

TRAFFIC AND PARKING IMPACT ASSESSMENT

Proposed School

Magpie Hollow Road, South Bowenfels

Prepared for: Oneschool Global

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1. Introduction

Motion Traffic Engineers was commissioned by Oneschool Global to undertake a traffic and parking impact assessment of proposed school for Magpie Hollow Road, South Bowenfels.

Currently, the site is a vacant lot with no permanent building structures in place.

This traffic report presents an assessment of the anticipated transport implications of the proposed school, with the following considerations:

- ➔ Background and existing traffic and parking conditions of the proposed school
- ➔ Assessment of the public transport network within the vicinity of the site
- ➔ Adequacy of car and parking provision
- ➔ The projected traffic generation from School
- ➔ The transport impact of the proposed school on the surrounding road network

In the course of preparing this assessment, the proposed school and its environs have been inspected, plans of the development examined, and all relevant traffic and parking data collected and analysed.

2. Background and Existing Conditions

2.1. Location and Land Use

The proposed school is located at Magpie Hollow Road, South Bowenfels in a regional area. The site is near the intersection with Great Western Highway. The immediate surrounding of the site are residential houses with one or two storeys, and a service station. Bowenfels Presbyterian Church is located to the south of the site. There are largely rural area to the south of the proposed school.

Figures 1 and 2 show the location of the proposed school site from aerial and street map perspective respectively. Figure 2 also shows the location of the surveyed intersections in relation to the site.

Figure 3 shows a photography of the site frontage taken from Magpie Hollow Road.



Figure 1: Location of the proposed school on Aerial View Perspective

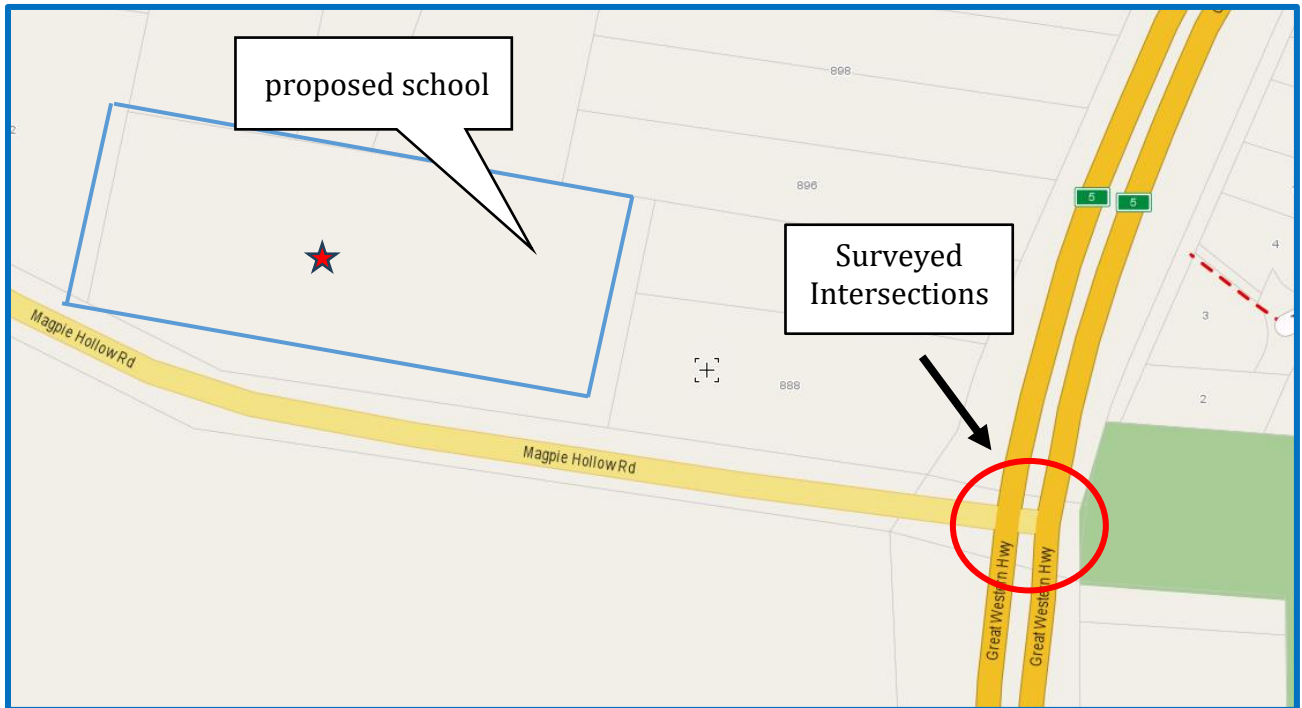


Figure 2: Location of the proposed school site on Aerial



Figure 3: Photograph of the Site from Magpie Hollow Road

2.2. Road Network

This section describes the nearby roads near the proposed school

Magpie Hollow Road is a rural road with one lane of traffic each way. It has a sign posted speed limit of 80km/hr. Double barrier lane separates the mid-block near the intersection. A road shoulder is provided for emergency parking such as a car breakdown. Figure 4a shows a photograph of Magpie Hollow Road.

Great Western Highway is an arterial road with two lanes of traffic each way. It has a sign posted speed limit of 80km/hr. Double barrier centre lines at the midblock (away from major intersections). A road shoulder is provided for emergency parking such as a car breakdown. Figure 4b shows a photograph of Great Western Highway.



Figure 4a: Magpie Hollow Road looking west from the site



Figure 4b: Great Western Highway looking North from the intersection with Magpie Hollow Road

2.3. Public Transport

The proposed school does not have access to public transport network.

2.4. Intersection Description

As part of the traffic impact assessment, the performance of a nearby intersection was surveyed and assessed:

- ➡ The priority intersection of Great Western Highway with Magpie Hollow Road

The priority intersection of Great Western Highway with Magpie Hollow Road is a three-leg intersection, with all turn movements permitted. Drivers on Magpie Hollow Road need to give way to vehicles on Great Western Highway. A median storage is located is provided on Great Western Highway. Figure 5a and 5b present photographs of the intersection on aerial and the layout of this intersection using SIDRA - an industry-standard intersection software. The right turn into Great Western Highway is assessed into two “linked” intersections as per the advice provided by SIDRA. The number on the lane represents a short lane in metres.

External traffic to and from the proposed school is likely to travel through the above intersection.

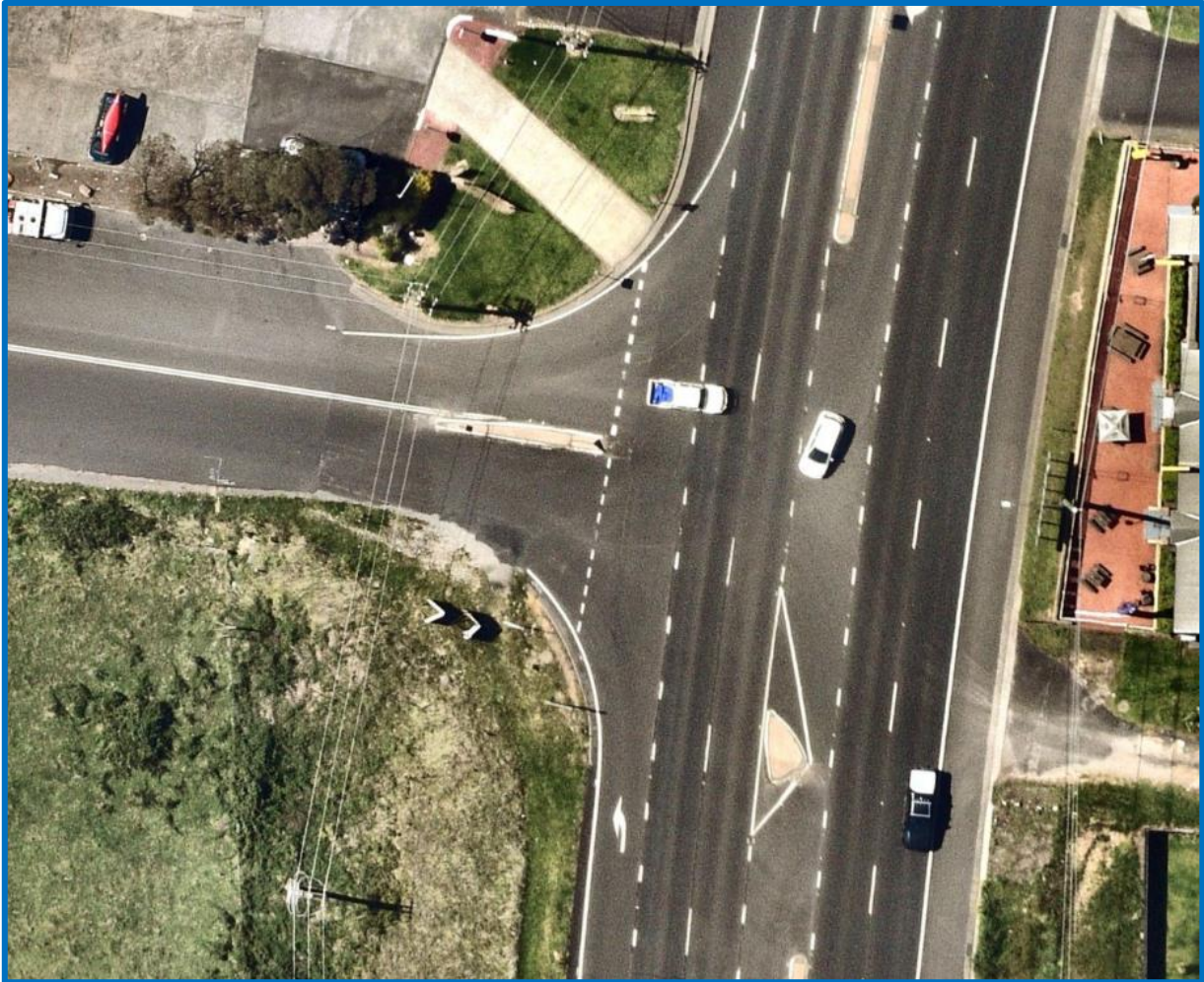


Figure 5a: The priority intersection of Great Western Highway with Magpie Hollow Road (aerial)

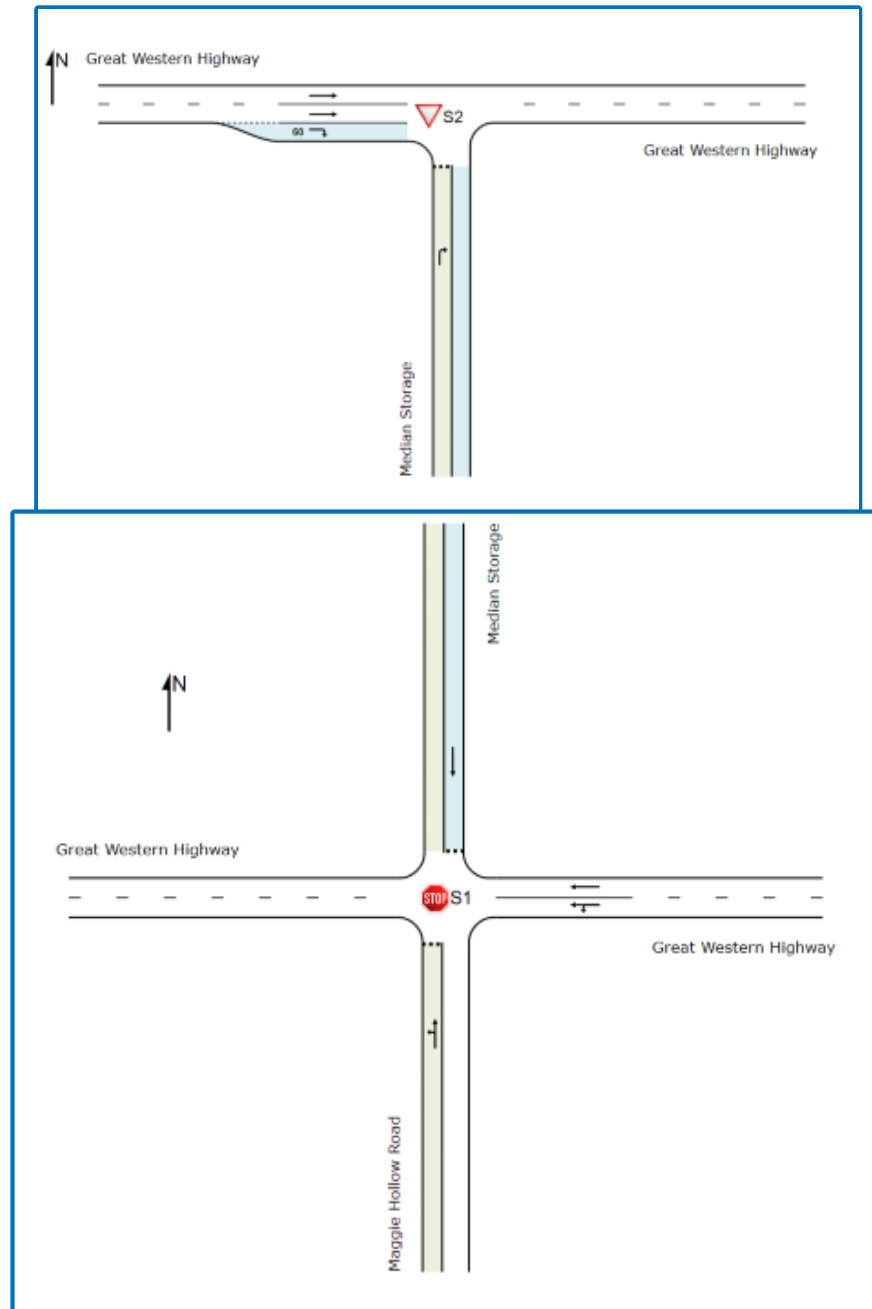


Figure 5b: The priority intersection of Great Western Highway with Magpie Hollow Road (SIDRA)

2.5. Existing Traffic Volumes

As part of the traffic assessment, traffic counts have been undertaken at the above-mentioned intersections and the school AM and PM peak hours are identified accordingly. The AM peak hour is 8:15am to 9:15am (school starts at 8:40am) and the PM peak hour is 2:00pm to 3:00pm (with school

ending at 2:40pm). The traffic counts were undertaken in the last week of April 2024 in school term time.

The following Figures present the traffic volumes in vehicles for the weekday peak hours. The bracketed numbers are trucks, and un-bracketed are cars.

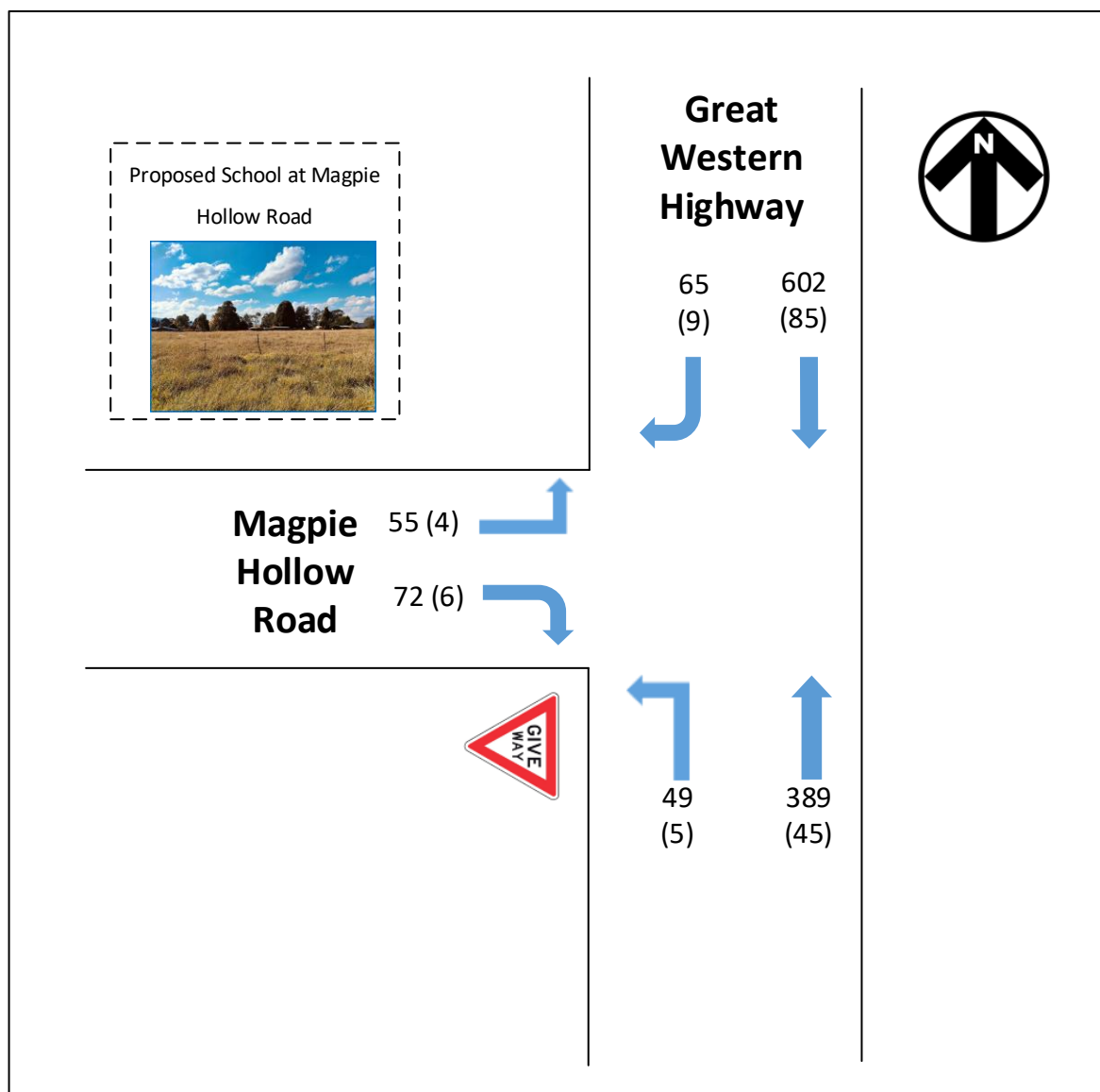


Figure 6a: Existing Weekday Traffic Volumes AM Peak Hour

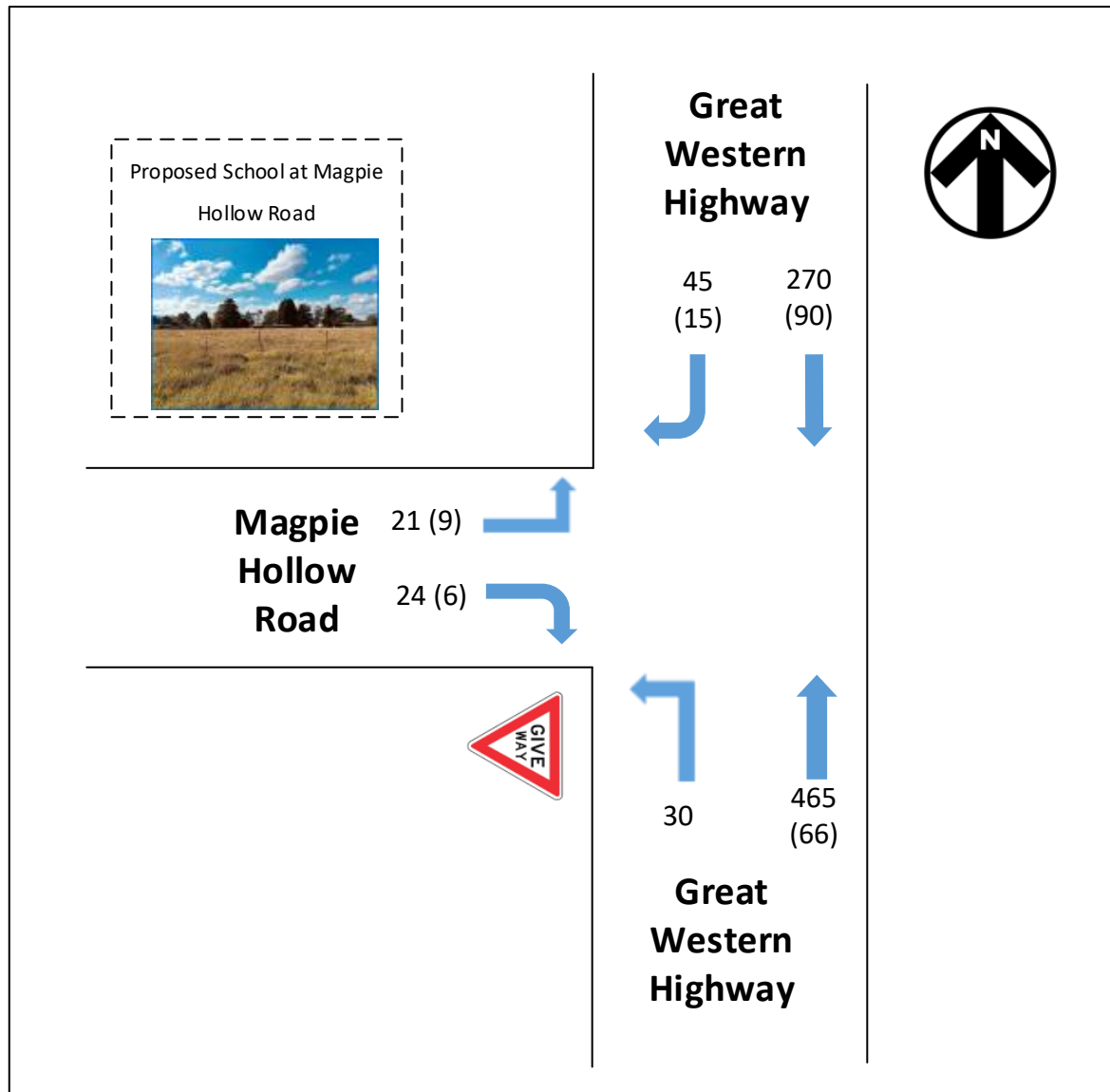


Figure 7b: Existing Weekday Traffic Volumes PM Peak Hour

2.6. Intersection Assessment with Existing Traffic

An intersection assessment has been undertaken for:

- ➡ The priority intersection of Great Western Highway with Magpie Hollow Road

The existing intersection operating performance was assessed using the SIDRA software package (version 9) to determine the Degree of Saturation (DS), Average Delay (AVD in seconds) and Level of Service (LoS) at each intersection. The SIDRA program provides Level of Service Criteria Tables for various intersection types. The key indicator of intersection performance is Level of Service, where results are placed on a continuum from 'A' to 'F', as shown in Table 1.

LoS	Traffic Signal / Roundabout	Give Way / Stop Sign / T-Junction control
A	Good operation	Good operation
B	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	Satisfactory	Satisfactory, but accident study required
D	Operating near capacity	Near capacity & accident study required
E	At capacity, at signals incidents will cause excessive delays.	At capacity, requires other control mode
F	Unsatisfactory and requires additional capacity, Roundabouts require other control mode	At capacity, requires other control mode

Table 1: Intersection Level of Service

The Average Vehicle Delay (AVD) provides a measure of the operational performance of an intersection as indicated below, which relates AVD to LOS. The AVD's should be taken as a guide only as longer delays could be tolerated in some locations (i.e., inner city conditions) and on some roads (i.e. minor side street intersecting with a major arterial route). For traffic signals, the average delay over all movements should be taken. For roundabouts and priority control intersections (sign control) the critical movement for level of service assessment should be that movement with the highest average delay.

LoS	Average Delay per Vehicles (seconds/vehicle)
A	Less than 14
B	15 to 28
C	29 to 42
D	43 to 56
E	57 to 70
F	>70

Table 2: Intersection Average Delay (AVD)

The degree of saturation (DS) is another measure of the operational performance of individual intersections. For intersections controlled by traffic signals both queue length and delay increase rapidly as DS approaches 1. It is usual to attempt to keep DS to less than 0.9. Degrees of Saturation in the order of 0.7 generally represent satisfactory intersection operation. When DS exceed 0.9 queues can be anticipated.

The results of the intersection analysis are as follows:

Intersection/ Performance criteria	AM Peak Hour Existing	PM Peak Hour Existing
Great Western Highway - Magpie Hollow Road		
<i>LoS</i>	N/A (worst case B)	N/A (worst case B)
<i>AVD(s)</i>	3.8	2.6
<i>DS</i>	0.23	0.16

All intersections are operating at good level of services with the current traffic volume. There are spare capacity at these intersections to accommodate additional traffic volume. The full SIDRA results are presented in Appendix A.

2.7. Conclusions on the Existing Conditions

The nearby intersection overall performs well with sufficient spare capacity to accommodate additional traffic.

The site does not have access to public transport.

3. Proposed School

The proposed school consists of:

- ➔ primary and high school children education
- ➔ A total of 114 children
- ➔ 49 car spaces provided

Minivans are used as form of public transport for the school community. Parents will volunteer to pick up and drop off. The mini vans will be parked at the parent's home and not at the school.

A school speed zone limit of 40km/hr will be required to provide road safety for the Magpie Hollow Road during the school drop off and pick up period. The details will be subject to Council and TfNSW requirements at the Construction Certificate stage (assuming a Development Consent is provided).

Council and TfNSW has asked for an assessment of nearby developments that may impact upon school traffic.

Council has provided the traffic report for DA022/18 that was signed ("stamped") on 29/10/2018 with the address (as per the traffic report) as 41 Magpie Hollow Road Lithgow. The approved development is for 80 residential lots. There is no built subdivision as of the report date (almost 6 years after the Development Consent was issued). Typically approved developments lapse after five years. This report takes into account this residential subdivision.

We do not know if the subdivision will be built. Information of the approved subdivision can be found with the stamped plans and associated reports.

A full scaled plan of the proposed school provided as part of the Development Application.

4. Parking Requirements

The Lithgow City Council states the car parking requirements for a school in the Development Control Plan (2021) as follows:

- Primary school: 1 per staff plus sufficient car spaces for set down and pick up areas, bus parking and for auditoriums and sports grounds
- Secondary School: 1 per staff plus 1 per 10 cars plus sufficient car spaces for set down and pick up areas, bus parking and for auditoriums and sports grounds, with 1 space for 10 students for a student over 17 (eligible for a driver's license)

Ten percent will be students over 17 (final year of Highschool) and hence one student car space will be required

Use	Type	Car Parking Rate	Car Spaces Required	Car Spaces Provided
School	Staff	1 space per staff	20	49
	Student over 17	1 per 10 students	1	
		Total	21	49

Table 4a: Summary of DCP Car Parking Requirements for school

As presented in Table 4a above, the proposed school provides forty-nine car spaces, as opposed to the twenty-one required. The remaining twenty-nine car spaces will be available for parents for drop off and pick up as well as for mini vans.

Therefore, the proposed school complies with the minimum parking requirement as per Lithgow Development Control Plan 2021.

4.1. Parking for a typical school day

For a typical school day, a total of twenty-nine car parking spaces will be available for parents and guardians to drop off and pick up the hundred and fourteen enrolled students.

Out of these twenty-nine spaces, twenty-seven will be allocated to parents, while the remaining two spaces (rounding upwards) will be reserved for students who are eligible to drive, assuming that approximately 10 percent of these students are in Year Twelve.

Additionally, transportation for ninety students will be transported through the use of ten minivans, each accommodating nine children. This arrangement is expected to significantly alleviate car parking demand.

Consequently, it is anticipated that thrifty-four two students will be regularly dropped off and picked up by car. Each car space can achieve four parking events in a 30 minute period before or after school. Hence, the twenty-seven car spaces is sufficient to contain all car parking demand onsite.

Given these provisions, all parking demands are expected to be satisfactorily met onsite.

4.2. Car Parking for “SPECIAL events”

In accordance with the Council’s Development Control Plan, a parking assessment is required for venues hosting significant gatherings, including auditoriums, sports grounds, and events such as Parent's Days.

The school does not have an auditorium and has no plans to construct one. Sports days are scheduled approximately once each term, primarily for student participation. Attendance by parents at these events is generally not permitted, thus reducing potential parking demand.

Parent's Days are organized after school hours, starting at 3:15 PM. These events typically last for a 15-minute period and are spread over multiple days to manage attendance effectively. Parents are assigned specific time slots, minimizing the need for prolonged waiting and optimizing the use of available parking spaces. This staggered scheduling ensures that the school's onsite parking facilities are sufficient to meet demand during these events.

5. Traffic Management

As previously noted, the traffic needs for the proposed school can be adequately managed onsite with all car parking and mini-van demand is met within the school. No overflow parking onto public parking areas will be permitted.

5.1. Arrival and Departure Protocols

A traffic management plan will be provided to facilitate the smooth flow of vehicles during arrival and departure times. Insights from a prior survey conducted at Illawarra Christian School highlight that the peak arrival time is 30 minutes before the commencement of school. Students arriving more than 15 minutes early tend to socialise in the outdoor areas. To accommodate early arrivals, school staff will supervise students within the school grounds until classes begin.

5.2. Drop-Off Efficiency

Observations at Illawarra Christian School show that the drop-off process typically takes less than 5 minutes. Older primary and all high school students often walk from the car to the school independently, while younger primary students are more likely to be escorted by a parent.

5.3. Staff Assistance and Traffic Management

Staff members will be presented at the mini-van drop-off and pick-up zones to help students get on and off the vans safely.

To facilitate efficient parking and minimize circling within the car park, a trained traffic controller (as required by TfNSW) equipped with guidance wands and personal protective gear will direct drivers to vacant spaces.

Overall, the availability of on-site car parking, the use of mini-vans for school transport, the arrival of students over 30 minutes, staff managing car movements will reduce and eliminate local traffic congestion in the morning drop off of students.

5.4. Pick-up Management

Parents typically park their vehicles before 3 pm with school ending at 3:10pm, which results in a concentrated departure period of about ten minutes immediately after school ends. This is the primary time when local traffic congestion occurs. A qualified traffic controller will manage the

orderly exit of vehicles from the car park when it is full. This will be done by releasing blocks of car spaces sequentially on the staff member's instruction to prevent congestion.

Through these measures, the school aims to ensure a safe and orderly environment for both the school community and the surrounding area during key traffic periods.

6. Traffic Generation and Impact

6.1. Traffic Generation and Distribution for the Proposed School and the Residential Subdivision

As stated previously, the traffic generated from the school for each school peak hour based on the discussion

- ➔ 10 arrival and 10 departure mini-van trips and 21 car arrival and 21 departure trips

The trip generation of the proposed residential subdivision (from the traffic report) is as follows:

- ➔ AM peak hour: 54 origin trips and 14 destination trips
- ➔ PM peak hour: 14 origin trips and 54 destination trips

The residential development assess the commuter peak hour of 5pm to 6pm but not the school peak hour (2pm to 3pm).

The “RTA Guide to Traffic Generating Developments” does not provide trip generation for residences between 2pm to 3pm on a weekday.

However, for the purposes of the school PM peak hour assessment, the commuter peak hour trips (5pm to 6pm) of the residential subdivision used.

6.2. Existing with School Traffic

The additional development trips are assigned onto the local traffic network. The following figures present the future traffic volume with the development trips (in red for origin trips and blue for destination trips) for the weekday AM and PM peak hours. The green numbers are the trips of the approved residential

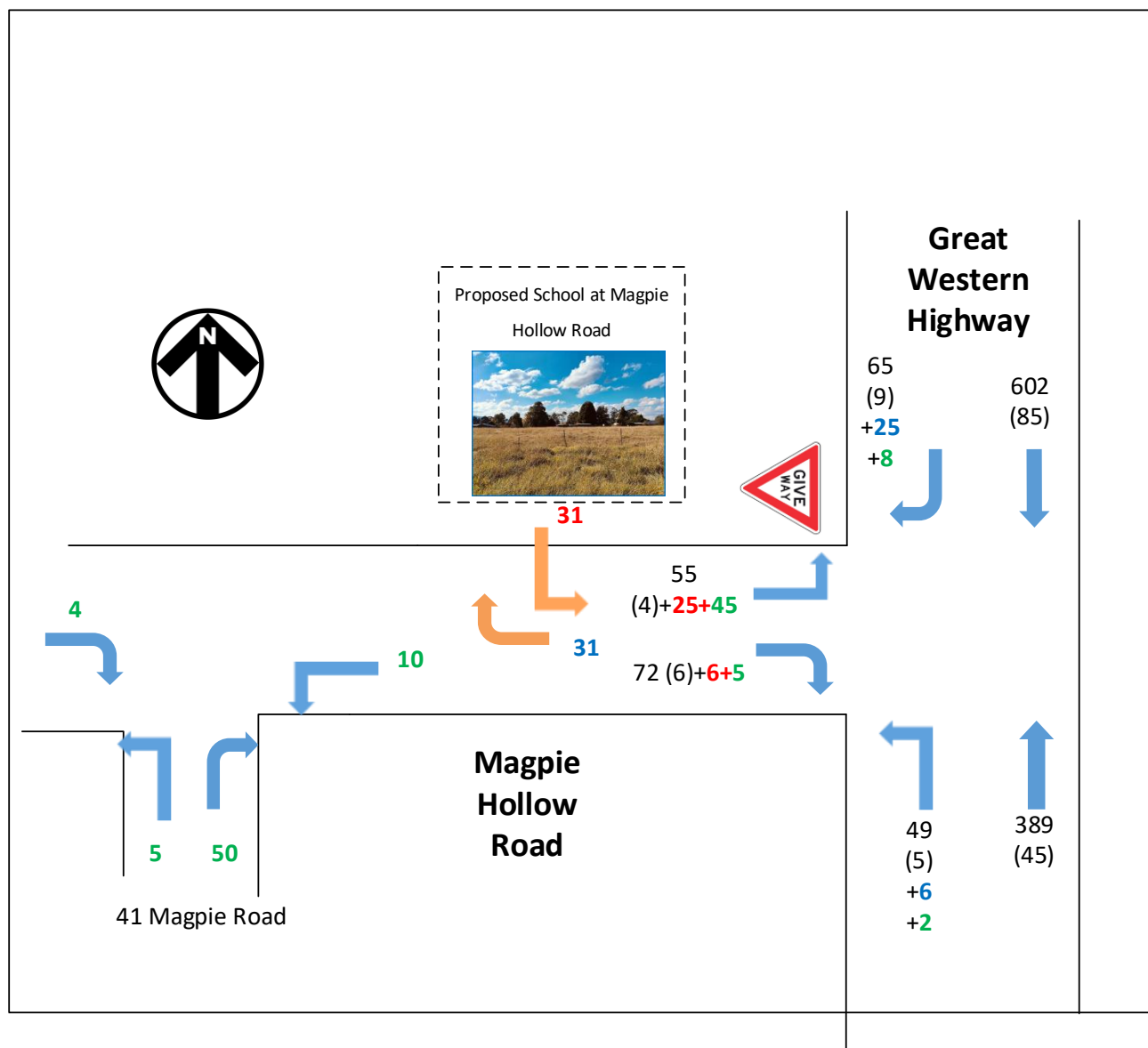


Figure 8a: Existing Weekday Traffic Volumes with proposed school Traffic AM Peak Hour



6.3. Traffic Impact

This section assesses the following intersections for the existing traffic with the proposed school Traffic. The results of the intersection assessment are as follows:

Intersection/ Performance criteria	Performance with Existing Traffic		Projected Performance with Existing and Proposed Apartment Traffic	
	AM Peak Hour Existing	PM Peak Hour Existing	AM Peak Hour Projected	PM Peak Hour Projected
Great Western Hwy - Magpie Hollow Road	N/A (worst case B)	N/A (worst case B)	N/A (worst case B)	N/A (worst case B)
<i>LoS</i>	3.8	2.6	4.6	5.1
<i>AVD(s)</i>	0.23	0.16	0.23	0.16
<i>DS</i>				

Table 6: Projected Intersection Performance with proposed school Traffic

As presented in Table 6 above, the additional trips generated by the proposed school have minimum impact on the intersection performances in both AM and PM peak hours. The LoS, AVD and DS of each intersection are not significantly affected by the addition of proposed school traffic. The traffic impact of the proposed school is therefore considered acceptable.

The full SIDRA results are presented in Appendix B for the future conditions with the proposed school traffic.

7. CONCLUSIONS

This traffic impact assessment report relates to a proposed school at *Magpie Hollow Road in South Bowenfels*. Based on the analysis and discussions presented in this report, the following conclusions are made:

- ➔ The school site is located in a regional area with no access to public transport network
- ➔ The nearby intersection currently operate at good levels of service
- ➔ The school will have a compliant number of car and mini-van spaces on-site to ensure all parking demand is met on-site
- ➔ The proposed school is expected to generate a medium number of additional trips in both AM and PM peak hours
- ➔ According to the Intersection Assessment, the additional trips can be accommodated in the nearby intersections without significantly affecting the performance of any turn movement, approach arm or the overall intersection.

There are no general traffic engineering reasons why a development consent for the proposed school at *Magpie Hollow Road in South Bowenfels* should not be granted.

APPENDIX A

INTERSECTION ASSESSMENT FOR EXISTING TRAFFIC

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total	HV]	[Total	HV]				[Veh.	Dist]				
		veh/h	%	veh/h	%				v/c	sec				
South: Maggie Hollow Road														
1	L2	62	6.8	62	6.8	0.145	7.8	LOS A	0.2	1.6	0.36	0.67	0.36	62.1
2	T1	82	7.7	82	7.7	0.145	8.1	LOS A	0.2	1.6	0.36	0.67	0.36	59.7
Approach		144	7.3	144	7.3	0.145	8.0	LOS A	0.2	1.6	0.36	0.67	0.36	61.1
East: Great Western Highway														
3	L2	57	9.3	57	9.3	0.141	7.1	LOS A	0.0	0.0	0.00	0.14	0.00	68.6
4	T1	457	10.4	457	10.4	0.141	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	78.7
Approach		514	10.2	514	10.2	0.141	0.8	NA	0.0	0.0	0.00	0.07	0.00	77.5
North: Median Storage														
5	T1	82	7.7	82	7.7	0.094	2.3	LOS A	0.1	1.0	0.48	0.41	0.48	55.4
Approach		82	7.7	82	7.7	0.094	2.3	LOS A	0.1	1.0	0.48	0.41	0.48	55.4
All Vehicles		740	9.4	740	9.4	0.145	2.4	NA	0.2	1.6	0.12	0.23	0.12	72.6
Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total	HV]	[Total	HV]				[Veh.	Dist]				
		veh/h	%	veh/h	%				v/c	sec				
South: Median Storage														
1	R2	82	7.7	82	7.7	0.178	7.7	LOS A	0.3	2.0	0.69	0.75	0.69	47.2
Approach		82	7.7	82	7.7	0.178	7.7	LOS A	0.3	2.0	0.69	0.75	0.69	47.2
West: Great Western Highway														
2	T1	723	12.4	723	12.4	0.200	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
3	R2	78	12.2	78	12.2	0.046	7.1	LOS A	0.0	0.0	0.00	0.67	0.00	61.7
Approach		801	12.4	801	12.4	0.200	0.7	NA	0.0	0.0	0.00	0.07	0.00	78.7
All Vehicles		883	11.9	883	11.9	0.200	1.4	NA	0.3	2.0	0.06	0.13	0.06	76.0

Table A1: Weekday Priority Intersection Performance of Great Western Highway with Magpie Hollow Road for the AM Peak Hour

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Maggie Hollow Road														
1	L2	32	30.0	32	30.0	0.075	8.7	LOS A	0.1	0.9	0.41	0.69	0.41	55.2
2	T1	32	20.0	32	20.0	0.075	9.0	LOS A	0.1	0.9	0.41	0.69	0.41	58.6
Approach		63	25.0	63	25.0	0.075	8.9	LOS A	0.1	0.9	0.41	0.69	0.41	56.3
East: Great Western Highway														
3	L2	32	0.0	32	0.0	0.163	7.0	LOS A	0.0	0.0	0.00	0.07	0.00	73.3
4	T1	559	12.4	559	12.4	0.163	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	79.2
Approach		591	11.8	591	11.8	0.163	0.4	NA	0.0	0.0	0.00	0.04	0.00	78.9
North: Median Storage														
5	T1	32	20.0	32	20.0	0.044	3.0	LOS A	0.1	0.5	0.51	0.43	0.51	49.0
Approach		32	20.0	32	20.0	0.044	3.0	LOS A	0.1	0.5	0.51	0.43	0.51	49.0
All Vehicles		685	13.4	685	13.4	0.163	1.3	NA	0.1	0.9	0.06	0.11	0.06	75.5
Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Median Storage														
1	R2	32	20.0	32	20.0	0.047	4.0	LOS A	0.1	0.6	0.51	0.52	0.51	47.0
Approach		32	20.0	32	20.0	0.047	4.0	LOS A	0.1	0.6	0.51	0.52	0.51	47.0
West: Great Western Highway														
2	T1	379	25.0	379	25.0	0.113	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
3	R2	63	25.0	63	25.0	0.040	7.3	LOS A	0.0	0.0	0.00	0.68	0.00	61.7
Approach		442	25.0	442	25.0	0.113	1.1	NA	0.0	0.0	0.00	0.10	0.00	78.1
All Vehicles		474	24.7	474	24.7	0.113	1.3	NA	0.1	0.6	0.03	0.12	0.03	76.2

Table A2: Weekday Priority Intersection Performance of Great Western Highway with Magpie Hollow Road for the PM Peak Hour

APPENDIX B

INTERSECTION ASSESSMENT FOR EXISTING CONDITION WITH SCHOOL TRAFFIC

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Maggie Hollow Road														
1	L2	131	3.2	131	3.2	0.207	7.8	LOS A	0.3	2.4	0.35	0.67	0.35	63.2
2	T1	93	6.8	93	6.8	0.207	8.2	LOS A	0.3	2.4	0.35	0.67	0.35	59.6
Approach		223	4.7	223	4.7	0.207	8.0	LOS A	0.3	2.4	0.35	0.67	0.35	62.2
East: Great Western Highway														
3	L2	65	8.1	65	8.1	0.144	7.1	LOS A	0.0	0.0	0.00	0.16	0.00	68.7
4	T1	457	10.4	457	10.4	0.144	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	78.6
Approach		522	10.1	522	10.1	0.144	0.9	NA	0.0	0.0	0.00	0.08	0.00	77.2
North: Median Storage														
5	T1	88	7.1	88	7.1	0.102	2.3	LOS A	0.1	1.1	0.48	0.41	0.48	55.6
Approach		88	7.1	88	7.1	0.102	2.3	LOS A	0.1	1.1	0.48	0.41	0.48	55.6
All Vehicles		834	8.3	834	8.3	0.207	2.9	NA	0.3	2.4	0.15	0.27	0.15	71.4

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Median Storage														
1	R2	93	6.8	93	6.8	0.208	8.3	LOS A	0.3	2.3	0.71	0.79	0.73	46.8
Approach		93	6.8	93	6.8	0.208	8.3	LOS A	0.3	2.3	0.71	0.79	0.73	46.8
West: Great Western Highway														
2	T1	723	12.4	723	12.4	0.200	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
3	R2	113	8.4	113	8.4	0.064	7.0	LOS A	0.0	0.0	0.00	0.67	0.00	61.7
Approach		836	11.8	836	11.8	0.200	1.0	NA	0.0	0.0	0.00	0.09	0.00	78.2
All Vehicles		928	11.3	928	11.3	0.208	1.7	NA	0.3	2.3	0.07	0.16	0.07	75.3

Table B1: Weekday Priority Intersection Performance of Great Western Highway with Magpie Hollow Road for the AM Peak Hour with School Traffic

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total	HV]	[Total	HV]				[Veh.	Dist]				
		veh/h	%	veh/h	%				v/c	sec				
South: Maggie Hollow Road														
1	L2	66	14.3	66	14.3	0.113	8.3	LOS A	0.2	1.3	0.40	0.68	0.40	59.4
2	T1	40	15.8	40	15.8	0.113	9.0	LOS A	0.2	1.3	0.40	0.68	0.40	58.8
Approach		106	14.9	106	14.9	0.113	8.6	LOS A	0.2	1.3	0.40	0.68	0.40	59.3
East: Great Western Highway														
3	L2	43	0.0	43	0.0	0.167	7.0	LOS A	0.0	0.0	0.00	0.09	0.00	72.9
4	T1	559	12.4	559	12.4	0.167	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	79.0
Approach		602	11.5	602	11.5	0.167	0.5	NA	0.0	0.0	0.00	0.05	0.00	78.5
North: Median Storage														
5	T1	38	16.7	38	16.7	0.052	3.0	LOS A	0.1	0.6	0.51	0.44	0.51	50.3
Approach		38	16.7	38	16.7	0.052	3.0	LOS A	0.1	0.6	0.51	0.44	0.51	50.3

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total	HV]	[Total	HV]				[Veh.	Dist]				
		veh/h	%	veh/h	%				v/c	sec				
South: Median Storage														
1	R2	40	15.8	40	15.8	0.063	4.5	LOS A	0.1	0.7	0.54	0.57	0.54	48.0
Approach		40	15.8	40	15.8	0.063	4.5	LOS A	0.1	0.7	0.54	0.57	0.54	48.0
West: Great Western Highway														
2	T1	379	25.0	379	25.0	0.113	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
3	R2	137	11.5	137	11.5	0.080	7.1	LOS A	0.0	0.0	0.00	0.67	0.00	61.7
Approach		516	21.4	516	21.4	0.113	1.9	NA	0.0	0.0	0.00	0.18	0.00	76.4
All Vehicles		556	21.0	556	21.0	0.113	2.1	NA	0.1	0.7	0.04	0.21	0.04	74.5

Table B2: Weekday Priority Intersection Performance of Great Western Highway with Magpie Hollow Road for the AM Peak Hour with School Traffic