



Wentworthville Town Centre Planning Proposal Transport Impact Assessment

Client //	Austino Pty Ltd
Office //	NSW
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Wentworthville Town Centre

Planning Proposal

Transport Impact Assessment

Issue: A 17/06/15

Client: Austino Pty Ltd
Reference: 15S1265000
GTA Consultants Office: NSW

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
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1. Introduction

1.1 Background

It is understood that Austino Pty Ltd is seeking to lodge a Planning Proposal for a mixed use development at 42-44 Dunmore Street, Wentworthville.

It is intended that the proposal will deliver a high density mixed use development, comprising approximately 700 residential apartments, 5,320m² of retail area, 1,400m² of commercial and 1,820m² medical centre to service the local community.

GTA Consultants was commissioned by Austino Pty Ltd to provide traffic advice in relation to the above site.

1.2 Purpose of this Report

This report sets out an assessment of the anticipated transport implications of the proposed development, including consideration of the following:

- i existing traffic and parking conditions surrounding the site
- ii suitability of the proposed parking in terms of supply (quantum) and layout
- iii pedestrian and bicycle requirements
- iv the traffic generating characteristics of the proposed development
- v suitability of the proposed access arrangements for the site
- vi the transport impact of the development proposal on the surrounding road network.

1.3 References

In preparing this report, reference has been made to the following:

- o an inspection of the site and its surrounds
- o Holroyd Local Environmental Plan (LEP) 2013
- o Holroyd Development Control Plan (DCP) 2013
- o Living Holroyd: Community Strategic Plan 2013
- o traffic surveys undertaken by SkyHigh as referenced in the context of this report
- o other documents and data as referenced in this report.

2. Existing Conditions

2.1 Site Location

The subject site is located between Dunmore Street and Pritchard Street. The site has frontage of about 90m to Dunmore Street and 85m to Pritchard Street. The site currently has a land use classification as B2, Local Centre and is occupied by the existing mall.

The surrounding properties predominantly include retail uses.

The location of the subject site and its surrounding environs is shown in Figure 2.1.

Figure 2.1: Subject Site and Its Environs



2.2 Road Network

Dunmore Street

Dunmore Street is generally a four-lane, two-way road and is aligned in an east-west direction. Dunmore Street is a collector type road. It forms a signalised intersection with Station Street and the Cumberland Highway further to the west. It combines with Lane Street to the east. It accommodates bus stops on both sides immediately east and west of the Station Street intersection, along with 1P parking in the majority of locations.

Station Street

Station Street generally provides one travelling lane for each direction and is aligned in a north-south direction. It is located east of the site and serves as a collector type road, forming a signalised intersection with Dunmore Street.

1P parking is permitted along both sides, including one accessible parking bay on each side of the road north of Dunmore Street.

Pritchard Street

Pritchard Street provides one travelling lane for each direction and is aligned in an east-west direction. It is located on the southern side of the site and serves as a local street forming a sign controlled intersections with Station Street and Garfield Street.

1P or 2P parking is permitted along the northern and southern side of the road, respectively.

Garfield Street

Garfield Street generally provides one travelling lane for each direction and is aligned in a north-south direction. It is located west of the site and serves as a local street.

1P parking is permitted along both sides of the road, north of Pritchard Street. Unrestricted parking is permitted on both sides of the road, south of Pritchard Street.

2.3 Traffic Volumes

GTA Consultants commissioned traffic movement counts on key roads in the vicinity of the site on during the following peak periods:

- Thursday (27th November 2014) 6:30AM and 9:30AM
- Thursday (27th November 2014) 4:00PM and 7:00PM
- Saturday (29th November 2014) 11:00AM and 2:00PM.

The intersection turning movement counts were collected at the following intersections:

- Cumberland Highway/Dunmore Street (signalised)
- Dunmore Street/Station Street (signalised)
- Dunmore Street/Garfield Street (unsignalised)
- Garfield Street/Pritchard Street (unsignalised)
- Pritchard Street/Station Street (unsignalised).

The surveyed peak hour traffic volumes are included in Appendix A.

2.4 Intersection Operation

The operation of the key intersections within the study area have been assessed using SIDRA INTERSECTION¹, a computer based modelling package which calculates intersection performance.

The commonly used measure of intersection performance, as defined by the RTA, is vehicle delay. SIDRA INTERSECTION determines the average delay that vehicles encounter and provides a measure of the level of service.

Table 2.1 shows the criteria that SIDRA INTERSECTION adopts in assessing the level of service.

¹ Program used under license from Akcelik & Associates Pty Ltd.

Table 2.1: SIDRA INTERSECTION Level of Service Criteria

Level of Service (LOS)	Average Delay per vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way & Stop Sign
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Near capacity	Near capacity, accident study required
E	57 to 70	At capacity, at signals incidents will cause excessive delays	At capacity, requires other control mode
F	Greater than 70	Extra capacity required	Extreme delay, major treatment required

Table 2.2 presents a summary of the existing operation of the intersection, with full results presented in Appendix B of this report.

Table 2.2: Existing Intersection Operating Conditions

Intersection	Control Type	Thursday AM		Thursday PM		Saturday	
		Ave Delay (sec)	LoS	Ave Delay (sec)	LoS	Ave Delay (sec)	LoS
Cumberland Hwy/Dunmore St	Signals	42	C	45	D	38	C
Dunmore St/Station St	Signals	28	B	40	C	35	C
Dunmore St/Garfield St	Give-way	10	A	17	B	13	A
Garfield St/Pritchard St	Stop	11	A	10	C	11	A
Pritchard St/Station St	Give-way	11	A	14	A	16	B

On the basis of the above assessment, all of the intersections analysed (except for Cumberland Highway/Dunmore Street intersection) currently operates satisfactorily with acceptable delays for all three peak periods (i.e. Thursday AM / PM and Saturday).

Cumberland Highway/ Dunmore Street intersection operates near capacity (i.e. LoS D) during the Thursday PM peak period. It is expected that the majority of intersections along the arterial road would operate at or near capacity during the commuter peak periods. Hence, intersections operating at Level of Service D during peak periods are generally considered acceptable.

2.5 Public Transport

2.5.1 Rail Services

Wentworthville Railway Station is serviced by the T1 Western Line and T5 Cumberland Line. The journey time between Wentworthville Railway Station and the key stations during the peak periods are as follows:

- Central Station approximately 32-39 minutes
- Westmead Station approximately 3 minutes
- Parramatta Station approximately 7 minutes.

Train frequencies during the weekday AM, PM and Saturday peak hours are shown in Table 2.3.

Table 2.3: Train Service Frequencies

Direction	AM Peak (8:00am-9:00am)	PM Peak (5:00pm-6:00pm)	Saturday Peak (12:00pm-1:00pm)
Eastbound (Central)	15 minutes	15 minutes	30 minutes
Westbound (Richmond/Emu Plains)	15 minutes	15 minutes	30 minutes

Table 2.3 indicates that a good level of train services to and from the City is provided at the Wentworthville train station.

2.5.2 Bus Services

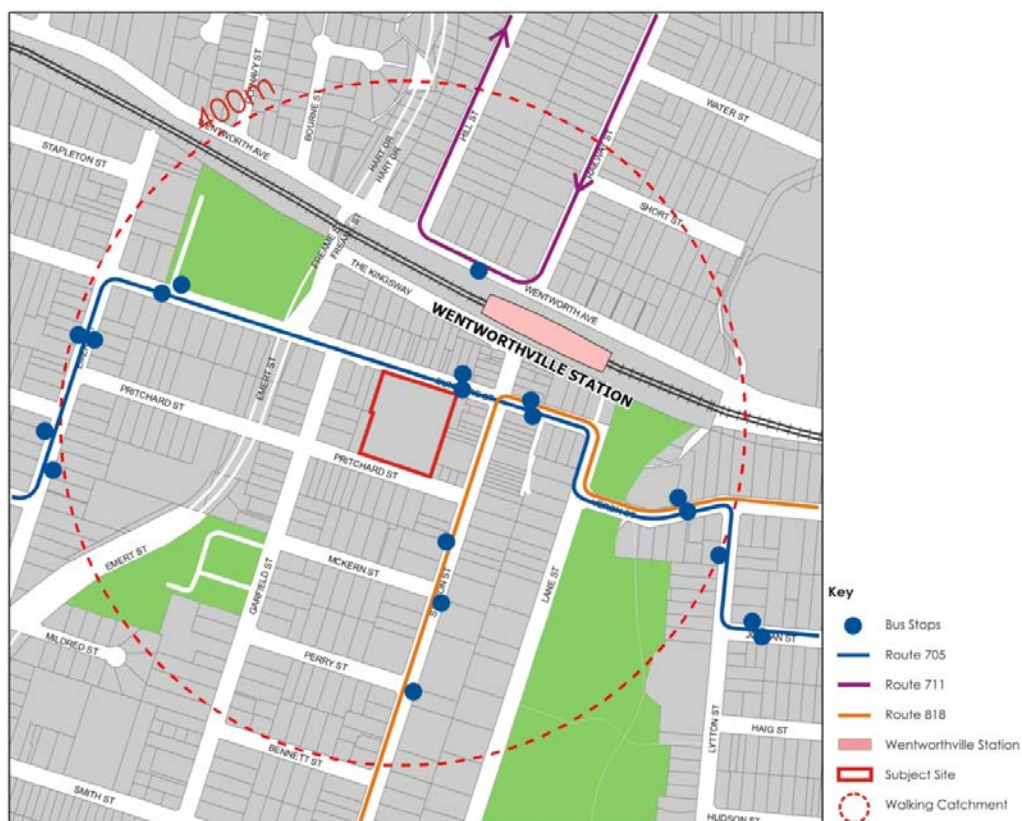
Bus stops have been provided within a typical walking distance from the site. The buses are operated by Hillsbus and Transit Systems, providing services linking Blacktown with Parramatta (Route 705, 711), and Merrylands with Westmead (Route 818).

The bus stop locations and the routes in the vicinity of Wentworthville Railway Station are presented in Figure 2.2, with bus frequencies detailed in Table 2.4.

Table 2.4: Bus Service Frequencies

Route	Frequency
705 (Hillsbus)	20 services per day
711 (Hillsbus)	35 services per day
818 (Transit Systems)	11 services per day
Total	66 services per day

Figure 2.2: Bus Stop Locations and Bus Routes



The site is currently serviced by a good level of public bus services.

2.6 Pedestrian & Cycle Infrastructure

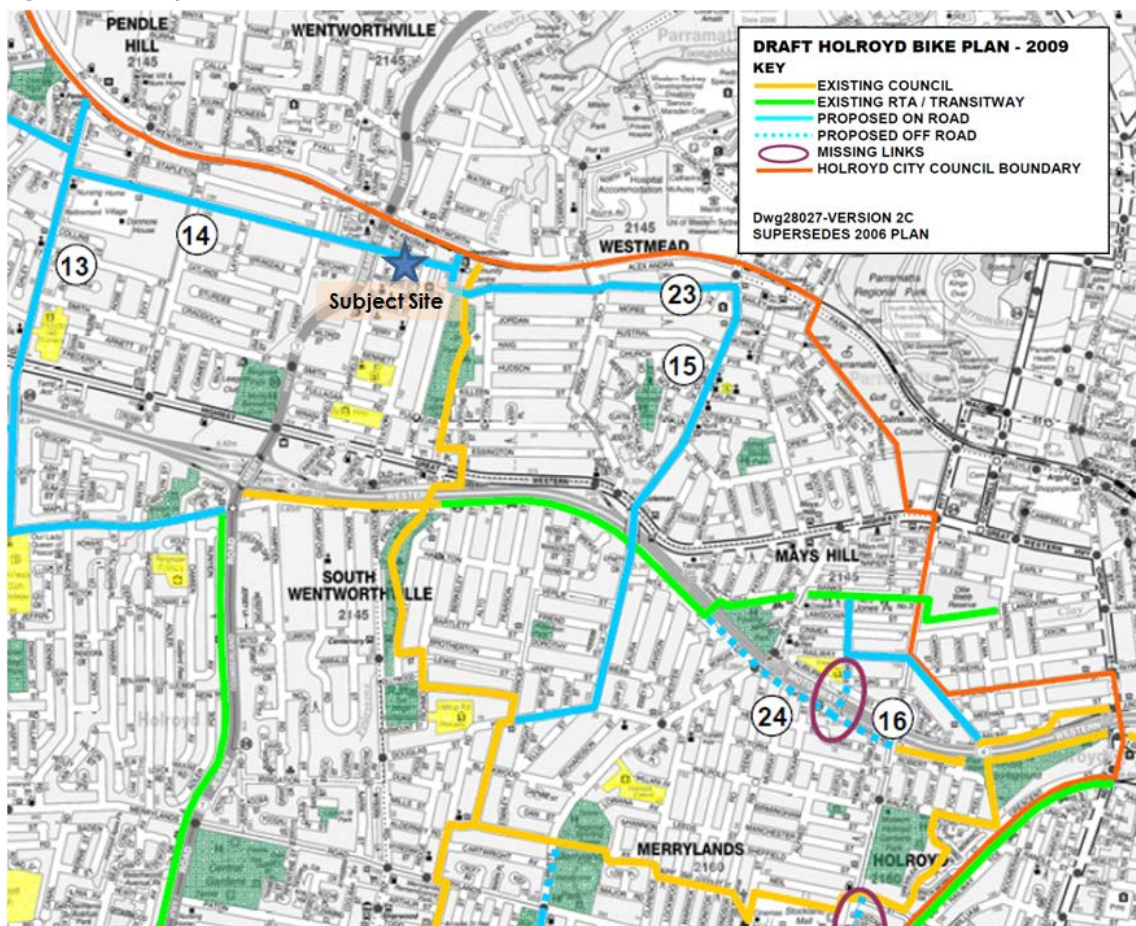
Formal pedestrian footpaths are located along both sides of the roads on Dunmore, Station, Pritchard and Garfield Streets in vicinity of the site.

Safe crossing points in vicinity of the site include the following pedestrian crossings:

- o signalised pedestrian crossings at all four approaches of the Dunmore Street-Station Street intersection
- o a pedestrian refuge island provided at Pritchard Street, immediately west of Station Street intersection
- o a pedestrian refuge island provided at Garfield Street, immediately south of Dunmore Street intersection.

Figure 2.3 shows the cycle network map for the Wentworthville area. It can be seen that the off-road bicycle route currently exists along the Finlayson Creek, which is located east of the site. In addition, according to the Draft Holroyd Bike Plan 2009, on road bicycle route is also proposed along Dunmore Street.

Figure 2.3: Map of Planned Bike Paths



Sourced from Holroyd City Council (<http://www.holroyd.nsw.gov.au/qa-roads-transport/cycleways/>)

2.7 Wentworthville Centre Revitalisation

The Wentworthville Centre Revitalisation Project is a Holroyd City Council initiative that aims to develop and implement a new planning strategy for the Wentworthville Town Centre. The timeline for this project will run over 18 months commencing with the community engagement process and concluding with required strategic and statutory planning amendments that will facilitate the desired revitalisation of the Wentworthville Town Centre.

Holroyd Council is currently undertaking expert studies including urban design, economic feasibility and traffic and transport. The results of these studies, together with the Community Participation Report, will be used to form the Planning and Place Making Strategy for Wentworthville.

3. Planning Proposal

The planning proposal includes demolition of the existing mall and construction of a new town centre/civic hub.

It is intended that the proposal will seek to deliver a high density, transit oriented mixed use development, as summarised in Table 3.1.

Table 3.1: Development Schedule (approximate)

Use	Size
Residential dwellings	698 units
Retail	5,321 m ² (current mall area is 5,466 m ²)
Medical centre	1,818 m ²
Commercial	1,406 m ²

For the purpose of traffic assessment, the above development yield has been adopted.

Figure 3.1 presents the masterplan layout of the planning proposal.

Figure 3.1: Masterplan Layout



Large vehicle access/egress to the site for retail, anchor supermarket and all garbage collection, is via a ramp with turntable, located on the western side of the Pritchard Street boundary. Two vehicular access points are proposed for resident and commercial car access/egress, which would be located on the eastern and western end of the Pritchard Street boundary. The proposed location of vehicular access points are shown in Figure 3.2.

Figure 3.2: Vehicular Access



Source: 42-44 Dunmore Street, Wentworthville Town Centre, Architectural SEPP 65 Assessment Report, PTW, 11 June 2015

It is proposed to enhance pedestrian and cycle connectivity by providing a public pedestrian through-site-link space between the east and west buildings, as shown in Figure 3.3.

Figure 3.3: Pedestrian Access



Source: 42-44 Dunmore Street, Wentworthville Town Centre, Architectural SEPP 65 Assessment Report, PTW, 11 June 2015

4. Car Parking

The car parking requirements for different development types are set out in Holroyd City Council's *Holroyd Development Control Plan (DCP) 2013*. The following minimum and maximum parking requirements are presented in this DCP:

- Residential dwellings in B2 zone:
 - Studio/1 bedroom – 0.8 (min.) to 1.0 (max.) spaces/ dwelling
 - 2 bedroom – 1.0 (min.) to 1.5 (max.) spaces/ dwelling
 - 3 bedroom – 1.2 (min.) to 2 (max.) spaces/ dwelling
 - Visitor parking – 0.2 (min.) to 0.5 (max.) spaces/ dwelling
- Commercial (including retail premises in B2 zone in Wentworthville):
 - Ground floor – 1 space/20m² (min.) to 1 space/15m² (max.)
 - Above ground floor – 1 space/40m² (min.) to 1 space/20m² (max.)
- Medical centre:
 - 1 space/25m² (min.).

The proposed development results in the following car parking requirements as summarised in Table 4.1.

Table 4.1: Car Parking Requirements (Holroyd DCP)

Use	Size	Parking Rates		Parking Requirements	
		Min.	Max.	Min.	Max.
Residential					
studio	130 units	0.8 spaces/unit	1 spaces/unit	104	130
1 bedroom unit	202 units	0.8 spaces/unit	1 spaces/unit	162	202
2 bedroom unit	300 units	1 spaces/unit	1.5 spaces/unit	300	450
3 bedroom unit	66 units	1.2 spaces/unit	2 spaces/unit	80	132
Visitor space		0.2 spaces/unit	0.5 spaces/unit	140	349
Commercial					
Retail	5,321m²	1 space/20m²	1 space/15m²	267	355
Medical centre	1,818 m²	1 space/25 m²	N/A	73	-
Commercial (above ground)	1,406 m²	1 space/40 m²	1 space/20 m²	36	71
Total				1162	1689

Based on the above, the proposed development would be required to provide a minimum of 1,162 car parking spaces and a maximum of 1,689 car parking spaces using the Council's DCP rates.

However, discussions with Council officers regarding the possibility of permitting residential visitors to use the commercial/retail car parking spaces indicated that the Council would be supportive of having residential visitors using the commercial/retail car parking spaces in lieu of provision of visitor parking spaces in the residential car park.

Considering the above, the minimum car parking provision could be reduced to 1,022 spaces.

The above DCP rates are considered to be excessively high given that the site is well serviced by public transport and that the subject site will be adjacent to the retail car parking which will generally only be full at very busy periods.

Furthermore, the usage of this car park is not expected to reach its capacity as it is anticipated that a significant amount of customers would be from walk in pedestrians from the surrounding developments.

In addition, the proposed reduction in visitor parking for the proposed development would encourage travel using more sustainable travel modes such as public transport. As indicated previously the subject site is very well serviced by public transport. As such, reduced visitor parking is not expected to create any traffic and parking related issues. Reduction in parking for visitors would be consistent with various State Government policies of reducing travel by private vehicles and encouraging other non-car travel modes.

The proposed car parking provision is presented in Table 4.2.

Table 4.2: Proposed Car Parking Provision

Use	Size	Parking Rates	Parking Provision
Residential			
studio	130 units	-	-
1 bedroom unit	202 units	0.5 spaces/unit	101
2 bedroom unit	300 units	1 spaces/unit	300
3 bedroom unit	66 units	1.2 spaces/unit	132
Visitor space		-	-
Commercial			
Retail	5,321m ²	1 space/20m ²	266
Commercial & Medical centre (above ground)	3,224 m ²	1 space/40 m ²	81
Total			880

It is proposed to provide 880 car parking spaces, which is about 142 spaces less than the Council's requirement. The reduction in car parking spaces would be supported with provision of a travel demand management plan during the Development Application stage.

The New South Wales (NSW) Government is encouraging high density development around selected centres with railway stations and those well serviced by other public transport. Through their policies the NSW Government is intending to influence travel choice to encourage more sustainable travel and they believe that integrating land use and transport by focusing activities in centres and corridors is the best way to influence people's choices about where they live, work and travel to services and activities.

In support of this, many councils have been reviewing their parking policy and have introduced parking requirement reductions of up to 50 percent for residential and commercial developments located within 400m of a railway station. Should Council consider such parking rate reductions in the near future, the proposed parking provision, which does not accord with Council's current DCP requirements, is likely to be acceptable.

It is also noted that the current parking provision of the existing mall (i.e. 5,466m² retail area) is 199 spaces. Using the Council's DCP parking rates, the existing mall requires a car parking provision of 274 to 364 spaces. Hence, the existing car parking provision of the Mall is between 75 and 165 spaces short of the Council's requirement.

Car parking assessment would be reviewed in detail in the Development Application stage when the exact development mix is determined.

5. Traffic Impact Assessment

5.1 Traffic Generation

Traffic generation estimates for the proposed mixed use development have been sourced from the *Guide to Traffic Generating Developments* (RMS 2002) & its supplementary technical direction (TDT 2013/04a). The following peak hour traffic generation rates have been used:

- High density residential flat buildings – 0.19 trips per unit for AM; 0.15 trips per unit for PM; 0.25 trips per unit for Saturday peak
- Medical/office - 22 trips per 1,000m² for PM using the multiple regression equation for different trade categories
- Commercial – 2 trips per 100m² gross floor area for AM/PM.

According to the survey of the existing mall, the following vehicle trips are generated:

- AM peak hour – 169 vehicle trips
- PM peak hour – 207 vehicle trips
- Saturday peak hour – 243 vehicles trips.

Based on the existing retail area of 5,466 m², the trip generation rates of the existing mall is 3.1 trips/100m² (for AM peak hour), 3.8 trips/100m² (for PM peak hour) and 4.4 trips/100m² (for Saturday peak hour). These rates have been adopted for the proposed retail component.

Table 5.1 presents the total traffic generation of the proposed development then subtracts the traffic generated by the existing industrial site.

Table 5.1: Resultant Traffic Generation by the Proposal

Development Generated Traffic	Peak Hour Traffic (vehicles per hour)		
	AM Peak Hour	PM Peak Hour	Saturday Peak Hour
Proposed			
Residential	133	105	175
Retail	165	202	234
Medical centre	40	40	40
Commercial	28	28	-
Total	+ 366	+ 375	+ 449
Current Retail Traffic	- 169	- 207	- 243
Resultant Increase	+ 197	+ 168	+ 206

The resultant increase in traffic due to the proposal would be in the order of 170 to 210 vehicles per hour during the weekday AM, PM or Saturday peak periods. These figures have been adopted for the post development traffic modelling purposes.

5.2 Trip Distribution

The directional distribution for residential traffic was assumed to be 20% inbound and 80% outbound during the AM peak period. These inbound/outbound percentages are reversed in the PM peak period.

For all other uses, 50% (inbound) and 50% (outbound) has been assumed for AM, PM and Saturday peak periods.

The development traffic was distributed on the local road network based on 2011 journey to work data of the Wentworthville area (specifically travel zones 1006 and 1010).

The distribution factors are presented in Table 5.2.

Table 5.2: Development Traffic Distribution Percentages

To/From Directions	Distribution %
Cumberland Highway – North	30%
Dunmore Street – West	10%
Cumberland Highway – South	10%
Garfield Street – South	10%
Station Street – South	30%
Dunmore Street – East	10%
Total	100%

Using the above traffic distribution percentages and the resultant increase in traffic generated by the proposal presented in Table 5.1, the development generated traffic is assigned to the key external road network.

5.3 Background Traffic Growth

Bureau of Transport Statistics (BTS) maintains the Strategic Travel Model (STM) for projecting travel patterns in New South Wales. A broad range of assumptions are included in the model and as such, results should only be used as an indicative measure.

A review of Strategic Travel Model data at Wentworthville suggested that 0.5% growth per annum would be appropriate for the main highway (i.e. Cumberland Highway) as well as all local streets.

The above traffic growth percentages are applied to the existing intersection flows up to 10 years in the future. Hence, 5% background traffic growth has been applied.

5.4 Intersection Operation

The post development intersection flow diagrams (including the background traffic growth) for the AM, PM and Saturday peak hours are presented in Appendix A.

The analysis results for future post development conditions are presented in Table 5.3. Detailed outputs are also included in Appendix B.

Table 5.3: Post Development Operating Conditions

Intersection	Control Type	Thursday AM		Thursday PM		Saturday	
		Ave Delay (sec)	LoS	Ave Delay (sec)	LoS	Ave Delay (sec)	LoS
Cumberland Hwy/Dunmore St	Signals	45	D	51	D	40	C
Dunmore St/Station St	Signals	34	C	41	C	36	C
Dunmore St/Garfield St	Give-way	11	A	22	B	18	B
Garfield St/Pritchard St	Stop	11	A	11	A	12	A
Pritchard St/Station St	Give-way	19	B	22	B	30	C

Intersection assessment results shown in Table 5.3 indicate that all intersections (except for Cumberland Highway/Dunmore Street intersection) would operate satisfactorily with LoS C or better for all three peak periods.

Cumberland Highway/Dunmore Street intersection would continue to operate near capacity (i.e. LoS D) in the future with or without the development traffic added to the road network. As mentioned in Chapter 2.4, it is expected that the majority of intersections along the arterial road would operate at or near capacity during the commuter peak periods. Hence, intersections operating at Level of Service D during peak periods are generally considered acceptable.

5.5 Proposed New Pedestrian Crossing at Dunmore Street

A new pedestrian crossing point is proposed at Dunmore Street, which would complement the proposed through link across the site. It is expected that due to high traffic flows along Dunmore Street, a mid-block signalised pedestrian crossing is recommended across Dunmore Street.

6. Conclusion

Based on the analysis and discussions presented within this report, the following conclusions are made:

- i It is intended that the proposal will deliver a high density mixed use development, comprising approximately 700 residential apartments, 5,320m² of retail area, 1,400m² of commercial area and a medical centre to service the local community.
- ii Using the current DCP parking rates, the proposal would need to provide a minimum of 1,162 car parking spaces and a maximum of 1,689 car parking spaces using the Council's DCP rates. However, discussions with Council officers regarding the possibility of permitting residential visitors to use the commercial/retail car parking spaces indicated that the Council would be supportive of having residential visitors using the commercial/retail car parking spaces in lieu of provision of visitor parking spaces in the residential car park. Considering this, the minimum car parking provision could be reduced to 1,022 spaces.
- iii It is proposed to provide 880 car parking spaces, which is about 142 spaces less than the Council's requirement. The reduction in car parking spaces would be supported with provision of a travel demand management plan during the Development Application stage. Car parking assessment would be reviewed in detail when the exact development mix is determined.
- iv The resultant increase in traffic generated by the proposal would be in the order of 170 to 210 additional vehicles per hour during the weekday AM, PM or Saturday peak periods.
- v All intersections analysed (except for Cumberland Highway/Dunmore Street intersection) would continue to operate satisfactorily with LoS C or better for all three peak periods under the post development conditions.
- vi Cumberland Highway/Dunmore Street intersection would operate near capacity (i.e. LoS D) in the future with or without the development traffic added to the road network. However, it is expected that the majority of intersections along the arterial road would operate at or near capacity during the commuter peak periods. Hence, intersections operating at Level of Service D during peak periods are generally considered acceptable.

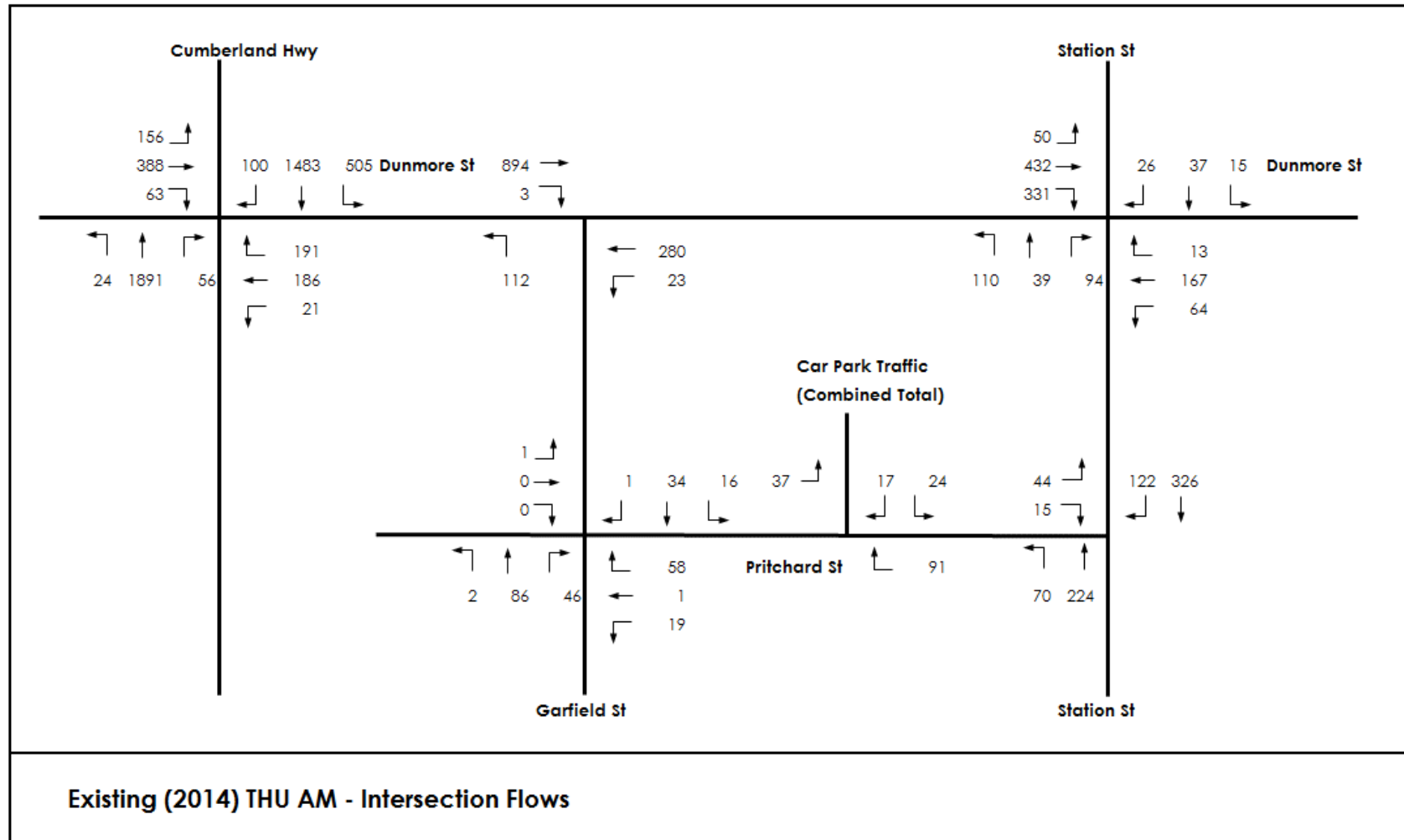
Appendix A

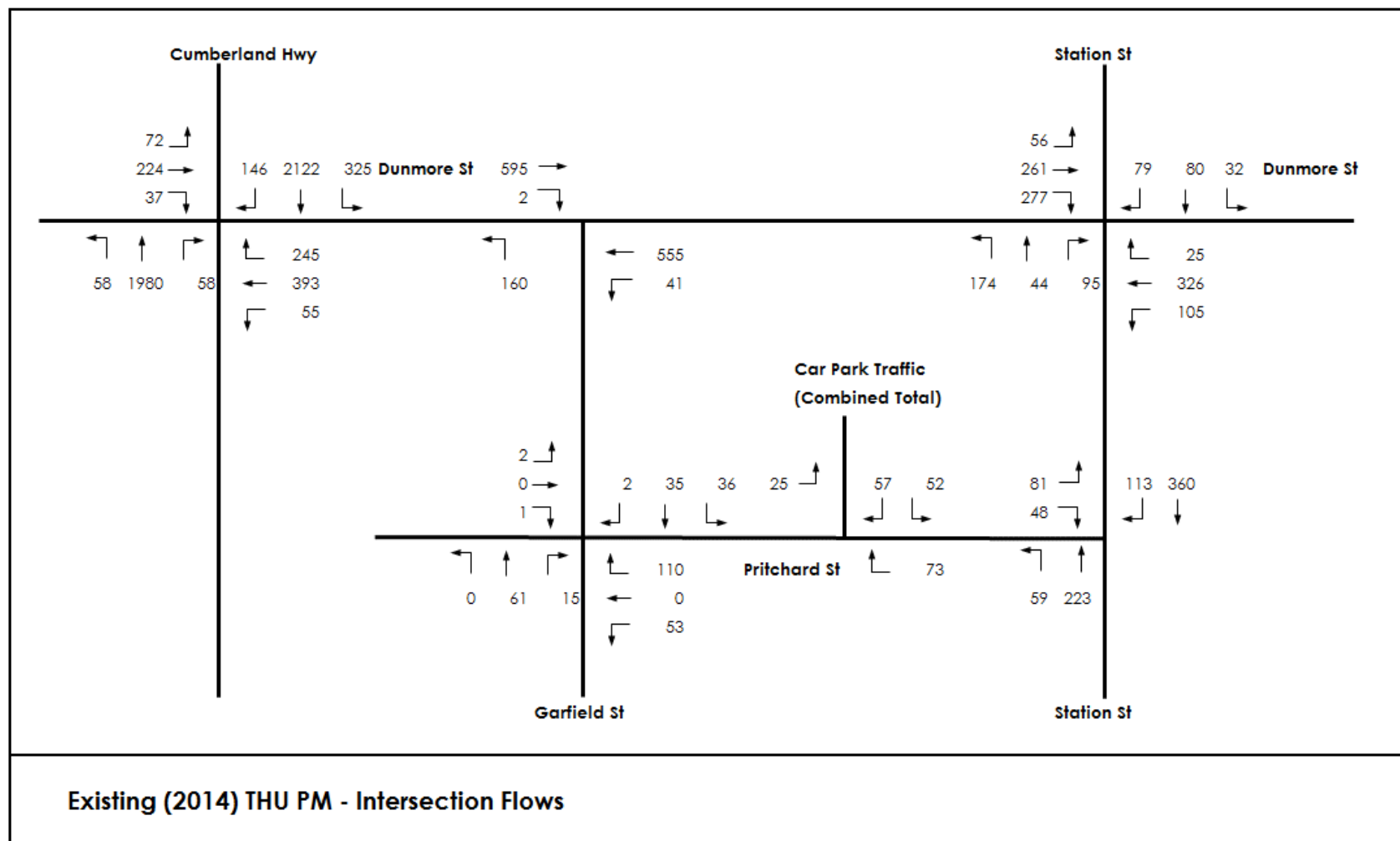
Intersection Turning Movement Diagram

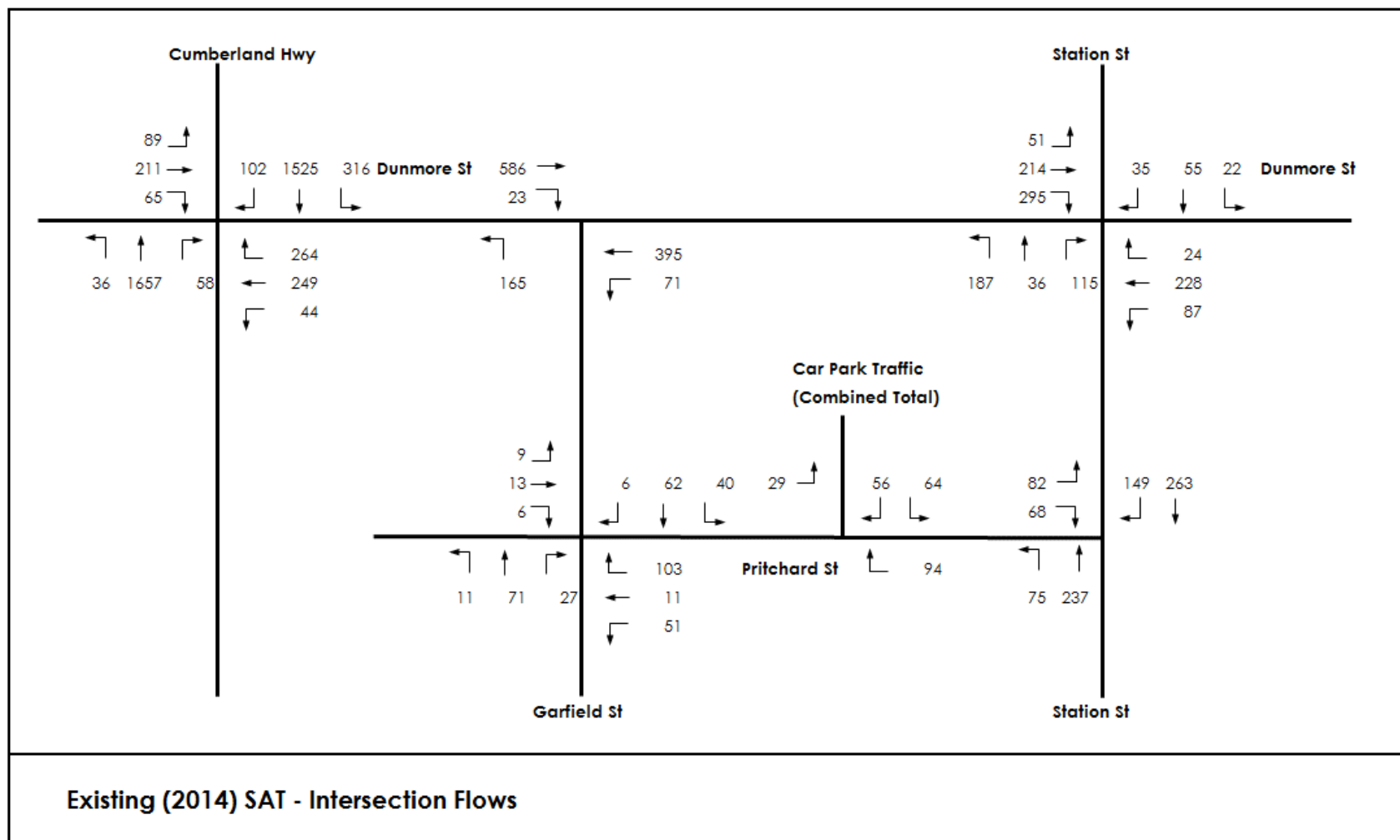
A.1 Existing Peak Hour Flows

A.2 Post Development Peak Hour Flows

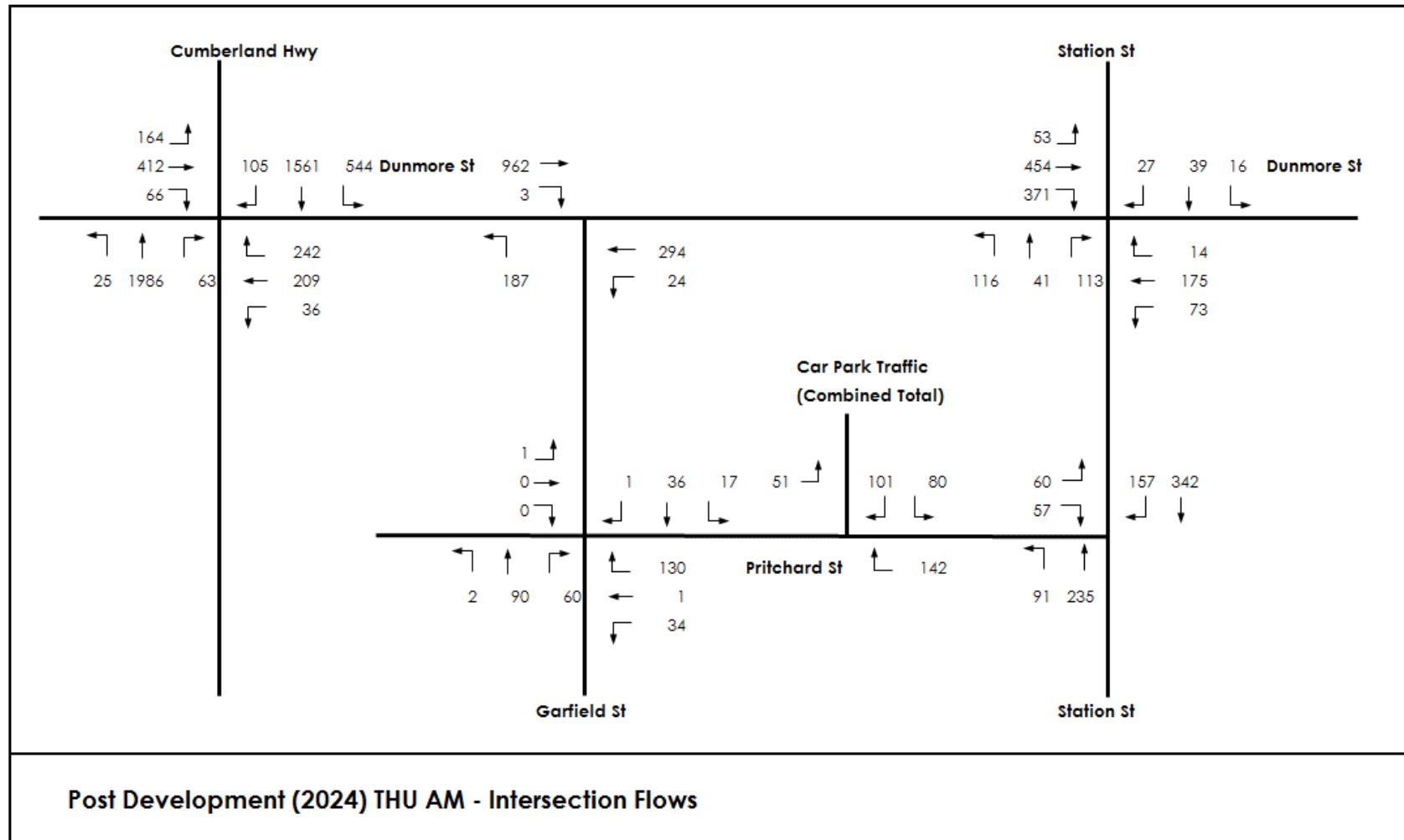
A.1 Existing Peak Hour Flows

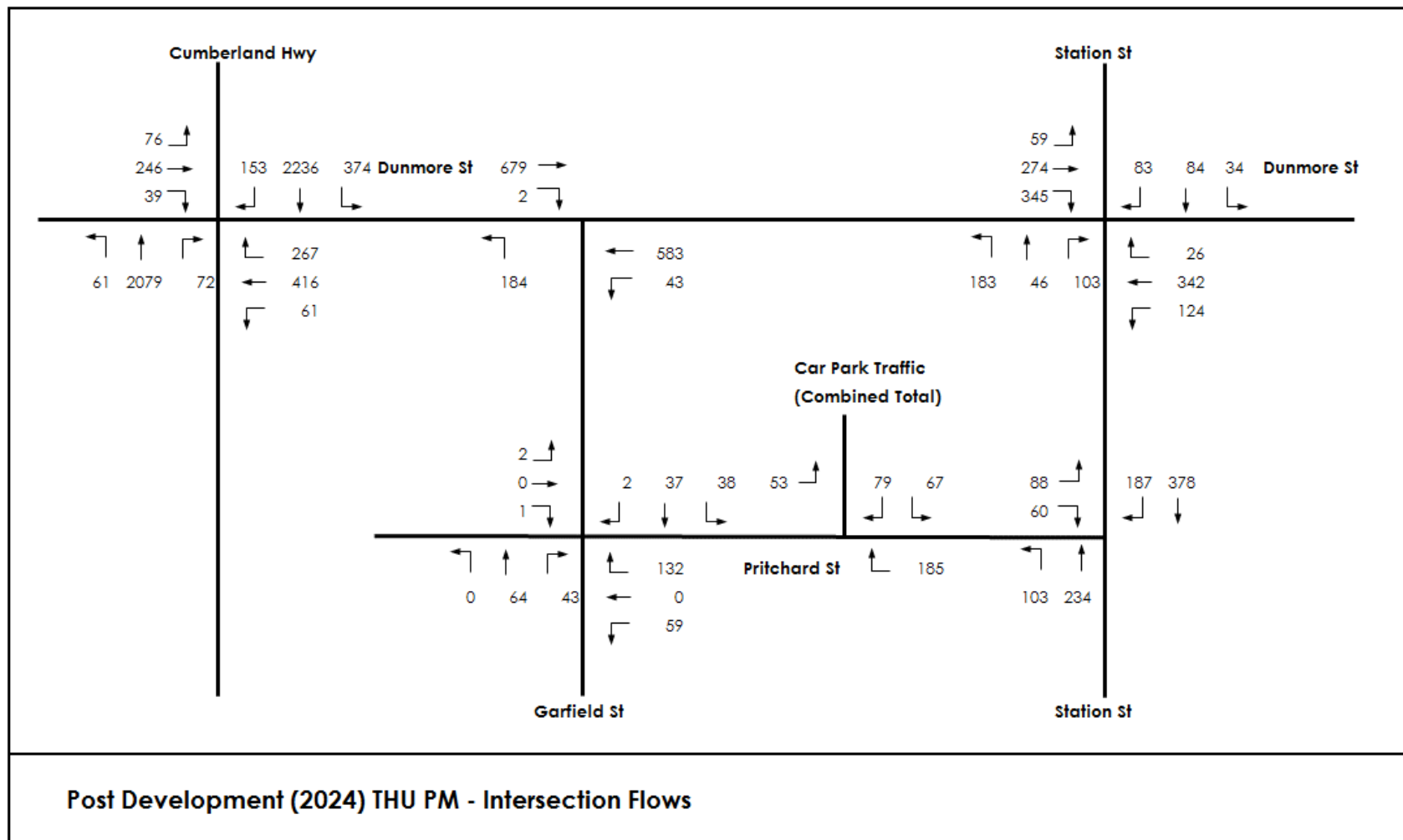


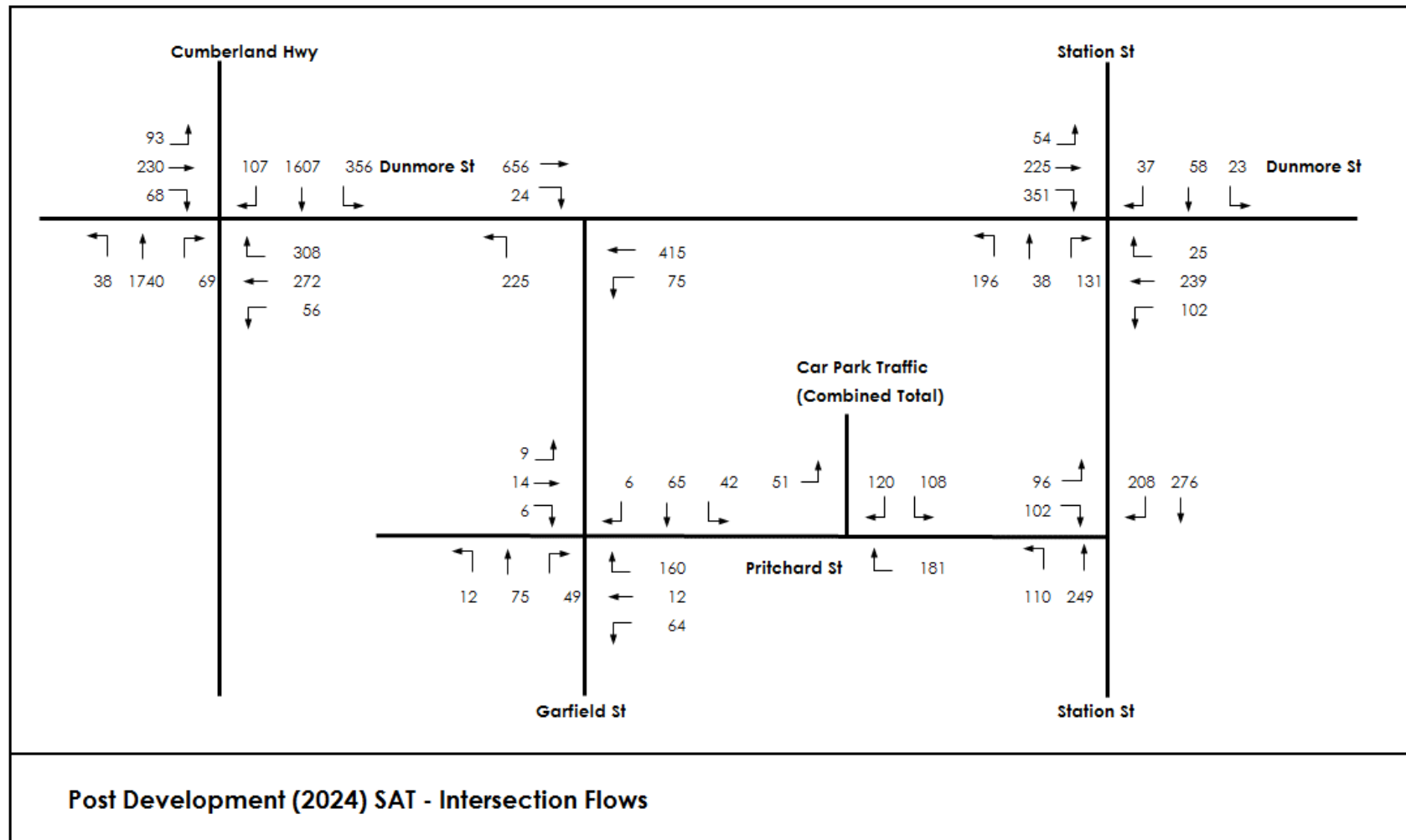




A.2 Post Development Peak Hour Flows







Appendix B

SIDRA INTERSECTION Results

B.1 Existing AM/PM Peak Hour

B.2 Post Development AM/PM Peak Hour

B.1 Existing AM/PM Peak Hour

MOVEMENT SUMMARY

Site: Cumberland Hwy/Dunmore St (Ex-AM)

15S1265000 - The Mall Wentworthville

AM Existing Condition

Cumberland Highway and Dunmore Street intersection

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Cumberland Hwy - S											
1	L	25	0.0	0.793	47.3	LOS D	37.6	270.9	0.90	0.95	28.8
2	T	1991	3.6	0.793	39.6	LOS C	37.7	272.4	0.90	0.81	29.8
3	R	59	0.0	0.494	80.2	LOS F	4.1	28.6	1.00	0.75	18.8
Approach		2075	3.5	0.793	40.9	LOS C	37.7	272.4	0.90	0.81	29.3
East: Dunmore St - E											
4	L	22	4.8	0.653	35.0	LOS C	8.3	59.1	0.69	0.84	29.8
5	T	196	1.6	0.653	27.9	LOS B	10.8	77.3	0.72	0.60	28.7
6	R	201	2.6	0.653	39.1	LOS C	10.8	77.3	0.92	0.83	28.0
Approach		419	2.3	0.653	33.6	LOS C	10.8	77.3	0.81	0.72	28.4
North: Cumberland Hwy - N											
7	L	532	0.2	0.826	38.4	LOS C	16.3	114.5	0.79	0.86	30.2
8	T	1561	3.8	0.736	38.7	LOS C	28.0	202.3	0.85	0.77	30.2
9	R	105	0.0	0.882	90.5	LOS F	8.1	56.6	1.00	0.94	17.2
Approach		2198	2.7	0.882	41.1	LOS C	28.0	202.3	0.85	0.80	29.2
West: Dunmore St - W											
10	L	164	1.9	0.652	56.4	LOS D	14.2	100.8	0.90	0.81	23.1
11	T	408	1.0	0.652	51.6	LOS D	24.0	169.3	0.95	0.81	21.4
12	R	66	0.0	0.652	59.7	LOS E	24.0	169.3	0.97	0.85	22.7
Approach		639	1.2	0.652	53.6	LOS D	24.0	169.3	0.94	0.81	22.0
All Vehicles		5331	2.8	0.882	41.9	LOS C	37.7	272.4	0.88	0.80	28.1

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	35.0	LOS D	0.1	0.1	0.71	0.71
P3	Across E approach	53	34.3	LOS D	0.1	0.1	0.70	0.70
P5	Across N approach	53	55.8	LOS E	0.2	0.2	0.89	0.89
P7	Across W approach	53	34.3	LOS D	0.1	0.1	0.70	0.70
All Pedestrians		212	39.9	LOS D			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Station St/Dunmore St (Ex-AM)

15S1265000 - The Mall Wentworthville

AM Existing Condition

Station Street and Dunmore Street intersection

Signals - Fixed Time Cycle Time = 160 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	116	1.8	0.767	53.4	LOS D	6.4	45.6	0.76	0.85	21.9
2	T	41	0.0	0.491	64.1	LOS E	9.9	70.4	0.95	0.78	18.7
3	R	99	2.1	0.491	70.5	LOS F	9.9	70.4	0.95	0.81	18.7
Approach		256	1.6	0.767	61.8	LOS E	9.9	70.4	0.86	0.82	20.0
East: Dunmore St - E											
4	L	67	6.3	0.310	36.7	LOS C	3.1	23.1	0.64	0.72	26.6
5	T	176	1.2	0.238	29.2	LOS C	9.0	63.7	0.66	0.56	28.4
6	R	14	0.0	0.238	35.6	LOS C	9.0	63.7	0.66	0.86	27.6
Approach		257	2.5	0.310	31.5	LOS C	9.0	63.7	0.66	0.62	27.9
North: Station St - N											
7	L	16	0.0	0.230	67.8	LOS E	1.0	7.3	0.88	0.68	19.0
8	T	39	0.0	0.268	64.7	LOS E	4.6	32.3	0.92	0.72	18.8
9	R	27	0.0	0.268	71.1	LOS F	4.6	32.3	0.92	0.78	18.7
Approach		82	0.0	0.268	67.4	LOS E	4.6	32.3	0.91	0.73	18.8
West: Dunmore St - W											
10	L	53	0.0	0.616	18.4	LOS B	4.6	32.6	0.59	0.82	35.4
11	T	455	0.7	0.616	10.8	LOS A	20.2	142.2	0.59	0.52	37.7
12	R	348	0.3	0.616	16.5	LOS B	20.2	142.2	0.59	0.83	36.3
Approach		856	0.5	0.616	13.6	LOS A	20.2	142.2	0.59	0.66	36.9
All Vehicles		1451	1.0	0.767	28.3	LOS B	20.2	142.2	0.67	0.69	29.3

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	30.6	LOS D	0.1	0.1	0.62	0.62
P3	Across E approach	53	61.3	LOS F	0.2	0.2	0.88	0.88
P5	Across N approach	53	30.6	LOS D	0.1	0.1	0.62	0.62
P7	Across W approach	53	61.3	LOS F	0.2	0.2	0.88	0.88
All Pedestrians		212	45.9	LOS E			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Garfield St/Dunmore St (Ex-AM)

15S1265000 - The Mall Wentworthville
AM Existing Condition
Garfield Street and Dunmore Street intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Garfield St - S											
1	L	118	3.6	0.296	9.5	LOS A	0.5	3.9	0.41	0.73	42.0
Approach		118	3.6	0.296	9.5	LOS A	0.5	3.9	0.41	0.73	42.0
East: Dunmore St - E											
4	L	24	0.0	0.083	7.4	LOS A	0.0	0.0	0.00	1.04	48.6
5	T	295	1.4	0.083	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		319	1.3	0.083	0.6	NA	0.0	0.0	0.00	0.08	59.0
West: Dunmore St - W											
11	T	944	0.4	0.405	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		944	0.4	0.405	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		1381	0.9	0.405	0.9	NA	0.5	3.9	0.03	0.08	57.7

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

Processed: Thursday, 18 December 2014 3:24:30 PM

SIDRA INTERSECTION 5.1.13.2093

Project: P:\15S1200-1299\15S1265000 The Mall Wentworthville - Mixed Use\Modelling

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INTERSECTION

MOVEMENT SUMMARY

Site: Garfield St/Pritchard St (Ex-AM)

15S1265000 - The Mall Wentworthville
AM Existing Condition
Garfield Street and Pritchard Street intersection
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Garfield St - S											
1	L	2	0.0	0.084	6.6	LOS A	0.4	3.1	0.15	0.64	43.0
2	T	91	4.7	0.084	0.2	LOS A	0.4	3.1	0.15	0.00	47.9
3	R	48	0.0	0.084	7.0	LOS A	0.4	3.1	0.15	0.78	42.8
Approach		141	3.0	0.084	2.6	NA	0.4	3.1	0.15	0.28	45.9
East: Pritchard St - E											
4	L	20	5.3	0.108	11.0	LOS A	0.4	3.0	0.24	0.81	40.0
5	T	1	0.0	0.108	10.4	LOS A	0.4	3.0	0.24	0.89	40.3
6	R	61	0.0	0.108	10.6	LOS A	0.4	3.0	0.24	0.94	40.1
Approach		82	1.3	0.108	10.7	LOS A	0.4	3.0	0.24	0.90	40.1
North: Garfield St - N											
7	L	17	0.0	0.029	6.7	LOS A	0.2	1.1	0.25	0.59	42.9
8	T	36	2.9	0.029	0.3	LOS A	0.2	1.1	0.25	0.00	46.7
9	R	1	0.0	0.029	7.1	LOS A	0.2	1.1	0.25	0.76	42.8
Approach		54	2.0	0.029	2.5	NA	0.2	1.1	0.25	0.20	45.4
West: Pritchard St - W											
10	L	1	0.0	0.004	10.5	LOS A	0.0	0.1	0.28	0.80	40.3
11	T	1	0.0	0.004	10.1	LOS A	0.0	0.1	0.28	0.84	40.6
12	R	1	0.0	0.004	10.3	LOS A	0.0	0.1	0.28	0.89	40.5
Approach		3	0.0	0.004	10.3	LOS A	0.0	0.1	0.28	0.85	40.5
All Vehicles		280	2.3	0.108	5.0	NA	0.4	3.1	0.20	0.45	43.9

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: Station St/Pritchard St (Ex-AM)

15S1265000 - The Mall Wentworthville
AM Existing Condition
Station Street and Pritchard Street intersection
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	74	1.4	0.161	6.4	LOS A	0.0	0.0	0.00	0.82	43.3
2	T	236	0.4	0.161	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		309	0.7	0.161	1.5	NA	0.0	0.0	0.00	0.20	48.2
North: Station St - N											
8	T	343	2.5	0.301	2.0	LOS A	2.3	16.4	0.52	0.00	43.5
9	R	128	0.0	0.301	8.6	LOS A	2.3	16.4	0.52	0.82	42.5
Approach		472	1.8	0.301	3.8	NA	2.3	16.4	0.52	0.22	43.2
West: Pritchard St - W											
10	L	46	0.0	0.116	11.0	LOS A	0.4	2.9	0.49	0.67	39.5
12	R	16	0.0	0.116	11.2	LOS A	0.4	2.9	0.49	0.82	39.4
Approach		62	0.0	0.116	11.1	LOS A	0.4	2.9	0.49	0.71	39.4
All Vehicles		843	1.2	0.301	3.5	NA	2.3	16.4	0.33	0.25	44.6

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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SIDRA INTERSECTION 5.1.13.2093

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SIDRA
INTERSECTION

MOVEMENT SUMMARY

Site: Cumberland Hwy/Dunmore St (Ex-PM)

15S1265000 - The Mall Wentworthville

PM Existing Condition

Cumberland Highway and Dunmore Street intersection

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Cumberland Hwy - S											
1	L	61	0.0	0.836	49.8	LOS D	42.2	298.7	0.93	0.95	27.9
2	T	2084	1.5	0.836	41.9	LOS C	42.6	301.9	0.93	0.86	28.8
3	R	61	0.0	0.460	78.8	LOS F	4.2	29.3	1.00	0.76	19.1
Approach		2206	1.4	0.836	43.1	LOS D	42.6	301.9	0.93	0.86	28.4
East: Dunmore St - E											
4	L	58	0.0	0.848	53.4	LOS D	14.0	97.9	0.83	0.96	24.0
5	T	414	0.3	0.848	44.0	LOS D	27.3	191.1	0.90	0.89	23.2
6	R	258	0.0	0.848	49.7	LOS D	27.3	191.1	0.97	0.97	25.0
Approach		729	0.1	0.848	46.8	LOS D	27.3	191.1	0.92	0.92	23.9
North: Cumberland Hwy - N											
7	L	342	0.0	0.512	23.4	LOS B	7.9	55.4	0.43	0.76	38.6
8	T	2234	2.9	0.873	45.2	LOS D	47.1	338.2	0.96	0.91	27.6
9	R	154	0.0	0.965	103.6	LOS F	12.9	90.0	1.00	1.01	15.5
Approach		2729	2.4	0.965	45.8	LOS D	47.1	338.2	0.90	0.90	27.4
West: Dunmore St - W											
10	L	76	0.0	0.378	55.2	LOS D	8.0	56.0	0.87	0.79	23.4
11	T	236	0.9	0.378	48.9	LOS D	11.9	83.8	0.89	0.73	22.1
12	R	39	0.0	0.378	56.8	LOS E	11.9	83.8	0.90	0.82	23.3
Approach		351	0.6	0.378	51.1	LOS D	11.9	83.8	0.89	0.75	22.5
All Vehicles		6016	1.6	0.965	45.3	LOS D	47.1	338.2	0.91	0.88	26.9

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	35.7	LOS D	0.2	0.2	0.71	0.71
P3	Across E approach	53	34.3	LOS D	0.1	0.1	0.70	0.70
P5	Across N approach	53	56.7	LOS E	0.2	0.2	0.90	0.90
P7	Across W approach	53	34.3	LOS D	0.1	0.1	0.70	0.70
All Pedestrians		212	40.3	LOS E			0.75	0.75

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Station St/Dunmore St (Ex-PM)

15S1265000 - The Mall Wentworthville

PM Existing Condition

Station Street and Dunmore Street intersection

Signals - Fixed Time Cycle Time = 160 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	183	0.0	0.408	53.3	LOS D	14.1	98.4	0.84	0.82	22.0
2	T	46	0.0	0.408	46.9	LOS D	14.1	98.4	0.84	0.71	22.2
3	R	100	1.1	0.938	72.0	LOS F	6.9	49.0	0.91	0.83	18.3
Approach		329	0.3	0.938	58.1	LOS E	14.1	98.4	0.86	0.81	20.8
East: Dunmore St - E											
4	L	111	1.9	0.536	43.7	LOS D	5.8	41.3	0.72	0.74	24.4
5	T	343	0.9	0.520	39.9	LOS C	21.8	153.7	0.82	0.72	24.6
6	R	26	0.0	0.520	46.3	LOS D	21.8	153.7	0.82	0.88	24.3
Approach		480	1.1	0.536	41.1	LOS C	21.8	153.7	0.80	0.73	24.6
North: Station St - N											
7	L	34	0.0	0.434	54.9	LOS D	2.0	13.8	0.80	0.70	21.5
8	T	84	0.0	0.540	62.4	LOS E	11.8	82.8	0.95	0.79	19.1
9	R	83	0.0	0.540	68.8	LOS E	11.8	82.8	0.95	0.83	19.1
Approach		201	0.0	0.540	63.8	LOS E	11.8	82.8	0.92	0.79	19.5
West: Dunmore St - W											
10	L	59	0.0	0.633	23.5	LOS B	4.9	34.3	0.61	0.80	32.5
11	T	275	0.4	0.633	17.7	LOS B	17.1	120.1	0.72	0.62	33.0
12	R	292	0.4	0.633	24.6	LOS B	17.1	120.1	0.78	0.84	31.8
Approach		625	0.3	0.633	21.5	LOS B	17.1	120.1	0.74	0.74	32.4
All Vehicles		1636	0.5	0.938	39.8	LOS C	21.8	153.7	0.80	0.76	25.1

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	36.5	LOS D	0.2	0.2	0.68	0.68
P3	Across E approach	53	48.8	LOS E	0.2	0.2	0.78	0.78
P5	Across N approach	53	36.5	LOS D	0.2	0.2	0.68	0.68
P7	Across W approach	53	48.8	LOS E	0.2	0.2	0.78	0.78
All Pedestrians		212	42.6	LOS E			0.73	0.73

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Garfield St/Dunmore St (Ex-PM)

15S1265000 - The Mall Wentworthville
PM Existing Condition
Garfield Street and Dunmore Street intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Garfield St - S											
1	L	168	0.6	0.634	17.1	LOS B	1.7	11.9	0.62	1.01	36.5
Approach		168	0.6	0.634	17.1	LOS B	1.7	11.9	0.62	1.01	36.5
East: Dunmore St - E											
4	L	43	0.0	0.162	7.4	LOS A	0.0	0.0	0.00	1.05	48.6
5	T	584	0.4	0.162	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		627	0.3	0.162	0.5	NA	0.0	0.0	0.00	0.07	59.1
West: Dunmore St - W											
11	T	628	0.5	0.269	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		628	0.5	0.269	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		1424	0.4	0.634	2.3	NA	1.7	11.9	0.07	0.15	55.4

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

Processed: Thursday, 18 December 2014 3:24:31 PM

SIDRA INTERSECTION 5.1.13.2093

Project: P:\15S1200-1299\15S1265000 The Mall Wentworthville - Mixed Use\Modelling

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INTERSECTION

MOVEMENT SUMMARY

Site: Garfield St/Pritchard St (Ex-PM)

15S1265000 - The Mall Wentworthville
PM Existing Condition
Garfield Street and Pritchard Street intersection
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Garfield St - S											
1	L	1	0.0	0.045	6.7	LOS A	0.2	1.7	0.18	0.67	43.1
2	T	64	0.0	0.045	0.3	LOS A	0.2	1.7	0.18	0.00	47.6
3	R	16	0.0	0.045	7.0	LOS A	0.2	1.7	0.18	0.82	42.9
Approach		81	0.0	0.045	1.7	NA	0.2	1.7	0.18	0.17	46.5
East: Pritchard St - E											
4	L	56	0.0	0.208	10.4	LOS A	0.9	6.4	0.25	0.82	40.3
5	T	1	0.0	0.208	10.1	LOS A	0.9	6.4	0.25	0.88	40.5
6	R	116	0.9	0.208	10.3	LOS A	0.9	6.4	0.25	0.93	40.4
Approach		173	0.6	0.208	10.4	LOS A	0.9	6.4	0.25	0.89	40.4
North: Garfield St - N											
7	L	38	0.0	0.041	6.6	LOS A	0.2	1.6	0.23	0.56	42.8
8	T	37	0.0	0.041	0.2	LOS A	0.2	1.6	0.23	0.00	46.8
9	R	2	0.0	0.041	7.0	LOS A	0.2	1.6	0.23	0.71	42.7
Approach		77	0.0	0.041	3.6	NA	0.2	1.6	0.23	0.30	44.6
West: Pritchard St - W											
10	L	2	0.0	0.005	10.1	LOS A	0.0	0.1	0.20	0.84	40.5
11	T	1	0.0	0.005	9.7	LOS A	0.0	0.1	0.20	0.88	40.8
12	R	1	0.0	0.005	9.9	LOS A	0.0	0.1	0.20	0.93	40.7
Approach		4	0.0	0.005	9.9	LOS A	0.0	0.1	0.20	0.88	40.6
All Vehicles		335	0.3	0.208	6.7	NA	0.9	6.4	0.23	0.58	42.7

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: Station St/Pritchard St (Ex-PM)

15S1265000 - The Mall Wentworthville
PM Existing Condition
Station Street and Pritchard Street intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	62	1.7	0.154	6.4	LOS A	0.0	0.0	0.00	0.83	43.3
2	T	235	0.0	0.154	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		297	0.4	0.154	1.3	NA	0.0	0.0	0.00	0.17	48.4
North: Station St - N											
8	T	379	0.3	0.306	1.9	LOS A	2.4	17.0	0.52	0.00	43.6
9	R	119	0.9	0.306	8.5	LOS A	2.4	17.0	0.52	0.83	42.6
Approach		498	0.4	0.306	3.5	NA	2.4	17.0	0.52	0.20	43.4
West: Pritchard St - W											
10	L	85	0.0	0.308	14.2	LOS A	1.3	9.2	0.57	0.76	37.2
12	R	51	0.0	0.308	14.4	LOS A	1.3	9.2	0.57	0.88	37.1
Approach		136	0.0	0.308	14.3	LOS A	1.3	9.2	0.57	0.80	37.2
All Vehicles		931	0.3	0.308	4.4	NA	2.4	17.0	0.36	0.28	43.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

Processed: Thursday, 18 December 2014 3:24:31 PM

SIDRA INTERSECTION 5.1.13.2093

Project: P:\15S1200-1299\15S1265000 The Mall Wentworthville - Mixed Use\Modelling

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MOVEMENT SUMMARY

Site: Cumberland Hwy/Dunmore St (Ex-SAT)

15S1265000 - The Mall Wentworthville
 SAT Existing Condition
 Cumberland Highway and Dunmore Street intersection
 Signals - Fixed Time Cycle Time = 144 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Cumberland Hwy - S											
1	L	38	0.0	0.661	43.7	LOS D	30.1	212.5	0.79	1.00	30.0
2	T	1744	1.3	0.661	35.9	LOS C	30.2	213.6	0.79	0.72	31.4
3	R	61	1.7	0.599	84.7	LOS F	4.5	31.7	1.00	0.77	18.1
Approach		1843	1.3	0.661	37.7	LOS C	30.2	213.6	0.80	0.73	30.7
East: Dunmore St - E											
4	L	46	0.0	0.625	34.5	LOS C	8.2	57.8	0.66	0.81	29.8
5	T	262	0.4	0.625	29.0	LOS C	19.3	135.4	0.75	0.63	28.0
6	R	278	0.0	0.625	39.1	LOS C	19.3	135.4	0.87	0.83	28.0
Approach		586	0.2	0.625	34.2	LOS C	19.3	135.4	0.80	0.74	28.2
North: Cumberland Hwy - N											
7	L	333	0.0	0.514	23.4	LOS B	7.8	54.8	0.43	0.76	38.6
8	T	1605	1.7	0.649	35.7	LOS C	26.9	190.9	0.78	0.71	31.6
9	R	107	0.0	0.946	101.9	LOS F	9.0	62.7	1.00	0.99	15.7
Approach		2045	1.3	0.946	37.2	LOS C	26.9	190.9	0.73	0.74	30.9
West: Dunmore St - W											
10	L	94	0.0	0.405	54.8	LOS D	8.6	60.3	0.85	0.79	23.5
11	T	222	0.5	0.405	48.9	LOS D	13.5	95.1	0.88	0.73	22.0
12	R	68	0.0	0.405	56.9	LOS E	13.5	95.1	0.90	0.82	23.2
Approach		384	0.3	0.405	51.7	LOS D	13.5	95.1	0.88	0.76	22.6
All Vehicles		4859	1.1	0.946	38.2	LOS C	30.2	213.6	0.78	0.74	29.6

Level of Service (LOS) Method: Delay (RTA NSW).
 Vehicle movement LOS values are based on average delay per movement
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	36.1	LOS D	0.2	0.2	0.71	0.71
P3	Across E approach	53	33.3	LOS D	0.1	0.1	0.68	0.68
P5	Across N approach	53	56.0	LOS E	0.2	0.2	0.88	0.88
P7	Across W approach	53	33.3	LOS D	0.1	0.1	0.68	0.68
All Pedestrians		212	39.7	LOS D			0.74	0.74

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

MOVEMENT SUMMARY

Site: Station St/Dunmore St (Ex-SAT)]

15S1265000 - The Mall Wentworthville

SAT Existing Condition

Station Street and Dunmore Street intersection

Signals - Fixed Time Cycle Time = 160 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Station St - S											
1	L	165	0.0	1.000 ³	46.9	LOS D	7.0	49.0	1.00	0.81	23.5
2	T	38	0.0	0.544	58.5	LOS E	13.1	92.0	0.93	0.78	19.6
3	R	121	0.0	0.544	65.0	LOS E	13.1	92.0	0.93	0.83	19.6
Approach		356	0.0	1.000	56.2	LOS D	13.1	92.0	0.97	0.81	21.4
East: Dunmore St - E											
4	L	92	0.0	0.428	41.7	LOS C	4.6	32.5	0.70	0.73	24.9
5	T	240	0.9	0.366	35.7	LOS C	14.3	100.8	0.75	0.64	26.0
6	R	25	0.0	0.366	42.1	LOS C	14.3	100.8	0.75	0.86	25.5
Approach		357	0.6	0.428	37.7	LOS C	14.3	100.8	0.74	0.68	25.7
North: Station St - N											
7	L	23	0.0	0.311	58.9	LOS E	1.4	9.9	0.82	0.69	20.7
8	T	58	0.0	0.281	56.9	LOS E	6.2	43.4	0.88	0.71	20.2
9	R	37	0.0	0.281	63.3	LOS E	6.2	43.4	0.88	0.80	20.1
Approach		118	0.0	0.311	59.3	LOS E	6.2	43.4	0.87	0.73	20.3
West: Dunmore St - W											
10	L	54	0.0	0.480	17.9	LOS B	3.6	25.2	0.45	0.78	35.4
11	T	225	0.5	0.533	12.9	LOS A	15.2	106.4	0.58	0.50	36.2
12	R	311	0.0	0.533	20.2	LOS B	15.2	106.4	0.65	0.81	34.0
Approach		589	0.2	0.533	17.2	LOS B	15.2	106.4	0.60	0.69	34.9
All Vehicles		1420	0.2	1.000	35.4	LOS C	15.2	106.4	0.75	0.70	26.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

³ x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	35.1	LOS D	0.2	0.2	0.66	0.66
P3	Across E approach	53	52.8	LOS E	0.2	0.2	0.81	0.81
P5	Across N approach	53	35.1	LOS D	0.2	0.2	0.66	0.66
P7	Across W approach	53	52.8	LOS E	0.2	0.2	0.81	0.81
All Pedestrians		212	44.0	LOS E			0.74	0.74

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: Garfield St/Dunmore St (Ex-SAT)

15S1265000 - The Mall Wentworthville
SAT Existing Condition
Garfield Street and Dunmore Street intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Garfield St - S											
1	L	174	0.0	0.527	13.0	LOS A	1.3	9.4	0.52	0.91	39.2
Approach		174	0.0	0.527	13.0	LOS A	1.3	9.4	0.52	0.91	39.2
East: Dunmore St - E											
4	L	75	0.0	0.127	7.4	LOS A	0.0	0.0	0.00	0.93	48.6
5	T	416	0.5	0.127	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		491	0.4	0.127	1.1	NA	0.0	0.0	0.00	0.14	58.0
West: Dunmore St - W											
11	T	641	0.2	0.274	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		641	0.2	0.274	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		1305	0.2	0.527	2.2	NA	1.3	9.4	0.07	0.17	55.4

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

Processed: Thursday, 18 December 2014 3:24:32 PM

SIDRA INTERSECTION 5.1.13.2093

Project: P:\15S1200-1299\15S1265000 The Mall Wentworthville - Mixed Use\Modelling

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INTERSECTION

MOVEMENT SUMMARY

Site: Garfield St/Pritchard St (Ex-SAT)

15S1265000 - The Mall Wentworthville
SAT Existing Condition
Garfield Street and Pritchard Street intersection
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Garfield St - S											
1	L	12	0.0	0.066	6.8	LOS A	0.4	2.5	0.24	0.58	42.9
2	T	75	0.0	0.066	0.4	LOS A	0.4	2.5	0.24	0.00	46.8
3	R	28	0.0	0.066	7.2	LOS A	0.4	2.5	0.24	0.76	42.7
Approach		115	0.0	0.066	2.7	NA	0.4	2.5	0.24	0.25	45.3
East: Pritchard St - E											
4	L	54	0.0	0.230	11.2	LOS A	1.0	7.0	0.34	0.81	39.8
5	T	12	0.0	0.230	10.8	LOS A	1.0	7.0	0.34	0.89	40.1
6	R	108	1.0	0.230	11.1	LOS A	1.0	7.0	0.34	0.94	40.0
Approach		174	0.6	0.230	11.1	LOS A	1.0	7.0	0.34	0.90	39.9
North: Garfield St - N											
7	L	42	0.0	0.061	6.7	LOS A	0.3	2.4	0.25	0.56	42.8
8	T	65	1.6	0.061	0.3	LOS A	0.3	2.4	0.25	0.00	46.6
9	R	6	0.0	0.061	7.1	LOS A	0.3	2.4	0.25	0.74	42.7
Approach		114	0.9	0.061	3.1	NA	0.3	2.4	0.25	0.25	44.9
West: Pritchard St - W											
10	L	9	0.0	0.037	10.8	LOS A	0.1	1.0	0.28	0.82	40.1
11	T	14	0.0	0.037	10.4	LOS A	0.1	1.0	0.28	0.89	40.4
12	R	6	0.0	0.037	10.6	LOS A	0.1	1.0	0.28	0.94	40.2
Approach		29	0.0	0.037	10.6	LOS A	0.1	1.0	0.28	0.88	40.3
All Vehicles		432	0.5	0.230	6.7	NA	1.0	7.0	0.28	0.55	42.5

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: Station St/Pritchard St (Ex-SAT)

15S1265000 - The Mall Wentworthville
SAT Existing Condition
Station Street and Pritchard Street intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	79	1.3	0.171	6.4	LOS A	0.0	0.0	0.00	0.82	43.3
2	T	249	0.0	0.171	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		328	0.3	0.171	1.5	NA	0.0	0.0	0.00	0.20	48.2
North: Station St - N											
8	T	277	0.0	0.295	2.1	LOS A	2.1	14.9	0.53	0.00	43.4
9	R	157	0.0	0.295	8.7	LOS A	2.1	14.9	0.53	0.82	42.2
Approach		434	0.0	0.295	4.5	NA	2.1	14.9	0.53	0.30	42.9
West: Pritchard St - W											
10	L	86	0.0	0.375	15.8	LOS B	1.8	12.6	0.61	0.84	36.2
12	R	72	0.0	0.375	16.0	LOS B	1.8	12.6	0.61	0.93	36.1
Approach		158	0.0	0.375	15.9	LOS B	1.8	12.6	0.61	0.88	36.2
All Vehicles		920	0.1	0.375	5.4	NA	2.1	14.9	0.35	0.36	43.2

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

Processed: Thursday, 18 December 2014 3:24:32 PM

SIDRA INTERSECTION 5.1.13.2093

Project: P:\15S1200-1299\15S1265000 The Mall Wentworthville - Mixed Use\Modelling

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B.2 Post Development AM/PM Peak Hour

MOVEMENT SUMMARY

Site: Cumberland Hwy/Dunmore St (Fut-dev-AM)

15S1265000 - The Mall Wentworthville
AM Future Post Development Condition
Cumberland Highway and Dunmore Street intersection
Signals - Fixed Time Cycle Time = 140 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Cumberland Hwy - S											
1	L	26	0.0	0.832	49.4	LOS D	41.5	299.1	0.93	0.95	28.0
2	T	2091	3.5	0.832	41.7	LOS C	41.7	300.6	0.93	0.85	28.9
3	R	67	0.0	0.564	80.7	LOS F	4.7	33.0	1.00	0.77	18.7
Approach		2184	3.3	0.832	43.0	LOS D	41.7	300.6	0.93	0.85	28.5
East: Dunmore St - E											
4	L	38	2.8	0.812	50.4	LOS D	12.9	91.9	0.78	0.97	24.8
5	T	220	1.4	0.812	42.5	LOS C	15.2	108.3	0.80	0.80	23.8
6	R	256	2.1	0.812	47.6	LOS D	15.2	108.3	0.98	0.93	25.3
Approach		514	1.8	0.812	45.6	LOS D	15.2	108.3	0.89	0.88	24.7
North: Cumberland Hwy - N											
7	L	574	0.2	0.900	42.7	LOS D	18.6	130.6	0.89	0.88	28.4
8	T	1643	3.6	0.774	39.4	LOS C	30.4	219.1	0.88	0.80	29.9
9	R	111	0.0	0.926	96.3	LOS F	8.8	61.9	1.00	0.98	16.4
Approach		2327	2.6	0.926	42.9	LOS D	30.4	219.1	0.89	0.83	28.5
West: Dunmore St - W											
10	L	173	1.8	0.693	56.9	LOS E	15.2	108.1	0.90	0.82	23.0
11	T	434	1.0	0.693	52.1	LOS D	25.6	180.6	0.96	0.82	21.3
12	R	69	0.0	0.693	60.3	LOS E	25.6	180.6	0.98	0.86	22.6
Approach		676	1.1	0.693	54.2	LOS D	25.6	180.6	0.95	0.82	21.9
All Vehicles		5701	2.6	0.926	44.5	LOS D	41.7	300.6	0.91	0.84	27.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	35.0	LOS D	0.1	0.1	0.71	0.71
P3	Across E approach	53	34.3	LOS D	0.1	0.1	0.70	0.70
P5	Across N approach	53	55.8	LOS E	0.2	0.2	0.89	0.89
P7	Across W approach	53	34.3	LOS D	0.1	0.1	0.70	0.70
All Pedestrians		212	39.9	LOS D			0.75	0.75

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

MOVEMENT SUMMARY

Site: Station St/Dunmore St (Future-AM)

15S1265000 - The Mall Wentworthville
 AM Future Post Development Condition
 Station Street and Dunmore Street intersection
 Signals - Fixed Time Cycle Time = 160 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	30	1.7	0.200	32.1	LOS C	1.3	9.1	0.58	0.68	28.2
2	T	43	0.0	0.924	91.5	LOS F	23.3	164.9	1.00	1.02	14.9
3	R	119	1.8	0.924	97.9	LOS F	23.3	164.9	1.00	1.02	14.9
Approach		284	1.5	0.924	89.6	LOS F	23.3	164.9	0.93	0.97	16.1
East: Dunmore St - E											
4	L	77	5.5	0.352	36.9	LOS C	3.6	26.4	0.65	0.72	26.5
5	T	184	1.1	0.251	29.4	LOS C	9.5	67.3	0.67	0.56	28.4
6	R	15	0.0	0.251	35.8	LOS C	9.5	67.3	0.67	0.86	27.5
Approach		276	2.3	0.352	31.8	LOS C	9.5	67.3	0.66	0.62	27.8
North: Station St - N											
7	L	17	0.0	0.246	67.9	LOS E	1.1	7.8	0.88	0.68	19.0
8	T	41	0.0	0.337	70.1	LOS E	5.0	35.3	0.96	0.74	17.9
9	R	28	0.0	0.337	76.5	LOS F	5.0	35.3	0.96	0.78	17.8
Approach		86	0.0	0.337	71.8	LOS F	5.0	35.3	0.94	0.74	18.1
West: Dunmore St - W											
10	L	56	0.0	0.674	19.7	LOS B	5.1	36.1	0.65	0.83	34.8
11	T	478	0.7	0.674	11.6	LOS A	22.8	160.0	0.64	0.56	36.9
12	R	392	0.3	0.674	17.0	LOS B	22.8	160.0	0.63	0.84	36.0
Approach		925	0.5	0.674	14.4	LOS A	22.8	160.0	0.64	0.69	36.4
All Vehicles		1572	0.9	0.924	33.9	LOS C	23.3	164.9	0.71	0.68	28.4

Level of Service (LOS) Method: Delay (RTA NSW).
 Vehicle movement LOS values are based on average delay per movement
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	30.6	LOS D	0.1	0.1	0.62	0.62
P3	Across E approach	53	61.3	LOS F	0.2	0.2	0.88	0.88
P5	Across N approach	53	30.6	LOS D	0.1	0.1	0.62	0.62
P7	Across W approach	53	61.3	LOS F	0.2	0.2	0.88	0.88
All Pedestrians		212	45.9	LOS E			0.75	0.75

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

MOVEMENT SUMMARY

Site: Garfield St/Dunmore St (Fut-dev-AM)

15S1265000 - The Mall Wentworthville
AM Future Post Development Condition
Garfield Street and Dunmore Street intersection
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Garfield St - S											
1	L	198	2.1	0.506	11.1	LOS A	1.3	9.5	0.45	0.83	40.7
Approach		198	2.1	0.506	11.1	LOS A	1.3	9.5	0.45	0.83	40.7
East: Dunmore St - E											
4	L	25	0.0	0.087	7.4	LOS A	0.0	0.0	0.00	1.04	48.6
5	T	309	1.4	0.087	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		335	1.3	0.087	0.6	NA	0.0	0.0	0.00	0.08	59.0
West: Dunmore St - W											
11	T	1017	0.4	0.436	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1017	0.4	0.436	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		1549	0.8	0.506	1.5	NA	1.3	9.5	0.06	0.12	56.4

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

Processed: Tuesday, 9 June 2015 11:43:41 AM

SIDRA INTERSECTION 5.1.13.2093

Project: P:\15S1200-1299\15S1265000 The Mall Wentworthville - Mixed Use\Modelling

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INTERSECTION

MOVEMENT SUMMARY

Site: Garfield St/Pritchard St (Future-AM)

15S1265000 - The Mall Wentworthville
AM Future Post Development Condition
Garfield Street and Pritchard Street intersection
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Garfield St - S											
1	L	2	0.0	0.098	6.6	LOS A	0.5	3.6	0.16	0.62	43.0
2	T	95	4.4	0.098	0.2	LOS A	0.5	3.6	0.16	0.00	47.8
3	R	64	0.0	0.098	7.0	LOS A	0.5	3.6	0.16	0.76	42.8
Approach		161	2.6	0.098	3.0	NA	0.5	3.6	0.16	0.31	45.6
East: Pritchard St - E											
4	L	36	2.9	0.240	11.4	LOS A	1.1	7.4	0.30	0.78	39.7
5	T	1	0.0	0.240	10.9	LOS A	1.1	7.4	0.30	0.89	39.9
6	R	138	0.0	0.240	11.2	LOS A	1.1	7.4	0.30	0.94	39.8
Approach		175	0.6	0.240	11.2	LOS A	1.1	7.4	0.30	0.91	39.8
North: Garfield St - N											
7	L	18	0.0	0.030	6.8	LOS A	0.2	1.2	0.25	0.59	42.9
8	T	38	2.8	0.030	0.3	LOS A	0.2	1.2	0.25	0.00	46.6
9	R	1	0.0	0.030	7.1	LOS A	0.2	1.2	0.25	0.76	42.8
Approach		57	1.9	0.030	2.5	NA	0.2	1.2	0.25	0.20	45.3
West: Pritchard St - W											
10	L	1	0.0	0.004	10.7	LOS A	0.0	0.1	0.29	0.79	40.2
11	T	1	0.0	0.004	10.3	LOS A	0.0	0.1	0.29	0.84	40.4
12	R	1	0.0	0.004	10.5	LOS A	0.0	0.1	0.29	0.89	40.3
Approach		3	0.0	0.004	10.5	LOS A	0.0	0.1	0.29	0.84	40.3
All Vehicles		396	1.6	0.240	6.6	NA	1.1	7.4	0.23	0.56	42.7

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

Processed: Tuesday, 9 June 2015 11:44:03 AM

SIDRA INTERSECTION 5.1.13.2093

Project: P:\15S1200-1299\15S1265000 The Mall Wentworthville - Mixed Use\Modelling

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INTERSECTION

MOVEMENT SUMMARY

Site: Station St/Pritchard St (Future-AM)

15S1265000 - The Mall Wentworthville
AM Future Post Development Condition
Station Street and Pritchard Street intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	97	1.1	0.180	6.4	LOS A	0.0	0.0	0.00	0.80	43.3
2	T	247	0.4	0.180	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		344	0.6	0.180	1.8	NA	0.0	0.0	0.00	0.23	47.9
North: Station St - N											
8	T	360	2.3	0.354	2.6	LOS A	3.1	22.3	0.58	0.00	42.8
9	R	167	0.0	0.354	9.2	LOS A	3.1	22.3	0.58	0.87	42.0
Approach		527	1.6	0.354	4.7	NA	3.1	22.3	0.58	0.28	42.5
West: Pritchard St - W											
10	L	63	0.0	0.366	18.6	LOS B	1.6	11.5	0.64	0.85	34.5
12	R	61	0.0	0.366	18.8	LOS B	1.6	11.5	0.64	0.94	34.4
Approach		124	0.0	0.366	18.7	LOS B	1.6	11.5	0.64	0.89	34.4
All Vehicles		996	1.1	0.366	5.5	NA	3.1	22.3	0.39	0.34	42.9

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

Processed: Tuesday, 9 June 2015 11:44:28 AM
SIDRA INTERSECTION 5.1.13.2093

Project: P:\15S1200-1299\15S1265000 The Mall Wentworthville - Mixed Use\Modelling
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INTERSECTION

MOVEMENT SUMMARY

Site: Cumberland Hwy/Dunmore St (Fut-dev-PM)

15S1265000 - The Mall Wentworthville
PM Future Post Development Condition
Cumberland Highway and Dunmore Street intersection
Signals - Fixed Time Cycle Time = 140 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Cumberland Hwy - S											
1	L	64	0.0	0.877	53.9	LOS D	47.7	337.8	0.97	0.96	26.5
2	T	2188	1.4	0.877	45.9	LOS D	48.2	341.5	0.96	0.92	27.4
3	R	76	0.0	0.571	79.6	LOS F	5.3	36.8	1.00	0.77	18.9
Approach		2328	1.4	0.877	47.2	LOS D	48.2	341.5	0.97	0.91	27.0
East: Dunmore St - E											
4	L	65	0.0	0.909	51.5	LOS D	14.0	97.9	0.90	0.91	24.5
5	T	439	0.2	0.909	49.5	LOS D	33.0	231.4	0.95	0.96	21.8
6	R	283	0.0	0.909	62.1	LOS E	33.0	231.4	1.00	1.09	22.0
Approach		787	0.1	0.909	54.2	LOS D	33.0	231.4	0.97	1.00	22.1
North: Cumberland Hwy - N											
7	L	394	0.0	0.595	26.1	LOS B	9.5	66.3	0.52	0.78	36.7
8	T	2354	2.7	0.919	52.4	LOS D	55.1	394.8	1.00	0.99	25.3
9	R	161	0.0	1.012	124.5	LOS F	15.0	104.8	1.00	1.08	13.4
Approach		2908	2.2	1.012	52.8	LOS D	55.1	394.8	0.93	0.97	25.2
West: Dunmore St - W											
10	L	80	0.0	0.415	56.3	LOS D	8.8	62.0	0.88	0.79	23.2
11	T	259	0.8	0.415	50.1	LOS D	13.0	91.7	0.90	0.74	21.8
12	R	41	0.0	0.415	58.0	LOS E	13.0	91.7	0.91	0.82	23.0
Approach		380	0.6	0.415	52.2	LOS D	13.0	91.7	0.90	0.76	22.2
All Vehicles		6404	1.5	1.012	50.9	LOS D	55.1	394.8	0.95	0.94	25.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	35.7	LOS D	0.2	0.2	0.71	0.71
P3	Across E approach	53	34.3	LOS D	0.1	0.1	0.70	0.70
P5	Across N approach	53	56.7	LOS E	0.2	0.2	0.90	0.90
P7	Across W approach	53	34.3	LOS D	0.1	0.1	0.70	0.70
All Pedestrians		212	40.3	LOS E			0.75	0.75

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

MOVEMENT SUMMARY

Site: Station St/Dunmore St (Future-PM)

15S1265000 - The Mall Wentworthville
PM Future Post Development Condition
Station Street and Dunmore Street intersection
Signals - Fixed Time Cycle Time = 160 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	193	0.0	0.432	53.7	LOS D	15.1	105.6	0.85	0.82	21.9
2	T	48	0.0	0.432	47.3	LOS D	15.1	105.6	0.85	0.72	22.1
3	R	106	1.0	1.000 ³	67.9	LOS E	6.9	49.0	0.98	0.79	19.0
Approach		351	0.3	1.000	57.4	LOS E	15.1	105.6	0.89	0.80	20.9
East: Dunmore St - E											
4	L	131	1.6	0.631	44.4	LOS D	7.0	49.4	0.73	0.75	24.2
5	T	360	0.9	0.546	40.4	LOS C	23.2	163.2	0.83	0.73	24.5
6	R	27	0.0	0.546	46.8	LOS D	23.2	163.2	0.83	0.88	24.2
Approach		518	1.0	0.631	41.7	LOS C	23.2	163.2	0.81	0.75	24.4
North: Station St - N											
7	L	36	0.0	0.462	55.0	LOS D	2.1	14.7	0.80	0.70	21.5
8	T	88	0.0	0.585	63.8	LOS E	12.6	88.3	0.96	0.80	18.8
9	R	87	0.0	0.585	70.2	LOS E	12.6	88.3	0.96	0.83	18.8
Approach		212	0.0	0.585	65.0	LOS E	12.6	88.3	0.93	0.80	19.2
West: Dunmore St - W											
10	L	62	0.0	0.748	35.3	LOS C	7.3	51.1	0.74	0.88	27.6
11	T	288	0.4	0.748	24.3	LOS B	20.1	140.8	0.81	0.73	29.7
12	R	364	0.3	0.748	26.7	LOS B	20.1	140.8	0.88	0.87	30.8
Approach		715	0.3	0.748	26.5	LOS B	20.1	140.8	0.84	0.81	30.0
All Vehicles		1795	0.5	1.000	41.4	LOS C	23.2	163.2	0.85	0.79	24.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

³ x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	36.5	LOS D	0.2	0.2	0.68	0.68
P3	Across E approach	53	48.8	LOS E	0.2	0.2	0.78	0.78
P5	Across N approach	53	36.5	LOS D	0.2	0.2	0.68	0.68
P7	Across W approach	53	48.8	LOS E	0.2	0.2	0.78	0.78
All Pedestrians		212	42.6	LOS E			0.73	0.73

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

MOVEMENT SUMMARY

Site: Garfield St/Dunmore St (Future-PM)

15S1265000 - The Mall Wentworthville
PM Future Post Development Condition
Garfield Street and Dunmore Street intersection
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Garfield St - S											
1	L	198	0.5	0.780	22.2	LOS B	2.7	18.7	0.66	1.16	33.6
Approach		198	0.5	0.780	22.2	LOS B	2.7	18.7	0.66	1.16	33.6
East: Dunmore St - E											
4	L	45	0.0	0.170	7.4	LOS A	0.0	0.0	0.00	1.05	48.6
5	T	614	0.3	0.170	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		659	0.3	0.170	0.5	NA	0.0	0.0	0.00	0.07	59.1
West: Dunmore St - W											
11	T	718	0.4	0.308	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		718	0.4	0.308	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		1575	0.4	0.780	3.0	NA	2.7	18.7	0.08	0.18	54.3

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

Processed: Tuesday, 9 June 2015 11:46:30 AM

SIDRA INTERSECTION 5.1.13.2093

Project: P:\15S1200-1299\15S1265000 The Mall Wentworthville - Mixed Use\Modelling

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INTERSECTION

MOVEMENT SUMMARY

Site: Garfield St/Pritchard St (Future-PM)

15S1265000 - The Mall Wentworthville
PM Future Post Development Condition
Garfield Street and Pritchard Street intersection
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Garfield St - S											
1	L	1	0.0	0.069	6.7	LOS A	0.3	2.4	0.19	0.60	42.9
2	T	67	0.0	0.069	0.3	LOS A	0.3	2.4	0.19	0.00	47.4
3	R	45	0.0	0.069	7.1	LOS A	0.3	2.4	0.19	0.75	42.7
Approach		114	0.0	0.069	3.0	NA	0.3	2.4	0.19	0.30	45.4
East: Pritchard St - E											
4	L	63	0.0	0.261	10.9	LOS A	1.2	8.3	0.29	0.81	40.0
5	T	1	0.0	0.261	10.5	LOS A	1.2	8.3	0.29	0.89	40.3
6	R	142	0.7	0.261	10.7	LOS A	1.2	8.3	0.29	0.94	40.1
Approach		206	0.5	0.261	10.8	LOS A	1.2	8.3	0.29	0.90	40.1
North: Garfield St - N											
7	L	40	0.0	0.043	6.7	LOS A	0.2	1.7	0.23	0.56	42.8
8	T	39	0.0	0.043	0.2	LOS A	0.2	1.7	0.23	0.00	46.7
9	R	2	0.0	0.043	7.0	LOS A	0.2	1.7	0.23	0.71	42.6
Approach		81	0.0	0.043	3.6	NA	0.2	1.7	0.23	0.29	44.6
West: Pritchard St - W											
10	L	2	0.0	0.005	10.3	LOS A	0.0	0.1	0.21	0.84	40.4
11	T	1	0.0	0.005	9.9	LOS A	0.0	0.1	0.21	0.88	40.7
12	R	1	0.0	0.005	10.1	LOS A	0.0	0.1	0.21	0.94	40.5
Approach		4	0.0	0.005	10.1	LOS A	0.0	0.1	0.21	0.87	40.5
All Vehicles		405	0.3	0.261	7.2	NA	1.2	8.3	0.25	0.61	42.3

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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INTERSECTION

MOVEMENT SUMMARY

Site: Station St/Pritchard St (Future-PM)

15S1265000 - The Mall Wentworthville
PM Future Post Development Condition
Station Street and Pritchard Street intersection
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	108	1.0	0.185	6.4	LOS A	0.0	0.0	0.00	0.79	43.3
2	T	246	0.0	0.185	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		355	0.3	0.185	2.0	NA	0.0	0.0	0.00	0.24	47.7
North: Station St - N											
8	T	398	0.3	0.404	3.1	LOS A	4.2	29.5	0.63	0.00	42.3
9	R	198	0.5	0.404	9.8	LOS A	4.2	29.5	0.63	0.91	41.6
Approach		596	0.4	0.404	5.3	NA	4.2	29.5	0.63	0.30	42.0
West: Pritchard St - W											
10	L	94	0.0	0.479	21.4	LOS B	2.5	17.4	0.66	0.96	32.9
12	R	65	0.0	0.479	21.6	LOS B	2.5	17.4	0.66	0.99	32.9
Approach		159	0.0	0.479	21.5	LOS B	2.5	17.4	0.66	0.97	32.9
All Vehicles		1109	0.3	0.479	6.6	NA	4.2	29.5	0.43	0.38	42.0

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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INTERSECTION

MOVEMENT SUMMARY

Site: Cumberland Hwy/Dunmore St (Fut-dev-SAT)

15S1265000 - The Mall Wentworthville
 SAT Future Post Development Condition
 Cumberland Highway and Dunmore Street intersection
 Signals - Fixed Time Cycle Time = 144 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Cumberland Hwy - S											
1	L	40	0.0	0.694	44.3	LOS D	32.4	228.9	0.82	0.99	29.8
2	T	1832	1.2	0.694	36.5	LOS C	32.6	230.3	0.81	0.74	31.1
3	R	75	1.4	0.732	86.9	LOS F	5.6	39.6	1.00	0.83	17.8
Approach		1946	1.2	0.732	38.6	LOS C	32.6	230.3	0.82	0.75	30.3
East: Dunmore St - E											
4	L	61	0.0	0.738	41.0	LOS C	10.7	75.0	0.72	0.87	27.5
5	T	288	0.4	0.738	33.3	LOS C	23.1	162.0	0.80	0.71	26.4
6	R	331	0.0	0.738	40.5	LOS C	23.1	162.0	0.92	0.85	27.6
Approach		680	0.2	0.738	37.5	LOS C	23.1	162.0	0.85	0.79	27.1
North: Cumberland Hwy - N											
7	L	380	0.0	0.592	26.0	LOS B	9.3	65.2	0.51	0.78	36.8
8	T	1694	1.6	0.684	36.4	LOS C	29.2	207.1	0.80	0.73	31.3
9	R	113	0.0	0.992	117.7	LOS F	10.2	71.6	1.00	1.05	14.0
Approach		2186	1.3	0.992	38.7	LOS C	29.2	207.1	0.76	0.76	30.2
West: Dunmore St - W											
10	L	98	0.0	0.437	55.0	LOS D	9.3	65.4	0.86	0.79	23.4
11	T	243	0.4	0.437	49.3	LOS D	14.6	102.7	0.89	0.74	21.9
12	R	72	0.0	0.437	57.4	LOS E	14.6	102.7	0.90	0.83	23.1
Approach		413	0.3	0.437	52.0	LOS D	14.6	102.7	0.89	0.77	22.5
All Vehicles		5225	1.0	0.992	39.6	LOS C	32.6	230.3	0.81	0.76	29.0

Level of Service (LOS) Method: Delay (RTA NSW).
 Vehicle movement LOS values are based on average delay per movement
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 SIDRA Standard Delay Model used.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	36.1	LOS D	0.2	0.2	0.71	0.71
P3	Across E approach	53	33.3	LOS D	0.1	0.1	0.68	0.68
P5	Across N approach	53	56.0	LOS E	0.2	0.2	0.88	0.88
P7	Across W approach	53	33.3	LOS D	0.1	0.1	0.68	0.68
All Pedestrians		212	39.7	LOS D			0.74	0.74

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

MOVEMENT SUMMARY

Site: Station St/Dunmore St (Future-SAT)

15S1265000 - The Mall Wentworthville
 SAT Future Post Development Condition
 Station Street and Dunmore Street intersection
 Signals - Fixed Time Cycle Time = 160 seconds (User-Given Phase Times)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	165	0.0	1.000 ³	46.9	LOS D	7.0	49.0	1.00	0.81	23.5
2	T	40	0.0	0.641	60.9	LOS E	15.7	110.1	0.96	0.81	19.2
3	R	140	0.0	0.641	67.3	LOS E	15.7	110.1	0.96	0.84	19.2
Approach		386	0.0	1.000	58.1	LOS E	15.7	110.1	0.98	0.82	21.0
East: Dunmore St - E											
4	L	109	0.0	0.512	42.1	LOS C	5.6	39.3	0.71	0.74	24.8
5	T	252	0.8	0.384	36.0	LOS C	15.1	106.5	0.76	0.65	25.9
6	R	26	0.0	0.384	42.4	LOS C	15.1	106.5	0.76	0.87	25.4
Approach		387	0.5	0.512	38.2	LOS C	15.1	106.5	0.74	0.69	25.5
North: Station St - N											
7	L	24	0.0	0.325	58.9	LOS E	1.5	10.3	0.82	0.69	20.7
8	T	61	0.0	0.288	56.1	LOS D	6.5	45.6	0.88	0.71	20.4
9	R	39	0.0	0.288	62.5	LOS E	6.5	45.6	0.88	0.80	20.3
Approach		124	0.0	0.325	58.7	LOS E	6.5	45.6	0.87	0.73	20.4
West: Dunmore St - W											
10	L	57	0.0	0.560	20.0	LOS B	4.2	29.8	0.53	0.80	34.3
11	T	237	0.4	0.622	14.2	LOS A	18.0	126.0	0.63	0.55	35.2
12	R	378	0.0	0.622	21.2	LOS B	18.0	126.0	0.71	0.83	33.4
Approach		672	0.2	0.622	18.6	LOS B	18.0	126.0	0.67	0.73	34.1
All Vehicles		1569	0.2	1.000	36.1	LOS C	18.0	126.0	0.78	0.72	26.6

Level of Service (LOS) Method: Delay (RTA NSW).
 Vehicle movement LOS values are based on average delay per movement
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 SIDRA Standard Delay Model used.

³ x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians								
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	35.1	LOS D	0.2	0.2	0.66	0.66
P3	Across E approach	53	52.8	LOS E	0.2	0.2	0.81	0.81
P5	Across N approach	53	35.1	LOS D	0.2	0.2	0.66	0.66
P7	Across W approach	53	52.8	LOS E	0.2	0.2	0.81	0.81
All Pedestrians		212	44.0	LOS E			0.74	0.74

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

MOVEMENT SUMMARY

Site: Garfield St/Dunmore St (Future-SAT)

15S1265000 - The Mall Wentworthville
SAT Future Post Development Condition
Garfield Street and Dunmore Street intersection
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Garfield St - S											
1	L	247	0.0	0.774	18.2	LOS B	3.0	21.3	0.57	1.11	35.9
Approach		247	0.0	0.774	18.2	LOS B	3.0	21.3	0.57	1.11	35.9
East: Dunmore St - E											
4	L	79	0.0	0.134	7.4	LOS A	0.0	0.0	0.00	0.93	48.6
5	T	437	0.5	0.134	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		516	0.4	0.134	1.1	NA	0.0	0.0	0.00	0.14	58.0
West: Dunmore St - W											
11	T	725	0.1	0.310	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		725	0.1	0.310	0.0	NA	0.0	0.0	0.00	0.00	60.0
All Vehicles		1488	0.2	0.774	3.4	NA	3.0	21.3	0.10	0.23	53.4

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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INTERSECTION

MOVEMENT SUMMARY

Site: Garfield St/Pritchard St (Future-SAT)

15S1265000 - The Mall Wentworthville
SAT Future Post Development Condition
Garfield Street and Pritchard Street intersection
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Garfield St - S											
1	L	13	0.0	0.090	6.9	LOS A	0.5	3.3	0.24	0.55	42.8
2	T	79	0.0	0.090	0.5	LOS A	0.5	3.3	0.24	0.00	46.6
3	R	56	0.0	0.090	7.2	LOS A	0.5	3.3	0.24	0.73	42.6
Approach		147	0.0	0.090	3.6	NA	0.5	3.3	0.24	0.32	44.7
East: Pritchard St - E											
4	L	69	0.0	0.370	12.3	LOS A	2.0	13.9	0.41	0.79	39.1
5	T	13	0.0	0.370	11.9	LOS A	2.0	13.9	0.41	0.92	39.3
6	R	179	0.6	0.370	12.2	LOS A	2.0	13.9	0.41	0.97	39.2
Approach		261	0.4	0.370	12.2	LOS A	2.0	13.9	0.41	0.92	39.2
North: Garfield St - N											
7	L	44	0.0	0.064	6.8	LOS A	0.4	2.6	0.26	0.56	42.8
8	T	68	1.5	0.064	0.3	LOS A	0.4	2.6	0.26	0.00	46.5
9	R	6	0.0	0.064	7.1	LOS A	0.4	2.6	0.26	0.74	42.7
Approach		119	0.9	0.064	3.1	NA	0.4	2.6	0.26	0.25	44.8
West: Pritchard St - W											
10	L	9	0.0	0.040	11.1	LOS A	0.2	1.1	0.30	0.81	39.9
11	T	15	0.0	0.040	10.7	LOS A	0.2	1.1	0.30	0.89	40.1
12	R	6	0.0	0.040	11.0	LOS A	0.2	1.1	0.30	0.95	40.0
Approach		31	0.0	0.040	10.9	LOS A	0.2	1.1	0.30	0.88	40.0
All Vehicles		558	0.4	0.370	7.9	NA	2.0	13.9	0.33	0.62	41.7

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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INTERSECTION

MOVEMENT SUMMARY

Site: Station St/Pritchard St (Future-SAT)

15S1265000 - The Mall Wentworthville
SAT Future Post Development Condition
Station Street and Pritchard Street intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow 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 per veh	Average Speed km/h
South: Station St - S											
1	L	122	0.9	0.201	6.4	LOS A	0.0	0.0	0.00	0.79	43.3
2	T	262	0.0	0.201	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		384	0.3	0.201	2.0	NA	0.0	0.0	0.00	0.25	47.7
North: Station St - N											
8	T	291	0.0	0.388	3.3	LOS A	3.6	25.2	0.62	0.00	42.2
9	R	229	0.0	0.388	9.9	LOS A	3.6	25.2	0.62	0.91	41.3
Approach		520	0.0	0.388	6.2	NA	3.6	25.2	0.62	0.40	41.8
West: Pritchard St - W											
10	L	103	0.0	0.694	29.7	LOS C	4.9	34.4	0.77	1.28	29.1
12	R	114	0.0	0.694	29.9	LOS C	4.9	34.4	0.77	1.20	29.1
Approach		217	0.0	0.694	29.8	LOS C	4.9	34.4	0.77	1.24	29.1
All Vehicles		1121	0.1	0.694	9.4	NA	4.9	34.4	0.44	0.51	40.1

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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