No.		
1111 Plan(5) Heavy Bi Directional_1	C	140	ADEF	103	5		
	Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
	A	0	65	65	Yes		No
	D	65	81	65	No		No
	E	81	123	81	No		No
	F	123	140	123	No		No
	B	1	0	0	No		Yes
	C	1	0	0	No		Yes
Special Features (SSF)							
Extra Special Features (XSF)							
SG7, Filter, SG8, Filter							

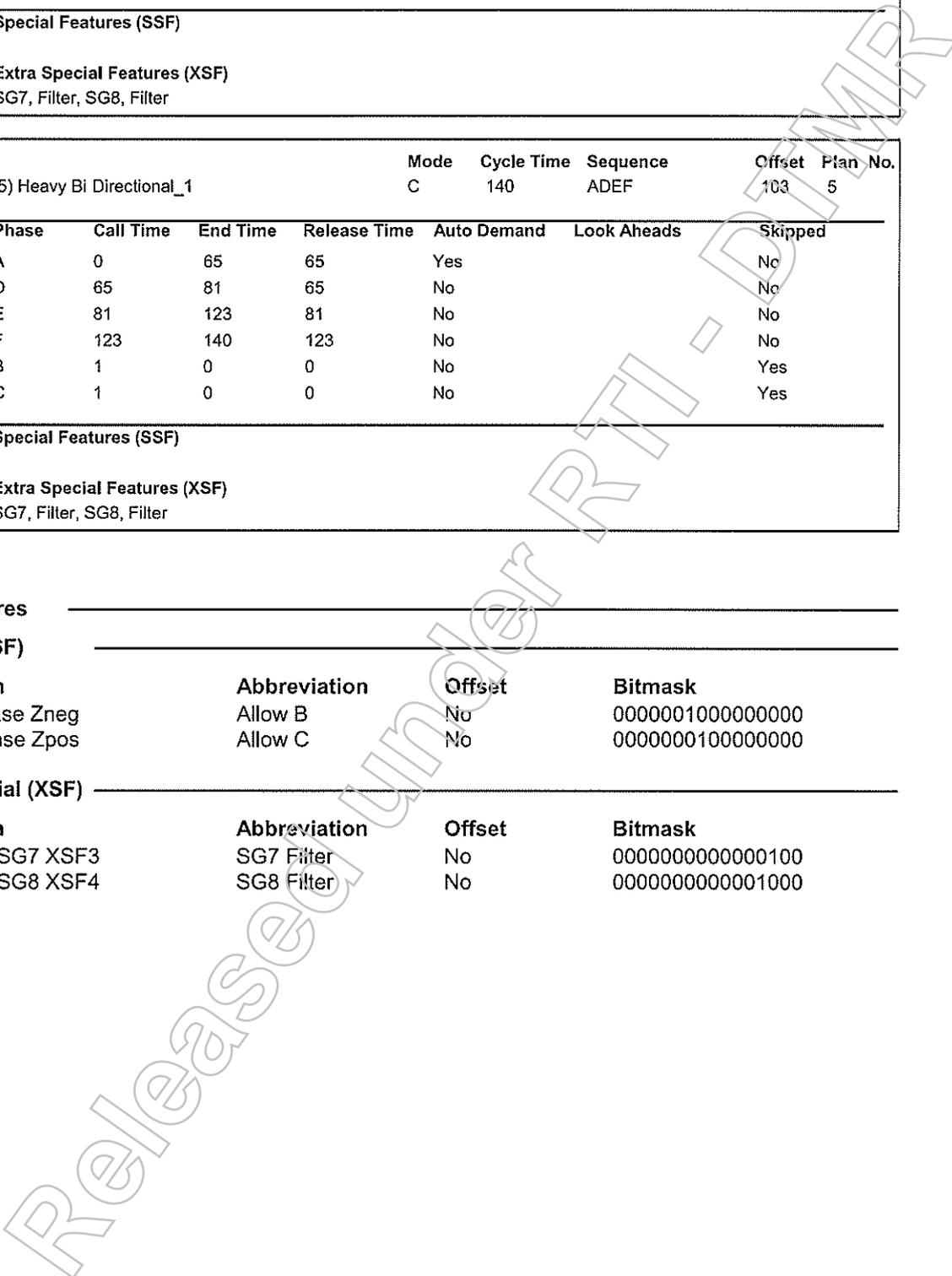
Plan Features

Special (SSF)

Description	Abbreviation	Offset	Bitmask
Allow B Phase Zneg	Allow B	No	0000001000000000
Allow C Phase Zpos	Allow C	No	0000000100000000

Extra Special (XSF)

Description	Abbreviation	Offset	Bitmask
Allow Filter SG7 XSF3	SG7 Filter	No	0000000000000100
Allow Filter SG8 XSF4	SG8 Filter	No	0000000000001000



Intersection Details

Name: M1111/CTLR **System:** SE Queensland STF
Description: Gympie and Kitchener / Sport

Vehicle Detectors

No	External Id	Description	Enabled	Build Stats	Occ Used
1	M1111/VD01	Sport St W/B Lane 2 R/T	Yes	Yes	Yes
2	M1111/VD02	Sport St W/B Lane 1	Yes	Yes	Yes
3	M1111/VD03	Gympie Rd N/B Lane 4 R/T	Yes	Yes	Yes
4	M1111/VD04	Gympie Rd N/B Lane 3	Yes	Yes	Yes
5	M1111/VD05	Gympie Rd N/B Lane 2	Yes	Yes	Yes
6	M1111/VD06	Gympie Rd N/B Lane 1	Yes	Yes	Yes
7	M1111/VD07	Kitchener Rd E/B Lane 2 R/T	Yes	Yes	Yes
8	M1111/VD08	Kitchener Rd E/B Lane 1	Yes	Yes	Yes
9	M1111/VD09	Gympie Rd S/B Lane 5 R/T	Yes	Yes	Yes
10	M1111/VD10	Gympie Rd S/B Lane 4	Yes	Yes	Yes
11	M1111/VD11	Gympie Rd S/B Lane 3	Yes	Yes	Yes
12	M1111/VD12	Gympie Rd S/B Lane 2	Yes	Yes	Yes
13	M1111/VD13	Gympie Rd S/B Lane 1 L/T	Yes	Yes	Yes

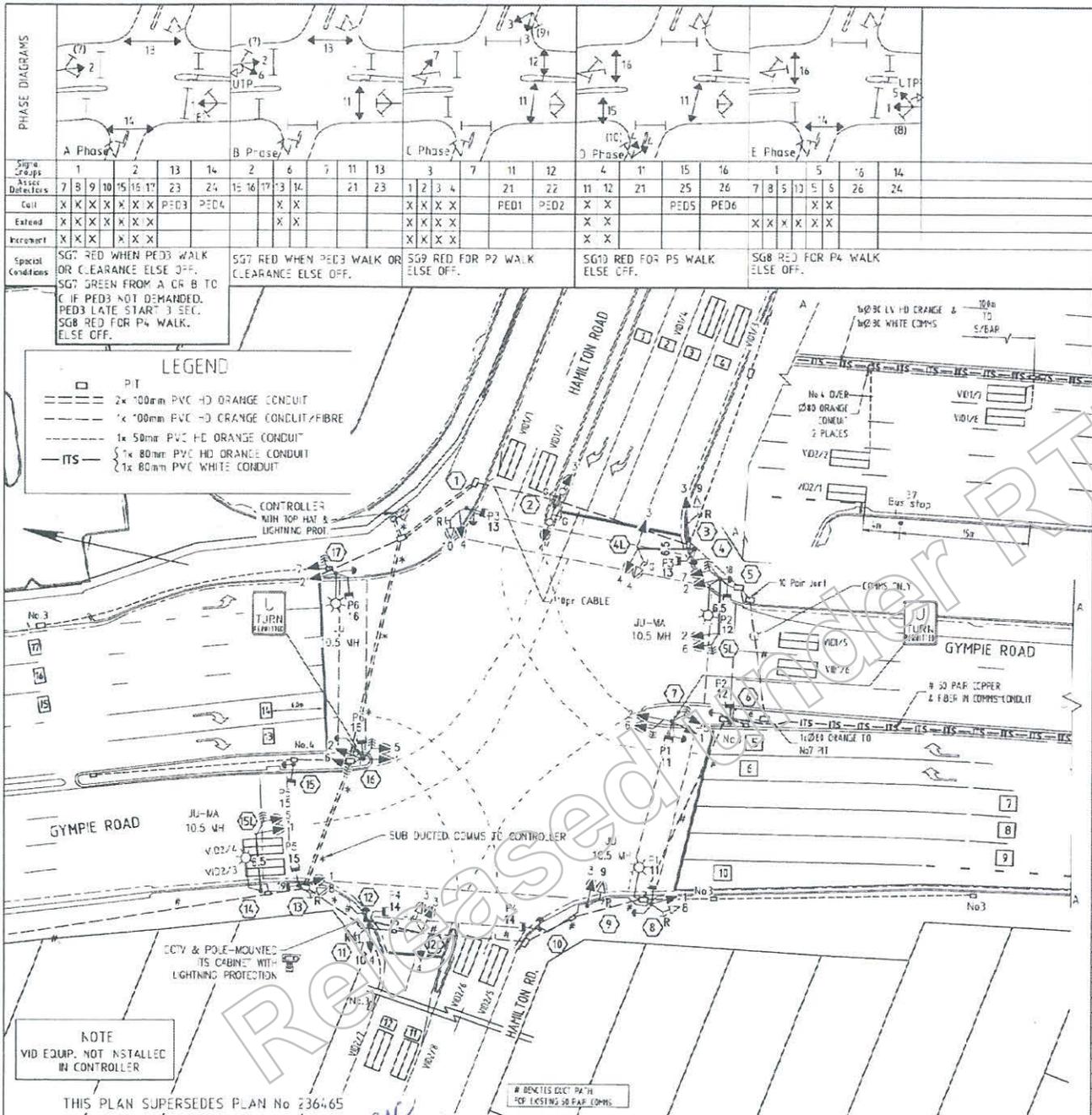
Pedestrian Detectors

No	Specified Id	Description
1	M1111/PED1	M1111/PED1 Gympie and Kitchener / Sport
2	M1111/PED2	M1111/PED2 Gympie and Kitchener / Sport
3	M1111/PED3	M1111/PED3 Gympie and Kitchener / Sport

Movements

Description	Primary SG
FLT MVT from Gympie Rd NB to Kitchener Rd WB	
FLT MVT from Kitchener Rd EB to Gympie Rd NB	
Left turn MVT from Gympie Rd SB to Sport St EB	1
Left Turn MVT from Sport St WB to Gympie Rd SB	6
Right turn MVT from Gympie Rd NB to Sport St EB	4
Right Turn MVT from Gympie Rd SB to Kitchener Rd WB	3
Right Turn MVT from Kitchener Rd EB to Gympie Rd SB	7
Right turn MVT from Sport St WB to Gympie Rd NB	8
Through MVT from Kitchener Rd EB to Gympie Rd EB	5
Through MVT from Sport St WB to Kitchener Rd WB	6
Through MVT on Gympie Rd NB at INT with Kitchener Rd & Sport St	2
Through MVT on Gympie Rd SB at INT with Kitchener Rd & Sport St	1

Released Under RTI



CONFLICT TABLE (X INDICATES CONFLICT)										Signal Group Function	RUN 2 CONNECTIONS		RUN 1 CONNECTIONS		RUN 3 CONN.		RUN 4 CONN.	
VEHICLE GROUPS											FINAL TERMINALS	CONNECTIONS	CONNECTIONS	CONNECTIONS	CONNECTIONS	CONNECTIONS	CONNECTIONS	CONNECTIONS
1	2	3	4	5	6	7	8	9	10	A5	RED	1	1	1	1	1	1	
2	X	X	X	X	X	X	X	X	X	A4	YELLOW	1	2	2	2	2	2	
3	X	X	X	X	X	X	X	X	X	A3	GREEN	1	3	3	3	3	3	
4	X	X	X	X	X	X	X	X	X	A8	RED	1	1	1	1	1	1	
5	X	X	X	X	X	X	X	X	X	A7	YELLOW	2	2	2	2	2	2	
6	X	X	X	X	X	X	X	X	X	A6	GREEN	3	3	3	3	3	3	
7	X	X	X	X	X	X	X	X	X	A11	RED	4	4	4	4	4	4	
8	X	X	X	X	X	X	X	X	X	A10	YELLOW	5	5	5	5	5	5	
9	X	X	X	X	X	X	X	X	X	A9	GREEN	6	6	6	6	6	6	
10	X	X	X	X	X	X	X	X	X	A12	RED	7	7	7	7	7	7	
VEHICLE/PED CLEARANCE TIMES										RUN 2 CONNECTIONS		RUN 1 CONNECTIONS		RUN 3 CONN.		RUN 4 CONN.		
PROG	CALC	CALCULATED ALL PED TIMES (SEC)								CONNECTIONS		CONNECTIONS		CONNECTIONS		CONNECTIONS		
FROM	PHASE	Yes	Pre	A	B	C	D	E	F	G	B5	RED	5	5	5	5	5	5
A	4	3.5	2.5	3.5	2.5	3.5	2.5	3.5	2.5	3.5	B6	YELLOW	5	10	10	10	10	10
B	4	3.5	2.5	3.5	2.5	3.5	2.5	3.5	2.5	3.5	B7	YELLOW	5	11	11	11	11	11
C	4	3.5	2.5	3.5	2.5	3.5	2.5	3.5	2.5	3.5	B8	GREEN	5	12	12	12	12	12
D	4	3.5	2.5	3.5	2.5	3.5	2.5	3.5	2.5	3.5	B11	RED	7	13	13	13	13	13
E	4	3.5	2.5	3.5	2.5	3.5	2.5	3.5	2.5	3.5	B10	YELLOW	7	14	14	14	14	14
F	4	3.5	2.5	3.5	2.5	3.5	2.5	3.5	2.5	3.5	B9	GREEN	7	15	15	15	15	15
G	4	3.5	2.5	3.5	2.5	3.5	2.5	3.5	2.5	3.5	B14	RED	8	17	17	17	17	17
DETECTOR TABLE										CONNECTIONS		CONNECTIONS		CONNECTIONS		CONNECTIONS		
PHYSICAL LABEL	CONROLLER TERMINAL	LOGICAL INPUT	LOOP #/B CONFIGURATION	DIST TO STOP LINE	CONNECTIONS		CONNECTIONS		CONNECTIONS		CONNECTIONS		CONNECTIONS		CONNECTIONS			
LOOP 1	P1	1	ADVANCE	35m	C9	GREEN	11	11	11	11	11	11	11	11	11	11		
LOOP 2	P2	2	ADVANCE	35m	C14	RED DW	12	16	16	16	16	16	16	16	16	16		
LOOP 3	F3	3	ADVANCE	35m	C12	GREEN	12	17	17	17	17	17	17	17	17	17		
LOOP 4	F4	4	ADVANCE	35m	D5	RED DW	13	18	18	18	18	18	18	18	18	18		
LOOP 5	F5	5	STOP LINE	4m	D3	GREEN	13	19	19	19	19	19	19	19	19	19		
LOOP 6	F6	6	STOP LINE	4m	D8	RED DW	14	18	18	18	18	18	18	18	18	18		
LOOP 7	F7	7	ADVANCE	35m	PED4	RED DW	14	18	18	18	18	18	18	18	18	18		
LOOP 8	F8	8	ADVANCE	35m	D6	GREEN	14	19	19	19	19	19	19	19	19	19		
LOOP 9	C9	9	ADVANCE	35m	D11	RED DW	15	16	16	16	16	16	16	16	16	16		
LOOP 10	G10	10	STOP LINE	4m	D9	GREEN	15	20	20	20	20	20	20	20	20	20		
LOOP 11	O11	11	ADVANCE	35m	C14	RED DW	15	18	18	18	18	18	18	18	18	18		
LOOP 12	O12	12	ADVANCE	35m	C12	GREEN	15	19	19	19	19	19	19	19	19	19		
LOOP 13	G13	13	STOP LINE	6m	PED6	RED DW	15	20	20	20	20	20	20	20	20	20		
LOOP 14	C14	14	STOP LINE	6m	C14	RED DW	15	18	18	18	18	18	18	18	18	18		
LOOP 15	C15	15	ADVANCE	35m	C12	GREEN	15	19	19	19	19	19	19	19	19	19		
LOOP 16	C16	16	ADVANCE	35m	E5	PED1 DET	21	24	24	24	24	24	24	24	24	24		
LOOP 17	C17	17	ADVANCE	35m	E6	PED2 DET	22	24	24	24	24	24	24	24	24	24		
EX1	E11	18	PE2-AUDIO	20	E11	PED2 DET	18	21	21	21	21	21	21	21	21	21		
EX18	E12	19	PE5-AUDIO	20	E7	PED3 DET	23	25	25	25	25	25	25	25	25	25		
EX11	E5	20	PE1-AUDIO	20	E8	PED4 DET	24	25	25	25	25	25	25	25	25	25		
EX12	E6	22	PE2-AUDIO	20	E9	PED5 DET	25	25	25	25	25	25	25	25	25	25		
EX13	E7	23	PE3-AUDIO	20	E12	PED5 DET	19	21	21	21	21	21	21	21	21	21		
EX14	E8	24	PE4-AUDIO	20	E15	PED6 DET	26	25	25	25	25	25	25	25	25	25		
EX15	E9	25	PE5-AUDIO	20	A2	24V SUPPLY	26	26	26	26	26	26	26	26	26	26		
EX16	E10	26	PE6-AUDIO	20	L3	DET COMMON	27	GY	GY	GY	GY	GY	GY	GY	GY	GY		
EX17	E11	27	PE7-AUDIO	20	A1	NEUTRAL	NL	BK	BK	NL	BK	BK	NL	BK	BK	NL		
EX18	E12	28	PE8-AUDIO	20	A1	SPARE CORES	23	23	23	23	23	23	23	23	23	23		
EX19	E13	29	PE9-AUDIO	20	CABLE SIZE		29	19	19	29	19	19	29	19	19	29		
EX20	E14	30	PE10-AUDIO	20	CONTROLLER TYPE		TYCO ECLIPSE ECI-62		CONTROLLER TYPE		TYCO ECLIPSE ECI-62		CONTROLLER TYPE		TYCO ECLIPSE ECI-62			
EX21	E15	31	PE11-AUDIO	20	TRAFFIC SIGNAL INSTALLATION		TRAFFIC SIGNAL INSTALLATION		TRAFFIC SIGNAL INSTALLATION		TRAFFIC SIGNAL INSTALLATION		TRAFFIC SIGNAL INSTALLATION		TRAFFIC SIGNAL INSTALLATION			
EX22	E16	32	PE12-AUDIO	20	BRISBANE CITY		BRISBANE CITY		BRISBANE CITY		BRISBANE CITY		BRISBANE CITY		BRISBANE CITY			
EX23	E17	33	PE13-AUDIO	20	GYMPIE ARTERIAL		GYMPIE ARTERIAL		GYMPIE ARTERIAL		GYMPIE ARTERIAL		GYMPIE ARTERIAL		GYMPIE ARTERIAL			
EX24	E18	34	PE14-AUDIO	20	GYMPIE ROAD INTERSECTION WITH HAMILTON ROAD		GYMPIE ROAD INTERSECTION WITH HAMILTON ROAD		GYMPIE ROAD INTERSECTION WITH HAMILTON ROAD		GYMPIE ROAD INTERSECTION WITH HAMILTON ROAD		GYMPIE ROAD INTERSECTION WITH HAMILTON ROAD		GYMPIE ROAD INTERSECTION WITH HAMILTON ROAD			

Revisions	Drawn	Checked	Verified	Issue Date	Permitted	Auxiliary Cvg No	Full Size	BRISBANE CITY		TRAFFIC SIGNAL INSTALLATION		Queensland Government		Intersection No.	
W Sgs 3 & 4 ADDED (15/12/16)	ADG	GMC		23/5/18		503433	A3	GYMPIE ARTERIAL		TRAFFIC SIGNAL INSTALLATION		Queensland Government		M1116	
V CONTROLLER UPGRADE RECORDS AS-CON (14/9/15)	BVD	GMC		26/9/16				GYMPIE ROAD		TRAFFIC SIGNAL INSTALLATION		Queensland Government		No. of Days	
J EWP PROJECT UPDATE (2/03/15)	AG	GWT		2/3/15	MF07.0BR			INTERSECTION WITH HAMILTON ROAD		TRAFFIC SIGNAL INSTALLATION		Queensland Government		Drawing No.	
I (CIV ADDED TO SYN 12 (23/5/11))	AG	GWS	NR	15/10/08				Scale		TRAFFIC SIGNAL INSTALLATION		Queensland Government		Job No.	
S REV. R AS CONSTRUCTION 27/8/06	A.M	MJS		15/11/06				0 2 4 6 8 10m		TRAFFIC SIGNAL INSTALLATION		Queensland Government		221933	
R LED UPGRADE (7.7 AMPERE 5700K BCT) REFLECTOR WORKS	A.G.	GMC		16/3/06				GDA		TRAFFIC SIGNAL INSTALLATION		Queensland Government		Date of Issue	
G SGT OFF (2/11/06) (2/11/06)	A.G.	MJS		3/2/06				Page 144 of 222		TRAFFIC SIGNAL INSTALLATION		Queensland Government		8/3/88	

Name: M1116/CTLR **System:** SE Queensland STF
Description: Gympie and Hamilton
Enabled: True **Double Cycle:** False
Notes: File:517/00195 870/00117

30/08/15 Controller changed to Eclipse

17/4/14: C Phase release changed to no for plans 2, 4, 5, 6 due to failed loops 1 to 4 - restored to cont 22/7/14 - AG

Plan 4 SB heavy times altered temporarily 23/12/13.

Original 150,68,86,104,134

Temp 150,61,79,97,127

To be changed back at end of xmas - new year period - was changed back 7 May 2014 after being forgotten- AG

17/02/10: New Plan 5: 130 sec.

Alt Ph Seq: AECDB, Auto Rel on D Ph

12/07/06: Loop 5,6 failed remove cont rel ph E

26/04/06: Bus priority data removed all lans

16/11/05: Base data audited detector mismatch plan 221933q DSF

14/06/98: Controller changeover to PSC, UBD119/R14

22/06/99: Phasing changed to above Prom Ser No: 981111758E, of 21/04/99, Plan 221933I

28/09/99: installed EPROM - SG7 red off (except during P3 Walk) Spec Control Sigs changed to above from ABCD,

25/08/00: +2 sec given to Hamilton Rd W/B in PL5 (BCC request)

24/10/01: Adjusted offsets Plans 2,3 & 4.K

26/10/01: Changed offset PL9. SK

19/11/01: Changed offset PL5. Took PL10 off TOD. SK

04/01/02: Changed offset PL5. SK

28/02/02: Changed offset PL9. SK

18/10/02: Add 4 secs to offset PL2. SK

28/10/02: NO REL on B ph PL 2 & 3 to ensure W/B co-ordination (if B ph doesn't run then A ph use its time. However, A ph will then use B ph release; A ph can gap off when it gets into the B ph time. Putting a NO REL on B ph will mean A ph can use all of B ph time). SK

08/05/03: PL3; Sidra times due to overflow queues on O/B R/T after a.m. peak (more time to R/T). SK

09/05/03: PL5; Sidra times. SK

11/04/03: Moved PL9 to PL6. Created Saturday Entry PL9 and Exit

PL10. SK

20/06/03: Add 71 secs to offset PL3 to help co-ord M1103 with Stafford Rd PL 2 & 8. SK

4/9/03: Alt Ph Seq: AECDB, Auto Rel on D Ph - Prom Vers E, of 18/06/03, 2/8/04: No Rel

on C Ph Pl 3,5,6,7,8,10 & 12 (F dets 1,2,3&4) adw

7/3/05 Pl5 5 secs from D to A no release

Controller & Connection

Model: Eclipse **Firmware:** TRAFF
Owner: DMR - Metropolitan Region **Transport:** serial
Connected To: M1116/FP **Protocol Framing:** None
Trans Cyc. Min: 80 **Network Address:**
Phase Intervention: Yes **Port:** 2 **Baud:** 1200

Intersection Groups

Name	Description	Enable
BNE - Gympie_Rc	GYMPIE RD - Kedron Park to Murphy	Yes
BNE - Gympie Rd	GYMPIE RD - (Westfield Xmas 24HR Shopping)	Yes
TMR-Westf Chern	Westfield Chermshire (Kittyhawk Dr and Hamilton Rd) BMTMC FLUSH	Yes
TMR-Hamilton Rd	Hamilton Rd (Kittyhawk to Gympie) BMTMC Flush	Yes

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF
Description: Gympie and Hamilton

Definition Data

Mnemonic	Description	User Value	Controller Value
INTNUM	Intersection Number (IEN)	1116	1116
REVISN	Personality Revision Number	A	A
NOPH	Number of Phases	5	5
STARPH	Starting Phase	A	A
NOVSG	Number of Vehicle Signal Groups	10	10
NOPSG	Number of Pedestrian Signal Groups	6	6
NOAPPS	Number of Approach Functions	6	6
NOVDS	Number of Vehicle Detectors	19	19
NOPBS	Number of Pedestrian Detectors	6	6
NOAS	Number of Arterial Switches	5	5
PHSEQ1	Phase Sequence #1	ABCDE	
PHSEQ2	Phase Sequence #2	AECDB	
PHSEQ3	Phase Sequence #3		
PHSEQ4	Phase Sequence #4		
PCRC	Memory Checksum	0xc9	0xc9

Configuration

Region: Metropolitan
Tags: BMTMC, Metro, VPP-Metro

Released under RTI-DTMR

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STR
Description: Gympie and Hamilton

Controller Plans

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(Old5) NB Medium / Bi Heavy	C	120	ABCDE	30		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	33	33	Yes		No
B	33	49	49	No		No
C	49	72	72	No		No
D	72	96	96	No		No
E	96	120	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Xmas Medium	C	120	ABCDE	30		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	26	26	Yes		No
B	26	44	44	No		No
C	44	67	67	No		No
D	67	92	92	No		No
E	92	120	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Xmas Medium_2	C	120	ABCDE	30		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	26	26	Yes		No
B	26	42	42	No		No
C	42	65	65	No		No
D	65	95	95	No		No
E	95	120	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(5) test	C	130	ABCDE	92		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	40	40	Yes		No
B	40	57	57	No		No
C	57	82	82	No		No
D	82	106	106	No		No
E	106	130	130	No		No

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF
Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(4) SB Heavy_original	C	150	ABCDE	43		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	68	68	Yes		No
B	68	86	86	No		No
C	86	104	104	No		No
D	104	134	134	No		No
E	134	150	150	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(6) NB Heavy	C	150	ABCDE	78		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	52	52	Yes		No
B	52	69	69	No		No
C	69	100	100	No		No
D	100	129	129	No		No
E	129	150	150	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(6) NB Heavy_1	C	150	ABCDE	78		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	52	52	Yes		No
B	52	69	69	No		No
C	69	100	100	No		No
D	100	129	129	No		No
E	129	150	150	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Xmas Heavy	C	150	ABCDE	77		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	32	32	Yes		No
B	32	54	54	No		No
C	54	82	82	No		No
D	82	113	113	No		No
E	113	150	150	No		No

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF
Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(1) Master Isolated	MI		ABCDE		1	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A				Yes		No
B				No		No
C				No		No
D				No		No
E				No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(2) NB/SB/Bi Light and Bi Medium	C	100	ABCDE	17	2	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	27	27	Yes		No
B	27	44	36	No		No
C	44	61	44	No		No
D	61	79	61	No		No
E	79	100	79	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(3) SB Medium	C	120	ABCDE	13	3	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	26	26	Yes		No
B	26	48	41	No		No
C	48	69	48	No		No
D	69	96	69	No		No
E	96	120	96	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(4) SB Heavy	C	150	ABCDE	33		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	68	68	Yes		No
B	68	86	80	No		No
C	86	104	86	No		No
D	104	134	104	No		No
E	134	150	134	No		No

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF

Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(5) Heavy Bi Directional	C	130	ABCDE	92	25	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	38	38	Yes		No
B	38	56	50	No		No
C	56	81	56	No		No
D	81	106	81	No		No
E	106	130	106	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(6) NB Heavy_1*	C	160	ABCDE	47	6	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	52	52	Yes		No
B	52	69	52	No		No
C	69	100	69	No		No
D	100	129	100	No		No
E	129	160	160	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(7)	C	120	ABCDE	43	7	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	39	39	Yes		No
B	39	58	58	No		No
C	58	78	78	No		No
D	78	98	98	No		No
E	98	120	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(8)	C	120	ABCDE	43	8	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	39	39	Yes		No
B	39	58	58	No		No
C	58	78	78	No		No
D	78	98	98	No		No
E	98	120	120	No		No

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STR

Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(9)	C	150	ABCDE	31	9	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	65	65	Yes		No
B	65	82	82	No		No
C	82	100	100	No		No
D	100	133	133	No		No
E	133	150	150	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(10)	C	120	ABCDE	30	10	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	26	26	Yes		No
B	26	44	44	No		No
C	44	67	67	No		No
D	67	92	92	No		No
E	92	120	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(5) Heavy Bi Directional_Lead Lag NB*	C	150	ABCDE	142		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	44	44	Yes		No
B	44	65	59	No		No
C	65	93	65	No		No
D	93	120	93	No		No
E	120	150	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(5) Heavy Bi Directional_Lead Lag SB*	C	150	AECDB	11		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	48	48	Yes		No
E	48	77	48	No		No
C	77	104	77	No		No
D	104	129	104	No		No
B	129	150	129	No		No

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF
Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(4) SB Heavy_160	C	160	ABCDE	33	4	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	72	72	Yes		No
B	72	90	88	No		No
C	90	110	90	No		No
D	110	142	110	No		No
E	142	160	142	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(99) Faulty Loop	C	80	ABCDE	10	99	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	16	16	Yes		No
B	16	32	16	No		No
C	32	48	32	No		No
D	48	64	48	No		No
E	64	80	64	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(41) BMTMC AM Peak WB Flush	C	160	ABCDE	55	41	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	20	15	Yes		No
B	20	38	20	No		No
C	38	98	88	No		No
D	98	130	98	No		No
E	130	160	130	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(42) BMTMC Off Peak WB Flush	C	130	ABCDE	92	42	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	38	38	Yes		No
B	38	48	42	No		No
C	48	86	80	No		No
D	86	108	86	No		No
E	108	130	108	No		No

Intersection Details

Name: M1116/CTLR

System:

SE Queensland STF

Description: Gympie and Hamilton

Special Features (SSF)

Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 TMR-Westf ChermSID Plan(42) BMTMC Off Peak SB Flus C	C	130	ABCDE	92		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	30	30	Yes		No
B	30	48	42	No		No
C	48	86	80	No		No
D	86	108	86	No		No
E	108	130	108	No		No

Special Features (SSF)

Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(43) BMTMC AM Peak WB Flush_1	C	160	ABCDE	29	43	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	20	15	Yes		No
B	20	38	20	No		No
C	38	98	88	No		No
D	98	130	98	No		No
E	130	160	130	No		No

Special Features (SSF)

Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 TMR-Hamilton Rd Plan(43) BMTMC WB Flush	C	160	ABCDE	20		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	34	34	Yes		No
B	34	52	48	No		No
C	52	112	100	No		No
D	112	144	112	No		No
E	144	160	144	No		No

Special Features (SSF)

Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(44) BMTMC Off Peak WB Flush_1	C	130	ABCDE	42	44	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	38	38	Yes		No
B	38	48	42	No		No
C	48	86	80	No		No
D	86	108	86	No		No
E	108	130	108	No		No

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF
Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(45) BMTMC PM Peak NB DIVERSION via Hamilton	C	160	ABCDE	47	45	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	42	42	Yes		No
B	42	59	42	No		No
C	59	90	59	No		No
D	90	139	90	No		No
E	139	160	139	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(46) BMTMC OFF Peak NB DIVERSION via Hamilton	C	130	ABCDE	92	46	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	35	35	Yes		No
B	35	52	45	No		No
C	52	77	52	No		No
D	77	112	77	No		No
E	112	130	112	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(5) Heavy Bi Directional_1	C	140	ABCDE	92	5	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	48	48	Yes		No
B	48	66	50	No		No
C	66	91	66	No		No
D	91	116	91	No		No
E	116	140	116	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Plan Features

Description	Abbreviation	Offset	Bitmask
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Intersection Details

Name: M1116/CTLR System: SE Queensland STF

Description: Gympie and Hamilton

Vehicle Detectors

No	External Id	Description	Enabled	Build Stats	Occ Used
1	M1116/VD01	Hamilton Rd W/B Lane 4 R/T	Yes	Yes	Yes
2	M1116/VD02	Hamilton Rd W/B Lane 3 R/T	Yes	Yes	Yes
3	M1116/VD03	Hamilton Rd W/B Lane 2	Yes	Yes	Yes
4	M1116/VD04	Hamilton Rd W/B Lane 1	Yes	Yes	Yes
5	M1116/VD05	Gympie Rd N/B Lane 6 R/T	Yes	Yes	Yes
6	M1116/VD06	Gympie Rd N/B Lane 5 R/T	Yes	Yes	Yes
7	M1116/VD07	Gympie Rd N/B Lane 4	Yes	Yes	Yes
8	M1116/VD08	Gympie Rd N/B Lane 3	Yes	Yes	Yes
9	M1116/VD09	Gympie Rd N/B Lane 2	Yes	Yes	Yes
10	M1116/VD10	Gympie Rd N/B Lane 1	Yes	Yes	Yes
11	M1116/VD11	Hamilton Rd E/B Lane 2	Yes	Yes	Yes
12	M1116/VD12	Hamilton Rd E/B Lane 1	Yes	Yes	Yes
13	M1116/VD13	Gympie Rd S/B Lane 6 R/T	Yes	Yes	Yes
14	M1116/VD14	Gympie Rd S/B Lane 5 R/T	Yes	Yes	Yes
15	M1116/VD15	Gympie Rd S/B Lane 4	Yes	Yes	Yes
16	M1116/VD16	Gympie Rd S/B Lane 3	Yes	Yes	Yes
17	M1116/VD17	Gympie Rd S/B Lane 2	Yes	Yes	Yes
18	M1116/VD18	No Function	Yes	No	No
19	M1116/VD19	No Function	Yes	No	No

Pedestrian Detectors

No	Specified Id	Description
1	M1116/PED1	M1116/PED1 Gympie and Hamilton
2	M1116/PED2	M1116/PED2 Gympie and Hamilton
3	M1116/PED3	M1116/PED3 Gympie and Hamilton
4	M1116/PED4	M1116/PED4 Gympie and Hamilton
5	M1116/PED5	M1116/PED5 Gympie and Hamilton
6	M1116/PED6	M1116/PED6 Gympie and Hamilton

Movements

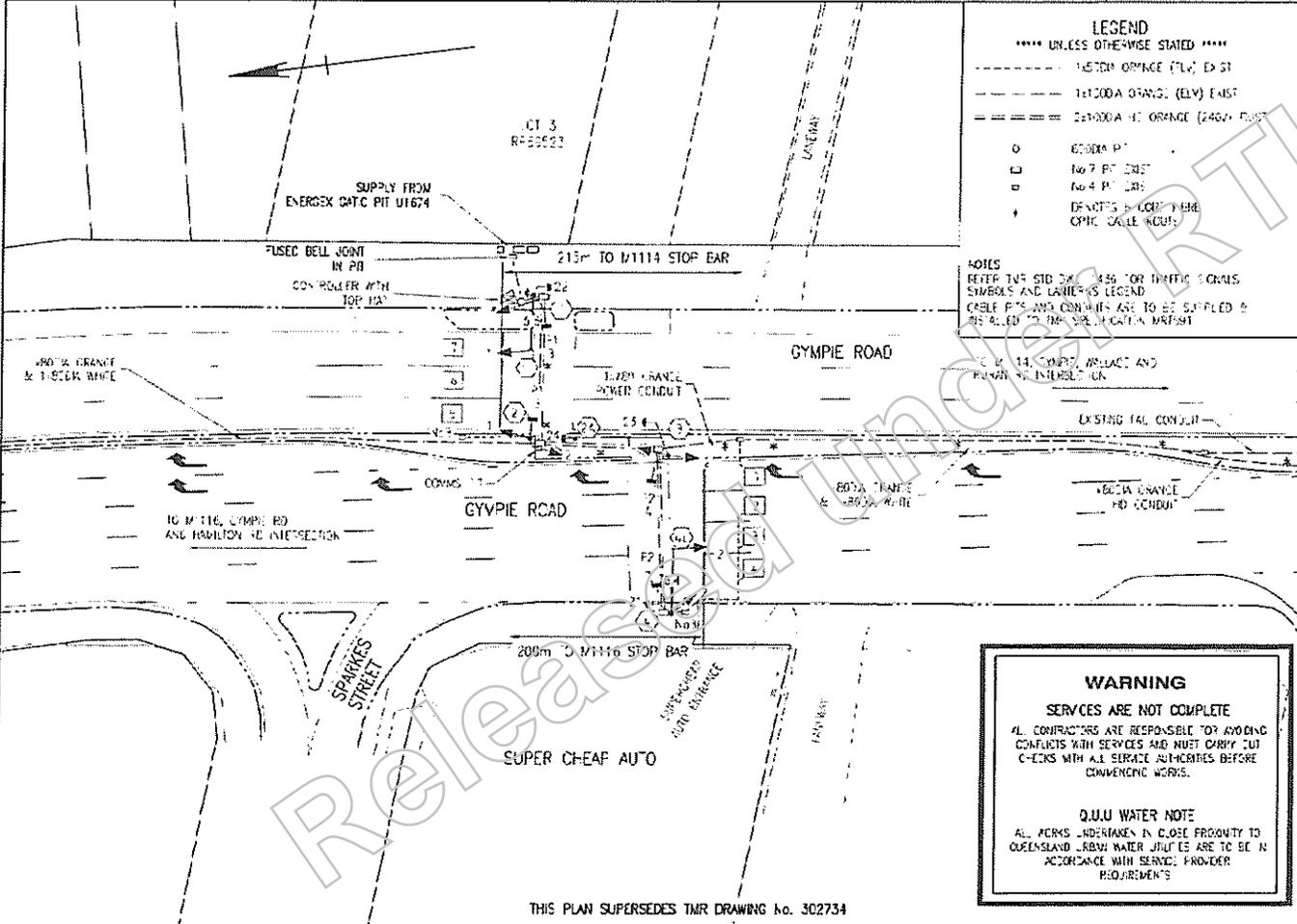
Description	Primary SG
Left Turn MVT from Gympie Rd NB to Hamilton Rd WB	8
Left Turn MVT from Gympie Rd SB to Hamilton Rd EB	7
Left Turn MVT from Hamilton Rd EB to Gympie Rd NB	10
Left Turn MVT from Hamilton Rd WB to Gympie Rd SB	9
Right Turn MVT from Gympie Rd NB to Hamilton Rd EB	5
Right Turn MVT from Gympie Rd SB to Hamilton Rd WB	6
Right Turn MVT from Hamilton Rd EB to Gympie Rd SB	4
Right Turn MVT from Hamilton Rd WB to Gympie Rd NB	3
Through MVT on Gympie Rd NB at INT with Hamilton Rd	1
Through MVT on Gympie Rd SB at INT with Hamilton Rd	2
Through MVT on Hamilton Rd EB at Int with Gympie Rd	4
Through MVT on Hamilton Rd WB at Int with Gympie Rd	3

PHASE DIAGRAMS					
A PHASE	B PHASE	C PHASE	D PHASE	E PHASE	F PHASE
SIGNAL GROUPS	1 2	3 4	5 6	7 8	9 10
VEHICLE/RED	V1 V2	V3 V4	V5 V6	V7 V8	V9 V10
LED/NO. W/PT	5/6, 7	8, 9	10, 11	12, 13	14, 15
CALL	X			X	
CREDS	X			X	
REVERT	X			X	
SPECIAL CONDITIONS	DET 21 TO DEMAND PED 1 WHEN PED 2 IN WALK		DET 22 TO DEMAND PED 2 WHEN PED 1 IN WALK		

CONFLICT TABLE (X INDICATES CONFLICT)

VEHICLE GROUPS	PEL GROUPS									
	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

VEHICLE GROUPS	PEL GROUPS	RUN 1				RUN 2				RUN 3			
		1	2	3	4	1	2	3	4	1	2	3	4
1	1	1	1	4	1	1	4	1	1	4	1	1	4
2	2	2	2	5	2	2	5	2	2	5	2	2	5
3	3	3	3	6	3	3	6	3	3	6	3	3	6
4	4	4	4	1	4	4	1	4	4	1	4	4	1
5	5	5	5	2	5	5	2	5	5	2	5	5	2
6	6	6	6	3	6	6	3	6	6	3	6	6	3
7	7	7	7	4	7	7	4	7	7	4	7	7	4
8	8	8	8	5	8	8	5	8	8	5	8	8	5
9	9	9	9	6	9	9	6	9	9	6	9	9	6
10	10	10	10	7	10	10	7	10	10	7	10	10	7



VEHICLE/PED CLEARANCE TIMES
CALCULATED FOR 60km/h ON GREEN SIGNAL

PEL	VEHICLE	CALCULATED ALL RED TIMES (SEC)
1	VEHICLE	A B C D E F G
2	VEHICLE	A B C D E F G
3	VEHICLE	A B C D E F G
4	VEHICLE	A B C D E F G
5	VEHICLE	A B C D E F G
6	VEHICLE	A B C D E F G
7	VEHICLE	A B C D E F G
8	VEHICLE	A B C D E F G
9	VEHICLE	A B C D E F G
10	VEHICLE	A B C D E F G
11	VEHICLE	A B C D E F G
12	VEHICLE	A B C D E F G
13	VEHICLE	A B C D E F G
14	VEHICLE	A B C D E F G
15	VEHICLE	A B C D E F G
16	VEHICLE	A B C D E F G
17	VEHICLE	A B C D E F G
18	VEHICLE	A B C D E F G
19	VEHICLE	A B C D E F G
20	VEHICLE	A B C D E F G
21	VEHICLE	A B C D E F G
22	VEHICLE	A B C D E F G
23	VEHICLE	A B C D E F G
24	VEHICLE	A B C D E F G
25	VEHICLE	A B C D E F G
26	VEHICLE	A B C D E F G
27	VEHICLE	A B C D E F G
28	VEHICLE	A B C D E F G
29	VEHICLE	A B C D E F G
30	VEHICLE	A B C D E F G
31	VEHICLE	A B C D E F G
32	VEHICLE	A B C D E F G

DETECTOR TABLE

LOOP NO.	CONTROL	LOOP LENGTH (M)	LOOP/3000	300 TO STOP (S)
LOOP 1	PT	2	0.000667	4m
LOOP 2	PT	2	0.000667	4m
LOOP 3	PT	2	0.000667	4m
LOOP 4	PT	2	0.000667	4m
LOOP 5	PT	2	0.000667	4m
LOOP 6	PT	2	0.000667	4m
LOOP 7	PT	2	0.000667	4m

DETECTOR TABLE (continued)

PERSON	CONTROLLER	LOOP	STOP TO STOP (S)
1	PT	1	4m
2	PT	2	4m
3	PT	3	4m
4	PT	4	4m
5	PT	5	4m
6	PT	6	4m
7	PT	7	4m
8	PT	8	4m
9	PT	9	4m
10	PT	10	4m
11	PT	11	4m
12	PT	12	4m
13	PT	13	4m
14	PT	14	4m
15	PT	15	4m
16	PT	16	4m
17	PT	17	4m
18	PT	18	4m
19	PT	19	4m
20	PT	20	4m
21	PT	21	4m
22	PT	22	4m
23	PT	23	4m
24	PT	24	4m
25	PT	25	4m
26	PT	26	4m
27	PT	27	4m
28	PT	28	4m
29	PT	29	4m
30	PT	30	4m
31	PT	31	4m
32	PT	32	4m

THIS PLAN SUPERSEDES TMR DRAWING No. 302734

Associated Job No.	Survey Date	Scales
1	2018	1:500
2	2018	1:500
3	2018	1:500
4	2018	1:500
5	2018	1:500
6	2018	1:500
7	2018	1:500
8	2018	1:500
9	2018	1:500
10	2018	1:500

BRISBANE CITY COUNCIL
GYMPIE ARTERIAL ROAD (U14)
PED CROSSING ADJ SPARKES STREET

Reference Form
From start to end of job
From end to following job

Page 156 of 222

TRAFFIC SIGNAL INSTALLATION
OPERATIONS & ELECTRICAL

Site Number: M1115
183 WIP 15 F 5

Queensland Government

Job No. 663975 B
Contract No. 663975 B
Drawing No. 1 of 1
Series Number URT (est 105/11)

DESIGNED BY: NR
CHECKED BY: NR

DATE: 25/06/2018

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 32:500

Intersection Details

Name:	M1116/CTLR	System:	SE Queensland STF
Description:	Gympie and Hamilton		
Enabled:	True	Double Cycle:	False
Notes:	File:517/00195 870/00117		

30/08/15 Controller changed to Eclipse

17/4/14: C Phase release changed to no for plans 2, 4, 5, 6 due to failed loops 1 to 4 - restored to cont 22/7/14 - AG

Plan 4 SB heavy times altered temporarily 23/12/13.

Original 150,68,86,104,134

Temp 150,61,79,97,127

To be changed back at end of xmas - new year period - was changed back 7 May 2014 after being forgotten- AG

17/02/10: New Plan 5: 130 sec.

Alt Ph Seq: AECDB, Auto Rel on D Ph

12/07/06: Loop 5,6 failed remove cont rel ph E

26/04/06: Bus priority data removed all lans

16/11/05: Base data audited detector mismatch plan 221933q DSF

14/06/98: Controller changeover to PSC, UBD119/R14

22/06/99: Phasing changed to above Prom Ser No: 981111758E, of 21/04/99, Plan 221933I

28/09/99: installed EPROM - SG7 red off (except during P3 Walk)Spec Control Sigs changed to above from ABCD,

25/08/00: +2 sec given to Hamilton Rd W/B in PL5 (BCC request)

24/10/01: Adjusted offsets Plans 2,3 & 4.K

26/10/01: Changed offset PL9. SK

19/11/01: Changed offset PL5. Took PL10 off TOD.SK

04/01/02: Changed offset PL5. SK

28/02/02: Changed offset PL9. SK

18/10/02: Add 4 secs to offset PL2. SK

28/10/02: NO REL on B ph PL 2 & 3 to ensure 1/B co-ordination (if B ph doesn't run then A ph use its time. However, A ph will then use B ph release; A ph can gap off when it gets into the B ph time. Putting a NO REL on B ph will mean A ph can use all of B ph time). SK

08/05/03: PL3; Sidra times due to overflow queues on O/B R/T after a.m. peak (more time to R/T). SK

09/05/03: PL5; Sidra times. SK

11/04/03: Moved PL9 to PL6. Created Saturday Entry PL9 and Exit

PL10. SK

20/06/03: Add 71 secs to offset PL3 to help co-ord M1103 with Stafford Rd PL 2 & 8. SK

4/9/03: Alt Ph Seq: AECDB, Auto Rel on D Ph - Prom Vers E, of 18/06/03, 2/8/04: No Rel on C Ph Pl 3,5,6,7,8,10 & 12 (F dets 1,2,3&4) adw

7/3/05 PI5 5 secs from D to A no release

Controller & Connection

Model:	Eclipse	Firmware:	TRAFF
Owner:	DMR - Metropolitan Region	Transport:	serial
Connected To:	M1116/FP	Protocol Framing:	None
Trans Cyc. Min:	80	Network Address:	
Phase Intervention:	Yes	Port: 2	Baud: 1200

Intersection Groups

Name	Description	Enable
BNE - Gympie_Rc	GYMPIE RD - Kedron Park to Murphy	Yes
BNE - Gympie Rd	GYMPIE RD - (Westfield Xmas 24HR Shopping)	Yes
TMR-Westf Chern	Westfield Chermshire (Kittyhawk Dr and Hamilton Rd) BMTMC FLUSH	Yes
TMR-Hamilton Rd	Hamilton Rd (Kittyhawk to Gympie) BMTMC Flush	Yes

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STR
Description: Gympie and Hamilton

Definition Data

Mnemonic	Description	User Value	Controller Value
INTNUM	Intersection Number (IEN)	1116	1116
REVISN	Personality Revision Number	A	A
NOPH	Number of Phases	5	5
STARPH	Starting Phase	A	A
NOVSG	Number of Vehicle Signal Groups	10	10
NOPSG	Number of Pedestrian Signal Groups	6	6
NOAPPS	Number of Approach Functions	6	6
NOVDS	Number of Vehicle Detectors	19	19
NOPBS	Number of Pedestrian Detectors	6	6
NOAS	Number of Arterial Switches	5	5
PHSEQ1	Phase Sequence #1	ABCDE	
PHSEQ2	Phase Sequence #2	AECDB	
PHSEQ3	Phase Sequence #3		
PHSEQ4	Phase Sequence #4		
PCRC	Memory Checksum	0xc9	0xc9

Configuration

Region: Metropolitan
Tags: BMTMC, Metro, VPP-Metro

Released under RTI-DTMR

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STR
Description: Gympie and Hamilton

Controller Plans

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(Old5) NB Medium / BI Heavy	C	120	ABCDE	30		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	33	33	Yes		No
B	33	49	49	No		No
C	49	72	72	No		No
D	72	96	96	No		No
E	96	120	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Xmas Medium	C	120	ABCDE	30		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	26	26	Yes		No
B	26	44	44	No		No
C	44	67	67	No		No
D	67	92	92	No		No
E	92	120	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Xmas Medium_2	C	120	ABCDE	30		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	26	26	Yes		No
B	26	42	42	No		No
C	42	65	65	No		No
D	65	95	95	No		No
E	95	120	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(5) test	C	130	ABCDE	92		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	40	40	Yes		No
B	40	57	57	No		No
C	57	82	82	No		No
D	82	106	106	No		No
E	106	130	130	No		No

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STR

Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(4) SB Heavy_original	C	150	ABCDE	43		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	68	68	Yes		No
B	68	86	86	No		No
C	86	104	104	No		No
D	104	134	134	No		No
E	134	150	150	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(6) NB Heavy	C	150	ABCDE	78		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	52	52	Yes		No
B	52	69	69	No		No
C	69	100	100	No		No
D	100	129	129	No		No
E	129	150	150	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(6) NB Heavy_1	C	150	ABCDE	78		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	52	52	Yes		No
B	52	69	69	No		No
C	69	100	100	No		No
D	100	129	129	No		No
E	129	150	150	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Xmas Heavy	C	150	ABCDE	77		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	32	32	Yes		No
B	32	54	54	No		No
C	54	82	82	No		No
D	82	113	113	No		No
E	113	150	150	No		No

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF

Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(1) Master Isolated	MI		ABCDE		1	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A				Yes		No
B				No		No
C				No		No
D				No		No
E				No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(2) NB/SB/Bi Light and Bi Medium	C	100	ABCDE	17	2	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	27	27	Yes		No
B	27	44	36	No		No
C	44	61	44	No		No
D	61	79	61	No		No
E	79	100	79	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(3) SB Medium	C	120	ABCDE	13	3	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	26	26	Yes		No
B	26	48	41	No		No
C	48	69	48	No		No
D	69	96	69	No		No
E	96	120	96	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(4) SB Heavy	C	150	ABCDE	33		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	68	68	Yes		No
B	68	86	80	No		No
C	86	104	86	No		No
D	104	134	104	No		No
E	134	150	134	No		No

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STR

Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name 1116 Plan(5) Heavy Bi Directional	Mode C	Cycle Time 130	Sequence ABCDE	Offset 92	Plan No. 25	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	38	38	Yes		No
B	38	56	50	No		No
C	56	81	56	No		No
D	81	106	81	No		No
E	106	130	106	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name 1116 Plan(6) NB Heavy_1*	Mode C	Cycle Time 160	Sequence ABCDE	Offset 47	Plan No. 6	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	52	52	Yes		No
B	52	69	52	No		No
C	69	100	69	No		No
D	100	129	100	No		No
E	129	160	160	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name 1116 Plan(7)	Mode C	Cycle Time 120	Sequence ABCDE	Offset 43	Plan No. 7	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	39	39	Yes		No
B	39	58	58	No		No
C	58	78	78	No		No
D	78	98	98	No		No
E	98	120	120	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name 1116 Plan(8)	Mode C	Cycle Time 120	Sequence ABCDE	Offset 43	Plan No. 8	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	39	39	Yes		No
B	39	58	58	No		No
C	58	78	78	No		No
D	78	98	98	No		No
E	98	120	120	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF

Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name 1116 Plan(9)	Mode C	Cycle Time 150	Sequence ABCDE	Offset 31	Plan No. 9	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	65	65	Yes		No
B	65	82	82	No		No
C	82	100	100	No		No
D	100	133	133	No		No
E	133	150	150	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name 1116 Plan(10)	Mode C	Cycle Time 120	Sequence ABCDE	Offset 30	Plan No. 10	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	26	26	Yes		No
B	26	44	44	No		No
C	44	67	67	No		No
D	67	92	92	No		No
E	92	120	120	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name 1116 Plan(5) Heavy Bi Directional_Lead Lag NB*	Mode C	Cycle Time 150	Sequence ABCDE	Offset 142	Plan No.	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	44	44	Yes		No
B	44	65	59	No		No
C	65	93	65	No		No
D	93	120	93	No		No
E	120	150	120	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name 1116 Plan(5) Heavy Si Directional_Lead Lag SB*	Mode C	Cycle Time 150	Sequence AECDB	Offset 11	Plan No.	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	48	48	Yes		No
E	48	77	48	No		No
C	77	104	77	No		No
D	104	129	104	No		No
B	129	150	129	No		No
<hr/>						

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF
Description: Gympie and Hamilton

Special Features (SSF)

Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(4) SB Heavy_160	C	160	ABCDE	33	4	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	72	72	Yes		No
B	72	90	88	No		No
C	90	110	90	No		No
D	110	142	110	No		No
E	142	160	142	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(99) Faulty Loop	C	80	ABCDE	10	99	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	16	16	Yes		No
B	16	32	16	No		No
C	32	48	32	No		No
D	48	64	48	No		No
E	64	80	64	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(41) BMTMC AM Peak WB Flush	C	160	ABCDE	55	41	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	20	15	Yes		No
B	20	38	20	No		No
C	38	58	88	No		No
D	98	130	98	No		No
E	130	160	130	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(42) BMTMC Off Peak WB Flush	C	130	ABCDE	92	42	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	38	38	Yes		No
B	38	48	42	No		No
C	48	86	80	No		No
D	86	108	86	No		No
E	108	130	108	No		No

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF

Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 TMR-Westf Chermisid Plan(42) BMTMC Off Peak SB Flus C	C	130	ABCDE	92		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	30	30	Yes		No
B	30	48	42	No		No
C	48	86	80	No		No
D	86	108	86	No		No
E	108	130	108	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(43) BMTMC AM Peak WB Flush_1	C	160	ABCDE	29	43	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	20	15	Yes		No
B	20	38	20	No		No
C	38	98	88	No		No
D	98	130	98	No		No
E	130	160	130	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 TMR-Hamilton Rd Plan(43) BMTMC WB Flush	C	160	ABCDE	20		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	34	34	Yes		No
B	34	52	48	No		No
C	52	112	100	No		No
D	112	144	112	No		No
E	144	160	144	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(44) BMTMC Off Peak WB Flush_1	C	130	ABCDE	42	44	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	38	38	Yes		No
B	38	48	42	No		No
C	48	86	80	No		No
D	86	108	86	No		No
E	108	130	108	No		No
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Intersection Details

Name: M1116/CTLR **System:** SE Queensland STF
Description: Gympie and Hamilton

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(45) BMTMC PM Peak NB DIVERSION via Hamilton	C	160	ABCDE	47	45	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	42	42	Yes		No
B	42	59	42	No		No
C	59	90	59	No		No
D	90	139	90	No		No
E	139	160	139	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(46) BMTMC OFF Peak NB DIVERSION via Hamilton	C	130	ABCDE	92	46	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	35	35	Yes		No
B	35	52	45	No		No
C	52	77	52	No		No
D	77	112	77	No		No
E	112	130	112	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1116 Plan(5) Heavy Bi Directional_1	C	140	ABCDE	92	5	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	48	48	Yes		No
B	48	65	50	No		No
C	66	91	66	No		No
D	91	116	91	No		No
E	116	140	116	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Plan Features

Description	Abbreviation	Offset	Bitmask
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Name: M1116/CTLR **System:** SE Queensland STF
Description: Gympie and Hamilton

Vehicle Detectors

No	External Id	Description	Enabled	Build Stats	Occ Used
1	M1116/VD01	Hamilton Rd W/B Lane 4 R/T	Yes	Yes	Yes
2	M1116/VD02	Hamilton Rd W/B Lane 3 R/T	Yes	Yes	Yes
3	M1116/VD03	Hamilton Rd W/B Lane 2	Yes	Yes	Yes
4	M1116/VD04	Hamilton Rd W/B Lane 1	Yes	Yes	Yes
5	M1116/VD05	Gympie Rd N/B Lane 6 R/T	Yes	Yes	Yes
6	M1116/VD06	Gympie Rd N/B Lane 5 R/T	Yes	Yes	Yes
7	M1116/VD07	Gympie Rd N/B Lane 4	Yes	Yes	Yes
8	M1116/VD08	Gympie Rd N/B Lane 3	Yes	Yes	Yes
9	M1116/VD09	Gympie Rd N/B Lane 2	Yes	Yes	Yes
10	M1116/VD10	Gympie Rd N/B Lane 1	Yes	Yes	Yes
11	M1116/VD11	Hamilton Rd E/B Lane 2	Yes	Yes	Yes
12	M1116/VD12	Hamilton Rd E/B Lane 1	Yes	Yes	Yes
13	M1116/VD13	Gympie Rd S/B Lane 6 R/T	Yes	Yes	Yes
14	M1116/VD14	Gympie Rd S/B Lane 5 R/T	Yes	Yes	Yes
15	M1116/VD15	Gympie Rd S/B Lane 4	Yes	Yes	Yes
16	M1116/VD16	Gympie Rd S/B Lane 3	Yes	Yes	Yes
17	M1116/VD17	Gympie Rd S/B Lane 2	Yes	Yes	Yes
18	M1116/VD18	No Function	Yes	No	No
19	M1116/VD19	No Function	Yes	No	No

Pedestrian Detectors

No	Specified Id	Description
1	M1116/PED1	M1116/PED1 Gympie and Hamilton
2	M1116/PED2	M1116/PED2 Gympie and Hamilton
3	M1116/PED3	M1116/PED3 Gympie and Hamilton
4	M1116/PED4	M1116/PED4 Gympie and Hamilton
5	M1116/PED5	M1116/PED5 Gympie and Hamilton
6	M1116/PED6	M1116/PED6 Gympie and Hamilton

Movements

Description	Primary SG
Left Turn MVT from Gympie Rd NB to Hamilton Rd WB	8
Left Turn MVT from Gympie Rd SB to Hamilton Rd EB	7
Left Turn MVT from Hamilton Rd EB to Gympie Rd NB	10
Left Turn MVT from Hamilton Rd WB to Gympie Rd SB	9
Right Turn MVT from Gympie Rd NB to Hamilton Rd EB	5
Right Turn MVT from Gympie Rd SB to Hamilton Rd WB	6
Right Turn MVT from Hamilton Rd EB to Gympie Rd SB	4
Right Turn MVT from Hamilton Rd WB to Gympie Rd NB	3
Through MVT on Gympie Rd NB at INT with Hamilton Rd	1
Through MVT on Gympie Rd SB at INT with Hamilton Rd	2
Through MVT on Hamilton Rd EB at Int with Gympie Rd	4
Through MVT on Hamilton Rd WB at Int with Gympie Rd	3

Intersection Details

Name: M1115/CTLR **System:** SE Queensland STR
Description: Gympie and Sparkes Ped Xing
Enabled: True **Double Cycle:** False
Notes:

Controller & Connection

Model: Eclipse **Firmware:** TRAFF
Owner: DMR - Metropolitan Region **Transport:** serial
Connected To: M1115TS/FP **Protocol Framing:** None
Trans Cyc. Min: 59 **Network Address:**
Phase Intervention: Yes **Port:** 1 **Baud:** 1200

Intersection Groups

Name	Description	Enable
BNE - Gympie_Rc	GYMPIE RD - Kedron Park to Murphy	Yes

Definition Data

Mnemonic	Description	User Value	Controller Value
INTNUM	Intersection Number (IEN)	1115	1115
REVISN	Personality Revision Number	A	A
NOPH	Number of Phases	3	3
STARPH	Starting Phase	A	A
NOVSG	Number of Vehicle Signal Groups	2	2
NOPSG	Number of Pedestrian Signal Groups	2	2
NOAPPS	Number of Approach Functions	2	2
NOVDS	Number of Vehicle Detectors	22	22
NOPBS	Number of Pedestrian Detectors	2	2
NOAS	Number of Arterial Switches	3	3
PHSEQ1	Phase Sequence #1	ABC	
PHSEQ2	Phase Sequence #2	ACB	
PHSEQ3	Phase Sequence #3		
PHSEQ4	Phase Sequence #4		
PCRC	Memory Checksum	0xd1	0xd1

Configuration

Region: Metropolitan
Tags: BMTMC, Metro, VPP-Metro

Intersection Details

Name: M1115/CTLR **System:** SE Queensland STF

Description: Gympie and Sparkes Ped Xing

Controller Plans

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1115 Plan(1) Master Isolated	MI		ABC		1	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A				Yes		No
B				No		No
C				No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1115 Plan(2) NB/SB/Bi Light and Bi Medium	C	100	ABAC	98	2	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	30	30	Yes		No
B	30	52	30	No		No
A	52	80	80	Yes		No
C	80	100	80	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1115 Plan(4) SB Heavy	C	150	ABC	41		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	108	108	Yes		No
B	108	130	126	No		No
C	130	150	130	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1115 Plan(5) Heavy Bi Directional	C	130	ABC	52	25	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	88	88	Yes		No
B	88	110	106	No		No
C	110	130	110	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1115 Plan(6) NB Heavy	C	160	ABC	154	6

Intersection Details

Name: M1115/CTLR **System:** SE Queensland STR

Description: Gympie and Sparkes Ped Xing

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	118	118	Yes		No
B	118	140	136	No		No
C	140	160	140	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1115 Plan(5) Heavy Bi Directional_1*	C	150	ABC	145	

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	108	108	Yes		No
B	108	130	130	No		No
C	130	150	130	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1115 Plan(4) SB Heavy_160	C	160	ABC	32	4

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	118	118	Yes		No
B	118	140	136	No		No
C	140	160	140	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1115 Plan(6) NB Heavy_1	C	160	ABAC	54	16

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	58	58	Yes		No
B	58	80	58	No		No
A	80	138	138	Yes		No
C	138	160	138	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1115 Plan(5) Heavy Bi Directional_1	C	130	ABAC	82	17

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	43	43	Yes		No
B	43	65	43	No		No
A	65	108	108	Yes		No
C	108	130	108	No		No

Intersection Details

Name: M1115/CTLR **System:** SE Queensland STF
Description: Gympie and Sparkes Ped Xing

Special Features (SSF)

Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1115 Plan(5) Heavy Bi Directional_11	C	140	ABC	52	5	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	98	98	Yes		No
B	98	120	106	No		No
C	120	140	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1115 Aspley-IG01 - Plan(5) Heavy Bi Directional_1_1	C	140	ABAC	52	29	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	65	65	Yes		No
B	65	87	65	No		No
A	87	120	120	Yes		No
C	120	140	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Plan Features

Description	Abbreviation	Offset	Bitmask
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Intersection Details

Name: M1115/CTLR **System:** SE Queensland STF

Description: Gympie and Sparkes Ped Xing

Vehicle Detectors

No	External Id	Description	Enabled	Build Stats	Occ Used
1	M1115/VD01	Gympie Rd N/B Lane 4	Yes	Yes	Yes
2	M1115/VD02	Gympie Rd N/B Lane 3	Yes	Yes	Yes
3	M1115/VD03	Gympie Rd N/B Lane 2	Yes	Yes	Yes
4	M1115/VD04	Gympie Rd N/B Lane 1	Yes	Yes	Yes
5	M1115/VD05	Gympie Rd S/B Lane 3	Yes	Yes	Yes
6	M1115/VD06	Gympie Rd S/B Lane 2	Yes	Yes	Yes
7	M1115/VD07	Gympie Rd S/B Lane 1	Yes	Yes	Yes
8	M1115/VD8	Int 1115 vehicle detector 8	No	Yes	Yes
9	M1115/VD9	Int 1115 vehicle detector 9	No	Yes	Yes
10	M1115/VD10	Int 1115 vehicle detector 10	No	Yes	Yes
11	M1115/VD11	Int 1115 vehicle detector 11	No	Yes	Yes
12	M1115/VD12	Int 1115 vehicle detector 12	No	Yes	Yes
13	M1115/VD13	Int 1115 vehicle detector 13	No	Yes	Yes
14	M1115/VD14	Int 1115 vehicle detector 14	No	Yes	Yes
15	M1115/VD15	Int 1115 vehicle detector 15	No	Yes	Yes
16	M1115/VD16	Int 1115 vehicle detector 16	No	Yes	Yes
17	M1115/VD17	Int 1115 vehicle detector 17	No	Yes	Yes
18	M1115/VD18	Int 1115 vehicle detector 18	No	Yes	Yes
19	M1115/VD19	Int 1115 vehicle detector 19	No	Yes	Yes
20	M1115/VD20	Int 1115 vehicle detector 20	No	Yes	Yes
21	M1115/VD21	Int 1115 vehicle detector 21	No	Yes	Yes
22	M1115/VD22	Int 1115 vehicle detector 22	No	Yes	Yes

Pedestrian Detectors

No	Specified Id	Description
1	M1115/PED1	M1115/PED1 Gympie and Sparkes Xing
2	M1115/PED2	M1115/PED2 Gympie and Sparkes Xing

Movements

Description	Primary SG
Through MVT on Gympie Rd NB at INT with Sparkes St Ped	2
Through MVT on Gympie Rd SB at INT with Sparkes St Ped	1

Intersection Details

Name: M1114/CTLR **System:** SE Queensland STR
Description: Gympie and Wallace / Kuran
Enabled: True **Double Cycle:** False
Notes: File:517/00194 870/00127

17/02/10: New Plan 5: 130 sec.
02/10/2006: Mods to B & C Phases due to high Number of Ped operation in Phase B.
26/04/2006: Bus priority data removed all plans
16/11/05: Base data audited OK plan 302734d, DSF
14/06/98: Controller changeover to PSC
17/05/99: Phase changed Prom Ser No1347 E
of 18/03/99,Plan 302734A
14/12/99: Additional time provided to B Ph PL 2, 6, 7 & 12(Re representation by Mr T Sullivan of 3/12/99)
12/09/01: PL4 offsets adjusted 10 sec earlier for coord
24/10/01: Adjusted offsets Plans 2, 3 &,SK
26/10/01: Changed offset PL9. SK
19/11/01: Changed offset PL5.Took PL10 off TOD.SK
04/01/02: Changed offset PL5. SK
08/05/02: EPROM installed to allow bi-dir coordination through Sparkes Ped X-ing.SK
16/05/02: Data changed to allow bi-dir coord.SK
08/05/03: Install min green times for SGs 10 & 11. Adjust offsets to suit new eprom. SK
11/04/03: Moved PL9 to PL6. Created Saturday Entry PL9 and Exit,PL10. SK
20/06/03: Add 71 secs to offset PL3 to help co-ord M1103 with Stafford Rd PL 2 & 8. SK
30/3/05: dsf,adjusted q+- for plan 5 to match sb medi

Controller & Connection

Model: Eclipse **Firmware:** TRAFF
Owner: DMR - Metropolitan Region **Transport:** serial
Connected To: M1114/FP **Protocol Framing:** None
Trans Cyc. Min: 69 **Network Address:**
Phase Intervention: Yes **Port:** 2 **Baud:** 1200

Intersection Groups

Name	Description	Enable
BNE - Gympie_Rc	GYMPIE RD - Kedron Park to Murphy	Yes
BNE - Gympie Rd	GYMPIE RD - (Westfield Xmas 24HR Shopping)	Yes

Definition Data

Mnemonic	Description	User Value	Controller Value
INTNUM	Intersection Number (IEN)	1114	1114
REVISN	Personality Revision Number	A	A
NOPH	Number of Phases	5	5
STARPH	Starting Phase	A	A
NOVSG	Number of Vehicle Signal Groups	6	6
NOPSG	Number of Pedestrian Signal Groups	4	4
NOAPPS	Number of Approach Functions	6	6
NOVDS	Number of Vehicle Detectors	13	13
NOPBS	Number of Pedestrian Detectors	4	4
NOAS	Number of Arterial Switches	5	5
PHSEQ1	Phase Sequence #1	ABCDE	
PHSEQ2	Phase Sequence #2	ABCDE	
PHSEQ3	Phase Sequence #3		
PHSEQ4	Phase Sequence #4		
PCRC	Memory Checksum	0x00	0x00

20/09/2018

Intersection Details

10:13:52AM

Name: M1114/CTRL **System:** SE Queensland STF
Description: Gympie and Wallace / Kuran

Configuration

Region: Metropolitan
Tags: BMTMC, Metro, VPP-Metro

Released under RTI - DTMR

Intersection Details

Name: M1114/CTLR **System:** SE Queensland STF

Description: Gympie and Wallace / Kuran

Controller Plans

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(1) Master Isolated	MI		ADE		1	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A				Yes		No
D				No		No
E				No		No
B				No		Yes
C				No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(2) NB/SB/Bi Light and Bi Medium	C	100	ADE	47	2	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	64	64	Yes		No
D	64	83	64	No		No
E	83	100	83	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(4) SB Heavy	C	150	ADE	46		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	92	92	Yes		No
D	92	132	92	No		No
E	132	150	132	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(5) Heavy Bi Directional	C	130	ADE	14	25	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	78	78	Yes		No
D	78	108	78	No		No
E	108	130	108	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes

Intersection Details

Name: M1114/CTLR **System:** SE Queensland STF

Description: Gympie and Wallace / Kuran

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(6) NB Heavy_1*	C	160	ADE	139	6	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	99	99	Yes		No
D	99	139	99	No		No
E	139	160	139	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(5) Heavy Bi Directional_1*	C	150	ADE	89		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	88	88	Yes		No
D	88	123	88	No		No
E	123	150	123	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(5) Heavy Bi Directional Lead Lag SB*	C	150	ACDB	7		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	60	60	Yes		No
C	60	85	60	No		No
D	85	125	85	No		No
B	125	150	125	No		No
E	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Allow, B, Allow, C						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(5) Heavy Bi Directional Lead Lag NB*	C	150	ABDC	14		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	60	60	Yes		No
B	60	85	60	No		No
D	85	125	85	No		No
C	125	150	125	No		No
E	1	0	0	No		Yes

Intersection Details

Name: M1114/CTLR **System:** SE Queensland STF

Description: Gympie and Wallace / Kuran

Special Features (SSF) Allow, B, Allow, C Extra Special Features (XSF)
--

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(4) SB Heavy_160	C	160	ADE	46	4	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	102	102	Yes		No
D	102	142	102	No		No
E	142	160	142	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(99) Faulty Loop	C	70	ADE	0	99	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	38	38	Yes		No
D	38	54	38	No		No
E	54	70	54	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(5) Heavy Bi Directional_1	C	140	ADE	14	5	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	88	88	Yes		No
D	88	118	88	No		No
E	118	140	118	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Plan Features

Special (SSF)

Description	Abbreviation	Offset	Bitmask
Allow B Phase Zneg	Allow B	No	0000001000000000
Allow C Phase Zpos	Allow C	No	0000000100000000

Intersection Details

Name: M1114/CTLR **System:** SE Queensland STF
Description: Gympie and Wallace / Kuran

Vehicle Detectors

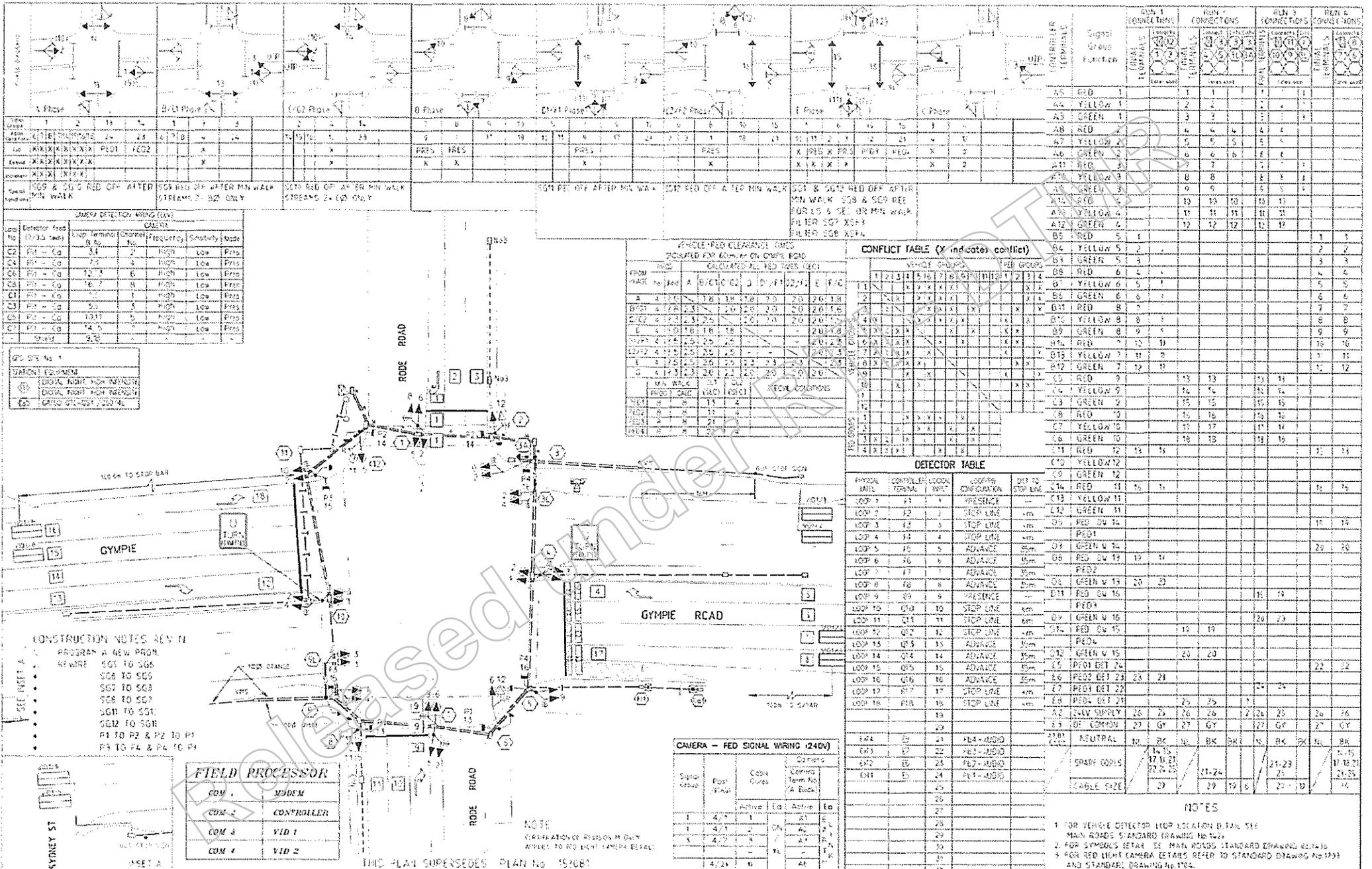
No	External Id	Description	Enabled	Build Stats	Occ Used
1	M1114/VD01	Wallace St E/B Lane 2 R/T	Yes	Yes	Yes
2	M1114/VD02	Wallace St E/B Lane 1	Yes	Yes	Yes
3	M1114/VD03	Gympie Rd S/B Lane 5 R/T	Yes	Yes	Yes
4	M1114/VD04	Gympie Rd S/B Lane 4	Yes	Yes	Yes
5	M1114/VD05	Gympie Rd S/B Lane 3	Yes	Yes	Yes
6	M1114/VD06	Gympie Rd S/B Lane 2	Yes	Yes	Yes
7	M1114/VD07	Gympie Rd S/B Lane 1 L/T	Yes	Yes	Yes
8	M1114/VD08	Kuran St W/B Lane 2 R/T	Yes	Yes	Yes
9	M1114/VD09	Kuran St W/B Lane 1	Yes	Yes	Yes
10	M1114/VD10	Gympie Rd N/B Lane 4 R/T	Yes	Yes	Yes
11	M1114/VD11	Gympie Rd N/B Lane 3	Yes	Yes	Yes
12	M1114/VD12	Gympie Rd N/B Lane 2	Yes	Yes	Yes
13	M1114/VD13	Gympie Rd N/B Lane 1	Yes	Yes	Yes

Pedestrian Detectors

No	Specified Id	Description
1	M1114/PED1	M1114/PED1 Gympie and Wallace / Kuran
2	M1114/PED2	M1114/PED2 Gympie and Wallace / Kuran
3	M1114/PED3	M1114/PED3 Gympie and Wallace / Kuran
4	M1114/PED4	M1114/PED4 Gympie and Wallace / Kuran

Movements

Description	Primary SG
Left Turn MVT from Gympie Rd NB to Wallace St WB	2
Left turn MVT from Gympie Rd SB to Kuran St EB	1
Left turn MVT from Kuran St WB to Gympie Rd SB	6
Left turn MVT from Wallace St EB to Gympie Rd NB	5
Left Turn MVT from Wallace St EB to Gympie Rd NB 2	
Right turn MVT from Gympie Rd NB to Kuran St EB	4
Right Turn MVT from Gympie Rd SB to Wallace St WB	3
Right turn MVT from Kuran St WB to Gympie Rd NB	6
Right turn MVT from Wallace St EB to Gympie Rd SB	5
Right Turn MVT from Wallace St EB to Gympie Rd SB 2	
Through MVT from Kuran St WB to Wallace St WB	6
Through MVT from Wallace St EB to Kuran St EB	5
Through MVT from Wallace St EB to Kuran St EB 2	
Through MVT on Gympie Rd NB at INT with Wallace St & Kuran St	2
Through MVT on Gympie Rd SB at INT with Wallace St & Kuran St	1
U-Turn MVT on Wallace St EB at Int with Gympie Rd Kuran St	



Revisions	Drawn	Checked	Entered	Issue Date	Revised	Allocating Org Dept	For Scheme Description	Proj. No.	Location	TRAFFIC SIGNAL INSTALLATION	Department of Transport and Main Roads	Reference No.
N/ELECT UPDATING	AM	JWT	NR	24/06/15		S08-33	BRISBANE CITY	A1	GYMPIE ROAD	YCC ECLIPSE ECH-62-16 CONTROLLER	Queensland Government	M1113
M DETAIL OF LOOP AND WIRING, ADDRESS	AM	JWA					GYMPIE ARTERIAL ROAD			OPERATIONS AND ELECTRICAL	Department of Transport and Main Roads	40 1 of 1 Drawings
K CONTROLLER UPGRADED & LAN ERTY MODIFIED	MC	MS	NR	21/10/11			GYMPIE ROAD			DATE 3/2/2015	cb No	270294
YICCP DETAILS ADDED	AM	MS		15/11/11			INTERSECTION WITH			RRID 2697	100 x 100 x 100	
REVISIONS	AM	MS		12/12/10			RODE ROAD					
MILE PLAN & SITE PLAN	AM	MS		22/2/08								

Name: M1114/CTLR **System:** SE Queensland STF
Description: Gympie and Wallace / Kuran
Enabled: True **Double Cycle:** False
Notes: File:517/00194 870/00127

17/02/10: New Plan 5: 130 sec.
02/10/2006: Mods to B & C Phases due to high Number of Ped operation in Phase B.
26/04/2006: Bus priority data removed all plans
16/11/05: Base data audited OK plan 302734d, DSF
14/06/98: Controller changeover to PSC
17/05/99: Phase changed Prom Ser No1347 E
of 18/03/99,Plan 302734A
14/12/99: Additional time provided to B Ph PL 2, 6, 7 & 12(Re representation by Mr T Sullivan of 3/12/99)
12/09/01: PL4 offsets adjusted 10 sec earlier for coord
24/10/01: Adjusted offsets Plans 2, 3 &,SK
26/10/01: Changed offset PL9. SK
19/11/01: Changed offset PL5.Took PL10 off TOD.SK
04/01/02: Changed offset PL5. SK
08/05/02: EPROM installed to allow bi-dir coordination through Sparkes Ped X-ing.SK
16/05/02: Data changed to allow bi-dir coord.SK
08/05/03: Install min green times for SGs 10 & 11. Adjust offsets to suit new eprom. SK
11/04/03: Moved PL9 to PL6. Created Saturday Entry PL9 and Exit,PL10. SK
20/06/03: Add 71 secs to offset PL3 to help co-ord M1103 with Stafford Rd PL 2 & 8. SK
30/3/05: dsf,adjusted q+- for plan 5 to match sb mediu

Controller & Connection

Model: Eclipse **Firmware:** TRAFF
Owner: DMR - Metropolitan Region **Transport:** serial
Connected To: M1114/FP **Protocol Framing:** None
Trans Cyc. Min: 69 **Network Address:**
Phase Intervention: Yes **Port:** 2 **Baud:** 1200

Intersection Groups

Name	Description	Enable
BNE - Gympie_Rc	GYMPIE RD - Kedron Park to Murphy	Yes
BNE - Gympie Rd	GYMPIE RD - (Westfield Xmas 24HR Shopping)	Yes

Definition Data

Mnemonic	Description	User Value	Controller Value
INTNUM	Intersection Number (IEN)	1114	1114
REVISN	Personality Revision Number	A	A
NOPH	Number of Phases	5	5
STARPH	Starting Phase	A	A
NOVSG	Number of Vehicle Signal Groups	6	6
NOPSG	Number of Pedestrian Signal Groups	4	4
NOAPPS	Number of Approach Functions	6	6
NOVDS	Number of Vehicle Detectors	13	13
NOPBS	Number of Pedestrian Detectors	4	4
NOAS	Number of Arterial Switches	5	5
PHSEQ1	Phase Sequence #1	ABCDE	
PHSEQ2	Phase Sequence #2	ABCDE	
PHSEQ3	Phase Sequence #3		
PHSEQ4	Phase Sequence #4		
PCRC	Memory Checksum	0x00	0x00

Intersection Details

Name: M1114/CLR **System:** SE Queensland STF

Description: Gympie and Wallace / Kuran

Configuration

Region: Metropolitan

Tags: BMTMC, Metro, VPP-Metro

Released under RTI - DTMR

Intersection Details

Name: M1114/CTLR

System:

SE Queensland STR

Description: Gympie and Wallace / Kuran

Controller Plans

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(1) Master Isolated	MI		ADE		1	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A				Yes		No
D				No		No
E				No		No
B				No		Yes
C				No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(2) NB/SB/Bi Light and Bi Medium	C	100	ADE	47	2	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	64	64	Yes		No
D	64	83	64	No		No
E	83	100	83	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(4) SB Heavy	C	150	ADE	46		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	92	92	Yes		No
D	92	132	92	No		No
E	132	150	132	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(5) Heavy Bi Directional	C	130	ADE	14	25	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	78	78	Yes		No
D	78	108	78	No		No
E	108	130	108	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes

Intersection Details

Name: M1114/CTLR **System:** SE Queensland STR

Description: Gympie and Wallace / Kuran

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(6) NB Heavy_1*	C	160	ADE	139	6	
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	99	99	Yes		No
D	99	139	99	No		No
E	139	160	139	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(5) Heavy Bi Directional_1*	C	150	ADE	89		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	88	88	Yes		No
D	88	123	88	No		No
E	123	150	123	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(5) Heavy Bi Directional Lead Lag SB*	C	150	ACDB	7		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	60	60	Yes		No
C	60	85	60	No		No
D	85	125	85	No		No
B	125	150	125	No		No
E	1	0	0	No		Yes
<hr/>						
Special Features (SSF)						
Allow, B, Allow, C						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(5) Heavy Bi Directional Lead Lag NB*	C	150	ABDC	14		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	60	60	Yes		No
B	60	85	60	No		No
D	85	125	85	No		No
C	125	150	125	No		No
E	1	0	0	No		Yes

Intersection Details

Name: M1114/CTLR **System:** SE Queensland STR

Description: Gympie and Wallace / Kuran

Special Features (SSF) Allow; B, Allow, C Extra Special Features (XSF)
--

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(4) SB Heavy_160	C	160	ADE	46	4	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	102	102	Yes		No
D	102	142	102	No		No
E	142	160	142	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(99) Faulty Loop	C	70	ADE	0	99	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	38	38	Yes		No
D	38	54	38	No		No
E	54	70	54	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1114 Plan(5) Heavy Bi Directional_1	C	140	ADE	14	5	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	88	88	Yes		No
D	88	118	88	No		No
E	118	140	118	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Plan Features

Special (SSF)

Description	Abbreviation	Offset	Bitmask
Allow B Phase Zneg	Allow B	No	0000001000000000
Allow C Phase Zpos	Allow C	No	0000000100000000

Intersection Details

Name: M1114/CTLR System: SE Queensland STR

Description: Gympie and Wallace / Kuran

Vehicle Detectors

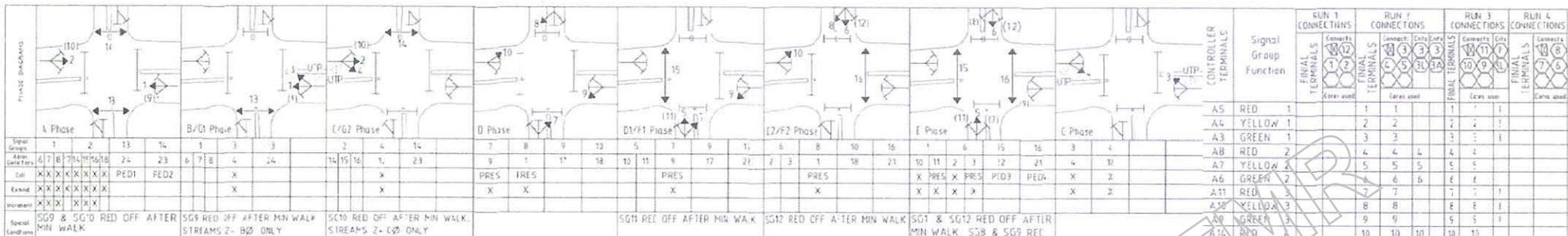
No	External Id	Description	Enabled	Build Stats	Occ Used
1	M1114/VD01	Wallace St E/B Lane 2 R/T	Yes	Yes	Yes
2	M1114/VD02	Wallace St E/B Lane 1	Yes	Yes	Yes
3	M1114/VD03	Gympie Rd S/B Lane 5 R/T	Yes	Yes	Yes
4	M1114/VD04	Gympie Rd S/B Lane 4	Yes	Yes	Yes
5	M1114/VD05	Gympie Rd S/B Lane 3	Yes	Yes	Yes
6	M1114/VD06	Gympie Rd S/B Lane 2	Yes	Yes	Yes
7	M1114/VD07	Gympie Rd S/B Lane 1 L/T	Yes	Yes	Yes
8	M1114/VD08	Kuran St W/B Lane 2 R/T	Yes	Yes	Yes
9	M1114/VD09	Kuran St W/B Lane 1	Yes	Yes	Yes
10	M1114/VD10	Gympie Rd N/B Lane 4 R/T	Yes	Yes	Yes
11	M1114/VD11	Gympie Rd N/B Lane 3	Yes	Yes	Yes
12	M1114/VD12	Gympie Rd N/B Lane 2	Yes	Yes	Yes
13	M1114/VD13	Gympie Rd N/B Lane 1	Yes	Yes	Yes

Pedestrian Detectors

No	Specified Id	Description
1	M1114/PED1	M1114/PED1 Gympie and Wallace / Kuran
2	M1114/PED2	M1114/PED2 Gympie and Wallace / Kuran
3	M1114/PED3	M1114/PED3 Gympie and Wallace / Kuran
4	M1114/PED4	M1114/PED4 Gympie and Wallace / Kuran

Movements

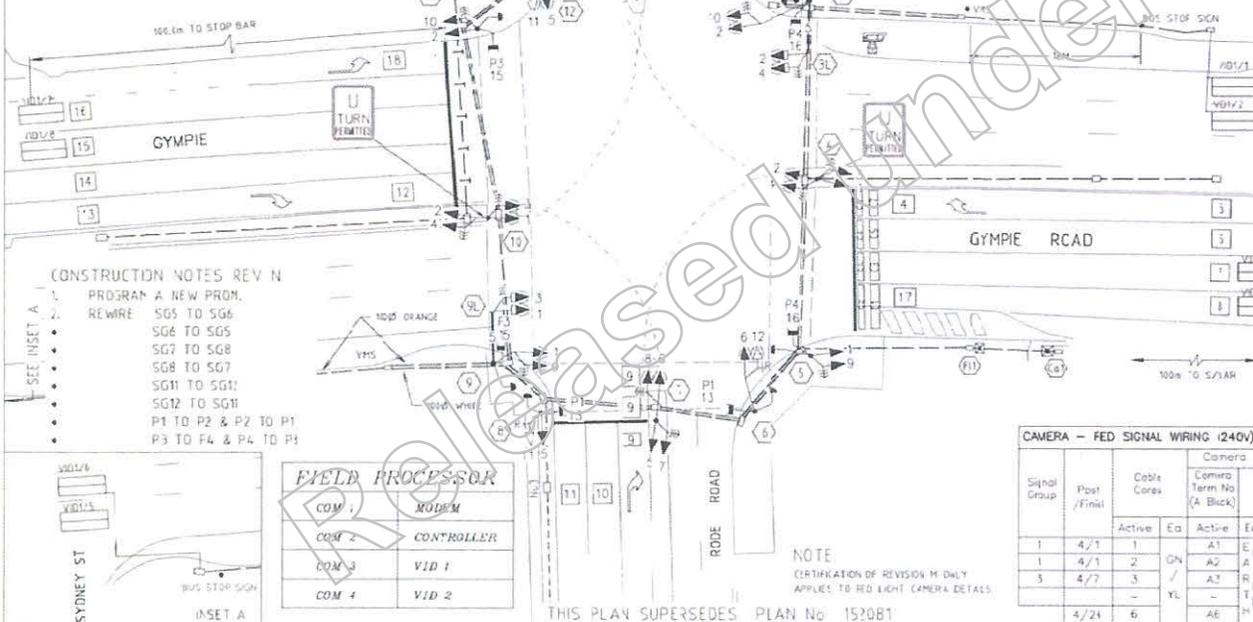
Description	Primary SG
Left Turn MVT from Gympie Rd NB to Wallace St WB	2
Left turn MVT from Gympie Rd SB to Kuran St EB	1
Left turn MVT from Kuran St WB to Gympie Rd SB	6
Left turn MVT from Wallace St EB to Gympie Rd NB	5
Left Turn MVT from Wallace St EB to Gympie Rd NB 2	
Right turn MVT from Gympie Rd NB to Kuran St EB	4
Right Turn MVT from Gympie Rd SB to Wallace St WB	3
Right turn MVT from Kuran St WB to Gympie Rd NB	6
Right turn MVT from Wallace St EB to Gympie Rd SB	5
Right Turn MVT from Wallace St EB to Gympie Rd SB 2	
Through MVT from Kuran St WB to Wallace St WB	6
Through MVT from Wallace St EB to Kuran St EB	5
Through MVT from Wallace St EB to Kuran St EB 2	
Through MVT on Gympie Rd NB at INT with Wallace St & Kuran St	2
Through MVT on Gympie Rd SB at INT with Wallace St & Kuran St	1
U-Turn MVT on Wallace St EB at Int with Gympie Rd Kuran St	



Loop No	Detector Feed (7/3.5 twin)	Loop Terminal B No	Channel No	Frequency	Sensitivity	Mode
C2	Pit - Ca	3,1	2	High	Low	Press
C4	Pit - Ca	7,3	4	High	Low	Press
C6	Pit - Ca	12,3	6	High	Low	Press
C8	Pit - Ca	16,7	8	High	Low	Press
C1	Pit - Ca	1,1	1	High	Low	Press
C3	Pit - Ca	5,3	3	High	Low	Press
C5	Pit - Ca	10,1	5	High	Low	Press
C7	Pit - Ca	14,5	7	High	Low	Press
-	Shield	9,16	-	-	-	-

QPS SITE No. 1

STATION	EQUIPMENT
15	DIGITAL NIGHT, HIGH INTENSITY
16	DIGITAL NIGHT, HIGH INTENSITY
17	CATS5 GC1-GC7 / C50/4L



Revisions	Drawn	Checked	Certified	Issue Date	Revised
N EWP UPDATE	A1	SWT	NR	2/7/02/15	
M DETAILS OF COOP AIDIT OF 16/10/01. ADDED	A.M	ROA			
L COOP PROJECT	A.M	ROA			
K CONTROLLER UPGRADED & LAN/EMS MODIFIED (5/6/12)	MJ	MJS	NR	2/1/10/12	
J CCTV DETAILS ADDED (23/8/10)	A1	GRS		1/2/8/10	16/12/10
I INBOUND & OUTBOUND SIGNALS	MJS			16/4/18	
H LED UPGRADE & SIGN (3A) ADDED (30/12/08)	A.M	MJS		16/2/08	

CAMERA DETECTION WIRING (ELV)

Loop No	Detector Feed (7/3.5 twin)	Loop Terminal B No	Channel No	Frequency	Sensitivity	Mode
C2	Pit - Ca	3,1	2	High	Low	Press
C4	Pit - Ca	7,3	4	High	Low	Press
C6	Pit - Ca	12,3	6	High	Low	Press
C8	Pit - Ca	16,7	8	High	Low	Press
C1	Pit - Ca	1,1	1	High	Low	Press
C3	Pit - Ca	5,3	3	High	Low	Press
C5	Pit - Ca	10,1	5	High	Low	Press
C7	Pit - Ca	14,5	7	High	Low	Press
-	Shield	9,16	-	-	-	-

VEHICLE/PED CLEARANCE TIMES

CALCULATED FOR 60km/hr ON DUMPIE ROAD

CALCULATED ALL PED TIMES (SEC)

FROM PHASE	Red	A	B/G1	C/G2	D	D/F1	D2/F2	E	F/G
A	4	2.0	1.8	1.8	1.8	2.0	2.0	2.0	1.8
B/G1	4	2.8	2.3	2.0	2.0	2.0	2.0	2.0	1.6
C/G2	4	2.3	2.3	2.5	2.0	2.0	2.0	2.0	1.5
D	4	2.0	1.8	1.8	1.8	-	-	2.0	1.8
D1/F1	4	2.5	2.5	2.5	2.5	-	-	2.0	2.3
D2/F2	4	2.5	2.5	2.5	2.5	-	-	2.0	2.3
E	4	2.5	2.5	2.5	2.3	2.3	2.3	2.3	2.3
G	4	2.3	2.3	2.0	2.3	2.0	2.0	2.0	2.0

CONFLICT TABLE (X indicates conflict)

FROM PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1	X											
2		X										
3			X									
4				X								
5					X							
6						X						
7							X					
8								X				
9									X			
10										X		
11											X	
12												X

DETECTOR TABLE

PHYSICAL LABEL	CONTROLLER TERMINAL	LOGICAL INPUT	LOOP/PH CONFIGURATION	DET TO STOP LINE
LOOP 1	F1	1	PRESENCE	-
LOOP 2	F2	2	STOP LINE	+4m
LOOP 3	F3	3	STOP LINE	+4m
LOOP 4	F4	4	STOP LINE	+4m
LOOP 5	F5	5	ADVANCE	35m
LOOP 6	F6	6	ADVANCE	35m
LOOP 7	F7	7	ADVANCE	35m
LOOP 8	F8	8	ADVANCE	25m
LOOP 9	F9	9	PRESENCE	-
LOOP 10	F10	10	STOP LINE	6m
LOOP 11	F11	11	STOP LINE	6m
LOOP 12	F12	12	STOP LINE	+4m
LOOP 13	F13	13	ADVANCE	35m
LOOP 14	F14	14	ADVANCE	35m
LOOP 15	F15	15	ADVANCE	35m
LOOP 16	F16	16	ADVANCE	35m
LOOP 17	F17	17	STOP LINE	+4m
LOOP 18	F18	18	STOP LINE	+4m

CAMERA - FED SIGNAL WIRING (240V)

Signal Group	Post / Terminal	Cable Cores	Camera Term No (A-Block)	Active	Ea	Active	Ea
1	4/1	1	A1			AL	A
1	4/1	2	GN			AL	R
3	4/7	3	/			YL	N
							X
4/24	6		AE				H

NOTES

- FOR VEHICLE DETECTOR LOOP LOCATION DETAIL SEE MAIN ROADS STANDARD DRAWING No.1476
- FOR SYMBOLS DETAIL SEE MAIN ROADS STANDARD DRAWING No.1436
- FOR RED LIGHT CAMERA DETAILS REFER TO STANDARD DRAWING No.1709 AND STANDARD DRAWING No.1704.

BRISBANE CITY

GYMPIE ARTERIAL ROAD

GYMPIE ROAD INTERSECTION WITH RODE ROAD

TRAFFIC SIGNAL INSTALLATION

TYCC ECLIPSE EC1-62-16 CONROLLER OPERATIONS AND ELECTRICAL

Queensland Government

Department of Transport and Main Roads

Job No: 140 / 014 / 126

Reference No: M1113

No 1 of 1 Drawings

Drawing No: 270294

Job Date: 7/4/98

REP: Q 2507

Scale: 0 2 4 6 8 10m

Page 188 of 222

Name: M1113/CTLR **System:** SE Queensland STF
Description: Gympie and Rode
Enabled: True **Double Cycle:** False
Notes: File:517/00193 870/00137

05-06-12: Controller upgraded to Eclipse
 14-10-10: Added another 2+ seconds to A phase 2- of C phase. Changes made in the afternoon don't use today's data.

13-10-10 Plan 6 PM peak modified to check new timing effects on the throughput.

17/02/10: New Plan 5: 130 sec.
 26 April 2006: Bus priority data removed all plans
 07/12/97: Installed Prom Ser No 97069669D of 03/9/97 : providing additional phase with Alt lap features in Ph B & D and single dets
 24/10/01: Adjusted offsets Plans 2,3,4.SK
 26/10/01: Changed offset PL9. SK
 19/11/01: Changed offset PL5. Took PI 10 off TOD. SK
 04/01/02: Changed offset PL5. SK
 18/10/02: Add 12 secs to offset PL2. SK
 08/05/03: Remove L/T SGs 11 & 12 from D/D1/D2.SK
 20/06/03: Add 71 secs to offset PL3 to help co-ord M1103 with Stafford Rd PL 2 & 8. SK
 24/06/04: 10sec off end of A Ph to D Ph PI 3 - 6,7,9,10,12
 5sec in PI 2 (Opening of ALDI s'market increased demand for Turn

Controller & Connection

Model: Eclipse **Firmware:** TRAFF
Owner: DMR - Metropolitan Region **Transport:** serial
Connected To: M1113/FP **Protocol Framing:** None
Trans Cyc. Min: 79 **Network Address:**
Phase Intervention: Yes **Port:** 2 **Baud:** 1200

Intersection Groups

Name	Description	Enable
BNE - Gympie_Rc	GYMPIE RD - Kedron Park to Murphy	Yes

Definition Data

Mnemonic	Description	User Value	Controller Value
INTNUM	Intersection Number (IEN)	1113	1113
REVISN	Personality Revision Number	A	A
NOPH	Number of Phases	7	7
STARPH	Starting Phase	A	A
NOVSG	Number of Vehicle Signal Groups	12	12
NOPSG	Number of Pedestrian Signal Groups	4	4
NOAPPS	Number of Approach Functions	8	8
NOVDS	Number of Vehicle Detectors	18	18
NOPBS	Number of Pedestrian Detectors	4	4
NOAS	Number of Arterial Switches	7	7
PHSEQ1	Phase Sequence #1	ABCDEFGF	
PHSEQ2	Phase Sequence #2	ABCDEFGF	
PHSEQ3	Phase Sequence #3		
PHSEQ4	Phase Sequence #4		
PCRC	Memory Checksum	0xd2	0xd2

Configuration

Region: Metropolitan
Tags: BMTMC, Metro, RLC, VPP-Metro

Intersection Details

Name: M1113/CTLR **System:** SE Queensland STF
Description: Gympie and Rode

Controller Plans

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1113 Plan(1) Master Isolated	MI		ADEG		1	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A				Yes		No
D				No		No
E				No		No
G				No		No
B				No		Yes
C				No		Yes
F				No		Yes
Special Features (SSF)						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1113 Plan(2) NB/SB/Bi Light and Bi Medium	C	100	ADEG	53	2	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	50	50	Yes		No
D	50	64	50	No		No
E	64	80	64	No		No
G	80	100	80	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
F	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1113 Plan(4) SB Heavy	C	150	ADEG	89		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	75	75	Yes		No
D	75	89	75	No		No
E	89	125	89	No		No
G	125	150	125	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
F	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1113 Plan(5) Heavy Bi Directional	C	130	ADEG	19	25	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	54	54	Yes		No

Intersection Details

Name: M1113/CTLR **System:** SE Queensland STR

Description: Gympie and Rode

D	54	70	54	No	No
E	70	107	70	No	No
G	107	130	107	No	No
B	1	0	0	No	Yes
C	1	0	0	No	Yes
F	1	0	0	No	Yes

Special Features (SSF)

Extra Special Features (XSF)
SG7, Filter, SG8, Filter

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1113 Plan(6) NB Heavy_1*	C	160	ADEG	122	6

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	96	96	Yes		No
D	96	112	96	No		No
E	112	133	112	No		No
G	133	160	133	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
F	1	0	0	No		Yes

Special Features (SSF)

Extra Special Features (XSF)
SG7, Filter, SG8, Filter

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1113 Plan(5) Heavy Bi Directional_1*	C	150	ADEG	51	

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	70	70	Yes		No
D	70	88	70	No		No
E	88	125	88	No		No
G	125	150	125	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
F	1	0	0	No		Yes

Special Features (SSF)

Extra Special Features (XSF)
SG7, Filter, SG8, Filter

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1113 Plan(5) Heavy Bi Directional_Lead Lag*SB*	C	150	ACDEB	113	

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	46	46	Yes		No
C	46	71	46	No		No
D	71	87	71	No		No
E	87	124	87	No		No
B	124	150	124	No		No
F	1	0	0	No		Yes
G	1	0	0	No		Yes

Intersection Details

Name: M1113/CTLR

System: SE Queensland STF

Description: Gympie and Rode

Special Features (SSF) Allow, B, Allow, C
Extra Special Features (XSF) SG7, Filter, SG8, Filter

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1113 Plan(5) Heavy Bi Directional_Lead Lag*NB*	C	150	ABDEC	7		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	46	46	Yes		No
B	46	71	46	No		No
D	71	87	71	No		No
E	87	124	87	No		No
C	124	150	124	No		No
F	1	0	0	No		Yes
G	1	0	0	No		Yes
<hr/>						
Special Features (SSF) Allow, B, Allow, C						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1113 Plan(5) Heavy Bi Directional_test lead lag	C	130	ABDEC	42		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	31	31	Yes		No
B	31	54	48	No		No
D	54	70	54	No		No
E	70	107	70	No		No
C	107	130	107	No		No
F	1	0	0	No		Yes
G	1	0	0	No		Yes
<hr/>						
Special Features (SSF) Allow, B, Allow, C						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1113 Plan(5) Heavy Bi Directional_test lead lag_1	C	130	ACDEB	19		
<hr/>						
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	31	31	Yes		No
C	31	54	48	No		No
D	54	70	54	No		No
E	70	107	70	No		No
B	107	130	107	No		No
F	1	0	0	No		Yes
G	1	0	0	No		Yes
<hr/>						
Special Features (SSF) Allow, B, Allow, C						
Extra Special Features (XSF) SG7, Filter, SG8, Filter						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1113 Plan(4) SB Heavy_160	C	160	ADEG	89	4

Intersection Details

Name: M1113/CTLR **System:** SE Queensland STR

Description: Gympie and Rode

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	81	81	Yes		No
D	81	99	81	No		No
E	99	135	99	No		No
G	135	160	135	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
F	1	0	0	No		Yes

Special Features (SSF)

Extra Special Features (XSF)
SG7, Filter, SG8, Filter

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1113 Plan(41) BMTMC PM Peak Rode Rd EB Flush	C	160	ADEG	122	41

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	70	70	Yes		No
D	70	86	70	No		No
E	86	133	86	No		No
G	133	160	133	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
F	1	0	0	No		Yes

Special Features (SSF)

Extra Special Features (XSF)
SG7, Filter, SG8, Filter

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1113 Plan(42) BMTMC OFF Peak Rode Rd EB Flush	C	130	ADEG	19	42

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	50	50	Yes		No
D	50	66	50	No		No
E	66	107	66	No		No
G	107	130	107	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
F	1	0	0	No		Yes

Special Features (SSF)

Extra Special Features (XSF)
SG7, Filter, SG8, Filter

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1113 Plan(43) BMTMC AM Peak SB DIVERSION via Rode Rd	C	160	ADEG	156	43

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	56	56	Yes		No
D	56	74	56	No		No
E	74	135	74	No		No
G	135	160	135	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
F	1	0	0	No		Yes

Intersection Details

Name: M1113/CTLR **System:** SE Queensland STR

Description: Gympie and Rode

Special Features (SSF)
Extra Special Features (XSF) SG7, Filter, SG8, Filter

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1113 Plan(44) BMTMC OFF Peak SB DIVERSION via Rode Rr C	C	130	ADEG	128	44

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	50	50	Yes		No
D	50	66	50	No		No
E	66	107	66	No		No
G	107	130	107	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
F	1	0	0	No		Yes

Special Features (SSF)
Extra Special Features (XSF) SG7, Filter, SG8, Filter

Name	Mode	Cycle Time	Sequence	Offset	Plan No.
1113 Plan(5) Heavy Bi Directional_1	C	140	ADEG	19	5

Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	64	64	Yes		No
D	64	80	64	No		No
E	80	117	80	No		No
G	117	140	117	No		No
B	1	0	0	No		Yes
C	1	0	0	No		Yes
F	1	0	0	No		Yes

Special Features (SSF)
Extra Special Features (XSF) SG7, Filter, SG8, Filter

Plan Features

Special (SSF)

Description	Abbreviation	Offset	Bitmask
Allow B Phase Zneg	Allow B	No	0000001000000000
Allow C Phase Zpos	Allow C	No	0000000100000000

Extra Special (XSF)

Description	Abbreviation	Offset	Bitmask
Allow Filter SG7 XSF3	SG7 Filter	No	0000000000000100
Allow Filter SG8 XSF4	SG8 Filter	No	0000000000001000

Intersection Details

Name: M1113/CTLR

System:

SE Queensland STR

Description: Gympie and Rode

Vehicle Detectors

No	External Id	Description	Enabled	Build Stats	Occ Used
1	M1113/VD01	Rode Rd E/B Lane 3 R/T (Pres)	Yes	Yes	Yes
2	M1113/VD02	Rode Rd E/B Lane 2	Yes	Yes	Yes
3	M1113/VD03	Rode Rd E/B Lane 1	Yes	Yes	Yes
4	M1113/VD04	Gympie Rd S/B Lane 4 R/T	Yes	Yes	Yes
5	M1113/VD05	Gympie Rd S/B Lane 4 R/T (Advance)	Yes	Yes	Yes
6	M1113/VD06	Gympie Rd S/B Lane 3	Yes	Yes	Yes
7	M1113/VD07	Gympie Rd S/B Lane 2	Yes	Yes	Yes
8	M1113/VD08	Gympie Rd S/B Lane 1	Yes	Yes	Yes
9	M1113/VD09	Rode Rd W/B Lane 3 R/T (Pres)	Yes	Yes	Yes
10	M1113/VD10	Rode Rd W/B Lane 2	Yes	Yes	Yes
11	M1113/VD11	Rode Rd W/B Lane 1	Yes	Yes	Yes
12	M1113/VD12	Gympie Rd N/B Lane 4 R/T	Yes	Yes	Yes
13	M1113/VD13	Gympie Rd N/B Lane 4 R/T (Advance)	Yes	Yes	Yes
14	M1113/VD14	Gympie Rd N/B Lane 3	Yes	Yes	Yes
15	M1113/VD15	Gympie Rd N/B Lane 2	Yes	Yes	Yes
16	M1113/VD16	Gympie Rd N/B Lane 1	Yes	Yes	Yes
17	M1113/VD17	Gympie Rd S/B Lane 1 L/T	Yes	Yes	Yes
18	M1113/VD18	Gympie Rd N/B Lane 1 L/T	Yes	Yes	Yes

Pedestrian Detectors

No	Specified Id	Description
1	M1113/PED1	M1113/PED1 Gympie and Rode
2	M1113/PED2	M1113/PED2 Gympie and Rode
3	M1113/PED3	M1113/PED3 Gympie and Rode
4	M1113/PED4	M1113/PED4 Gympie and Rode

Movements

Description	Primary SG
Left Turn MVT from Gympie Rd NB to Rode Rd WB	10
Left turn MVT from Gympie Rd SB to Rode Rd EB	9
Left Turn MVT from Rode Rd EB to Gympie Rd NB	12
Left turn MVT from Rode Rd WB to Gympie Rd SB	11
Right turn MVT from Gympie Rd NB to Rode Rd EB	4
Right Turn MVT from Gympie Rd SB to Rode Rd WB	3
Right Turn MVT from Rode Rd EB to Gympie Rd SB	8
Right turn MVT from Rode Rd WB to Gympie Rd NB	7
Through MVT on Gympie Rd NB at INT with Rode Rd	2
Through MVT on Gympie Rd SB at INT with Rode Rd	1
Through MVT on Rode Rd EB at Int with Gympie Rd	6
Through MVT on Rode Rd WB at Int with Gympie Rd	5

Intersection Details

Name: M1108/CTLR **System:** SE Queensland STF
Description: Gympie and Strathmore / Castle
Enabled: True **Double Cycle:** False
Notes: File:517/00191 870/00115

Maintained by RoadTek since early 2018

17/02/10: New Plan 5: 130 sec.

6/2/12 Plan 6 b phase pulse to 58 from 65
 June 2006 Plan 6 Phase A minus 2 Phase B plus 2
 26 April 2006 Bus priority data removed all plans
 7 Feb 2006 Mods to Phase B due to no R/T at Leckie
 16/11/05 Base data audited OK plan 222268I DSF
 Detectors separated 15/04/96.

07/06/98: Controller changeover to PSC
 Prom Ser No 97069670 D dated 19/5/98
 24/10/01: Adjusted offsets Plans 2,3,4. SK
 26/10/01: Changed offset PL9. SK
 19/11/01: Changed offset PL5. Took PL10 off TOD. SK
 04/01/02: Changed offset PL5. SK
 21/01/02: Offset add 8 secs PL5. SK
 28/02/02: Co-Fixed PL9. SK
 12/12/02: New EPROM. Ped times changed. SK
 11/04/03: Moved PL9 to PL6. Created Saturday Entry PL9 and Exit
 PL10. SK
 20/06/03: Add 71 secs to offset PL3 to help co-ord M1103 with St
 afford Rd PL 2 & 8. S

Controller & Connection

Model: PSC **Firmware:** TRAFF
Owner: DMR - Metropolitan Region **Transport:** serial
Connected To: M1108/FP **Protocol Framing:** None
Trans Cyc. Min: 59 **Network Address:**
Phase Intervention: Yes **Port:** 2 **Baud:** 1200

Intersection Groups

Name	Description	Enable
BNE - Gympie_Rc	GYMPIE RD - Kedron Park to Murphy	Yes

Definition Data

Mnemonic	Description	User Value	Controller Value
INTNUM	Intersection Number (iEN)	1108	1108
REVISN	Personality Revision Number	A	A
NOPH	Number of Phases	7	7
STARPH	Starting Phase	A	A
NOVSG	Number of Vehicle Signal Groups	11	11
NOPSG	Number of Pedestrian Signal Groups	4	4
NOAPPS	Number of Approach Functions	10	10
NOVDS	Number of Vehicle Detectors	17	17
NOPBS	Number of Pedestrian Detectors	4	4
NOAS	Number of Arterial Switches	7	7
PHSEQ1	Phase Sequence #1	ABCDEF	ABCDEF
PHSEQ2	Phase Sequence #2	ABCDEF	ABCDEF
PHSEQ3	Phase Sequence #3		
PHSEQ4	Phase Sequence #4		
PCRC	Memory Checksum	0x79	0x79

Intersection Details

Name: M1108/CTLR **System:** SE Queensland STF
Description: Gympie and Strathmore / Castle

Configuration

Region: Metropolitan
Tags: BMTMC, Metro, VPP-Metro

Released under RTI - DTMR

Intersection Details

Name: M1108/CTLR System: SE Queensland STR

Description: Gympie and Strathmore / Castle

Controller Plans

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1108 Plan(1) Master Isolated	MI		ABCDG		1	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A				Yes		No
B				No		No
C				No		No
D				No		No
G				No		No
E				No		Yes
F				No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1108 Plan(2) NB/SB/Bi Light and Bi Medium	C	100	ABCDG	92	2	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	40	40	Yes		No
B	40	55	50	No		No
C	55	70	55	No		No
D	70	85	70	No		No
G	85	100	85	No		No
E	1	0	0	No		Yes
F	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1108 Plan(5) Heavy Bi Directional	C	130	ABCDG	87	25	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	48	48	Yes		No
B	48	68	48	No		No
C	68	84	68	No		No
D	84	108	84	No		No
G	108	130	108	No		No
E	1	0	0	No		Yes
F	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1108 Plan(6) NB Heavy_1*	C	160	ABCDG	80	6	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	68	68	Yes		No

Intersection Details

Name: M1108/CTLR **System:** SE Queensland STR

Description: Gympie and Strathmore / Castle

B	68	95	90	No	No
C	95	110	95	No	No
D	110	135	110	No	No
G	135	160	135	No	No
E	1	0	0	No	Yes
F	1	0	0	No	Yes
Special Features (SSF)					
Extra Special Features (XSF)					

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1108 Plan(4) SB Heavy_160	C	160	AGCDB	142	4	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	76	76	Yes		No
G	76	96	95	No		No
C	96	116	96	No		No
D	116	140	116	No		No
B	140	160	140	No		No
E	1	0	0	No		Yes
F	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1108 Plan(4) SB Heavy_160_1	C	160	ADCB	142	54	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	40	40	Yes		No
D	40	80	80	No		No
C	80	120	120	No		No
B	120	160	160	No		No
E	1	0	0	No		Yes
F	1	0	0	No		Yes
G	1	0	0	No		Yes
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1108 Plan(5) Heavy Bi Directional_11	C	140	ABCDG	87	5	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	58	58	Yes		No
B	58	78	58	No		No
C	78	94	78	No		No
D	94	118	94	No		No
G	118	140	118	No		No
E	1	0	0	No		Yes
F	1	0	0	No		Yes

Intersection Details

Name: M1108/CTLR **System:** SE Queensland STF

Description: Gympie and Strathmore / Castle

Special Features (SSF)
Extra Special Features (XSF)

Plan Features

Description	Abbreviation	Offset	Bitmask
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Released under RTI - DTMR

Intersection Details

Name: M1108/CTLR

System:

SE Queensland STR

Description: Gympie and Strathmore / Castle

Vehicle Detectors

No	External Id	Description	Enabled	Build Stats	Occ Used
1	M1108/VD01	Gympie Rd N/B Lane 5 R/T	Yes	Yes	Yes
2	M1108/VD02	Gympie Rd N/B Lane 4	Yes	Yes	Yes
3	M1108/VD03	Gympie Rd N/B Lane 3	Yes	Yes	Yes
4	M1108/VD04	Gympie Rd N/B Lane 2	Yes	Yes	Yes
5	M1108/VD05	Gympie Rd N/B Lane 1 L/T	Yes	Yes	Yes
6	M1108/VD06	Strathmore St E/B Lane 3 R/T	Yes	Yes	Yes
7	M1108/VD07	Strathmore St E/B Lane 2	Yes	Yes	Yes
8	M1108/VD08	Strathmore St E/B Lane 1 LT	Yes	Yes	Yes
9	M1108/VD09	Gympie Rd S/B Lane 5 R/T	Yes	Yes	Yes
10	M1108/VD10	Gympie Rd S/B Lane 4	Yes	Yes	Yes
11	M1108/VD11	Gympie Rd S/B Lane 3	Yes	Yes	Yes
12	M1108/VD12	Gympie Rd S/B Lane 2	Yes	Yes	Yes
13	M1108/VD13	Gympie Rd S/B Lane 1 L/T	Yes	Yes	Yes
14	M1108/VD14	Castle St W/B Lane 2 R/T	Yes	Yes	Yes
15	M1108/VD15	Castle St W/B Lane 1	Yes	Yes	Yes
16	M1108/VD16	Strathmore St W/B Lane 1 depart	Yes	Yes	Yes
17	M1108/VD17	Castle St E/B Lane 1 Depart	Yes	Yes	Yes

Pedestrian Detectors

No	Specified Id	Description
1	M1108/PED1	M1108/PED1 Gympie, Strathmore and Castle
2	M1108/PED2	M1108/PED2 Gympie, Strathmore and Castle
3	M1108/PED3	M1108/PED3 Gympie, Strathmore and Castle
4	M1108/PED4	M1108/PED4 Gympie, Strathmore and Castle

Movements

Description	Primary SG
Left MVT on Gympie Rd SB at INT with Castle St & Strathmore S	9
Left Turn MVT from Castle St WB to Gympie Rd SB 2	6
Left Turn MVT from Gympie Rd NB to Strathmore St WB	10
Left turn MVT from Strathmore S EB to Gympie Rd NB	11
Right turn MVT from Castle St WB to Gympie Rd NB	8
Right Turn MVT from Gympie Rd NB to Castle St EB	4
Right turn MVT from Gympie Rd SB to Strathmore S WB	3
Right Turn MVT from Strathmore St EB to Gympie Rd SB	7
Through MVT on Castle St WB at INT with Gympie Rd & Strathmore S	6
Through MVT on Gympie Rd NB at Int with Castle St	2
Through MVT on Gympie Rd SB at Int with Castle St Strathmore St	1
Through MVT on Strathmore S EB at INT with Gympie Rd & Castle St	5

Intersection Details

Name: M1107/CTLR **System:** SE Queensland STR
Description: Gympie and Sadlier
Enabled: True **Double Cycle:** False
Notes: File:517/00191 870/00952

3/5/2018: Modified for "Ped Protection"

23/10/12: new prom installed 4 ph to 3ph

10/5/12: version with bus signals installed.

24/4/12: intersection reinstated at Sadlier

2/10/11: Temp modified to Ped xing at Cremorne Rd

17/02/10: New Plan 5: 130 sec.

Alt Ph Seq ADCB NO Releases on B Phase
31 March 2008

This intersection has an intersection schedule to force intersection to isolated after hours until 1 July 2010 7:00pm to 5:45am 7 days a week

6 June 2006

For improved access to Sadlier St O/B R/T all 120 sec plans Phase A minus 5 Phase D plus 5

150am Phase A minus 5 Phase D plus 5

150pm Phase A minus 10 Phase D plus 10

150sat Phase A minus 10 Phase D plus 10

5 June 2006

This intersection has an intersection schedule to force intersection to isolated after hours until 30 June 2008 7:00pm to 5:45am 7 days a week

5 April 2006

Plan 2 CT 100 mode changed from coord to isolated

7 Feb 2006

Mods to Phase D due to no R/T at Leckie,

16/11/05 Base data audited OK plan 356920a

DSF no comms till switch on

Switched On: 09/10/0

Controller & Connection

Model: PSC **Firmware:** TRAFF
Owner: DMR - Metropolitan Region **Transport:** serial
Connected To: M1107/FP **Protocol Framing:** None
Trans Cyc. Min: 50 **Network Address:**
Phase Intervention: Yes **Port:** 2 **Baud:** 1200

Intersection Groups

Name	Description	Enable
BNE - Gympie_Rc	GYMPIE RD - Kedron Park to Murphy	Yes

Definition Data

Intersection Details

Name: M1107/CTLR **System:** SE Queensland STF

Description: Gympie and Sadlier

Mnemonic	Description	User Value	Controller Value
INTNUM	Intersection Number (IEN)	1107	1107
REVISN	Personality Revision Number	A	A
NOPH	Number of Phases	3	3
STARPH	Starting Phase	A	A
NOVSG	Number of Vehicle Signal Groups	7	7
NOPSG	Number of Pedestrian Signal Groups	3	3
NOAPPS	Number of Approach Functions	5	5
NOVDS	Number of Vehicle Detectors	10	10
NOPBS	Number of Pedestrian Detectors	3	3
NOAS	Number of Arterial Switches	3	3
PHSEQ1	Phase Sequence #1	ABC	
PHSEQ2	Phase Sequence #2	ACB	
PHSEQ3	Phase Sequence #3		
PHSEQ4	Phase Sequence #4		
PCRC	Memory Checksum	0x3c	0x3c

Configuration

Region: Metropolitan

Tags: BMTMC, Metro, VPP-Metro

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Intersection Details

Name: M1107/CTLR **System:** SE Queensland STR
Description: Gympie and Sadlier

Controller Plans

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(6) NB Heavy_1*_1	C	160	ABC	74		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	99	99	Yes		No
B	99	135	135	No		No
C	135	160	160	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Police Escort	C	160	ABC	74		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	110	110	Yes		No
B	110	135	135	No		No
C	135	160	160	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Police Escort_2	C	160	ABC	74		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	110	110	Yes		No
B	110	135	135	No		No
C	135	160	160	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(1) Master Isolated	MI		ABC		1	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A				Yes		No
B				No		No
C				No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(2) NB/SB/Bi Light and Bi Medium	C	100	ABC	90	2	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped

Intersection Details

Name: M1107/CTLR **System:** SE Queensland STF

Description: Gympie and Sadlier

A	0	60	60	Yes	No
B	60	80	60	No	No
C	80	100	80	No	No
Special Features (SSF)					
Extra Special Features (XSF)					

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(3) SB Medium	C	120	ABC	118	3	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	68	68	Yes		No
B	68	98	68	No		No
C	98	120	98	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(4) SB Heavy	C	150	ABC	10		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	96	96	Yes		No
B	96	120	96	No		No
C	120	150	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(5) Heavy Bi Directional	C	130	ABC	78	25	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	74	74	Yes		No
B	74	100	74	No		No
C	100	130	100	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(6) NB Heavy_1*_3_1	C	160	ABCB	83	6	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	75	75	Yes		No
B	75	105	100	No		No
C	105	130	105	No		No
B	130	160	130	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Intersection Details

Name: M1107/CTLR **System:** SE Queensland STR

Description: Gympie and Sadlier

Special Features (SSF)
Extra Special Features (XSF)

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(7)	C	120	ABC	18	7	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	48	48	Yes		No
B	48	68	48	No		No
C	68	120	68	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(8)	C	120	ABC	18	8	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	48	48	Yes		No
B	48	68	48	No		No
C	68	120	68	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(9)	C	150	ABC	0	9	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	61	61	Yes		No
B	61	81	61	No		No
C	81	150	81	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(10)	C	120	ABC	4	10	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	48	48	Yes		No
B	48	68	48	No		No
C	68	120	68	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Intersection Details

Name: M1107/CTLR

System:

SE Queensland STF

Description: Gympie and Sadlier

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(5) Heavy Bi Directional_1*	C	150	ABC	31		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	85	85	Yes		No
B	85	115	85	No		No
C	115	150	115	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(5) Heavy Bi Directional_1*ACB	C	150	ACB	72		
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	85	85	Yes		No
C	85	120	85	No		No
B	120	150	120	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(4) SB Heavy_160	C	160	ABC	10	4	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	106	106	Yes		No
B	106	130	106	No		No
C	130	160	130	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(99) Faulty Loop	C	80	ABC	0	99	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	40	40	Yes		No
B	40	60	40	No		No
C	60	80	60	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(6) NB Heavy_1*_3	C	160	BABC	53	16	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
B	0	30	30	Yes		No
A	30	105	30	No		No
B	105	135	135	No		No

Intersection Details

Name: M1107/CTLR **System:** SE Queensland STR

Description: Gympie and Sadlier

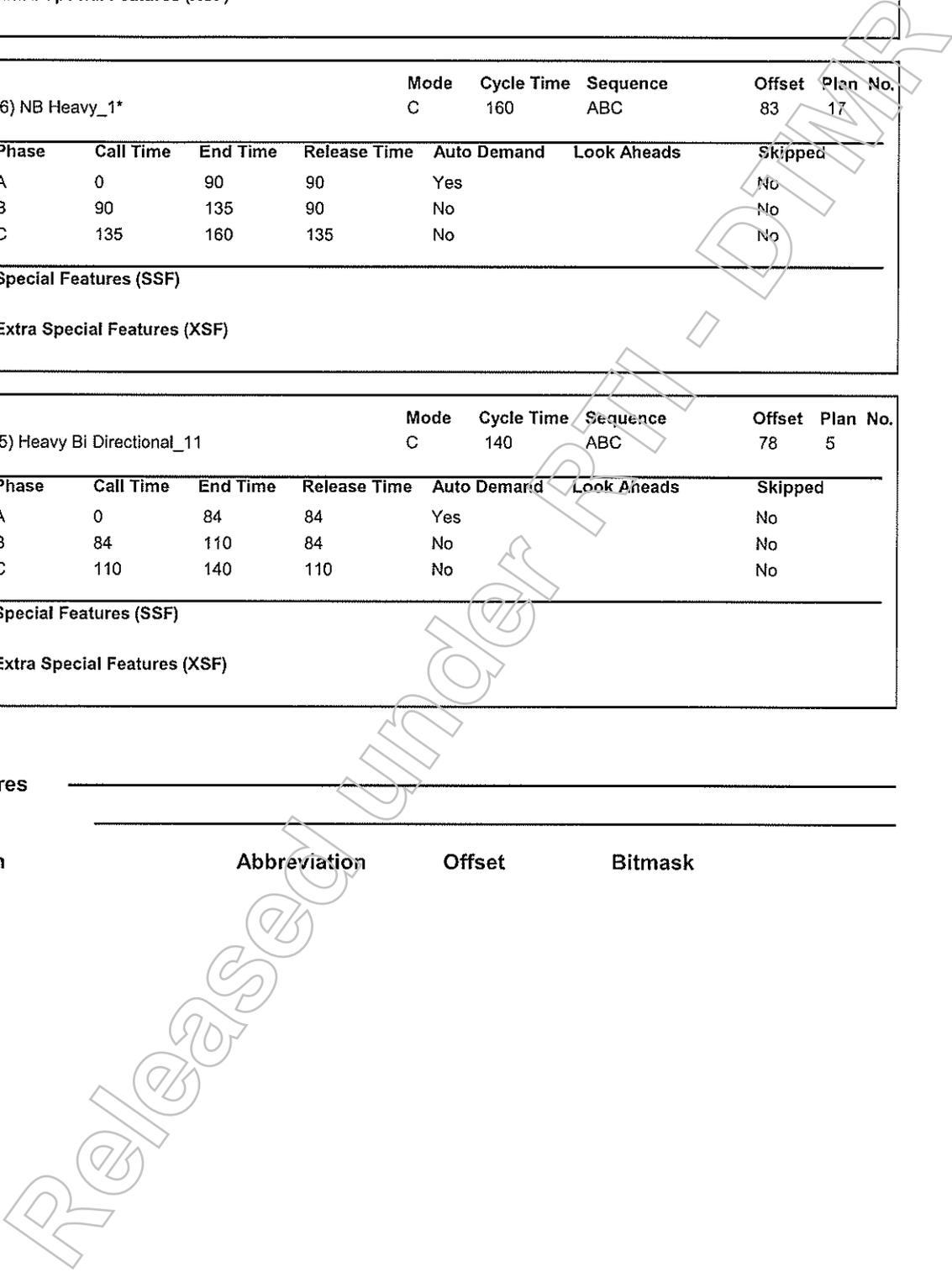
C	135	160	135	No	No
Special Features (SSF)					
Extra Special Features (XSF)					

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(6) NB Heavy_1*	C	160	ABC	83	17	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	90	90	Yes		No
B	90	135	90	No		No
C	135	160	135	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Name	Mode	Cycle Time	Sequence	Offset	Plan No.	
1107 Plan(5) Heavy Bi Directional_11	C	140	ABC	78	5	
Phase	Call Time	End Time	Release Time	Auto Demand	Look Aheads	Skipped
A	0	84	84	Yes		No
B	84	110	84	No		No
C	110	140	110	No		No
Special Features (SSF)						
Extra Special Features (XSF)						

Plan Features _____

Description	Abbreviation	Offset	Bitmask



Intersection Details

Name: M1107/CTLR **System:** SE Queensland STF

Description: Gympie and Sadlier

Vehicle Detectors

No	External Id	Description	Enabled	Build Stats	Occ Used
1	M1107/VD01	Sadlier St W/B Lane 2 R/T	Yes	Yes	Yes
2	M1107/VD02	Sadlier St W/B Lane 1 L/T	Yes	Yes	Yes
3	M1107/VD03	Gympie Rd N/B Lane 4 R/T	Yes	Yes	Yes
4	M1107/VD04	Gympie Rd N/B Lane 3	Yes	Yes	Yes
5	M1107/VD05	Gympie Rd N/B Lane 2	Yes	Yes	Yes
6	M1107/VD06	Gympie Rd N/B Lane 1	Yes	Yes	Yes
7	M1107/VD07	Bus Lane N/B Lane 1	Yes	Yes	Yes
8	M1107/VD08	Gympie Rd S/B Lane 3	Yes	Yes	Yes
9	M1107/VD09	Gympie Rd S/B Lane 2	Yes	Yes	Yes
10	M1107/VD10	Gympie Rd S/B Lane 1	Yes	Yes	Yes

Pedestrian Detectors

No	Specified Id	Description
1	M1107/PED1	M1107/PED1 Gympie and Sadlier
2	M1107/PED2	M1107/PED2 Gympie and Sadlier
3	M1107/PED3	M1107/PED3 Gympie and Sadlier

Movements

Description	Primary SG
Left Turn MVT from Gympie Rd SB to Sadlier St EB	10
Left Turn MVT from Sadlier St WB to Gympie Rd SB	5
Right Turn MVT from Gympie Rd NB to Sadlier St EB	4
Right Turn MVT from Sadlier St WB to Gympie Rd NB	3
Through MVT from Nthern Busway N/b Portal, Gympie Rd, Sad NEB to Gympie Rd NB	6
Through MVT on Gympie Rd NB at Int with Sandlier St	1
Through MVT on Gympie Rd SB at Int with Sadlier St	2

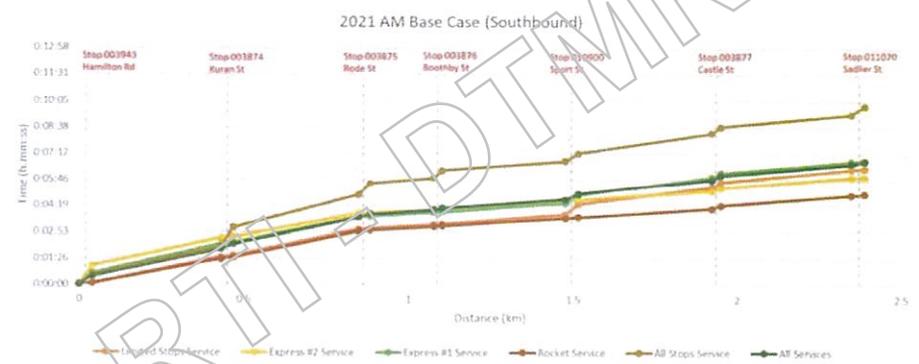
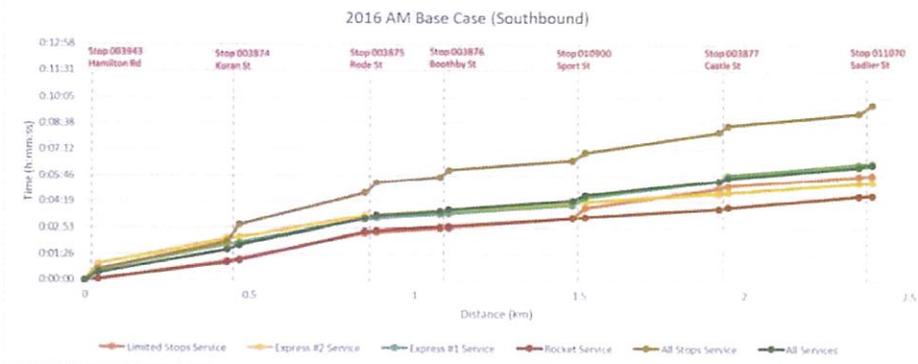
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Appendix F

VISSIM Bus Travel Time Graphs

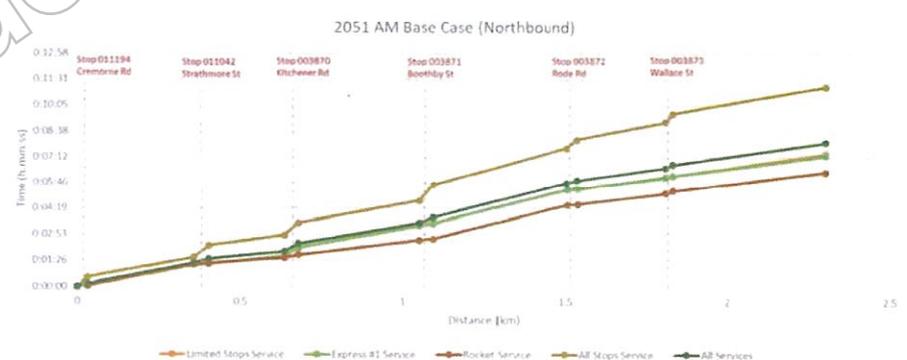
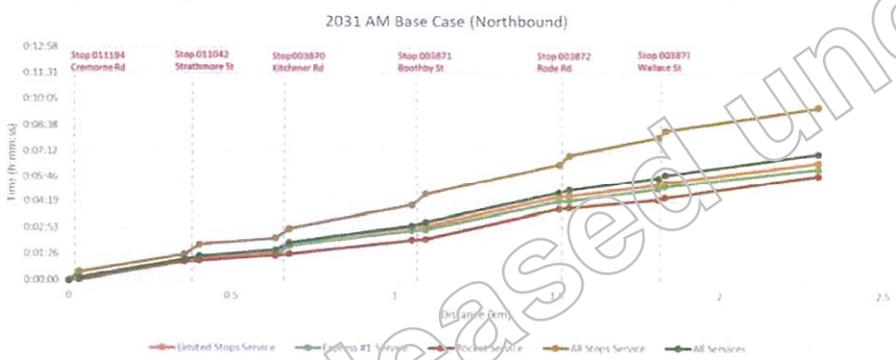
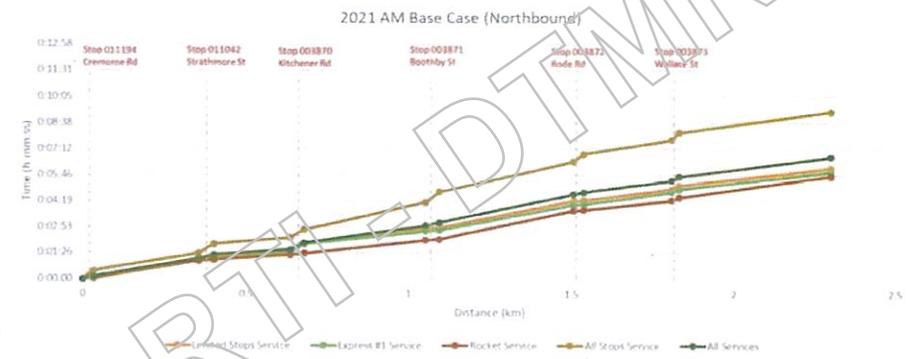
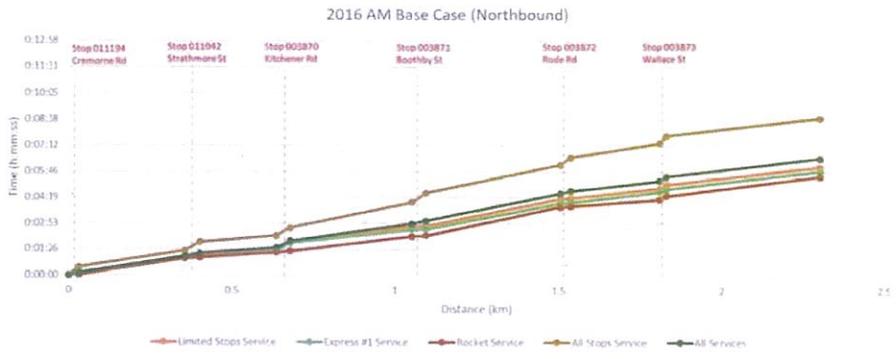
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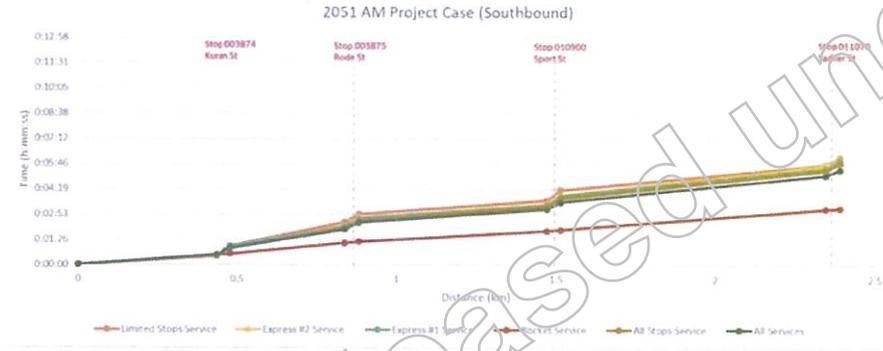
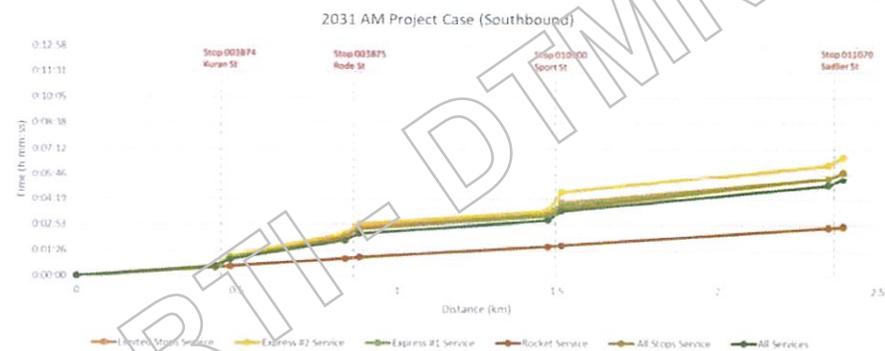
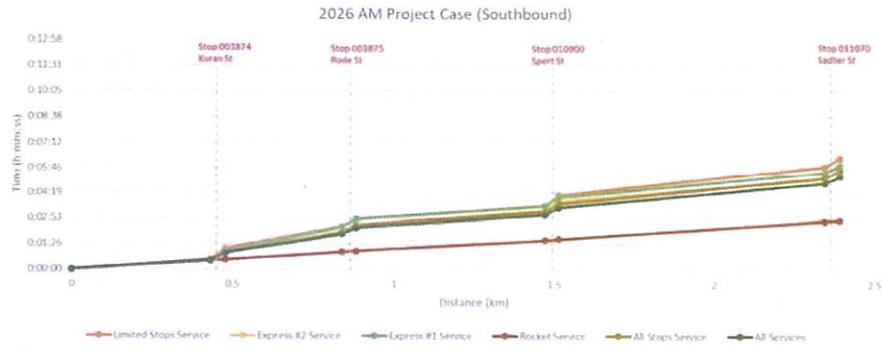


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AM Base Case – Northbound

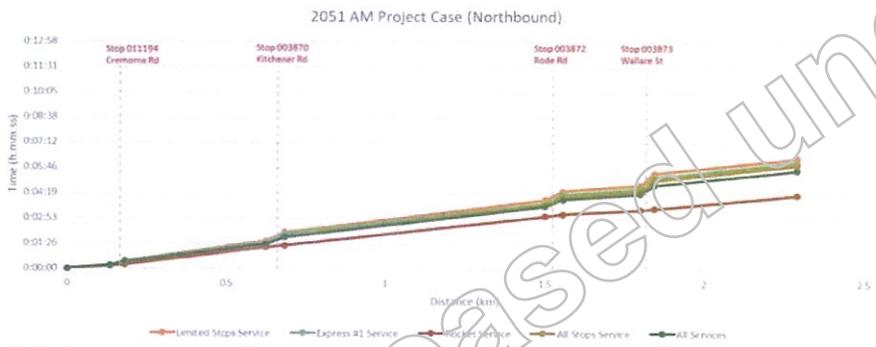
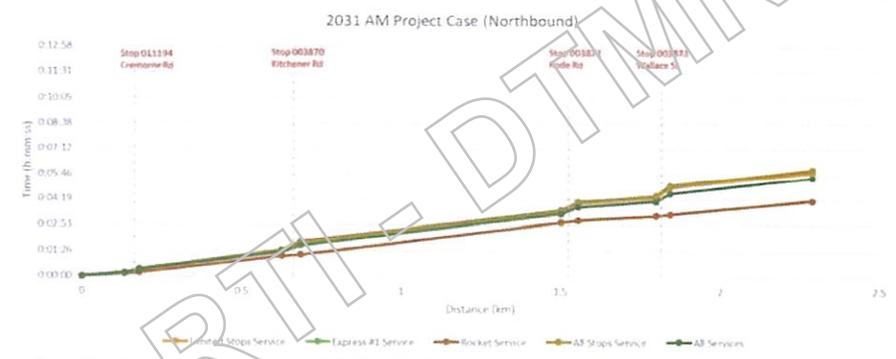
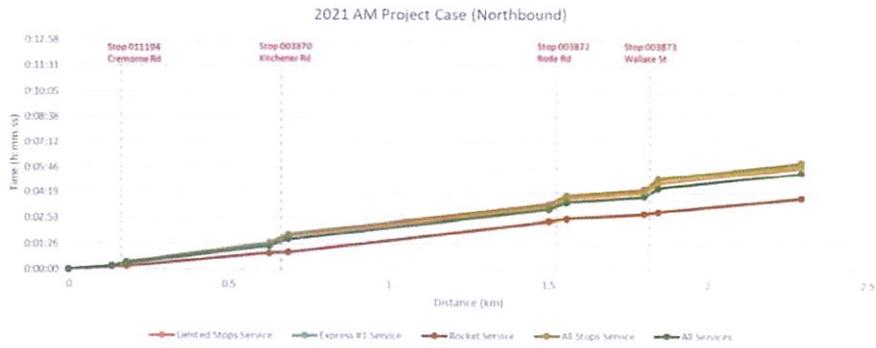


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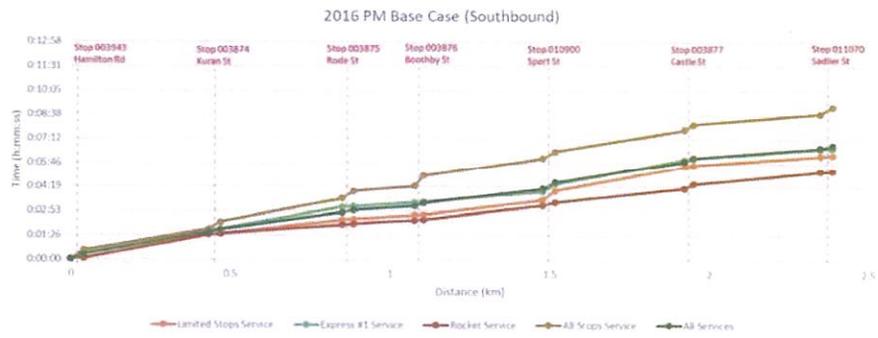
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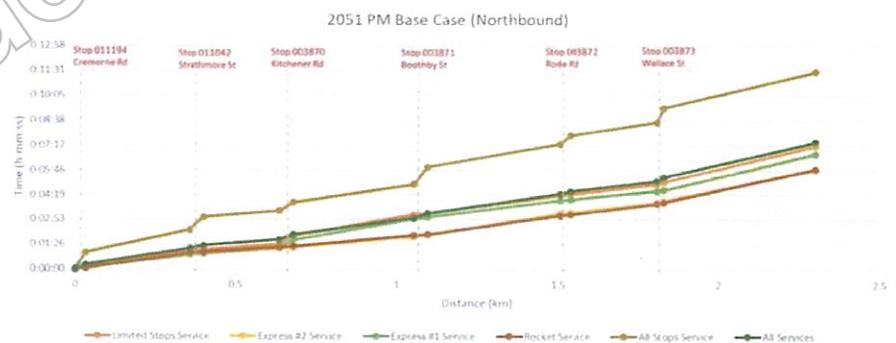
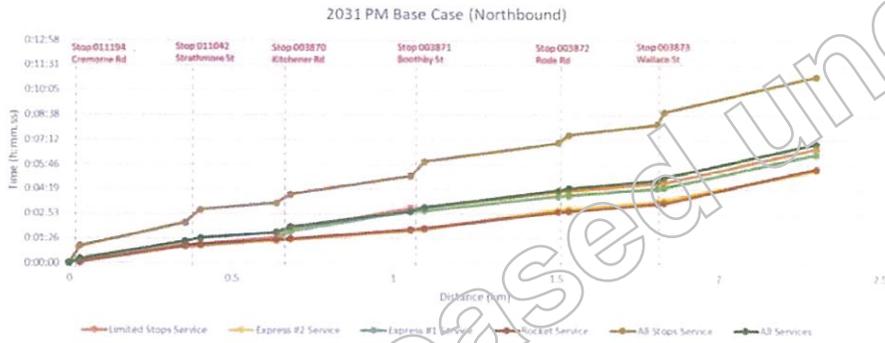
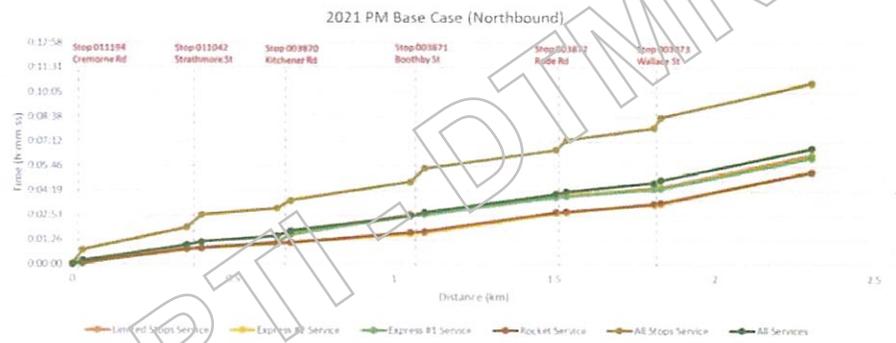
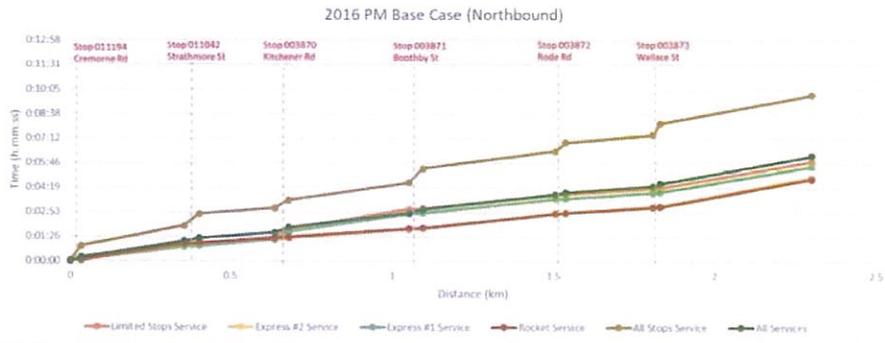


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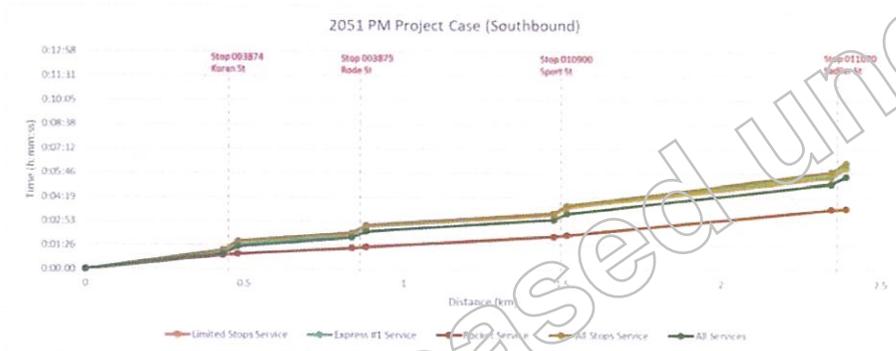
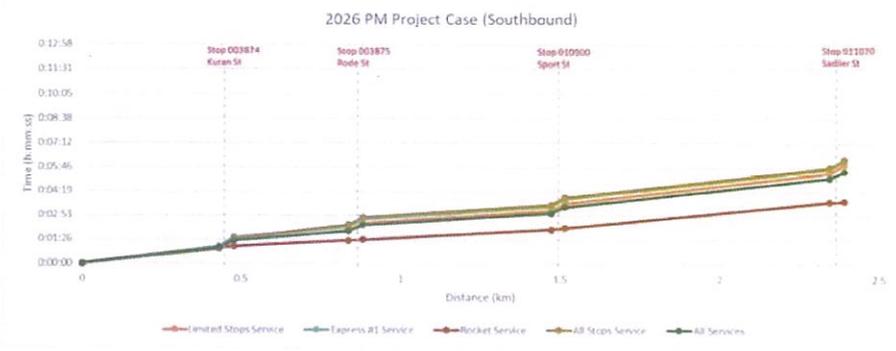


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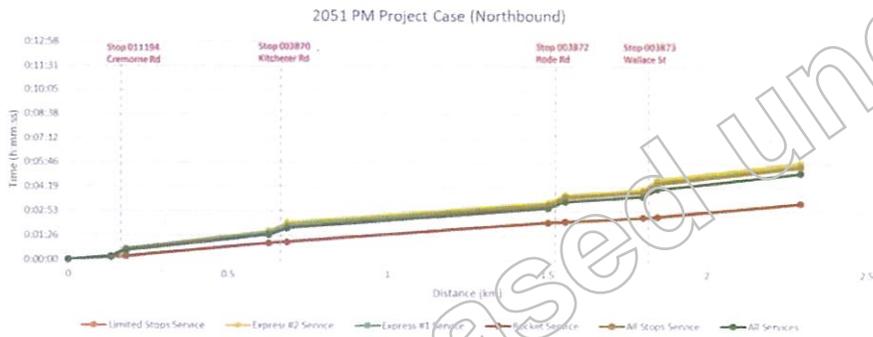
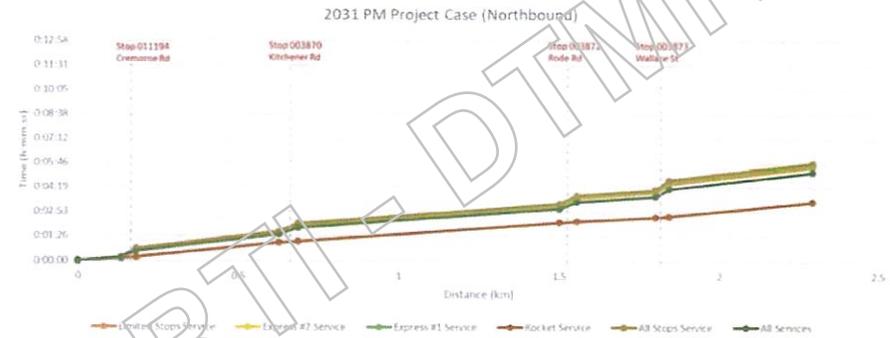
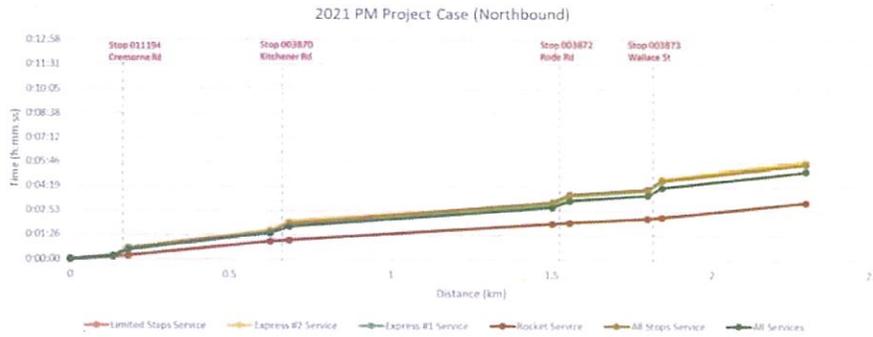
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