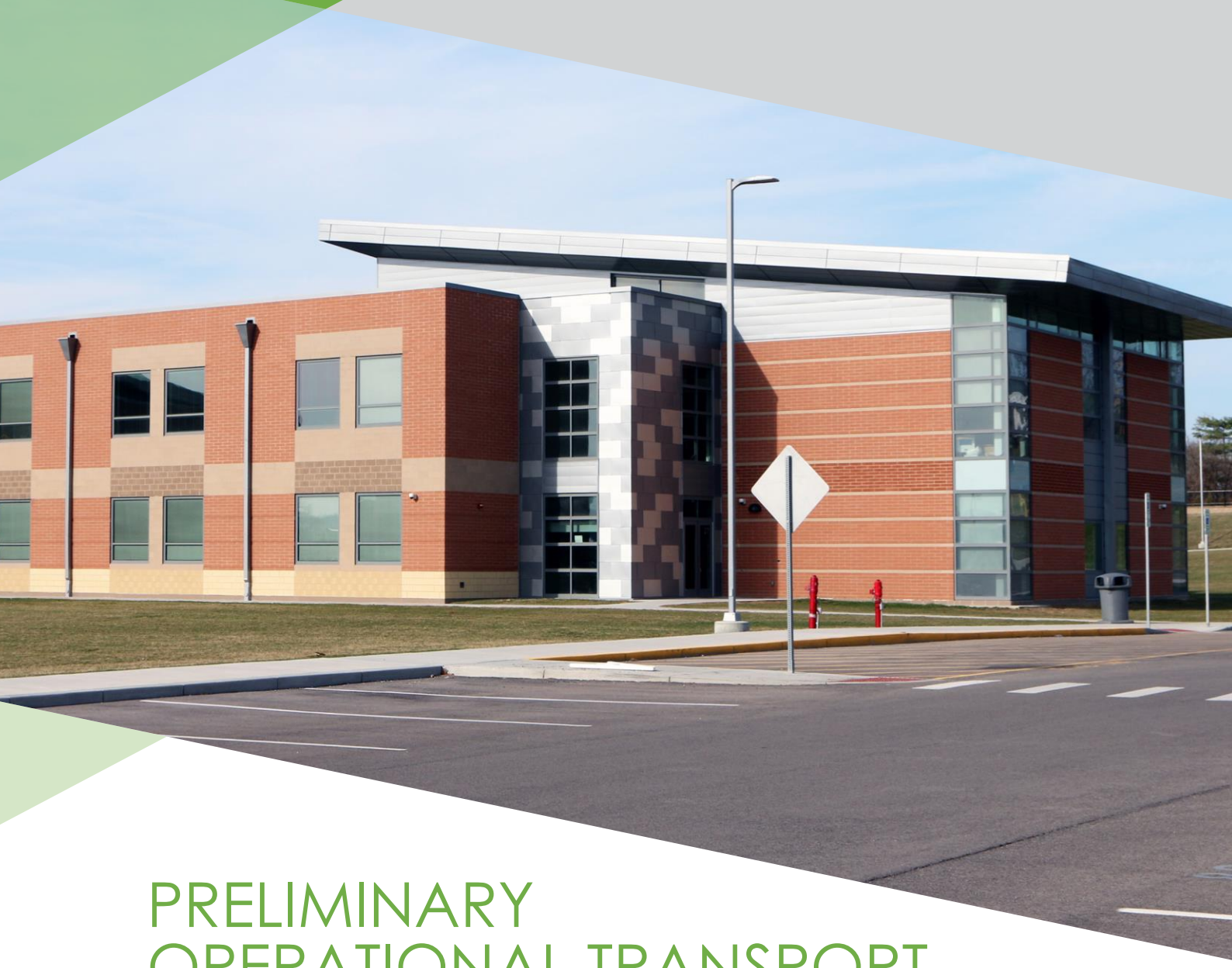
TRAFFIX
TRAFFIC AND TRANSPORT PLANNERS



PRELIMINARY OPERATIONAL TRANSPORT MANAGEMENT PLAN

Proposed Al Sadiq School
83 Joceyln Street, Chester Hill

Reference: 23.350r01v07
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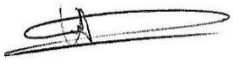
v07	10/07/2025	Andrew Baraket	Vince Doan	

TRAFFIX

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1. INTRODUCTION

TRAFFIX has been commissioned to prepare a preliminary School Operational Transport Management Plan (OTMP) for the proposed Al-Sadiq School Campus located at 83 Jocelyn Street, Chester Hill. More specifically, an OTMP has been requested by school to support a development application (DA) relating to the conversion of an existing seniors living development at 83 Jocelyn Street, Chester Hill into a new Al-Sadiq School campus.

This proposal seeks to relocate the existing primary school students of Al Sadiq School Yagoona, to their own dedicated campus.

The report is structured as follows:

- Section 2: Discusses the school site;
- Section 3: Discusses the existing traffic conditions;
- Section 4: Details the school operations;
- Section 5: Discusses the school's travel demand measures; and
- Section 6: Summaries report findings

2. LOCATION AND SITE

The subject site is located at 83 Jocelyn Street, Chester Hill, approximately 19.5 kilometres west of the from the Sydney Central Business District (CBD). More specifically, it is located on the southern side of Jocelyn Street, approximately 640 metres south of Chester Hill Railway Station.

The site is irregular shaped in configuration with a total area of approximately 7,400m^2. It has a northern frontage to Jocelyn measuring approximately 27 metres and the remainder of the site generally borders residential developments.

The aged care facility is currently served by two (2) vehicular accesses, comprising two (2) driveway crossings to Jocelyn St and one (1) driveway crossing to Ridge Street.

It is noted that the school has acquired 54 Chester Hill Road to serve as vehicular access point for the proposed staff/visitor carpark and queuing area for drop-off/pick up.

A Location Plan is presented in **Figure 1** with a Site Plan included in **Figure 2** which provide an appreciation of the general character of roads and other key attributes in proximity to the site and also depicts the proposed addition to the school.

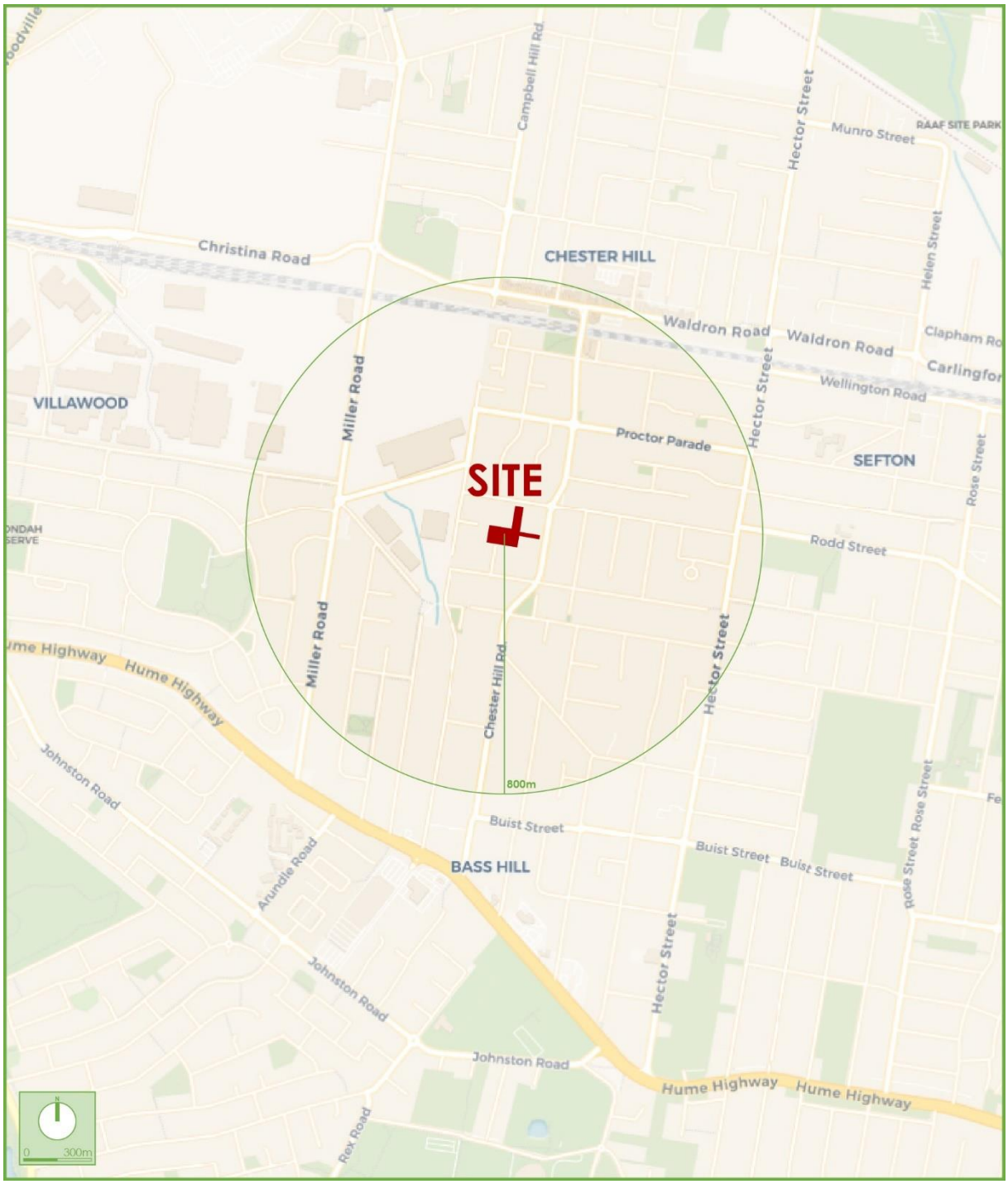

Figure 1: Location Plan

Figure 2: Site Plan

3. EXISITING TRAFFIC CONDITIONS

3.1 Road Network

The road hierarchy in the vicinity of the site is shown in **Figure 3** with the following roads of particular interest:

- Hector Street: a TfNSW Unclassified Regional Road (RR 7101) that traverses in a north-south direction between Boundary Road in the north and the Hume Highway in the south. It is generally subject to 60km/hr speed zoning and accommodates a single lane of traffic in each direction with unrestricted kerbside parallel parking generally permitted along both sides of the road.
- Chester Hill Road: a local road that traverses in a north-south direction between a Waldron Road in the north and Hume Highway in the south. Within the vicinity of the site, it is subject to 60km/hr speed zoning. Also, it accommodates a single lane of traffic in each direction with unrestricted kerbside parallel parking generally permitted along both sides of the road.
- Jocelyn Street: a local road that traverses in an east-west direction between a Hector Street in the east and Orchard Road in the west. Within the vicinity of the site, it is subject to 50km/hr speed zoning and accommodates a single lane of traffic in each direction with unrestricted kerbside parallel parking generally permitted along both sides of the road.

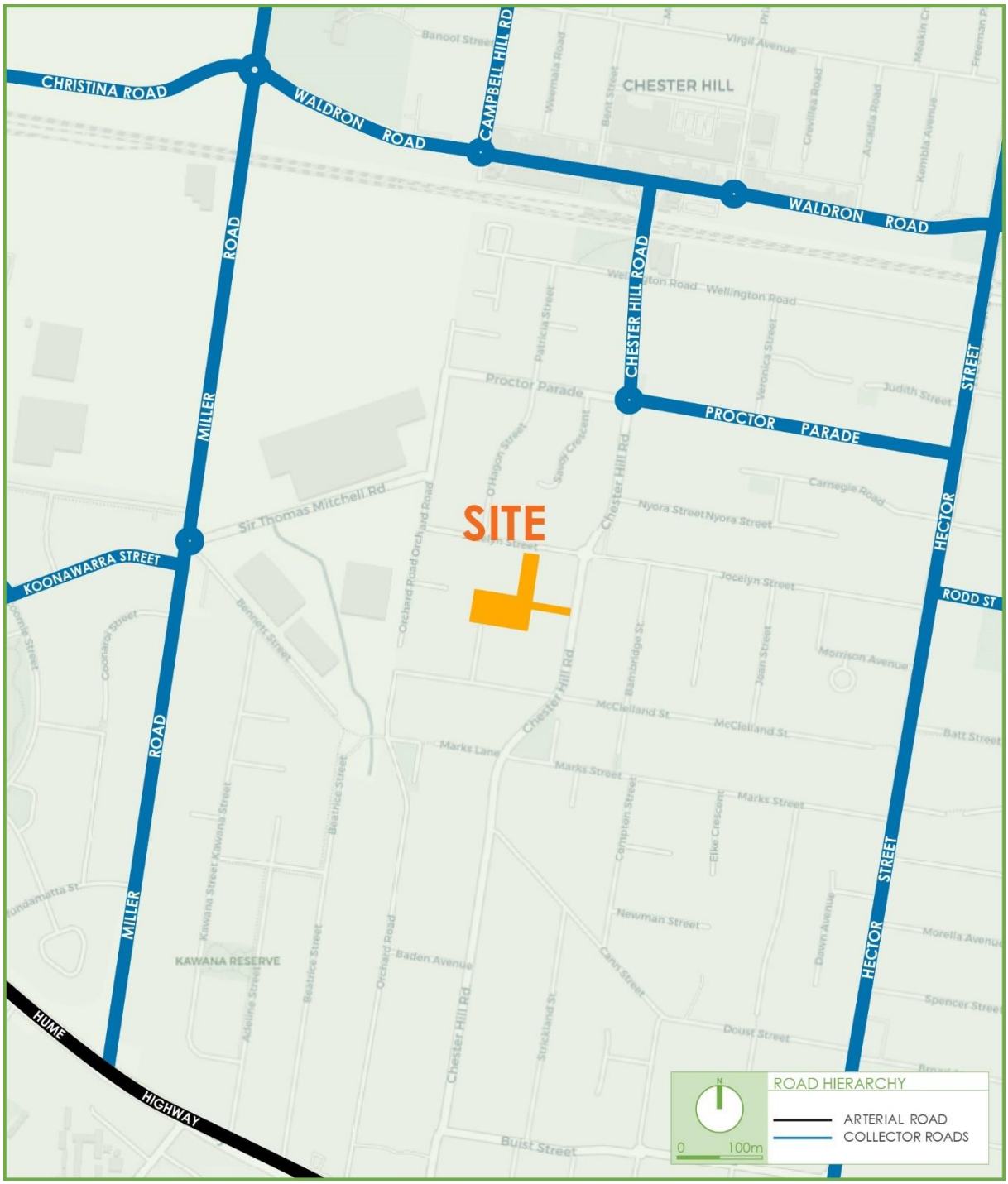

Figure 3: Road Hierarchy

3.2 Sustainable Transport

3.2.1 Bus Services

The subject site is within optimal walking distance (400 metres) of multiple bus stops. These bus services are presented in **Figure 4** and are summarised as follows:

- S4 – Chester Hill to Fairfield
- 911 – Auburn to Bankstown

More information concerning all bus and train service information can be found on the Transport for NSW Info website: https://www.transportnsw.info.

3.2.2 Rail Services

The subject site is approximately 640 metres of Chester Hill Railway Station which provides access to the T3 Bankstown Line which connects to the Sydney CBD, Lidcombe and the southwest suburbs, Liverpool, and Bankstown. This railway station is presented in **Figure 4**.

3.2.3 Private School Buses

In addition, private bus services will be made available for students as per the arrangements of Al Sadiq School Yagoona.

3.3 On-Street Parking

Parking along local roads around Al Sadiq School is generally unrestricted with parking available on both sides of most surrounding roads for visitors.

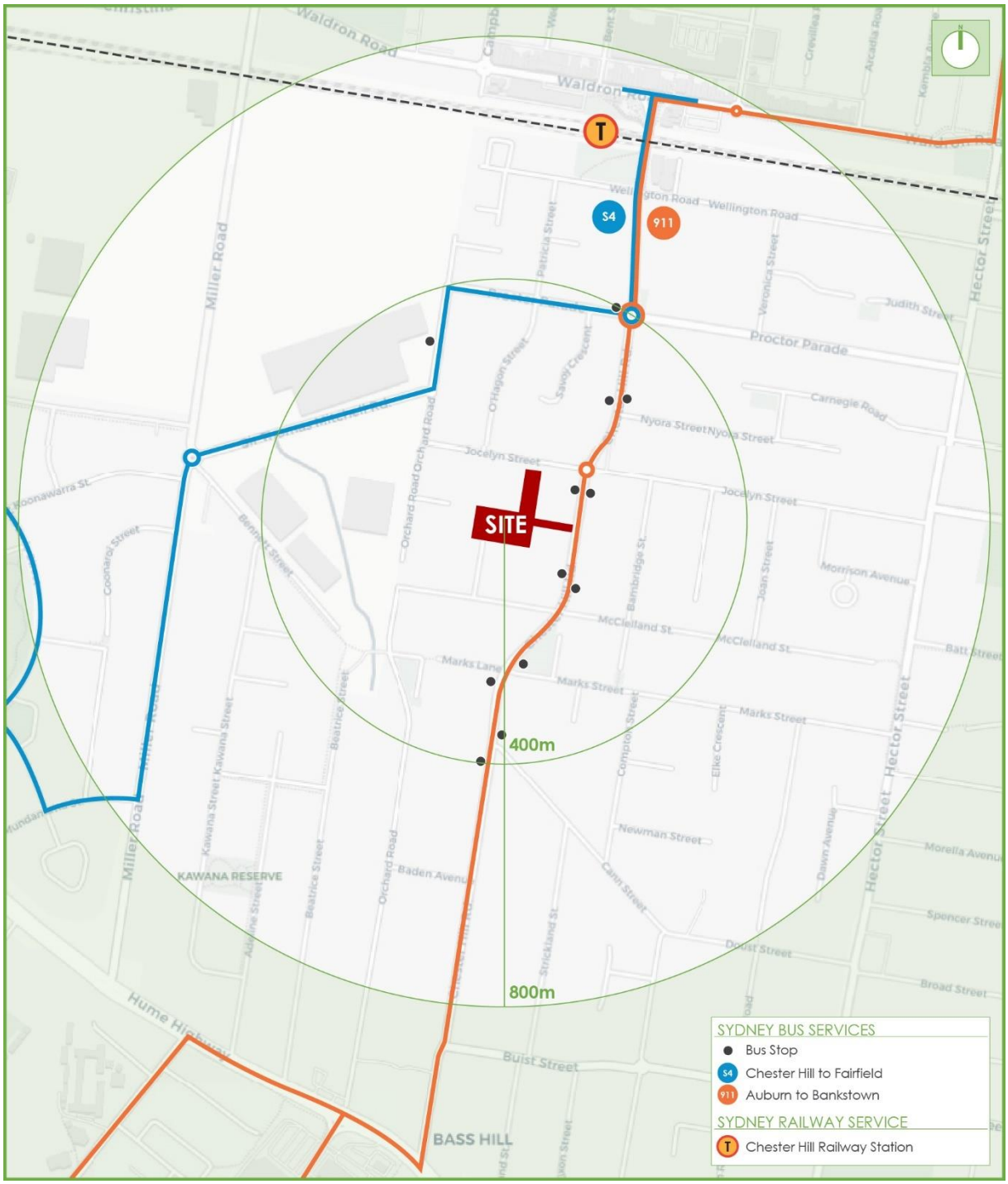

Figure 4: Public Transport

4. SCHOOL OPERATIONS

4.1 School Population

As Al-Sadiq School Chester Hill is relocating the existing primary school students at the Yagoona campus, it will be assumed school populations stays consistent. This population is summarised below in **Table 1**.

Table 1: Student Numbers

Category	Families	Number
Students	87	228

4.2 School Travel Mode Breakdown

Al Sadiq School Yagoona have provided a travel mode breakdown during drop-off / pick-up for the primary school students summarised in **Table 2** below.

Table 2: Student Travel Mode Breakdown

Period	Private School Bus Service	Drop off / Pick Up (Cars)
Morning	48	180
Afternoon	190	38

4.3 Car Parking

The school will provide a total of 22 off-street car parking spaces utilised by staff members. These spaces will be strictly made unavailable to parents / caregivers waiting to pick-up a student to prevent conflicting movements within the queuing area. No vehicles shall exit parking space during peak drop-off and pick-up times.

4.4 Proposed Student Drop-off and Pick-up

4.4.1 Proposal General Arrangement

The proposed arrangement would provide five (5) designated on-site student drop-off / pick-up spaces. These are accessed via Chester Hill Road and will be utilised by all parents/carers

driving to the school. This area will have a capacity for an additional 14 vehicles to queue. That is, a total of 19 vehicles within the school grounds are able to be accommodate for queuing.

During the morning drop-off, parents/carers are to approach the available space as directed by a staff member and are advised not to exit their vehicles. Teachers are to remove student/s and bag/s from the vehicle. Please refer to **Figure 5** for staff configuration during drop-off period. Five (5) Staff members required for proposed drop-off and go arrangement. Parents are to leave the site after drop-off has occurred to ensure efficient operation.

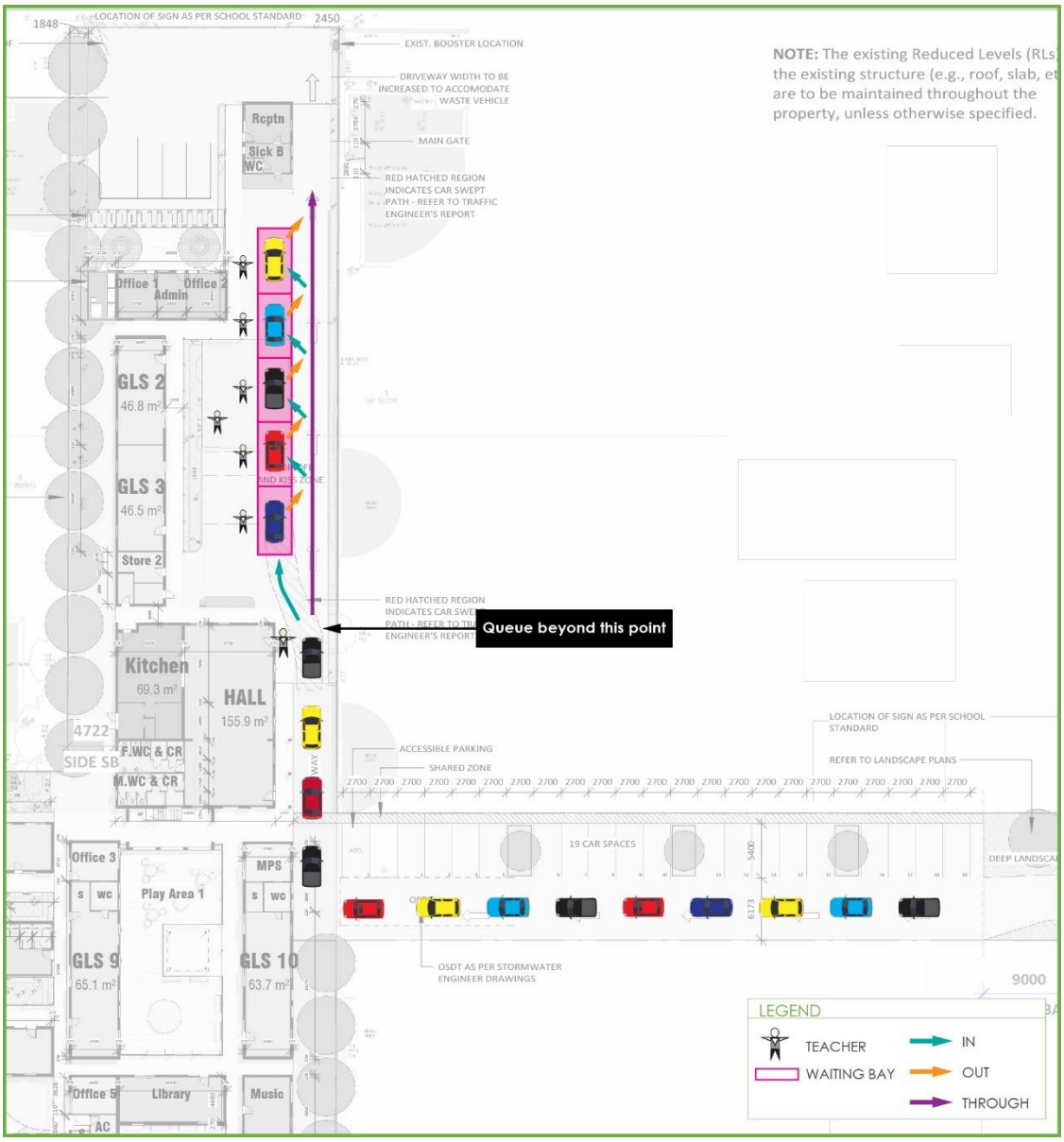

Figure 5: Morning Drop-off Arrangement

During the afternoon pickup and to ensure flow of traffic and prevent excessive queuing, teachers will be stationed at the following areas as highlighted in **Figure 6**.

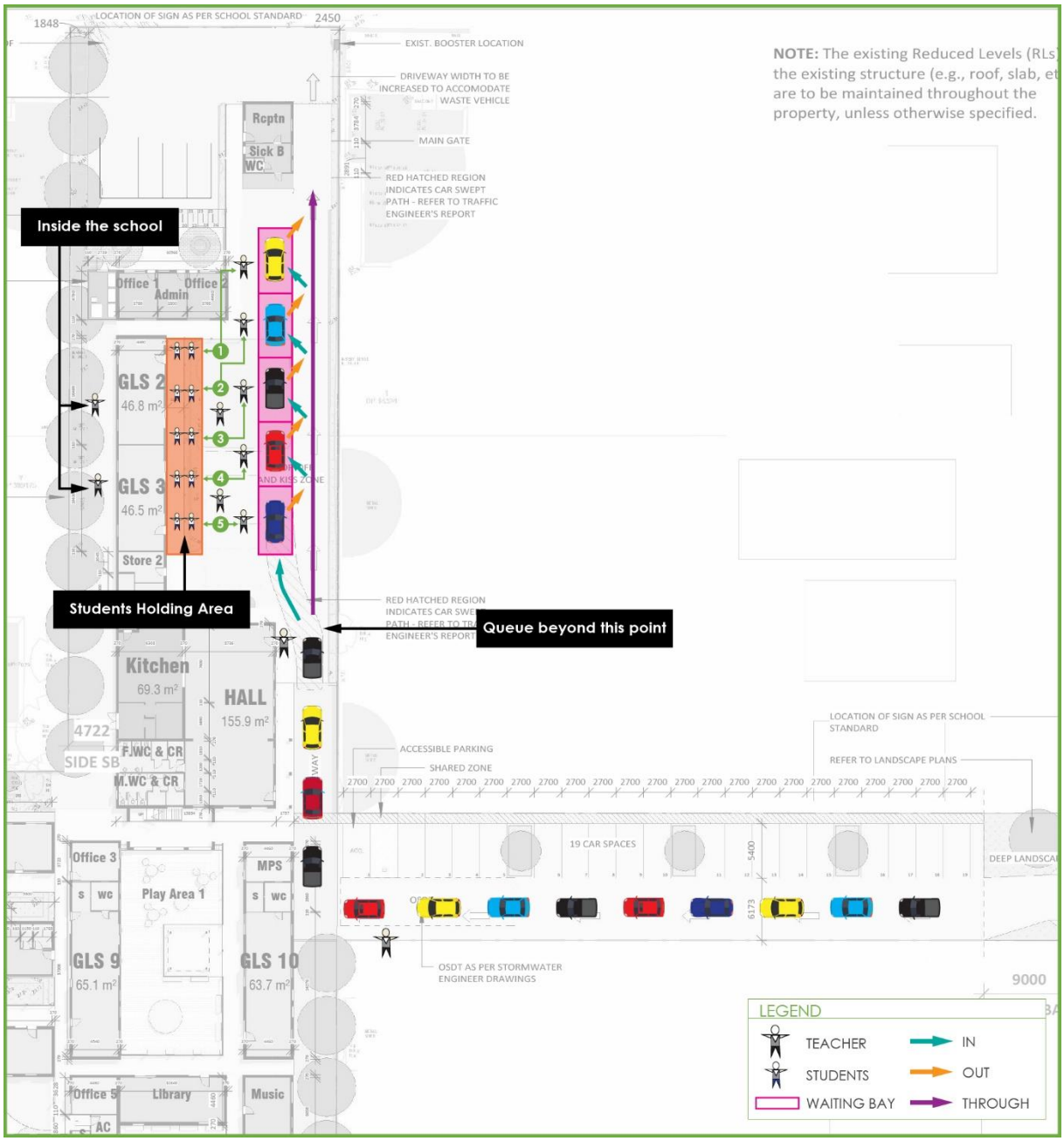

Figure 6: Afternoon Pick-up Arrangement

Reference should be made to the **Figure 6** for student pick-up arrangement. A minimum of 10 staff members are proposed for a pick-up and go arrangement. The staff members will be stationed around the school grounds, with their responsibilities outlined below.

- Staff member at driveway will contact the staff members at the pick-up zone in the school to prepare the student for pick up. They will be identified by parents/carers placing the students name on their dashboards.
- Staff member in school will help locate the child and ensure they enter the waiting bay once parents / caregivers enter the queue.
- Staff member in waiting bay will ensure child is prepared to get picked up prior to their parents/carers entering the drop-off / pick-up spaces.
- Staff member at queuing point instructing parents when to enter the pick-up bay.
- 5 x staff members at pick-up / drop-off zone will assist in helping the children get into their parents / carers car. Therefore parents / carers do not have to leave their cars, streamlining the entire process.

It is noted that all drop-off and pick-up spaces are independent which will allow for vehicles to egress when children are loaded or unloaded. That is, in the event of a delay or emergency, vehicles are able to egress without relying on other spaces.

4.4.2 Suitability

The proposal outlined above is considered suitable for meeting sites traffic demands for the reasons summarised below;

- As discussed above, a total of 19 vehicles for queuing are available within the school grounds to accommodate drop-off and pick-up.
- Drop off and pick-up will occur over a 30 minute period (1800 seconds).
- During the morning drop-off period, the development is required to provide queuing for 14 vehicles (being the 98th percentile) to support 106 vehicles arriving for drop-off. That is, five (5) within the drop-off area and nine (9) within the queuing area with a drop-off duration estimated at 65 seconds.
- During the afternoon pick-up period, the development is required to provide queuing for 17 vehicles (being the 98th percentile) to support 24 vehicles arriving for pick up. That is, five (5) within the drop-off area and 12 within the queuing area with a drop-off duration estimated at 300 seconds (5 minutes).
- Reference should be made to **Appendix A** being the queuing calculations for the proposed arrangements for morning drop-off and afternoon pick-up.

- The number of staff members directing parents / carers and students will ensure an efficient drop-off and pick-up system.

As a result, the proposed arrangements for morning drop-off and afternoon pick-up are considered acceptable with all queuing of vehicles being accommodate wholly within the site.

4.5 Private Bus Parking

The school proposes three (3) on-site bus parking spaces, with the school shuttle proposed to access the site via Jocelyn Street. It has been confirmed by the school operation that the buses during the afternoon pick-up will be staggered to accommodate 3 sets of 3 buses at a time. All bus arrival and departure times will be scheduled, ensuring one-way flow at the access point. This arrangement currently occurs with the existing school at Yagoona and operates satisfactorily.

4.6 Refuse Collection

The school proposes waste collection by a 10.6 metre waste vehicle accessing the site via Jocelyn Street. It has been confirmed by the school operation that the waste collection will occur outside of school hours ensuring adequate space is provided for forward in/out movements.

4.7 Traffic Management Measures

Al Sadiq School will implement a number of traffic management measures to encourage sustainable travel and to safely manage on-site traffic operations. These measures are detailed below:

4.7.1 Traffic Management

- Management of traffic during morning peaks by staff members.
- Management of traffic during afternoon peaks by staff members.

4.7.2 Observation and Supervision

- The school allocates and rosters staff to supervise and manage the drop-off / pick-up zone on each day. During afternoon pick-up periods, staff monitor vehicles entering the car

park and call the relevant student to ensure they are prepared for pick-up once the parent / carer arrives at the zone.

- The school to allocate at one (1) staff member at the queuing, five (5) staff members at drop-off / pick-up zone, two (2) staff members in waiting bay with the students and two (2) staff member within the school grounds with students to ensure they head to the waiting bay when required.
- During critical peak periods (start of school term) additional staff are allocated to manage traffic along the Chester Hill Road access driveway.
- The school allocates one (1) staff for students using public transport.

4.7.3 Education and Awareness Training

- Road safety education is taught as part of the school's curriculum.
- Regular reminders are sent to parents to remind them of the available public transport facilities.
- Questionnaires and notice hubs are sent to parents at the beginning of the year to understand and plan for travel arrangements.
- 'Ride to School' initiatives have been planned and undertaken to encourage active travel.
- The Parents Association advocates car-pooling and encourages carpooling with other families.

5. TRAVEL DEMAND MANAGEMENT

5.1 Context

Travel demand management measures can be utilised to embrace the principles of sustainable transport in order to maximise the use of transport modes that have a lower environmental impact such as walking, cycling, public transport, school private bus or car-pooling schemes.

5.2 Car Pooling

Staff can register their interest in carpooling with the school by indicating where they live and their shift times. This is then used by the school to match them with any suitable travellers. Carpooling is considered an effective measure to reduce reliance on private vehicle parking within the school and on-street.

5.3 Bicycle Policy

The school aims to encourage staff to ride to and from school by bicycle. End of trip facilities are proposed with bicycle parking facilities being provided on campus for those staff who choose to ride to school.

5.4 Bus Services

Notwithstanding the number of public bus services surrounding the school, Al-Sadiq School will charter the private buses for students, similar to the Yagoona campus.

5.5 Green Travel Plan

The school proposes to implement a site-specific Green Travel Plan. The GTP aims to reduce potential private vehicle trips to and from the school by staff / students and to encourage other forms of transport that have a lower environmental impact.

6. SUMMARY

This preliminary OTMP report has been prepared for the proposed Al-Sadiq Primary School Campus, located at 83 Jocelyn Street, Chester Hill with the following is noteworthy:

- The subject site is in proximity to a number of sustainable transport options that are available to staff, visitors, students, and parents / carers. Notably, there are numerous bus services available along Chester Hill Road. In addition, students can utilise the private school bus services that will be implemented.
- The report documents the school's key operational details, including current student population and proposed drop-off / pick-up arrangements.
- A total of 19 vehicles for queuing is available within the school grounds to accommodate drop-off and pick-up. This arrangement accommodates five (5) vehicles within the drop-off and pick-up area with a queuing area of 14 spaces.
- The school implements significant drop-off / pick-up traffic management measures as detailed in **Section 4.4**, which is considered to operating satisfactorily.
- During the morning drop-off period, the development is required to provide queuing for 14 vehicles (being the 98th percentile) to support 106 vehicles arriving for drop-off. That is, five (5) within the drop-off area and nine (9) within the queuing area with a drop-off duration estimated at 65 seconds.
- During the afternoon pick-up period, the development is required to provide queuing for 17 vehicles (being the 98th percentile) to support 24 vehicles arriving for pick up. That is, five (5) within the drop-off area and 12 within the queuing area with a drop-off duration estimated at 300 seconds (5 minutes).
- The proposed arrangements for morning drop-off and afternoon pick-up are considered acceptable with all queuing of vehicles being accommodate wholly within the site.
- The report details the travel demand measures implemented by the school, including carpooling, cycling, bus services and a Green Travel Plan.

The above operation traffic management measures are considered supportable from a traffic planning perspective and are recommended for approval.

APPENDIX A

Queuing Calculations

Al-Sadiq College - Queuing Calculations
Morning Drop-off

Vehicle Group Arrivals (veh/hr)	106
Pick up duration (sec)	65
Number of spaces	5
Total Average Time (sec)	13

Queuing Theory Factors		
average arrival rate (r)	106.00000	*r=(veh/hr)
average service rate (s)	138.46154	*s=1800/(Total Average Time)
utilisation factor (p)	0.76556	*p=r/s
mean queue (E(m))	2.49985	*E(m)=(p/(1-p))-p

Probability of Vehicles in System (P(n))		*P(n)=(1-p)p^n
No. Vehicle Groups in System (n)	Probability (%)	
0	23.4%	23.4%
1	17.9%	41.4%
2	13.7%	55.1%
3	10.5%	65.7%
4	8.1%	73.7%
5	6.2%	79.9%
6	4.7%	84.6%
7	3.6%	88.2%
8	2.8%	91.0%
9	2.1%	93.1%
10	1.6%	94.7%
11	1.2%	95.9%
12	1.0%	96.9%
13	0.7%	97.6%
14	0.6%	98.2%
15	0.4%	98.6%
16	0.3%	98.9%
17	0.2%	99.2%
18	0.2%	99.4%
19	0.1%	99.5%
20	0.1%	99.6%
21	0.1%	99.7%
22	0.1%	99.8%
23	0.1%	99.8%
24	0.0%	99.9%
25	0.0%	99.9%
26	0.0%	99.9%
27	0.0%	99.9%
28	0.0%	100.0%
29	0.0%	100.0%
30	0.0%	100.0%

Al-Sadiq College - Queuing Calculations
Afternoon Pick-up

Vehicle Group Arrivals (veh/hr)	24
Pick up duration (sec)	300
Number of spaces	5
Total Average Time (sec)	60

Queuing Theory Factors		
average arrival rate (r)	24.00000	*r=(veh/hr)
average service rate (s)	30.00000	*s=1800/(Total Average Time)
utilisation factor (p)	0.80000	*p=r/s
mean queue (E(m))	3.20000	*E(m)=(p/(1-p))-p

Probability of Vehicles in System (P(n))		*P(n)=(1-p)p^n
No. Vehicle Groups in System (n)	Probability (%)	
0	20.0%	20.0%
1	16.0%	36.0%
2	12.8%	48.8%
3	10.2%	59.0%
4	8.2%	67.2%
5	6.6%	73.8%
6	5.2%	79.0%
7	4.2%	83.2%
8	3.4%	86.6%
9	2.7%	89.3%
10	2.1%	91.4%
11	1.7%	93.1%
12	1.4%	94.5%
13	1.1%	95.6%
14	0.9%	96.5%
15	0.7%	97.2%
16	0.6%	97.7%
17	0.5%	98.2%
18	0.4%	98.6%
19	0.3%	98.8%
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27	0.0%	99.8%
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29	0.0%	99.9%
30	0.0%	99.9%