



Oran Park High School 390 South Circuit, Oran Park

MANAGEMENT PLAN

Reference: 18.452r03v01 Date: August 2019



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DOCUMENT VERIFICATION

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TRAFFIC CONTROL PLAN CERTIFICATES

Prepare a Work Zone Traffic Management Plan			
Name	Vince Doan	Certificate No.	0052002098



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1. INTRODUCTION

TRAFFIX has been commissioned by Hindmarsh Construction Pty Ltd to prepare a Construction Traffic and Pedestrian Management Plan (CTPMP) report for the construction of Oran Park High School, and alterations and additions to Oran Park Primary School, located at 390 South Circuit, Oran Park. The development is approved under SSD 7968, which was granted by the NSW Government on 14 December 2017.

This CTPMP relates to the five (5) construction stages, as summarised below and shown in **Figure 1**.

- Stage 1a: Public School (Block PE, PF & PG) and Carpark Extension;
- Stage 1b: Block HA, HB, HC & HE and the carpark along Holden Drive;
- Stage 2a: External landscaping area;
- Stage 2b: External landscaping area and basketball court; and
- Stage 2c: Block HD, including surrounding landscaping areas and external works.



Figure 1: Stages of Construction



2. CTPMP REQUIREMENTS

2.1 Traffic Control Plan

The Traffic Control Plans (TCPs) that are included in this report, should be implemented taking due account of on-site conditions as will occur over the construction period. Accordingly, construction crew are expected to respond in a pro-active manner to ensure that this plan is implemented to maximum effect and with no obvious safety issues being overlooked. In particular, the following matters are considered noteworthy:

- All signs are to be placed where clear visibility is available;
- Installations should be checked intermittently during the course of the day/s; and
- A Roads and Maritimes Services (RMS) certified Traffic Controllers shall be on-site during work hours to supervise vehicle and pedestrian movements.

It is noted that TRAFFIX is responsible for the preparation of these CTPMP only and not for its implementation, which is the responsibility of the project manager/builder.

2.2 Development Consent CTPMP Requirements

In addition to the above, it is noted that the Development Consent outlines a requirement for the preparation of a Construction Traffic and Pedestrian Management Plan. Specifically, Condition B22 states the following:

Construction Traffic and Pedestrian Management Plan

- a) Prior to the commencement of works on the Subject Site, a Construction Traffic and Pedestrian Management Plan (CTPMP) must be prepared for the development by a suitably qualified expert and in consultation with Council. The CTPMP must specify, but not be limited to, the following:
 - i) identification of construction traffic routes for all required vehicles during construction, inclusive of any crane delivery, including any known road closures and consideration of alternate routes and construction traffic volumes (including Heavy vehicle/spoil haulage) on these routes;



- ii) details of construction vehicle movements including parking, dedicated vehicle turning areas, and ingress and egress points;
- iii) discussion of construction impacts that could result in disruption of traffic, public transport, pedestrian and cycle access, access to public land, property access, including details of oversize load movements, and the nature and duration of those impacts;
- iv) discussion of potential cumulative construction impacts on the surrounding road network as a result of the simultaneous construction of adjoining developments;
- v) details of management measures to minimise traffic impacts, including temporary road work traffic control measures and measures to minimise peak period congestion;
- vi) details of measures to maintain or provide alternative safe and accessible routes for pedestrians throughout the duration of construction;
- vii) details of measures to maintain connectivity for cyclists, with particular emphasis on providing adequate access between key existing cycle routes for commuter cyclists;
- viii) details of methods to be used to communicate proposed future traffic changes to affected road users, pedestrians and cyclists;
- ix) an adaptive response plan which sets out a process for response to any traffic, construction or other incident; and
- x) mechanisms for the monitoring, review and amendment of the CTPMP.
- b) The Applicant must submit a copy of the CTPMP to the Department and Council, prior to commencement of work



3. EXISTING CONDITIONS

3.1 Location and Site

The site in relation to the construction of the Oran Park High School is located on 390 South Circuit, Oran Park. It is situated approximately 10.3 kilometres northwest of Campbelltown CBD and is legally known as Lot 1000 in DP 1164435. More specifically, it is located on the northeast corner of the South Circuit and Holden Drive intersection.

The site is irregular in configuration with a total site area of approximately 48,965m². It has a northern boundary to Oran Park Primary School of 450 metres and an eastern boundary to a vacant lot of 173 metres. The southern frontage to Holden Drive and western frontage to South Circuit measures 273 and 95 metres, respectively.

It should be noted that construction works involving the car park expansion at the northwest corner of the site should be referred to the Traffic Control Plan Statement prepared by TRAFFIX (reference: 18.452r02v01, dated 25 June 2019).

Vehicular access to the site is currently provided via two (2) driveways along the southern frontage of Holden Drive.

A Location Plan is presented in Figure 2, with a Site Plan presented in Figure 3.





Figure 2: Location Plan





Figure 3: Site Plan



3.2 Road Network

The road hierarchy in the vicinity of the site is shown in Figure 4 with the following roads of particular interest:

The Northern Road: an RMS Main Road (MR 154) that generally traverses in a north-south direction between the M4 Western Motorway in the north and Camden Valley Way in the south. It is typically subject to 80km/hr speed zoning and accommodates one lane of traffic in each direction. It should be noted the RMS are upgrading approximately 35 kilometres of The Northern Road as part of the Western Sydney Infrastructure Plan. Upgrades between The Old Northern Road in Narellan and Jamison Road in South Penrith will provide three (3) to four (4) traffic lanes in either direction within a divided carriageway.

Peter Brock Drive:

a local collector road that traverses in an east-west direction between Perkins Drive in the east and The Northern Road in the west. It is subject to 60km/hr speed zoning and accommodates two (2) lanes of traffic in each direction. It should be noted that the eastern end of Peter Brock Drive continues onto a gravel road east of Perkins Drive.

Dick Johnson Drive: a local road that has recently been built, noting that construction and further connections to the road are still ongoing. At the time of this report, Dick Johnson Drive traverses east-west between Madden Street in the east and a roundabout at Steward Drive. accommodates two (2) lanes of traffic in each direction, separated by a central island median. Along the frontage of the site, Dick Johnson Drive permits kerbside parking at both sides of the road, which can limit traffic flow to a single lane in either direction.

Oran Park Drive:

a local road that traverses in a north-south direction between Dick Johnson Drive in the north and Camden Valley Way in the south. Within the vicinity of the site, it is subject to 60km/hr speed zoning and accommodates two (2) lanes of traffic in each direction.



Holden Drive:

a local road that traverses in an east-west direction between Oran Park Drive in the east and South Circuit in the west. Within the vicinity of the site, it is subject to 60km/hr speed zoning and accommodates a single lane of traffic in each direction. Holden Drive permits unrestricted kerbside parking.

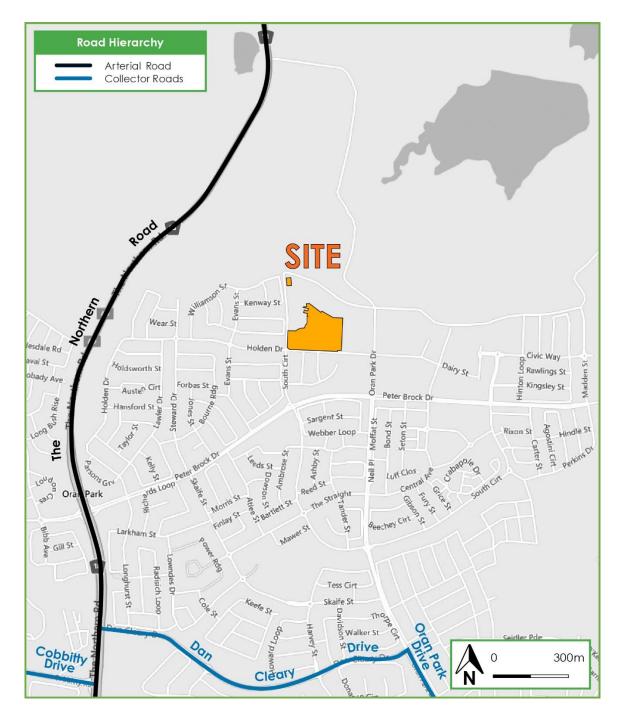


Figure 4: Road Hierarchy



3.3 Public Transport

Standard transport planning guidelines state that a development is advantageously located to benefit if it is within 400 metres (optimal walking distance) of a bus stop. Accordingly, the bus stops in the locality are presented in **Figure 5**, with these stops providing services to Campbelltown, Leppington, Minto, Narellan Town Centre and Oran Park Town Centre.

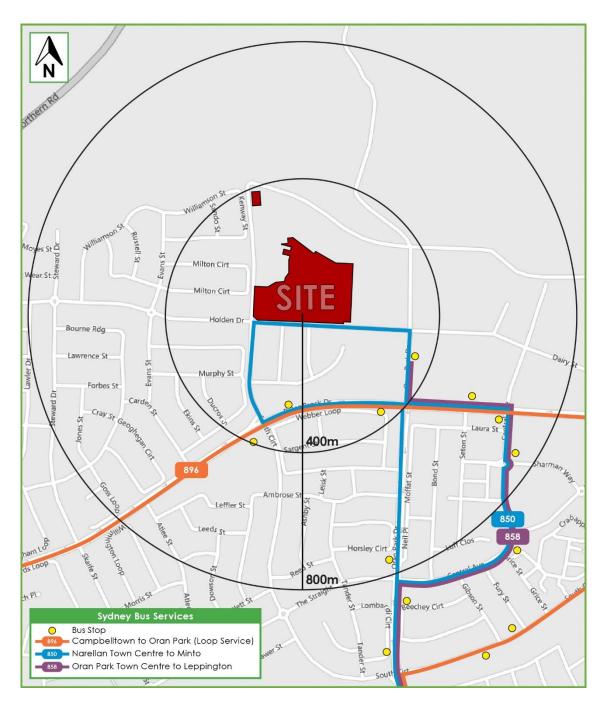


Figure 5: Public Transport



4. OVERVIEW OF CONSTRUCTION PROGRAM

4.1 Times of Operation

The total construction period is expected to occur for less than eight (8) months. The hours of operation will be in accordance with Condition C1 of the DA Conditions of Consent.

The hours of construction, including the delivery of materials to / from the site are summarised as follows:

Monday to Friday 7:00am to 6:00pm;

Saturday 8:00am to 1:00pm; and

Sunday or Public Holiday
No building activities are to be carried out at any time.

The works that are permitted outside the above hours are limited to:

- The delivery of materials is required outside these hours by the Police or other authorities; or
- It is required in an emergency to avoid the loss of life, damage to property and/or to prevent environmental harm; or
- Variation is approved in advance in writing by the Secretary or her nominee.

4.2 Overview of Stages

The project has an anticipated completion date around April 2020, with the proposed areas of construction separated into five (5) construction stages. As previously mentioned, reference should be made to TRAFFIX Traffic Control Plan Statement (ref: 18.452r02v01, dated 25 June 2019) in relation to the construction works involving the car park expansion (part of Stage 1a) in the northwest corner of the site.

Reference should also be made to the Site Establishment Plans presented in **Appendix A**, with the construction stages summarised below.



4.2.1 Stage 1a – Oran Park Primary School Extension

This stage is currently in-progress with an indicative handover date on 22 November 2019. It involves a maximum workforce of 250 people on-site at any one time, with vehicular access proposed from Holden Drive.

The maximum sized vehicle proposed for this stage is an 8.8m long medium rigid vehicle (MRV), with an anticipated average of 15 truck arrivals per day (15 in, 15 out). This is considered a minor volume and as such, will have minimal impacts on the surrounding key intersections.

4.2.2 Stage 1b – Oran Park High School Essential Services

This stage is currently in-progress with an indicative handover date on 10 January 2020. It will involve a maximum workforce of 250 people on-site at any one time, with vehicular access proposed from Holden Drive.

The maximum sized vehicle proposed for this stage is an 8.8m long MRV, with an anticipated average of 15 truck arrivals per day (15 in, 15 out). This is considered a minor volume and as such, will have minimal impacts on the surrounding key intersections.

The proposed works are summarised as follows:

- ▶ Home bases within Blocks HB (16 General Learning Spaces);
- Home bases within Block HC (27 General Learning Spaces);
- General Support spaces contained within Blocks HC and Block HB;
- Main Administration area in Block HA;
- Library within Block HA and Block HC;
- School Hall and Practical Physical Education within Block HE;
- Staff car park and external works;
- Temporary access tunnel between the staff car park and Block HE and Block HC; and
- Temporary construction vehicle access and track from Dick Johnson Drive.



4.2.3 Stage 2a – Oran Park High School Landscape Works

This stage is currently in-progress with an indicative handover date on 31 January 2020. It involves a maximum workforce of 100 people on-site at any one time, with vehicular access proposed via a temporary track from Dick Johnson Drive.

The maximum sized vehicle proposed for this stage is a 6.4m long small rigid vehicle (SRV), with an anticipated average of three (3) truck arrivals per day (3 in, 3 out). This is considered a minor volume and as such, will have negligible impacts on the surrounding key intersections.

4.2.4 Stage 2b – Oran Park High School Landscape Works

This stage has an indicative handover date on 29 February 2020. It will involve a maximum workforce of 50 people on-site at any one time, with vehicular access proposed via a temporary track from Dick Johnson Drive.

The maximum sized vehicle proposed for this stage is a 6.4m long SRV, with an anticipated average of five (5) truck arrivals per day (5 in, 5 out). This is considered a minor volume and as such, will have negligible impacts on the surrounding key intersections.

4.2.5 Stage 2c – Block HD

This stage has an indicative handover date on 11 March 2020. It will involve a maximum workforce of 30 people on-site at any one time, with vehicular access proposed from Holden Drive.

The maximum sized vehicle proposed for this stage is a 6.4m long SRV, with an anticipated average of two (2) truck arrivals per day (2 in, 2 out). This is considered a minor volume and as such, will have minimal impacts on the surrounding key intersections.

The proposed works summarised as follows:

- Canteen, food technology rooms and kitchens;
- Additional home bases for Years 9, 10, 11 and 12; and
- Performance workshop and fitness studio.



5. TRAFFIC MANAGEMENT ARRANGEMENTS

5.1 Pedestrian Control

An RMS certified Traffic Controller will be on-site during school days from 8:00am to 9:30am, and 2:30pm to 4:00pm for all stages to supervise pedestrian movements around the site vehicular accesses in accordance with the TCPs. It is noted that pedestrian demarcation will be utilised along the boundaries of the subject site for pedestrian hoarding and protection.

5.2 Vehicular Access

All construction vehicles will be loading and unloading within the site. as mentioned above, all vehicular accesses shall have an RMS certified Traffic Controller during school days from 8:00am to 9:30am, and 2:30pm to 4:00pm to safely manage pedestrian and construction related vehicles. Reference should be made to the Site Establishment Plan, prepared by Hindmarsh Construction included in Appendix A, which provides a more detailed overview of the proposed site layout.

A swept path analysis of the proposed site access and critical intersections are provided in **Appendix B** demonstrating the largest vehicle accessing and egressing the site during the construction process. The proposed construction vehicle accesses are summarised below.

5.2.1 Holden Drive

It is proposed that vehicular access to the site during Stages 1a, 1b and 2c will be provided via two (2) driveways along the southern frontage of Holden Drive. The Access Gate 1 driveway is located on the southeast corner of the site, while Access Gate 2 driveway is located midway through the southern frontage.

5.2.2 Dick Johnson Drive

It is proposed that vehicular access to the site during Stages 2a and 2b will be provided via a single temporary driveway from the frontage of Dick Johnson Drive. This temporary driveway is located on the northeast corner of the site, noting a central island median on Dick Johnson Drive limiting vehicle movements to left-in and left-out.



5.3 Truck Routes

The proposed truck routes satisfy the requirements of the DA Conditions of Consent, with a copy of the routes provided to all drivers prior to attending the site. It is noted that all truck routes will start or finish on The Northern Road via Peter Brock Drive, with the truck routes for both frontage roads provided below.

A swept path analysis has been undertaken for the key movements and routes of the permissible maximum sized vehicle. This analysis is provided in Appendix B.

5.3.1 Holden Drive

(IN)

(IN)

(OUT)

This proposed route relates to construction vehicle access for Stages 1a, 1b and 2c by a maximum permissible 8.8m long MRV. This route is presented in **Figure 5** and outlined below:

Routes to site:1. Trucks will arrive on Peter Brock Drive, eastbound.

2. Turn left onto Oran Park Drive, northbound.

3. Turn left onto Holden Drive, westbound.

4. Turn right onto site.

Routes from site:

 Trucks will exit left onto Holden Drive, eastbound.

(OUT) 2. Turn right onto Oran Park Drive, southbound.

3. Turn right onto Peter Brock Drive, westbound.

5.3.2 Dick Johnson Drive

This proposed route relates to the temporary construction vehicle access for Stages 2a and 2b by a maximum permissible 6.4m long SRV. This route is presented in **Figure 6** and outlined below:

Routes to site:

 Trucks will arrive on Peter Brock Drive, eastbound.

2. Turn left onto Oran Park Drive, northbound.

3. Turn left onto Dick Johnson Drive, westbound.

4. Turn left onto temporary access.

Routes from site:

 Trucks will exit left onto Dick Johnson Drive, westbound.

2. Perform a U-turn movement at the Steward Drive roundabout.

3. Continue on Dick Johnson Drive, eastbound.

4. Turn right onto Oran Park Drive, southbound.

5. Turn right onto Peter Brock Drive, westbound.



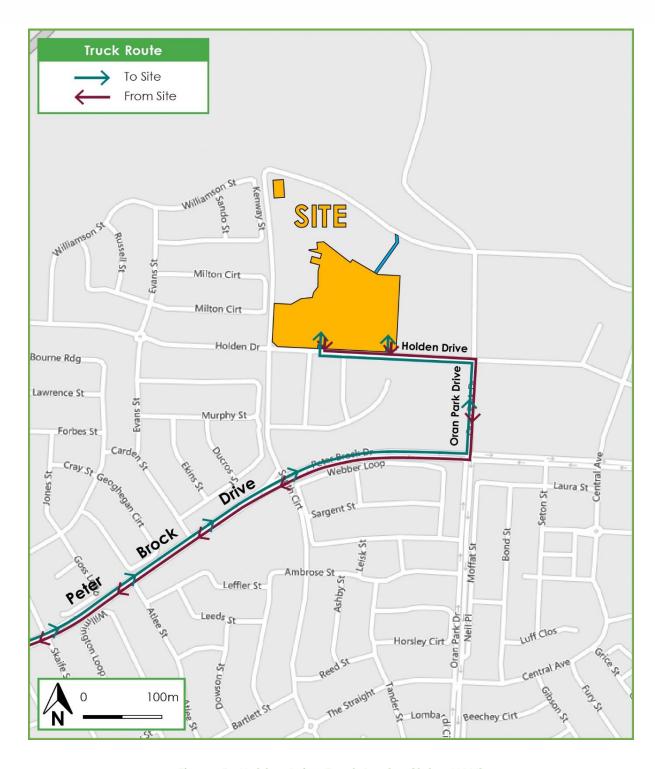


Figure 5: Holden Drive Truck Routes (8.8m MRV)



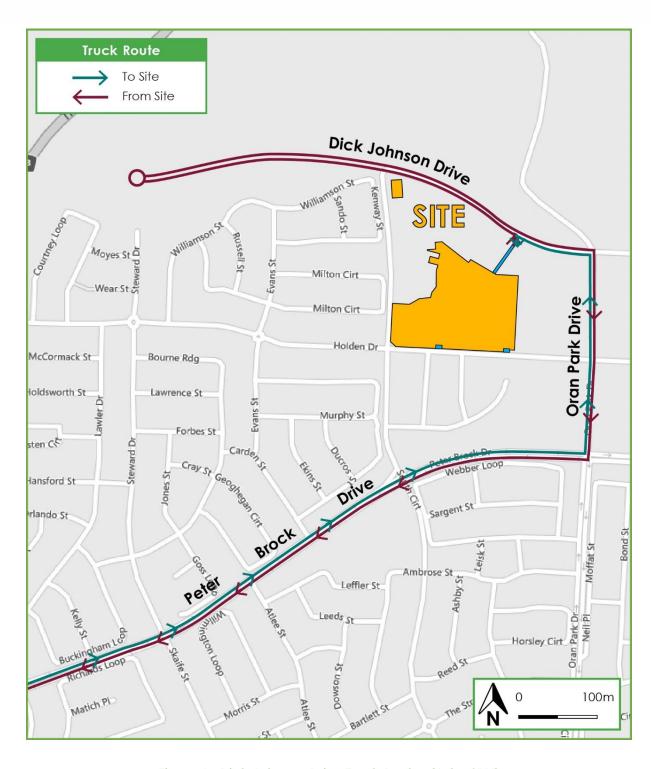


Figure 6: Dick Johnson Drive Truck Routes (6.4m SRV)



5.4

5.4 Crane Requirements

A mobile crane will be utilised during Stage 1a, with all movements and utilisation contained within the subject site. This mobile crane will facilitate all loading / unloading of material, machinery plant, etc. from within the site.

5.5 Traffic Control Plan

The Traffic Control Plans (TCPs) included in **Appendix C** demonstrate the proposed signage / traffic management measures to be adopted for the following works:

- TCP No. 1 Holden Drive Access (Stages 1a, 1b and 2c)
- TCP No. 2 Dick Johnson Drive Temporary Access (Stages 2a and 2b)

The proposed TCPs will ensure that all vehicular and pedestrian traffic is managed safely and efficiently. Theses TCPs have been designed in accordance with the requirements of the RMS *Traffic Control at Work Sites Manual* and is recommended for adoption. In addition, it is noted that copies of the TCPs are to be kept on-site at all times.

5.6 Employee Vehicles

It is proposed that any construction worker driving to site, park their vehicles at the car park, situated at the southeast corner of the site via the Holden Drive access. Alternatively, workers can also park their vehicles at the car park, located east of the site. All workers driving to site will also be encouraged to car-pool with other employees to assist in minimising potential parking demands.

In addition, workers will be encouraged to utilise the existing public transport services in the locality. These bus stops are located within 400 metres and provide regular services to centres such as Campbelltown, Narellan and Leppington Railway Station, which in turn provide connections to the wider bus and train network.

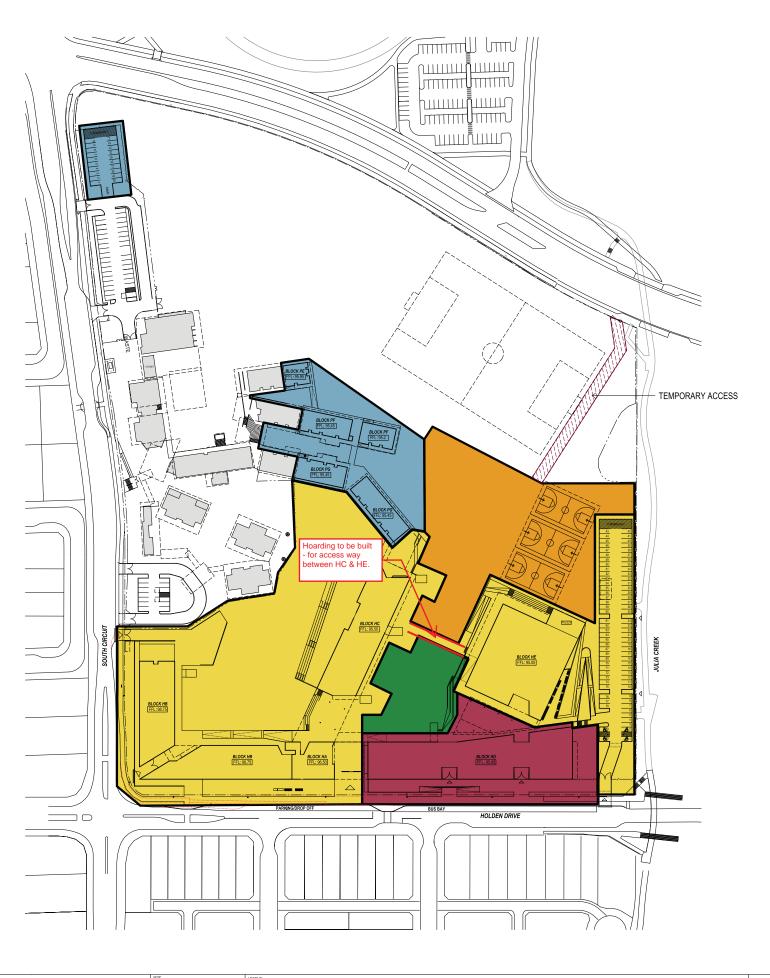
As such, this combination of car-pool and public transport strategies will assist in minimising the parking demands of the construction activities.



6. CONCLUSION

This report should be read in conjunction with other documentation prepared by Hindmarsh Construction relating to the internal construction activities. The plan outlined above is considered satisfactory and will minimise any disruptions to residents / tenants of neighbouring developments, as well as pedestrians in the area. This plan meets all requirements of the RMS Traffic Control at Work Sites Manual and is recommended for adoption.

APPENDIX A Site Establishment Plan



STAGING SEQUENCE

STAGE 1a

STAGE 1b

STAGE 2a

STAGE 2b

STAGE 2c

MAKING IT HAPPEN

ORAN PARK HIGH SCHOOL & PRIMARY SCHOOL SOUTH CIRCUIT & HOLDEN DRIVE ORAN PARK NSW 2570

STAGING PLAN

SCALE 1:1000 @ A1 JULY 2017 3191 ARC AD _00_100

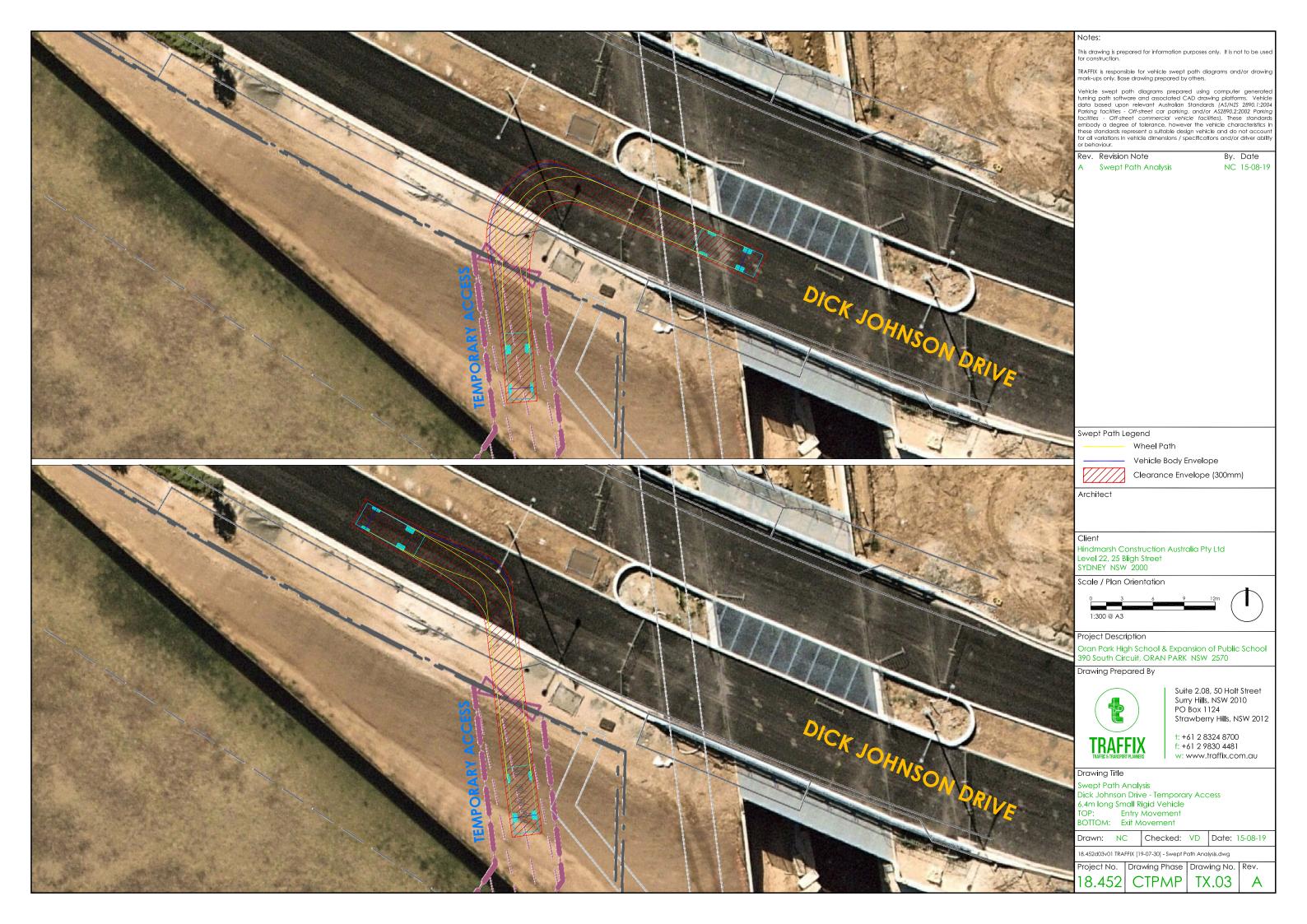
PERUMAL PEDAVOLI NSW Education

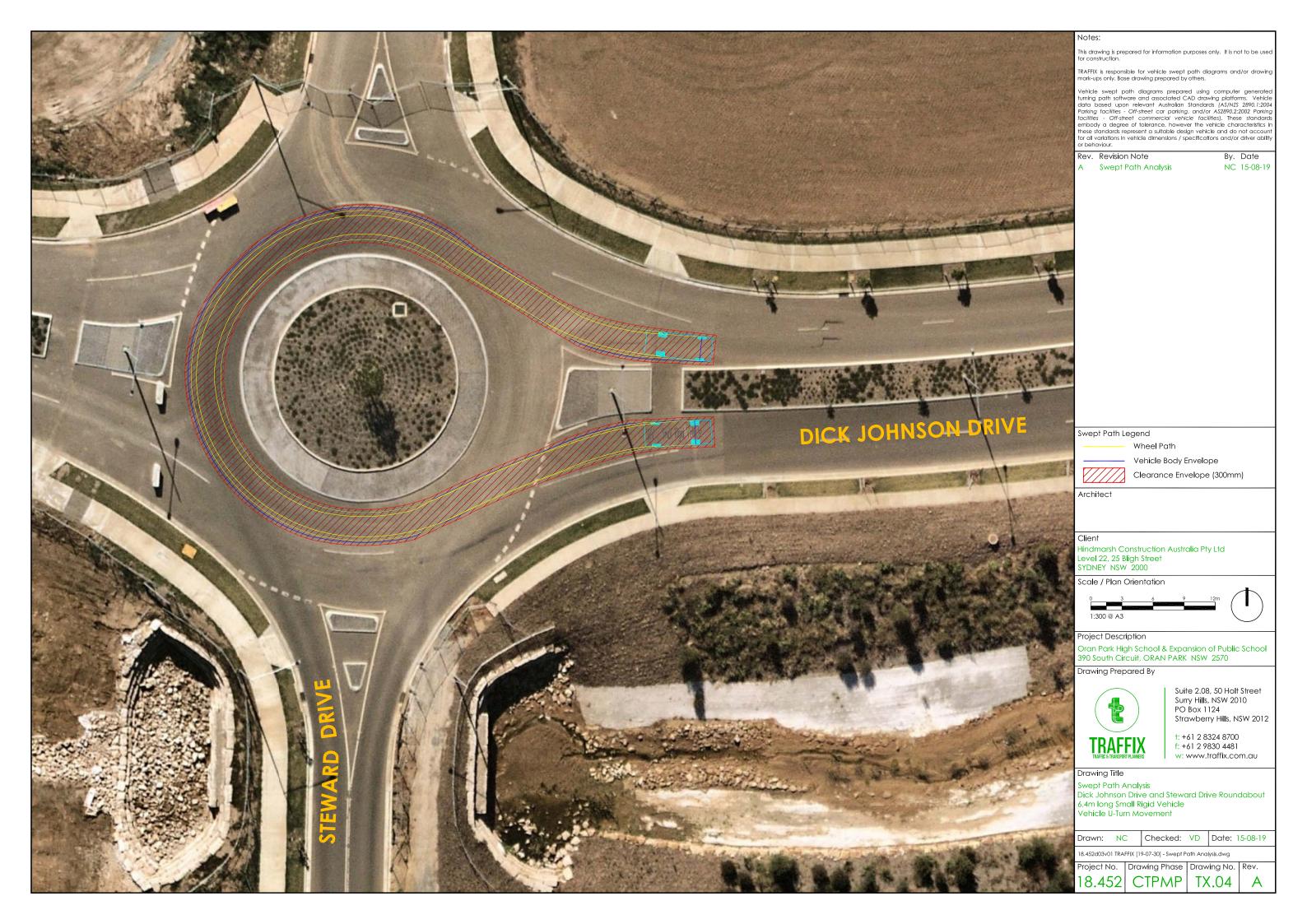
APPENDIX B

Swept Path Analysis









APPENDIX C Traffic Control Plans



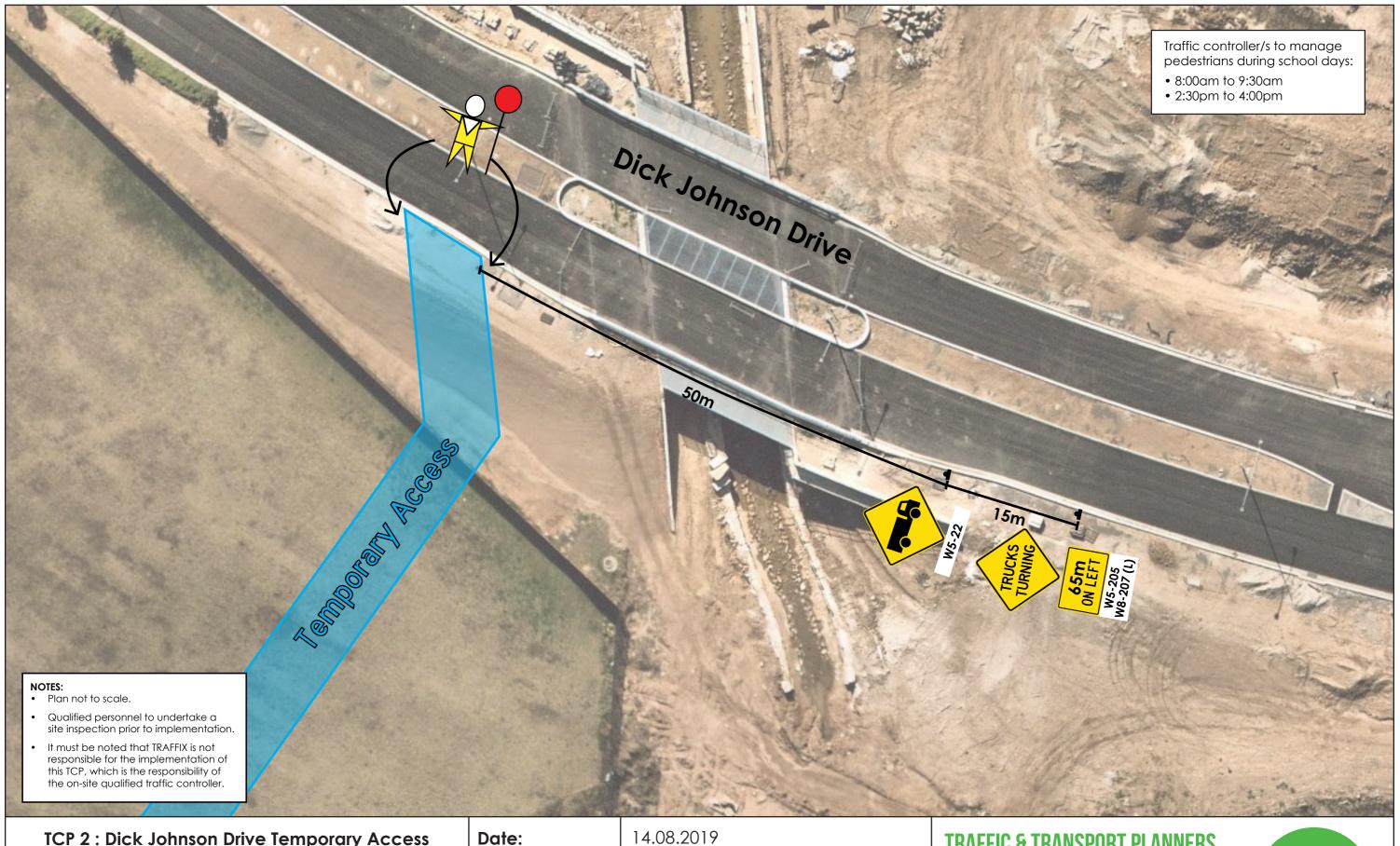
Project: Prepared By: Neil Caga 390 South Circuit, Oran Park Project Number: Approved By: Vince Doan (0052002098) 18.452 Hindmarsh Client: Signature:

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