Department of Planning, Industry and Environment
4 Parramatta Square, 12 Darcy Street
Parramatta NSW 2150

15 December 2021

Sydney Football Stadium – Precinct Village and Car Park Project (SSD 9835 MOD 7)

Response to Submissions | Transport Assessment

1. Introduction

SSD 9835 MOD 7 to support the Precinct Village and Car Park was publicly exhibited by the Department of Planning, Industry and Environment (DPIE) from 28th October 2021 to 24th November 2021 (MOD 7). During the consultation period, a submission from City of Sydney Council ('Council') was provided which raised a number of items in relation to traffic and transport associated with MOD 7.

This document has been prepared by JMT Consulting to respond to the transport related feedback provided in City of Sydney Council submission.

2. Response to Council Submission

Council's submission raised concern in relation to increased traffic movements associated with the increase in car parking outside of events held at the SFS. Council has recommended that updated modelling should be provided which takes into consideration a scenario where the car park is either filled or emptied (50% of the capacity per hour) during a peak weekday PM peak, and a Saturday lunchtime peak.

It is important to note that Transport for NSW (TfNSW) in its response to DPIE following a detailed review of MOD 7 noted the following "*TfNSW has reviewed the material and advises that the proposed modification will have a negligible impact on the surrounding state road network and TfNSW infrastructure*". TfNSW infrastructure includes all signalised intersections on the state and local road network including along Moore Park Road and Lang Road.

Notwithstanding the TfNSW feedback, an updated assessment has been undertaken to respond to Council's request. This has involved the preparation of updated traffic modelling for both a weekday PM peak and Saturday lunchtime peak when 750 cars (i.e. half of the total car park capacity) enter and exit the site. The analysis has also, in line with Council's recommendation, expanded the scope of the traffic assessment to consider the following two intersections:

- Driver Avenue / Lang Road
- Driver Avenue / Moore Park Road

These are the two key signalised intersections in the vicinity of the SFS and were modelled as part of the recently approved Stadium Fitness Facilities (SFF) project (SSD 9835 MOD 2). It is important to note that only the weekday PM peak hour was modelled as part of the SFF project rather than the Saturday lunchtime peak hour which has also been considered in this assessment.

Traffic data collected to support the SFS Stage 1 DA in 2018 on both a typical Thursday and Saturday (outside of events in Moore Park) has been used to inform this assessment. At the time the traffic data was collected, the previous MP1 car park was in operation which contained approximately 600 car parking spaces. The MP1 car park supported the SCG members club which would have generated traffic throughout the day and evening. Consistent with the turnover assumption adopted for the proposed Precinct Village and Car Park it has been assumed that the MP1 car park would have generated 300 vehicles movements (50% of its capacity) at the time of the traffic counts.

In this context the *net increase* in traffic movements attributable to the development is 450 vehicles. This traffic has been distributed across the two intersections on Driver Avenue evenly (consistent with previous assumptions adopted for the project). As the Moore Park Road egress point will not be utilised outside of major events at the SFS only the two signalised intersections on Driver Avenue (immediately north and south of the site). During the assessed peak hours half of these vehicles have been assumed to be entering the car park, with the remaining half leaving the car park

Figure 1   Net increase in traffic movements through Driver Avenue intersections

Based on this net increase in traffic movements updated SIDRA traffic modelling has been undertaken for both the weekday PM peak hour and Saturday lunchtime peak hour. The results of the modelling are summarised in Table 1 below. This demonstrates that the proposal does not significantly impact the operation of the road network even taking a very conservative approach whereby 50% of car parking spaces turn over within a single hour. The Driver Avenue intersections are forecast to continue to operate at acceptable levels of service. More detailed intersection modelling outputs are provided in Appendix A of this document.

Table 1 Traffic modelling results

Peak Hour	Intersection	Existing			Existing + Precinct Village & Car Park		
		Degree of Saturation	Level of Service	Average delay (seconds)	Degree of Saturation	Level of Service	Average delay (seconds)
Thursday PM peak hour	Moore Park Road & Driver Avenue	0.56	A	9	0.63	A	11
	Lang Road & Driver Avenue	0.58	B	19	0.63	B	22
Saturday lunchtime peak hour	Moore Park Road & Driver Avenue	0.67	A	8	0.70	A	10
	Lang Road & Driver Avenue	0.78	B	20	0.82	B	23

These modelling results are summarised in the figures on the following page which further indicate no change in the overall level of service at the two closest intersections to the site.
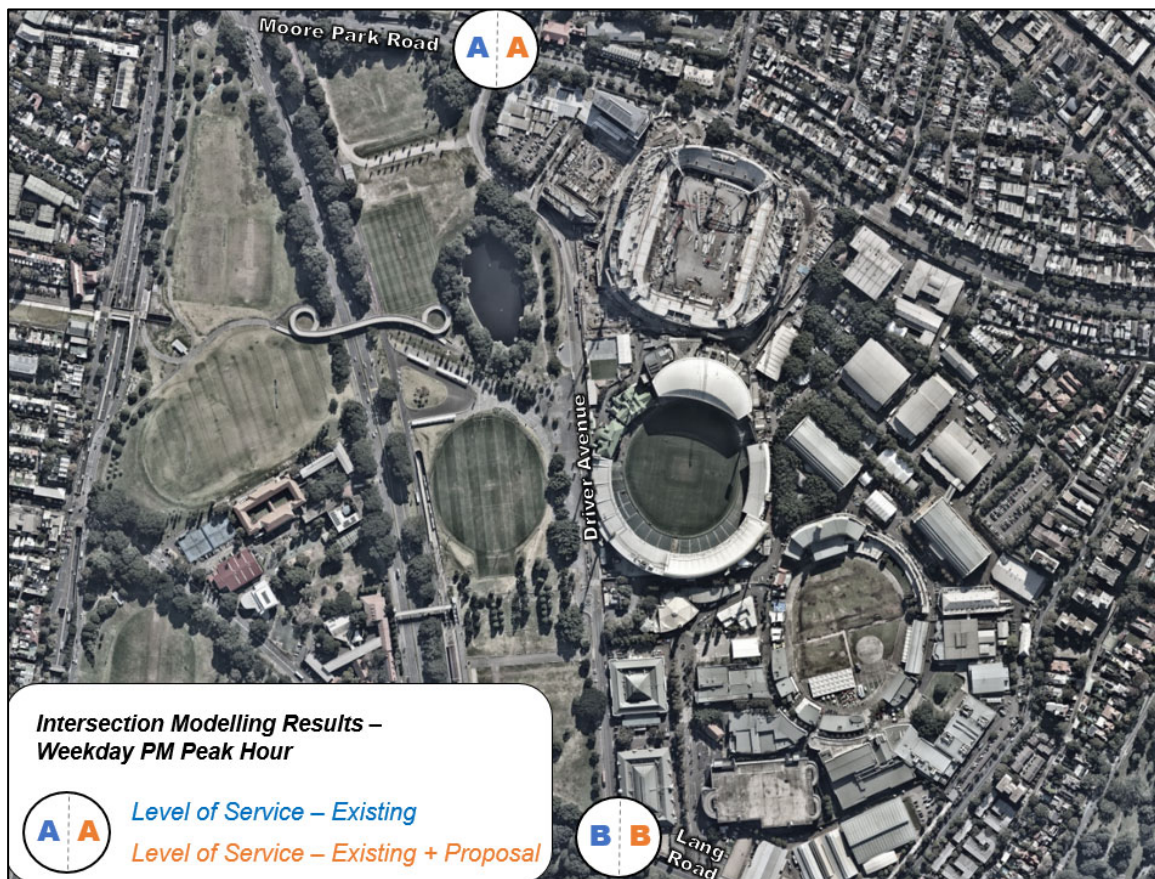
Figure 2   Traffic modelling results – Thursday PM peak hour

Figure 3   Traffic modelling results – Saturday peak hour

It is important to recognise that the scenario requested by Council where 50% of the car parking spaces turn over within a single hour is very conservative and unlikely to eventuate outside of events. Previous surveys undertaken at the nearby Entertainment Quarter (EQ) car park have demonstrated that there are significant levels of parking supply available on a typical non-event day. This is presented in Figure 4 which indicates parking never reaches 50% of total capacity on a weekday (outside of events), with more than 1,000 spaces available at any given time. This demonstrates that parking in the Moore Park Precinct outside of event days is not capacity constrained. Increased parking supply, supported by an appropriate car park pricing structure, will not lead to increased parking demands and traffic generation outside of events days compared to that already considered as part of planning for the SFS.
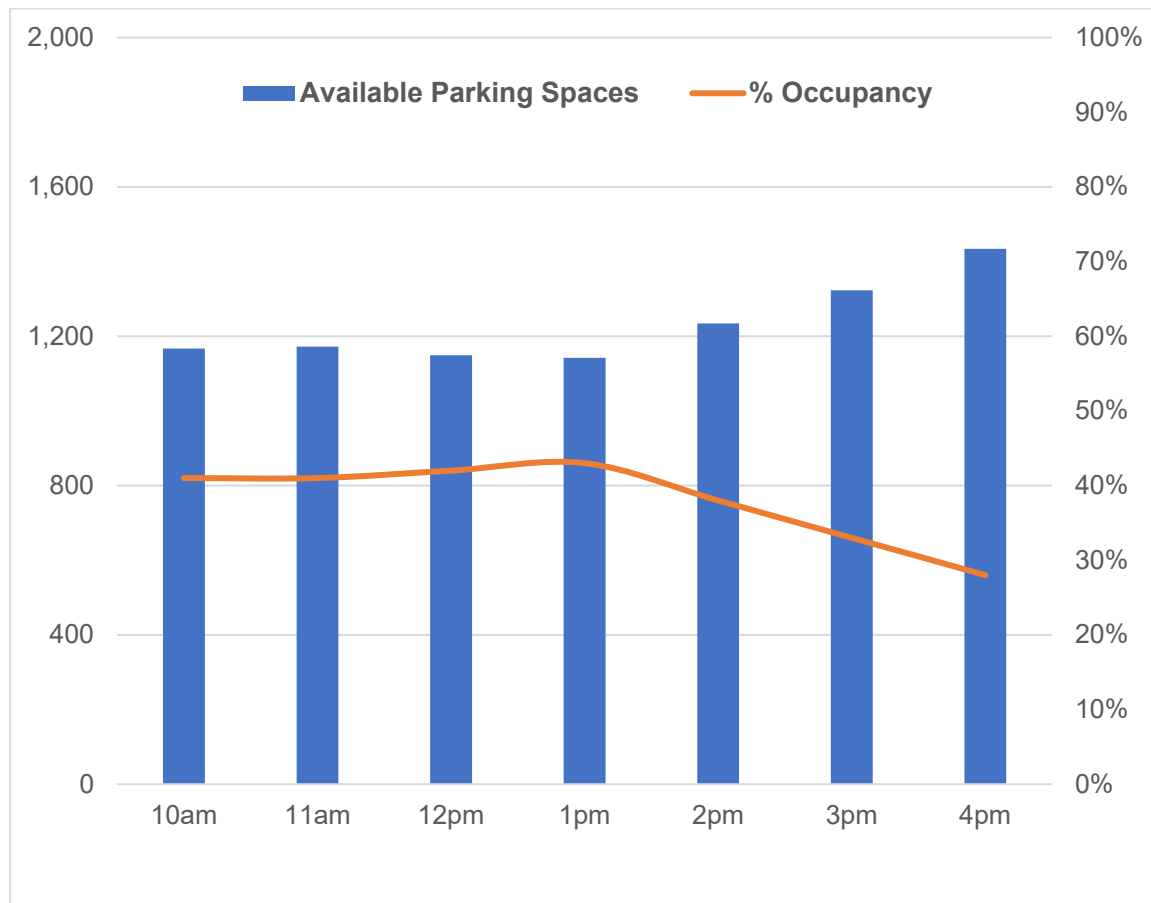
Figure 4   Parking profile – Entertainment Quarter (typical weekday outside of events)
Source: GTA, 2019

Although this analysis demonstrates that car parking demands are not expected to approach capacity on a typical weekday, the 1,500 space car park is required to support events held in the Moore Park Precinct. The availability of parking is considered critical to the successful operation of the new SFS and underpins the attractiveness of the venue for patrons and event organisers. Maintaining an appropriate level of event day parking is essential to ensuring accessibility and equity for vulnerable and disadvantaged visitors. A significant number of patrons travel to the SFS from Greater Sydney and beyond, where utilisation of public transport in the late evening after the conclusion of events to travel long distances is not feasible for most people.

Council also raised the following concern in its submission "*It appears the signalised intersection has been modelled in isolation rather than modelling two sites including the traffic signals and the merge of the right turn into general traffic eastbound on Moore Park Road and connected as a network. If this modelling is incorrect, and it appears to be, consideration must be made to limiting the number of spaces available outside of stadium events.*"

The traffic modelling approach and assumptions utilised in the exhibited Transport Assessment for the Precinct Village and Car Park project have been consistent with those utilised in the Stage 1 and 2 SSD DAs as well as relevant modification proposals (e.g. the Stadium Fitness Facilities). In each of these assessments the required merge for eastbound traffic on Moore Park Road has been considered in the modelling, with the modelled layout presented in Figure 5. Venues NSW provided this SIDRA traffic model to TfNSW for review during the exhibition period of the Precinct Village and Car Park project, with TfNSW confirming as part of its review that the proposed modification will have a negligible impact on the surrounding state road network and TfNSW infrastructure. Therefore, as separately confirmed by TfNSW, the modelling undertaken to support the proposal is considered suitable.
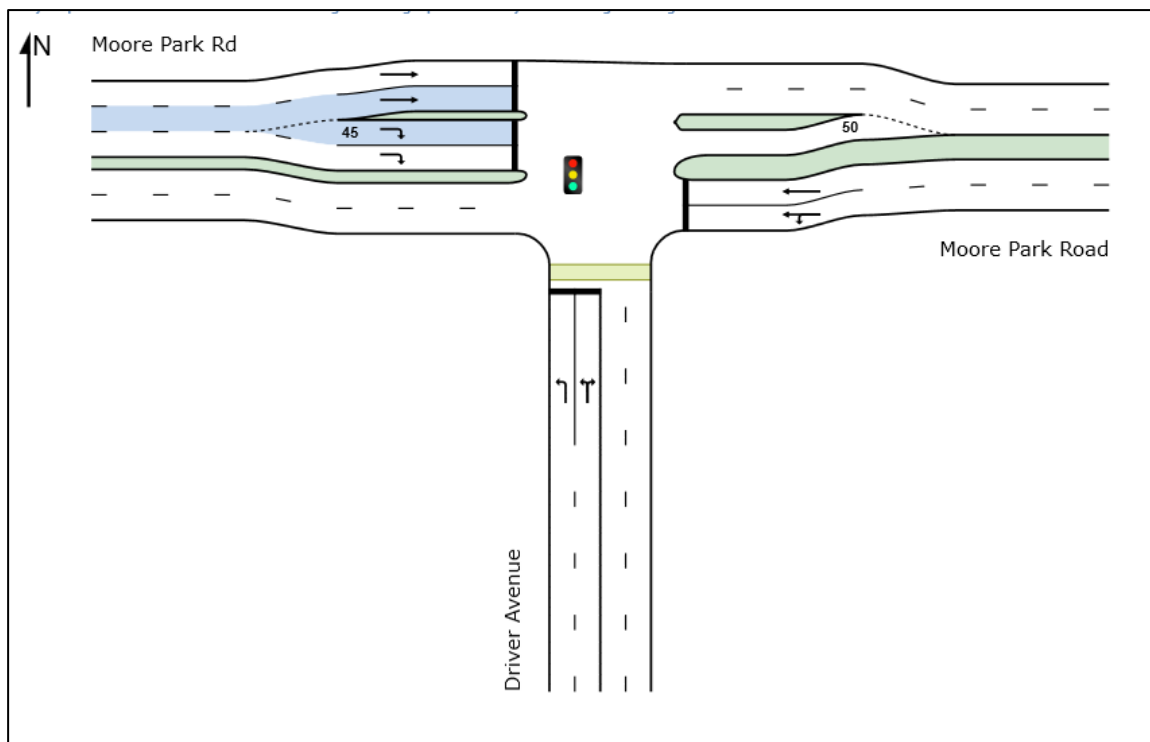
Figure 5   SIDRA intersection layout showing merge required for eastbound traffic

3. Summary

JMT Consulting has prepared this document to respond to the transport related submission provided by City of Sydney Council in relation to the proposed Modification to Stage 2 of the SFS Redevelopment (SSD 9835) to facilitate the Precinct Village and Car Park development (MOD 7).

In accordance with Council's request, updated traffic modelling has been undertaken for both a weekday and weekend peak hour (outside of events) which considers an unlikely scenario where 50% of the car parking spaces turn over within a single hour. The modelling confirms, even in this very conservative scenario, that intersections in the vicinity of the site retain an acceptable level of service with no change to current conditions. This verifies the conclusion drawn by TfNSW in its review that MOD 7 will have a negligible impact on the surrounding state road network and TfNSW infrastructure.

Please do not hesitate to contact the undersigned should you have any questions.

Regards

Josh Milston

Director | JMT Consulting

MIE AustCPEng (ID Number 3077628)

Appendix A: Traffic Modelling Outputs

MOVEMENT SUMMARY

🚦 Site: [Lang Road / Moore Park Road Thursday Existing (Site Folder: Weekday)]

Driver Avenue / Lang Road
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated   Cycle Time = 95 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Lang Road														
5	T1	783	2.0	824	2.0	0.359	7.0	LOS A	8.6	61.5	0.47	0.42	0.47	36.1
6	R2	43	2.0	45	2.0	*0.359	13.8	LOS A	8.5	60.4	0.54	0.49	0.54	40.4
Approach		826	2.0	869	2.0	0.359	7.3	LOS A	8.6	61.5	0.47	0.42	0.47	36.6
North: Driver Avenue														
7	L2	96	2.0	101	2.0	0.565	43.3	LOS D	8.2	58.0	0.96	0.81	0.96	25.0
9	R2	238	2.0	251	2.0	*0.565	44.9	LOS D	8.2	58.0	0.97	0.81	0.97	25.7
Approach		334	2.0	352	2.0	0.565	44.4	LOS D	8.2	58.0	0.97	0.81	0.97	25.5
West: Lang Road														
10	L2	92	2.0	97	2.0	0.577	25.1	LOS B	16.9	120.2	0.79	0.72	0.79	34.2
11	T1	858	2.0	903	2.0	*0.577	20.6	LOS B	17.2	122.5	0.79	0.71	0.79	23.6
Approach		950	2.0	1000	2.0	0.577	21.0	LOS B	17.2	122.5	0.79	0.71	0.79	25.3
All Vehicles		2110	2.0	2221	2.0	0.577	19.4	LOS B	17.2	122.5	0.69	0.61	0.69	28.1

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

＊ Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Lang Road												
P2	Full	68	72	41.8	LOS E	0.2	0.2	0.94	0.94	68.9	35.2	0.51
North: Driver Avenue												
P3	Full	22	23	20.3	LOS C	0.0	0.0	0.65	0.65	46.9	34.6	0.74
All Pedestrians		90	95	36.5	LOS D	0.2	0.2	0.87	0.87	63.5	35.1	0.55

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: [Lang Road / Moore Park Road Saturday Existing (Site Folder: Weekend)]

Driver Avenue / Lang Road
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated   Cycle Time = 95 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total] veh/h	HV %	DEMAND FLOWS [Total] veh/h	HV %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh] veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Lang Road														
5	T1	1246	2.0	1312	2.0	0.534	7.9	LOS A	16.0	114.3	0.53	0.48	0.53	35.0
6	R2	46	2.0	48	2.0	*0.534	15.4	LOS B	16.0	114.3	0.62	0.56	0.62	39.4
Approach		1292	2.0	1360	2.0	0.534	8.2	LOS A	16.0	114.3	0.54	0.49	0.54	35.3
North: Driver Avenue														
7	L2	41	2.0	43	2.0	0.279	42.7	LOS D	3.4	24.2	0.91	0.76	0.91	25.2
9	R2	103	2.0	108	2.0	*0.279	44.5	LOS D	3.4	24.2	0.93	0.75	0.93	25.8
Approach		144	2.0	152	2.0	0.279	44.0	LOS D	3.4	24.2	0.92	0.76	0.92	25.6
West: Lang Road														
10	L2	273	2.0	287	2.0	0.777	33.4	LOS C	23.7	168.5	0.92	0.87	0.97	30.0
11	T1	820	2.0	863	2.0	*0.777	29.0	LOS C	24.6	175.2	0.94	0.87	0.98	19.4
Approach		1093	2.0	1151	2.0	0.777	30.1	LOS C	24.6	175.2	0.93	0.87	0.98	23.1
All Vehicles		2529	2.0	2662	2.0	0.777	19.7	LOS B	24.6	175.2	0.73	0.67	0.75	27.4

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

＊ Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped] ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Lang Road												
P2	Full	68	72	41.8	LOS E	0.2	0.2	0.94	0.94	68.9	35.2	0.51
North: Driver Avenue												
P3	Full	22	23	24.4	LOS C	0.0	0.0	0.72	0.72	51.0	34.6	0.68
All Pedestrians		90	95	37.5	LOS D	0.2	0.2	0.89	0.89	64.5	35.1	0.54

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: [Lang Road / Moore Park Road Thursday Existing + Precinct Village (Site Folder: Weekday)]

Driver Avenue / Lang Road
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated   Cycle Time = 95 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total] veh/h	HV %	DEMAND FLOWS [Total] veh/h	HV %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh.] veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Lang Road														
5	T1	783	2.0	824	2.0	0.456	10.0	LOS A	12.6	89.7	0.57	0.51	0.57	32.2
6	R2	99	2.0	104	2.0	*0.456	21.8	LOS B	10.5	75.0	0.75	0.68	0.75	34.8
Approach		882	2.0	928	2.0	0.456	11.3	LOS A	12.6	89.7	0.59	0.53	0.59	32.7
North: Driver Avenue														
7	L2	152	2.0	160	2.0	0.623	40.6	LOS C	10.9	77.4	0.95	0.83	0.95	25.8
9	R2	296	2.0	312	2.0	*0.623	42.8	LOS D	10.9	77.4	0.97	0.82	0.97	26.2
Approach		448	2.0	472	2.0	0.623	42.1	LOS C	10.9	77.4	0.96	0.82	0.96	26.1
West: Lang Road														
10	L2	148	2.0	156	2.0	0.627	26.3	LOS B	18.6	132.1	0.82	0.76	0.82	33.4
11	T1	858	2.0	903	2.0	*0.627	21.9	LOS B	19.0	135.6	0.83	0.74	0.83	22.8
Approach		1006	2.0	1059	2.0	0.627	22.5	LOS B	19.0	135.6	0.82	0.75	0.82	25.2
All Vehicles		2336	2.0	2459	2.0	0.627	22.0	LOS B	19.0	135.6	0.76	0.68	0.76	27.4

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped] ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Lang Road												
P2	Full	68	72	40.0	LOS D	0.2	0.2	0.92	0.92	67.0	35.2	0.53
North: Driver Avenue												
P3	Full	22	23	20.9	LOS C	0.0	0.0	0.66	0.66	47.5	34.6	0.73
All Pedestrians		90	95	35.3	LOS D	0.2	0.2	0.86	0.86	62.3	35.1	0.56

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: [Lang Road / Moore Park Road Saturday Existing + Precinct Village (Site Folder: Weekend)]

Driver Avenue / Lang Road
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated   Cycle Time = 95 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total] veh/h	HV %	DEMAND FLOWS [Total] veh/h	HV %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh.] veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
East: Lang Road														
5	T1	1246	2.0	1312	2.0	0.610	10.3	LOS A	18.9	134.5	0.61	0.57	0.61	31.8
6	R2	102	2.0	107	2.0	*0.610	22.7	LOS B	17.6	125.1	0.78	0.76	0.78	34.5
Approach		1348	2.0	1419	2.0	0.610	11.3	LOS A	18.9	134.5	0.62	0.59	0.62	32.2
North: Driver Avenue														
7	L2	96	2.0	101	2.0	0.466	43.2	LOS D	6.5	46.1	0.94	0.79	0.94	25.0
9	R2	159	2.0	167	2.0	*0.466	45.7	LOS D	6.5	46.1	0.96	0.79	0.96	25.4
Approach		255	2.0	268	2.0	0.466	44.8	LOS D	6.5	46.1	0.95	0.79	0.95	25.3
West: Lang Road														
10	L2	329	2.0	346	2.0	0.818	36.2	LOS C	26.4	188.2	0.94	0.91	1.04	28.9
11	T1	820	2.0	863	2.0	*0.818	31.9	LOS C	27.6	196.7	0.96	0.92	1.05	18.3
Approach		1149	2.0	1209	2.0	0.818	33.1	LOS C	27.6	196.7	0.95	0.92	1.04	22.4
All Vehicles		2752	2.0	2897	2.0	0.818	23.5	LOS B	27.6	196.7	0.79	0.75	0.83	26.0

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

＊ Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped] ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
East: Lang Road												
P2	Full	68	72	41.8	LOS E	0.2	0.2	0.94	0.94	68.9	35.2	0.51
North: Driver Avenue												
P3	Full	22	23	24.4	LOS C	0.0	0.0	0.72	0.72	51.0	34.6	0.68
All Pedestrians		90	95	37.5	LOS D	0.2	0.2	0.89	0.89	64.5	35.1	0.54

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: [Thursday Existing (Site Folder: Thursday)]

Moore Park Road/ Driver Avenue
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated   Cycle Time = 60 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total] veh/h	HV %	DEMAND FLOWS [Total] veh/h	HV %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh.] veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Driver Avenue														
1	L2	149	2.0	157	2.0	0.270	22.4	LOS B	3.5	25.0	0.79	0.76	0.79	39.6
3	R2	102	2.0	107	2.0	*0.503	36.5	LOS C	3.2	22.6	0.98	0.77	0.98	33.7
Approach		251	2.0	264	2.0	0.503	28.2	LOS B	3.5	25.0	0.87	0.77	0.87	37.0
East: Moore Park Road														
4	L2	103	2.0	108	2.0	*0.555	17.5	LOS B	10.5	75.1	0.76	0.70	0.76	45.4
5	T1	866	2.0	912	2.0	0.555	11.9	LOS A	10.8	76.9	0.76	0.68	0.76	43.6
Approach		969	2.0	1020	2.0	0.555	12.5	LOS A	10.8	76.9	0.76	0.68	0.76	43.9
West: Moore Park Rd														
11	T1	1513	2.0	1593	2.0	0.517	1.1	LOS A	4.1	29.3	0.37	0.24	0.37	57.0
12	R2	106	2.0	112	2.0	*0.305	34.7	LOS C	1.6	11.6	0.96	0.74	0.96	33.9
Approach		1619	2.0	1704	2.0	0.517	3.3	LOS A	4.1	29.3	0.41	0.27	0.41	53.7
All Vehicles		2839	2.0	2988	2.0	0.555	8.7	LOS A	10.8	76.9	0.57	0.45	0.57	47.6

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped] ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Driver Avenue												
P1	Full	62	65	14.0	LOS B	0.1	0.1	0.69	0.69	41.1	35.2	0.86
All Pedestrians		62	65	14.0	LOS B	0.1	0.1	0.69	0.69	41.1	35.2	0.86

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: [Saturday Existing (Site Folder: Saturday)]

Moore Park Road/ Driver Avenue
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated   Cycle Time = 60 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total] veh/h	INPUT VOLUMES HV %	DEMAND FLOWS [Total] veh/h	DEMAND FLOWS HV %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh.] veh	95% BACK OF QUEUE Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Driver Avenue														
1	L2	64	2.0	67	2.0	0.123	22.3	LOS B	1.5	10.4	0.76	0.72	0.76	39.7
3	R2	43	2.0	45	2.0	*0.247	36.0	LOS C	1.3	9.4	0.96	0.73	0.96	33.7
Approach		107	2.0	113	2.0	0.247	27.8	LOS B	1.5	10.4	0.84	0.73	0.84	37.0
East: Moore Park Road														
4	L2	162	2.0	171	2.0	*0.665	17.8	LOS B	13.8	98.1	0.80	0.75	0.80	45.0
5	T1	1035	2.0	1089	2.0	0.665	12.2	LOS A	14.2	101.2	0.80	0.73	0.80	43.2
Approach		1197	2.0	1260	2.0	0.665	13.0	LOS A	14.2	101.2	0.80	0.73	0.80	43.5
West: Moore Park Rd														
11	T1	1295	2.0	1363	2.0	0.443	1.0	LOS A	3.2	22.8	0.33	0.21	0.33	57.3
12	R2	70	2.0	74	2.0	*0.201	34.2	LOS C	1.1	7.6	0.95	0.72	0.95	34.1
Approach		1365	2.0	1437	2.0	0.443	2.7	LOS A	3.2	22.8	0.36	0.24	0.36	54.6
All Vehicles		2669	2.0	2809	2.0	0.665	8.3	LOS A	14.2	101.2	0.58	0.48	0.58	47.9

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped] ped	AVERAGE BACK OF QUEUE Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Driver Avenue												
P1	Full	62	65	13.4	LOS B	0.1	0.1	0.67	0.67	40.4	35.2	0.87
All Pedestrians		62	65	13.4	LOS B	0.1	0.1	0.67	0.67	40.4	35.2	0.87

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: [Thursday Existing + Precinct Village (Site Folder: Thursday)]

Moore Park Road/ Driver Avenue
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated   Cycle Time = 60 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total] veh/h	HV] %	DEMAND FLOWS [Total] veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh.] veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Driver Avenue														
1	L2	206	2.0	217	2.0	0.338	21.4	LOS B	4.8	34.0	0.78	0.77	0.78	40.2
3	R2	158	2.0	166	2.0	*0.606	35.5	LOS C	4.9	34.9	0.98	0.82	1.04	34.1
Approach		364	2.0	383	2.0	0.606	27.5	LOS B	4.9	34.9	0.87	0.79	0.89	37.3
East: Moore Park Road														
4	L2	159	2.0	167	2.0	*0.635	19.5	LOS B	12.1	86.3	0.82	0.76	0.82	43.6
5	T1	866	2.0	912	2.0	0.635	13.9	LOS A	12.6	89.7	0.82	0.74	0.82	41.6
Approach		1025	2.0	1079	2.0	0.635	14.8	LOS B	12.6	89.7	0.82	0.74	0.82	42.0
West: Moore Park Rd														
11	T1	1513	2.0	1593	2.0	0.517	1.1	LOS A	4.1	29.2	0.37	0.24	0.37	57.0
12	R2	162	2.0	171	2.0	*0.466	35.3	LOS C	2.6	18.2	0.98	0.76	0.98	33.6
Approach		1675	2.0	1763	2.0	0.517	4.4	LOS A	4.1	29.2	0.43	0.29	0.43	52.2
All Vehicles		3064	2.0	3225	2.0	0.635	10.6	LOS A	12.6	89.7	0.61	0.50	0.61	45.8

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped] ped	Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Driver Avenue												
P1	Full	62	65	15.5	LOS B	0.1	0.1	0.72	0.72	42.5	35.2	0.83
All Pedestrians		62	65	15.5	LOS B	0.1	0.1	0.72	0.72	42.5	35.2	0.83

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: [Saturday Existing + Precinct Village (Site Folder: Saturday)]

Moore Park Road/ Driver Avenue
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated   Cycle Time = 60 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	INPUT VOLUMES HV] %	DEMAND FLOWS [Total veh/h	DEMAND FLOWS HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	95% BACK OF QUEUE Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Driver Avenue														
1	L2	120	2.0	126	2.0	0.230	23.0	LOS B	2.8	20.3	0.79	0.75	0.79	39.3
3	R2	99	2.0	104	2.0	*0.569	37.6	LOS C	3.2	22.7	1.00	0.80	1.06	33.0
Approach		219	2.0	231	2.0	0.569	29.6	LOS C	3.2	22.7	0.88	0.77	0.91	36.2
East: Moore Park Road														
4	L2	218	2.0	229	2.0	*0.700	18.3	LOS B	14.8	105.7	0.83	0.78	0.83	44.3
5	T1	1035	2.0	1089	2.0	0.700	12.7	LOS A	15.4	109.5	0.83	0.75	0.83	42.7
Approach		1253	2.0	1319	2.0	0.700	13.7	LOS A	15.4	109.5	0.83	0.76	0.83	43.0
West: Moore Park Rd														
11	T1	1295	2.0	1363	2.0	0.443	1.0	LOS A	3.2	22.8	0.33	0.21	0.33	57.3
12	R2	126	2.0	133	2.0	*0.362	34.9	LOS C	2.0	14.0	0.97	0.75	0.97	33.8
Approach		1421	2.0	1496	2.0	0.443	4.0	LOS A	3.2	22.8	0.39	0.26	0.39	52.8
All Vehicles		2893	2.0	3045	2.0	0.700	10.1	LOS A	15.4	109.5	0.62	0.52	0.62	46.2

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

* Critical Movement (Signal Timing)

Pedestrian Movement Performance

Mov ID	Crossing	Input Vol. ped/h	Dem. Flow ped/h	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Ped ped	AVERAGE BACK OF QUEUE Dist] m	Prop. Que	Effective Stop Rate	Travel Time sec	Travel Dist. m	Aver. Speed m/sec
South: Driver Avenue												
P1	Full	62	65	13.4	LOS B	0.1	0.1	0.67	0.67	40.4	35.2	0.87
All Pedestrians		62	65	13.4	LOS B	0.1	0.1	0.67	0.67	40.4	35.2	0.87

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.