

Driving success through valuable advice

Site 53, Figtree Drive, Sydney Olympic Park For Mirvac Projects

Response to Authority Comments

For the attention of: Jason Goldsworthy





Document Control

Our Reference: T2-2038, Site 53, Figtree Drive, Sydney Olympic Park, Response to Authority Comments

| ISSUE | DATE | ISSUE DETAILS | AUTHOR | REVIEWED |
|-------|------------|----------------------|--------|----------|
| 1 | 07/06/2017 | Work In Progress | SW | AM |
| 2 | 09/06/2017 | Final Report | SW | AM |
| 3 | 16/06/2017 | Revised Final report | SW | AM |

Contact

Steve Wellman 02-89200800 0421 810 979 steve.wellman@parkingconsultants.com

COMMERCIAL IN CONFIDENCE

The information contained in this document, including any intellectual property rights arising from designs developed and documents created, is confidential and proprietary to Parking & Traffic Consultants (PTC).

This document may only be used by the person/organisation to whom it is addressed for the stated purpose for which it is provided and must not be imparted to or reproduced, in whole or in part, by any third person without the prior written approval of a PTC authorised representative. PTC reserves all legal rights and remedies in relation to any infringement of its rights in respect of its intellectual property and/or confidential information.

© 2017

PARKING & TRAFFIC CONSULTANTS Suite 102, 506 Miller Street Cammeray NSW 2062



Contents

| 1 | Introduction | 1 |
|---------|---|----|
| 1.1 | Report Summary | 1 |
| 2 | Revised Development | 2 |
| 2.1 | Revised Proposal | |
| 2.2 | Planning Policy Requirement – Residential Car Parking | |
| 2.3 | Planning Policy Requirement – Retail Car Parking | |
| 2.4 | Proposed Car Parking Provision | |
| 2.5 | Summary of Car Parking Provision, | |
| 2.5.1 | Planning Policy Parking Requirement | |
| 2.5.2 | Previous Approved Development Parking Requirement | |
| 2.5.3 | Proposed Development Parking Provision | |
| 2.6 | Planning Policy Requirement – Bicycle Parking | |
| 2.7 | Proposed Bicycle Parking Provision | 6 |
| 3 | Authority Comments and Responses | 7 |
| 3.1 | Transport for New South Wales | 7 |
| 3.1.1 | Traffic Generation for Residential Component | 7 |
| 3.1.2 | Public Transport Network | |
| 3.1.3 | Active Transport | |
| 3.1.4 | Construction Traffic Management Plan | |
| 3.2 | Sydney Olympic Park Authority | |
| 3.2.1 | Traffic and Transport – Traffic Generation (Residential Component) | |
| 3.2.2 | Mode Share – Public Transport | |
| 3.2.3 | Impact of Proposal on traffic during Major Events | |
| 3.2.4 | Loading Areas | |
| 3.3 | Department of Planning and Environment | |
| 3.3.1 | Car Parking | |
| 3.4 | City of Parramatta | |
| 3.4.1 | Car Parking and Traffic Generation | |
| 3.5 | Roads and Maritime Services | 15 |
| Attacl | hment 1 – Revised Car Park Drawings | 17 |
| | | |
| | 1 – Car Parking Provision | |
| | 2 – Planning Policy Car Parking Requirement | |
| | 3 – Car Parking Requirement Based on Previous Approved Development Controls | |
| | 4 – Proposed Car Parking Provision | |
| rable 5 | 5 – Ricycle Parking Provision | 6 |



1 Introduction

1.1 Report Summary

Parking and Traffic Consultants (PTC) have been engaged by Mirvac Project Pty Ltd to prepare responses to the Traffic and Transport comments issued by the approving authorities, in relation to the proposed mixed use development proposed at Site 53, 2 Figtree Drive, Sydney Olympic Park (SSD 7662)

The comments received relate to the 'Proposed Mixed Use Development, Site 53, 2 Figtree Drive, Sydney Olympic Park, Transport and Traffic Assessment', Ref: N110390 (dated 23/11/16), prepared by GTA Consultants.

The comments received from each authority are within Section 3, with the relevant responses are included within each relevant sub-section.



2 Revised Development

2.1 Revised Proposal

Following the original submission for the proposed development of Site 53, 2 Figtree Drive, Sydney Olympic Park, further design development has been undertaken and the proposed development has been revised to incorporate the following facilities:

- 279 one bedroom units
- 334 two bedroom units
- 91 three bedroom units
- One four bedroom unit; and
- 1500m² of local retail space.

2.2 Planning Policy Requirement – Residential Car Parking

Part 3J of the Apartment Design Guide (State Environmental Planning Policy (SEPP) 65) states that:

"For development... on sites that are within 800 metres of a railway station... the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less".

In this regard, and as shown in Figure 1, the proposed development is located within 800 metres of Olympic Park Station and therefore the parking provision has been assessed against the requirements of SEPP 65.

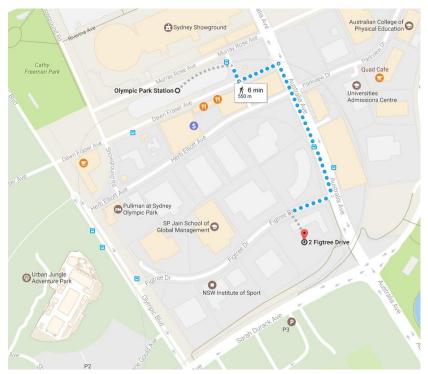


Figure 1 - Site Location Plan



SEPP 65 specifies the following minimum parking provision;

• One bedroom units - 0.6 space per unit

Two bedroom units - 0.9 spaces per unit

• Three + bedroom units - 1.4 spaces per unit

• Visitors - 0.2 spaces per unit

2.3 Planning Policy Requirement – Retail Car Parking

Table 4.10 of the SOPA Masterplan 2030 sets out the parking provisions for non-residential uses for new developments within SOPA. The Masterplan specifies the following maximum parking provisions for non-residential uses:

Local retail use - 1 space per 50m²

2.4 Proposed Car Parking Provision

The revised development will accommodate 705 residential units, in the following configuration;

- 279 one bedroom units
- 334 two bedroom units
- 91 three bedroom units
- One four bedroom unit; and

The development also accommodates 1500m² of local retail space.

Applying the SEPP 65 (residential) and the Masterplan (Retail) rates to the development leads the provisions outlined in Table 1

Table 1 - Car Parking Provision

| User Type | | | Master Plan / SEPP 65 Parking Provision Rate | Minimum Required Spaces | Allocated Spaces |
|-------------------------|--------------------|-----|--|----------------------------|--|
| One-bedroom unit | 279 | @ | 0.6 spaces per unit | 167 (167.4) | |
| Two-bedroom unit | 334 | @ | 0.9 spaces per unit | 301 (300.6) | 655 |
| Three bedroom unit | 91 | @ | 1.4 spaces per unit | 127 (127.4) | 033 |
| Four bedroom unit | 1 | @ | 1.4 spaces per unit | 1 (1.4) | |
| Visitors | 705 | @ | 0.2 spaces per unit | 141 | 71 |
| | | | | 737 | 726 |
| | | | | | |
| Retail | 1500m ² | @ | 1.0 spaces per 50m ² | 30 (maximum allowance) | Inclusive within the residential visitors* |
| Required Spaces | | | 767 | | |
| Total On-Site Parking S | paces Provid | led | | 726 (+ 4 Car Share) | |



*. The provision of 71 residential visitor spaces is based on an allowance of one space per ten residential units. This provision is based on the 'State Significant Development Assessment Report' undertaken for the previous approval on the site dated August 2015, where a provision of 42 visitor spaces was approved for a proposed development of 422 units (at a rate of 1 space per 10 units). This assessment also accepted the shared use of the retail visitor and residential visitor spaces.

It should also be noted that, Sydney Olympic Park accommodates a large number of public car parks, which are available 24 hours a day and during non-event periods have a high capacity of parking spaces, which would be available for use by residential visitors to the proposed development.

The proposed development accommodates a total of **730** car parking spaces, allocated as shown in Table 1 and therefore it is deemed that this provision meets the requirements of Sepp 65. It is also consistent with the Masterplan and previous assessments undertaken on the development site, along with the availability of public parking in the vicinity of the site.

It should also be noted that **4 car share spaces** are proposed within the development for use by residents. Based on data from City of Sydney Council, typically the provision of one car share space can replace up to 12 private vehicles that would otherwise compete for local parking.

This is further backed up by a study undertaken by 'SGS Economics and Planning' in 2012 (commissioned by City of Sydney) which concluded that;

'By 2016, 13.5 less cars would be on the road for each car space provided and that membership per car space would be in the region of 22 users.'

This provision of car share spaces would therefore equate to approximately 48 regular car spaces normally required by residents, based on the City of Sydney finding.

2.5 Summary of Car Parking Provision,

2.5.1 Planning Policy Parking Requirement

To meet the requirements of SEPP 65 (residential) and the Masterplan (retail) a parking provision of 767 spaces is required. The allocation of the parking determined by these controls would be;

Table 2 – Planning Policy Car Parking Requirement

| User Type Units / GFA | | Master Plan / SEPP 65 Parking Requirement | Minimum Required Spaces | |
|-----------------------|--------|--|---------------------------------|---------------------------|
| One-bedroom unit | 279 | @ | 0.6 spaces per unit | 167 (167.4) |
| Two-bedroom unit | 334 | @ | 0.9 spaces per unit | 301 (300.6) |
| Three bedroom unit | 91 | @ | 1.4 spaces per unit | 127 (127.4) |
| Four bedroom unit | 1 | @ | 1.4 spaces per unit | 1 (1.4) |
| Visitors | 705 | @ | 0.2 spaces per unit | 141 |
| | | | | 737 |
| Retail | 1500m² | @ | 1.0 spaces per 50m ² | 30 (maximum allowance) |
| Required Spaces | | | | 767 |

However, this is on the basis that there is no overlap in the usage of the car parking provisions. (i.e., each land use having separate parking provision), which does not represent efficient use of space.



2.5.2 Previous Approved Development Parking Requirement

Based on the parking controls determined for the previous development approved for the site, this development would require a total of 667, allocated as follows;

Table 3 – Car Parking Requirement Based on Previous Approved Development Controls

| User Type | Units | | SEPP 65 / Previous Development Parking Requirement | Minimum Required Spaces |
|--------------------|-------|---|--|-------------------------|
| One-bedroom unit | 279 | @ | 0.6 spaces per unit | 167 (167.4) |
| Two-bedroom unit | 334 | @ | 0.9 spaces per unit | 301 (300.6) |
| Three bedroom unit | 91 | @ | 1.4 spaces per unit | 127 (127.4) |
| Four bedroom unit | 1 | @ | 1.4 spaces per unit | 1 (1.4) |
| Combined Visitors | 705 | @ | 0.1 spaces per unit | 71 |
| Required Spaces | | | | 667 |

This allocation utilises a shared usage of visitor parking, based on complementary peak demands periods.

2.5.3 Proposed Development Parking Provision

The proposed development will provide 730 spaces, allocated as follows;

Table 4 – Proposed Car Parking Provision

| User Type | Units | | Parking Provision Rate Applied | Parking Allocation |
|--------------------|-------|---|--------------------------------|--------------------|
| One-bedroom unit | 279 | @ | 0.6 spaces per unit | 167 (167.4) |
| Two-bedroom unit | 334 | @ | 1.0 spaces per unit | 334 |
| Three bedroom unit | 91 | @ | 1.67 spaces per unit | 152 |
| Four bedroom unit | 1 | @ | 1.67 spaces per unit | 2 (1.67) |
| Combined Visitors | 705 | @ | 0.1 spaces per unit | 71 |
| Car Share | | | | 4 |
| Provided Spaces | • | • | | 730 |

This provision, therefore meets residential requirements of SEPP 65, the combined visitor requirements, based on the parking controls determined for the previous development approved for the site and a car share provision, providing an alternative, convenient, affordable and sustainable transport option for residents and visitors.



2.6 Planning Policy Requirement – Bicycle Parking

The bicycle parking requirements relating to new developments with in Olympic Park are presented in Table 4.12, in the Sydney Olympic Park Master Plan 2030.

The bicycle parking rates are presented as a minimum provision in line with the SOPA planning principle of "promoting access and travel by public transport, walking and cycling".

The masterplan specifies the following minimum bicycle parking requirements;

Residential use

One bedroom units
 - 1 space per unit

Two bedroom units - 1.2 spaces per unit

Three bedroom units - 1.5 spaces per unit

Four bedroom units - 2 spaces per unit

Visitors - 0.25 spaces per unit

• Retail use

○ Permanent spaces
 - 1 space per 150m²

Visitor spaces
 - 1 space per 75m²

2.7 Proposed Bicycle Parking Provision

The proposed development will accommodate 705 residential units and a total commercial space of 1500m².

Applying the Masterplan rates to the development leads to the provisions outlined in Table 5.

Table 5 – Bicycle Parking Provision

| Use Type | | | Parking provision Rate | Required Spaces | Allocated Spaces |
|----------------------------------|--------------------|------|---------------------------|-----------------|------------------|
| One-bedroom unit | 279 | @ | 1.0 spaces per unit | 279 | |
| Two-bedroom unit | 334 | @ | 1.2 spaces per unit | 401 (400.8) | |
| Three bedroom unit | 91 | @ | 1.5 spaces per unit | 137 (136.5) | 995 |
| Four bedroom unit | 1 | @ | 2 spaces per unit | 2 | |
| Visitors | 705 | @ | 0.25 spaces per unit | 176 (176.25) | |
| Retail - permanent | 1500m ² | @ | 1 space per 150m² | 10 | 10 |
| Retail - visitors | 1500m ² | @ | 1 space per 75m² | 20 | 30 |
| Required Spaces | I | 1025 | | | |
| Total On-Site Parking Spaces Pro | vided | | 1025 | | |

The proposed provision of **1025 spaces**, meets the minimum required bicycle parking by the Sydney Olympic Park Masterplan 2030.



3 Authority Comments and Responses

Comments were received from the following authorities:

- Transport for New South Wales (TfNSW)
- Sydney Olympic Park Authority (SOPA)
- Department of Planning and Environment (DPE)
- The City of Parramatta Council (CoPC)
- Roads and Maritime Services (RMS)

3.1 Transport for New South Wales

TfNSW comments were issued on 7th April 2017 and are listed below:

3.1.1 Traffic Generation for Residential Component

Comment

The adopted traffic generation rates for the residential component are 0.19 veh / dwelling (AM) and 0.15 veh / dwelling (PM) for the morning and afternoon peak periods respectively based on the Roads and Maritime Services Technical Direction TD13/04a. These rates are the averages of traffic generation rates from multiple high density residential developments located within the Sydney Metro / Regional Areas. TfNSW does not support the adopted rates as these rates have been derived from the results of the surveys undertaken at the sites where higher level of public transport service is provided compared to the subject development site.

Recommendation

TfNSW requests the applicant adopt the traffic generation rates based on the traffic surveys undertaken at comparable sites with similar mode share characteristics. The traffic generating from this development would have the potential to impact on general traffic and bus operations via Australian Avenue. TfNSW is happy to work with the applicant to identify a more suitable rate to be used. This will require the applicant to subsequently update and revise their traffic modelling.

Response

To reassess the traffic generation for the proposed development, the site has been assessed against a similar site with comparable mode share characteristics. Reviewing the RMS survey data for High Density Residential developments within TDT 2013/04, it has been assessed that the Wollongong site is the most comparable and this is described in more detail in the following paragraphs.

A review of the 'Bureau of Statistics Journey to Work Database' has been undertaken to ascertain the existing travel modes utilised by residents of Sydney Olympic Park.



Based on the information taken from the "Place of Residence' study, undertaken in 2011, it was concluded that:

- 66% of residents travel to work as the driver of a vehicle,
- 5% of residents travel to work as a passenger of a vehicle, and
- 29% of residents travel to work by other means (Train, bus, cycle etc)

Reviewing the RMS survey data for High Density Residential developments within TDT 2013/04, it has been assessed that, based on having the most similar % mode of travel split, the Wollongong site is the most comparable data set to use.

The % mode split for the Wollongong site is as follows;

- 55% of residents travel to work as the driver of a vehicle,
- 13% of residents travel to work as a passenger of a vehicle, and
- 32% of residents travel to work by other means (Train, bus, cycle etc)

For the Wollongong site, the trip generation rates, per car space (based on the RMS data) is

- AM peak 0.32 per car spaces
- PM peak 0.11 per car space

Based on this analysis, it is concluded that a more suitable traffic generation rate for the development is **0.32** trips per car space.

With reference to the revised parking provision of 655 residential spaces (as outlined in Section 2.4), this would produce a trip generation of **210 vehicles** during the peak periods.

Based on the data in Section 4.3 of the GTA Transport and Traffic Assessment (Rev C) the site currently generates 74 vehicle trips in the peak periods, therefore giving a net increase of 136 vehicle trips (approximately 1 trip every 5 seconds).

Also, as discussed in Section 4.4 of the GTA report, the SOPA Masterplan 2030 notes a number of intersection and road upgrades are to be undertaken to provide additional capacity within the precinct.

Taking all these factors into consideration, these traffic increases are considered moderate and the road network within the vicinity of the site should have the capacity to manage this increase.

3.1.2 Public Transport Network

Comment

The information in relation to the Public Transport Network provided in the Traffic Impact Assessment (TIA) needs to be updated.

Recommendation

TfNSW requests that the following be updated:



Table 2.1 'Public Transport Provision' (p.6) states that route 450 operates to Olympic Park; however this route has not operated to Olympic Park since June 2016. Route 450 now operates between Burwood to Hurstville via Strathfield, Lakemba and Roselands'

T1 Northern Line 'Concord West Station' is a 1.6km walk from the site and outside the 800m catchment. TfNSW regards this as outside the acceptable level of walking distance to public transport and should be removed.

Response

Table 2.1 has been updated below, to reflect the alterations to Bus Route 450 and this route has been deleted from the table.

The reference to the 'T1 Northern Line' has not been removed from Table 2.1. It is noted that Concord West station is outside the walking catchment of 800 metres, recommended in the 'Planning Guidelines for Walking and Cycling', however the cycling catchment is recommended at 1500 metres and the distance has been recalculated from the north east corner of the development site and this measures 1500 metres. This would allow Concord West Station to be used for access to the development site as part of a multi modal trip.

Table 2.1 – Public Transport Provision

| | | | Typical Services | | | | |
|---------|-------|--|-------------------------------------|-------------------------------------|------------------------------------|--|--|
| Service | Route | Route Description | AM Peak Period (6.30am – 9.30am) | PM Peak Period (4.00pm – 7.00pm) | Saturday (11.00am to 2.00pm) | | |
| Train | T7 | Lidcombe to Olympic Park | Every 10 mins | Every 10 mins | Every 10 mins | | |
| Haili | T1 | Northern Line | Every 15 mins | Every 15 mins | Every 30 mins | | |
| | 525 | Burwood to Parramatta | Every 10-15 mins | Every 10 – 15 mins | Every 30 mins | | |
| | 526 | Burwood to Sydney Olympic Park Wharf | Every 30 mins | Every 30 mins | Every 60 mins | | |
| Bus | 533 | Chatswood / North Ryde to Olympic Park | Every 15 mins | Every 15 mins | - | | |
| | X25 | Strathfield Station – Sydney Olympic Park | Every 15 mins | Every 10 mins | - | | |
| | 401 | Lidcombe to Sydney Olympic Park | Every 20 mins | Every 20 mins | Every 40 mins | | |

3.1.3 Active Transport

Comment

The following comments are provided in relation to active transport:

No detailed information is provided in relation to end of trip facilities; and

Improvements to the footpath adjacent to the site and cycle way links with regional transport network would have the potential to encourage active transport to the site.

Recommendation

TfNSW requests that the applicant:



Confirm that appropriate end of trip facilities as per the Sydney Olympic Park Authority (SOPA) requirements be provided; and

Provide a shared path adjacent to the site to connect pedestrians and bicycle riders to existing pedestrian and bicycle networks/road networks and public transport.

Response

The development proposes 1025 cycle parking spaces for residents and visitors which are provided in a mix of storage spaces and bike racks, and given the residential nature of the development these facilities are deemed as the end of trip facility.

As part of the revised development proposal, Mirvac will provide a shared footway / cycleway along the eastern side of the 'New Street' connecting the development to the proposed upgrades to Figtree Drive. The cycleway will be designed in accordance with relevant AustRoads and RMS Guidelines and details will be provided prior to issue of Construction Certificate drawings.

3.1.4 Construction Traffic Management Plan

Comment

Several construction projects, including the Sydney Light Rail Project are likely to occur at the same time as this development within the Sydney Olympic Park. The cumulative increase in construction vehicle movements from these projects could have the potential to impact on general traffic and bus operations within the CBD, as well as the safety of pedestrians and cyclists particularly during commuter peak periods.

Recommendation

Prepare a Construction Pedestrian and Traffic Management Plan (CPTMP) in consultation with Roads and Maritime Services, TfNSW, City of Parramatta and SOPA. The CPTMP needs to specify, but not be limited to, the following:

- Location of the proposed work zone;
- Haulage routes;
- Construction vehicle access arrangements;
- Proposed construction hours;
- Estimated number of construction vehicle movements;
- Construction program;
- Any potential impacts to general traffic, cyclists, pedestrians and bus services within the vicinity of the site from construction vehicles during the construction of the proposed works;
- Cumulative construction impacts of projects within the Sydney Olympic Park. Existing CPTMPs for developments within or around the development site should be referenced in the CPTMP to ensure that coordination of work activities are managed to minimise impacts on the road network; and
- Should any impacts be identified, the duration of the impacts and measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist impacts should be clearly identified and included in the CPTMP.



Submit a copy of the final plan to the Sydney Olympic Park Authority for endorsement, prior to the commencement of any work.

Response

As typical with similar projects within SOPA, Mirvac will provide a CTMP outlining the items raised, at the Construction Stage of the project.

The CTMP will be prepared in consultation with TfNSW, RMS, City of Parramatta and SOPA. The CTMP will take into consideration the cumulative impacts of other ongoing developments within SOPA and will be submitted to SOPA for endorsement prior to commencement of any works on site.

3.2 Sydney Olympic Park Authority

SOPA comments were issued on 13th March 2017 and are listed below:

3.2.1 Traffic and Transport – Traffic Generation (Residential Component)

Comment

The GHD Traffic Report (Traffic Report) specifies a net increase of 84 vehicles per hour. This is based on average AM traffic generation rates and on the fact that the existing building has the potential to generate 163 vehicles per hour.

Although the RMS's Technical Directions for Traffic Generating Proposals (Updated Surveys – TDT 2013/04a) indicates "Average 1 hour vehicle trips per unit as 0.19 vehicles per morning (AM) peak and 0.15 vehicles per afternoon (PM) peak", the Surveys in the same RMS Technical Direction document shows that it is more likely that the rates for this type of proposal are closer to:

"0.52 – 0.81 vehicles trips per unit for AM peak" (These figures are derived comparing compatible "High Density Residential – Generation Rates").

The Authority considers it is more likely that these figures (0.52 – 0.81 vehicles trips per unit for AM peak) apply instead of the "Average" figure shown in the Traffic report (0.19). Therefore, the traffic generated by the Residential Component is 0.55×694 units = 381.7 (say 382 vehicles per AM peak).

This has potential to cause major delays and queuing especially at the intersection of Figtree Drive and Australia Avenue. Therefore it is recommended that the Traffic Report be amended to provide an assessment and recommendations based on this more realistic scenario.

Response

Please refer to the response in Item 3.1.1

3.2.2 Mode Share – Public Transport

Comment

The Traffic Report (page 2) states that "The proposal is expected to generate only a moderate level of public transport, pedestrian and cyclist trips. It is expected that the existing infrastructure would have adequate capacity to accompany these proposals".



The above statement contradicts the 'low' traffic generation rate used in the Traffic Report, in order to calculate relative low vehicle volumes. The 'low' traffic generation rates should only apply where the majority of trips are directed towards Public Transport and where Public Transport is the dominant mode in the area (e.g. Strathfield).

In this case, the proximity of the proposal to the Sydney Olympic Park train station does not reduce drastically the mode choice towards public transport, mainly due to the fact the existing train services does not provide direct connections (i.e. non direct connection to Central or the West).

The Transport Mode Share figures provided (page 26) are based on Journey to Work (JTW) data for residents living in Chatswood and St Leonard's. These figures cannot be accepted for the proposal as the Mode Share stated in the Traffic Report would be completely different due to the non-direct train connection to/from Sydney Olympic Park station. Therefore the Traffic Report requires amendment to provide an assessment and recommendations taking the above into account.

Response

A review of the 'Bureau of Statistics Journey to Work Database' has been undertaken to ascertain the existing travel modes utilised by residents of Sydney Olympic Park.

Based on the information taken from the "Place of Residence' study, undertaken in 2011, it was concluded that:

- 21% of residents travel to work by train,
- 2% walked to work,
- 2% travelled to work by bus,
- 1% travelled to work by ferry, and
- 1% by other mode (assumed to be cycling)

The development includes 705 residential units and based on data taken based on the Wollongong survey data in TDT 2013/04, the site would generate approximately 0.89 person trips in the AM peak and 1.11 person trips in the PM peak.

Based on this estimation, the development would generate approximately 783 person trips in the PM peak and this would approximately equate too an additional:

- 164 of residents utilising the train,
- 16 walking,
- 16 travelling by bus,
- 8 travelling by ferry, and
- 8 travelling by other mode (assumed to be cycling)

The SOPA Masterplan 2030 outlines the following potential improvements to public transport:

Increasing the frequency of bus, rail & ferry services,



- Establishing strategic bus corridor 13 between Parramatta and Burwood (via SOPA)
- Providing bus priority routes into SOPA, and
- Improving transport information and marketing programs.

Given that the increases in the use of alternative modes of travel are minimal and in light of the proposed upgrades/ increase to the public transport infrastructure outlined in the SOPA Masterplan 2030, it is concluded that the proposed increase in demand for alternative transport options would have minimal effect on the public transport infrastructure.

3.2.3 Impact of Proposal on traffic during Major Events

Comment

The Traffic Report states that "From a Traffic perspective, the proposal is not expected to create any adverse traffic and transport issues..."

However, during major events the western end of Figtree Drive may at times be closed. In these instances, all traffic from the site may be via Australia Avenue. As the Australia Avenue - Figtree Drive intersection is un-signalised, there is a potential for long delays especially for right turn movements out of Figtree Drive.

As such, the Authority requests that traffic generation and the potential impact of traffic queuing to adjacent intersections, particularly the intersection of Figtree Drive - Australia Avenue be further assessed in consultation with the Authority.

Response

Any major event within SOPA is planned in advance and the authority would know which events would require the closure of intersection at the western end of Figtree Drive.

For such instances, it is recommended that as part of the planning and management of such an event, that SOPA (or the event co-ordinators) produce a Traffic Management Plan, to provide temporary traffic management at the intersection of Figtree Drive and Australia Avenue (such as temporary traffic signals) to manage all vehicle movements during major event mode.

3.2.4 Loading Areas

Comment

While the Authority has not undertaken a full assessment of the access and parking arrangements, it is noted that the loading dock height is 4 metres which does not comply with the Australia Standard (AS) 2890.2 vertical clearance requirement of 4.5 metres for commercial vehicles. It recommended that the applicant be required to comply with AS 2890.2 in regard to the loading dock height, and with access and parking standards AS 2890.1, AS 2890.2 and AS 2890.6.

Response

As stated in the Traffic and Transportation Impact Assessment, refuse collection is to be undertaken Council services with a vehicle length of 8.5 metres, which equates to a Medium Rigid Vehicle (MRV).



AS2890.2 requires headroom of 4.5m for on-site parking facilities accommodating MRV's. This requirement is based on the maximum height of 4.2m for a MRV and a clearance of 300mm.

An assessment of refuse vehicle specifications corresponding to this length of vehicle has been undertaken as follows:

- SITA Rear Lift: Overall Length 8.0 metres, Overall Width 2.5 metres, Height (in operation) 3.4 metres.
- Veolia Rear Lift 4x2: Overall Length 8.65 metres, Overall Width 2.2 metres, Max Height 3.04 metres.
- ACCO 2350 G 4x2: Overall Length 8.13 metres, Overall Width 2.48 metres, Max Height 3.44 metres.

Based on this assessment, the likely maximum height of a refuse vehicle would be 3.44 metres and allowing for a 300mm tolerance for headroom, the proposed 4.0 metre clearance for vehicle access is adequate.

Further to this the loading area is to be used by Medium Rigid Vehicles (MRV) servicing the retail spaces and providing removalist services for the residents.

Typical heights for vehicles undertaking these operations are as follows:

- Hino 700 Series Length 8.7 metres, Width 2.49 metres, Height 3.05 metres.
- Iveco Acco 4x2 Length 8.45 metres, Width 2.18 metres, Cab Height 2.69 metres.
- Isuzu FRD LWB Length 8.6 metres, Width 2.17 metres, Cab Height 2.59 metres.

Allowing for a typical additional body height of 1 metre, to the cab height dimension and a 300mm tolerance, the typical vehicle heights fall below the proposed 4.0 metre headroom. In addition height bar restrictions of 4.0 metres would be provided at the entrance to the loading area access and residents and retail space occupiers would be aware of the height restrictions and would be required to limit any delivery or removalist heights as such. Therefore the provision of a 4.0 metre headroom does not impact of the serviceability of the development, given that there are a range of vehicles with a height of less than 4.0 metres that can service the development.

A loading dock management, supplemented by a 'Drivers Code of Conduction' can also be put in place to inform all users of the loading dock of the requirements of using the facility.

3.3 Department of Planning and Environment

DPE comments were issued and are listed below:

3.3.1 Car Parking

Comment

The department notes that there are a number of discrepancies between the car park figures identified in the EIS and Traffic and Transport Impact Assessment, Appendix Q of the EIS. The Department requests that the RtS verify the car parking proposed for the development including a detailed breakdown of car parking for the residential units, car parking for the retail uses, car parking for visitors and accessible parking. Any variation to the car parking requirements of the 2016 review, RMS minimum car parking requirements and the ADG need to be appropriately justified (including for visitor parking)

Response



Please refer to the details provided in Item 2.4

3.4 City of Parramatta

CoPC comments were issued on 15th February 2017 and are listed below:

3.4.1 Car Parking and Traffic Generation

Comment

Concerns are raised in general with the amount of car parking spaces provided for the development within the area and the subsequent impacts on traffic generation related issues for the locality. It is also noted that the proposed visitor parking appears to be substantially lower than required.

Response

Please refer to the response provided in Item 3.1.1 and Item 2.4.

3.5 Roads and Maritime Services

RMS comments were issued on 7th March 2017 and raised no objection to the proposed development as it unlikely to have a significant impact on the classified road network:



Attachment 1 – Revised Car Park Drawings