Reference: 0410l02v1

3 August 2020

info@asongroup.com.au
+61 2 9083 6601
Suite 5.02, Level 5, 1 Castlereagh Street
Sydney NSW 2000
www.asongroup.com.au

Projects + Infrastructure Group
Suite 5.14
50 Holt Street
Surry Hills NSW 2010

Attention: **Robert Woolf**

Subject: **White City Redevelopment – Statement of Fact & Contentions Response**

Dear Robert,

This report, prepared by Ason Group, is a response to the Statement of Fact & Contentions (SOFC) provided by Woollahra Municipal Council (Council) on the Detailed Development Application (DA) submitted for redevelopment of White City at 30 Alma Street, Paddington (the Site). Ason Group previously provided traffic and transport planning advice regarding the redevelopment (the Proposal) including a Transport Assessment (TA) submitted with the detailed DA submission made on 6 December 2019.

Council has made a number of traffic and transport related comments in their SOFC dated 26 May 2020 in relation to the detailed DA. This Response addresses the comments raised by Council.

The following details the particulars of Council's SOFC, and Ason Group responses. The responses have been informed by further work by Ason Group and takes into consideration a meeting with Council on 1July 2020.

On-site Parking and Vehicle Accommodation

Council's Comment

The proposal does not detail adequate on-site parking provision for cars or motorcycles, and the proposed loading bay configurations are unsatisfactory.

Particulars

a) *Parking demand will reach its peak level of 234 spaces between 16:00 and 18:00 during the weekday operations, and 289 spaces between 12:00 and 17:00 during the weekend operations should there be a major sports event.*

b) *The proposed provision of 274 car parking spaces would therefore satisfy the parking requirement for standard daily operation, yet result in a shortfall of 15 spaces relative to the minimum requirement during major sporting events on weekends.*

c) *The conclusion made in the submitted traffic report, stating that weekday and weekend peak hour parking demands are respectively 219 and 263 is queried. The parking rate for each land use*

should remain the same during its hours of operation, or the variation should be otherwise justified with regard to a plan of management or operational traffic management plan (OTMP)

d) *The current OTMP does not provide sufficient information to explain the random decrease of parking demand at different periods of operational hours, and the statement that the proposed provision of 274 car spaces would be sufficient is considered unsatisfactory.*

e) *Section E1.7.1 C1 of the Woollahra DCP 2015 requires provision of 29 motorcycle parking spaces being a minimum of 1 motorcycle parking space per 10 car spaces for all types of development, yet only 28 have been provided*

f) *The loading dock in the basement car park is designed in a tandem parking configuration along with two staff parking spaces, which would require the staff to vacate these two spaces while the loading dock is in operation*

g) *Similarly, the at-grade loading bay is located adjacent and perpendicular to the rear of four parking spaces, which would obstruct the four spaces whilst in operation and even more so whilst the service vehicles are accessing the site, considering a reverse-in manoeuvre is required and at least seven parking spaces would be affected. In this regard, the proposal reduces the effective number of parking spaces provided and is also contrary to Sections E1.9.3 which stipulates that for non-residential development the use of tandem parking is permitted in circumstances where it is not possible to provide side-by-side parking configuration and that tandem spaces must be for employee use only and E1.14.2 of the Woollahra DCP 2015, namely that:*

   Loading bays and service areas should operate independently of other parking areas

h) *The development proposes to utilise four at-grade car parking spaces to accommodate shuttle buses during major sporting events. Such an arrangement would further exacerbate the shortfall in car parking provision*

i) *As a result of the Particulars outlined above, the proposal is contrary to Aim (k) in clause 1.2 of Woollahra LEP 2014 to minimise and manage traffic and parking impacts*

Ason Group Response

Items A-D

Ason Group has been prepared a Parking Statement, appended in **Attachment A**, which details the operational information of the future development and accordingly the parking demand. In addition, Hakoah Club has provided the following:

> *Hakoah Club has undertaken its own independent detailed investigations of parking demand by type of activity, by time, and by day. The Club analysis includes for example, provision for both in-season and outside season activity on the football field, as well as operational data regarding gym uses, class times and program of gym activity day by day. The Club data independently collaborates Ason Group findings and indicate a surplus of parking spaces even at peak times under all normal conditions. The only exception being major events which, by their nature, are restricted to a few occasions each year, and for which special transport arrangements would need to be implemented. For example, shuttle buses from Edgecliff station or Centennial Park.*

Item E

A total of 28 motorcycle spaces have been provided.

Item F

Noted and accepted. The loading bay beneath the conserved southern grandstand is not the primary route for deliveries to the Site. Deliveries will in the main occur at the loading dock to the west of the Club Building from which major deliveries can be distributed across the Site. As the overhead height of the undercover parking area is restricted, only passenger vehicles or light delivery vehicles can access the subject loading bay. Under these circumstances, and given the limited scope and extent of catering activity in the conserved southern grandstand, an arrangement under which staff move their vehicles when needed is considered acceptable.

Item G

The spaces adjacent to the at-grade loading dock are designated for use of staff members only. This was discussed with Council.

Item H

Shuttle buses will be used to assist with management of demand at major events such as competition final football matches or occasional special community events. For football buses transport team members, supporters, and management. The overall impact for shuttle buses is a reduced parking demand in the order of 30-35 spaces (refer to paragraph 2, page 7 for further details). Outside of these periods, as detailed in the Parking Statement, the peak parking demand of 263 spaces is 6 spaces below the overall parking provision. Therefore, the temporary loss of 4 spaces during weekend sporting events, in the context of reduced demand, is considered acceptable.

Construction Management Plan

Council's Comment

The proposed construction management plan (CMP) is unsatisfactory, as it would result in an unacceptable level of disruption to local traffic and the amenity of the neighbourhood

Particulars

a) The CMP should address or make provision for the following:

i. When demolition, excavation and construction works are to be undertaken on school days, all vehicular movements associated with this work must be undertaken between the hours of 9.30am and 2.30pm, in order to minimise disruption to the traffic network during school pick up and drop off times

ii. The amount of trips generated by each size of vehicle during the different stages of construction works should be included in the CMP;

iii. The proposed Gate 2 on Glenmore Road is designed to be exit only, and the design requirements are assessed accordingly. It is required that a left-in-left-out manoeuvre is taken when accessing and egressing the site;

iv. The proposed route of construction vehicles to access and exit the site is not desirable and cannot be supported, as it involves a series of local roads with physical constraints including narrow width that are unsuitable for 12.5m long heavy vehicles. The construction vehicles

would disrupt traffic along the proposed truck route, and significantly impact the amenity of the surrounding neighbourhood.

b) *As a result of the above, the proposal is contrary to Aims (g) to protect amenity and the natural environment and (k) to minimise and manage traffic and parking impacts in clause 1.2(2) of the Woollahra LEP 2014*

Ason Group Response

Item A i)

Following the meeting with Council, it is proposed heavy construction vehicles be permitted to access the Site during the following periods, and restricted at other times:

- 6.00AM – 7.30AM
- 9.30AM – 2.30PM
- 4.30PM – 5.30PM

The timings have been discussed with Council and considered acceptable.

Items A ii)

Ason Group has liaised with P + I Group and Richard Crookes to provide preliminary truck volumes by vehicle size throughout different stages of construction, and is detailed in **Table 1**.

Table 1: Proposed Land Use GFA Breakdown:

Stage	Demolition	Excavation	Foundations	Structure*	Façade	Internal Finishes
Truck Frequency (In / Out movements per day)	20-30	20-30	20	40-50	4-10	40-60
Peak traffic movements per hour	5-7	5-7	5-7	10-15	1-2	10-15
Largest Vehicle Size	12.5m HRV	12.5m HRV	12.5m HRV	12.5m HRV	12.5m HRV	12.5m HRV
Vehicle Mix % of Largest Vehicle Size	80%-100%	80%-100%	60%-80%	60%-70%	70%-80%	80%-90%

** concrete commence 7am to completion of pour*

Item A iii)

Regarding the use of Gate 2 during construction, the proposed Gate 2 would primarily be used for construction works associated with areas adjacent to the gate and would not be used for typical deliveries, and therefore it would not be used frequently and when used it would be exit out only.

Item A iv)

From consultation with the project sponsor (Hakoah Club) and from discussion with Council, Ason Group identifies as an alternative a construction vehicle access route via Old South Head Road and Neild Avenue. Arriving vehicles would then turn left into Lawson Street from Nield Avenue, then travel onward to the Lawson Street intersection with Alma Street, at which point construction vehicles would access the Site via Alma

Street north. Vehicles exiting the Site would do so via Alma Street, before turning right into Lawson Street towards Neild Avenue. Vehicles would then access Boundary Street before turning onto McLachlan Avenue and departing the local road network. These routes are detailed in **Figure 1** and **Attachment B**.

This route was developed in consideration for the concerns expressed about traffic accessing from within greater Paddington (Cambridge Street) and following consultation with Council.

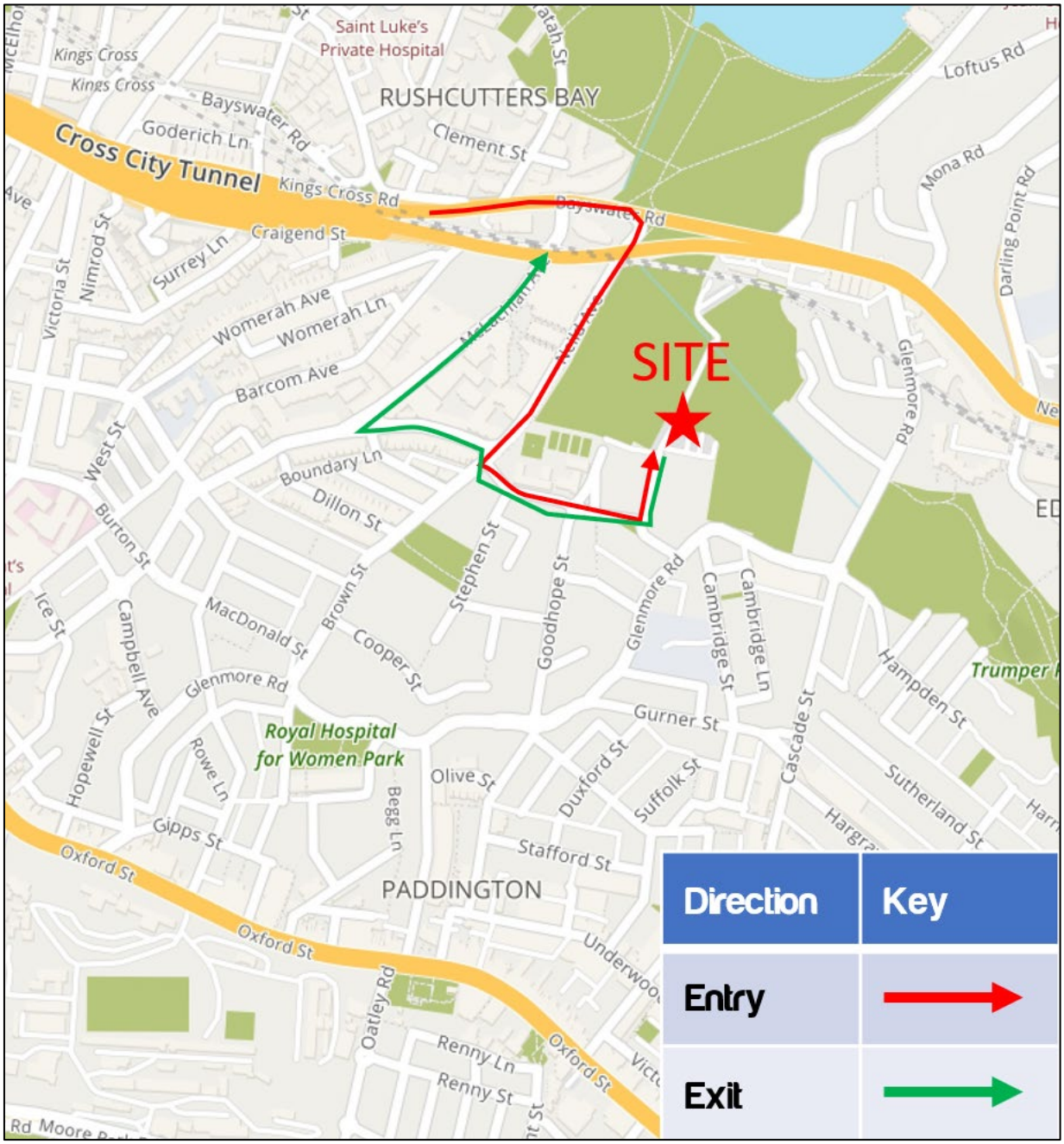


Figure 1: Construction Vehicle Route

We note, however, 12.5m Heavy Rigid Vehicles (HRVs) may experience difficulty in accessing Alma Street from Lawson Street when travelling to the Site, particularly if cars are parked in that area. As a precaution, Ason Group has prepared a preliminary TCP detailing the proposed movement for HRVs in this specific area. The TCP is detailed in **Attachment C**.

Green Travel Plan

Council's Comment

The submitted Green Travel Plan (GTP} required under E1.12.1 of the Woollahra DCP is inadequate to allow for a full and proper assessment of its effectiveness.

Particulars

a) *Further detail is required on the implementation and mechanism for enforcement of the targets outlined in the GTP including actions necessary to ensure the targets will be achieved.*

b) *One of the most effective strategies proposed, the promotion of public transportation, is subject to owner/tenant negotiations and incentives. Further research providing a clearer and more comprehensive GTP is required to prove the effectiveness of the proposed actions and to ensure responsibility for their implementation.*

c) *Should the development be approved, annual reports would be required to provide information on the number of people trips, travel modes by time of day, journey purpose and origin/destination of trips for a minimum of 5 years post occupation, as per the Woollahra DCP cl E1.12 C4*

Ason Group Response

Items A-C

Ason Group has prepared a separate Green Travel Plan which is appended at **Attachment D** which addresses the items raised by Council.

Operational Transport Management Plan

Council's Comment

The submitted Operational Transport Management Plan (OTMP) is inadequate to allow for a full and proper assessment of the proposal.

Particulars

a) *The OTMP does not explain the random decrease of parking demand at different periods during the hours of operation. Further investigation should be carried out in accordance with the operation hours of each facility to address the undersupply of car parking spaces.*

b) *The OTMP proposes to organise shuttle bus services with a 22-seated Toyota Coaster and a 33-seated coach to transport players and supporters from key transport interchanges during large sporting events, which would facilitate the use of alternative transport and thus alleviate car parking demand. A quantifiable analysis should be undertaken to assess the potential effects like the modal split and shuttle bus ridership*

Ason Group Response

Item A

As discussed above, the Parking Statement details the parking demand and peak periods of the land uses on-site in accordance with Council's DCP. As noted in the Parking Statement, it appears that Council has misunderstood the analysis within the DA Traffic report and incorrectly assumed that the parking analysis

relied on OTMP measures. This is however not the case and it is expected that the Parking Statement attached clarifies this point.

Item B

The objective of the provision of a Toyota Coaster and coach is to provide an alternative to single occupancy private car trips thereby reducing the parking demand during weekend game days. This would be implemented by the Hakoah Club and the football clubs that are playing on any given weekend. To calculate the impact of the of the Toyota Coaster and Coach would have on the modal split and parking, a review of the Household Travel Survey Data of 2018/19 for all trips undertaken in the Woollahra Local Government Area (LGA) indicates that 48.8% and 20.5% of trips were undertaken by Car (driver) and Car (passenger), respectively. This corresponds to a car occupancy of 1.4.

Assuming an 85% operating capacity of the Toyota Coaster and coach, the total number of persons utilising the Toyota Coaster and coach would be 47. Applying the car occupancy of 1.4 to the operating capacity of the Toyota Coaster and coach corresponds to a parking demand reduction of 33 spaces. Therefore, this would reduce the peak parking demand detailed within the PS from 263 to 230.

Local Area Traffic Management Scheme

Council's Comment

In accordance with condition B14 of the Concept DA, a Local Area Traffic Management Scheme (LATM) is required for the area bounded by Glenmore Road, Lawson Street, Alma Street, Neild Avenue and New South Head Road to the satisfaction of the Council's Engineering Service Department. The developer must consult with the local schools and community members in the preparation of the LATM. The LATM must include, but is not limited to detailing the measures below to be developed, funded, and implemented at no cost to Council.

Particulars

a) *Glenmore Road Exit Improvement: Modification of the existing concrete median along Glenmore Road and provide additional signposting and pavement markings generally in front of the proposed Glenmore Road egress to provide left-out only egress*

b) *Glenmore Road and Cambridge Street intersection works: Implementation of intersection treatments to calm traffic and allow safer turning movements. The traffic treatments must include are not limited to:*

- *Reconstruct a centre median island, realign line markings and install speed cushions on Glenmore Road;*
- *Kerb extension treatment and new kerb ramps with associated signs and line markings at the intersection of Glenmore Road and Cambridge Street.*

c) *New/upgraded pedestrian facilities surrounding the site:*

- *An Amended Pick-up / Drop-off Access Arrangement: for vehicular circulation is required to minimise the conflicts between school traffic and sports-related traffic, whilst ensuring safety and efficiency of school traffic, as the two proposed options, Management Option 1 and Management Option 2 as detailed in the Ason Group Local Area Traffic Management Report*

are not desirable and cannot be supported. Details on the queuing area including the control point at the site boundary must demonstrate that the queues during peak hours in the surrounding road network can be managed to an acceptable level. The proposed extension of the existing pick-up/drop-off area within Alma Street cannot be supported as it would result in the loss of on-street parking, and an increase to illegal parking and traffic weaving along Alma Street and Lawson Street, thus impairing traffic performance in terms of safety and efficiency in the vicinity

- *Pedestrian Management Option 3B. The Pedestrian Management Options 3A and Option 3C as detailed in the Ason Group Local Area Traffic Management Report are not supported. The development and implementation of a crossing management plan Management Option 3B is supported with more details to be provided regarding a comprehensive and practical crossing management plan.*
- *New/upgraded pedestrian facilities surrounding the White City site to improve safety and access, including the pedestrian crossing on Lawson · Street near the intersection of Lawson Street and Alma Street, where the development would result in an increased turning movements to access the site. Traffic treatments should include but are not limited to:*
    - *Upgrade the existing at-grade pedestrian crossing on Lawson Street, at its intersection with Alma Street, to a raised pedestrian crossing, creating a raised threshold to calm traffic speed and to improve pedestrian safety;*
    - *Adjustment of the existing 'No Stopping' signs, along with other associated parking restrictions surrounding the site and car park entry signage following liaison with Council's Traffic Section*

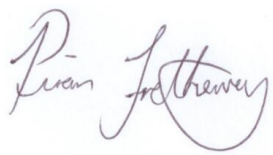
Ason Group Response

Items A-C

Ason Group has prepared a Local Area Traffic Management Scheme which incorporates items discussed in the SOFC as well as considers outcomes of the meeting with Council. This is appended in **Attachment E**.

We trust the above and attached adequately responds to Council's Statement of Facts and Contentions, thereby satisfying your currently requirements. Please contact the undersigned should you have any queries.

Yours sincerely,



Piran Trethewey
Director – Ason Group
Email: piran.trethewey@asongroup.com.au

Attachment A

Parking Statement

Reference: 0410l01v1

3 August 2020

info@asongroup.com.au
+61 2 9083 6601
Suite 5.02, Level 5, 1 Castlereagh Street
Sydney NSW 2000
www.asongroup.com.au

Projects + Infrastructure Group
Suite 5.14
50 Holt Street
Surry Hills NSW 2010

Attention: **Robert Woolf**

Subject: **Parking Statement for the White City Redevelopment; Response to Statement of Facts and Contentions**

Dear Robert,

This Parking Statement (PS) has been prepared by Ason Group for the proposed redevelopment (the Proposal) of the White City complex at 30 Alma Street, Paddington (the Site). Ason Group has previously provided traffic and transport planning advice regarding the Proposal as part of a Transport Assessment (TA) (herein referred to as the DA Traffic report) submitted as part of the Development Application (DA) submission made on 6 December 2019 to Woollahra Municipal Council (Council).

In response to the Proposal, Council issued a number of traffic and transport related comments in their Statement of Facts and Contentions (SOFC) dated 26 May 2020. This PS specifically addresses the comments that relate to the parking provision and analysis provided in the DA Traffic report. The following presents Council's relevant comments.

2. On-site Parking and Vehicle Accommodation

General Comment:

The proposal does not detail adequate on-site parking provision for cars or motorcycles, and the proposed loading bay configurations are unsatisfactory

Particulars:

a) Parking demand will reach its peak level of 234 spaces between 16:00 and 18:00 during the weekday operations, and 289 spaces between 12:00 and 17:00 during the weekend operations should there be a major sports event.

b) The proposed provision of 274 car parking spaces would therefore satisfy the parking requirement for standard daily operation, yet result in a shortfall of 15 spaces relative to the minimum requirement during major sporting events on weekends.

c) The conclusion made in the submitted traffic report, stating that weekday and weekend peak hour parking demands are respectively 219 and 263 is queried. The parking rate for each land use should remain the same during its hours of operation, or the variation should be otherwise justified with regard to a plan of management or operational traffic management plan (OTMP).

d) The current OTMP does not provide sufficient information to explain the random decrease of parking demand at different periods of operational hours, and the statement that the proposed provision of 274 car spaces would be sufficient is considered unsatisfactory.

Firstly, it is noted that in response to Council's SOFC, technical referrals, and submissions, modifications have been made to the plans increasing landscape and trees. As a result, there are now 269 parking spaces on-site, a reduction in 5 spaces from the 274 spaces in the DA submission plans. The scale of the development and uses remains unchanged from the DA submission plans.

Two parking demand scenarios have been assessed and considered as part of the DA: (1) Weekday Operations and (2) Weekend Operations. With regard to Weekday Operations, strict application of Council's DCP parking controls concludes, conservatively, that the Proposal would require 234 spaces. Provision of 269 parking spaces clearly satisfies a parking requirement of 234 spaces.

With regard to Weekend Operations, a strict numerical application of Council's DCP parking rates indicates an upper limit requirement that exceeds on-site parking provision. The DA Traffic report includes a numerical parking requirement of 309 spaces. Council SOFC suggests a requirement of 289 spaces (it is unclear how Council has arrived at this number).

In accordance with the DCP, and acknowledging the mixed-use and temporally variable parking demand of different uses, the DA Traffic report includes a demand-based assessment of car parking across a standard weekend day. The assessment indicates that the peak parking requirement for Weekend Operations is 263 parking spaces.

Clause E1.8.3 of Woollahra DCP 2015 permits the demand-based assessment approach to parking requirements for mixed-use developments:

> *For mixed use developments, Council may support a reduction in the total required number of non-residential parking spaces where the applicant can demonstrate to the satisfaction of Council that:*
>
> - *overlapping parking demand will occur for different uses; or*
> - *complementary use of spaces will occur for uses with different peak parking demand times.*

Parking Study Objective

In responding to Council's SOFC, while it may appear that the 263-parking requirement was based on OTMP measures, this is not the case. Accordingly, the objective of this PS is to clarify and expand upon the parking analysis undertaken as part of the DA Traffic report, to remove any misunderstanding and demonstrate that the revised car parking provision of 269 parking spaces satisfies both Weekday and Weekend Operations in terms of parking requirement determined under Clause E1.8.3 of the DCP.

Proposed Development

The Proposal provides for the redevelopment and adaptive reuse of existing buildings across the Site, and the construction of a multi-purpose sports precinct with club facilities. **Table 1** provides a breakdown of key components of the Proposal; as mentioned, these remain consistent with the DA submission:

Table 1: Proposed Land Use GFA Breakdown & DCP Numerical Parking Requirement

Tenancy / Land Use	Yield	DCP Parking Requirements
Club (Incl. Restaurant & Amenities)	582 m^2	41
Club Sports Bar	31 m^2	6
Fitness Centre	1,364 m^2	61
Level 1 Club / Community Space	348 m^2	7
Level 2 Club / Community Space	665 m^2	13
Pool-deck Café	234 m^2	Ancillary Use
Pro-Shop	276 m^2	Ancillary Use
Multi-purpose Hard Courts	1,281 m^2	26
Swimming pool and deck	880 m^2	18
Soccer Field	1 Field	20
Tennis Courts	9 Courts	27
Community Space (Southern Stand)	756 m^2	15
Grandstand Seats	260 seats	-
DCP Numerical Requirement		**234**

Numerical Parking Analysis

Table 1 shows that the DCP numerical parking requirement is 234 spaces, which reflects the Weekday Operations parking requirement. With regard, to weekend operations, the key operational difference between weekday operation and weekend operation is the potential use of the grandstand during sporting events. To calculate the parking demand for the grandstand facility, the following first-principles calculation was adopted:

> *Peak Parking Demand = No of Seats (500) x Design Capacity (85%) x Modal Split for Car as drivers (34.1% derived from the 2013/2014 Household Travel Survey for recreational trips to Woollahra LGA)*

Utilising the above calculation, the grandstand generates a weekend peak additional parking demand of 75 spaces. With the standard requirement of 234 spaces, the total requirement would be 309 spaces, exceeding the revised parking provision of 269 spaces by 40 spaces.

Clause E1.8.3 of Woollahra DCP Parking Analysis

In accordance with Clause E1.8.3 of Woollahra DCP, the DA Traffic report includes an assessment of the realistic parking demand with consideration of the peak demand characteristics of the Proposal, noting that the various uses generate different peaks throughout the day.

To determine the peak parking demand, operational data was provided by the Client and P + I Group. The following is the key operational information utilised for the parking assessment:

Table 2: Operational Information

Facility Component	Scenario	Operating Hours	Peak Period
Soccer Field / Grandstand	Weekend	7.00AM – 9.30/10.00PM	9.00AM – 9.00PM
Tennis courts	Weekend	6.00/10.00AM – 10.00PM	9.00AM – 7.00PM
Multi-purpose hard courts	Weekend	6.00AM – 10.00PM	7.00AM – 10.00PM
Swimming pool and deck	Weekend	6.00AM – 10PM/12.00AM	5.30AM – 1.00PM
Community Space	Weekend	9.00/10.00AM – 5.00PM	10.00AM – 5.00PM
Hakoah Club	Weekend	9.00/10.00AM – 12.00AM	12.00PM – 10.30PM
Fitness Centre	Weekend	5.00/6.00AM – 8.00/10.00PM	8.00AM – 11.00AM

To elaborate further on the above information, regarding Soccer at White City, most matches will likely be for children and juniors, and will not attract spectators beyond friends and family. Major club matches occur on only a few occasions each season. For conservatism, it is assumed that the field and grandstand might operate at full parking requirement for the majority of its Operating Hours (9.00AM – 9.00PM). The same can be applied for the tennis courts and the multi-purpose hard courts. Whilst the swimming pool would be operating throughout the day, the data provided indicates that it would experience a peak in the morning until around 1.00PM, with patronage dropping off sharply thereafter. The data indicates that the Fitness Centre is busy in the morning, with reduced visitation numbers from 11.00AM onwards. Notably, the Hakoah Club generates more demand in the afternoon and evening, when uses like the fitness centre and the pool decline substantially relative to their morning peak.

Utilising the above operational information, the relative parking occupancy can be calculated and is detailed in **Table 3**. Using this relative parking occupancy and operational information, the anticipated parking demand is detailed in **Table 4**.

Table 3: Weekend Peak Relative Parking Occupancy

Time	Soccer field	Tennis courts	Multi-purpose hard courts	Swimming pool and deck	Community Space (southern stand)	Club L1	Club L2	Club (including restaurant and bar)	Fitness Centre
5:00 AM	-	-	-	100%	-	-	-	-	0%
6:00 AM	-	-	-	100%	-	-	-	-	25%
7:00 AM	-	37%	-	100%	-	-	-	-	25%
8:00 AM	51%	37%	100%	100%	-	-	-	-	100%
9:00 AM	100%	100%	100%	100%	-	-	-	-	100%
10:00 AM	100%	100%	100%	100%	100%	100%	-	-	100%
11:00 AM	100%	100%	100%	100%	100%	100%	-	-	100%
12:00 PM	100%	100%	100%	100%	100%	100%	100%	100%	25%
1:00 PM	100%	100%	100%	100%	100%	100%	100%	100%	25%
2:00 PM	100%	100%	100%	50%	100%	100%	100%	100%	25%
3:00 PM	100%	100%	100%	50%	100%	100%	100%	100%	25%
4:00 PM	100%	100%	100%	50%	100%	100%	100%	100%	25%
5:00 PM	100%	100%	100%	50%	100%	100%	100%	100%	25%
6:00 PM	100%	100%	100%	50%	-	-	100%	100%	25%
7:00 PM	100%	100%	100%	50%	-	-	100%	100%	25%
8:00 PM	100%	74%	100%	50%	-	-	100%	100%	-
9:00 PM	51%	37%	100%	-	-	-	100%	100%	-
10:00 PM	-	-	-	-	-	-	100%	100%	-
11:00 PM	-	-	-	-	-	-	-	-	-

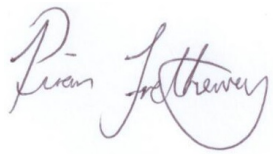
Table 4: Weekend Peak Parking Demand

Time	Soccer field	Tennis courts	Multi-purpose hard courts	Swimming pool and deck	Community Space (southern stand)	Club L1	Club L2	Club (including restaurant and bar)	Fitness Centre	Total
5.00AM	-	-	-	18	-	-	-	-	-	**18**
6.00AM	-	-	-	18	-	-	-	-	15	**33**
7.00AM	-	10		18	-	-	-	-	15	**43**
8.00AM	48	10	26	18	-	-	-	-	61	**163**
9.00AM	95	27	26	18	-	-	-	-	61	**227**
10.00AM	95	27	26	18	15	7	-	-	61	**249**
11.00AM	95	27	26	18	15	7	-	-	61	**249**
12.00PM	95	27	26	18	15	7	13	47	15	**263**
1.00PM	95	27	26	18	15	7	13	47	15	**263**
2.00PM	95	27	26	9	15	7	13	47	15	**254**
3.00PM	95	27	26	9	15	7	13	47	15	**254**
4.00PM	95	27	26	9	15	7	13	47	15	**254**
5.00PM	95	27	26	9	15	7	13	47	15	**254**
6.00PM	95	27	26	9	-	-	13	47	15	**232**
7.00PM	95	27	26	9	-	-	13	47	15	**232**
8.00PM	95	20	26	9	-	-	13	47	-	**210**
9.00PM	48	10	26	-	-	-	13	47	-	**144**
10.00PM	-	-	-	-	-	-	13	47	-	**60**
11.00PM	-	-	-	-	-	-	-	-	-	**0**

As is evident from the above, the peak period is expected in early afternoon for Weekend Operations and the peak parking demand for the weekday and weekend is 263 spaces respectively. The provision of 269 spaces is considered sufficient to accommodate the future parking demand of the Proposal. Therefore, this addresses Items a, b, c, and d raised in Council's SOFC regarding parking.

I trust the above is of assistance, please contact the undersigned should you have any queries.

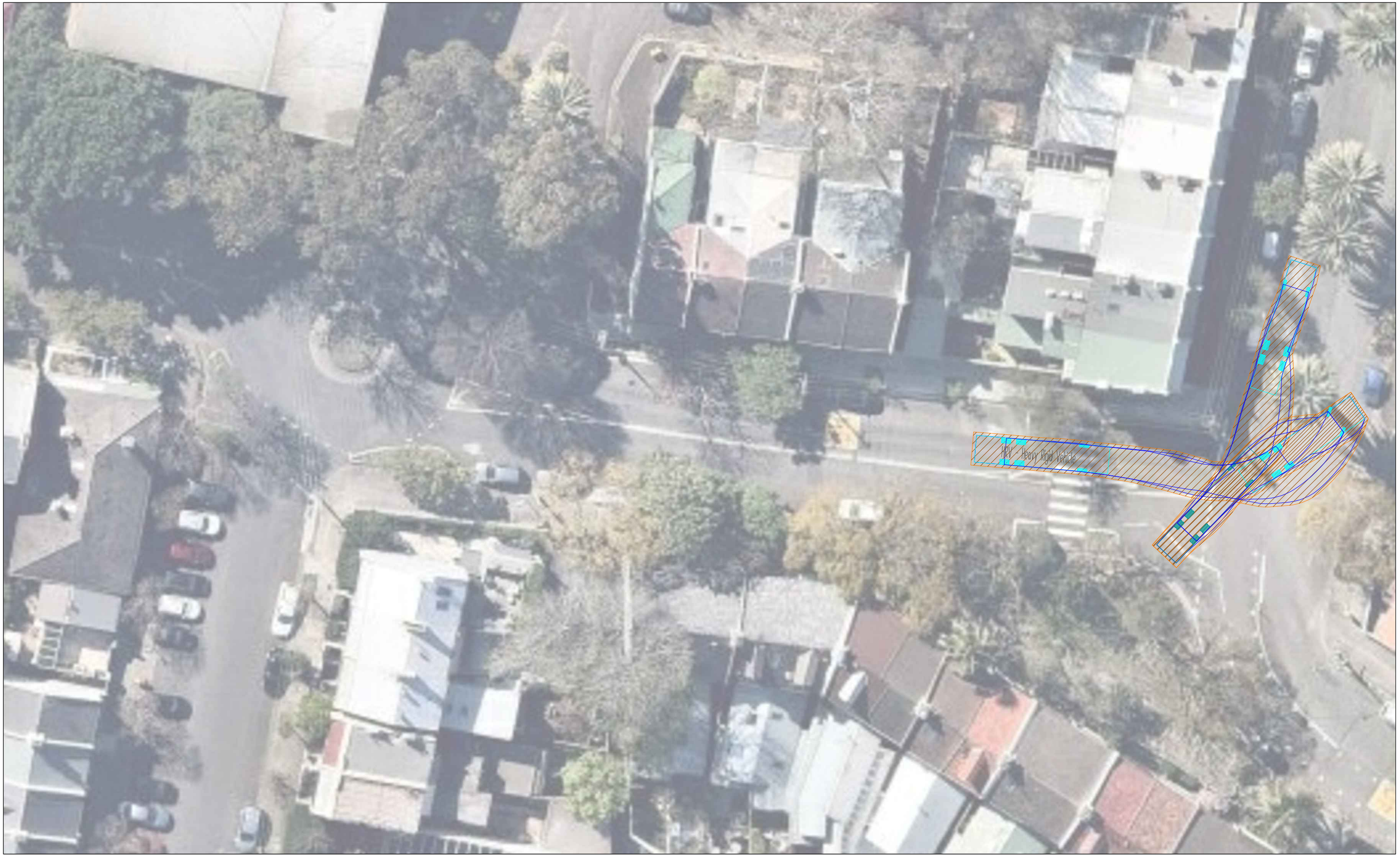
Yours sincerely,



Piran Trethewey
Director – Ason Group
Email: piran.trethewey@asongroup.com.au

Attachment B

CTMP Swept Path Analysis



Revision notes:

Rev:	Date:	Notes:

For information purposes only - not for construction

Drawn By: TL

Client: Hakoah Club

Project: P0410 White City Development

Drawing Title: Alma St / Lawson St & Goodhope St / Lawson St 12.5m HRV

Date: 21/04/2020

Scale @ A3: n/a

Drawing Number: 16

asongroup
Suite 5.02, Level 5, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au

Revision notes:

Rev:	Date:	Notes:

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Drawn By: TL

Client: Hakoah Club

Project: P0410 White City Development

Drawing Title: Construction Vehicle Access 12.5m HRV

Date: 23/07/2020

Scale @ A3: n/a

Drawing Number: 01

asongroup
Suite 5.02, Level 5, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au

Revision notes:

Rev:	Date:	Notes:

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Drawn By: TL

Client: Hakoah Club

Project: P0410 White City Development

Drawing Title: McLachlan Ave / Boundary St 12.5m HRV

Date: 21/04/2020

Scale @ A3: n/a

Drawing Number: 17

asongroup
Suite 5.02, Level 5, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au

Revision notes:

Rev:	Date:	Notes:

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Drawn By: TL

Client: Hakoah Club

Project: P0410 White City Development

Drawing Title: Neild Ave / Lawson St 12.5m HRV

Date: 21/04/2020

Scale @ A3: n/a

Drawing Number: 14

asongroup
Suite 5.02, Level 5, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au

Revision notes:

Rev:	Date:	Notes:

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Drawn By: TL

Client: Hakoah Club

Project: P0410 White City Development

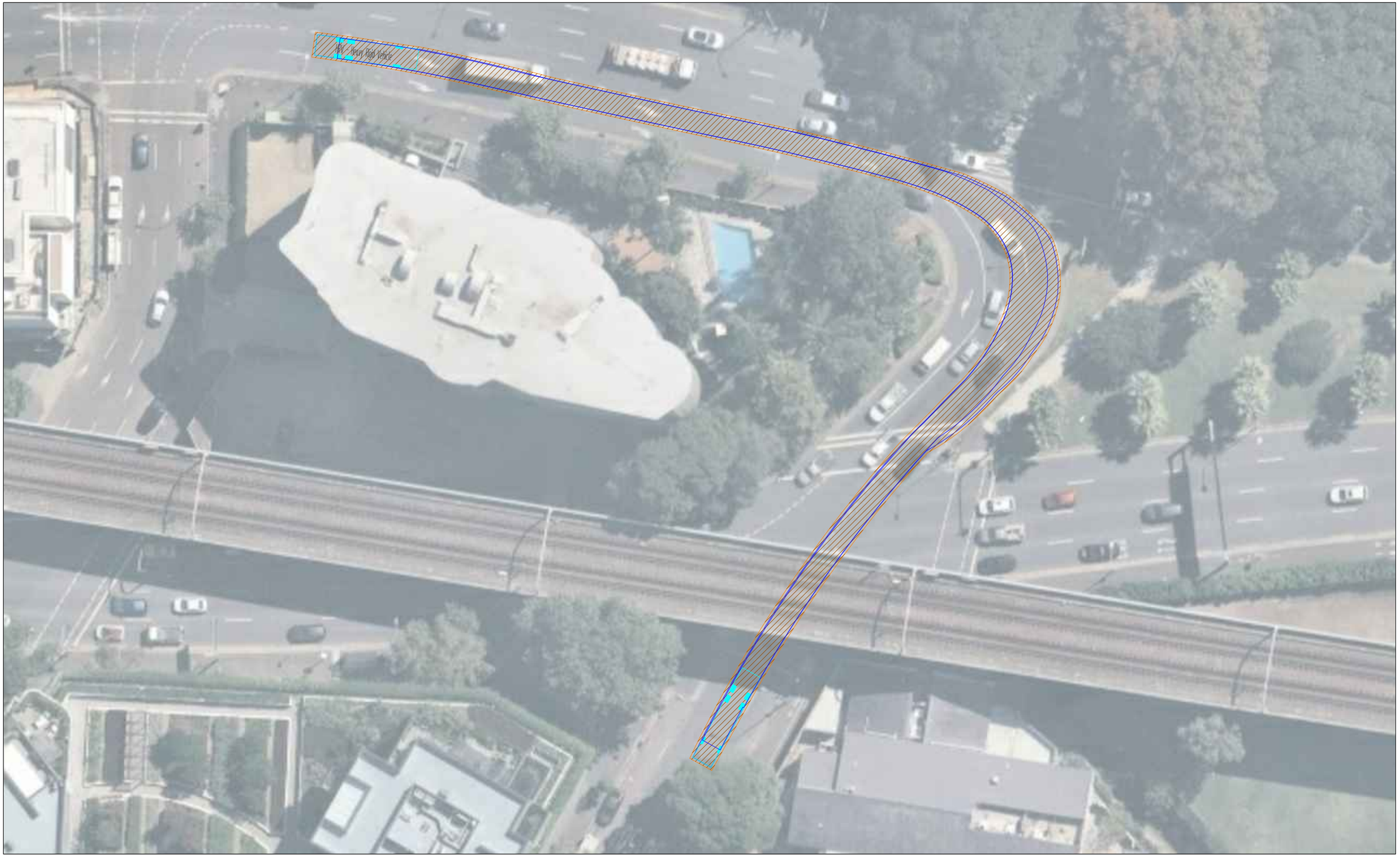
Drawing Title: Neild Ave / Lawson St 12.5m HRV

Date: 21/04/2020

Scale @ A3: n/a

Drawing Number: 15

asongroup
Suite 5.02, Level 5, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au



Revision notes:

Rev:	Date:	Notes:

For information purposes only - not for construction

Drawn By: VC

Client: Hakoah Club

Project: P0410 White City Development

Drawing Title: New South Head Road / Neild Avenue

Date: 19/11/2019

Scale @ A3: n/a

Drawing Number: 01

asongroup
Suite 5.02, Level 5, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au

Revision notes:

Rev:	Date:	Notes:

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Drawn By: TL

Client: Hakoah Club

Project: P0410 White City Development

Drawing Title: New South Head Road / McLachlan Avenue 12.5m HRV

Date: 21/04/2020

Scale @ A3: n/a

Drawing Number: 01

asongroup
Suite 5.02, Level 5, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au

Attachment C

Traffic Control Plan

NOTES

- All vehicles to have flashing orange lights
- Ensure signs are visible to vehicles
- Cover vehicle required for hard protection while TC's or workers are exposed to live traffic
- All staff to have reflective safety vests
- All signs to be Class 1 retro-reflective
- Maintain daily logs of ALL activities
- This PVMP is drawn in accordance with AS1742.3, the RTA's TCWS Manual & WHS Manual
- All staff to have reflective safety vests
- All trucks are to have prior notice of UHF channel to radio Foreman on arrival

Closure:
410-TCP-03v1-White City

Client:
P + I Group

Project:
Job No: 410
Address: Alma Street, White City

Drawing Title:
Alma Street, Paddington
Heavy Rigid Vehicle Manoeuvre Control

Date:
31/07/2020

Scale @ A3:

Drawing Number:
AG.02

asongroup

DESIGNER: JAMES LAIDLER
CERT: 0052158569

Attachment D

Green Travel Plan

Attachment E

Local Area Transport Management Scheme

Local Area Traffic Management Scheme

White City Redevelopment

Ref: 0410r06v2
3/08/2020

Info@asongroup.com.au | +61 2 9083 6601 | Suite 5.02, Level 5, 1 Castlereagh Street. Sydney, NSW 2000

Document Control

Project No: 0410

Project: White City Redevelopment

Client: Hakoah Club

File Reference: 0410r06v2 LATM White City Redevelopment; Issue II

Revision History

Revision	Date	Details	Author	Approved by
-	23/07/2020	Draft	T. Lehmann	P. Trethewey
V1	03/08/2020	Issue I	P. Trethewey & T. Lehmann	P. Trethewey
V2	03/08/2020	Issue II	T. Lehmann	P. Trethewey

Table of Contents

Appendices

1 Introduction

1.1 Planning History

Ason Group has previously provided traffic and transport planning advice regarding the proposed redevelopment (the Proposal) of the White City complex at 30 Alma Street, Paddington (the Site). The advice included a Local Area Traffic Management Plan, one of a number of documents submitted to Woollahra Municipal Council (Council) as part of a Detailed Development Application (DA) for the Proposal. The Plan had been prepared in response to Condition B14 of the Stage 1 Concept Approval for the Proposal.

Following DA submission, Council has provided a Statement of Facts and Contentions (SOFC) dated 26 May 2020 which provides comments on the Local Area Traffic Management Plan as well as discussing the key items that were to be included within the next iteration, acknowledging that the development proposal has changed (by way of a Section 4.55 application prior to the recent DA submission) from that assessed for the Stage 1 concept approval and therefore some of the elements of Condition B14 were no longer relevant. Council's comments are as follows:

Council's Comment

In accordance with condition B14 of the Concept DA, a Local Area Traffic Management Scheme (LATM) is required for the area bounded by Glenmore Road, Lawson Street, Alma Street, Neild Avenue and New South Head Road to the satisfaction of the Council's Engineering Service Department. The developer must consult with the local schools and community members in the preparation of the LATM. The LATM must include, but is not limited to detailing the measures below to be developed, funded, and implemented at no cost to Council.

Particulars

a) *Glenmore Road Exit Improvement: Modification of the existing concrete median along Glenmore Road and provide additional signposting and pavement markings generally in front of the proposed Glenmore Road egress to provide left-out only egress*

b) *Glenmore Road and Cambridge Street intersection works: Implementation of intersection treatments to calm traffic and allow safer turning movements. The traffic treatments must include are not limited to:*

- *Reconstruct a centre median island, realign line markings and install speed cushions on Glenmore Road;*
- *Kerb extension treatment and new kerb ramps with associated signs and line markings at the intersection of Glenmore Road and Cambridge Street.*

c) *New/upgraded pedestrian facilities surrounding the site:*

- *An Amended Pick-up / Drop-off Access Arrangement: for vehicular circulation is required to minimise the conflicts between school traffic and sports-related traffic, whilst ensuring safety and efficiency of school traffic, as the two proposed options, Management Option 1 and Management Option 2 as detailed in the Ason Group Local Area Traffic Management Report are not desirable and cannot be supported. Details on the queuing area including the control point at the site boundary must demonstrate that the queues during peak hours in the surrounding road network can be managed to an acceptable level. The proposed extension of the existing pick-up / drop-off area within Alma Street cannot be supported as it would result in the loss of on-street parking, and an increase to illegal parking and traffic weaving along Alma Street and Lawson Street, thus impairing traffic performance in terms of safety and efficiency in the vicinity*
- *Pedestrian Management Option 3B. The Pedestrian Management Options 3A and Option 3C as detailed in the Ason Group Local Area Traffic Management Report are not supported. The development and implementation of a crossing management plan Management Option 3B is supported with more details to be provided regarding a comprehensive and practical crossing management plan.*
- *New/upgraded pedestrian facilities surrounding the White City site to improve safety and access, including the pedestrian crossing on Lawson Street near the intersection of Lawson Street and Alma Street, where the development would result in an increased turning movements to access the site. Traffic treatments should include but are not limited to:*
    - *Upgrade the existing at-grade pedestrian crossing on Lawson Street, at its intersection with Alma Street, to a raised pedestrian crossing, creating a raised threshold to calm traffic speed and to improve pedestrian safety;*
    - *Adjustment of the existing 'No Stopping' signs, along with other associated parking restrictions surrounding the site and car park entry signage following liaison with Council's Traffic Section*

First of all, it is noted that in response to Council's SOFC (in its entirety) modifications have been made to the plans and as a result there are now 269 parking spaces provided on-site, a reduction in 5 parking spaces from the 274 spaces on the DA submission plans. It is however also noted that the scale of the development uses remains consistent with the DA submission plans.

Clarification on the above particulars was sought at a meeting with Council on 1 July 2020. This meeting discussed the above items and clarified Council's requests as well as objectives. It was concluded that the following measures would be provided:

- Median strip and speed cushions along Glenmore Road outside of the new Glenmore Road access.
- Adoption of Council's proposed upgrades at the intersection of Glenmore Road and Cambridge Street.

- Details regarding the proposed Sydney Grammar School (the School) drop-off / pick-up (DOPU) arrangement, which would provide for queuing on School grounds currently accommodating cricket nets.
- Discussion regarding the proposed interim on-site queuing arrangement.
- Plans detailing “Keep Clear” line-marking on-site during proposed interim queuing arrangement and details regarding management by the School
- Upgrading the pedestrian crossing intersection at Glenmore Road and Lawson Street.

1.2 Purpose

With consideration for the SOFC particulars and the subsequent agreed actions from the meeting with Council, Ason Group has prepared this a Local Area Traffic Management Scheme (LATM). The purpose of this LATM is to provide guidance in relation to the traffic management arrangements for the local road network further to the Proposal. This includes:

- A review of existing traffic conditions in the local road network.
- An investigation of the solutions to alleviate future traffic impacts.
- Development of traffic management measures to address the particulars detailed within Council’s SOFC, having consideration for the actions arising from the meeting with Council.

2 Site Details

2.1 White City Development

The proposed White City development is a multi-purpose sports and community centre. The Site is located approximately 2.85 kilometres east of the Sydney CBD and is bordered by residential developments to the south and east; Sydney Grammar Preparatory School to the south-west; and recreational sporting fields to the west and north. **Figure 1** provides an overview of the Site in its local context.

Figure 1: Site Context and Location

With regard to site access, the development provides a main vehicle driveway located at the northern end of Alma Street and an egress ramp located midway along Glenmore Road. The Site is approximately 250 metres south of the major New South Head Road corridor, which connects to the Cross City Tunnel to the west of the Site.

2.2 Road Hierarchy

The key roads in the vicinity of the Site are shown in **Figure 2** and detailed further below:

- Alma Street – a local road that runs in a north-south direction providing primary vehicle access and egress to the Site and the Sydney Grammar School. Alma Street has a posted speed limit of 50 km/h, with School Zone 40km/h limits during school peak periods. It generally carries one lane of traffic in each direction. On-street parking is available on both sides of the street.
- Lawson Street – a local road that runs in an east-west direction connecting Alma Street to the local road network east of the Site. Lawson Street has a posted speed limit of 50 km/h, with School Zone 40km/h limits during school peak periods. On-street parking is available on both sides of the street.
- Glenmore Road – a collector road that runs in a north-east to south-west direction. Glenmore Road has a posted speed limit of 50 km/h, and generally provides one lane of traffic in each direction and some on-street parking.
- Neild Avenue – a collector road (which also forms part of Stage Road MR625) that runs in a north-south direction west of the Site. Neild Avenue has a posted speed limit of 50 km/h, and generally provides one lane of traffic in each direction and some on-street parking.

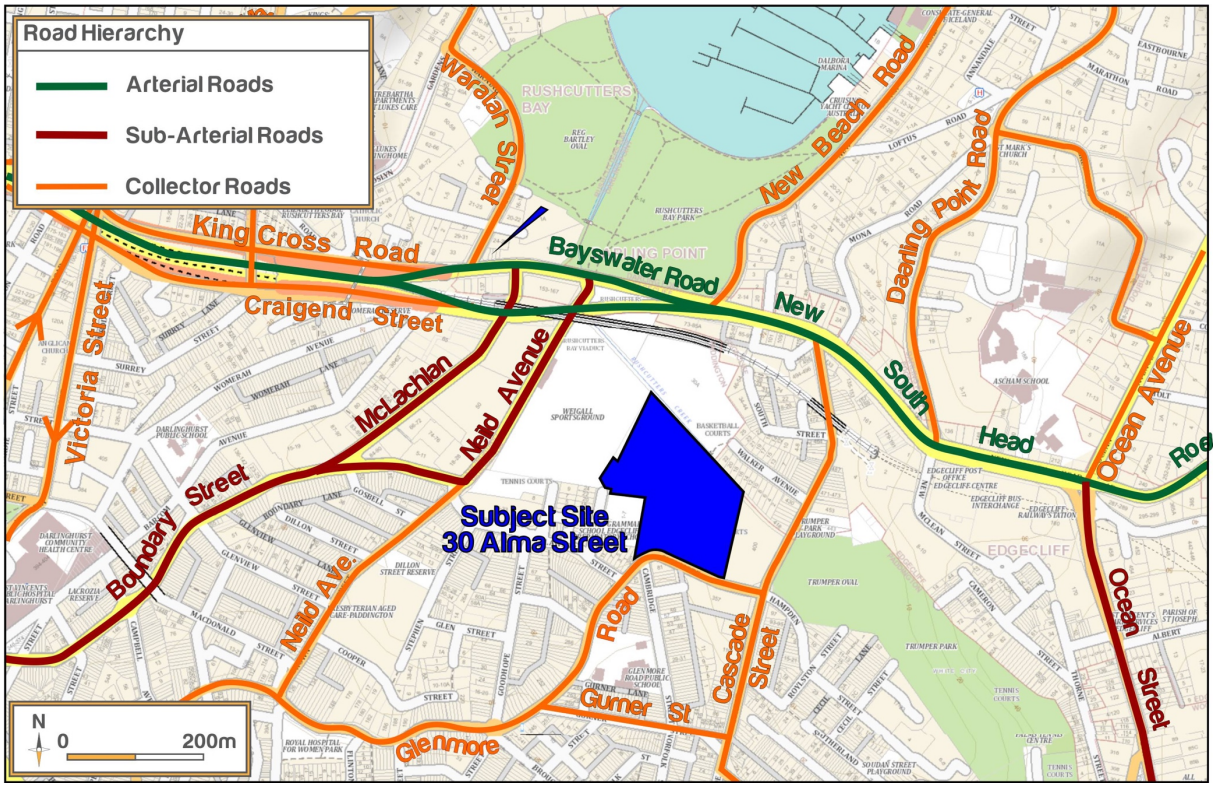


Figure 2: Site and Local Road Network

2.3 Existing Conditions

Ason Group undertook on-site investigations of the surrounding road network on 31 October and 1 November 2019 during the morning and afternoon/evening, school and network (commuter) peak periods. These investigations reviewed the operation of on-site parking, Alma Street, Glenmore Road, Lawson Street and Neild Avenue during these peak periods. The key items observed were traffic volumes, the operation of Alma Street with consideration the School, on-street parking, pedestrian and vehicular behaviour.

The following details the observations during the peak periods.

2.3.1 Morning Peak Period

The key observations of the morning peak period are as follows:

- The following traffic volumes were observed along Glenmore Road in the vicinity of the proposed new access ramp.

Table 1: Glenmore Road Traffic Volumes – Morning Peak Period

Time	Eastbound	Westbound	Total
7.45-8.45AM	183	137	320
8.00-9.00AM	183	134	317
8.15-9.15AM	199	145	344

- As is evident in the above table, the balance of vehicles is generally consistent between 7.45-9.15AM with a marginal peak observed between 8.15-9.15AM.
- the peak hour traffic volume occurs between 8.15-9.15AM and consists of 199 vehicles travelling eastbound (away from the CBD) and 145 vehicles travelling westbound (towards the CBD).
- A review of the on-site parking for the Site indicated that the majority of spaces were occupied during this period.
- The parking on Alma Street and Lawson Street was observed to be close to capacity with only minimal available parking. It should be noted that these spaces were often utilised by parents / carers to park and then escort students to the School or simply drop students off.
- The DOPU area for the School operates between 7.30-8.30AM.

- Parents / carers were observed parking within the Site and escorting students to the School premise. It should be noted that the White City complex has advisory signs on-site that notify that on-site parking is for Hakoah and Maccabi Tennis Customer only, as shown in **Figure 3**.

Figure 3: On-site parking restriction sign

- No designated supervisor was observed to assist with the drop-off of students.
- Pedestrians (including school children) were observed walking across the White City access driveway frequently.
- Ason Group has been advised that the School directs all students and parents / carers to utilise the footpath bordering Alma Street and discourages crossing mid-block on safety grounds. Students and parents / carers are instructed to travel along the Alma Street footpath adjacent to

the site access. This crossing has no formal traffic control or supervision. Vehicles were observed giving priority to pedestrians. Despite the School instructions, parents / carers and students were observed crossing Alma Street mid-block.

- Vehicle queues on Alma Street were observed to extend back to the intersection with Lawson Street with queues (in the order of 3 vehicles) on Lawson Street westbound waiting to enter Alma Street.
- On-street parking restrictions provide the School with a total of 7 spaces for DOPU purpose. A number of bays were not utilised as frequently during the DOPU peak as they extend past the main School access. Parents / carers were observed exiting vehicles and escorting students into the School.
- Vehicles were observed u-turning in Alma Street to exit onto Lawson Street as shown in **Figure 4**.

Figure 4: Vehicle U-turning in Alma Street During AM Peak

2.3.2 Afternoon Peak Period

The key observations of the afternoon peak period are as follows:

- The following traffic volumes were observed along Glenmore Road in the vicinity of the proposed new access ramp.

Table 2: Glenmore Road Traffic Volumes – PM Peak

Time	Eastbound	Westbound	Total
3.45-4.45PM	165	117	282
4.00-5.00PM	169	118	287
4.15-5.15PM	182	109	291
4.30-5.30PM	210	103	313
4.45-5.45PM	209	95	304
5.00-6.00PM	234	97	331
5.15-6.15PM	239	107	346

- As is evident in the above table, the balance of vehicles is generally consistent between 4.30-6.15PM with a marginal peak observed between 5.15-6.15PM.
- The peak hour traffic volume occurs between 5.15-6.15PM and consists of 239 vehicles travelling eastbound (away from the CBD) and 107 vehicles travelling westbound (towards the CBD).
- A review of the on-site parking for the Site indicated that the majority of spaces were occupied during this period.
- The parking on Alma Street and Lawson Street was observed to be close to capacity with minimal parking availability. It should be noted that any available spaces were often utilised by parents / carers to park and then escort students from the School or to collect students.
- The DOPU area for the School operates between 2.30-3.45PM.
- The DOPU area is managed by staff members of the School during this period. Parents / carers are given placards with student surnames. One staff member stands mid-block on Alma Street with a radio and informs another staff member of the names on the placards. These names are then announced over a megaphone and the students approach the DOPU area to be collected by parents / carers.
- Parents / carers of students were observed parking within the White City development and escorting students from the School premise.
- Pedestrians (including school children) were observed walking across the White City access frequently.

- It is understood that the School staggers the finishing times of students, with students in Years 3 to 6 finishing first, followed by students in Kindergarten to Year 2. This measure is designed to 'spread' traffic across a longer period.
- It is noted again that the School directs all students and parents to utilise the footpath bordering Alma Street and discourages crossing mid-block. It should be noted that this requires students to cross the Site access which has no formal traffic control or supervision; however, vehicles were observed giving priority to pedestrians. Again, parents / carers and students were still observed crossing Alma Street mid-block.
- Queues on Alma Street were observed to extend back to the intersection with Lawson Street with vehicles queuing onwards back to the intersection of Lawson Street and Goodhope Street as shown in **Figure 5** and **Figure 6**.

Figure 5: Queues along Lawson Street towards Goodhope Street

Figure 6: Back of queue from Goodhope Street / Lawson Street intersection

- Vehicle queues also formed back towards the intersection of Glenmore Road with Lawson Street. These queues were observed to be shorter than the morning queues with only 3 vehicles within the roadway between the intersections of Alma Street and Lawson Street, and Glenmore Road and Lawson Street. This is detailed in **Figure 7**.

Figure 7: Queues along Lawson Street towards Glenmore Road

- Parents / carers were observed parking in available spaces on Lawson Street and Alma Street, then collecting students from the School.
- As previously mentioned, it is understood that Years 3 to 6 student finish at 2.40PM. The above queues occurred between the finishing time of Years 3 to 6 students and Kindergarten to Year 2 students. These queues dispersed prior to the release of students in Kindergarten to Year 2. All traffic queues along Lawson Street and Alma Street clear by 3.40PM.

2.3.3 Site Observations Conclusion

It is evident that there are existing traffic and queuing issues within the road network surrounding the Site; however, this is entirely normal in and around areas that accommodate schools. In particular, the DOPU area creates a number of issues impacting the flow of traffic not associated with the School. Drop-off / pick-up by parents / carers is responsible for the utilisation of the remaining parking availability within the local road network, while also impacting the intersections of Alma Street / Lawson Street and Lawson Street / Goodhope Street. Furthermore, there are a number of safety concerns including the unsupervised movement of students as well as parents / carers ignoring advice provided by the School.

3 Local Area Traffic Management Scheme

To improve the existing traffic and queuing conditions, and pedestrian safety of the local road network in vicinity of White City, Ason Group has considered a range of management measures, with input from Woollahra Council, having regard for the future land uses of the proposed White City Development and the existing conditions.

The following management options are proposed to improve traffic conditions, minimise the impacts of the Proposal on the existing amenity of residents, school students and visitors (current and future) to the White City development.

3.1 Ultimate Drop-off / Pick-up Arrangement

The existing traffic conditions on Alma Street and Lawson Street are largely influenced by the operation of the DOPU facility for the School. As discussed in Section 2.3, vehicles associated with the DOPU area create queues along Alma Street and Lawson Street which impact the operation of the local road network, in particular vehicles travelling along Lawson Street in either direction.

The existing DOPU area extends for approximately 50 metres and can accommodate 7 vehicles at a time. Based on aerial images, the length of the queues observed while on-site were calculated to be in the order of 210 metres including the 50 metres accommodated by the existing DOPU area.

Separate from the White City proposal, the School has proposed a new DOPU arrangement to assist in minimising the existing queuing issues on the local road network, by relocating this queuing demand off-street to School grounds. **Figure 8** shows the proposed on-site car park and **Figure 9** shows the proposed Alma Street access to the car park adjacent to the White City access.

Following consultation with the School, it is understood that parents / carers would be directed into the new car park and would be called to access the existing DOPU area once vehicles have departed and space is available. This would be managed by School staff and/or volunteers during both morning drop-off and afternoon pick-up periods.

To ensure pedestrian safety, differing paving material is to be provided at the access of both parking areas to identify the area as a high pedestrian activity zone, thereby ensuring drivers are aware of the changed traffic conditions and pedestrian priority.

Figure 8: Proposed School Drop-off / Pick-up Arrangement

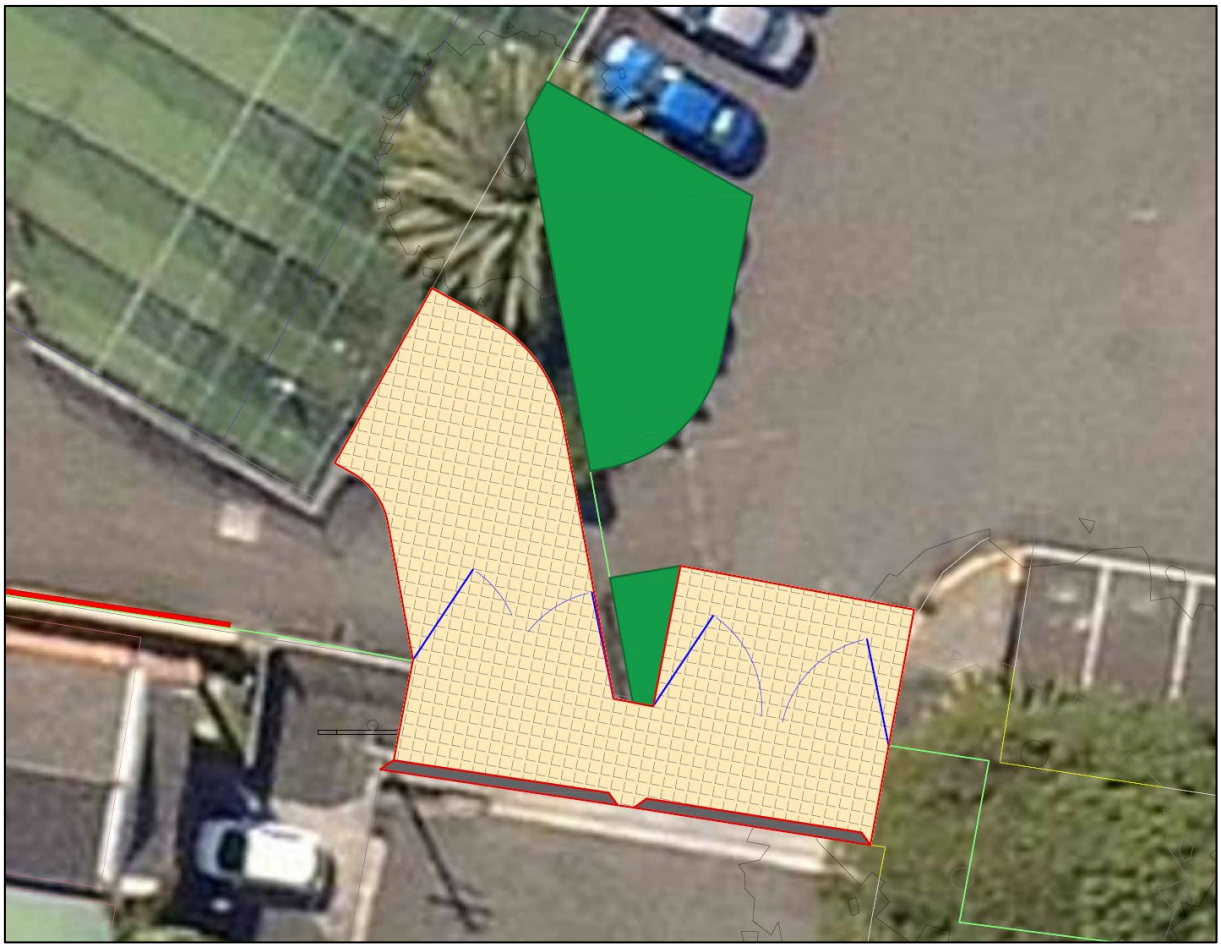


Figure 9: Proposed Access Arrangement

3.2 Interim Drop-off / Pick-up Access Arrangement

The timing of the implementation and construction of ultimate DOPU arrangement is not yet known and is under the control of the School. As such, the below details an interim DOPU arrangement that addresses the existing School traffic issues, utilising the White City facilities.

It is proposed that traffic associated with the DOPU area of the School be permitted to utilise the internal road network within the White City Development. This can be achieved through the utilisation of the existing Alma Street easement.

This arrangement provides a wider Alma Street easement suitable for two-way flow throughout the White City Development and allows vehicles to travel down the existing Alma Street easement on the White City Site. Vehicles would then turn around within the Sydney Grammar School car park to the north of the Site accessed via a one-way bridge, and head back towards the School's DOPU area.

The benefit of this arrangement is that the vehicles queues generated by the School would be on-site and would not impact the local road network, thereby improving the operation of the intersections of Lawson Street / Alma Street and Lawson Street / Goodhope Street.

Figure 10 details the proposed arrangement. The proposed utilisation of the Alma Street easement and the future car parking area provides a total road length of approximately 300 metre excluding the 50 metre of the existing DOPU area. As such, the implementation of the above would accommodate the length of the queues generated by the School wholly on-site thereby reducing the impact to the local road network, particularly during the School PM peak period. It should be noted that the queues associated with the DOPU area typically disperse after 30 minutes so it should not significantly impact the operation of the White City Development.

Special arrangements are needed both to keep queues of parents' vehicles off local roads during DOPU and to eliminate opportunities for conflicts between school DOPU traffic and traffic entering/leaving White City at these times. It is our view that orderly traffic management and separation of these two streams is one of the most effective means of enhancing and ensuring pedestrian safety, particularly for children in these two critical periods.

Figure 10: Interim Drop-off / Pick-up Arrangement

The School has proposed a future arrangement under which queuing during DOPU is accommodated on the school site. Until such time as that is possible, the Club has offered to accommodate queues on Alma Street extension north of the turn off to the main loading dock. Under the interim arrangement, there is still potential for the parents' queue to interact with traffic entering or leaving White City. While the interim arrangement applies therefore, to ensure access is maintained to White City undercover car park and at-grade parking, "Keep Clear" line-marking is to be provided in the zone from the Alma Street north footpath to the loading dock turn off. This will ensure that vehicles related to the School drop-off / pick-up do not impede access to the Site parking. This arrangement would be supplemented by a parent volunteer or school staff member managing the flow of vehicles to the

DOPU area along the School's Alma Street frontage. These persons would be responsible for ensuring the "Keep Clear" marking is observed during the key drop-off / pick-up periods.

Figure 11 details the proposed Keep Clear line-marking.

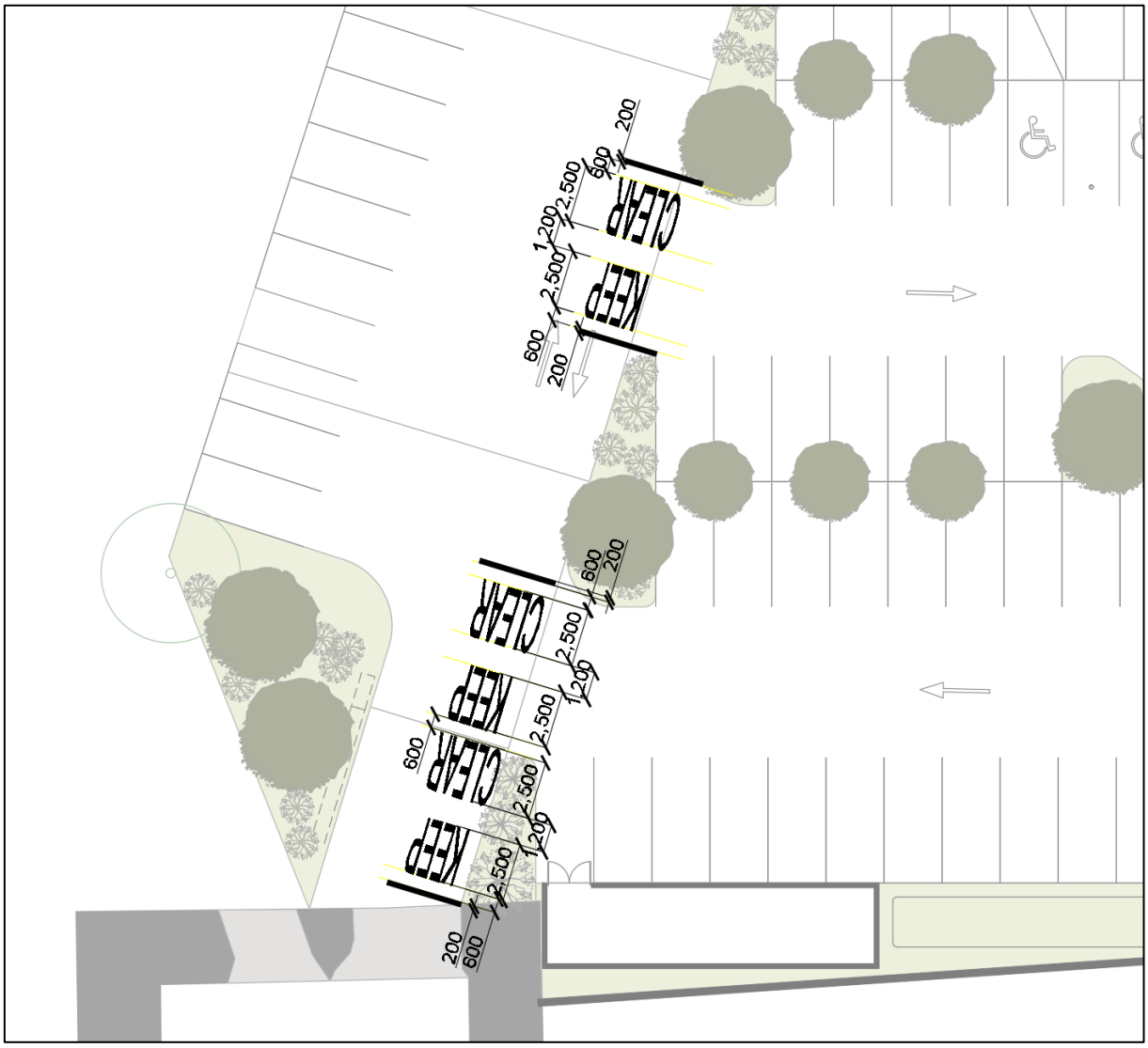


Figure 11: Interim Drop-off / Pick-up Arrangement – Keep Clear Line-marking

The "Keep Clear" line-marking has been designed in accordance with Delineation Guide prepared by TfNSW (formerly RMS) in March 2008, the dimensions of which are detailed in **Appendix A**.

3.3 Alma Street Pedestrian Management

3.3.1 Site Access Signage

As detailed in Section 2.3, it is noted students and parents cross the White City access driveway during the peak drop-off / pick-up periods. Students also cross the driveway to access the Weigall sporting fields to the west of the White City Development during and after school. It was noted during on-site investigations, vehicles entering or exiting White City give way to pedestrians while they cross the driveway. This is consistent with traffic rules and correct practice. The existing White City Site provides signage for exiting vehicles and includes the following signs detailed in **Table 3**.

Table 3: Existing Signage

R1-1 **STOP**	
W6-3 **CHILDREN CROSSING** **(symbolic)**	
Custom Sign **CHILDREN CROSSING** **DEAD SLOW**	

The locations of these signs are detailed in **Figure 12**.

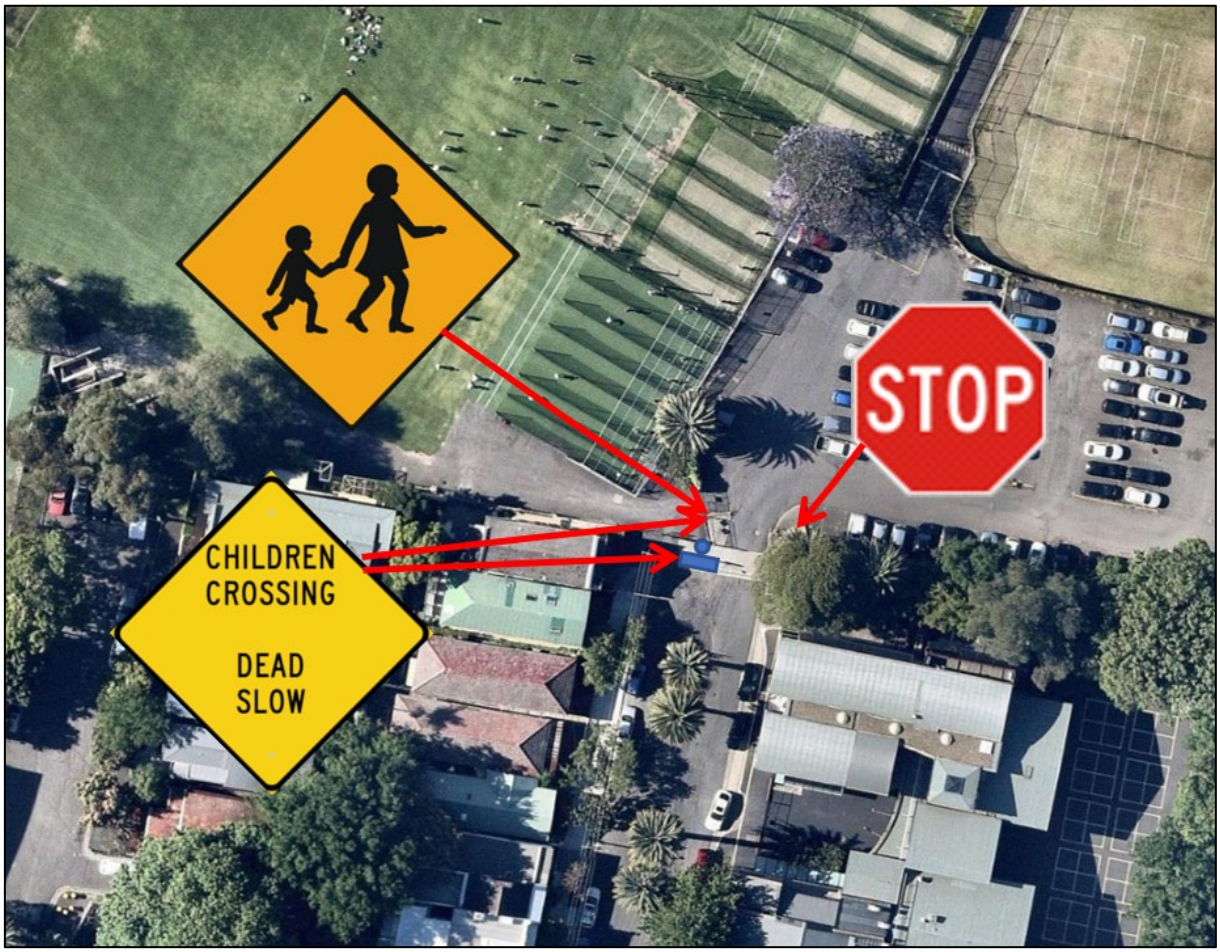


Figure 12: Existing Pedestrian Identification Signage

3.3.2 Crossing Management

To improve pedestrian safety, it is recommended that a volunteer / staff member of the School be located at the access to ensure pedestrians cross safely at the White City access driveway when needed or appropriate. The volunteer / staff member would manage the interactions between vehicles entering & exiting the access driveway and pedestrians crossing the driveway to ensure it occurs in a safe and effective manner. Indeed, such management by school staff could be implemented outside of peak drop-off / pick-up periods School staff members could manage the White City access driveway while students cross the driveway. This management measure has been adopted at other Schools that provide busy accesses or are located adjacent to a busy access including Mount Sinai College in Maroubra.

3.3.3 Site Access Design

In addition to the above, it is proposed that the differing pavement materials will be utilised for the first 6m into the Site to provide a visual indication of changed traffic conditions similar to the arrangement detailed in **Figure *9***. This pavement materials will differ from the existing paving of Alma Street and the internal road network of the Site. Furthermore, improvements are made to the access sightlines thereby allowing better visibility for all vehicles exiting via Alma Street.

In conjunction with the strategies detailed above, the access would provide a pedestrian priority environment.

3.4 Lawson Street Pedestrian Crossing Upgrades

Consistent with the LATM, the pedestrian crossing on Lawson Street just west of the Alma Street intersection will be upgraded to a raised crossing.

Noting that the Site will generate additional pedestrian trips, upgrades to the existing pedestrian crossing at the intersection of Lawson Street and Alma Street are proposed. The upgrades include the provision of a raised pedestrian crossing (wombat crossing) to be designed in accordance with Council's standard drawings. The wombat crossing provides an improved pedestrian link while also reducing vehicle speeds.

3.5 Glenmore Road

3.5.1 New Ramp Egress

The proposed White City Redevelopment provides a vehicular egress on Glenmore Road and is detailed in **Figure 13.**

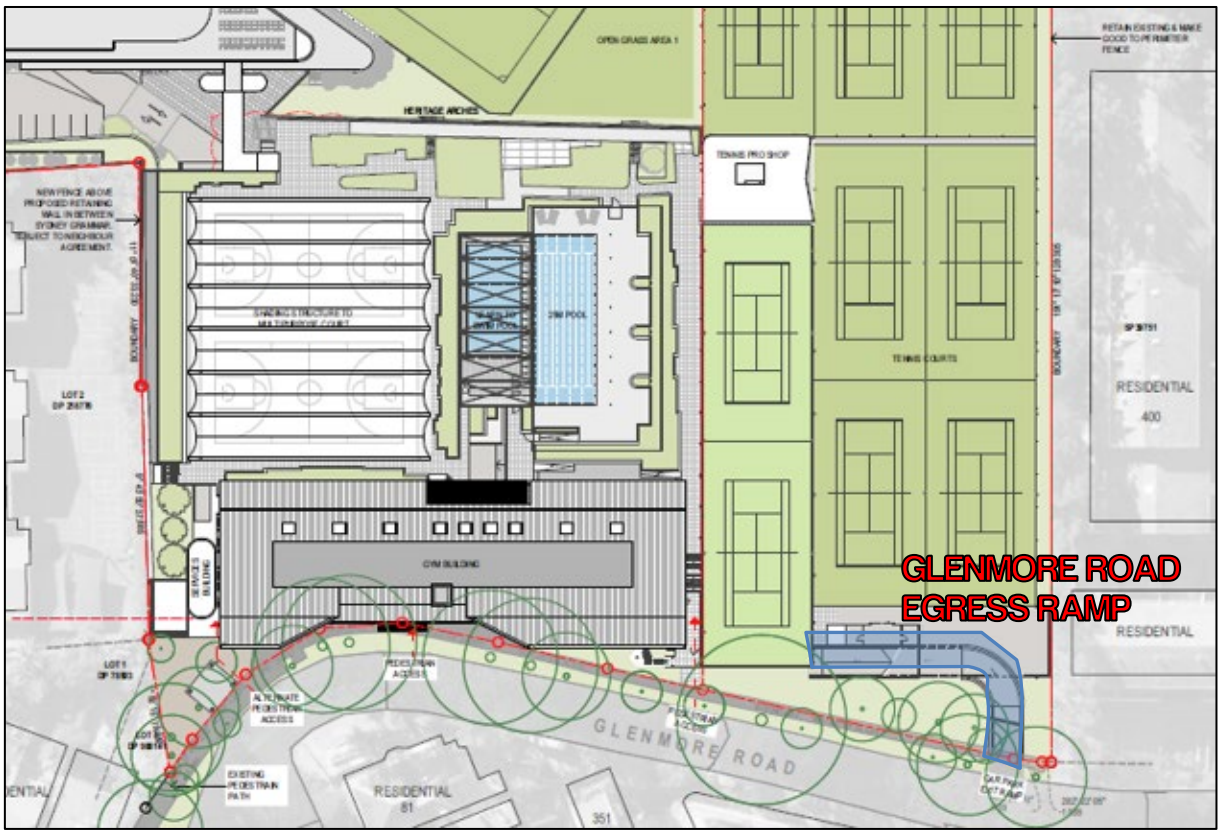


Figure 13: Proposed Glenmore Road Egress

As mentioned above, the Glenmore Road access ramp only permits egressing movements only. Furthermore, vehicles exiting the ramp at this location are only permitted to turn left towards the intersection of Glenmore Road with Cascade Street and Hampden Street. To prevent unauthorised access and facilitate safe movements out of the egress Ramp, a median strip along Glenmore Road is proposed. Ason Group has undertaken a swept path analysis of the access and proposed median, as presented on the plan attached at **Appendix B**.

The median strip is proposed to be 300mm wide and would allow for trafficable lanes to be a minimum of 3 metres wide either side, which is satisfactory for Austroads compliance. The design of the median strip would be in accordance with Council's engineering specifications for median strips.

3.5.2 Speed Cushions

In addition to the provision of a new median strip, tactile speed cushions would be provided on Glenmore Road. This would reduce vehicle speeds along the road, in particular near the egress ramp location and the residential driveway opposite the Site. The location of these tactile speed cushions is detailed on the plan in **Appendix B**.

The design of these tactile speed cushions is to be done with consideration of Clause 8.2.2 of Austroads Guide to Traffic Management Part 8: Local Street Management, which details that tactile speed cushions are to be 1.6-1.9 metres wide, with a height of 70-80mm.

Council has also identified a location along Glenmore Road near the intersection with Cambridge Street for tactile speed cushions, as below.

3.6 Glenmore Road and Cambridge Street

3.6.1 Council Developed Upgrade Plan

At the meeting of 1 July 2020, Council tabled draft plans that had been developed to present the measures that would satisfy Council in terms of upgrade works at the intersection of Glenmore Road with Cambridge Street. An extract from the plan is presented in **Figure 14** and a copy of the plan issued from Council is attached at **Appendix C**.

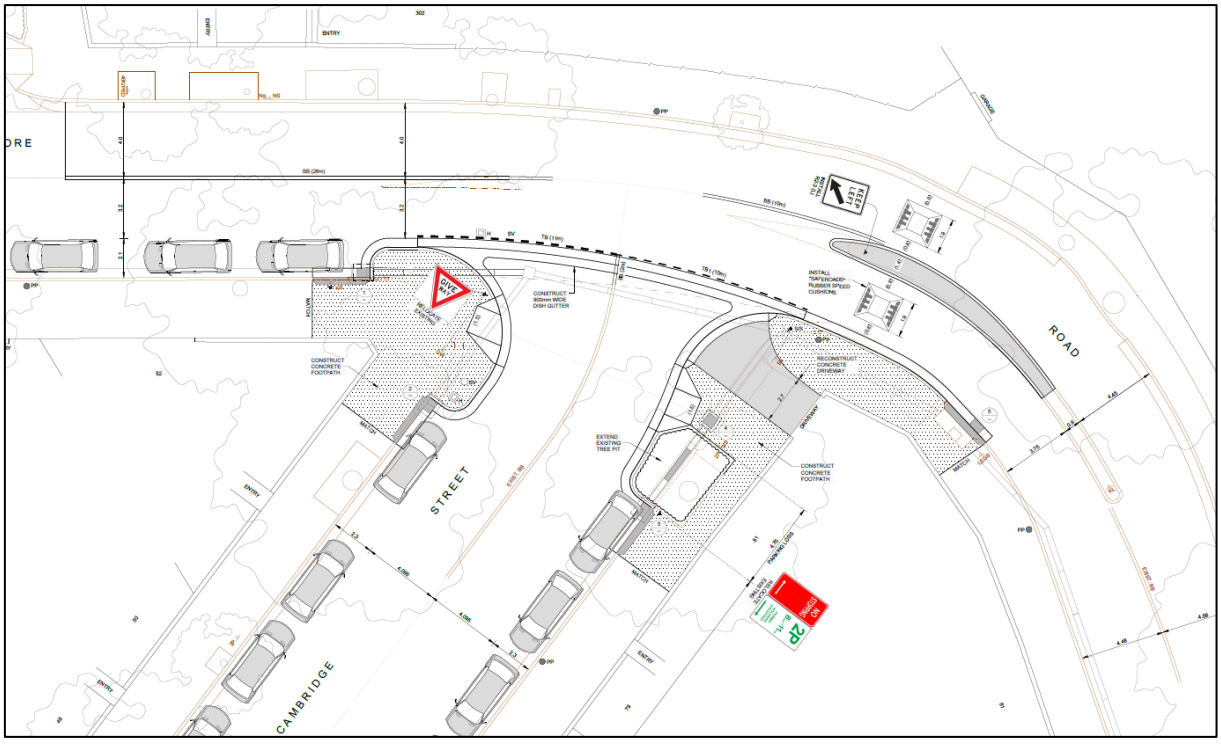


Figure 14: Proposed Glenmore Road / Cambridge Street Upgrades

They key components of these upgrades are as follows:

- Provision of pedestrian ramps on either side of Cambridge Street, currently only one pedestrian ramp provided on the western side of Cambridge Street.
- Widening to, and expansion of, existing footpaths, notably resulting in a narrowing of Cambridge Street at the intersection with Glenmore Road, thereby reducing the crossing distance for pedestrians.
- Provision of two speed cushions on Glenmore Road to encourage slower vehicle speeds, thereby improving safety.
- New and relocated signage and amendments to existing line-marking, as required.

Ason Group endorses these upgrade works proposed by Council.

4 Recommendations

This Local Area Traffic Management Scheme has been developed to review and recommend measures that would improve pedestrian safety, address the existing traffic issues, and accommodate the future traffic generation associated with the White City development proposal.

The following summarises the measures identified:

- **Interim Drop-off / Pick-up Arrangement:** Until the implementation of the School's ultimate arrangement, White City would provide an interim arrangement consisting of. However, in the interim, the use of the Alma Street easement and the future White City redevelopment as an extended DOPU area for the School, allowing all drop-off / pick-up traffic to be located off public roads. This would significantly improve the operation of the local road network. A total length of 350 metre for the drop-off /pick-up which is well in excess of existing queues. This would be supplemented with "Keep Clear" line-marking across the vehicle aisles to ensure that vehicles accessing the School DOPU area would not prevent access into the Site.
- **Glenmore Road:**
  - **Glenmore Road Access Median:** The proposed new ramp from the Site onto Glenmore Road is designated as exit-only and is to be restricted to left-out only. To prevent unauthorised vehicle access and movements, a 300mm median is proposed along the Site frontage. This has been designed with consideration for exiting vehicles, as well as the driveway of the residential development opposite the site to ensure that all movements are still permissible.
  - **Glenmore Road Speed Cushions:** To manage vehicle speeds along Glenmore Road, in particular in vicinity of the new egress ramp and the vehicle crossover of the residential development opposite the Site, tactile speed cushions are recommended. These will reduce vehicle speeds thereby improving the safety of vehicle movements along Glenmore Road.

To improve pedestrian safety within the local road network, the following options are recommended:

- **Alma Street Pedestrian Management:** Provide signage, similar to that which is existing, altering drivers to pedestrian movements, reduce vehicle speed, and give-way to pedestrians.

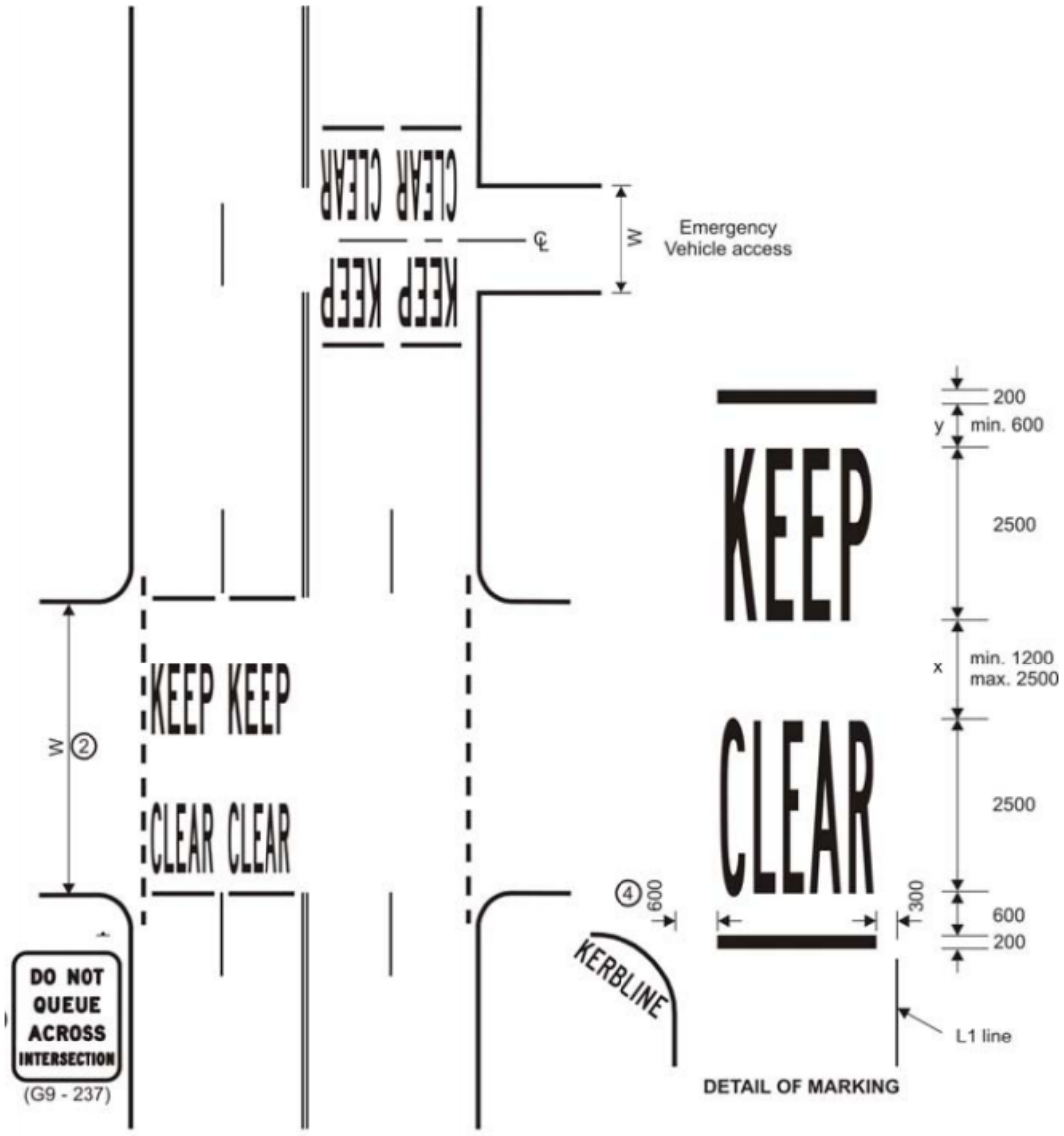
  In addition, allocate a parent / staff member to ensure pedestrians cross safely at the White City driveway. The parent / staff could prevent vehicles from entering / exiting the access driveway by preventing vehicles entering or exiting White City. Similarly, outside of peak periods School staff members will block the White City access driveway while students cross the driveway. This management measure has been adopted at other Schools including Mt Sinai College to ensure pedestrian safety.

- **Glenmore Road and Cambridge Street Council Upgrades:** Council have prepared an intersection upgrade plan for the intersection of Glenmore Road and Cambridge Street. The key upgrades include the provision of pedestrian ramps and kerb extensions to improve pedestrian safety. The recommendations are endorsed and included in this LATM.
- **Lawson Street and Alma Street Pedestrian Upgrades:** An at-grade zebra crossing currently facilitates safe pedestrian movements across Lawson Street at the intersection with Alma Street. It is recommended that this zebra crossing is upgraded to a raised pedestrian crossing (wombat crossing). This will improve the pedestrian links to the Site while also reducing vehicle speeds at this crossing. are explored and adopted.
- **Glenmore Road between Lawson St and South Grandstand:** The existing painted median along Glenmore Rd past Cambridge St to Lawson St can be a built up as a raised median.

Appendix A

9.3.2.5 Specifications

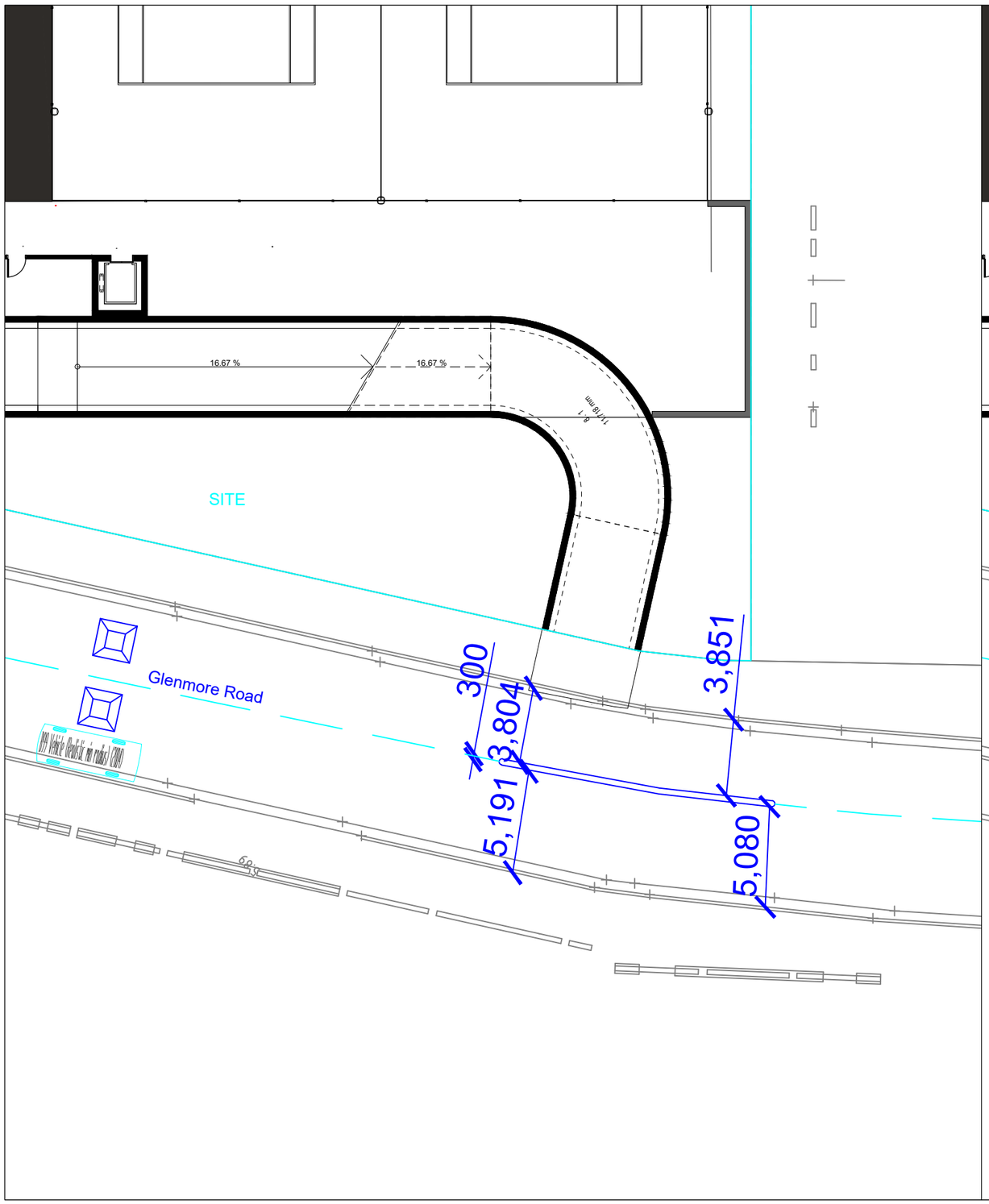
The KEEP CLEAR pavement symbol and associated transverse markings are shown in Figure 9.2.

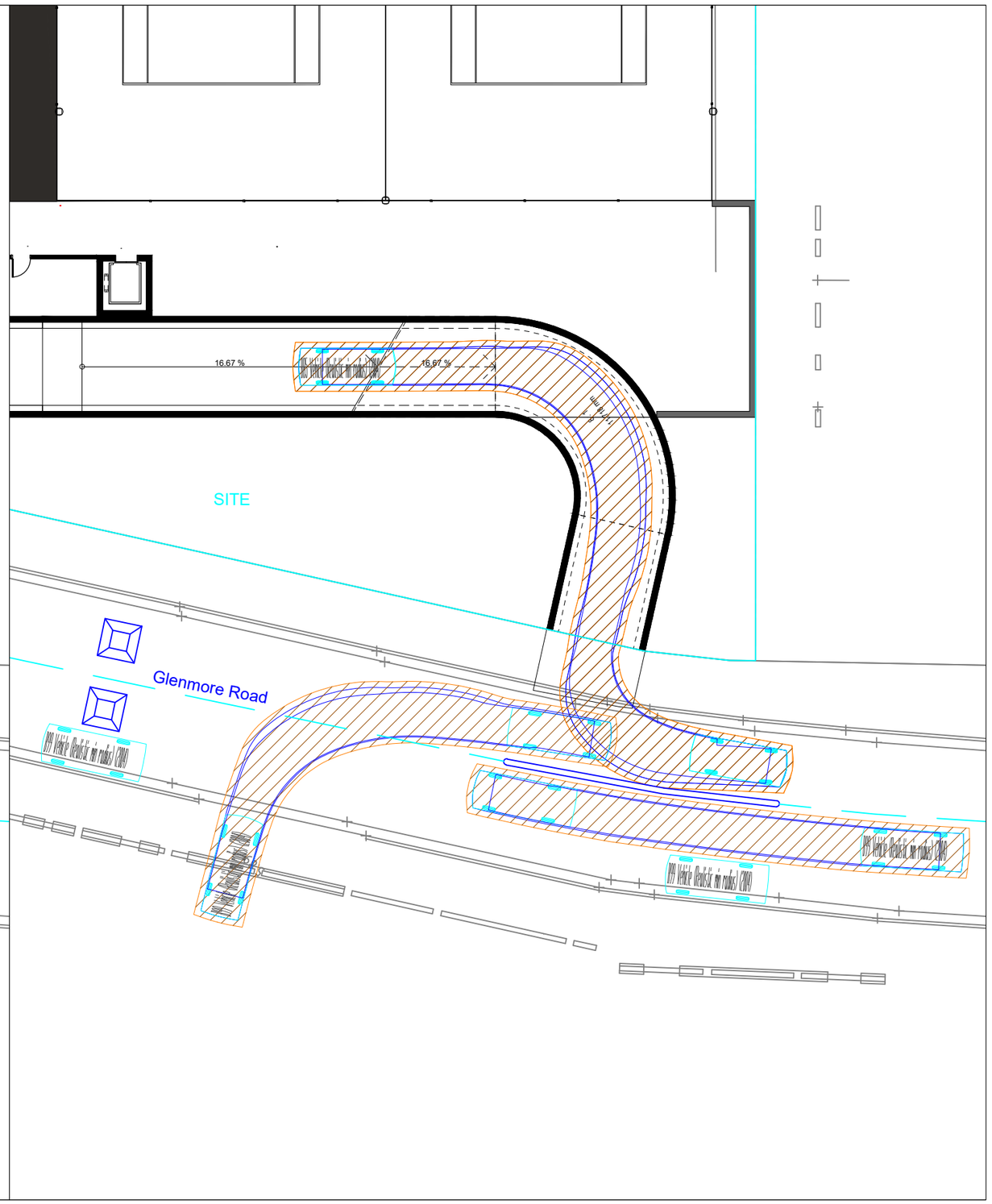


1. For W < 8m, position marking symmetrically on centre line use minimum x & y
2. For W < 8m, position transverse lines adjacent to kerblines, adjust x and y to suit W
3. If necessary use DO NOT QUEUE ACROSS INTERSECTION (G9-237) sign at intersection. Do not use this sign at emergency vehicle access.
4. Where a stop line or holding line is not installed, reduce distance to 300mm

Figure 9.2: Keep Clear Markings
Dimensions are in mm unless otherwise stated

Appendix B





Revision notes:

Rev:	Date:	Notes:

For information purposes only - not for construction

Drawn By: TL

Client: P+I Group

Project: 0410 White City

Drawing Title: LATMS Glenmore Road median & speed cushions

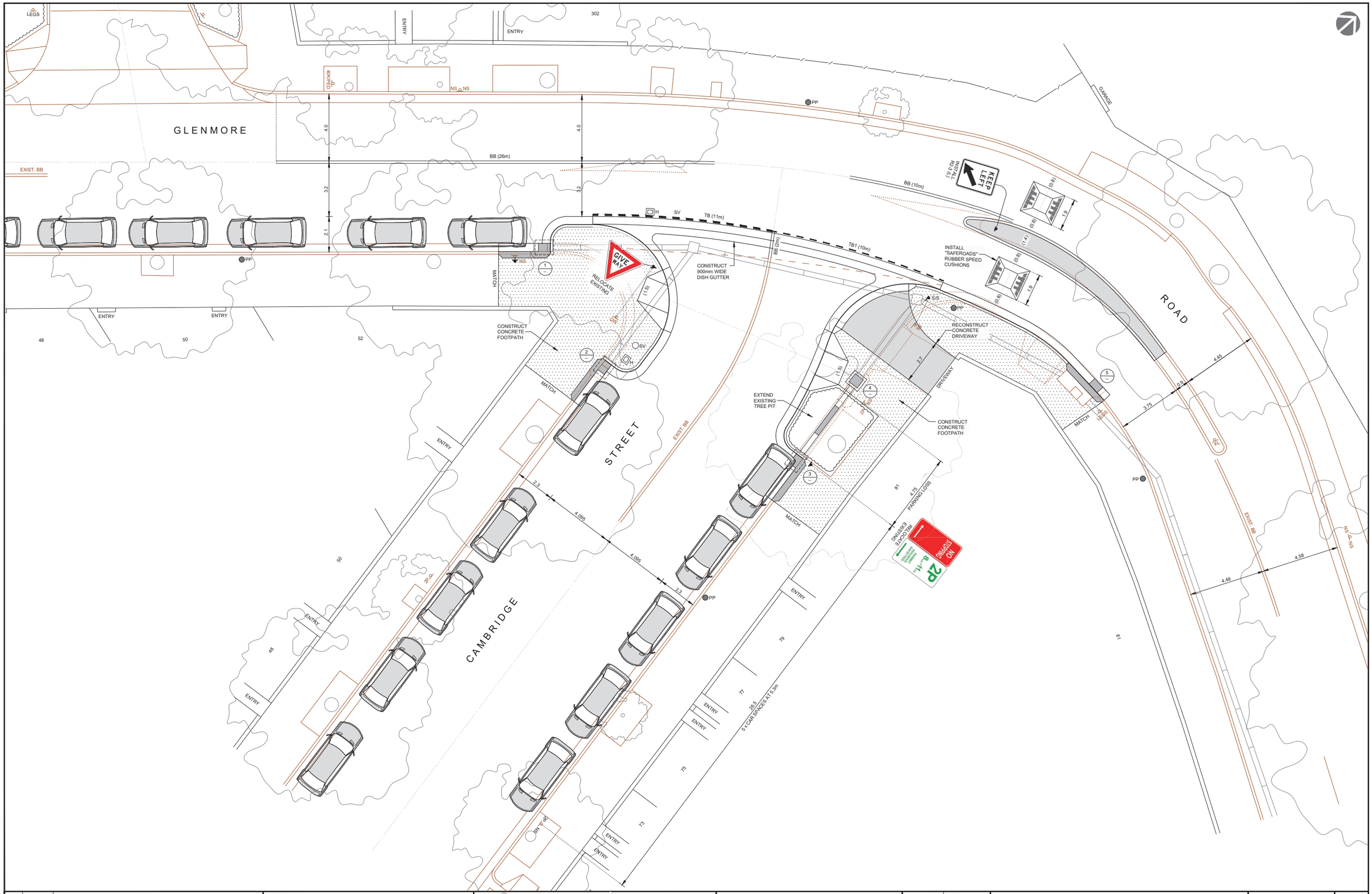
Date: 3/08/20

Scale @ A3: 1:200

Drawing Number: 01

asongroup
Suite 5.02, Level 5, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au

Appendix C



No	DATE	REVISION DETAILS
A	28.10.19	ISSUE FOR COUNCIL REVIEW
B	29.10.19	ISSUE FOR COMMUNITY CONSULTATION
C	21.11.19	ISSUE FOR TRAFFIC COMMITTEE APPROVAL

SCALE BARS:

0 2 4 6 8 10m

1 : 100 @ A1

ASPECT AUSTRALIA

ASPECT AUSTRALIA PTY LTD | ABN 40 080 381 979
CIVIL INFRASTRUCTURE DESIGN CONSULTANTS
PO BOX 1097 CRONULLA NSW 2230 T 0419 271 877
email: admin@aspectaustralia.com.au
web: www.aspectaustralia.com.au

Local Government PROCUREMENT
APPROVED CONTRACTOR

CLIENT:

WOOLLAHRA MUNICIPAL COUNCIL
536 New South Head Rd
Double Bay NSW 2028
PO Box 61 Double Bay NSW 1360
DX 3607 Double Bay
Ph: 02 9391 7000
Fax: 02 9391 7044
Email: records@woollahra.nsw.gov.au
Website: www.woollahra.nsw.gov.au

SCALES:	AS SHOWN
DATUM:	AHD
GRID:	MGA
JOB REF:	15303
APPROVED:	E.ANDARI

PROJECT:
GLENMORE ROAD - PADDINGTON
INTERSECTION OF CAMBRIDGE STREET
ROAD INFRASTRUCTURE IMPROVEMENTS

DRAWING
LAYOUT PLAN AND DETAILS

DRAWING No
15303-TC

REVISION
C

SHEET 1 OF 1 SHEETS

A1

ISSUED FOR:
TC APPROVAL