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Re: Melrose Park – Tomola mixed use development

Dear Talal

This letter outlines the findings of a preliminary traffic impact assessment of the proposed mixed-use development for 19 Hope Street and 69-67 Hughes Avenue as part of a Planning Proposal. This assessment provides a preliminary high-level estimate of traffic generation and parking provision requirements for the proposed development, and identifies the likely traffic impacts on the surrounding road network in the context of the broader Melrose Park Transport Management and Accessibility Plan (TMAP). The Melrose Park TMAP Executive Summary is provided in Attachment A.

Introduction

Melrose Park. Situated on the corner of Hope Street and Hughes Avenue, this site would accommodate approximately 182 high-density residential units and approximately 1,400 m^2 of commercial and retail space. The site is located Melrose Park development precinct, assessed in 2019 as part of the Melrose Park TMAP (Jacobs, 2019). The site location, in the context of the Melrose Park development precinct is shown in Figure 1.

The site is located 600m from Victoria Road with limited access to the arterial road network via Hughes Avenue, which currently allows only left turn onto an off Victoria Road. The closest intersection that currently offers full access to the arterial road network is at Victoria Road and Wharf Road, 1.2km from the site.

Public transport access to and from the site is primarily via bus, with two stops on Hope Street within walking distance of the site providing access to West Ryde and Parramatta via the 534 service that operates every 30 minutes during peak periods. Higher frequency bus services are also available on Victoria Road to Parramatta and Sydney CBD.

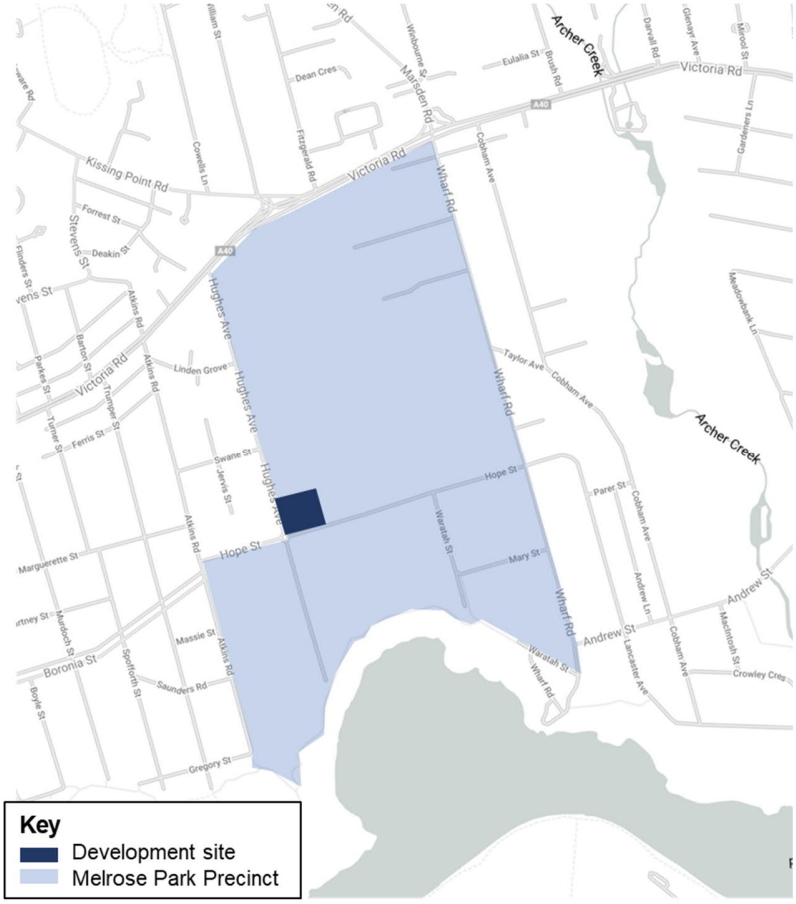

Figure 1 – Tomola site location and context

Trip generation

The Melrose Park TMAP identified the following trip generation rates for developments within the northern precinct:

- High density residential: 0.25 trips per dwelling
- Commercial: 1.2 to 1.6 trips per 100m^2 GFA
- Retail: 2.5 to 5 trips per 100m^2 GFA

A summary of the forecast trip generation for the site during morning and evening peak period is provided in Table 1. Based on the trip generation rates adopted for Melrose Park, the development would generate 75 vehicle trips in the morning peak and 89 trips in the evening peak. This is based on an indicative estimate of retail and commercial space, the maximum trip generation for the site based on maximising retail would increase the peak trip generation to a maximum of 81 trips in the morning peak and 116 trips in the evening peak

Table 1 – Forecast peak period trip generation for Tomola development site

Land use	Yield	AM Rate	AM Trips	PM Rate	PM Trips
High density residential	182	0.25 per dwelling	46	0.25 per dwelling	46
Commercial	700 m^2	1.6 per 100 m^2	11	1.2 per 100 m^2	8
Retail	700 m^2	2.5 per 100 m^2	18	5.0 per 100 m^2	35
Total			*75*		*89*

Parking provision

Parking controls for the development site are currently governed by the City of Parramatta Development Control Plan (DCP). A summary of the required parking provision based on the DCP parking rates and proposed development yield is provided in Table 2. Based on these rates, a total of 223 parking spaces would be required within the development to meet the DCP requirements.

Table 2 – Development parking provision for Tomola development site

Land use	Yield	Parking Rate	Parking Spaces
Residential 1 bed	52	1 per dwelling	52
Residential 2 bed	118	1 per dwelling	118
Residential 3 bed	12	1.2 per dwelling	15
Commercial	700 m^2	1 per 50 m^2	14
Retail	700 m^2	1 per 30 m^2	24
Total			*223*

Transport infrastructure and services for Melrose Park

Significant investment in new and upgraded transport infrastructure will support the development Melrose Park and the growth of Greater Parramatta and Olympic Park (GPOP). There are already a number of critical infrastructure projects planned by NSW Government in and around Melrose Park which will influence the location and enable residential and employment growth to occur as identified in NSW Governments' *Future Transport 2056* document. Table 3 below shows the indicative completion timeframes for the key metropolitan transport infrastructure enablers that will support Melrose Park.

Table 3 – Transport projects for Melrose Park and GPOP

Project	Transport Mode	Status	Estimated Completion
Parramatta Light Rail 1	Light Rail	Stage 1 – Construction	2023
Parramatta Light Rail 2	Light Rail	Stage 2 – Planning and Design / Business Case	2026
Gateway Bridge (Melrose Park to Wentworth Point)	Bus / light rail	Investigation and Planning	2026
Victoria Road BRT	Bus	Planning and Design	2026
WestConnex	Road / Freight	Stage 1 - Completed Stage 2 - Construction Stage 3 - Construction	2023
Sydney Metro West	Metro	Planning and design / Business Case	2028
Melrose Park Bus Shuttle Service	Bus	Shuttle currently provides key connections to Meadowbank Ferry and Meadowbank Station	2019 – currently operating

Traffic impact

The Melrose Park TMAP identifies traffic impacts of the proposed development of the full Melrose Park Precinct, comprised of some 11,000 high density residential dwellings. The first stage of the development, VRS Melrose Park, is currently under development and would deliver some 1,100 of the 11,000 high density dwellings in the north-east corner of the site on Victoria Road, with access via Victoria Road and Wharf Street.

The Melrose Park TMAP identifies staging trigger points for associated road works on Victoria Road at Wharf Street and Kissing Point Road. The first identified trigger point for upgrades (Stage 1A) would occur at 1,100 dwelling and is currently being proposed as part of the VRS development.

The next trigger point for road works identified in the Melrose Park TMAP (Stage 1B) is at 1,800 dwellings, well above the 1,280 cumulative dwellings total of VRS and Tomola sites together. Consequently, the traffic impacts associated with the Tomola site would be adequately accommodated by the Melrose Park TMAP Stage 1A road works package and the surrounding road network along Hope Street and Hughes Avenue and would not trigger subsequent upgrade stages.

Summary and conclusions

Preliminary assessment of the proposed Tomola mixed-use development has identified the following:

- The site would generate some 75 car trips in the morning peak hour and 89 car trips in the evening peak which is considered minor.
- A total of 223 parking spaces will be required to accommodate the proposed development yields under the City of Parramatta Development Control Plan (DCP), based on an indicative mix of 1, 2- and 3-bedroom dwellings.
- The cumulative trip generation of the VRS site (currently under development and the proposed Tomola site would fall below the trigger point of 1,800 dwellings for Stage 1B road works on Victoria Road. No further works are required beyond Stage 1A (currently under development) to accommodate the additional traffic that would be generated by the proposed development.
- A detailed traffic and transport assessment will be required during the development application process.

Overall, this preliminary traffic impact assessment indicates that the traffic generated by the development would be minimal and could be easily accommodated under the works that are being developed for Stage 1A of the Melrose Park Precinct (as documented in the Melrose Park TMAP).

I trust that this letter of advice provides an adequate summary of the preliminary traffic impacts of the proposed development. If you have any further queries regarding this advice, please do not hesitate to contact me.

Yours sincerely

Director – VIAE Consulting Pty Ltd

Attachment A – Melrose Park TMAP Executive Summary

EXECUTIVE SUMMARY

Background

Jacobs Group (Australia) Pty Ltd has been engaged to prepare a Transport Management Accessibility Plan (TMAP) for the Melrose Park north and south precincts. This report addresses the traffic and transport implications of the proposed development of approximately 11,000 dwellings and has been tailored specifically to address stakeholder comments through the Project Coordination Group (PCG) made up by City of Parramatta (CoP), Department of Planning & Environment (DPE), Transport for NSW, Roads and Maritime (RMS), Parramatta Light Rail (PLR), mProjects, and City plan.

The TMAP has recognised the transport planning initiatives described in the *Greater Sydney Regional Plan* and *Future Transport Strategy 2056* developed by DPE and TfNSW respectively. The purpose of the TMAP is to provide a framework for the implementation of a range of measures designed to achieve a sustainable transport outcome for the Melrose Park structure plan.

The assessment process has included analysis focused around achieving the targets defined with the PCG of encouraging more people to use public transport (40%-50%) over the next 20 years. Initiatives to increase public transport use have guided the planning process for the Melrose Park structure plan and are fundamental to the development of the precinct.

Proposed Delivery Melrose Park Structure Plans

The aspiration of the Melrose Park structure plans is to develop a smart precinct minimising natural resource, energy and transport demands. Transport demand and infrastructure requirements are to be minimised through an appropriate balance of business, housing and employment uses within the precinct and wider Greater Parramatta and Olympic Peninsula (GPOP) targeting of strategic mass transit, intermediate transit and local transit connections proposed through the core of the development.

The land use mix will support an appropriate balance of residential, social and business opportunities. This is to support Melrose Park's role as a self-sufficient smart precinct with high levels of connectivity to its regional and wider contexts.

A multi-decade development framework has been proposed to enable development flexibility and to complement future transport initiatives planned within the study area. For the purposes of assessing the transport infrastructure and service requirements the following staging elements have been examined:

- 3,200 dwellings to be developed by 2024
  - Commercial 7,900 m² GFA
  - Retail 6,000 m² GFA
- 6,700 dwellings to developed by 2028
  - Commercial 13,500 m² GFA
  - Retail 10,200 m² GFA
- 11,000 dwellings full build-out by 2036
  - Commercial 19,400 m² GFA
  - Retail 15,600 m² GFA

The Melrose Park structure plans for the north and south precincts ensures that public transport and active transport will be fully integrated into the precinct.

Key Issues Examined

The TMAP assessment has used a set of transport modelling tools (Public Transport Project Model and Aimsun Model) developed to assist decision making on key issues such as:

- The nature and scale of the development and the ability of the road and public transport network to accommodate forecast additional demands
- The cumulative impacts of future developments and forecast background growth in travel demand within the study area
- Changes in transport infrastructure and services that will satisfy the target objectives of increasing travel by alternative modes other than car
- The level of investment required in public transport initiatives to achieve the targets and visions of *Future Transport Strategy 2056*
- The relationship between parking provision and the achievement of higher mode share to public transport, cycling and walking
- The overall staging and trigger points for proposed mitigation measures attributed to Melrose Park.

Key Findings

The key findings of the investigations undertaken as part of TMAP are as follows:

- Based on the nominated service levels for the surrounding road network, the upgrade of Victoria Road intersections (Wharf Road and Kissing Point Road) will be required in order to efficiently service the Melrose Park precinct
- The road network analysis has identified that the remainder of the existing surrounding road network is able to cater for traffic generated by the proposed development, with no significant impacts when compared to a future 'do minimum' scenario
- Increased bus service frequencies on Victoria Road are required to support development and achieve mode share targets. Investigations have confirmed the required bus service levels are feasible
- A new bridge crossing (public and active transport only) across the Parramatta River linking Melrose Park to Wentworth Point is required by 2028 (approximately 6,700 dwellings) to enable connections between residential and employment areas to key public transport nodes including the planned Sydney Metro West station at Sydney Olympic Park.
- New bus services between Top Ryde and Concord Hospital via Melrose Park are proposed to operate via the new bridge
- Shuttle services between Melrose Park and Meadowbank station are proposed to operate prior to the implementation of the new bridge. Proposed operations can be implemented without signifcant works or impacts
- Ferry user patronage demand from Melrose Park is likely to be small. A new bridge across the Parramatta River will provide access to the newly-upgraded Sydney Olympic Park and proposed new ferry wharf at Rhodes East
- As development progresses and activity increases, a light rail corridor is being proposed by TfNSW established through the core of the development. This would bring light rail services through the heart of Melrose Park with direct access to the proposed Sydney Metro West station at Olympic Park
- The introduction of PLR Stage 2 leads to a number of access implications along Boronia Street, Hope Street and Waratah Street which will need to be carefully managed
- The public transport network for Melrose Park has been planned to cater for the full development (11,000 dwellings) without the need for light rail but has been planned to accommodate light rail through the precinct
- The northern precinct structure plan maintains a corridor on Hope Street between Hughes Avenue and Waratah Street to enable the implementation of light rail. The southern precinct allows for light rail along Waratah Street.
- Key elements of Stage 1 - Prior to bridge (up to 6,700 dwellings:
  - Stage 1A, Stage 1B and Stage 1C Victoria Road upgrades
  - Enhanced Victoria Road bus services to serve both background growth and Melrose Park demand
  - Shuttle services to Meadowbank Station
- Key elements of Stage 2 - After new bridge (more than 6,700 dwellings)
  - New high frequency services (bus or light rail) over the bridge
  - Continued enhancement of Victoria Road bus services

Conclusions

The key conclusions of the Melrose Park TMAP are:

- The scale of development envisaged for Melrose Park presents significant but manageable challenges for transport infrastructure and services for both the road and public transport network
- The additional traffic demands as a result of Melrose Park development on the surrounding local road network fall within acceptable capacity thresholds
- Sydney Metro West will deliver significant benefits for residents from Melrose Park with high-capacity and more frequent services between Parramatta CBD, Sydney Olympic Park and Sydney CBD
- A new active and public transport bridge across Parramatta River will provide substantial connectivity improvements between Melrose Park, Rhodes and Sydney Olympic Park before light rail is implemented
- The increased frequency of the T1 Northern Line (to 8 services per hour) will provide capacity to support the development and will continue once Sydney Metro North West opens in 2019
- Parramatta Light Rail Stage 2 would provide a direct link to the Parramatta CBD, and connect to Sydney CBD via the broader rail and metro networks
- The new bridge across Parramatta River will provide fast, direct, high frequency services linking Melrose Park to Rhodes Station and future metro station at Sydney Olympic Park. The full development (11,000 dwellings) can be supported by either bus or light rail services across the bridge.
- Substantial resources will need to be devoted to improving the public transport servicing and infrastructure in the study area, with significant support and funding contributions from the various agencies, proponents and authorities
- An integrated package of measures needs to be implemented as the development progresses, with the package containing a mix of policy, infrastructure and transport services measures
- The measures presented within the TMAP need to be integrated comprehensively and consistently over the life of the development if the mode split targets as outlined in the TMAP are to be achieved.
- The TMAP recommends a total off-street parking supply of 9,441. A total on-street parking supply of approximately 700 and 500 spaces is being proposed for the northern and southern precincts respectively. It is proposed to initially provide levels of parking in accordance with CoP DCP, and gradually decrease parking provision as the public transport initiatives are implemented.