

Rohrig Constructions

APPENDIX

B

CONSTRUCTION TRAFFIC AND PEDESTRIAN MANAGEMENT SUB PLAN

WILLIAM CLARKE COLLEGE

WSP

Question today *Imagine tomorrow* Create for the future

Construction Traffic and Pedestrian Management Sub Plan

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1 INTRODUCTION

1.1 PROJECT DESCRIPTION

William Clarke College plans to redevelop the area surrounding and including buildings 6 and 7 within its current campus at 1 Morris Grove, Kellyville. Established in 1988, the College expanded its buildings and facilities to accommodate a growing student population drawn from Kellyville, The Hills Local Government Area, and other parts of north-western Sydney. The College currently serves 1,907 students, with enrolment projected to increase by 10% to 2,100 students in the near future. As part of the Stage 1 development works, the construction of the Bryson building will be undertaken by Rohrig Constructions.

Note the approved works to upgrade the waste collection site, and the upgrade of the existing primary school car park, as shown in Figure 1.1 are not included in this scope of works, or this plan.

Rohrig Constructions has engaged WSP to prepare the Construction Traffic and Pedestrian Management Sub-plan (CTPMSP) for the Bryson building construction at William Clarke College (the Subject site). This report assesses the potential impacts on traffic, pedestrians, cyclists, and access during the construction period and provides mitigation measures where necessary. Specifically, the report covers the following:

- Review of existing traffic volumes, public transport, parking, pedestrian and cyclist conditions adjacent to the subject site
- Description of the proposed project
- Identification of proposed travel routes for construction traffic
- Review of operating conditions and expected impacts for all road users during the works period
- Provision of suggested mitigation measures to address project-related impacts.



Figure 1.1 Approved Stage 1 works at William Clarke College (note Carpark and waste compound not included in this scope)

1.2 STUDY AREA

The site is located within the Hills Shire Council Local Government Area (LGA) in the eastern part of Kellyville. It is approximately 2 km north-east of the Norwest business and employment area, 1.5 km north of the Castle Hill industrial area, and 4 km north of Castle Towers shopping centre. Approximately 350 metres to the west, across Green Road, lies Kellyville Village shopping centre.

The site is surrounded by residential developments to the north, east, and south. To the west, there is a mix of residential and business properties, including a kindergarten, a dental practice, open space, and Kellyville Village. The site fronts Green Road to the west, Cormack Circuit to the east, and Wrights Road to the south, with Morris Grove running north-south within the school grounds.



Figure 1.2 Aerial view of the project site (William Clarke College, Kellyville)

1.3 SCOPE AND PURPOSE OF THIS PLAN

This Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) has been prepared as a requirement of consent conditions from the Department of Planning and Environment. The specific requirements of this plan and its objectives are further documented in section 1.3.1 following, with primary purpose around road safety and network efficiency. The scope of this plan also considers agency comments received from both Transport for NSW and The Hills

Shire Council where deemed required for the CTPMP and not the TIA (which was the document assessed which comments refer to). These requirements are documented in sections 1.3.2 and 1.3.3 following.

The CTPMP will be reviewed promptly where any site operations assumed in this report are modified to ensure the CTPMP remains up to date.

1.3.1 DEPARTMENT OF PLANNING AND ENVIRONMENT CONDITIONS

C16. The Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must be prepared to achieve the objective of ensuring safety and efficiency of the road network and address, but not be limited to, the following:

- (a) be prepared by a suitably qualified and experienced person(s);
- (b) be consistent with the Section 9 - Construction Pedestrian and Traffic Management Plan Methodology (Stage 1) in the Traffic Impact Assessment prepared by Ptc dated 27 June 2023;
- (c) be prepared in consultation with Council and TfNSW;
- (d) detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services; and
- (e) detail heavy vehicle routes, access and parking arrangements.

1.3.2 TRANSPORT FOR NSW ADVICE

16 December 2022

A Construction Traffic and Pedestrian Management Plan (CTMP) must be prepared prior to the issue of the construction certificate with details of predicted construction traffic movements, routes and access arrangements, and outline how construction traffic impacts on existing traffic, pedestrian and cycle networks would be appropriately managed and mitigated.

1.3.3 THE HILLS SHIRE COUNCIL ADVICE

9 December 2022

Parking and Traffic

- Concerns are raised with allowing right turn movements from Wrights Road into the proposed redeveloped car park as it may result in queuing on La Vista Grove/Wrights Road thereby impacting residents access. Further queuing may result in Kings Road/Emily Clarke Dr intersection being impacted and therefore Sidra Modelling should be undertaken at these key intersections.
- The Traffic report identifies a LOS of F at the intersection of Wrights Road/Green Road intersection. Council strongly advises consideration towards a left in left out arrangement onto Green Road from Morris Grove as this would significantly alleviate traffic flow.

11 August 2023

Parking layout and traffic issues

- Carpark layout driveways, and aisles are to be designed according to the relevant Australian Standards. AS/NZS 2890.1:2004, AS 2890.2-2002 and AS/NZS 2890.6:2009. All dimensions are to be clearly labelled on the plans. Plans should also clearly identify if they are dedicated to visitor or staff. All dimensions are to be detailed on the plan including the parking spaces relevant to the user classification.
- Vehicles shall be able to enter and leave the site in a forward direction.
- Submit swept turning paths demonstrating the required manoeuvring in order for longest vehicle to enter and leave the site in a forward direction.

- The driveway width must be designed to facilitate expected longest vehicle type and a B99 car pass each other simultaneously (i.e. maintaining two-way traffic flow).

1.4 SITE INSPECTION

A site inspection was conducted on Tuesday 3rd September 2024 at 4.30-5.30pm to better understand existing access, road and traffic conditions for all road users. The site inspection was limited to the public footpath area only. No access to private or school grounds were completed. Photos of site access, road network, intersections and parking locations were captured. Some of these photos have been included in this plan for guidance purposes for gate access.

1.5 REFERENCE DOCUMENTS

In the preparation of this CTPMP report, the following documents have been referenced:

- William Clarke College Traffic impact assessment, Revision 4 (27 June 2023, ptc)
- Construction Management Plan, Stage 1 works – Bryson Building, Primary Carpark and Waste Compound (27 September 2022, Rohrig Constructions)
- Development Consent conditions for Application number SDD-35715221 (20 October 2023, Department of Planning and Environment)
- Agency letters from TfNSW and the Hills Shire Council as part of the Response to Submissions (RTS).

2 EXISTING CONDITIONS

2.1 SCHOOL ACCESS PLAN

The existing school accesses are shown in Figure 2.1 below. This figure gives a good indication of access and those likely to be used during construction of Stage 1 of the project. The plan assists in determining the various users by access gate or location which may include pedestrians, bus passengers, buses, light vehicles.

Gates 14 would be the primary construction vehicle and construction staff access for Stage 1 project construction.



Source: William Clarke College Traffic Impact Assessment (PTC, June 2023)

Figure 2.1 School access plan showing school gate locations

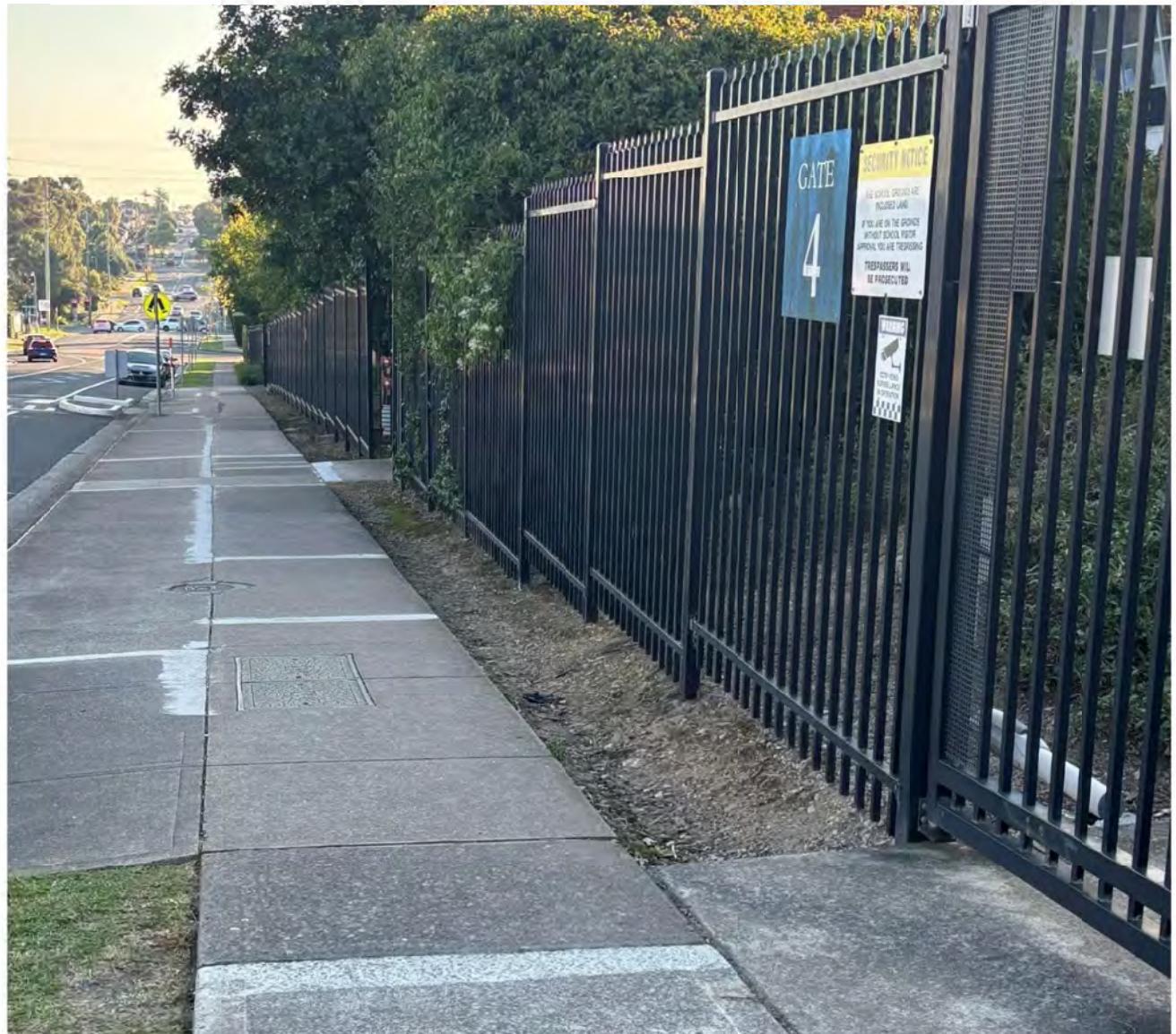


Figure 2.2 School access gate no 4 for pedestrians off Wrights Road



Figure 2.3 School access gate no 14 proposed for construction vehicle and construction staff access off Morris Grove

2.2 SCHOOL OPERATIONAL HOURS

The current school operating hours at William Clarke College are as follows:

The college is open for student arrivals from 7am and the finish times are staggered

- Prep Start 8:30am Finish 2:45pm
- K to Yr2 Start 8:30am Finish 3:00pm
- Yr3 to Yr6 Start 8:30am Finish 3:10pm
- Secondary Start 8:30am Finish 3:25pm.

2.3 SCHOOL PICK-UP AND DROP-OFF

William Clarke College currently has 28 pick-up and drop-off spaces. The existing pick-up and drop-off zone locations are shown in Figure 2.4. There are 20 spaces provided along the driveway off Morris Grove, accessible via Gate 12, and eight spaces located north of the existing primary school car parks, accessible via Gate 4.

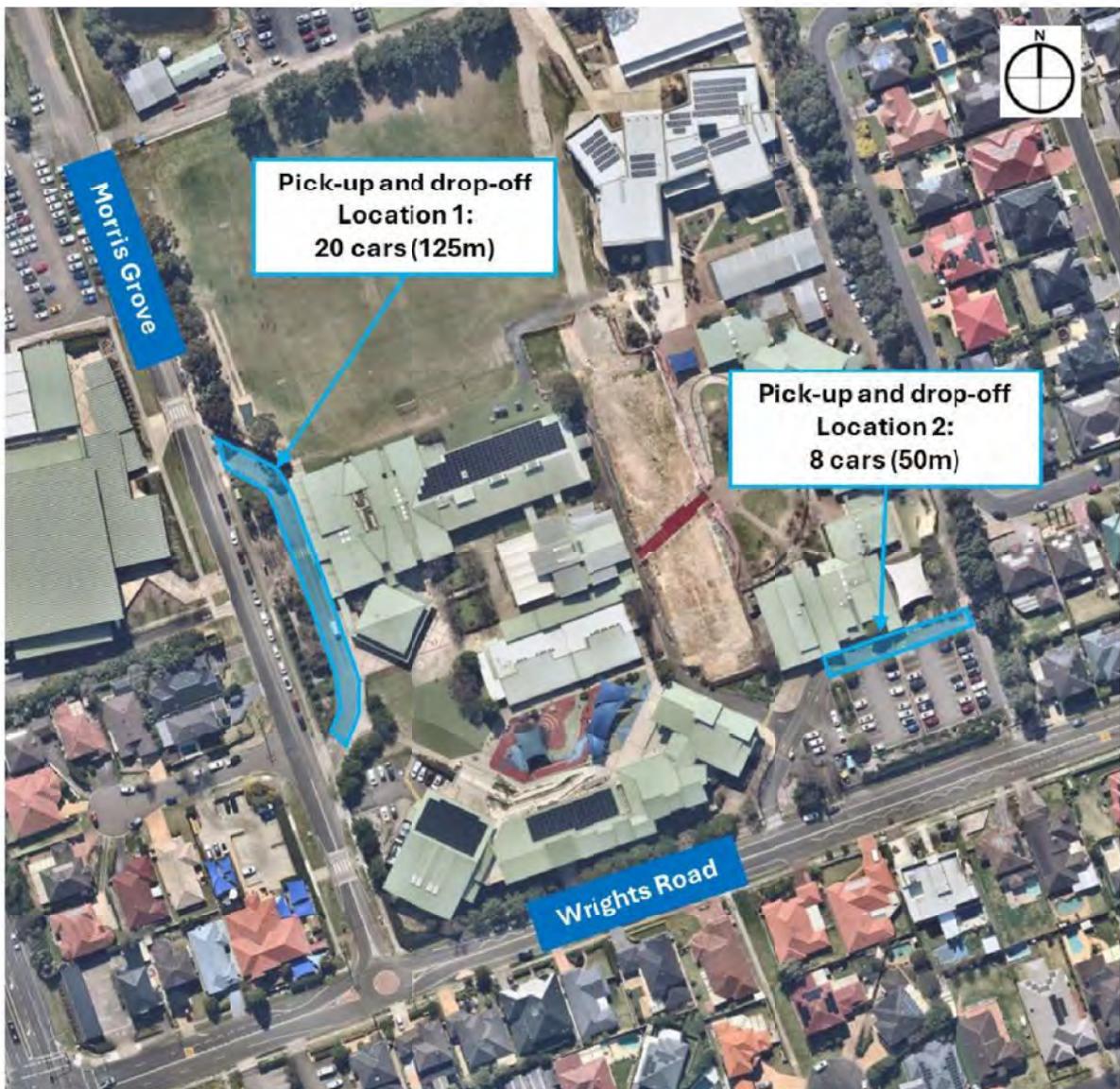


Figure 2.4 Existing school pick-up and drop-off spaces

2.4 ROAD NETWORK

The subject site is located in the suburb of Kellyville Hill, bordered by Green Road to the west, Wrights Road to the south, Cormack Circuit to the east, with Morris Grove running north-south through the site.

Green Road is a regional road running north-south with a divided carriageway, generally offering two lanes in each direction and additional turn lanes at the intersection with Wrights Road. The carriageway width ranges from 17m to 19m, with a speed limit of 60 km/h and no on-street parking allowed. It also features a signalised intersection with Wrights Road to the west of the site.

Wrights Road is an east-west collector road with an undivided carriageway, usually consisting of one lane in each direction, expanding to two lanes near the site. The carriageway width varies between 12.5m and 14m, with a speed limit of 50 km/h and a school zone present. There are four access points to the subject site. Parking regulations include a "Loading Zone," "Bus Zone," and unrestricted parking.

Morris Grove is a council-owned local road running north-south with an undivided carriageway and one lane in each direction. It is a no-through road with a speed limit of 50 km/h, providing access to the subject site, William Clarke College Sports Centre, and the Secondary School staff car park. Parking controls include "No Parking" during school hours, unrestricted parallel parking on the western side, and some informal unrestricted 90-degree parking on the eastern side near the staff car park.

Cormack Circuit is a local road aligned north-south adjacent to the site, but it does not provide access to the site. It features an undivided carriageway with one lane in each direction and a speed limit of 50 km/h.

2.4.1 INTERSECTION PERFORMANCE

To confirm the existing and future operation of the intersections near the subject site, a traffic assessment was conducted using SIDRA modelling software by PTC as part of the traffic impact assessment for the proposed development. Table 2.1 summarises the relevant SIDRA results.

Table 2.1 SIDRA modelling output

Intersection	Scenarios	Peak	Level of Service	Average Delay (Sec)	Degree of Saturation	highest 95 th % queue (m)
Green Road / President Road / Rosebery Road	Existing Base	AM	B	17.4	0.960	147.8
		PM	A	12.2	0.907	92.9
	2026 Base	AM	C	38.2	1.083	389.7
		PM	B	24.4	1.065	279.4
	2026 Development	AM	C	38.2	1.083	389.7
		PM	B	24.4	1.065	279.4
Green Road / Wrights Road	Existing Base	AM	F	88.2	1.072	366.1
		PM	C	39.5	0.782	176.9
	2026 Base	AM	F	103.4	1.115	423.7
		PM	D	42.5	0.862	218.4

Intersection	Scenarios	Peak	Level of Service	Average Delay (Sec)	Degree of Satruation	highest 95 th % queue (m)
	2026 Development	AM	F	103.4	1.115	423.7
		PM	D	42.5	0.862	218.4
Wrights Road / Morris Grove	Existing Base	AM	A	4.3	0.553	69.1
		PM	A	3.8	0.185	8.1
	2026 Base	AM	A	4.3	0.549	89.7
		PM	A	3.8	0.184	8.1
	2026 Development	AM	A	4.3	0.553	90.8
		PM	A	3.8	0.184	8.1

Source: *William Clarke College Traffic impact assessment, Revision 4 (27 June 2023, ptc)*

Green Road / President Road / Roseberry Road – the existing average Level of Service (LoS) is B in the AM and A in the PM, with the worst turn movements experiencing a LoS C during both peak periods. In the 2026 Base Case scenario, the roundabout maintains an average LoS of C in the morning and B in the afternoon, indicating satisfactory operational levels. No operational changes are expected in the 2026 Development scenario.

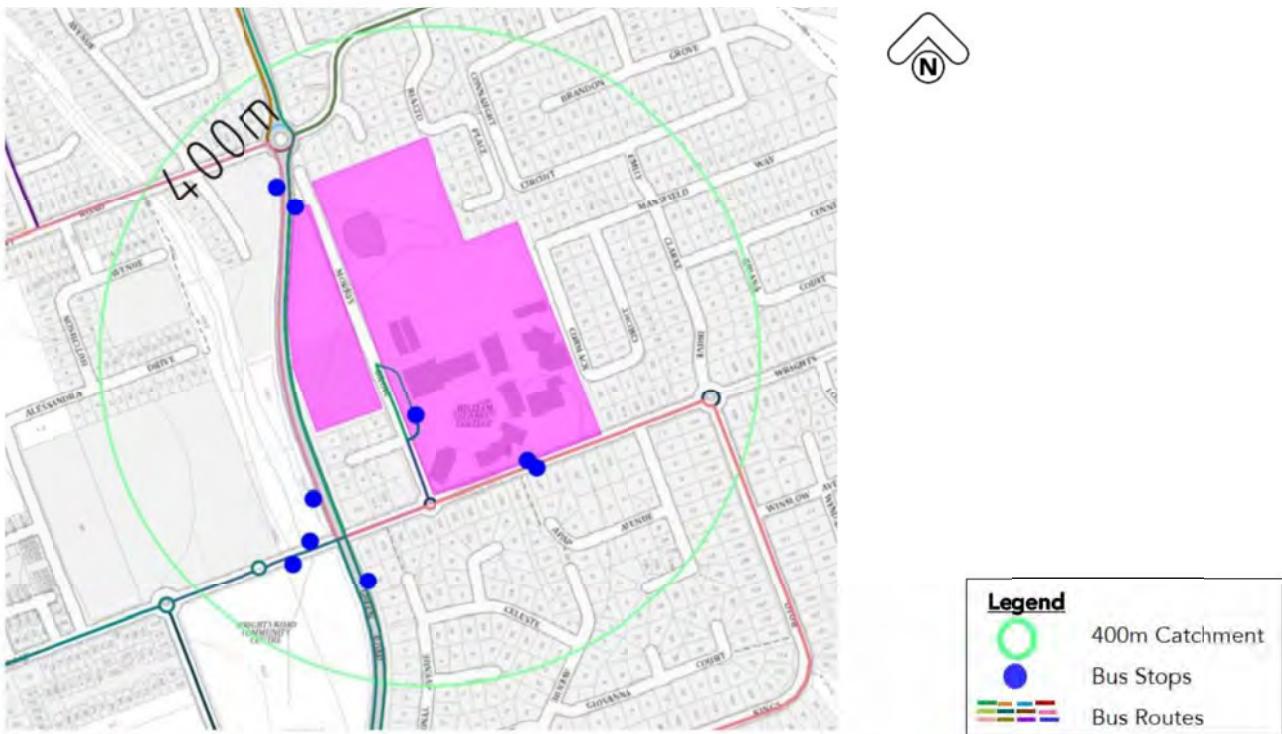
Green Road / Wrights Road – the existing overall LoS is F during the AM peak and C during the PM peak. The intersection currently operates with a maximum Degree of Saturation (DoS) exceeding 1.07, indicating no spare capacity in the AM peak and more than 20% available capacity in the PM peak. This performance is considered poor due to high background traffic in the north-south direction.

In the 2026 Base Case scenario, additional background traffic growth worsens all performance indicators, pushing the LoS beyond capacity in both the morning and afternoon. However, this condition is already present. No operational changes are anticipated in the 2026 Development scenario. It should also be noted that the construction peak would not align with the background traffic peak period.

Wrights Road / Morris Grove – the current operation is satisfactory, with a LoS A during both the AM and PM peak hours. In both the 2026 Base and 2026 Development scenarios, the intersection performance indicators are expected to remain unchanged, as the area is largely developed and unlikely to experience significant background traffic growth.

2.5 PUBLIC TRANSPORT

Figure 2.5 shows the locations of the nearest bus stops within a 400m catchment area of the subject site.



Source: William Clarke College Traffic Impact Assessment (PTC, June 2023)

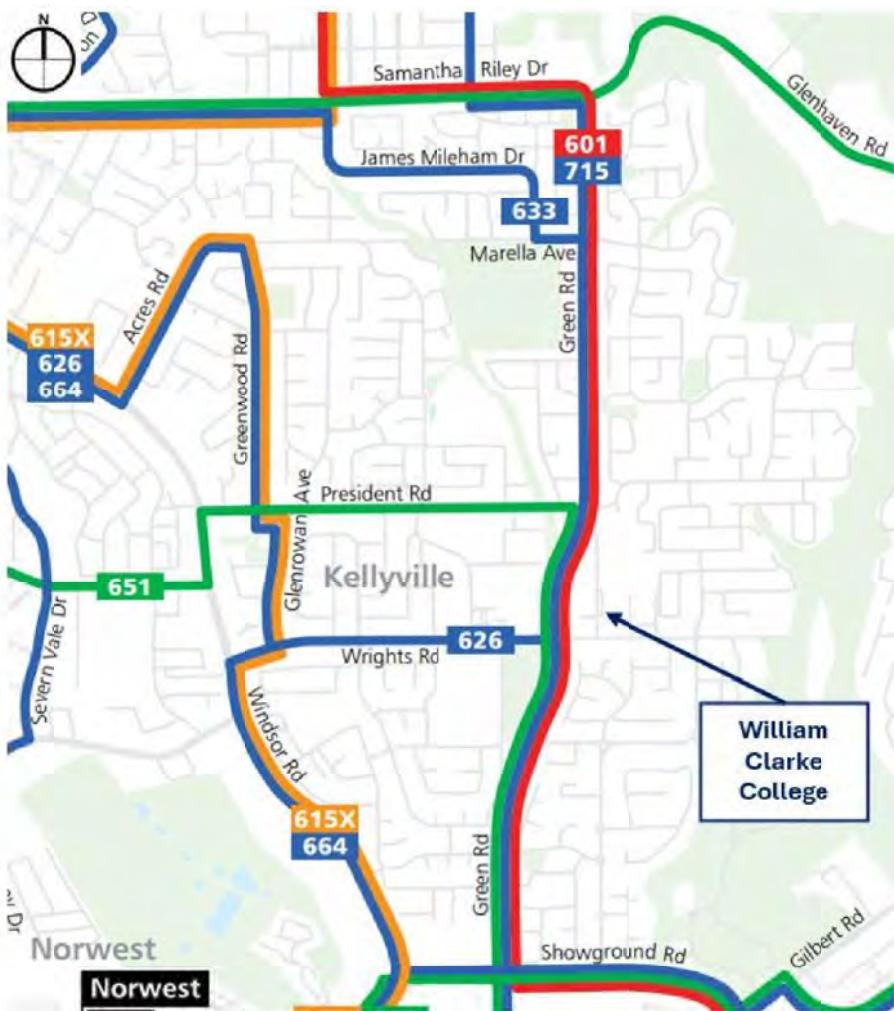
Figure 2.5 Existing bus stops near the Subject site

Public transport services including public and private / school buses stopping within 400m-800m from the Subject site are shown in Figure 2.8. The extent of bus services providing direct connectivity to the school is presented in Figure 2.7.



Source: William Clarke College Traffic Impact Assessment (PTC, June 2023)

Figure 2.6 Private and school buses service



Source: CDC NSW Bus network map (https://cdcbus.com.au/wp-content/uploads/2021/12/Region_4_Network_Map.pdf)

Figure 2.7 Existing public bus service

Overall, the school is well-serviced within its informal enrolment area, with the majority of students having direct bus connections to and from the school.

2.6 PEDESTRIANS AND CYCLISTS

Active transport infrastructure is defined as allocated off-road or on-road facilities for pedestrians and cyclists to travel. These can be provided in a mixed traffic condition, visually separated, physically separated or segregated from the main traffic lanes or public transport corridor.

Adjacent to the subject site, Wrights Road and Morris Grove are equipped with paved pedestrian footpaths on both sides. These paths include mid-block pedestrian crossings on Wrights Road and Morris Grove, as well as signalised pedestrian crossings at the intersection of Green Read and Wrights Road, facilitating pedestrian movement in the local area.

According to the Cycleway Finder from Transport for NSW, there are shared-use paths surrounding the subject site, as shown in Figure 2.8. Designated shared paths are provided to the north and northwest of the school, where a significant proportion of students reside.



Source: *Cycleway Finder (Transport for NSW)*

Figure 2.8 Existing shared paths

2.7 PARKING

The subject site currently accommodates a total of 238 parking spaces as shown in Figure 2.9.



Figure 2.9 Existing parking provision

3 PROPOSED STAGE 1 PROJECT

3.1 DESCRIPTION OF CONSTRUCTION ACTIVITIES

As part of Stage 1 of the project, the following construction activities are to be undertaken by Rohrig Constructions. It is anticipated that the Contract will commence works with the site stripping & surveying. Once completed, the construction of the structure will commence. **Please note that the carpark and waste compound works are not part of this plan.**

Site Establishment

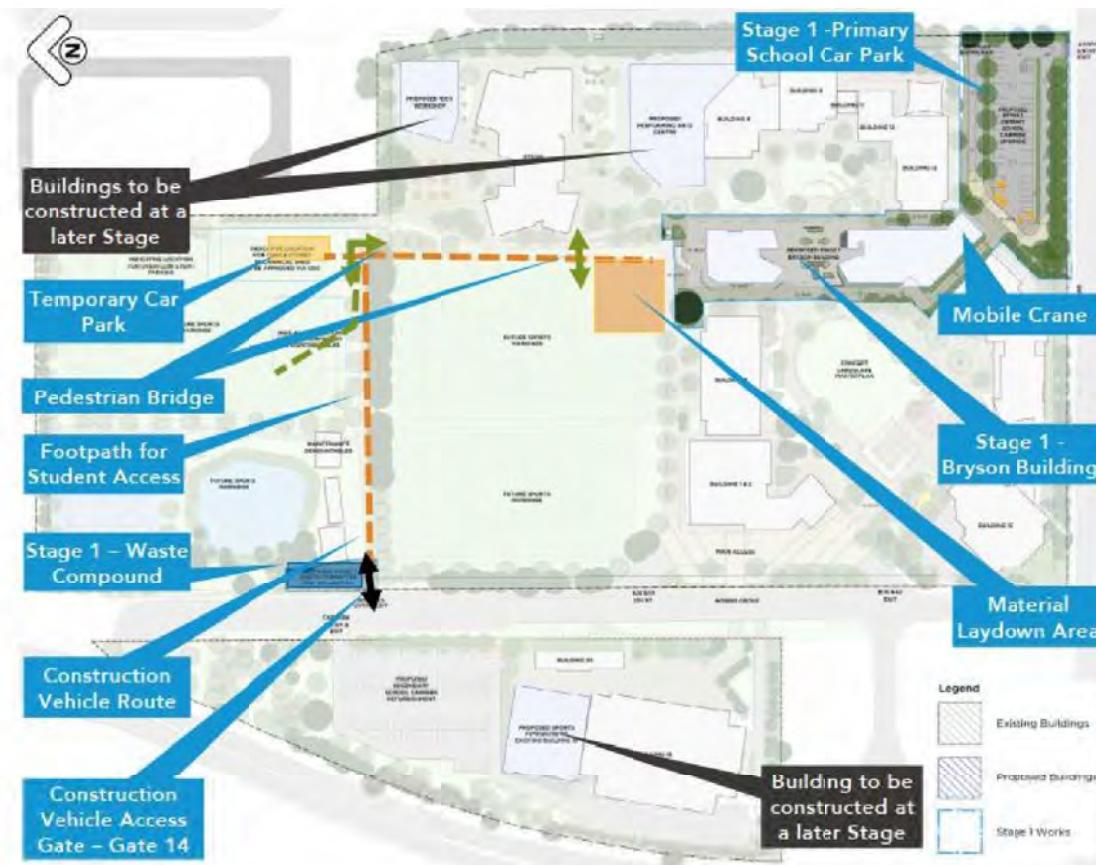
All construction activities will be undertaken within the site.

The main construction vehicles access to the site will be provided via the existing maintenance vehicle gate (Gate 14) on Morris Grove. Upon entering the site, vehicles will drive all the way to the northeast corner and drive south towards the proposed material laydown area.

At times where the mobile crane near the primary school is required, access off Wrights Road will be needed. This will occur while maintaining the car park and outside school peak hours with the help of fencing and controllers to ensure enclosure of the area required for the vehicles to turn around.

Car parking for construction workers will be provided within the site and the access to it will be provided via Gate 14. Temporary pedestrian bridges will be provided over the construction vehicle driveways to enable access to the ovals.

The route and markups are presented in Figure 3.1 below.



Source: William Clarke College Traffic Impact Assessment (PTC, June 2023)

Figure 3.1 Construction activities Stage 1 (note carpark and waste compound not included in this scope or plan)

Staging of Works

Construction was initially proposed as commencing upon completion of 2024 HSC exams, with the reasoning being that senior student that drive to the School would no longer attend on a daily basis and carparking in the student carpark off Morris Grove becomes available for redirected teacher parking in conjunction with existing spare capacity in the carpark beneath and surrounding the Sports Centre.

With the carpark and waste compound works not included in this scope, the commencement of Stage 1 works (the Bryson Building) has been adjusted to commence in mid-September 2024 as access to carparking areas is not required for this work.

Bryson Building Construction

Timeframe - 14-16 months

All demolition and construction works to be undertaken with access via the site compound and internal access via the centre of the site.

Student and staff access between the east and west parts of the site to be via temporary pedestrian bridges over the internal construction site driveway.

The main phase of works (stage 3) has been broken into the following phases of construction:

Preliminary Works

To commence works, Rohrig will take possession of the site. Site hoardings & pedestrian gantries will be installed to all interfaces to the school. The site access road off Morris Grove will have site fencing erected on either side, with a site entry gate off Morris Grove, and an additional gate adjacent to the site. The access road off Morris Grove will be single lane, so traffic management along this road will be paramount to successfully delivering the project. A temporary car park will be established adjacent to the site. Once the site has been safely established and the required facilities and environmental controls are in place site stripping will be undertaken. The completion of these works will allow for the construction of the main works to kick off.

Groundworks and substructure

Once the building platform has been properly prepared, construction of the main building structure will kick off. Detail excavation of pits & footings will commence. Rohrig plan to work in a North to South direction, progressively excavating and pouring footings & pits in that general direction. Once the construction of enough footings on the Northern side has occurred, Rohrig will commence the inground & subgrade works, and pour the slab. Whilst the Northern slab works are underway, construction of footings to the Southern side will commence. The staging of these works allows for a flow of resources, to ensure that no single trade is overly burdened throughout the construction of the slab on ground.

Structure

Similar to the footings & slabs on ground, the suspended slabs and steel structure have been broken into North & South areas. As mentioned, it allows for reasonable trade resource allocation, and is also the most efficient & economical way for the building to be constructed. Once the concrete structure has been completed, erection of structural steel will follow. Once the concrete slabs have cured sufficiently, the slabs will be stripped to allow for the succeeding trades to commence works within the different work areas.

Cladding & Roofing

Roofing works will commence once the structural steel roof has been erected, whilst cladding works progressively commence on each level, as the slab above is stripped and back propped, and the area becomes available. Once the cladding works are completed and the building is deemed to be mainly watertight, façade finishes will occur, and the scaffold will then be stripped from the perimeter of the building. Once the scaffolding has been removed, external works adjacent to the main building will commence.

Internal Services & Finishes / Commissioning & Handover

Like the commencement of the external cladding, the commencement of internal services & finishes occurs progressively, as areas are stripped and become accessible for fit out trades. A typical fit out methodology commences with installation of High-Level services. Once they have progressed sufficiently, construction of the internal walls, ceiling framing and sheeting occurs. Individual areas will then commence their specific fit out, including specific fit outs such as the roof terrace, amenities areas and Void / Planter construction, etc.

Once the fit out of individual areas has progressed, remaining finishes occur, including the installation of joinery, fit-off of services, installation of feature panelling, hardware, signage, inboards, carpet, FF&E and defects.

Once the entire building has rectified preliminary defects, Rohrig will undertake a final defect inspection & rectification, and testing & commissioning of the entire building. On completion of the commissioning, Rohrig will achieve practical completion.

3.2 TIMING AND HOURS OF WORKS

General

The proposed hours of work subject to consent are:

- Monday to Friday: 7:00am – 5:00pm
- Saturdays: 7:00am – 1:00pm
- Sunday & Public Holidays – No Work unless upon application.

School Schedule and Significant Events

The works will need to be co-ordinated around the School Timetable and Significant events that are hosted by the school. School bell times will remain unchanged.

In order to minimise the possibility of conflict with parents and students during school drop-off and pickup times, construction vehicle access will be restricted at the following times.

- 7:45am – 8:45am Monday – Friday
- 2:45pm – 3:45pm Monday – Friday

Construction activities may also be restricted during significant events held on the eastern portion of the site. The College will liaise with the lead contractor in this regard.

3.3 CONSTRUCTION METHODOLOGY

The following key tasks are proposed and their connection and interface to pedestrian and traffic management included.

3.3.1 SITE ACCESS, SITE ESTABLISHMENT, FENCING & HOARDINGS

Hoardings will be erected prior to the commencement of the project. All hoardings will meet council requirements, i.e., Signage can be erected to hoardings.

Project Duration site security will be established by the way of gates:

- Entry Gate – Morris Grove (access to both the site & site car park).

3.3.2 SITE COMPOUND

During the construction works, Rohrig will establish a site compound within the Eastern corner area of the current playing ovals. Rohrig will establish within designated area, site amenities in compliance with the Safe Work Australia code of practice. This will consist of a project office, lunchrooms, change rooms, ablutions, a first aid and induction /security shed.

Access to the compound will be via a fenced single lane roadway across the oval coming off the currently used maintenance access road. Staff and students will be able to cross this access road by the way of a gantry crossing.

Refer to Appendix F of the CEMP for site layout and general arrangement.

3.3.3 WORKS ZONE

Rohrig have inspected the site and believe that there is sufficient room for vehicles to enter, turn around and exit unimpeded. The area immediately within the site will act as a delivery drop off zone & work zone, where concrete pumps and trucks will operate.

3.3.4 DELIVERIES AND MATERIAL HANDLING

The methods of material handling procedures during construction works are outlined as on the materials handling plan provided and are as follows:

All deliveries to the site will be coordinated by Rohrig's' materials handling manager and will be directed via qualified traffic controllers to enter the site via the appropriate gate located at the end of Morris Grove Road.. Any deliveries not co-ordinated will be turned away from site.

Delivered materials will be stored in the site area only. The main material handling equipment on site will be a concrete pump, scissors, boom lifts and forklifts, which will also be stored in the builder's compound at all times as well as a site dumper for internal movement of material on site.

All deliveries will be directed to relevant Construction zone and will be offloaded using forklifts, hi-abs and the crane. This includes large deliveries such as reinforcement and structural steel.

Deliveries will occur within approved construction hours and unloading of deliveries will occur within the site in most cases.

It will be key to ensure that all deliveries are booked in, and material handling methods are efficient.

3.3.5 CONCRETE PUMPING

A mobile concrete pump station will be installed during duration of the construction of the structure.

A mobile concrete pump will be located in the work zone and pump concrete on pour days.

All concrete delivered and placement activities will occur within the approved hours of construction.

3.3.6 CRANAGE

Large deliveries such as reinforcement, formwork will be off loaded on site via the tower cranes. Deliveries will occur within approved construction hours and unloading of deliveries will occur within the site in most cases.

3.3.7 RUBBISH REMOVAL

During construction it is proposed that waste be placed in bins and taken to the ground level using rubbish chutes, or craned skip bins down to the Ground level for collection within the site.

3.4 CONSTRUCTION TRAFFIC

3.4.1 CONSTRUCTION VEHICLE VOLUMES AND TYPES

The construction is likely to generate a maximum of up to 30 truck movements per day (15 in and 15 outbound) at its peak during concrete pours.

Throughout various stages of the project, the average number of construction vehicles per day is anticipated to be as follows:

- Enabling works: 20 truck movements per day (10 in and 10 outbound)
- General construction: 30 truck movements per day (15 in and 15 outbound)
- Fit out: 30 truck movements per day (15 in and 15 outbound)
- Landscaping works: 20 truck movements per day (10 in and 10 outbound).

With construction work hours between 7:00am and 5:00pm and no construction vehicle access during the morning and afternoon school peak hours, there would be an 8-hour window for construction trucks to enter / exit the site. The anticipated maximum construction traffic generation of 30 truck movements (15 in and 15 outbound) during those 8 hours results in 3.75 movements per hour, which is less than 1 movement per 15 minutes. This is considered negligible from a traffic perspective and lies within the levels of daily traffic fluctuation.

The contractor is likely to require on average 30-40 and maximum 60 staff per day. With some level of car-pooling and utilisation of public transport, it is expected that on average 30, and maximum 50 light vehicles will arrive to the site. Construction staff are anticipated to arrive / depart outside the main school peak hours, i.e. before 7am and after 5pm, thus the traffic impact on the surrounding roads is anticipated to be minor.

3.4.2 CONSTRUCTION VEHICLE ROUTES AND SITE ACCESS

The site is located within the Hills Shire Council LGA and the proposed construction vehicle routes have regard for the surrounding traffic arrangements in the vicinity of the site. No queuing or marshalling of trucks is permitted on any public road and all loading and unloading of materials will be undertaken within the site.

All vehicle routes to site are constrained to existing public roads that have the physical geometry to accommodate the turning movements.

In term of the broader road network, the site is accessible from the east via the M2 Motorway, west via the M7 Motorway and north and south via Old Windsor Road. Vehicles travelling from all directions shall arrive at Northwest Boulevard, turn left into Windsor Road, turn right into Showground Road, turn left into Green Road and then turn right into Wrights Road.

Upon exiting the site, all vehicles shall exit the site via Wrights Road, turn left into Green Road, turn right into Showground Road, turn left into Windsor Road, turn right into Northwest Boulevard. Upon approaching the Old Windsor Road, the vehicles travelling towards west shall continue straight on Northwest Boulevard towards M7 motorway, the vehicles travelling towards north shall turn right on Old Windsor Road and the vehicles travelling towards the north and east shall turn left on the Old Windsor Road.

Please refer to Figure 3.2. The approved truck route plan shall form part of the contract and must be distributed to all truck drivers.

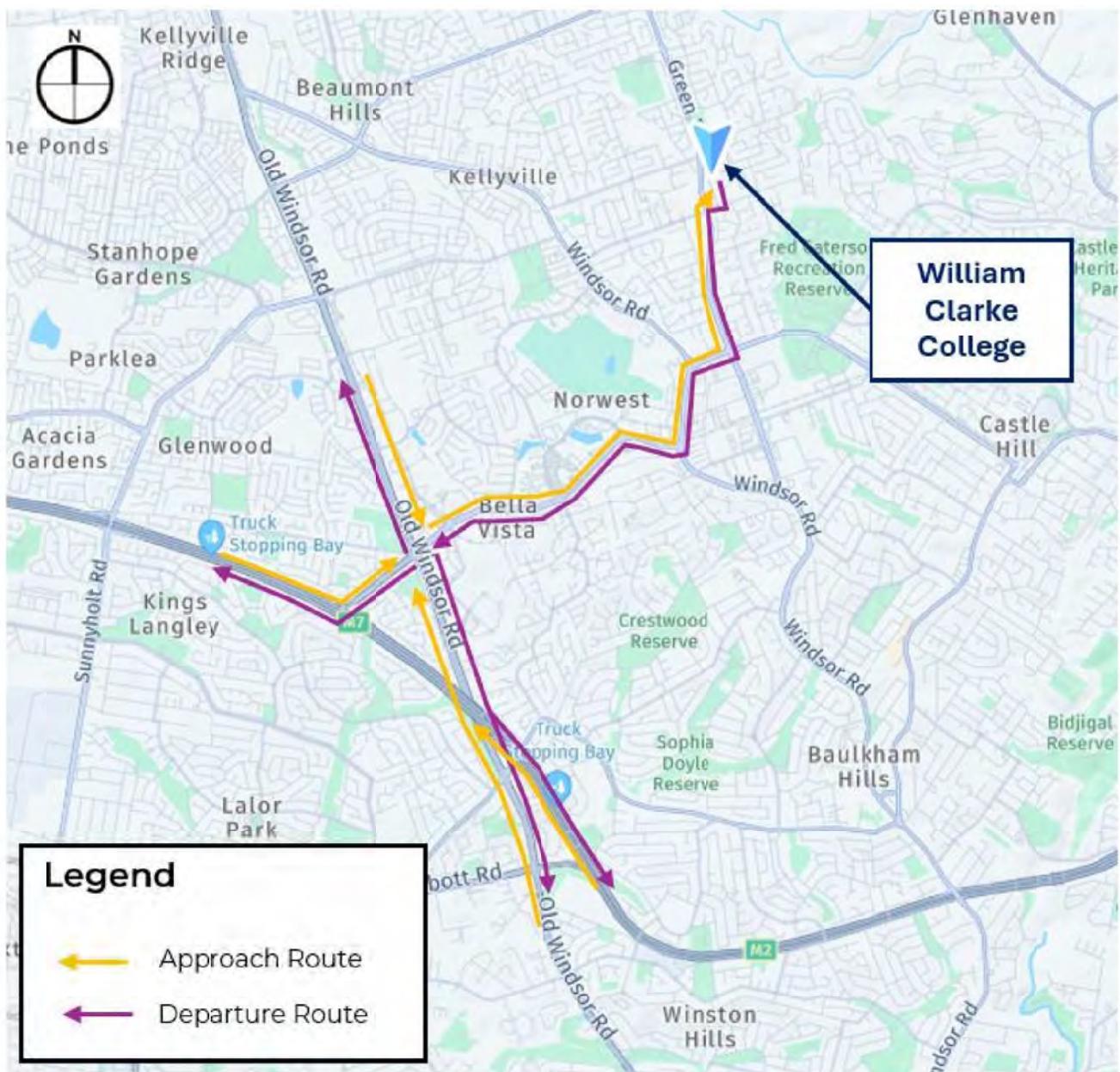


Figure 3.2 Construction traffic access routes

3.4.3 CONSTRUCTION PLANT AND EQUIPMENT

All construction vehicles will be contained wholly within the work site and defined parking areas adjacent to the Bryson Building works area. All construction related vehicles must enter and exit the site via the defined site access point and not impede traffic on surrounding streets.

There must be sufficient parking facilities on-site, including for heavy vehicles and for site personnel, to ensure that construction traffic associated with the development does not utilise public and residential streets or public parking facilities.

3.4.4 DRIVER CODE OF CONDUCT

Prior to the commencement of construction, a Driver Code of Conduct is to be prepared and communicated to heavy vehicle drivers as part of induction. This must be adhered to in order to minimise impacts of construction on the local and regional road network by managing access routes and driver behaviour.

3.5 CONSTRUCTION TRAFFIC MANAGEMENT

The following actions would be implemented manage construction traffic, minimising the impact of construction traffic and reducing any safety concerns.

The main objective of the construction traffic management plan is to establish guidelines and standards to address traffic issues arising from construction activities. Construction traffic and parking at the subject site are constrained by site conditions and public traffic movements. The key issues affecting this project include:

- General site access and egress
- Location and availability of parking
- Timing and extent of material deliveries
- Conflicts between existing vehicles and construction traffic
- Traffic congestion and conflicts on external roads
- Signage and directional information.

To manage construction traffic, the following actions will be implemented to minimise its impact and address safety concerns:

- Vehicle deliveries will be managed by traffic controllers where necessary to ensure public safety and minimise the impact on local traffic flow.
- Safe access and clear visibility for pedestrians and vehicles will be maintained at all times when traffic enters and exits the site.
- Rohrig will oversee traffic management around the site, including on surrounding streets as required.

3.5.1 CONSTRUCTION VEHICLES

The main access point for construction vehicles entering and exiting the site will be via Gate 14 on Morris Grove, with all other access points restricted for construction vehicle use.

All construction traffic and material storage will be confined within the site. Access to construction areas, including the Bryson building site, material laydown area, and the temporary car park for construction vehicles, will be restricted to approved contractors and staff wearing appropriate PPE. Public access to these sites will be prohibited unless approved by the site manager, with clearly marked signage stating, ‘For Construction Access Only’.

3.5.2 CYCLISTS AND PEDESTRIANS

The existing pedestrian and cyclist access to the Subject site will be maintained at the following locations during the construction period, as they are clear of any proposed construction works:

- Gates 9 to 12, located along Morris Grove
- Gate 4 on Wrights Road
- Gate 1 for Prep access off Cormack Circuit
- Note there will be no pedestrian access past gate 14

3.5.3 PUBLIC TRANSPORT

The existing school bus drop-off and pick-up zone accessed via Morris Grove, as well as the bus stops on Wrights Road, will remain unchanged during the construction period.

4 IMPACTS OF THE PROPOSED WORKS

4.1 IMPACTS TO TRAFFIC

The estimated construction traffic impact, including up to 30 heavy vehicle movements per day (15 in and 15 outbound), equating to approximately 1 truck movement every 15 minutes, is considered minimal and can be easily accommodated by the surrounding road network. While slow truck manoeuvring at Gate 14 on Morris Grove may temporarily affect traffic flow, it is expected to have minimal impact due to the low traffic volume on this no-through road. Additionally, construction vehicle movements will be restricted during school drop-off and pick-up times to minimise potential conflicts with parents and students. Traffic controllers will assist with vehicle access to and from the project site, further mitigating any associated impacts.

During peak construction periods, up to 50 light vehicles from construction staff are expected, but these are expected to arrive and depart outside of school peak hours (before 7 am and after 5 pm), minimising any effect on peak traffic flows.

As detailed in Section 2.4 the Wrights Road and Morris Grove intersection is currently operating at a satisfactory level during both AM and PM peak hours. Although the Green Road and Wrights Road intersection operates at an unsatisfactory level (LoS F) during the AM peak hour due to heavy background traffic, the low volume of construction-related traffic during peak hours is unlikely to significantly impact traffic flows. Therefore, the overall traffic impact of the construction activities on the surrounding road network is expected to be negligible.

4.2 IMPACTS TO PEDESTRIANS AND CYCLISTS

The anticipated construction traffic is not expected to significantly impact pedestrians and cyclists using Morris Grove. Traffic controllers stationed at Gate 14 will manage potential conflicts between pedestrians, cyclists, general traffic, and construction vehicles to minimise the risk of collisions near the site access.

Existing pedestrian and cyclist access to the College will be maintained throughout the construction period. Construction traffic will have limited interaction with active travel users, as vehicle movements will be restricted during school drop-off and pick-up times, further reducing any potential risks to pedestrians and cyclists.

Student and staff access between the east and west parts of the site to be via temporary pedestrian bridges over the internal construction site driveway.

4.3 IMPACTS TO PUBLIC TRANSPORT

During construction activities, traffic related to the project is unlikely to cause any adverse impacts on the school bus services currently operating on Morris Grove and Wrights Road. The additional traffic generated over the construction period is not expected to significantly affect the public transport network adjacent to the project site.

4.4 IMPACTS TO PARKING

During the peak construction period, the number of contractors is expected to average between 30 to 40, potentially reaching up to 60 staff per day. With some car-pooling and public transport use, it is expected that an average of 30, and a maximum of 50 light vehicles will arrive at the site daily. All project light vehicles will be required to access the site via Gate 14 and park in the temporary car park within the site. Although the exact number of parking spaces in the temporary car park is not yet confirmed, Rohrig must ensure that adequate parking is provided on-site. Parking by construction contractors will be restricted to the site to avoid any loss of on-street parking spaces on the adjacent residential streets around the subject site.

4.5 IMPACTS TO EMERGENCY VEHICLE ACCESS

No changes to access for emergency vehicles is proposed or required. There would be no disruption to emergency vehicles on Wrights Road and Morris Grove during the construction period.

5 MITIGATION MEASURES

5.1 ROAD SAFETY

5.1.1 PEDESTRIAN MANAGEMENT

Pedestrian access to and around the site is to be maintained at all times.

The entire site (and any remote work areas when applicable) and during all phases will be physically separated from the School via A-Class fencing. The extents of fencing will be modified during the works as required to suit the works occurring at each project phase. The access points to the site will be securely locked even when the construction / demolition activities are not occurring.

It is noted that construction vehicle movements will be limited to hours outside of school peak times, meaning that construction vehicles will not interfere with school pick-up and drop-off activities.

Where relevant, it is proposed that gate controllers overlook vehicular and pedestrian movements when the construction vehicles enter or exit the site. The controllers will temporarily deploy a pedestrian barrier to stop pedestrians and then open the barrier when it is safe to continue on.

A 4m wide Pedestrian overpass will be provided over the construction access route within the site to enable conflict-free connectivity between the school and the ovals.

5.1.2 SIGNAGE

Traffic Signage will be utilized wherever traffic conditions may depart from the current conditions. This is expected to only affect Morris Grove towards Gate 14 adjacent to the new Waste Compound. Traffic Barriers & Delineation will be utilized inside the school grounds to separate the delivery and unloading areas from pedestrians.

TfNSW Accredited Traffic Controllers will be utilized to control deliveries at the unloading zones. Traffic Controllers will also be utilized during major concrete pours at the campus gate at Morris Grove.

5.1.3 PARKING

Construction staff car parking arrangements will be provided within the site with vehicle access via Morris Grove, i.e., shared access with the construction vehicles. Site personnel will be advised to carpool and utilise public transport.

5.2 TRAFFIC CONTROL

An articulated vehicle (AV) turning left from Wrights Road into Morris Grove needs to occupy the opposite direction lane. Therefore, a traffic controller will be required at Morris Grove to manage the southbound traffic. Refer to Figure 5.1 overpage for information.

It is anticipated that traffic control will be required for the following operations during the project:

- Large concrete pours (with numerous trucks required)
- Floating in and out of large machinery
- Excavation traffic to be contained within the site
- Reducing delivery vehicles to semi rigid trucks

All deliveries to be limited to semi rigid trucks other than when large machines need to be floated in and out of site. Traffic controller to be provided along Morris rd for deliveries with articulated vehicles are required.



Source: William Clarke College Traffic Impact Assessment (PTC, June 2023)

Figure 5.1 Traffic control on Morris Grove near Wrights Road intersection (articulated vehicles)

An AV exiting the site via the site driveway needs to occupy the opposite direction lane on Morris Grove.

Therefore, a traffic controller would be required at Morris Grove to manage the northbound traffic.

A gate controller will be present at the site access gate to coordinate between the incoming and outgoing vehicles as well as to managing pedestrian movements on the footpath when the trucks are entering or exiting the site.

Refer to Figure 5.2 for further information.



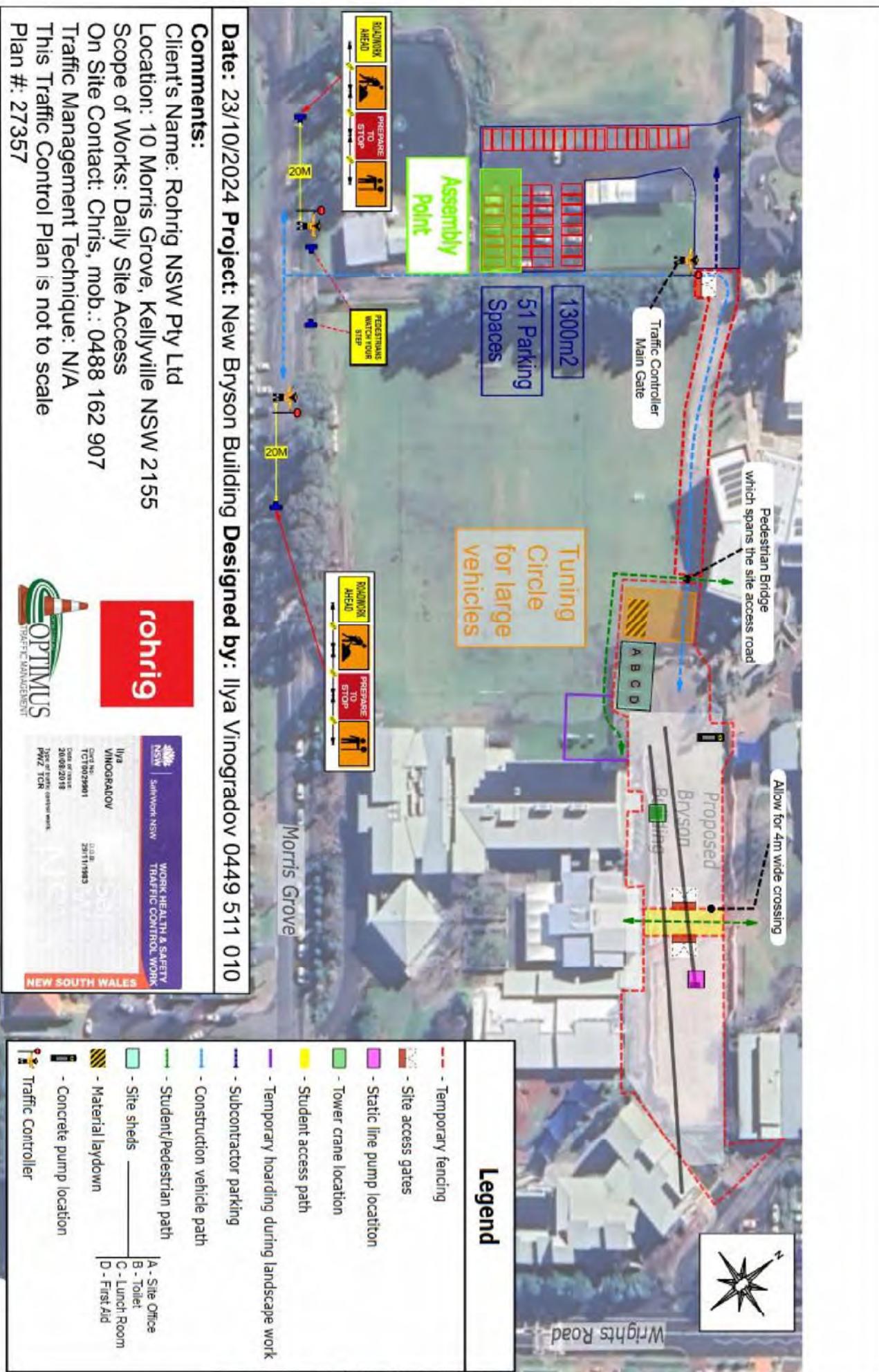
Source: William Clarke College Traffic Impact Assessment (PTC, June 2023)

Figure 5.2 Traffic control on Morris Grove near Gate 14 (articulated vehicles)

5.3 TRAFFIC GUIDANCE SCHEMES

Traffic Guidance Schemes (TGSs) or Traffic Control Plans (TCPs) are to be developed for all areas of work that impact the road network and related areas, requiring traffic control for all road users. The TGSs will outline the signs and devices that will be installed to warn pedestrians, cyclists, and traffic around or through the project site. These TGSs should be developed in consultation with the Hills Shire Council and other stakeholders, as required, and based on the AS1742.3 Manual of uniform traffic control devices – Part 3: Traffic Control for Works on Roads and the TfNSW Traffic Control at Work Sites (2022).

Certified traffic controllers will be positioned at key access points and within the closure to regulate traffic movements to and from the project site and adjacent properties.



5.4 STAKEHOLDER CONSULTATION

Stakeholder consultation has been sought with both TfNSW and The Hills Shire Council. Notification emails have been issued to contact persons at both these organisations for comment requesting if further input is required to CTPMP.

At the time of plan submission, no feedback was received, however TFNSW have subsequently provided feedback on 16th October 2024.

This plan has been amended to incorporate this feedback including a TGS/TCP in section 5.3 above.

Rohrig will accommodate requirements from these agencies and amend plans as required as the project progresses.

From: Miller, Ryan
Sent: Thursday, 5 September 2024 11:09 AM
To: simon.turner2@transport.nsw.gov.au; development.sydney@transport.nsw.gov.au; rbuckham@thehills.nsw.gov.au
Cc: Chun, Chris; Longman, Stuart
Subject: William Clarke College - Stage 1 Dymon Building Only - Construction Traffic and Pedestrian Management Plan

Hi Simon and Robert,

WSP have been engaged to prepare a Construction Environmental Management Plan (CEMP) which part of includes a Construction Traffic Pedestrian Management Plan (CTPMP).

As part of the Department of Planning & Environment (now Department of Planning, Housing & Infrastructure) conditions of consent, it requests that the CTPMP is prepared in consultation with both Transport for NSW and The Hills Shire Council.

The requirements of the CTPMP are as below:

C18. The Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must be prepared to achieve the objective of ensuring safety and efficiency of the road network and address, but not be limited to, the following:

- (a) be prepared by a suitably qualified and experienced person(s);
- (b) be consistent with the Section 9 - Construction Pedestrian and Traffic Management Plan Methodology (Stage 1) in the Traffic Impact Assessment prepared by Ptc dated 27 June 2023;
- (c) be prepared in consultation with Council and TNSW;
- (d) detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services; and
- (e) detail heavy vehicle routes, access and parking arrangements.

I have also reviewed previous agency advice from both TNSW and The Hills Shire Council from the Response to Submissions (RTS) received to ensure anything required to be addressed is included.

Could you please advise if there are any items both TNSW and Council would like to see included in the CTPMP noting the above requirements particularly (d) and (e).

The references relating to this development are as follows:

TNSW Reference Syd 22/0087/03
DPE Reference SS-35715221
Council Reference unable to find one

We are looking to submit the CTMP shortly. Please provide some feedback at your earliest convenience.

If you have any questions, please let me know. Thanks.

Regards,

Ryan



Ryan Miller
Senior Principal Engineer, Planning and Mobility

T: +61 2 92725324

Ryan.Miller@wsp.com

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Sydney 2000
Australia

wsp.com/au

WSP acknowledges that every project we work on takes place on First Peoples land. We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

Simon Turner

From: Simon Turner
Sent: Wednesday, 16 October 2024 1:43 PM
To: nicholass@rohrig.com.au
Subject: SYD24-01573/01 - SSD-35715221-PA-7 - Concept and Stage 1 William Clarke College

Good afternoon.

I refer to your request for TfNSW comment on the Construction Traffic and Pedestrian Management Sub Plan prepared by WSP dated September 2024 submitted via the Major Projects planning portal.

TfNSW has considered your request and offers the following comments to be addressed prior to support being offered for the above document:

- CTMP does not include full sized TGS in the appendix showing the access/egress of construction vehicles, all signage required and all locations of traffic controllers.
- Figures 5.1 and 5.2, show the turning paths encroaching on the opposite carriageway and over the roundabout. What measures are implemented to mitigate any safety concerns.

I would recommend you email your response to development.CTMP.CJP@transport.nsw.gov.au which is the team that deals with these matters directly. This may result in a quicker response time.

Regards,

Simon Turner
Land Use Planner
Transport Planning
Planning, Integration and Passenger Division
Transport for NSW

T (02) 8265 6363 E simon.turner2@transport.nsw.gov.au

transport.nsw.gov.au

Level 4, 4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150

Working days Monday to Thursday



5.5 DRIVER CODE OF CONDUCT

All drivers working on the project site must read, acknowledge and adhere to the driver code of conduct.

DRIVER CODE OF CONDUCT

William Clarke College – Bryson Building

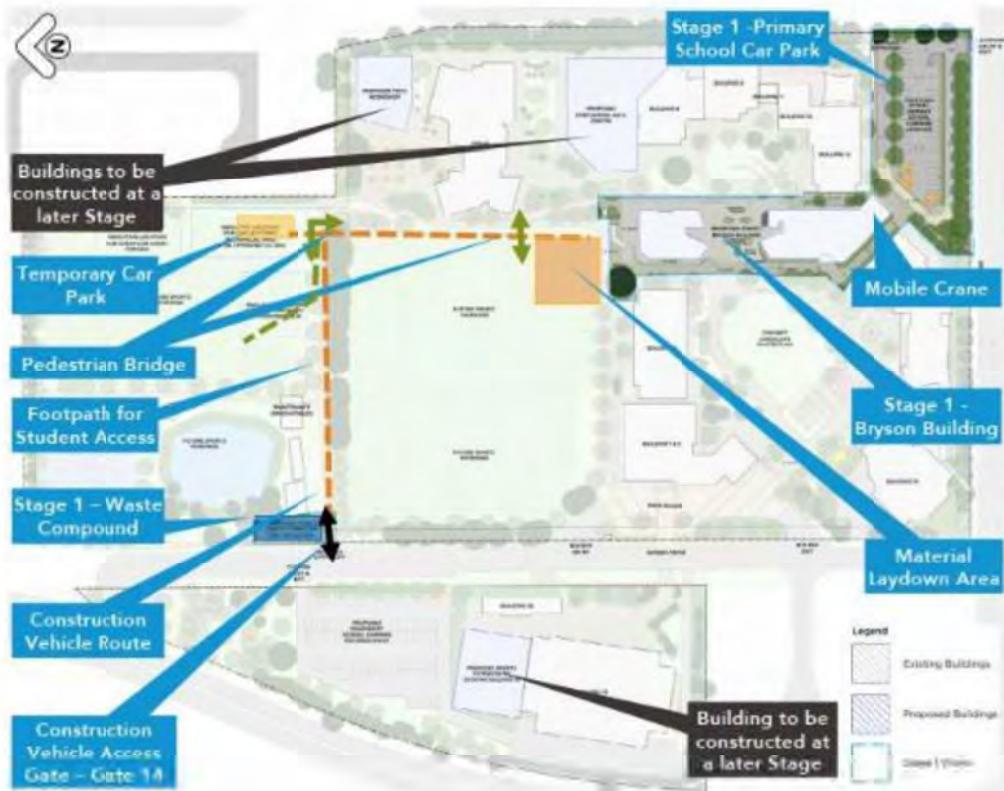
While carting for Rohrig NSW Pty Ltd, including all associated sites, the driving behaviour of all employees/subcontractors is on display to the general public. Rohrig has made a commitment to the local authorities and the local community to perform our business in a manner which protects people, property and the environment. As such, all employees/subcontractors working for Rohrig shall adhere to this Code of Conduct.

General Conditions

1. All vehicles entering any site must be fully roadworthy and maintained. A representative of Rohrig may, at any time, inspect any vehicle or request maintenance records for any vehicle. Further, The Company reserves the right to prohibit any vehicle from the site if it is believed to not be roadworthy or safe to operate.
2. All drivers must obey all signs, directions and instructions and display respect and courtesy for other road users.
3. All drivers must operate within the realms of the law. This includes not carting in excess of the legal limits.
4. All loads shall be covered with tarps and be secured. Drawbars, tailgates and side combing are to be cleaned of all material.
5. Where a designated route is issued for cartage, it must be used.
6. Any accidents, incidents, or complaints that occur on or off site, must be reported to the site manager.
7. As a driver you are required to know and comply with all road rules pertaining to your vehicle.
8. You must hold a current and valid driving licence for the class of vehicle that you operate. Additionally, you must always carry your current driver's licence with you while you are on duty.
9. Using engine brakes can be extremely noisy. If possible, you should not use engine brakes near residences and built-up areas.
10. All vehicles must be fitted with audible reversing alarms. These are essential for the safety of all personnel. Reversing alarms are however the source of potential noise complaints from neighbouring residents so all drivers should be aware of this and try to minimise reversing when possible.
11. Rohrig site's have a general speed limit of 5 km/h. This limit is to ensure the interaction between personnel and vehicles are managed to minimise the risk of injury to all personnel. Drivers are required to observe the posted speed limits and other traffic signage at all times.

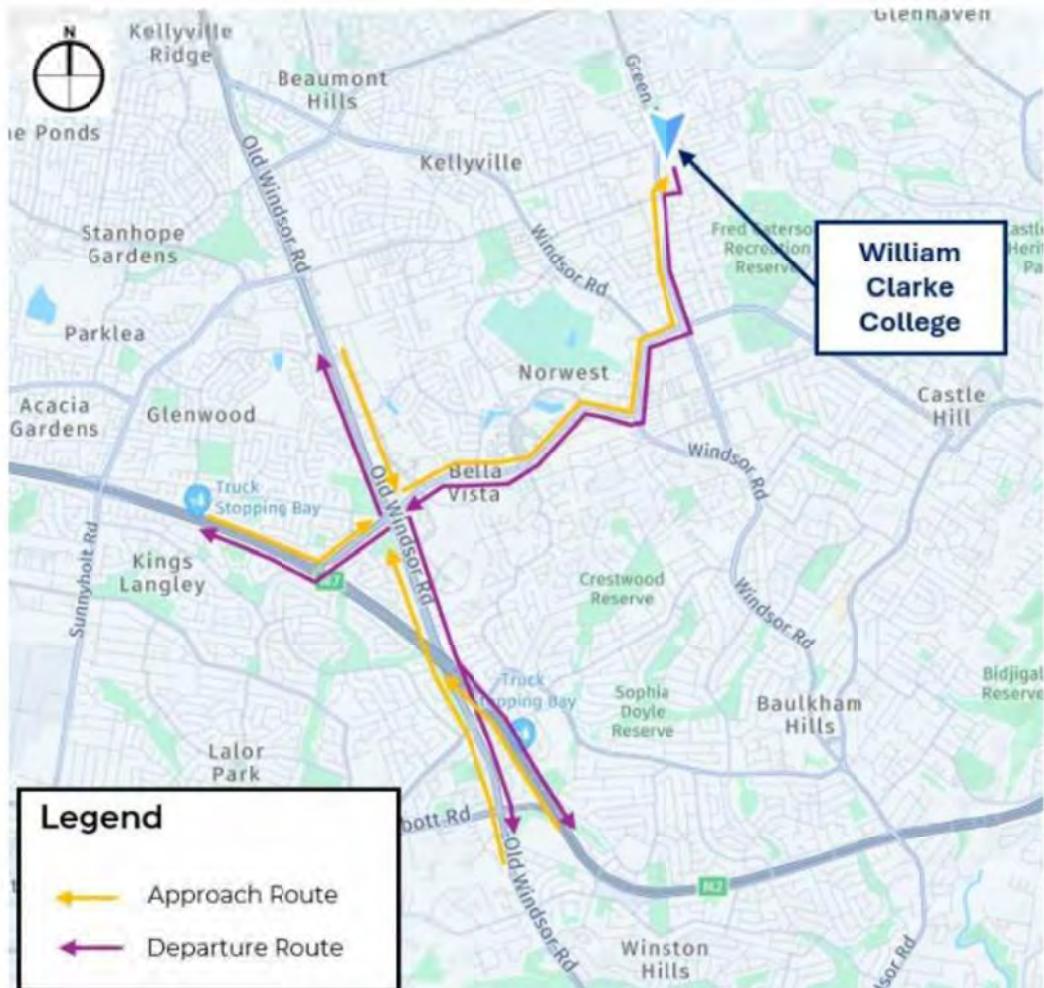
Project Specific Conditions

1. All construction activities will be undertaken within the site.
2. All vehicles must use signposted access points to site. This is to be provided via the existing maintenance vehicle gate (Gate 14) on Morris Grove. Upon entering the site, vehicles will drive all the way to the northeast corner and drive south towards the proposed material laydown area. The route and markups are presented below.



3. In order to minimise the possibility of conflict with parents and students during school drop-off and pickup times, construction vehicle access will be restricted at the following times.
 - a. 7:45am– 8:45am Monday – Friday
 - b. 2:45pm– 3:45pm Monday – Friday
 With construction work hours between 7:00am and 5:00pm and no construction vehicle access during the morning and afternoon school peak hours, there would be an 8-hour window for construction trucks to enter / exit the site.
4. No queuing or marshalling of trucks is permitted on any public road and all loading and unloading of materials will be undertaken within the site.
5. All vehicle routes to site are constrained to existing public roads that have the physical geometry to accommodate the turning movements.
6. In term of the broader road network, the site is accessible from the east via the M2 Motorway, west via the M7 Motorway and north and south via Old Windsor Road. Vehicles travelling from all directions shall arrive at Northwest Boulevard, turn left into Windsor Road, turn right into Showground Road, turn left into Green Road and then turn right into Wrights Road.
7. Upon exiting the site, all vehicles shall exit the site via Wrights Road, turn left into Green Road, turn right into Showground Road, turn left into Windsor Road, turn right into Northwest Boulevard. Upon approaching the Old Windsor Road, the vehicles travelling towards west shall continue straight on Northwest Boulevard towards M7 motorway, the vehicles travelling towards north shall turn right on Old Windsor Road and the vehicles travelling towards the

north and east shall turn left on the Old Windsor Road. Please refer to figure below. The approved truck route plan shall form part of the contract and must be distributed to all truck drivers.



I, _____ (print name) of _____
have read and understand the Driver's Code of Conduct and hereby confirm that I will comply with the
directives contained herein.

Signed: _____ Date: _____

