# Bede Polding Catholic College, South Windsor Traffic Impact Assessment

Prepared for: Catholic Education Diocese of Parramatta

25 November 2022

The Transport Planning Partnership



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## APPENDICES

- A. ARCHITECTURAL PLANS
- B. SCHOOL BUS TIMETABLE
- C. SWEPT PATH ASSESSMENT



# 1 Introduction

## 1.1 Background

The Transport Planning Partnership (TTPP) has been engaged by Catholic Education Diocese of Parramatta (CEDP) c/o- TSA Management to prepare a comprehensive traffic and transport assessment to support the delivery of educational facilities at Bede Polding College, South Windsor.

The project aims to expand the school's capacity from 1,240 students to 1,360 students. It will also deliver reconfigured external and internal learning space to address the results of an equity audit conducted in 2019 which detailed poor functionality of current learning spaces. This aims to respond to demographic demand at the school, as well as meet the needs of the local community and educational planning principles from CEDP.

TTPP prepared this Traffic Impact Assessment (TIA) to assess the traffic and parking impacts of the proposed expansion and support the development application (DA). It was submitted as part of the DA submission in May 2022. In response Hawkesbury City Council has requested additional information (RFIs) on the traffic report prepared by TTPP (dated 26 May 2022) as follows:

#### Car Parking:

Council previously requested the provision an assessment of the overall parking demand for the existing students, including Year 12 students and staff as well as the proposed students, including Year 12 students and staff. The submitted additional information does not provide an overall parking assessment as per Hawkesbury Development Control Plan (HDCP).

It is acknowledged that additional car parking spaces are proposed on the revised site plan for 4 new staff and 25 new Year 12 students subject to this development application which will provide for a total 172 car parking spaces.

The HDCP requires the provision of car parking spaces for schools as below;

- 1 space for each staff, plus
- space for delivery vehicles and buses, plus
- 1 space per 5 seats or 1 space per 7m2 of floor area in assembly hall, whichever is greater, plus
- 1 space per 3 Year 12 students.

Council records indicate that DA0268/05 granted approval over the subject site for 161 car parking spaces to serve 84 staff, 1200 students including 213 Year 12 students, and a



multi-purpose hall of 706m2. The submitted Traffic Impact Assessment Report identifies that at present the school contains 1240 students and 101 fulltime staff. It identifies that there is already a shortfall of 17 car parking spaces due to the increase of staff numbers. The number of existing Year 12 students are unknown to assess the car parking requirement.

The Traffic Impact Assessment report needs to provide an assessment of the existing and proposed car parking requirement as per HDCP. Additional car parking spaces are to be provided in compliance with HDCP requirements. Any variation to the HDCP requirement requires appropriate justification.

To address these RFIs, the site layout has been modified to provide additional parking and the parking requirements have been reassessed. The following TIA has been revised to address the modified development and address Council's above comments.

## 1.2 Purpose of this Assessment

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

- existing traffic and parking conditions surrounding the site
- suitability of proposed parking in terms of quantum and layout
- the traffic generating characteristics of the proposed development
- suitability of proposed access arrangements for the site
- the transport impacts of the proposed development on the surrounding road network.

## 1.3 Report Structure

The remainder of this report is set out as follows:

- Chapter 2 examines the existing conditions surrounding the school
- Chapter 3 presents a summary of the existing travel and parking patterns of the school
- Chapter 4 outlines the proposal description
- Chapter 5 assesses the parking implications of the proposal
- Chapter 6 assesses the transport implications arising from the proposed development
- Chapter 7 outlines travel demand management measures to minimise the impact on general traffic and bus operations
- Chapter 8 presents a summary of the traffic assessment and implications of the proposal.



# 2 Existing Conditions

## 2.1 Site Description

Bede Polding College (the 'school') is located at 22-30 Rifle Range Road, South Windsor within the Hawkesbury City Council local government area (LGA). It is bound by Mileham Street to the north, residential properties and Tasman Place to the east, Collith Avenue to the south and Rifle Range Road to the west.

It is surrounded by residential dwellings, educational establishments and recreational land uses.

There are currently 1240 enrolled students and 101 full-time equivalent (FTE) staff members at the school. There are 144 car parking spaces currently provided on site.

The location of the site is shown in Figure 2.1.



#### Figure 2.1: Site Location

Basemap Source: Nearmap



## 2.2 Surrounding Road Network

**Rifle Range Road** is a local road with one travel lane in either direction along the western boundary of the site, connecting George Street and a cul-de-sac opposite Sanctuary Drive. However, vehicle access is restricted beyond the roundabout at the intersection of Rifle Range Road and Kentwell Drive. Unrestricted kerbside parking is permitted on both sides of Rifle Range Road. There is an indented school bus zone provided adjacent to the school. The road has a posted speed limit of 50 km/h. However, a speed limit of 40km/h applies on school days between 8:00am – 9:30am and 2:30pm-4:00pm within the school zone.

**Mileham Street** is a local road with one travel lane in either direction along the northern boundary of the site, connecting Rifle Range Road and a cul-de-sac. Unrestricted kerbside parking is permitted on both sides of Mileham Street. The road has a posted speed limit of 50 km/h.

**Collith Avenue** is an undivided local road with one travel lane in either direction along the southern boundary of the site, connecting Rifle Range Road and Woods Road. A combination of unrestricted and restricted kerbside parking is permitted on both sides of Collith Avenue. The road has a posted speed limit of 50 km/h. However, a speed limit of 40km/h applies on school days between 8:00am – 9:30am and 2:30pm-4:00pm within the school zone.

**Tasman Place** is an undivided local road with one travel lane in either direction along the eastern boundary of the site, connecting Collith Avenue and a cul-de-sac. On the western kerbside of Tasman Place, a combination of 2P parking between 8:00am – 4:00pm on school days and 90-degree angled parking is permitted. On the eastern side of Tasman Place, 2P parking between 8:00am – 4:00pm is permitted along the kerbside. The road has a posted speed limit of 50 km/h. However, a speed limit of 40km/h applies on school days between 8:00am – 9:30am and 2:30pm-4:00pm within the school zone.

## 2.3 Existing Vehicle and Pedestrian Access Arrangements

The site currently has one vehicle driveway each on Mileham Street and Tasman Place, two vehicle driveways on Collith Avenue and three vehicle driveways on Rifle Range Road, which is a total of seven vehicle driveways. The vehicle gates and pedestrian gates are shown in Figure 2.2.

Gate 5, Gate 7, Gate 8, Gate 9 and Gate 11 are two-way vehicle driveways used by staff to access the car park. Gate 5 also provides access for visitor parking and delivery vehicles.

Students generally enter the school via the pedestrian gates, Gate 4 and Gate 6. Gate 10 is accessed by staff who park on Tasman Place.





#### Figure 2.2: Location of Existing Vehicle and Pedestrian Access Points

#### 2.4 Traffic Surveys

Classified traffic turning movement surveys were undertaken on Tuesday, 9 November 2021 (a typical day of operation), during the morning and afternoon peak periods at the intersection of George Street and Rifle Range Road. The AM peak period was 7:00am-8:00am and the PM peak period was 2:30pm-3:30pm at this intersection.



## 2.5 On-Street Parking Provisions

On-street parking is present on all surrounding roads within the vicinity of the site. The majority of the on-street parking are unrestricted throughout the day, whilst some of the areas are restricted during specific time periods.

A parking inventory and occupancy survey was carried out along the streets shown in Figure 2.3 to determine the number of available parking spaces and restrictions within the survey area. The on-street parking survey was undertaken on Tuesday, 9<sup>th</sup> November 2021 (7:30am-9:30am and 2:30pm-4:30pm).



#### Figure 2.3: Parking Inventory

A summary of the hourly car parking occupancy during the survey period is graphically presented in Figure 2.4.



#### Figure 2.4: Existing On-Street Parking Occupancy



During the survey period, there was a car parking supply of 1066 to 1087 spaces.

Based on the parking survey results presented in Figure 2.4, the peak parking accumulation on Thursday occurred from 2:30pm-3:00pm, with 24-percent of parking occupied. During this period, a total of 815 spaces were vacant.

#### 2.6 On-Site Parking provisions

#### 2.6.1 Approved Development Site Parking Provision

The existing school has development approval (as part of DA0268/05) for an on-site car parking comprising 161 car parking spaces.

Based on the approved/stamped plans, this includes approximately 40 car spaces along Tasman Place.

#### 2.6.2 Existing Development Parking Provision

An on-site parking survey was also undertaken on Tuesday, 9<sup>th</sup> November 2021 (7:30am-9:30am and 2:30pm-4:30pm). During the survey, a total of 144 operational on-site car parking spaces were counted.

This indicates that the available parking provision is 22 spaces less than intended as part of the DA approval. The variation from the DA approval is considered to related to a number of factors. On the day of the survey, a few car spaces were inaccessible or being used for



storage which reduced the number of available spaces. Car park C appears to be constructed with eight spaces less than what was shown in the approved plans. In addition, the DA documents shows some inconsistencies between the Notice of Determination and the approved plans (that is, the approved plans show 147-156 spaces, while the Notice of Determination states a provision of 161 spaces).

The carpark leading from Gate 11 (i.e. Car Park E) was only accessible during the entry and exit of a vehicle via an intercom system. Therefore, the survey staff did not have access to enter this carpark, so the supply was obtained using Nearmap. The demand at this carpark was estimated using the traffic turning movement surveys undertaken on the same day at the Gate 11 site access.

The on-site parking facilities are generally for staff use. There are currently no student parking facilities located within the campus.

The breakdown of the existing car parking supply is shown in Table 2.1. The carparks have been labelled Figure 2.5.

Carpark	Existing Supply
A	58
В	19
С	19
D	N/A
E	8
Tasman Place	40
Total	144

#### Table 2.1: Existing On-Site Car Parking Provision

Note: Car park D appears to be a servicing area and is not currently used for parking.

#### Figure 2.5: Car Park Locations



Tasman Place is partially within the school boundary and is allocated as part of the school's DA approval for school staff. Therefore, it has been included in the on-site parking supply.

The existing utilisation of on-site parking obtained from the survey is presented in Figure 2.6.



#### Figure 2.6: Existing On-Site Parking Occupancy

As shown in Figure 2.6, the on-site parking was in higher demand during the morning survey period than the afternoon survey period. Approximately 64% percent of the total parking supply was occupied (92 spaces) during the busiest period (9:00pm-9:30pm). This translates to a vacancy of 52 car parking spaces.

## 2.7 Drop-off and Pick-up Arrangements

At present, drop-off and pick-up generally occurs on streets surrounding the school.

Based on site observations, parents generally drop off/ pick up their children behind the bus zone on the eastern side of Rifle Range Road as shown in Figure 2.7.

Other common locations include the unrestricted parking areas on Sirius Road, Golden Grove and Collith Avenue.



Figure 2.7: Kiss and Drop Activities on Rifle Range Road



### 2.8 Waste Collection and Service Vehicles

Currently, there are two loading spaces provided within the site that may be accessed via Gate 2 on Rifle Range Road.

A delivery/courier bay is also provided within the visitor car park which is accessed via Gate 5.

Waste collection occurs three times a week. There are daily canteen and courier deliveries, and weekly Woolworths' deliveries.

## 2.9 Public Transport Facilities

There is a bus zone on the eastern side of Rifle Range Road, where school buses pick up and set down school students. The timetable for these buses is shown in Appendix B. There is also a public bus stop within 50m, north of the school bus bay on Rifle Range Road. The public bus routes and associated frequencies are shown in Table 2.2.



Route Number	Route Description	AM Peak Services	PM Peak Services
673	Windsor to Penrith via Cranebrook	-	1
674	Windsor to Mount Druitt via South Windsor & Shanes Park	1	2
675A	Windsor to Richmond via RAAF Base & Bligh Park (loop service)	2	2
675C	Windsor to Richmond via Bligh Park & RAAF Base (loop service)	1	2

Table 2.2: Existing	Public	Bus	Service	and	Associated	Fred	uencies
TUDIC Z.Z. ENISTING		Dus	Scivicc	unu	<i>n</i> ssociated	1100	ucherco a

As seen during site observations, buses are 50% occupied at most in the morning upon arrival at the school and 70%-90% occupied after pick up at the school.

Announcements were made at the school regarding bus arrivals and students were guided by teachers to the appropriate buses.

## 2.10 Pedestrian and Cyclist Infrastructure

Sealed pedestrian footpaths are provided along all the school site frontages except on Tasman Place.

There are two zebra crossings near the school on Rifle Range Road. During school start and finish times, a teacher manages pedestrians at the zebra crossing directly opposite the school. Students are only permitted to cross once a large group is accumulated. This ensures that there is minimal disruption to on-road traffic.

As seen during site observations, crossing activities on Rifle Range Road only took place at the zebra crossing. Therefore, pedestrian fencing is not required to be erected.

There are limited cycling routes available in the vicinity of the site. There is a cycling route on Mileham Street near the site.

The local cycle network is shown in Figure 2.8.





#### Figure 2.8: Local Cycle Network

## 2.11 Crash History

Historic crash data has been obtained from Transport for NSW (TfNSW) for the most recent five-year period which data is available. This period is between 1<sup>st</sup> January 2016 to 31<sup>st</sup> December 2020.

During this period there has been two crashes recorded in the vicinity of the school, one on Rifle Range Road and one on Collith Avenue as circled in Figure 2.9.

There were also other crashes at the intersection of George Street and Rifle Range Road. However, the majority of these were rear end crashes which are common at signalised intersections.



#### Figure 2.9: Crash History Location



Source: Transport for NSW, data extracted 06/12/21

The detailed summary of these two crashes is shown in Table 2.3 below.

#### Table 2.3: Crash History Summary

Crash Location	Crash Type	Crash Severity	Day and Time of Crash	
Rifle Range Road	U-Turn (RUM Code 40)	Moderate Injury	Tuesday 3:16pm	
Collith Avenue	Off Carriageway Left on Left Bend into Object or Parked Vehicle (RUM CODE 87)	Moderate Injury	Sunday 7:48pm	

As shown in Table 2.3, there were two crashes along the school frontage. One crash was due to a U-turn movement, while the other crash was due to an off-road collision. As there were only two crashes during the last 5-year period, there is no indication of any pattern or evidence of safety issues. U-turn movements were not seen during site observations.



# 3 Existing Travel Patterns

## 3.1 Travel Questionnaires

Online questionnaires were distributed to school staff and students to determine their existing travel behaviours to/from the school. A total of 763 responses were received from students and 101 responses from staff.

The ratio of completed surveys in relation to the existing school population is summarised in Table 3.1.

#### Table 3.1: Survey Response Rates

Group	Existing Population	No. of Survey Responses	Ratio of Survey Completion	
Students	1240	763	62%	
Staff	1221	101	83%	

<sup>1</sup> Existing staff includes casual staff and full-time staff

The sample size obtained from the survey is considered adequate for this study.

## 3.2 Existing Travel Mode Splits

	Arrival (A	AM)	Departure (PM)		
Iravel Mode	Students	Staff	Students	Staff	
Dropped off/ picked up by car (only passenger)	17%	1%	11%	1%	
Dropped off/ Picked up by car (with other students/ staff)	21%	0%	19%	0%	
Drive Only	8%	96%	4%	96%	
Walk only	9%	1%	13%	1%	
Public bus	6%	0%	5%	0%	
School Bus	37%	0%	47%	0%	
Train and bus	<1%	1%	<1%	1%	
Cycle/ Scooter/ Skateboard	<1%	0%	<1%	0%	
Motorcycle	0%	1%	0%	1%	
TOTAL	100%	100%	100%	100%	

#### Table 3.2: Summary of Existing Staff and Student Travel Modes

The results indicate a high dependency on car usage for staff (90%). Most students travel by school bus.

## 3.3 Existing Mode Trip Generation

Based on the mode shares presented in Table 3.2 and the existing population in Section 2.1, the existing student and staff trips for each travel mode have been estimated and detailed in Table 3.3.



	Arrival (/	AM)	Departure (PM)		
Travel Mode	Students 1240 students	Staff 101 FTE staff	Students 1240 students	Staff 101 FTE staff	
Dropped off/ picked up by car (only passenger)	211	1	136	1	
Dropped off/ Picked up by car (with other students/ staff)	260	0	236	0	
Drive Only	99	97	50	97	
Walk only	112	1	161	1	
Public bus	74	0	62	0	
School Bus	459	0	583	0	
Train and bus	12	1	6	1	
Cycle/ Scooter/ Skateboard	12	0	6	0	
Motorcycle	0	1	0	1	
TOTAL	1240	101	1240	101	

#### Table 3.3: Estimated Existing Trips per Travel Mode

## 3.4 Arrival and Departure Patterns

Further to the above, car drivers and car passengers were asked what their usual arrival and departure times were to/from the school.

Figure 3.1 and Figure 3.2 shows the existing arrival and departure patterns of students and staff who travel by car.





#### Figure 3.1: Vehicle Arrival Patterns





The results indicate that students (85%-94%) and staff (13%-39%) arrive and depart during the network peak hour.



### 3.5 Car Occupancy

Based on the travel survey questionnaire results, the average car occupancy numbers of the existing school are as follows:

#### Table 3.4: No. of Student/Staff per Vehicle

Travel Made	Arrival (/	AM)	Departure (PM)		
ITavel Mode	Students	Staff	Students	Staff	
Car Passenger (Staff/ Students who were dropped off by non-staff/student drivers. Occupancy does not include driver.)	1.76	1.00	1.85	1.00	
Car Driver (Staff/students who drove to school. Occupancy includes driver and passengers)	2.52	1.07	2.52	1.07	

Note: The calculation for the above car occupancy values does not include car drivers and passengers who are not students or school staff (e.g. parents, guardians).

## 3.6 Existing Peak Hour Trip Generation Rate

In terms of vehicle trip rates, it should be noted that given the complexities of parking patterns of schools, it would be difficult to capture all vehicle trips to/from the schools as students, parents and staff tend to park at various locations over an extensive area. As such, the vehicle trips and associated trip rate has been estimated based on travel survey data obtained from the survey questionnaire.

On this basis, Table 3.5 presents a summary of the estimated peak hour traffic generation of the school.

		Arrival	(AM)	Departure (PM)	
		Students	Staff	Students	Staff
Total Survey Responses		745	101	739	101
No. of Survey	Car Passenger	286	1	219	1
Responses	Car Driver	61	97	31	97
Car Occupancy	Car Passenger	1.76	1.00	1.85	1.00
Rate	Car Driver	2.52	1.07	2.52	1.07
	Car Passenger	163	1	119	1

#### Table 3.5: Existing Trip Generation Rate Estimate



Estimated Trips per Mode	Car Driver	61	96	31	96
Estimated No. of Car	Total car trips (one-way)	224	97	150	97
Trips	Total car trips (two-way)	386	98	268	98
	Peak hour %	86%	39%		13%
Peak Hour Car Trips	Peak hour car trips (two- way)	330	38	253	13
Peak Hour Vehicle Trips per student/staff		0.44	0.57	0.34	0.12

# 3.7 Roads and Maritime Traffic Generation Studies at Schools (2014)

Roads and Maritime Services has collected recent traffic generation data from schools across NSW. A total of 22 schools were surveyed over a typical school day, including metropolitan primary and secondary schools.

Secondary School	Student Population	AM Trip Rate	PM Trip Rate
Camden High School	1,093	0.54	0.23
Good Samaritan Catholic College	1,128	0.72	0.16
Kiama High School	1,150	0.22	0.11
Turramurra High School	1,250	0.16	0.15
Xavier College	1,070	0.23	0.25
Average RMS Schools		0.37	0.18
Bede Polding College	1,240	0.44	0.34

#### Table 3.6: Comparison Vehicle Trip Generation – Secondary School

Table 3.4 indicates that the estimated trip generation rates of the existing school is greater than the rates obtained from the comparable Roads and Maritime study sites.



## 4 Proposed Development

## 4.1 Overview of proposed development

The proposed development aims to deliver the following:

- Increase student enrolment capacity to 1360 students. This is a net increase of 120 students.
- Increase number of employees to 105 Full Time Equivalent (FTE) staff, which is a net increase of four FTE staff.
- Provide an additional 26 car parking spaces by reconfiguring the existing car parks.
- Reconfiguration of external and internal spaces.
- Demolition of existing spaces to develop new 'Inquiry Hubs'.

## 4.2 Proposed Vehicle and Pedestrian Access

The vehicle access and pedestrian access points will be retained as per the existing conditions.

### 4.3 Proposed Parking Provision

As per the car parking survey detailed in Section 2.6, the existing site comprises 144 car parking spaces which are used by staff only. No student parking is provided on-site.

The remaining car parks are to be retained however, would be reconfigured to provide an additional 26 spaces. The proposed total parking provision on-site is 170 spaces.

The breakdown of the proposed car parking provision is provided in Table 4.1. The car parks have been labelled in Figure 2.5.



Carpark	Existing Supply	Submitted DA (May 2022)	<b>RFI Modification</b>
А	58	51	61
В	19	19	19
С	19	32	32
D	N/A	3	6
E	8	4	9
Tasman Place	40	41	43
Total	144	150	170

Table 4	1 · Pro	nosed	Car	Parking	Provision
		posed	oui	i unking	1100151011

In addition, there will be 12 new bicycle parking spaces provided.

## 4.4 Proposed Drop-off and Pick-up Arrangements

At present, drop-off and pick-up generally occurs on streets surrounding the school. There is still capacity on surrounding streets. Based on the parking survey results presented in Figure 2.4, the peak parking accumulation on Thursday occurred from 2:30pm-3:00pm, with 24-percent of parking occupied. During this period, a total of 815 spaces were vacant.

On this basis, the drop off and pick up arrangement is to be retained as per the existing conditions.

### 4.5 Service and Emergency Vehicles

Service and emergency vehicle access will continue to be provided as per the existing conditions. That is, Gate 1 will be used as an emergency vehicle entrance and Gate 2 will be used for loading and waste collection. The delivery bay accessed via Gate 5 will also continue to operate as per existing conditions.



## 5 Parking Assessment

## 5.1 Car Parking Requirements

#### 5.1.1 State Environmental Planning Policy (Educational Establishments)

There is no specific car parking rate under the Education State Environmental Planning Policy (SEPP). However, generally any car parking must not reduce the number of car parking spaces provided and/or must not contravene any existing condition of the most recent development consent relating to car parking.

#### 5.1.2 Hawkesbury City Council Development Control Plan

Council's RFI letter notes that the 2005 approval allowed for "161 car parking spaces to serve 84 staff, 1200 students including 213 Year 12 students, and a multi-purpose hall of 706m<sup>2</sup>".

The site currently accommodates 144 car spaces to serve 101 FTE staff, 110 year 12 students and a multi-purpose hall of 706m<sup>2</sup>.

The proposed DA seeks to accommodate 170 car spaces to serve 105 FTE staff, 200 year 12 students and no changes to the hall floor area.

A summary of the site's yields are provided in Table 5.1.

Scenario	FTE Staffing	Year 12 Students	Total Student Population	Car Parking
Approved (DA0268/05)	84	213	1,200	161 spaces
Existing Year Provisions	101	110	1,240	144 spaces
Proposed (DA019/22)	105	200[1]	1,360	170 spaces
Proposed Difference	+ 21 FTE Staff	-13 Yr 12 students	+160 students	+9 spaces

#### Table 5.1: Summary of Population Yields

[1] The total student capacity is to increase, however, the year distribution would result in a reduction of the number year 12 students.

Based on Table 5.1, the proposed development will increase the on-site parking provision by 26 spaces, however, comparative to the approval, this equates to an increase of 9 spaces.

A car parking assessment has been undertaken to assess the requirements of the proposal against what has been approved in 2005 (i.e. DA0268/05). The car parking requirements for the school has been assessed against the *Hawkesbury City Council Development Control Plan (DCP) 2002* and is shown in Table 5.2.



Parking Type	Net Size	DCP Parking Requirement	DCP Requirement
Staff	+21 employees	1 space for each staff	21.0
Assembly Hall	NIL	1 space per 5 seats or 1 space per 7m² of floor area in assembly hall, whichever is greater	0.0
Year 12	-13 students	1 space per 3 Year 12 students	-4.3
	17		

#### Table 5.2: Car Parking Requirements

Based on a proposed increase in 21 FTE staff and reduction in 13 year 12 students, the proposed development expansion is required 17 spaces to satisfy DCP requirements.

Therefore, the site is required a total of 178 car spaces which includes 161 spaces as required for approved development and 17 spaces for the proposed expansion.

The existing site currently provides 144 spaces. It is proposed to provide an additional 26 spaces to the existing site, which gives the site a proposed total of 170 spaces.

This suggests a shortfall of eight spaces from the DCP requirement. The adequacy of this shortfall is discussed in Section 5.1.3.

#### 5.1.3 Parking Oversupply based on School Survey Data

As discussed in Section 2.6.2, the existing School has a peak parking demand of 92 spaces. Based on the existing car parking supply of 144 spaces, this equates to an occupancy of 64%. The data indicates that the school currently has an oversupply of car parking. That is, there are currently 52 available car spaces during the peak parking demand of the school.

Council's parking requirements stipulate a requirement for an additional 17 car spaces for the redevelopment application. This additional parking demand could be accommodated within the existing school parking supply and there would still be 35 car parking spaces available.

In general, it is not recommended to provide an oversupply of parking spaces as it encourages Year 12 students and teachers to drive to/from school as opposed to traveling sustainably i.e. carpooling, public transport, active travel etc.

Nonetheless, we understand Council have requested additional parking to be provided. As such, the development has been modified to provide an increase of 26 car spaces, which equates to a total provision of 170 spaces on-site. The proposed increase is greater than the DCP requirement for the expansion (i.e. 17 spaces) and the total parking supply for the school will exceed the anticipated parking demand of the site by 61 spaces, as shown in Figure 5.1.





#### Figure 5.1: Parking Supply Analysis

## 5.2 Accessible Parking Requirements

The DCP states that the number of accessible spaces is to be provided at the rate specified in the Building Code of Australia. This rate is one space for every 100 car parking spaces or part thereof. Based on the proposed provision of 170 car spaces, two accessible spaces are required. It is proposed to provide three parking spaces, which satisfies the DCP requirement.

### 5.3 Bicycle Parking Requirements

The DCP does not specify bicycle requirements.

However, consideration to the provision of bicycle parking and end-of-trip facilities should be included as part of the proposal to encourage more sustainable modes of travel to the school (i.e. non-car travel).

On this basis, reference to the NSW Planning Guidelines for Walking and Cycling suggests the following bicycle parking provision for primary and secondary schools:

- 3 to 5 per cent of staff for long-term staff parking, plus
- 5 to 10 per cent of staff for short-term visitor parking.

Therefore, for the proposed 105 FTE staff, 3-5 bicycle spaces are required for long-term staff parking and 5-10 bicycle spaces are required for short-term visitor parking.



It is proposed to provide twelve new bicycle parking spaces.

### 5.4 Loading and Service Requirements

The DCP states that a space must be provided for delivery vehicles. It is proposed to retain the existing delivery and servicing arrangements via Gate 5 and Gate 11. In addition, a new delivery bay is to be provided in car park D (via Gate 11) as discussed in Section 2.8, which satisfy the DCP requirement.

### 5.5 Set Down Requirements

The DCP specifies that schools must also provide space for buses. There is an existing dedicated bus zone on Rifle Range Road which will be retained. School buses stop at this bus zone to pick up and set down students. Therefore, the DCP set down requirements are satisfied.

## 5.6 Car Parking Layout

The proposed school car park and associated access arrangements have been designed in accordance with requirements of the Australian Standard for off-street car parking, AS2890.1 (2004).

The car spaces in the existing car parks have been retained as a combination of Class 1A and Class 2, which require a minimum dimension of 2.5m wide by 5.4m long spaces with a 5.8m aisle.

The accessible parking spaces have been designed in accordance with the Australian Standard for Off-street Parking for People with Disabilities, AS2890.6 (2009) with dimensions of 2.4m wide by 5.4m long space with an adjoining shared area of the same dimensions.

The bicycle parking spaces are to be designed in accordance with AS2890.3 (2015), with dimensions of 0.5m wide, 1.8m long with a minimum aisle width of 1.5m.

Swept path analysis of the proposed car parking layout is presented in Appendix C.



# 6 Traffic Assessment

This section outlines the traffic assessment associated with the proposed development in future stages. For a conservative assessment, the additional traffic associated with the proposed development has been estimated assuming that there would be no modal shift away from car (or other mode).

It is however noted that travel demand strategies and a Green Travel Plan are proposed to be implemented at the school, as detailed in Section 7, which aim to influence the way people move to/from the school to encourage sustainable travel and reduce traffic and parking impacts within communities. Such measures could facilitate a modal shift away from car and an increased uptake in more sustainable transport options.

## 6.1 Traffic Generation

By applying the vehicle trip generation rates in Table 3.5, the net additional peak hour traffic associated with the proposed development is estimated in Table 6.1.

Net		AM Trip PM Trip		AM Peak Trips (veh/hr)			PM Peak Trips (veh/hr)		
Group	Increase in Population	kale kale	In	Out	Two Way	In	Out	Two Way	
Secondary Students (Y7-12)	+120	0.44	0.34	32	21	53	16	25	41
Staff	+4	0.57	0.12	2	0	2	0	1	1
Total				34	21	55	16	26	42

#### Table 6.1: Additional Peak Hour School Traffic Generation Estimate

Table 6.1 indicates that the proposal is expected to generate an additional 55 vehicle trips per hour and 42 vehicle trips per hour during the AM peak and PM peak periods, respectively.

## 6.2 Traffic Distribution

To be conservative, it is assumed that all site-generated trips travel to and from the site via the Rifle Range Road/ George Street intersection.

## 6.3 Traffic Modelling

#### 6.3.1 Level of Service Criteria

TfNSW uses level of service as a performance measure to indicate the operating efficiency of a given intersection. The level of service ranges from A to F. Levels of service between A and



D indicate the intersection is operating within capacity, with LoS A providing exceptionally good performance to LoS D indicating satisfactory performance. LoS E and F indicate the intersection is operating at or near capacity and generally would require intersection improvement works to maintain reasonable performance.

The level of service is directly related to the average delay experienced by vehicles travelling through the intersection. At signalised intersections, the average delay is the volume weighted average delay over all movements. For roundabouts and priority (give way and stop sign) controlled intersections, the average delay relates to the movement with the highest average delay per vehicle.

Table 6.2 shows the criteria that TfNSW adopts in assessing the level of service at intersections.

Level of Service (LoS)	Average Delay per vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way & Stop Sign
А	Less than 14	Good operation	Good operation
В	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
С	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 would cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode.
F	Greater than 70	Unsatisfactory, requires additional capacity	Unsatisfactory, requires other control mode or major treatment

Table 6.2: Intersection Level of Service Criteria

#### 6.3.2 Modelling Results

Table 6.3 shows the AM peak and PM peak modelling results for the scenarios with and without development traffic for the opening year (2023) at the intersection of Rifle Range Road and George Street.

#### Table 6.3: Modelling Results (Rifle Range Road/ George Street Intersection)

	Exis	ting	Existing with Development		
Peak	Ave Delay (Secs)	LoS	Ave Delay (Secs)	LoS	
AM Peak	19	В	20	В	
PM Peak	18	В	18	В	

Table 6.3 indicates that under the post development scenario, the intersection would continue to operate at similar levels of service to existing conditions, that is level of service B.



# 7 Travel Demand Measures

## 7.1 Introduction

Travel demand management is a term for strategies to encourage a modal shift from single occupant private vehicle trips and influence the way people move to/from a site to deliver better environmental outcomes to encourage sustainable travel and reduce traffic and parking impacts within communities.

A key element of travel demand management is the preparation of a Green Travel Plan (GTP). The primary purpose of GTPs at schools is to encapsulate a strategy for managing travel demand that embraces the principles of sustainable transport whilst recognising the unique context of travel planning at education facilities. In its simplest form, GTPs encourage travel using transport modes that have low environmental impacts, for example active transport modes including walking, cycling, public transport, and encourages better management of car use.

In the case of GTPs for schools, this is of vital importance as schools are often located in local residential areas which can negatively impact local traffic and parking amenity during the concentrated peak periods of school pick up and drop off times. Furthermore, on-site car parking is often a luxury as schools cannot afford to apportion limited land resources due to teaching space and play space requirements.

Therefore, the implementation of a GTP would assist to manage travel demand at the school. It is expected that the GTP document would target staff and parents at the school.

## 7.2 School Feedback

#### 7.2.1 Staff Feedback

As part of the online questionnaire survey, staff who travelled to site by car were asked if they drive the car by themselves, travelled other school staff or are being dropped off by someone who is not a staff member. The data indicated that almost all staff who travel by car, drive to the school by themselves, with no passengers. The top reason for driving to school was convenience. It was also gathered that Covid-19 did not change the way they travel to/from school.

Staff were also asked if they would consider alternative forms of transport. The following feedback was received:

- 19% of the staff respondents would consider catching public transport to work if a school bus is provided to nearby suburbs and train stations
- 35% of the staff respondents would be willing to carpool with other staff



 36% of the staff respondents would consider alternative forms of transport, even occasionally

A summary of the key features that staff would like to see more to encourage walking, cycling, public transport and carpool is presented in Figure 3.3 to Figure 3.5. Most staff were not interested in changing their travel choices.



#### Figure 7.1: Measures to Encourage Walking/Cycling – Staff Responses









#### Figure 7.3: Measures to Encourage Carpooling – Staff Responses

#### 7.2.2 Student Feedback

The following feedback was received from the student surveys:

- 60% of high school students have a sibling that goes to the school
- 3% of high school students carpool with other students from Bede Polding College
- 49% of high school students are not interested in changing their travel choices.

Students were also asked what would encourage them to use an alternate mode of transport. A summary of the key features that students would like to see more to encourage walking, cycling and public transport and carpool is presented in Figure 3.6 and Figure 3.7





#### Figure 7.4: Measures to Encourage Walking/Cycling/Public Transport Use – Student Responses

#### Figure 7.5: Measures to Encourage Carpooling – Student Responses





## 7.3 Green Travel Plan Initiatives

Based on the above, the following general travel strategies have been considered for implementation in the GTP to encourage more sustainable travel:

- Limit on-site car parking provision and introduce strict car parking policies to manage car parking allocation with the site
- Organise a carpool system/registry which could reduce single private vehicle car trips to and from the school. Promotion of carpooling forums would need to be carried out as part of staff inductions. In addition to this, social events will go hand in hand with this approach to promote social interaction between the staff to reduce social barriers which may deter staff from carpooling with other staff members.
- Similarly, a carpooling forum could be developed on the student/ parent portal to encourage students to travel in groups. The forum will provide a platform for people travelling on the same route to the site to find each other and form groups. Existence of the forum will be advertised on noticeboards within the school, via the school newsletter and social media, and/or on the School's Transport Access Guide (TAG).
- Provision of public transport timetable, car share vehicle locations and cycle maps on noticeboards to make staff more aware of alternative transport options
- Organise a walking/cycling group, or similar, to promote walking/use of bicycles by staff and students living in the same area
- Organise lessons to teach students and staff to ride a bike and learn road rules, and road safety
- Provision of appropriate uniform for students to ride to school
- Provision of bicycle parking and end-of-trip facilities including shower and changing rooms as well as bicycle infrastructure and bicycle repair tools
- Arrange activities and promotions to encourage staff and students to use public transport
  - hosting and participating in active travel events such as Ride2Work Day and National Bike Week
  - provision of Opal card or GoGet car share discounts or incentives
  - affiliation to local bicycle retailer and service centre to provide discounts for staff and students
- Develop or use a mobile application which can be used as a platform to communicate with parents and students regarding changes in travel plans and conditions. The school could utilise 'SkoolBag' app which is Australia's leading school communication app. An extension to the mobile app could include an instant messaging service for parents to facilitate quick trip-planning, real-time communication and real-time public transport information.



## 7.4 Monitoring of the GTP

For the GTP to be effective, it is recommended that the GTP be monitored on a regular basis, (e.g. yearly for a period of three years following completion), through travel surveys, staff meetings, parent consultations or similar. Travel surveys would show how staff, students and parents travel to/from the site and assist in identifying whether the proposed initiatives and measures outlined in the GTP are effective or are required to be replaced or modified to ensure that the best outcomes are achieved. Regular consultation with staff, students and parents would also be beneficial to help understand people's reasons for traveling the way they do and help identify any potential barriers to change their travel behaviours.

In order to ensure successful implementation of the GTP, a Travel Plan Coordinator (TPC) should be appointed to oversee the measures and resultant impacts of the GTP.



## 8 Conclusion

The study details our assessment of the traffic and transport implications associated with the proposed redevelopment of Bede Polding Colleges, South Windsor. The key findings are presented below.

- The Proposal seeks to increase student enrolment capacity by 120 students and increase staff by four FTE staff.
- The existing car parks are to be retained for the proposed development, however, it is
  proposed to provide an additional 26 car parking spaces on site by reconfiguring the
  existing car parks.
- The proposed scheme is expected to generate an additional 55 vehicle trips in the morning peak hour (about 1 vehicle trip per minute) and an additional 42 vehicle trips in the evening peak hour (about 1 vehicle trip per minute). This would have a minor impact to the surrounding road network.
- Green Travel Plan and Workplace Travel Plan is to be implemented on-site with an aim to reduce car share as a mode of travel. Measures proposed as part of the travel plan include:
  - Limiting car parking provision on-site to reduce the opportunity and convenience of driving
  - Organising a car pool system/registry to assist Staff and parents
  - Organising walking/ cycling groups to promote those living near each other's to walk and cycle together
  - Organising cycling classes to teach road safety and safe on-road cycling practices
  - Provision of secure bicycle parking facilities and end of trip facilities
  - Develop or use a mobile application which can be used as platform to communicate with parents and students regarding changes in travel plans and conditions e.g. the existing SkoolBag app.

Overall, it is concluded that the traffic and parking aspects of the proposed scheme would be acceptable. Regular management and extensive education/consultation with key stakeholders of the school, including staff and parents, would need to be conducted to ensure the success of any proposed green travel strategies/initiatives



# Appendix A

Architectural Plans



2. BUILDER TO CHECK & VERIFY ALL DIMENSIONS & LEVELS PRIOR TO

COMMENCEMENT OF WORK. 3. IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT THE ENGINEER HAS INVESTIGATED SUBSOIL CONDITIONS & DESIGNED ALL

DA03 DA04

STRUCTURAL ELEMENTS TO SUIT. 4. THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY DTAARCHITECTS

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Project:	BED	E POLDIN	G COLLEGE		ATIONS	& ADDI1	IONS
Address:	LOT 1	D.P811652					
	20-22	RIFLE RANG	SE ROAD SOUT	H WINDSO	R NSW 275	56	
Dwg Name:	OVERA	LL SITE PLAN				Job No.	Drawing No.
CAD File: S:\Data3	\2020\2020.020.0	CEDP.BedePolding Masterplar	n\3.Design\3.2 DA (SCHEMATIC DESIC	GN)\2020.020 CEDP.Bedel	Polding.DA05.pln	2020.020	DA02
Nominated A	rchitect	Daniel Donai	別私	Scale:	Drawn:	No. of sheets	Revision
NSW ARB No	. 9068	ARBV No. 19868	Member Australian Institute of Architects	As shown @ A1	DD,MS,SD,OR		DA04



# Appendix B

School Bus Timetable



## SCHOOL TIMETABLE

## WESTERN SUBURBS REGION

## **Bede Polding College**

#### Timetable effective from Monday 25 October 2021

Amended 10/09/2021

(R) Bus Turns Right - (L) Bus Turns Left

WORNIN	IG			
Bus Number	Route Number	Time	Locations Serviced	Route Description
-	682	6:48 AM	Berambing Bilpin Kurrajong Heights Kurrajong	Departs Berambing Picnic Area via Bells Line of Rd (L)Berambing Cr (L)Bells Line of Rd (R)Old Bells Line of Rd (L)Old Bells Line of Rd to Kurrajong Shopping Village (7:20am), continues Old Bells Line of Rd (R)Bells Line of Rd (R)Charles St (L)Elizabeth St (7:33am) (L)Grose Vale Rd (R)Bells Line of Rd, Kurrajong Rd (L)Chapel St (R)Windsor St (R)East Market St to Richmond Station (7:49am). TRANSFER TO BUS 5010
-	668	6:54 AM	Glossodia Freemans Reach North Richmond Richmond	Departs East Kurrajong Rd & Putty Rd via (R)Putty Rd (R)Creek Ridge Rd (R)Spinks Rd (7:06am) (L)Rose Cr, Kentucky Dr (R)Golden Valley Dr (L)Lindsay PI (R)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Mitchell Dr (L)Spinks Rd (7:18am) (R)Creek Ridge Rd (R)Kurmond Rd (L)Terrace Rd, Grose Vale Rd (R)William St (L)Charles St (R)Elizabeth St (L)Campbell St (L)Pecks Rd (7:37am) (L)Grose Vale Rd (R)Bells Line of Rd, Kurrajong Rd, March St (L)East Market St to opposite Richmond Station (7:53am). Then continues as School Bus 5022 to School.
5024	-	6:55 AM	Glossodia Freemans Reach Wilberforce Windsor South Windsor	Departs Spinks Rd & Grand Pde via Spinks Rd (R)Kentucky Dr (R)Golden Valley Dr (L)Lindsay Pl (R)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Mitchell Dr (L)Spinks Rd ( <b>7:08am</b> ) (R)Creek Ridge Rd (R)Kurmond Rd (R)Lelia Av (L)Dorothy St (L)Kurmond Rd, (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School ( <b>7:30am</b> ), continues George Rd (L)Putty Rd (R)Wilberforce Rd (L)Bridge St (R)Macquarie St (R)Fitzgerald St (R)Macquarie St (R)Kable St to Windsor Market Place ( <b>7:45am</b> ), continues Kable St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station ( <b>7:53am</b> ), continues George Rd to School.
-	680	6:58 AM	Bowen Mountain Grose Vale Grose Wold North Richmond	Departs Bowen Mountain Rd & Carters Rd via Bowen Mountain Rd (L)Lieutenant Bowen Dr to end, turns around & returns Lieutenant Bowen Dr, Pamela Cr (7:09am), Bunya Cr (R)Lieutenant Bowen Rd (R)Bellbird Cr (L)Wattle St (L)Bowen Mountain Rd (R)Grose Vale Rd (R)Grose Wold Rd (7:19am) (L)Grose River Rd (R)Grose Vale Rd (L)Pecks Rd (R)Campbell St (R)Elizabeth St to Richmond North Public School (7:33am) via Elizabeth St (L)Grose Vale Rd (R)Bells Line of Rd, Kurrajong Rd (L)Chapel St (R)Windsor St (R)East Market St to Richmond Station (7:50am). Then continues as School Bus 5010 to School.
5050	-	7:02 AM	Comleroy East Kurrajong Tennyson	Departs Comleroy Rd & Kilto PI via Comleroy Rd (L)East Kurrajong Rd (R)Tennyson Rd (7:14am) (R)Kurmond Rd (L)Crooked Ln, Maddens Rd, Slopes Rd, Crooked Ln (L)Bells Line of Rd (R)Charles St (L)Elizabeth St to Richmond North Public School (7:29am). TRANSFER TO ROUTE 680
-	669	7:04 AM	Ebenezer Sackville Wilberforce	Departs Ebenezer Public School via Sackville Rd (R)2nd Tizzana Rd (L)Stones Rd (L)Port Erringhi Rd (R)2nd Sirius Cr <b>(7:17am)</b> (L)Port Erringhi Rd (R)Stones Rd (L)Tizzana Rd (L)Sackville Rd, King Rd (R)Coburg Rd (L)George Rd to Wilberforce Public School <b>(7:29am)</b> . <b>TRANSFER TO BUS 5024</b>
5121	-	7:07 AM	Blaxlands Ridge Kurrajong North	Departs Putty Rd & Blaxlands Ridge Rd via Putty Rd (L)Blaxlands Ridge Rd (L)Comleroy Rd (R)Cedar Ridge Rd to 367 Cedar Ridge Rd ( <b>7:30am</b> ), returns Cedar Ridge Rd (R)Comleroy Rd (L)Bells Line Of Rd to Crooked Ln ( <b>7:48am</b> ), continues Bells Line Of Rd (R)Grose Vale Rd (R)Pecks Rd to Arnold St ( <b>7:56am</b> ), continues Pecks Rd (R)Campell St (R)Elizabeth St (L)Grose Vale Rd (R)Bells Line of Rd, Kurrajong Rd (R)Bosworth St (L)Lennox St (R)West Market St to Richmond High School (8:13am). TRANSFER TO BUS 5018

-	673	7:08 AM	Cranebrook	Departs The Northern Rd & Ninth Av (L)Andromeda Dr (L)Vincent Rd (L)Grays Ln
			Llandilo	(R)Hindmarsh St (L)Laycock St (L)Greygums Rd (L)McHenry Rd (R)Sherringham Rd
			Berskhire Park Windsor Downs	(/:18am) (L)Pendock Rd (L)Borrowdale Wy (R)Callisto Dr (R)Marrett Wy (L)Goldmark
				to Llandilo Public School ( <b>7:31am</b> ) continues Seventh Av (L)Second Av Llandilo Rd
				(R)Second Rd (L)St Marys Rd (L)Richmond Rd (R)Sanctuary Dr (R)Barkly Dr
				(L)Willeroo Dr (L)Sanctuary Dr (7:47am) (R)Richmond Rd (R)George St (R)Rifle
				Range Rd to School.
5054	-	7:10 AM	Yarramundi	Departs Springwood Rd & River Rd via Springwood Rd (R)Rivatts Dr (L)Shearwater Cr
			Berkshire Park Windsor Downs	(R)Kestral Wy (R)Shearwater Cr (L)Rivatts Dr (R)Springwood to Hillcrest Rd (7:19am),
				(R)East Market St to Richmond Station (7:34am) continues East Market St (L)Lennox
				St. Blacktown Rd, Richmond Rd (L)Sanctuary Dr (R)Barkly Dr (7:45am) (L)Willeroo Dr
				(R)Sanctuary Dr to Nutwood Ln (7:50am), turns around & returns Sanctuary Dr
				(R)Richmond Rd, Blacktown Rd (R)George St (R)Rifle Range Rd to School.
	070			
-	672	7:11 AlVI	Maroota	Erry Rd (7:33am), continues Wisemans Ferry Rd (L)Floyds Rd to Chilvers Ln
			South Maroota	(7:41am) turns around & returns Floyds Rd (L)Wisemans Ferry Rd. Cattai Rd to
			Cattai	Mitchell Park Rd (7:57am), continues Cattai Rd, Eldon St (L)Chatham St (L)Bathurst
			Pitt Town	St, Pitt Town Rd (L)Windsor Rd (R)Mulgrave Rd to Windsor High School (8:14am),
			Windsor Station	continues Mulgrave Rd (R)Curtis Rd on ramp (R)Hawkesbury Valley Wy (L)George St
				to Windsor Station (8:22am). Then continues as School Bus 5103 to School.
5100	-	7:12 AM	Cattai	Departs Mitchell Rd & Eden Cct via Mitchell Rd (L)Cattai Rd (R)Millers Rd (L)Pebbly
			Pitt Town	Hill Rd (L)Mitchell Park Rd (R)Cattai Rd (L)Caddie Rd to Cattai National Park Gate,
			Oakville	turns around & Caddie Rd (R)Cattai Rd (L)Mitchell Park Rd (7:24am) (L)Nelson Rd to
				end, turns around & returns Nelson Rd (L)Mitchell Park Rd (L)Resident Access Rd
				(R)Witcheil Park Ru (L)Pebbly Hill Ru (R)Whitmore Ru (R)Phipps Ru to end (7.30am), turns around & returns Phipps Rd (R)Whitmore Rd (R)Pitt Town Dural Rd (I )Airstrin
				Rd (R)Old Pitt Town Rd, Eldon St to Wellesley St (7:51am), continues Eldon St
				(L)Chatham St (L)Bathurst St (L)Glebe Rd (R)Old Stock Route Rd (R)Saunders Rd
				(L)Pitt Town Rd (L)Windsor Rd (R)Mulgrave Rd to Windsor High School (8:07am),
				continues Mulgrave Rd (R)Curtis Rd (R)Hawkesbury Valley Wy (L)Macquarie St,
				George St (L) Kille Range Rd to School.
5105	-	7:16 AM	Oakville	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr
5105	-	7:16 AM	Oakville Maraylya	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd,
5105	-	7:16 AM	Oakville Maraylya	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am)
5105	-	7:16 AM	Oakville Maraylya	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am).
5105	-	7:16 AM	Oakville Maraylya	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am).
-	- 668	7:16 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Pd (L)Boomerang Dr (P)Ian St (P)Mitchell Dr (L)Spinks Pd (P)Creek Pidge
-	- 668	7:16 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to
-	- 668	7:16 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd,
-	- 668	7:16 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station
-	- 668	7:16 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am).
-	- 668	7:16 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd
- 5045	- 668 -	7:16 AM 7:17 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am)
- 5045	- 668	7:16 AM 7:17 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North)	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd
- 5045	- 668	7:16 AM 7:17 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North)	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School
- 5045	- 668 -	7:16 AM 7:17 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North)	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am).
- 5045	- 668	7:16 AM 7:17 AM 7:17 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North)	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030
5045	- 668 - 677	7:16 AM 7:17 AM 7:17 AM 7:24 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North)	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd. Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd
- 5045	- 668 - 677	7:16 AM 7:17 AM 7:17 AM 7:24 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North)	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd, Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:37am).
- 5045	- 668	7:16 AM 7:17 AM 7:17 AM 7:24 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North)	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd, Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:37am). TRANSFER TO BUS 5030
5105 - 5045 - 5039	- 668 - 677 -	7:16 AM 7:17 AM 7:17 AM 7:24 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North) Londonderry	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd, Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:37am). TRANSFER TO BUS 5030 Departs Seventh Av & The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av
5105 - 5045 - 5039	- 668 - 677 -	7:16 AM 7:17 AM 7:17 AM 7:24 AM 7:28 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North) Londonderry Cranebrook Llandilo	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd, Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:37am). TRANSFER TO BUS 5030 Departs Seventh Av & The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd (L)Richmond Rd (R)George St (R)Woods Rd (R)Centre Via Maguires T (M)Wather Rd R (L)Richmond Rd (R)George St (R)Woods Rd (R)Centre Rd Rd R) The Northern Rd (L)Richmond Rd Rd Rd R)George St (R)Woods Rd
- - 5045 - 5039	- 668 - 677 -	7:16 AM 7:17 AM 7:17 AM 7:24 AM 7:28 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North) Londonderry Cranebrook Llandilo	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd, Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:37am). TRANSFER TO BUS 5030 Departs Seventh Av & The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd (L)Richmond Rd (R)George St (R)Woods Rd (R)Collith Av (R)Harpur Cr (L)Mileham St (L)Rifle Range Rd to School.
5105 - 5045 - 5039 5088	- 668 - 677 -	7:16 AM 7:17 AM 7:17 AM 7:24 AM 7:28 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North) Londonderry Cranebrook Llandilo	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd, Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:37am). TRANSFER TO BUS 5030 Departs Seventh Av & The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd (L)Richmond Rd (R)George St (R)Woods Rd (R)Collith Av (R)Harpur Cr (L)Mileham St (L)Rifle Range Rd to School.
5105 - 5045 - 5039 5088	- 668 - 677 -	7:16 AM 7:17 AM 7:17 AM 7:24 AM 7:28 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North) Londonderry Cranebrook Llandilo Londonderry Windsor	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd, Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:37am). TRANSFER TO BUS 5030 Departs Seventh Av & The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd (L)Richmond Rd (R)George St (R)Woods Rd (R)Collith Av (R)Harpur Cr (L)Mileham St (L)Rifle Range Rd to School. Departs Londonderry Rd & The Northern Rd via Londonderry Rd (L)The Northern Rd (L)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd (7:43am) (R)Londonderry Rd
5105 - 5045 - 5039 5088	- 668 - 677 -	7:16 AM 7:17 AM 7:17 AM 7:24 AM 7:28 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North) Londonderry Cranebrook Llandilo Londonderry Windsor	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd, Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:37am). TRANSFER TO BUS 5030 Departs Seventh Av & The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd via Londonderry Rd (N)George St (R)Woods Rd (R)Collith Av (R)Harpur Cr (L)Mileham St (L)Rifle Range Rd to School.
5105 - 5045 - 5039 5088	- 668 - 677 -	7:16 AM 7:17 AM 7:17 AM 7:24 AM 7:28 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North) Londonderry Cranebrook Llandilo Londonderry Windsor	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd, Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:37am). TRANSFER TO BUS 5030 Departs Seventh Av & The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd via Londonderry Rd (R)Caerington Rd (R)Collith Av (R)Harpur Cr (L)Mileham St (L)Rifle Range Rd to School. Departs Londonderry Rd & The Northern Rd via Londonderry Rd (L)The Northern Rd (L)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd (7:43am) (R)Londonderry Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd (7:43am) (R)Londonderry Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd (7:43am) (R)Londonderry Rd (R)Carrington Rd (L)Muscharry Rd R)Trahlee Rd (7:43am) (R)Londonderry Rd (R)Carrent Rd RMuscharry Rd R)Trahlee Rd R) Resol
5105 - 5045 - 5039 5088	- 668 - 677 - -	7:16 AM 7:17 AM 7:17 AM 7:24 AM 7:28 AM 7:28 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North) Londonderry Cranebrook Llandilo Londonderry Windsor	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (L)Cranebrook Rd (R)Taylors Rd, Nutt Rd (R)Torkington Rd (L)Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs Seventh Av & The Northern Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)Then Rd via Seventh Av (L)Third Av (L)Fourth Av (R)The Northern Rd (R)The Northern Rd via Londonderry Rd (R)Carge St (R)Woods Rd (R)Collith Av (R)Harpur Cr (L)Mileham St (L)Rifle Range Rd to School. Departs Londonderry Rd & The Northern Rd via Londonderry Rd (L)The Northern Rd (L)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd (7:43am) (R)Londonderry Rd (R)Carrington Rd (L)The Northern Rd (L)Richmond Rd (R)George St to Windsor Station (7:52am). continues George St (R)Hawkesbury Valley Wy (V)Macquarie St (R)Windsor Rd (R)Mulgrave Rd to Windsor Midps Station Valley Wy (V)
5105 - 5045 - 5039 5088	- 668 - 677 -	7:16 AM 7:17 AM 7:17 AM 7:24 AM 7:28 AM	Oakville Maraylya Glossodia Wilberforce Freemans Reach Windsor Station Londonderry (North) Londonderry Cranebrook Llandilo Londonderry Windsor	Departs Boundary Rd & Old Pitt Town Rd via Old Pitt Town Rd (L)Veletta Dr (L)Cataract Rd (R)Boundary Rd (R)Maguires Rd (L)Maguires Rd to McClymonts Rd, turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd (7:34am). Then continues as Route 679 to Windsor High School (8:14am). Departs Spinks Rd & Grand Pde via Spinks Rd (R)Golden Valley Dr (L)Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (R)Creek Ridge Rd (7:29am) (L)Kurmond Rd, Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School (7:42am) continues George Rd (L)Putty Rd, Wilberforce Rd, Bridge St (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (7:57am). Then continues as Route 674 to School. Departs The Northern Rd & Richmond Rd via The Northern Rd (R)Carrington Rd (R)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (7:30am) (L)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:45am). TRANSFER TO BUS 5030 Departs The Northern Rd & Cranebrook Rd via The Northern Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Rd (R)Carrington Rd (R)Calitih Av (R)Harpur Cr (L)Mileham St (L)Rifle Range Rd to School. Departs Londonderry Rd & The Northern Rd via Londonderry Rd (L)The Northern Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd (7:43am) (R)Londonderry Rd (R)Carrington Rd (L)Muscharry Rd R)Trahlee Rd (7:43am) (R)Londonderry Rd (R)Carrington Rd (L)Muschar

5108	-	7:29 AM	Oakville McGraths Hill	Departs Boundary Rd & Commercial Rd via Boundary Rd (R)Old Pitt Town Rd to Old Pitt Town Rd Fire Station <b>(7:35am)</b> , turns around & returns Old Pitt Town Rd (L)Speets Rd (L)Hanckel Rd (R)Bocks Rd <b>(7:42am)</b> (L)Stahls Rd (L)Menin Rd (R)Harkness Rd (R)Commercial Rd (L)Commercial Rd (R)Bocks Rd (L)Stahls Rd (L)Glenidol Rd to Stahls Rd <b>(7:55am)</b> , continues Glenidol Rd (R)Commercial Rd (R)Broos Rd (L)Oakville Rd, Wolseley Rd (L)Havelock St (L)Old Hawkesbury Rd (R)Meares Rd (R)Andrew Thompson Dr (L)Old Hawkesbury Rd (L)Pitt Town Rd (L)Windsor Rd (R)Mulgrave Rd to Windsor High School <b>(8:15am)</b> , continues Mulgrave Rd (R)Curtis Rd (R)Hawkesbury Valley Wy (L)Macquarie St, George St (L)Rifle Range Rd to School.
-	672	7:30 AM	Pitt Town Pitt Town Bottoms McGraths Hill	Departs Pitt Town Rd & Wolseley Rd via Pitt Town Rd (L)Pitt Town Bottoms Rd (R)Bathurst St (L)Bootles Ln (L)Bona Vista Dr (L)Johnston St (R)Hawkesbury St (R)Hall St (L)Cleary Dr (L)Hawkesbury St (R)Hall St (L)Bathurst St (L)Buckingham St (R)Cattai Rd, Eldon St to Wellesley St <b>(7:54am)</b> , continue Eldon St (L)Bathurst St (L)Chatham St (R)Eldon St (R)Old Pitt Town Rd (R)Scheyville Rd (L)Old Stock Route Rd (R)Wolseley Rd (L)Plimsoll St (R)Old Hawkesbury Rd (L)Pitt Town Rd (L)Windsor Rd (R)Mulgrave Rd to Windsor High School <b>(8:14am)</b> . <b>TRANSFER TO ROUTE 672 (Windsor)</b>
5030	-	7:32 AM	Londonderry South Windsor	Departs Londonderry Rd & The Northern Rd via Londonderry Rd (L)The Northern Rd (L)Leitch Av (L)Sutherland Rd (R)Mills Rd (R)Bowman Rd (L)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School <b>(7:55am)</b> , continues Trahlee Rd (R)Londonderry Rd (R)Carrington Rd (L)The Northern Rd (L)Richmond Rd (R)George St (R)Woods Rd (R)Collith Av (R)Harpur Cr (L)Mileham St (L)Rifle Range Rd to School.
5042	-	7:32 AM	Londonderry	Departs Londonderry Rd & The Northern Rd via Londonderry Rd (R)Carrington Rd (R)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (7:38am). Then continues as School Bus 5043.
5009	-	7:34 AM	Wilberforce	Departs Stannix Park Rd & Carrs Rd via Stannix Park Rd (L)Putty Rd (L)Old Sackville Rd (R)Coburg Rd (R)George Rd to Wilberforce Public School <b>(7:42am).</b> <b>TRANSFER TO ROUTE 668</b>
-	671	7:35 AM	Vineyard Mulgrave	Departs Riverstone Station via Riverstone Pde (R)Melbourne St (R)Brisbane St (L)Loftus St (R)Hamilton St (L)Crown St (L)Junction Rd (L)Windsor Rd (L)Bandon Rd (7:45am) (R)Wallace Rd (R)Level Crossing Rd (R)Bruce Rd (L)Blackwood Rd (L)Windsor Rd (L)Mulgrave Rd to Windsor High School (7:55am). TRANSFER TO BUS 5100
5047	-	7:35 AM	Berkshire Park	Departs St Marys Rd & Richmond Rd via St Marys Rd (R)Sirius Pl <b>(7:42am)</b> to end, turns around & returns Sirius Rd (L)St Marys Rd (L)Government Rd (R)Spence Rd (R)Llandilo Rd (L)Richmond Rd (R)George St (R)Rifle Range Rd to School.
-	678	7:38 AM	Penrith Cranebrook Castlereagh Agnes Banks	Departs Cranebrook Rd & Boundary Rd via Cranebrook Rd (L)Church Ln (R)Church St (L)East Wilchard Rd (R)Sheredan Rd (L)Hinxman Rd (R)Castlereagh Rd (R)Southee Rd (L)Valder Av (R)Powell St (L)Laurence St (L)East Market St (L)Lennox St (L)West Market St to Richmond High School <b>(8:09am)</b> . <b>TRANSFER TO BUS 5018</b>
5043	-	7:39 AM	Londonderry	Departs Londonderry Public School via Trahlee Rd (R)Londonderry Rd (R)Carrington Rd (R)Howell Rd (L)Laurence Rd (L)Parker Rd (L)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School <b>(7:55am).</b> <b>TRANSFER TO BUS 5030</b>
-	679	7:41 AM	Maraylya Cattai McGraths Hill	Departs Boundary Rd & Pitt Town Rd via Boundary Rd (R)Cattai Ridge Rd (L)St Johns Rd (L)Reedy Rd (L)Fisher Rd (R)Pitt Town Dural Rd (L)Scheyville Rd <b>(7:50am)</b> (L)Dunns Rd (R)Boundary Rd (R)Cusack Rd (L)Midson Rd (R)Old Pitt Town Rd (L)Saunders Rd (L)Oakville Rd (L)Hanckel Rd (R)Glenidol Rd (R)Stahls Rd, Oakville Rd, Wolseley Rd <b>(8:08am)</b> (L)Pitt Town Rd (L)Windsor Rd (R)Mulgrave Rd to Windsor High School <b>(8:14am)</b> . <b>TRANSFER TO ROUTE 672 (Windsor)</b>
5037	-	7:45 AM	Richmond Hobartville Londonderry South Windsor	Departs RAAF Gates via Dight St (L)Clarendon St (R)Pitt St (R)Francis St (L)East Market St (R)Lennox St (L)West Market St to Richmond High School <b>(8:00am)</b> via (R)Lennox St (R)East Market St (R)Laurence St (R)Powell St (L)Catchpole Av (L)Valder Av (L)Southee Rd (R)Londonderry Rd (L)The Driftway <b>(8:09am)</b> (R)Blacktown Rd (L)George St (R)Woods Rd (R)Collith Av (R)Harpur Cres (L)Mileham St (L)Rifle Range Rd to School.
5014	-	7:45 AM	Agnes Banks Yarramundi Richmond	Departs Springwood Rd & Hillcrest Rd via Springwood Rd (L)Rivatts Dr (L)Shearwater Cres (L)Thornbill Wy (R)Kestrel Wy (R)2nd Shearwater Cres (L)Rivatts Dr (L)Springwood Rd (L)Castlereagh Rd (8:00am) (L)Crowleys Ln (R)Yarramundi Ln (R)Inalls Ln (L)Castlereagh Rd (R)Lennox St (R)West Market St to Richmond High School (8:16am). TRANSFER TO BUS 5018
5005	-	7:50 AM	Freemans Reach	Departs Hawkesbury High School via Hibberts Ln (R)Kurmond Rd, Gorricks Ln (L)Freemans Reach Rd (R)Bridge (R)Macquarie St (R)Hawkesbury Valley Wy (L)George St to Windsor Station (8:05am). TRANSFER TO ROUTE 675C

5022	-	7:53 AM	Richmond	Departs Richmond Station via East Market St (R)Windsor St (L)Bourke St (L)Francis St (L)Moray St (L)Windsor St (R)Bourke St (L)Blacktown Rd (L)George St (R)Rifle Range Rd to School.
5010	-	7:55 AM	Richmond	Departs Richmond Station via East Market St (L)Lennox St, Blacktown Rd (L)George St (R)Rifle Range Rd to School.
5018	-	8:16 AM	Richmond	Departs Richmond High School via (R)Lennox St, Blacktown Rd (L)George St (R)Rifle Range Rd to School.
-	675C	8:21 AM	Windsor Interchange	Departs Windsor Station via George St (L)Drummond St (R)Macquarie St, George St (L)Rifle Range Rd to School.

AFTERN	IOON			
Bus Number	Route Number	Time	Locations Serviced	Route Description
5603	-	3:05 PM	Cattai South Maroota Maroota Wisemans Ferry	FIRST SET DOWN WINDSOR HIGH SCHOOL Departs School via Rifle Range Rd, then to Windsor High School (3:35pm). Continues as Route 672 via Mulgrave Rd (L)Windsor Rd (R)Pitt Town Rd, Bathurst St (R)Eldon St to Pitt Town Shopping Village (3:46pm), continues Eldon St (L)Cattai Rd, Wisemans Ferry Rd to Sackville Ferry Rd (4:05pm), continues Wisemans Ferry Rd (L)Old Northern Rd to Maroota Public School (4:21pm), continues Old Northern Rd to Wisemans Cerry Runt (4:25pm)
5608	-	3:05 PM	McGraths Hill Oakville Pitt Town	FIRST SET DOWN ANDREW THOMPSON DR & MEARES RD Departs School via Rifle Range Rd, then to Andrew Thompson Dr & Meares Rd continues Andrew Thompson Dr (R)Old Hawkesbury Rd (L)Plimsoll Rd (R)Wolseley Rd to Arndell College (3:29pm), continues Wolseley Rd, Oakville Rd (L)Ogden Rd to Oakville Public School (3:39pm), continues Ogden Rd (L)Smith Rd (R)Oakville Rd, Wolseley Rd (L)Plimsoll Rd (L)Old Hawkesbury Rd (R)Meares Rd (L)Andrew Thompson Dr (L)Balmain Rd (L)McGrath Rd (L)Old Hawkesbury Rd (R)Pitt Town Rd to Ivy Av (3:54pm), continues Pitt Town Rd (R)Wolseley Rd, Oakville Rd (R)Broos Rd (L)Commercial Rd (L)Glenidol Rd (L)Stahls Rd (R)Smith Rd (L)Saunders Rd (R)Old Stock Route Rd (4:06pm), Scheyville Rd (L)Old Pitt Town Rd (R)Airstrip Rd (L)Pitt Town Dural Rd (L)Cattai Rd, Eldon St (R)Bathurst St (R)Bootles Ln (4:18pm) (L)Bona Vista St (L)Johnston St (R)Hawkesbury St (R)Hall St (L)Cleary Dr (L)Hawkesbury St (R)Hall St, Bathurst St (R)Pitt Town Bottoms Rd (R)Pitt Town Rd to Wolseley Rd (4:28pm).
-	675A	3:10 PM	Windsor Interchange Windsor Marketplace	Departs School via Rifle Range Rd (L)Collith Av, Woods Rd (L)Mileham St (R)Rifle Range Rd (R)George St to Windsor Station <b>(3:30pm)</b> (L)George St (R)Suffolk St (L)Macquarie St (L)Fitzgerald St (R)The Terrace (R)Kable St to Windsor Marketplace <b>(3:37pm)</b> .
5575	-	3:10 PM	North Richmond Kurrajong Bowen Mountain	<b>FIRST SET DOWN RICHMOND NORTH PUBLIC SCHOOL</b> Departs School via Rifle Range Rd, then to Richmond North Public School (3:30pm), continues William St (R)Charles St (L)Bells Line of Rd (L)Redbank Rd to Kuyper Christian School (3:45pm) continues Redbank Rd, Greggs Rd (R)Grose Vale Rd (L)Old Bells Line of Rd (R)Kurrajong Rd (R)Old Bells Line of Rd to opposite Kurrajong Post Office (3:54pm), continues Old Bells Line of Rd, Grose Vale Rd (R)Westbury Rd (R)Bowen Mountain Rd (L)Lieutenant Bowen Dr to the end, turns around & returns Lieutenant Bowen Dr, Pamela Cr, Bunya Cr (R)Lieutenant Bowen Dr (R)Bellbird Cr (L)Wattle St to Bowen Mountain Rd (4:15pm).
5640	-	3:10 PM	South Windsor Windsor Freemans Reach Wilberforce	Departs School via Rifle Range Rd (L)Collith Av (L)Woods Rd (R)Mileham St (L)Drummond St (R)Macquarie St (L)Bridge St, Wilberforce Rd, Putty Rd (R)George Rd (L)Church Rd (L)Macquarie Rd to Wilberforce Public School <b>(3:37pm).</b>
5581	-	3:10 PM	McGraths Hill Vineyard Riverstone	Departs School via Rifle Range Rd (L)Collith Av, Woods Rd (R)Mileham St (L)Drummond St (R)George St to Windsor Station <b>(3:20pm)</b> . Then <b>continues as</b> <b>Route 671</b> via George St (R)Suffolk St (L)Macquarie St (L)Fitzgerald St (R)The Terrace (R)Kable St (L)Macquarie St (R)Bridge St, Windsor Rd (L)Pitt Town Rd (R)Wolseley Rd (R)Plimsoll St (R)Old Hawkesbury Rd (L)Andrew Thompson Dr (L)Meares Rd (R)Old Hawkesbury Rd (R)McGrath Rd (L)Windsor Rd <b>(3:44pm)</b> (R)Level Crossing Rd (L)Wallace Rd (L)Bandon Rd, Chapman Rd (R)Commercial Rd to A-Vina Caravan Park <b>(3:53pm)</b> , continues Commercial Rd (R)Boundary Rd (L)Windsor Rd (R)Junction Rd (R)Crown St (L)Riverstone Pde to Riverstone Station <b>(4:08pm)</b> .
5522	-	3:11 PM	Bligh Park Londonderry	Departs School via Rifle Range Rd (R)Sirius Rd (L)Colonial Dr (R)1st Alexander St (L)Colonial Dr (L)George St (L)Blacktown Rd (R)The Northern Rd (R)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School <b>(3:30pm)</b> , continues Trahlee Rd (R)Londonderry Rd (R)Reynolds Rd (L)Clark Rd (R)Reynolds Rd (L)Macpherson Rd (L)Milford Rd (L)Carrington Rd (R)Bowman Rd (L)Mills Rd (L)Sutherland Rd (R)Leitch Av (L)Howell Rd (R)Laurence Rd (R)Parker Rd (L)Leitch Av (R)The Northern Rd (L)Spinks Rd to Doak Av <b>(3:50pm)</b> , turns around & returns Spinks Rd (L)The Northern Rd (R)Londonderry Rd (R)Whitegates Rd (L)The Northern Rd to Carrington Rd <b>(4:00pm)</b> .

5562	-	3:12 PM 3:15 PM	Richmond North Richmond Freemans Reach Glossodia Wilberforce Hobartville	Departs School via Rifle Range Rd (R)Sirius Rd (R)Colonial Dr (L)George St (R)Blacktown Rd (R)Bourke St (L)Francis St (L)East Market St to Richmond Station (3:30pm), continues East Market St (R)March St, Kurrajong Rd, Bells Line of Rd (L)Grose Vale Rd (R)Pecks Rd (R)Campbell St (R)Elizabeth St (L)Grose Vale Rd (L)William St (R)Charles St (L)Bells Line of Rd (L)Redbank Rd to Kuyper Christian School (3:50pm), returns Redbank Rd (R)Bells Line of Rd (R)Charles St (L)William St (L)Grose Vale Rd, Terrace Rd (R)Kurmond Rd to Freemans Reach Shops (4:13pm), continues Kurmond Rd (L)Creek Ridge Rd (L)Spinks Rd (L)Rose Cr, Kentucky Dr (R)Golden Valley Rd (L)Lindsay PI, Chestnut Dr (L)Spinks Rd (L)Boomerang Dr (R)Ian St (R)Mitchell Dr (L)Spinks Rd (4:31pm) (R)Creek Ridge Rd (L)Kurmond Rd (L)Kurmond Rd, Old Sackville Rd (R)Corbung Rd (R)George Rd to Wilberforce Public School (4:43pm). Departs School via Rifle Range Rd (R)Colonial Dr (L)George St (R)Blacktown Rd,
			Kurrajong East Kurrajong	Lennox St (L)East Market St (R)Laurence St (R)Powell St (L)Valder Av (L)Southee Rd (3:32pm) (L)Londonderry Rd, Paget St (L)Lennox St (R)Bosworth St (L)March St, Kurrajong Rd, Bells Line of Rd (R)Comleroy Rd (R)East Kurrajong Rd to Tennyson Rd (4:09pm).
5557	-	3:20 PM	Windsor Wilberforce Freemans Reach	Departs School via Rifle Range Rd (L)Collith Av, Woods Rd (R)Mileham St (L)Argyle St (R)Macquarie St (L)Hawkesbury Valley Wy (R)Moses St (R)Tebbutt St to St Matthews Catholic Primary School <b>(3:34pm)</b> , continues Tebutt St (R)George St (L)Dight St (L)Macquarie St (L)Bridge St, Wilberforce Rd, William St (R)George Rd (L)Church Rd (L)Macquarie Rd to Wilberforce Public School <b>(3:52pm)</b> , continues Macquarie Rd (L)Hanover St (L)George Rd (L)Coburg Rd (R)Old Sackville Rd (L)Salters Rd, Argents Rd (R)Putty Rd (R)Stannix Park Rd to Carrs Rd, turns around & returns Stannix Park Rd (L)Putty Rd (R)Kurmond Rd (R)Kurmond Rd (L)Terrace Rd (R)Wire Ln (R)Kurmond Rd to Terrace Rd <b>(4:25pm)</b> .
5520	-	3:30 PM	Llandilo Cranebrook	Departs School via Rifle Range Rd (R)Colonial Dr (L)George St (L)Blacktown Rd, Richmond Rd (R)Llandilo Rd, Second Av (R)Fifth Av (L)Third Av (R)Seventh Av (L)The Northern Rd (R)Andromeda Dr (L)Vincent Rd (L)Grays Ln (R)Hindmarsh St, Laycock St (L)Greygums Rd (L)McHenry Rd (R)Sherringham Rd (L)Pendock Rd (L)Borrowdale Wy (R)Callisto Dr (R)Marrett Wy (L)Goldmark Cr (R)Andromeda Dr to The Northern Rd <b>(4:06pm).</b>
5538	-	3:30 PM	Londonderry Agnes Banks	CATCH BUS 5522 FROM SCHOOL & TRANSFER AT LONDONDERRY PUBLIC SCHOOL Departs Londonderry Public School via Trahlee Rd (R)Londonderry Rd (R)Carrington Rd (L)Bennett Rd (L)Blacktown Rd (L)The Driftway (L)Londonderry Rd (R)Wiltshire Rd (R)Jockbet Rd (L)The Driftway (L)Bonner Rd, Eaton St (L)Warnock Rd to Castlereagh Rd (3:50pm).
5535	-	3:30 PM	Bligh Park Richmond Hobartville Agnes Banks Yarramundi	Departs School via Rifle Range Rd (R)Sirius Rd (R)Colonial Dr (L)George St (R)Blacktown Rd, Lennox St (R)East Market St to Richmond Station (3:41pm), continues East Market St (R)Windsor St (L)Bourke St (L)Francis St to St Monica's Primary School (3:43pm). Then continues as School Bus 5536 via Francis St (L)East Market St (R)Laurence St (R)Powell St (L)Douglas St (R)Long St (L)Castlereagh Rd (R)Inalls Ln (L)Yarramundi Ln (L)Crowleys Ln (L)Castlereagh Rd (R)The Driftway (R)Bonner Rd (R)Eaton St (L)Warnock Rd (L)Castlereagh Rd (R)Springwood Rd (4:03pm) (R)Rivatts Dr (L)Shearwater Cr (R)Kestral Wy (R)Shearwater Cr (L)Rivatts Dr (R)Springwood Rd to Hillcrest Rd (4:13pm), turns around & returns Springwood Rd to Castlereagh Rd (4:21pm).
5528	-	3:30 PM	Bligh Park Berkshire Park	Departs School via Rifle Range Rd (R)Sirius Rd (R)Colonial Dr (L)George St (L)Richmond Rd (R)St Marys Rd to Sirius PI <b>(3:43pm)</b> (R)Sirius PI to end, turns around & returns Sirius PI (L)St Marys Rd (L)Government Rd (R)Spence Rd (R)Landilo Rd (R)Second Rd (L)St Marys Rd to Richmond Rd <b>(4:05pm)</b> .
5527	-	3:30 PM	Bligh Park Berkshire Park Windsor Downs	Departs School via Rifle Range Rd (R)Sirius Rd (R)Colonial Dr (L)George St (L)Blacktown Rd, Richmond Rd (L)Sanctuary Dr (R)Barkly Dr (L)Willeroo Dr (R)Sanctuary Dr to Nutwood Ln (4:00pm), turns around & returns Sanctuary Dr (L)Richmond Rd (R)St Marys Rd to First Rd (4:10pm).
5546	-	3:30 PM	Londonderry (South)	CATCH BUS 5522 FROM SCHOOL & TRANSFER AT LONDONDERRY PUBLIC SCHOOL Departs Londonderry Public School via Trahlee Rd (R)Londonderry Rd (L)Torkington Rd (L)Nutt Rd, Taylor Rd to St Paul's Grammar School (3:40pm).
5586	-	3:30 PM	Richmond Hobartville Londonderry	Departs School via Rifle Range Rd (R)Sirius Rd (R)Colonional Dr (L)George St (R)Blacktown Rd, Lennox St (R)Bourke St (L)Francis St (L)East Market St to Richmond Station (3:49pm). Then continues as Route 677 via East Market St (R)Laurence St (R)Powell St (L)Valder Av (L)Southee Rd (R)Londonderry Rd (L)Reynolds Rd (L)Luxford Rd (R)The Driftway (R)Reynolds Rd (R)Clark Rd (L)Reynolds Rd (R)Macpherson Rd (L)Milford Rd (L)Carrington Rd (R)Parker Rd (4:15pm) (R)Laurence Rd (L)Howell Rd (R)Leitch Av (L)Sutherland Rd (R)Mills Rd (R)Bowman Rd (L)Carrington Rd (L)Muscharry Rd (R)Trahlee Rd to Londonderry Public School (4:25pm).

5605	-	3:36 PM	McGraths Hill	CATCH BUS 5603 FROM SCHOOL & TRANSFER AT WINDSOR HIGH SCHOOL
			Cattai	Bathurst St (R)Eldon St, Cattai Rd, Wisemans Ferry Rd (R)Floyds Rd to Chilvers Ln
			South Maroota	(4:00pm), turns around & returns Floyds Rd (R)Wisemans Ferry Rd (R)Old Northern
			Maroota	Rd (L)Canoelands Rd (R)into Interchange (4:18pm).
5539	-	3:39 PM	Windsor	CATCH BUS 5557 FROM SCHOOL & TRANSFER AT ST MATTHEWS PRIMARY
			Freemans Reach	SCHOOL
			Glossodia	Departs St Matthews Primary School via Tebbutt St (R)George St to Windsor Station
				Wilberforce Rd (L)Freemans Reach Rd (R)Gorricks Ln, Kurmond Rd (L)Marlene St
				(L)Panorama Cr (L)The Boomerang to end (4:03pm), turns around & returns The
				Boomerang (R)Panorama Cr (R)Marlene St (R)Kurmond Rd (L)Creek Ridge Rd,
				Kentucky Dr (R)Golden Valley Dr (L)Lindsay Pl (R)Chestnut Dr (R)Spinks Rd to
				Kurmond Rd (4:28pm).
5609	-	3:39 PM	Oakville Vinevard	CATCH BUS 5608 FROM SCHOOL & TRANSFER AT OAKVILLE PUBLIC SCHOOL
			Pitt Town	Town Rd (L)Scheyville Rd (L)Old Stock Route Rd (L)Oakville Rd (R)Broos Rd
				(L)Commercial Rd (L)Glenidol Rd (R)Stahls Rd (R)Bocks Rd (L)Commercial Rd to A-
				Vina Caravan Village <b>(3:59pm)</b> , continues Commercial Rd (R)Commercial Rd (L)Harkness Rd (R)Menin Rd (L)Boundary Rd (L)Old Pitt Town Rd <b>(4:08pm)</b>
				(L)Scheyville Rd (R)Old Pitt Town Rd, Eldon St to Pitt Town Shopping Village
				(4:16pm), continues Eldon St (R)Bathurst St (R)Bootles Ln (L)Bona Vista Dr
				(L)Johnston St (L)Bathurst St to Bootles Ln <b>(4:21pm).</b>
5616	-	3:39 PM	Oakville	CATCH BUS 5608 FROM SCHOOL & TRANSFER AT OAKVILLE PUBLIC SCHOOL
			Box Hill	Departs Oakville Public School via Ogden Rd (R)Smith Rd (R)Saunders Rd
				(L)Old Pitt Town Rd (R)Midson Rd (R)Hession Rd (R)Boundary Rd (L)Old Pitt Town
				Rd to Fire Station, turns around & returns Old Pitt Town Rd to Boundary Rd (4:04pm).
5529	-	3:45 PM	Kurrajong	CATCH BUS 5575 FROM SCHOOL & TRANSFER AT KUYPER CHRISTIAN
			Kurrajong Hills	SCHOOL
			Runajong neights	(L)Old Bells Line of Rd (L)Bells Line of Rd (L)Pinedale PI to Kurraiong Pub (4:05pm).
				turns around & returns Pinedale PI (R)Bells Line of Rd (L)Hermitage Rd (R)Mill Rd to
5572		3.20 DM	North Richmond	Roxana Rd (4:20pm).
5572	-	5.50 T M	Grose Wold	SCHOOL
			Grose Vale	Departs Richmond North Public School via William St (L)Charles St (L)Elizabeth St
			Kunajong	(L)Grose Vale Rd (R)Sunnyside Cr (R)Matheson Av (R)Enfield Av (L)Sunnyside Cr (L)Grose Vale Rd (L)Grose River Rd (R)Grose Wold Rd to Speedway Service Station
				(4:03pm), continues Grose Wold Rd (R)Grose Vale Rd (L)Bells Rd (R)Grose Vale Rd
				(R)Greggs Rd, Redbank Rd to Bells Line of Rd (4:27pm).
5573	-	3:50 PM	Kurmond East Kurraiong	CATCH BUS 5575 FROM SCHOOL & TRANSFER AT KUYPER CHRISTIAN
				Departs Kuyper Christian School via Redbank Rd (R)Bells Line of Rd (L)Crooked Ln,
				Slopes Rd (L)Slopes Rd (L)Kurmond Rd (R)Slopes Rd (R)Slopes Rd (R)Comleroy Rd
				(R)East Kurrajong Rd (R)Putty Rd (R)Creek Ridge Rd to Spinks Rd (4:35pm).
5600	-	3:54 PM	Pitt Town	CATCH BUS 5608 FROM SCHOOL & TRANSFER AT PITT TOWN RD & IVY AV
			Maraylya Cattai	Departs Pitt Town Rd & Ivy Av via Pitt Town Rd (R)Wolseley Rd (L)Old Stock Route Rd (L)Old Stock Route Rd (L)Clebe Rd (R)Rathurst St (R)Eldon St (L)Cattai Rd (R)Pitt
			Odital	Town Dural Rd (L)Whitmore Rd (L)Phipps Rd to end (4:13pm), turns around & returns
				Phipps Rd (L)Whitmore Rd (L)Pebbly Hill Rd (R)Mitchell Park Rd (L)Resident Access
				Rd (R)Mitchell Park Rd (R)Nelson Rd to end, turns around & returns Nelson Rd
	670	3.54 DM	Mularave	
-	619	J.34 MI	Vineyard	Departs Pitt Town Rd & Ivy Av via Pitt Town Rd (R)Wolseley Rd (R)Plimsoll St (R)Old
			Oakville	Hawkesbury Rd (L)Pitt Town Rd (L)Windsor Rd (R)Mulgrave Rd (R)up ramp
			Maraylya	(L)Hawkesbury Valley Wy, Groves Av (R)Windsor Rd (R)Blackwood Rd (R)Bruce Rd
				(L)Menin Rd (L)Boundary Rd (R)Maguries Rd (L)Maguires Rd to McClymonts Rd,
				turns around & returns Maguires Rd (R)Maguires Rd (R)Boundary Rd to Pitt Town Rd
				(4:28pm), continues Boundary Rd (R)Cattal Ridge Rd (L)St Johns Rd, Reedy Rd (L)Fisher Rd (R)Pitt Town Dural Rd to Scheyville Rd (4:37pm)

5540	-	3:55 PM	Castlereagh	CATCH BUS 5535 FROM SCHOOL & TRANSFER AT ST MONICAS PRIMARY SCHOOL Departs St Monica's Primary School via Francis St (L)East Market St to Richmond Station (4:08pm). Then continues as Route 678 via East Market St (R)Laurence St (R)Powell St (L)Valder Av (R)Southee Rd (R)Castlereagh Rd (L)William Cox Dr (R)Grand Flanuer Av (L)William Cox Dr (R)Castlereagh Rd to Springwood Rd (4:21pm), continues Castlereagh Rd (L)Hinxman Rd (R)Sheredan Rd (L)East Wilchard Rd to Church St (4:35pm).
5550	-	3:55 PM	Kurmond Tennyson	CATCH BUS 5575 FROM SCHOOL & TRANSFER AT KUYPER CHRISTIAN SCHOOL Departs Kuyper Christian School via Redbank Rd (L)Bells Line of Rd (R)Kurmond Rd (L)Spinks Rd (L)Kentucky Rd (L)Valley Way (L)Tennyson Rd (R)Kurmond Rd (L)Crooked Ln, Maddens Rd, Slopes Rd, Crooked Ln to Bells Line of Rd (4:30pm).
-	682	3:55 PM	Kurrajong Heights Bilpin Berambing	CATCH BUS 5575 FROM SCHOOL & TRANSFER AT RICHMOND NORTH PUBLIC SCHOOL Departs Richmond North Public School via William St (R)Charles St (L)Bells Line of Rd (L)Old Bells Line of Rd to opposite Kurrajong Post Office (4:11pm), continues Old Bells Line of Rd (R)Old Bells Line of Rd (L)Bells Line of Rd to Bilpin Post Office (4:31pm), continues Bells Line of Rd to Berambing Picnic Area, turns around & returns Bells Line of Rd to Berambing Cr (4:47pm). Then continues as School Bus 5635 via (L)Berambing Cr (L)Bells Line of Rd to Bilpin Post Office (4:55pm), continues Bells Line of Rd to Kurrajong Heights Shops (5:09pm).
5510	-	3:55 PM	Cedar Ridge Rd Blaxlands Ridge	CATCH BUS 5575 FROM SCHOOL & TRANSFER AT KUYPER CHRISTIAN SCHOOL Departs Kuyper Christian School via Redbank Rd (L)Bells Line Of Rd (R)Comleroy Rd (L)Cedar Ridge Rd to 367 Cedar Ridge Rd (4:25pm), turns around & returns Cedar Ridge Rd (L)Comleroy Rd (R)Blaxlands Ridge Rd to Putty Rd (4:58pm).
5579	-	3:55 PM	Wilberforce Ebenezer Sackville	CATCH BUS 5557 FROM SCHOOL & TRANSFER AT WILBERFORCE PUBLIC SCHOOL Departs Wilberforce Public School via Macquarie Rd (L)Hanover St (L)George Rd (L)Coburg Rd (R)Old Sackville Rd (L)Sackville Rd (R)Grono Farm Rd to Burdekin Rd (4:02pm), turns around & returns Grono Farm Rd (R)Sackville Rd (R)2nd Tizzana Rd (4:13pm) (L)Stones Rd (L)Port Erringhi Rd (R)2nd Sirius Cr (L)Port Erringhi Rd to Sirius Cr (4:24pm), continues Port Erringhi Rd (R)Stones Rd (L)Tizzana Rd (L)Sackville Rd to Ebenezer Public School (4:29pm).
5615	-	4:21 PM	Maroota Sackville North Cattai	CATCH BUS 5603 FROM SCHOOL & TRANSFER MAROOTA PUBLIC SCHOOL Departs Maroota Public School via Old Northern Rd (R)Wisemans Ferry Rd (R)Cliftonville Rd to Lot 114, turns around & returns Cliftonville Rd (R)Wisemans Ferry Rd (R)Sackville Ferry Rd to Manning Rd, turns around & returns Sackville Ferry Rd (4:38pm) (R)Wisemans Ferry Rd, Cattai Rd to Cattai Public School (4:51pm).



# Appendix C

Swept Path Assessment



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KEY: Forward Reverse Wheel path Body envelope 300mm clearance \_\_\_\_ \_\_\_ B99 Vehicle (Realistic min radius) (2004) Overall Length Overall Width Overall Body Height Min Body Ground Clearance Track Width Lock-to-lock time Curb to Curb Turning Radius 5200mm 1940mm 1878mm 272mm 1840mm 4.00s 6250mm WG No 21259CAD012 FIGURE 4 DATE STAMP 25 NOVEMBER 2022 PROJECT No. SCALE REV. 21259 1:200 @A3 А



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B99 Vehicle Overall Log Win Body C Track Widt Lock-to-loc Curb to Cu	e (Realistic min radius) (2004) gth 5200mm dth 1940mm dth 1878mm ground Clearance 272mm h 1840mm k time 4.00s rb Turning Radius 6250mm DWG No. 21259CAD012 FIGURE 5

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