Moriah College, Queens Park

Preliminary Construction Traffic and Pedestrian Management Plan

Prepared for:

Moriah College

29 April 2020

The Transport Planning Partnership

Moriah College, Queens Park

Preliminary Construction Traffic and Pedestrian Management Plan

Client: Moriah College

Version: V05

Date: 29 April 2020

TTPP Reference: 19143

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	27/08/19	Theo Jones	Jessica Ng	Ken Hollyoak	Ken Hollyoak
V02	13/09/19	Theo Jones Lalaine Malaluan	Jessica Ng	Ken Hollyoak	Ken Hollyoak
V03	30/09/19	Theo Jones Lalaine Malaluan	Jessica Ng	Ken Hollyoak	Ken Hollyoak
V04	07/04/20	Lalaine Malaluan	Ken Hollyoak	Ken Hollyoak	Ken Hollyoak
V05	29/04/20	Lalaine Malaluan	Ken Hollyoak	Ken Hollyoak	

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APPENDICES

1 Introduction

1.1 Background

The Transport Planning Partnership (TTPP) has prepared this Preliminary Construction Traffic and Pedestrian Management Plan (CTPMP) on behalf of Moriah College (the 'College'). The CTPMP accompanies an Environmental Impact Statement (EIS) in support of State Significant Development Application (SSD-10352) for new school buildings on the existing campus of Moriah College, Queens Park (the site).

1.2 Secretary's Environmental Assessment Requirements

On 15 July 2019, the Department of Planning and Environment (DoPE) issued the Secretary's Environmental Assessment Requirements (SEARS) for SSD-10352. Specifically, a traffic and accessibility impact assessment of the construction activities is required as part of the Environmental Impact Statement (EIS), in accordance with the SEARs for the proposed development.

The issues raised in the SEARs have been considered during the preparation of this CTPMP and are summarised in Table 1.1.

Table 1.1: Review of Compliance with SEARs

SEARS Transport, Traffic, Parking and Access	Report Reference
Transport and Accessibility • The preparation of a preliminary Construction Traffic and Pedestrian Management Plan to demonstrate the proposed management of the impact in relation to construction traffic addressing the following:	This Plan
o assessment of cumulative impacts associated with other construction activities (if any)	Refer to Section 4.6
o an assessment of road safety at key intersection and locations subject to heavy vehicle construction traffic movements and high pedestrian activity	Refer to Section 4.1 and Section 4.2
o details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process	Refer to Section 3.2
o details of anticipated peak hour and daily construction vehicle movements to and from the site	Refer to Section 4.1
o details of on-site car parking and access arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicles	Refer to Section 4 and Section 5
o details of temporary cycling and pedestrian access during construction.	Refer to Section 4.2

It is noted that at this stage a Contractor has not yet been appointed. Any changes proposed by the newly appointed Contractor will require the CTPMP to be updated accordingly for further review/approval from the relevant consent authorities.

1.3 Purpose of the CTPMP

The purpose of this CTPMP is to assess the traffic and pedestrian implications and outline how vehicular, cyclist and pedestrian traffic and access will be managed during the construction period. This CTPMP provides a structured approach to manage traffic and access during construction to provide a safe road environment, minimise impact on the surrounding road network and maintain access for all road users and the local community.

Specifically, the purpose of this CTPMP is to:

- maintain vehicle and pedestrian access to/from adjacent properties at all times
- restrict construction vehicle movements to designated routes to/from the site
- manage and control construction vehicle activity in the vicinity of the site
- provide an appropriate and convenient environment for pedestrians and cyclists around the construction site
- minimise the impact of construction activity on traffic flows, emergency vehicle access, pedestrian movements and during peak school operations
- maintain appropriate public transport access
- carry out construction activity in accordance with the approved work hours.

The report has been prepared and checked by engineers who hold the Roads and Maritime Services (Roads and Maritime) Prepare a Work Zone Traffic Management Plan card.

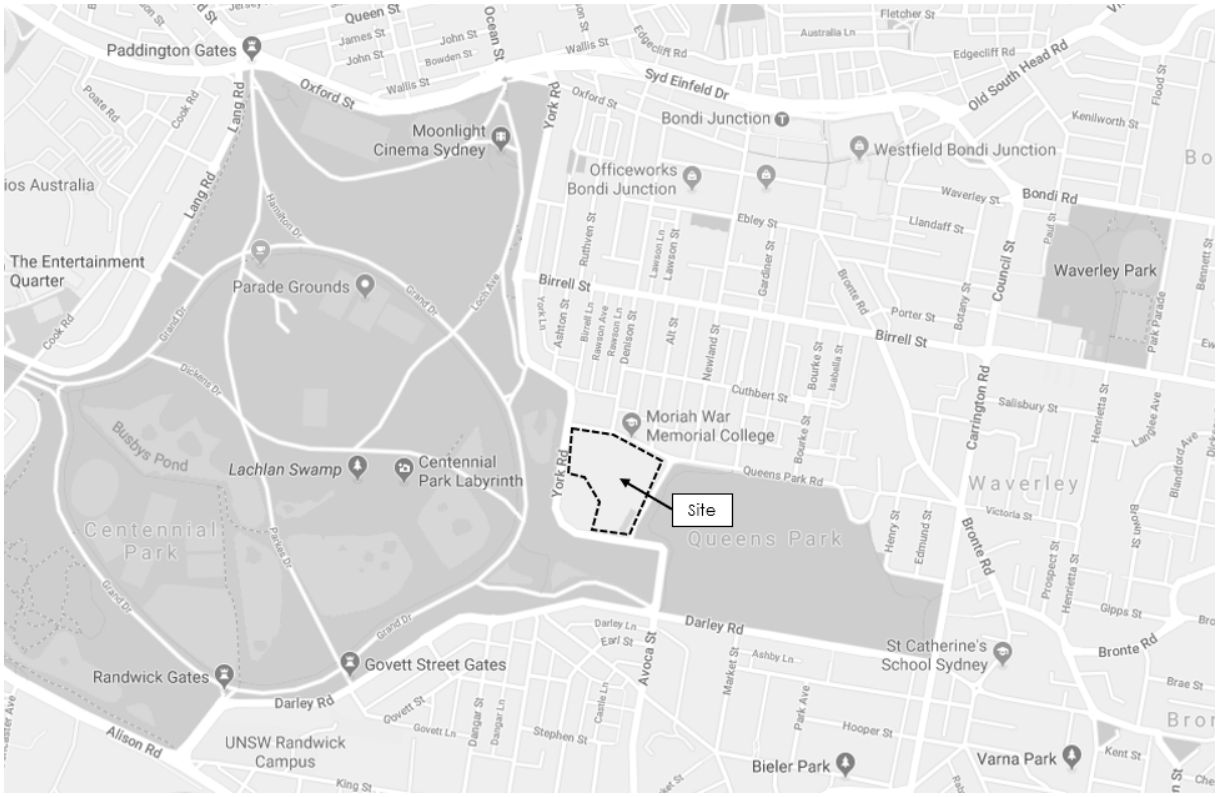
2 Existing Conditions

2.1 Site Description

The site is legally described as 101 York Road, Queens Park/ Lot 22 DP 879582, 1 Queens Park Road, Queens Park/ Lot 1 DP 701512 and 3 Queens Park Road, Queens Park/ Lot 3 DP 701512.

The location of the site and surrounding road network are shown in Figure 2.1.

Figure 2.1: Site Location

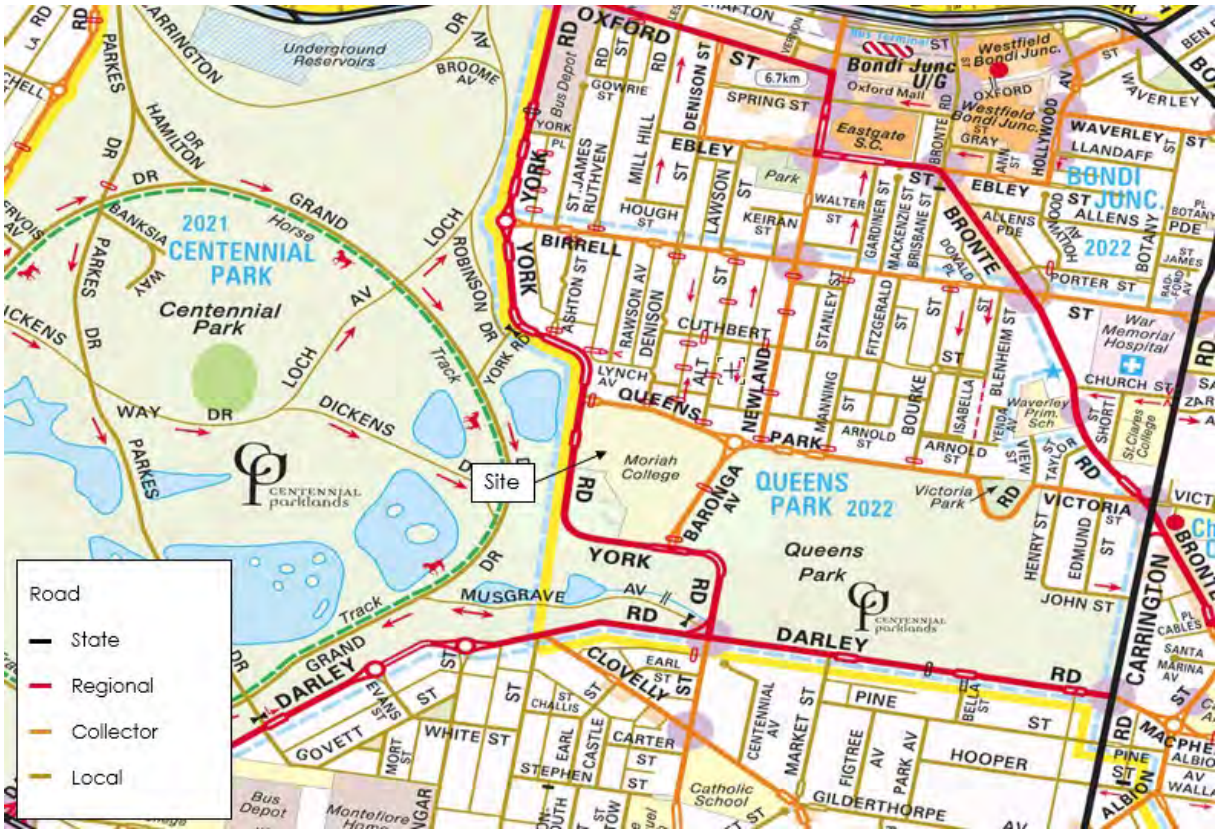


Source: Google Maps Australia

2.2 Surrounding Road Network

The site is surrounded by a network of regional and local roads, including York Road, Baronga Avenue and Queens Park Road along the south-west, west and north boundaries respectively, as shown in Figure 2.2. A brief description of these roads is provided below.

Figure 2.2: Surrounding Road Network Map



Source: Street Directory Australia

2.2.1 York Road

York Road is a regional road, generally aligned in a north-south direction between Oxford Street / Syd Einfield Drive and Darley Road. This road travels along the south and west boundary of the site. It is generally configured as a two-way, two-way road across a 11.5-wide road carriageway (kerb to kerb). Kerbside car parking provided on some section of the north end of the road.

Vehicle access to the primary school car park and high school and Early Learning Centre car park is provided off York Road via Gate 1 and Gate 4 respectively. The road has a posted speed limit of 50km/h, with 40km/h school zone restrictions that apply between 8:00am and 9:30am and between 2:30pm and 4:00pm Monday to Friday.

2.2.2 Baronga Avenue

Baronga Avenue functions as a local collector road, generally aligned in a north-south direction between York Road and Queens Park Road. This road is configured as a two-way, two-lane road, with kerbside car parking provided on either side of the road across a varied 7.0m to 11.5-wide road carriageway (kerb to kerb). This road predominately services school

bus services, along the east boundary of the site, as well as local traffic in the area. No vehicle access to the school is currently provided off Baronga Avenue.

It has a posted speed limit of 50km/h, with 40km/h school zone restrictions that apply between 8:00am and 9:30am and between 2:30pm and 4:00pm Monday to Friday.

2.2.3 Queens Park Road

Queens Park Road functions as a local collector road, aligned in an east-west direction between York Road and Victoria Street. This road is configured as a two-way, two-lane road across an approx. 12.3-wide road carriageway (kerb to kerb). Kerbside car parking is generally provided on both sides of the road between York Road and Bourke Street. Vehicle access to the north car park is provided off Queens Park Road via Gate 2.

A dedicated cycle lane is also provided on the north side of the road between York Road and Bourke Street. The road has a posted speed limit of 50km/h, with 40km/h school zone restrictions that apply between 8:00am and 9:30am and between 2:30pm and 4:00pm Monday to Friday.

2.3 Public Transport Facilities

The site is generally serviced by bus services operated by Sydney Buses. The nearest railway station is located more than 1.2km north of the site at Bondi Junction.

Bus route 357 travels along Queens Park Road and York Road within the immediate vicinity of the site and provides connectivity between Mascot and Bondi Junction via Kingsford and Randwick. There are a number of bus stops servicing bus route 357 along the north boundary of the site along Queens Park Road, generally operating every 15 minutes during peak periods and every 30 minutes during off-peak periods.

The College currently has arrangements with the State Transit Authority for special school bus services to deliver and pick up students in the morning and afternoon. In addition to this, the College provides shuttle bus services between the Bondi Junction/Maroubra area and the site. This shuttle bus services (Moriah Shuttle Bus, MSB) supplements the regular bus services each school day. Students can be collected from any bus stop along the designated route.

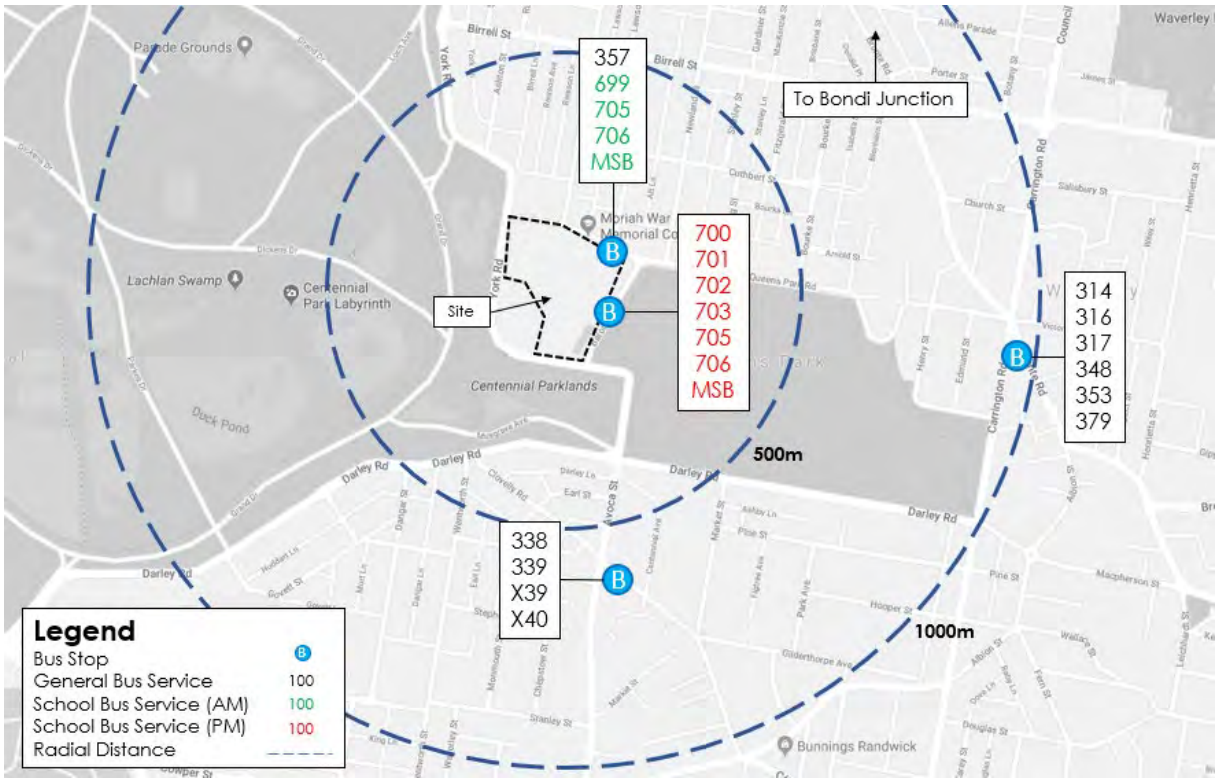
A summary of the existing bus services and their associated frequencies within the immediate vicinity of the site is provided in Table 2.1.

Table 2.1: Existing Bus Services and Associated Frequencies

Route Number	Description	Bus Stop Location	Frequency
357	Mascot to Bondi Junction via Kingsford	Queens Park Road (Gate 2), Queens Park	15 minutes (peak) 30 minutes (off-peak)
699E	Watsons Bay to Moriah College Queens Park	Queens Park Road (Gate 2), Queens Park	1 service (AM)
700E	Moriah College Queens Park to Watsons Bay	Baronga Avenue	1 service (PM)
701E	Moriah College Queens Park to Watsons Bay	Baronga Avenue	1 service (PM)
702E	Moriah College Queens Park to Dover & New South Head Roads	Baronga Avenue	3 services (PM)
703E	Moriah College Queens Park to Bondi Junction	Baronga Avenue	2 services (PM)
704E	Moriah College Queens Park to Maroubra Beach	Baronga Avenue	2 services (PM)
705E	Moriah College Queens Park to Dover Heights	Baronga Avenue	1 service (AM) 3 services (PM)
706E	Moriah College Queens Park to South Head Cemetery	Baronga Avenue	2 services (AM) 4 services (PM)
MSB (pick-up)	Moriah College to Bondi Junction	Baronga Avenue	1 service (PM)
MSB (drop-off)	Maroubra Beach to Moriah College	Queens Park Road (Gate 2), Queens Park	1 service (AM)

Figure 2.3 presents a map of the key existing bus stops and services within the immediate vicinity of the site. This map also indicates additional bus services located 500 to 1,000m from the site.

Figure 2.3: Bus Services within Close Proximity of Site



Source: Google Maps Australia
**MSB = Moriah Shuttle Bus*

2.4 Existing Vehicle Access Arrangements

The site currently provides three (3) vehicle access gates along the York Road and Queens Park Road. No vehicle access gates are provided off Baronga Avenue.

The existing vehicle access gates are referred to as Gate 1, 2 and 4 and provide vehicle access to the existing three car parks along the York Road (west), Queens Park Road and York Road (south) site frontages respectively, as shown in Figure 2.4. It is noted that there is an existing Gate 3 on Baronga Avenue, but this is restricted as pedestrian access only.

Figure 2.4: Existing Vehicle Access Arrangements

Source: nearmap Australia

2.5 Car Parking

The site currently provides a total of 201 parking spaces, including four motorcycle spaces. The existing car parking breakdown is outlined in Table 2.2 (overleaf).

Based on on-site observations, the existing car parks are generally well utilised throughout the day, with limited spare parking capacity available. All visitor car parking spaces are managed by the College through a booking system prior to their arrival to ensure appropriate allocation of the visitor spaces accordingly. All visitors are required to present a copy of the pre-registered barcode provided by the College when accessing the site.

This forms part of the site's Transport, Traffic and Parking Plan, which manages all car parking and drop off activities associated with the site.

Table 2.2: Existing Car Parking Provision

Car Park Area	Number of Spaces								
	Staff	Motorbike	Visitors	Accessible	Contractors/ Canteen	College Vehicles	Buckle-up Bay	ELC Parent Drop off	Total
Queens Park Road (Gate 2)	17	0	2	1	0	0	0	0	20
York Road (west)l – Gate 1	75	4	0	1	1	4	0	13	98
York Road (south) – Gate 4	69	0	5	2	1	4	2	0	83
Total	**161**	**4**	**7**	**4**	**2**	**8**	**2**	**13**	**201**

2.6 Pedestrian and Cyclist Infrastructure

Well established pedestrian facilities are provided within the immediate vicinity of the site. Sealed pedestrian footpaths are provided along the site frontage, with dedicated pedestrian facilities provided along York Road, Queens Park Road and Baronga Avenue in the form of pedestrian refuges or pedestrian (zebra) crossings. At present, these pedestrian facilities are heavily used during school peak drop off and pick up times.

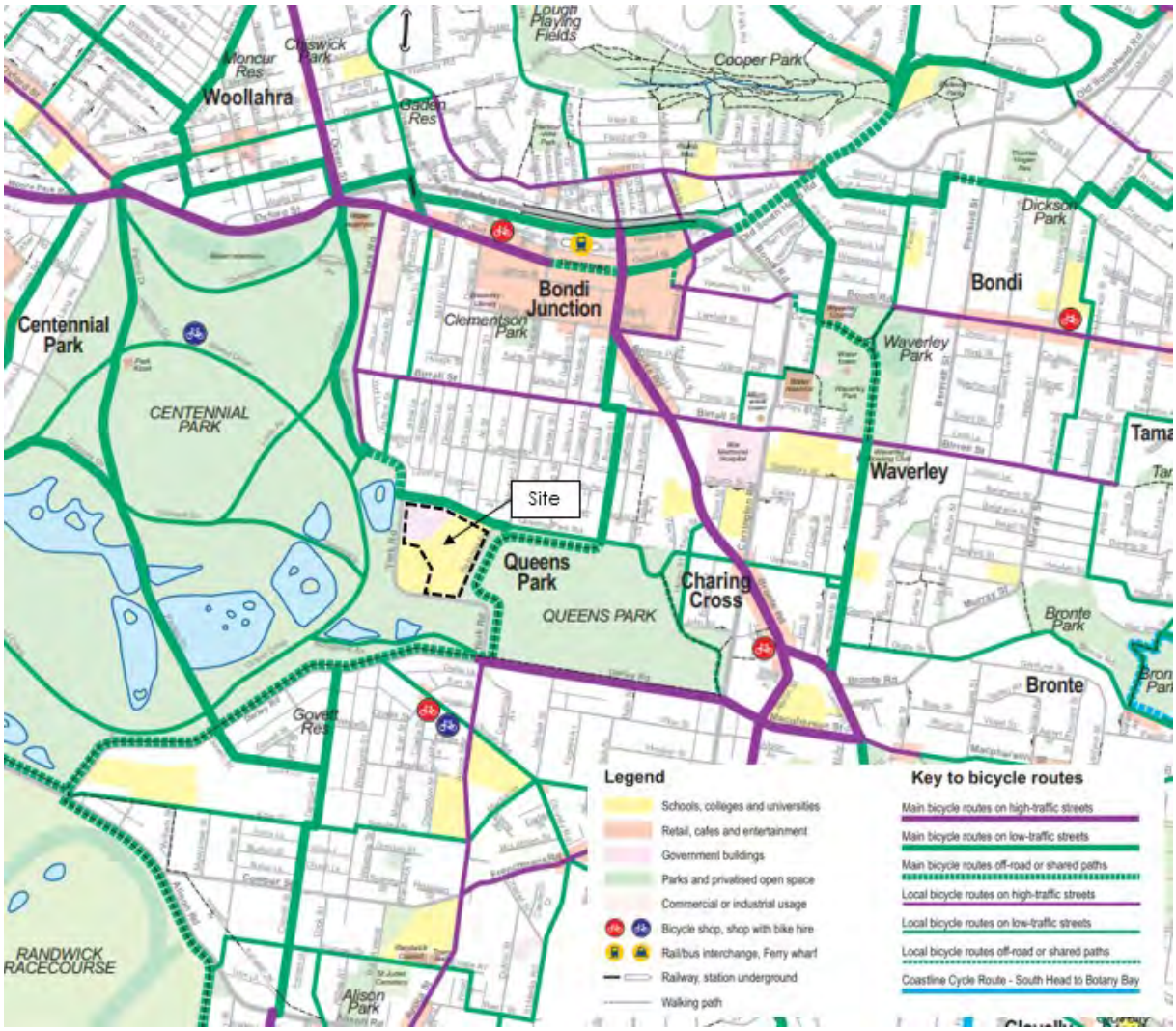
The existing pedestrian facilities surrounding the site is shown in Figure 2.5.

Figure 2.5: Existing Pedestrian Facilities

Source: nearmap Australia

Further to this, a good cycle network is currently provided within the immediate vicinity of the site. A dedicated on-road cycle path is currently provided on the north side of Queens Park Road, which provides good connectivity to the wider cycle network in the area. The existing cycle network is shown in Figure 2.6.

Figure 2.6: Cycle Paths within the Vicinity of the Site



Source: Extract of the Waverley Bike Plan, Waverly Council

3 Proposed Construction Activities

This section of the report outlines the proposed construction methodology.

3.1 Description of Construction Activities

The proposal seeks consent for the staged demolition of existing buildings A, B, C, D, J, E and removal of demountable buildings S, D, Z and staged construction of new school buildings.

The proposed construction staging is as follows:

- **Stage 1** – Construction of a part 3 and part 4 storey STEAM building containing:
  - science, technology, engineering, art and maths rooms
  - technology and applied science rooms
  - administration offices
  - canteen and cafe
  - independent learning centre (library)
  - meeting rooms and auditorium
  - enhanced pedestrian entry at Gate 3A off Baronga Ave
  - basement parking for staff, waste management and storage rooms
  - modified vehicular circulation internal to the site
  - redesign of the York Road Gate 4A parking area to create improved circulation and on-site staff parking
- **Stage 2** – Construction of a 3 storey Early Learning Centre (ELC) building and administration offices.
- Modification to internal traffic and parking on the site.
- Active and passive landscape upgrades to the site.
- Removal of trees.

The proposed key construction works area is outlined in orange in Figure 3.1. It is noted that the building works will be staged within the works area as far as practical to minimise the construction impacts on existing school operations, as per the staging plan diagrams provided in Appendix A.

Figure 3.1: Proposed Construction Works Area

Source: nearmap Australia

3.2 Duration and Staging of Works

The Stage 1 construction works are expected to commence in December 2020 and finish in January 2024 over a total period of 37-months. The construction works will be scheduled to occur outside of school terms as far as practicable to minimise its impact on existing school operations.

The proposed construction staging and duration of works are outlined in Table 3.1.

Table 3.1: Proposed Construction Staging and Duration of Works

Construction Stage	Start Date	Finish Date	Duration
1. Stage 1 Demolition	December 2020	April 2021	4 months
2. Stage 1 Bulk Excavation, Construction and Fit-out	April 2021	October 2022	18 months
3. Subsequent Demolition and Landscaping	December 2022	January 2024	13 months
Total*	**December 2020**	**January 2024**	**37 months**

** Subsequent demolition and landscaping will be scheduled to occur outside of school term as far as practicable*

3.3 Work Hours

Construction activities will be carried out, as follows:

- Monday to Friday 7:00am to 6:00pm
- Saturday 7:30am to 3:30pm
- Sunday and Public Holiday No work.

Any works outside of the above listed hours will only occur with approval from the relevant authorities (i.e. Waverley Council / Roads and Maritime), prior to the commencement of any works. It is however expected that no construction vehicle movements to/from the site will be permitted during school peak drop off and pick up times (i.e. between 8:00am and 9:30am and between 2:00pm and 4:30pm), unless otherwise approved. The Contractor will be responsible to liaise with Council to obtain all relevant permit approvals.

3.4 Site Access Arrangements

Vehicle access to the site will generally be provided off Gate 3A and 4 to complete initial tasks and then via Gate 4 for the remaining construction activities.

A summary of the proposed construction site access arrangements is provided in Table 3.2.

Table 3.2: Proposed Construction Site Access Arrangements

Construction Stage	Gate Access
1. Stage 1 Demolition	Gate 3A and 4 for initial tasks, then Gate 4 for remaining works
2. Stage 1 Bulk Excavation, Construction and Fit-out	Gate 4
3. Subsequent Demolition and Landscaping	Gate 4

The locations of the site access gates are outlined in yellow in Figure 3.2, with the overall construction works area highlighted in red. As indicated previously, the building works will be staged within the works area as far as practical to minimise the construction impacts on existing school operations, as per the staging plan diagrams provided in Appendix A.

Figure 3.2: Proposed Construction Site Access Gates

Source: nearmap Australia

3.5 Construction Vehicle Routes

Construction vehicles will have origins and destinations throughout Sydney. Dedicated construction vehicle routes have been developed to provide the shortest distances to/from the arterial road network, whilst minimising the impact of construction traffic on streets within the immediate vicinity of the site.

All truck drivers will be advised of the designated truck routes to/from the site and be required to adhere to the nominated routes.

Construction vehicles are restricted to left-in and left-out access at Gate 4 due to the presence of median island on York Road. However, it is noted that both Baronga Avenue and Queens Park Road are local residential streets. Trucks travelling down lower order roads could result to undesirable outcome for the School and the local community.

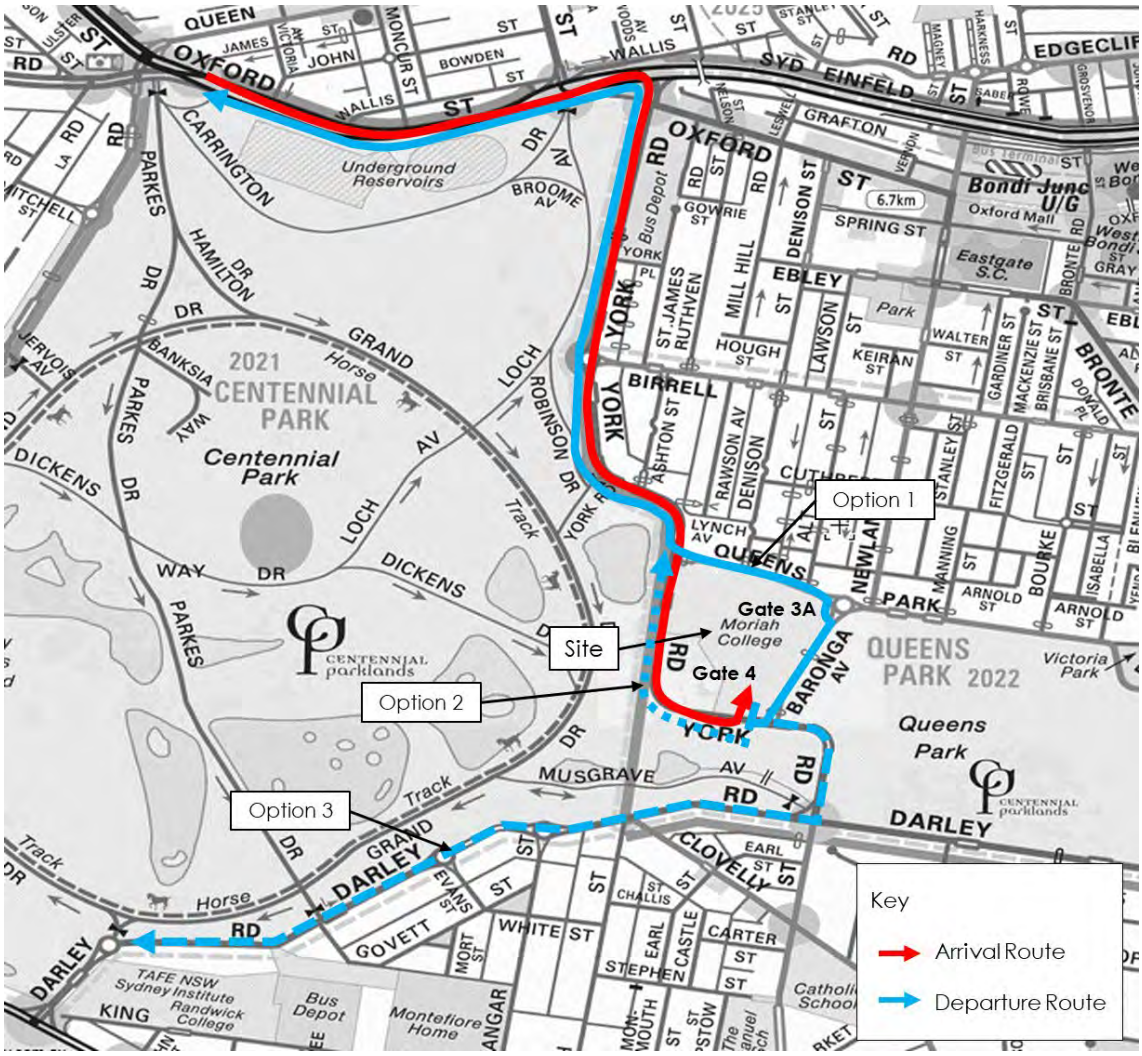
As such, three egress route options could be provided:

- Option 1: Via Baronga Avenue and Queens Park Road to get back to York Road.
- Option 2: The existing median on York Road has to be shortened to allow right turn movement from the site. All construction vehicles exiting Gate 4 are only allowed to leave the site under the supervision of a traffic controller.

- Alternate option 2: Exiting trucks are to continue travelling along York Road towards Darley Street and Anzac Parade.

Figure 3.3 shows the above truck route options.

Figure 3.3: Construction Truck Routes



Source: Street Directory Australia, Sydways

The above alternate routes are to be consulted with Council, local community and relevant authorities prior to implementation.

No queuing or marshalling/parking will be permitted on public streets, unless otherwise approved. Construction vehicles are to radio or call on approach to ensure adequate access to the site is made available.

All construction vehicles are required to enter and exit the site in a forward direction, unless otherwise approved.

3.6 Construction Vehicle Type

All construction activities will be carried out by small to heavy rigid vehicles, no larger than a 12.5 long heavy rigid vehicle. A summary of the construction vehicles expected during each construction stage of the works is provided in Table 3.3.

Table 3.3: Proposed Construction Vehicle

Construction Stage	Construction Vehicle Types
1. Stage 1 Demolition	12.5m heavy rigid vehicles
2. Stage 1 Bulk Excavation, Construction and Fit-out	8.8m medium rigid vehicles
3. Subsequent Demolition and Landscaping	8.8m medium rigid vehicles 6.4m small rigid vehicles commercial vans/utility type vehicles

Swept path analysis has been undertaken using a 12.5m long heavy rigid vehicle and 8.8m long medium rigid vehicle. The swept path analysis indicates that appropriate vehicle access can be accommodated to/from the site. All expected construction vehicles will enter and exit the site in a forward direction. This swept path analysis is provided in Appendix B.

3.7 Materials and Handling Area

All materials handling and plant equipment, including waste storage, are expected to be wholly stored on-site within the works site. It is not expected that any public road will be required for such purposes. However, if temporary use of any public road is required for temporary storage purposes or the like, prior consultation with Council will be undertaken. All relevant permit approvals will also be obtained prior to the commencement of such activities.

3.8 Road Occupancy License Requirements

Any construction activities that will impact on the operational efficiency of the State road network will require a road occupancy license (ROL) prior to the commencement of such construction activities. The Contractor will be responsible to obtain all relevant ROL's as required.

3.9 Works Zone Requirements

No on-street work zones will be required as part of the works. At this stage, it is expected that all loading and unloading associated with the construction activities will be undertaken wholly within the site.

4 Construction Traffic Assessment and Implications

4.1 Construction Vehicle Traffic Generation

The estimated traffic movements associated with the construction activities are not yet known during this stage. However, as an indication, a summary of the expected traffic movements during each stage of the construction is shown in Table 4.1. These numbers may be refined once the construction methodology progresses further by the Contractor.

Table 4.1: Summary of Expected Construction Traffic Movements

Construction Stage	Duration	Daily Two-Way Movements	Hourly Two-Way Movements
1. Demolition	4 months	Up to 60 per day	Up to 6 per hour
2. Bulk Excavation, Construction and Fit-out	18 months	Up to 100 per day	Up to 10 per hour
3. Subsequent Demolition and Landscaping	12 months	Up to 60 per day	Up to 6 per hour

The proposed construction traffic generation is considered to generate a modest level of vehicular traffic, with up to10 truck movements (two-way) per hour expected during peak construction activities. This is not expected to result in any noticeable traffic effects to the nearby intersections.

Comparably, it is noted that nearby intersections carry significantly higher traffic flows than that generated by the proposed construction activities amounting to circa 1,600 to 2,700vph during peak periods, including 50-80 heavy vehicle movements per hour.

It is further noted that variances in traffic from day to day could be up to 10 per cent. Therefore, an expected construction traffic level of 10 truck movements during the busiest peak period would not create any material change in the performance of the nearby road network.

It is also proposed that no construction vehicle movements to/from the site will be permitted during school peak drop off and pick up times (i.e. between 7:30am and 8:30am and between 3:00pm and 3:30pm), unless otherwise approved.

As such, the proposed construction activities could not be expected to result in adverse impact on the surrounding road network during the peak hours. Further to this, construction vehicles will be required to adhere to the designated construction routes to ensure appropriate construction routes are being used to/from the site.

4.2 Pedestrian and Cycle Access

Pedestrian and cycle access will be maintained as per existing conditions during the project. It may be necessary to temporarily close part of the pedestrian footpath on Baronga Avenue to facilitate pavement works immediately adjacent the upgraded Gate 3 entry. This is expected to occur for a period of three-weeks. Appropriate hoarding and traffic control management measures and advisory signage will be in place to ensure pedestrian safety at all times.

All relevant permit approvals will be obtained from Council (e.g. Class A and B Hoarding), prior to the commencement of any work. Additionally, the Contractor will be responsible to liaise with the College to ensure safe pedestrian routes are maintained at all times to/from the site.

4.3 Public Transport Facilities

The proposed construction activities are not expected to result in any changes to existing public transport services. Consultation with all key stakeholders shall be undertaken prior to the commencement of any construction works to ensure minimal disruption to the surrounding road network, particularly existing special school bus services.

4.4 Emergency Vehicles and Heavy Vehicles

No special provisions for emergency service vehicles or heavy vehicles are required as part of the proposed construction works. Emergency and heavy vehicle access shall be maintained at all times.

4.5 Adjoining Properties and Local Access

The proposed construction works will not impact existing local access to/from properties. Local access to properties will be maintained at all times during the works.

4.6 Construction Worker Parking

The anticipated number of construction staff is not yet known at this stage. However, no on-site vehicle parking will be provided during school hours. All workers will be encouraged and expected to use public transport to travel to/from the site. This will be incorporated in the workers induction program to ensure minimal parking impact on surrounding streets. It is however expected that construction activities outside of the school hours (e.g. during school holidays) could use the existing car parking areas, subject to consultation with the College.

4.7 Other Construction Activities / Projects

During the construction works, there are no known nearby major construction activities occurring in the area.

5 Construction Traffic Management Measures

5.1 Traffic Management Measures

A site-specific traffic control plan (TCP) has been prepared to accompany this CTMP and is presented in Appendix C. Traffic advisory signage will be implemented along York Road and Baronga Avenue.

Roads and Maritime accredited traffic controllers will be assigned at the vehicle access points to assist construction trucks when accessing the site. At no time will traffic controllers be permitted to stop traffic on the public streets to facilitate trucks entering or exiting the site, unless otherwise approved. Traffic controllers will only be able to assist, manage and guide construction trucks out of the site under suitable gaps in traffic.

All advisory road signage will be installed in accordance with AS1742.3 Manual of uniform traffic control devices - Traffic control devices for works on roads and the Roads and Maritime Services Traffic Control at Worksites Manual. Signs will be installed and maintained throughout the construction period.

5.2 Vehicle Access

Construction vehicles will radio/call the site office on approach to ensure a loading area is available within the works site. All loading and unloading activities will be undertaken within the works site during the approved work hours. If there are any materials spilt onto the road, site personnel and equipment will rectify the issue accordingly, subject to appropriate OH&S provision.

5.3 Heavy Vehicle Loads

All drivers will be required to adhere with the posted vehicle load limits on all roads and not overload vehicles beyond its maximum loading limits and/or relevant approvals.

5.4 Truck Routes

Protocols must be in place to ensure:

- site induction to include procedures for accessing the site
- drivers adhere to the nominated truck routes, as shown in Figure 3.3
- drivers are aware that pedestrians and cyclists are in the vicinity of the site
- drivers are aware of the sign posted speed limits.

5.5 Construction Worker Parking

As indicated previously, onsite car parking will not be available during the works. However, a tool drop-off and storage facility is expected to be provided on-site. This will allow construction workers to drop off and store their tools, which will encourage them to use public transport to travel to and from the site.

Taking the above into consideration, it is proposed to implement the following measures to encourage workers to use public transport:

- provide an on-site tool drop-off and storage facility to allow tradespeople to drop off and store their specific machinery for the project
- inform staff during the induction and regular management meetings that no car parking will be available for staff
- instruct staff to use public transport to access the site during the induction and regular management meetings, and
- display public transport timetable information at key locations within the work site and ensure that it is easily accessible by staff.

5.6 Site Inspection and Record Keeping

The construction operation would be monitored to ensure that it proceeds as set out in the Construction Management Plan provided by the Principal Contractor. A daily inspection before the start of construction activity is to take place to ensure that conditions accord with those stipulated in the plan and that there are no potential hazards. Any possible adverse impacts are to be recorded and dealt with as they arise.

5.7 Site Induction

All staff employed on the site by the appointed contractor will be required to undergo a site induction. The induction will include permitted access routes to and from the works site for site staff and delivery vehicles as well as standard environmental, OH&S, driver protocols and emergency procedures. The workers are to be informed to use public transport to access the site during the induction.

6 Conclusion

This CTPMP has been prepared to document the proposed construction activities and associated construction traffic management measures necessary to facilitate construction of the proposed development at Moriah College, Queens Park.

The key findings contained in this CTMP are as per below:

- The construction of the proposed development is expected to generate up to 10 truck movements per hour (two-way) during peak construction activities.
- It is expected that no construction vehicle movements to/from the site will be permitted during school peak drop off and pick up times (i.e. between 7:30am and 8:30am and between 3:00pm and 3:30pm), unless otherwise approved.
- Given the expected low volume of construction vehicles, construction vehicle movements to and from the site can be satisfactorily accommodated in the surrounding road network.
- No pedestrian or cyclist facilities will be impacted as a result of the construction activities.
- It is proposed that loading/unloading of trucks is to occur within the site, with construction vehicle access provided off York Road. During the initial works, temporary construction vehicle access will be provided off Baronga Avenue via the Gate 3A and 4.
- A number of driver protocols will be established as part of the site induction procedure for drivers to ensure the safety of motorists, pedestrians and cyclists.
- Truck drivers are to be instructed to use the designated truck routes to/from the site.

In summary, it is concluded that the proposed traffic control measures will adequately address potential implications associated with proposed construction activities. This CTPMP fulfils the requirements of the SEARES relating to SSD-10352.

Appendix A

Staging Plans

QUEENS PARK ROAD

HIGH SCHOOL

AUSGRID ACCESS RAMP CONSTRUCTION

DEMOLISHED IMMEDIATELY

BUILDING S DEMOLISHED END PHASE 1 Construction

RECONFIGURED ACTIVE ZONE

S

BARONGA AVE

GATE 1

RETAIN SUBSTATION & PARTIAL DEMOLITION OF FIRST FLOOR

SUBSTATION

E

D

Existing gate to remain in use

CENTENNIAL PARK

YORK ROAD

SCHUL

D

A

FORECOURT

NEW CEREMONIAL GATE

GATE 3

QUEENS PARK

New Roundabout and Parking

C

COLONNADE

Z

B

BANKSIA RESERVE

PHASE 1

Construction hoarding

Existing Gate 4A removed and walled up

GATE 4

YORK ROAD

Demolish and make good after new roundabout and pickup is completed

TO BE DEMOLISHED
1:500

fjmt

DEMOLITION 1

MCMSC - MORIAH COLLEGE

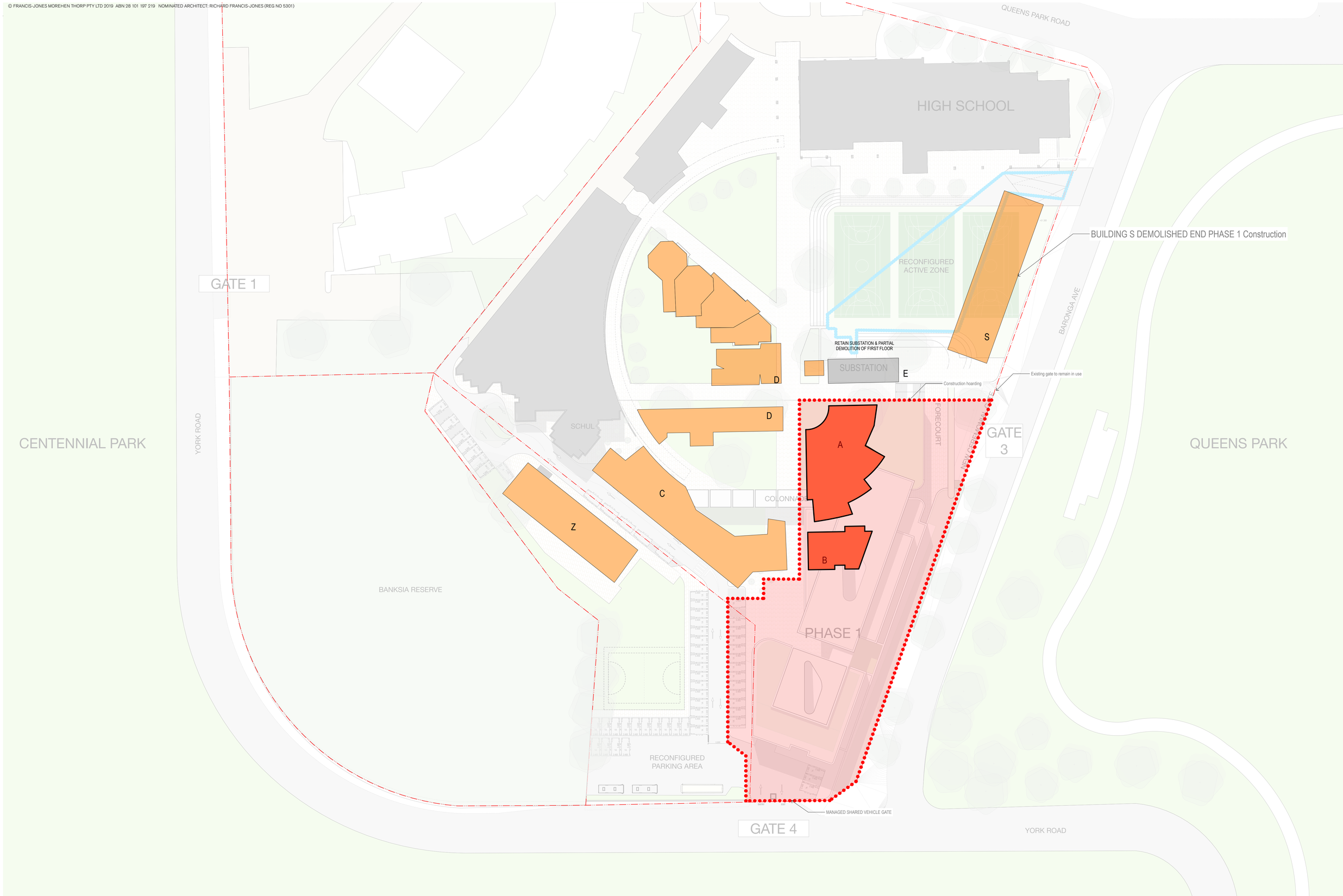
0 5 10 20m

1:500 @ A1

30/8/19

For Information

DA-150



TO BE DEMOLISHED
1:500

fjmt

DEMOLITION 2
MCMSC - MORIAH COLLEGE

0 5 10 20m
1:500 @ A1
For Information

30/8/19
DA-151

QUEENS PARK ROAD

HIGH SCHOOL

BUILDING S DEMOLISHED END PHASE 1 Construction

RECONFIGURED ACTIVE ZONE

Hoarding erected as required to manage access

GATE 1

S

RETAIN SUBSTATION & PARTIAL DEMOLITION OF FIRST FLOOR

SUBSTATION

E

BARONGA AVE

CENTENNIAL PARK

YORK ROAD

SCHUL

D

A

FORECOURT

NEW CEREMONIAL GATE

GATE 3

QUEENS PARK

C

COLONNADE

Z

BANKSIA RESERVE

PHASE 1

RECONFIGURED PARKING AREA

GATE 4

YORK ROAD

BE DEMOLISHED
00

fjmt

DEMOLITION 3

MCMSC - MORIAH COLLEGE

0 5 10 20m

1:500 @ A1

30/8/19

For Information

DA-152

QUEENS PARK ROAD

HIGH SCHOOL

GATE 1

CENTENNIAL PARK

YORK ROAD

Construction hoarding

BUILDING S DEMOLISHED END PHASE 1 Construction

RECONFIGURED
ACTIVE ZONE

DEMOLITION & LANDSCAPING ZONE

Demolish

S

BARONGA AVE

RETAIN SUBSTATION & PARTIAL
DEMOLITION OF FIRST FLOOR

SUBSTATION

E

SCHUL

D

Demolish

A

FORECOURT

NEW CEREMONIAL GATE

GATE
3

C

COLONNADE

Z

Demolish

BANKSIA RESERVE

PHASE 1

RECONFIGURED
PARKING AREA

Existing Guard Hut

GATE 4

QUEENS PARK

YORK ROAD

TO BE DEMOLISHED
1:500

fjmt

DEMOLITION 4

MCMSC - MORIAH COLLEGE

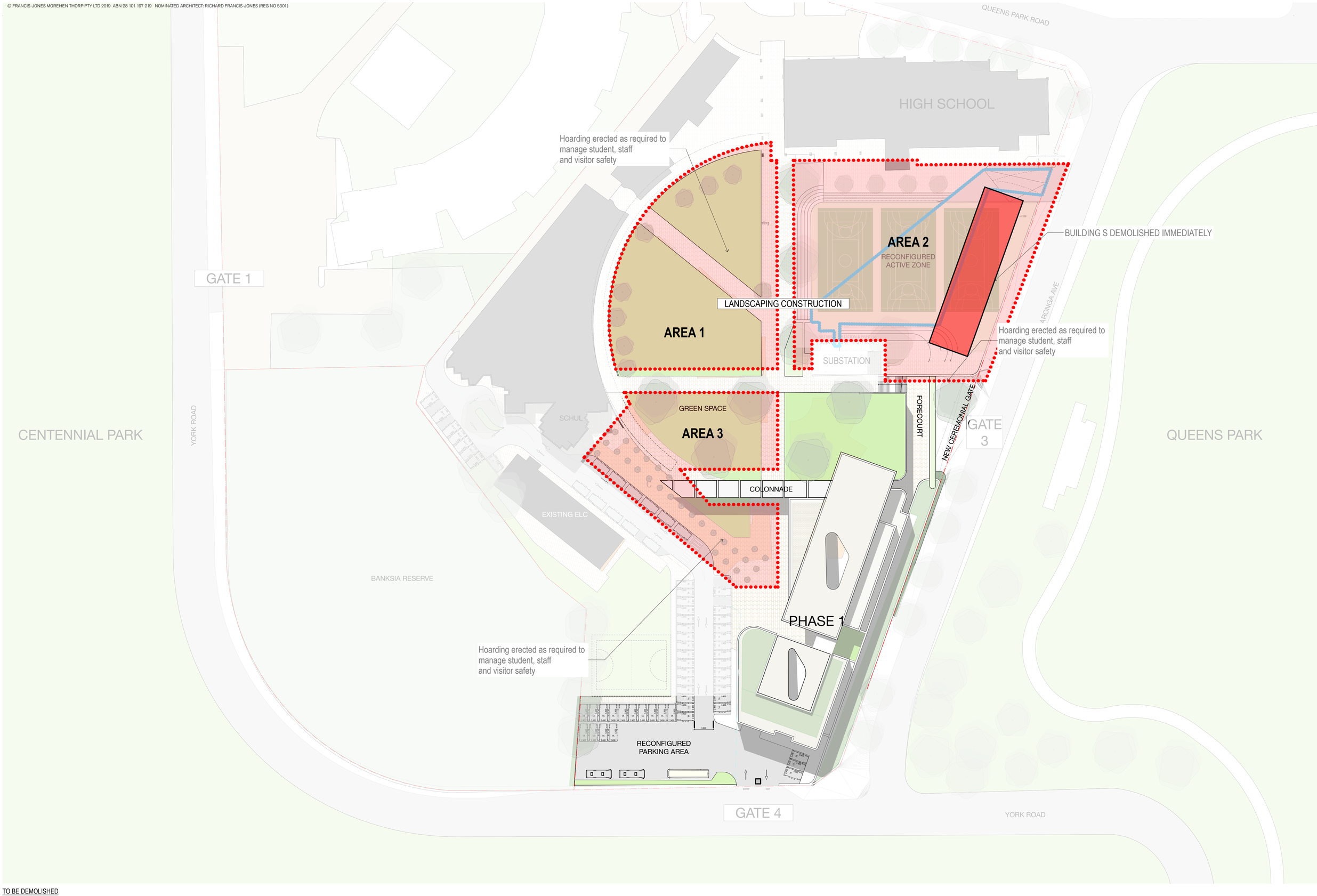
0 5 10 20m

1:500 @ A1

30/8/19

For Information

DA-153



TO BE DEMOLISHED
1:500

fjmt

DEMOLITION 5 (LANDSCAPING)
MCMSC - MORIAH COLLEGE

0 5 10 20m
1:500 @ A1
For Information

30/8/19
DA-154

QUEENS PARK ROAD

HIGH SCHOOL

GATE 1

CENTENNIAL PARK

YORK ROAD

RECONFIGURED
ACTIVE ZONE

DEMOLITION OF FIRST FLOOR

SUBSTATION

E

BARONGA AVE

SCHUL

GREEN SPACE

A

FORECOURT

NEW CEREMONIAL GATE

GATE
3

QUEENS PARK

C

COLONNADE

Z

F

BANKSIA RESERVE

PHASE 1

RECONFIGURED
PARKING AREA

GATE 4

YORK ROAD

TO BE DEMOLISHED
1:500

fjmt

PHASE 1 COMPLETE

MCMSC - MORIAH COLLEGE

0 5 10 20m

1:500 @ A1

30/8/19

For Information

DA-155

Appendix B

Swept Path Analysis

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	JN	KH	13/09/19

ttpp transport planning

PROJECT: MORIAH COLLEGE

TITLE: SITE OVERVIEW

DWG No. 19143CAD011 FIGURE 1

DATE STAMP 13 SEPTEMBER 2019

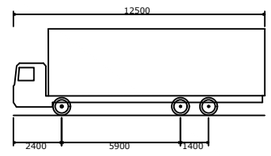
PROJECT No.	SCALE	REV.
19143	1:1300 @A3	A

Filename: 19143CAD011-SWEPT PATH-190830.dwg Date: 13 September 2019 By: Kiet magistrado

YORK ROAD

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	JN	KH	13/09/19

ttpp transport planning

PROJECT: MORIAH COLLEGE

TITLE: SWEPT PATH ANALYSIS
AS2890.2 12.5m HEAVY RIGID VEHICLE - GATE 4 - YORK ROAD - ALL DEMOLITION STAGES

DWG No. 19143CAD011 FIGURE 2

DATE STAMP 13 SEPTEMBER 2019

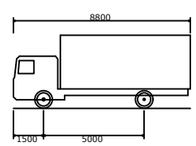
PROJECT No.	SCALE	REV.
19143	1:400 @A3	A

Filename: 19143CAD011-SWEPT PATH-190830.dwg Date: 13 September 2019 By: Karl magistrado

YORK ROAD

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



MRV - Medium Rigid Vehicle

Overall Length	8800mm
Overall Width	2500mm
Overall Body Height	3633mm
Min Body Ground Clearance	428mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	JN	KH	13/09/19

ttpp transport planning

PROJECT

MORIAH COLLEGE

TITLE

SWEPT PATH ANALYSIS
AS2890.2 8.8m MEDIUM RIGID VEHICLE - GATE 4 - YORK ROAD - ALL DEMOLITION STAGES

DWG No. 19143CAD011
FIGURE 3

DATE STAMP 13 SEPTEMBER 2019

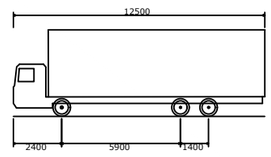
PROJECT No.	SCALE	REV.
19143	1:400 @A3	A

Filename: 19143CAD011-SWEPT PATH-190830.dwg Date: 13 September 2019 By: Karl magistrado

YORK ROAD

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	JN	KH	13/09/19

ttpp transport planning

PROJECT: MORIAH COLLEGE

TITLE: SWEPT PATH ANALYSIS
AS2890.2 12.5m HEAVY RIGID VEHICLE - GATE 4 - YORK ROAD - PHASE 1 & PHASE 2

DWG No. 19143CAD011
FIGURE 4

DATE STAMP: 13 SEPTEMBER 2019

PROJECT No.	SCALE	REV.
19143	1:400 @A3	A

Filename: 19143CAD011-SWEPT PATH-190830.dwg Date: 13 September 2019 By: Karl.magistrado

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	JN	KH	13/09/19

ttpp transport planning

PROJECT

MORIAH COLLEGE

TITLE

SWEPT PATH ANALYSIS
AS2890.2 8.8m MEDIUM RIGID VEHICLE - GATE 4 - YORK ROAD - PHASE 2 COMPOSITE

DWG No. 19143CAD011
FIGURE 5

DATE STAMP 13 SEPTEMBER 2019

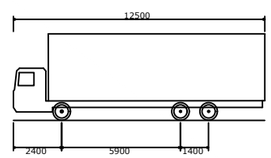
PROJECT No. 19143 | SCALE 1:400 @A3 | REV. A

Filename: 19143CAD011-SWEPT PATH-190830.dwg Date: 13 September 2019 By: Karl magistrado

BARONGA AVENUE

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	JN	KH	13/09/19

ttpp transport planning

PROJECT

MORIAH COLLEGE

TITLE

SWEPT PATH ANALYSIS
AS2890.2 12.5m HEAVY RIGID VEHICLE - GATE 3A - BARONGA AVENUE

DWG No. 19143CAD011 FIGURE 6

DATE STAMP 13 SEPTEMBER 2019

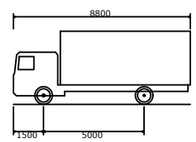
PROJECT No.	SCALE	REV.
19143	1:400 @A3	A

Filename: 19143CAD011-SWEPT PATH-190830.dwg Date: 13 September 2019 By: Karl.magistrado

BARONGA AVENUE

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



MRV - Medium Rigid Vehicle

Overall Length	8800mm
Overall Width	2500mm
Overall Body Height	3633mm
Min Body Ground Clearance	428mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	JN	KH	13/09/19

ttpp transport planning

PROJECT

MORIAH COLLEGE

TITLE

SWEPT PATH ANALYSIS
AS2890.2 8.8m MEDIUM RIGID VEHICLE - GATE 3A - BARONGA AVENUE

DWG No. 19143CAD011 FIGURE 7

DATE STAMP 13 SEPTEMBER 2019

PROJECT No.	SCALE	REV.
19143	1:400 @A3	A

Filename: 19143\CAD\11-SWEPT PATH-190830.dwg Date: 13 September 2019 By: Karl.magistrado

Appendix C

Traffic Control Plan

TRAFFIC MANAGEMENT NOTES:

1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
3. ALL SIGNS TO BE MINIMUM SIZE A.
4. ALL SIGNS TO BE CLASS 1 REFLECTIVE OR DIAMOND GRADE.
5. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
6. ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE RMS "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER5 (2018) AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
7. THIS TRAFFIC CONTROL PLAN MUST BE SETUP BY A PERSON HOLDING AN "APPLY TRAFFIC CONTROL PLANS" (YELLOW TICKET) AND THE RTA TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
8. IT IS THE SITE FOREMAN'S RESPONSIBILITY TO ENSURE THE FOLLOWING:

- THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.
- VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES
- PEDESTRIAN ACCESS AROUND THE WORK AREA TO BE MAINTAINED AT ALL TIMES
- AT ALL TIMES UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE
- IF THERE IS NO DESIGNATED SITE FOREMAN, THE RESPONSIBILITY SHALL FALL ON THE CONTRACTOR OF WORKS

9. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009
10. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH THE SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS MADE TO SUIT SITE CONDITIONS.
11. ALL CONSTRUCTION VEHICLE ACTIVITY SHOULD BE MINIMISED, WHERE POSSIBLE, DURING PEAK PERIODS.
12. ROAD WORK SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE

QUEENS PARK ROAD

BARONGA AVENUE

YORK ROAD

T1-34 W5-22 50m

T1-8 PREPARE TO STOP W5-22 W8-5 100 m 50m

T1-5 50m

T1-5 W8-5 100m W5-22 T1-8 PREPARE TO STOP W5-22 50m

T1-34 50m

T1-5

N

LEGEND

- CONSTRUCTION WORKS AREA
- WORKS ZONE
- ACCESS GATE
- SIGNPOST
- TRAFFIC CONTROLLER

CERTIFICATION

THE UNDERSIGNED HAS OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN" CERTIFICATION.

CERTIFICATE NO: 0051973487
JESSICA SZETO

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	JN	KH	13/09/19

ttpp transport planning

PROJECT: MORIAH COLLEGE

TITLE: TRAFFIC CONTROL PLAN

DWG No. 19143CAD012 FIGURE 1

DATE STAMP 13 SEPTEMBER 2019

PROJECT No. 19143 | SCALE NTS | REV. A

By: Karl.magistrado
Date: 13 September 2019
Filename: 19143CAD012-TCP-190913.dwg

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