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21 December 2023

Macpherson Kelley
Level 21
20 Bond Street
Sydney NSW 2000

Dear Sir/Madam,

Land and Environment Court of NSW, Case number 2023/00096634
43-49 Warriewood Road, Warriewood NSW 2102

I refer to your request to address traffic and parking contentions in the Statement of Facts and Contentions filed on behalf of the Northern Beaches Council, Respondent 1, on 18 May 2023. As instructed by Macpherson Kelley, in my responses I refer to the updated set of architectural plans dated December 2023, prepared by Archidrome. I also refer to the Traffic and Parking Impacts report (TPIR) "21063 Rep 01e" dated 07/07/2023 and the Addendum TPIR "23042 Rep 01F" dated 21/12/2023.

Contention

> **2. Unacceptable design of residential flat buildings**
>
> The development application should be refused as the design of the proposed residential flat buildings is unacceptable, in that the design of both Block C and Block D fails to appropriately respond to the existing and desired character of the area and the applicable built form and amenity controls.
>
> Particulars:
>
> b. The proposed residential flat buildings do not appropriately respond to the requirements of the ADG, specifically:
>
> v. Objective 3H-1, as the proposed location of the access driveway is not supported by Council's Traffic Engineer,

Response

1. The location of the access driveway, on the contrary, adequately responds to Objective 3H-1, specifically to all requirements which relate to the access location.
   - Vehicle entries should be located at the lowest point of the site minimising ramp lengths, excavation and impacts on the building form and layout. *[OS note: the lowest point of the site is at the Lorikeet Grove frontage, whereas the highest point of the site is at the Warriewood Road frontage.]*
   - Car park entry and access should be located on secondary streets or lanes where available. *[OS note: the choice of Lorikeet Grove instead of Warriewood Road complies with this requirement.]*
   - Access point locations should avoid headlight glare to habitable rooms. *[OS note: the proposed access driveway is opposite the vegetation area within protected creekline corridor, with no residencies, whereas there are residential buildings on the opposite side of Warriewood Road.]*
   - Adequate separation distances should be provided between vehicle entries and street intersections. *[OS note: the proposed access location complies.]*

Contention

> **6. Unsuitable access arrangements**
>
> The development application should be refused as the proposal has not demonstrated appropriate connectivity, with potential adverse impacts upon traffic flow around the site and insufficient infrastructure.
>
> Particulars:
>
> a. The development application is not supported by sufficient information to confirm that the Proposal will not result in adverse impacts upon traffic flow along Lorikeet Grove and Bubalo Street or the overall capacity of the street network.

Response

2. The TPIR provided sufficient information for the assessment of traffic impacts.

2.1. Detailed calculations of traffic generation by the proposed development were provided in the TPIRs. These calculations are replicated below.

- Traffic generated by proposed development
  - High density residential flat buildings (34 residential units)
  - The definition of a high density residential flat building in the RMS (2002) is a building containing 20 or more dwellings. This definition is only for the purpose of calculating the trip generation. It is different from and does not affect the town planning definitions for land use and development density.
    - Morning peak hour vehicle trips = 0.19 trips per unit
    - Afternoon peak hour vehicle trips = 0.15 trips per unit
  - Morning peak hour
    - 0.19 x 34 = 6.5, say 7 trips (in and out)
  - Afternoon peak hour
    - 0.15 x 34 = 5.1, say 5 trips (in and out)
  - 11 dwelling houses (on lots A1 to A5 and lots B1 to B6)
  - Eleven (11) dwelling houses
  - Weekday peak hour vehicle trips = 0.99 trips per dwelling
    - 0.99 x 11 = 10.9, say 11 trips (exiting in the morning peak hour and entering in the afternoon peak hour)
- Total:
  - Morning peak hour
    - 7 + 11 = 18 trips (in and out)
  - Afternoon peak hour
    - 5 + 11 = 16 trips (in and out)

3. The TPIR noted that

3.1. The street network in the Warriewood Precinct is currently being developed.

3.2. The planned road infrastructure has been designed to accommodate for the forecast growth within the area, assuming that the specific developments are in accordance with the planned land uses and densities as specified in the Pittwater Local Environmental Plan 2014.

3.3. The proposed development is located in the medium density residential zone (as per Pittwater LEP 2014) and complies with the density requirements of that zone. Therefore, its traffic generation is within the planned overall traffic flows expected on the road system.

4. Both TPIR "21063 Rep 01e" and the Addendum TPIR "23042 Rep 01F" provided detailed assessments of trip distribution on the road network. Copies of the latest trip distribution diagrams from the Addendum TPIR "23042 Rep 01F" are attached to this report. Trip distribution diagrams showing additional traffic volumes for all nearby access roads and each intersection turn have been provided. This level of detail cannot be regarded as insufficient. The trip distribution diagrams demonstrate that the additional traffic in Lorikeet Grove and Bubalo Street will be very low and will not have adverse impact on their performance. Further on the road network the additional traffic will be minuscule, well within hourly and daily fluctuations of traffic.

Contention

> b. The Applicant has not satisfactorily demonstrated that there is no alternate point of access that would have a lesser impact upon traffic flow on local streets.

Response

5. Detailed assessment of access options was provided in the TPIR as follows.

   5.1. With regard to the access points to the proposed development, a number of options was considered in the course of design development. These options included:

   a) **Access to Warriewood Road only** – discarded as contrary to general traffic engineering principle to avoid a concentrated point of traffic generation directly to the main road, whereas a rear lower level access road is planned and should be used.

   - Provision of the access driveway for all dwellings contained within the proposed development would mean that all generated traffic would have to come into and leave from one access point. This arrangement would result in an undesirable number of conflicts between in and out turning movements and the through traffic in Warriewood Road. If the turning movements were to be restricted to left in/left out only, drivers would be forced to take approach/departure routes consistent with the turn restrictions. This would lead to unnecessary increases in travel distances and increases in traffic volumes at streets and intersections which would otherwise be unaffected or affected at a much lesser scale. The turning restrictions of may lead to drivers using the nearest intersections and driveway for turning around, which is undesirable.

   b) **A through connection between Warriewood Road and Lorikeet Grove** – discarded as not consistent with C6.10 of the Pittwater DCP.

   - C6.10 requires that a maximum of two new public roads are to directly connect to Warriewood Road and Lorikeet Grove. One road connection is to be located across the boundaries of Buffer 1g, 1h and 1i (TEF: this is Bubalo Street). The second road connection is to be located within Buffer 1l, adjacent to Hill Street (TEF: a new roundabout, also constructed). There is also seems to be a new connection via Pheasant Place.
   - If the construction of an additional (i.e. fourth) through-road within the subject site were proposed, it would create a second full-width road intersection within a 120-metre section of Warriewood Road. It is therefore submitted that the proposed layout is more suitable for both the proposed subdivision and the locality more broadly.
   - **The above two options** were also mentioned at the pre-DA consultations and were not favoured by Council.

   c) **An internal loop road and access for all lots to Lorikeet Grove** – discarded as not providing a satisfactory outcome for landscaping and waste collection requirements.

   d) **The current adopted arrangement**, which addresses the points of concern with regard to other options and is, therefore, the preferred option.

   - It is also noted that the trip distribution (described above) shows that the additional traffic likely to use Bubalo Street is very low. No specific traffic management will be required at the intersections of Bubalo Street with Warriewood Road and Lorikeet Grove as a result of the proposed development.

6. In addition, access from Warriewood Road would not adequately respond to the following requirements of the ADG.

   6.1. Vehicle entries should be located at the lowest point of the site minimising ramp lengths, excavation and impacts on the building form and layout. *[OS note: the lowest point of the site is at the Lorikeet Grove frontage, whereas the highest point of the site is at the Warriewood Road frontage.]*

   6.2. Car park entry and access should be located on secondary streets or lanes where available. *[OS note: the choice of Lorikeet Grove instead of Warriewood Road complies with this requirement.]*

   6.3. Access point locations should avoid headlight glare to habitable rooms. *[OS note: the proposed access driveway is opposite the vegetation area within protected creekline corridor, with no residencies, whereas there are residential buildings on the opposite side of Warriewood Road.]*

Contention

> c. Insufficient information has been provided in relation to the location and design of the shared path along the creekline corridor.

Response

7. The location and the design of the shared path are shown on pages 9 to 12 of the "Development Application - Landscape Concept" document, Revision D, dated 30 July 2023.

Contention

> d. The Applicant has not demonstrated the provision of a bus stop and bus shelter at the site's frontage to Warriewood Road, as required by the Contributions Plan.

Response

8. This contention does not take into consideration that there is an existing bus stop only 80 m from the middle of the site's frontage, just to the east of Pheasant Place, as shown in Figure 1 overleaf. The provision of another bus stop within such a short distance seems irrational.

I have specialised knowledge relevant to this matter. My credentials and professional affiliations are listed below.

- MEngSc (Traffic Engineering)
- Member, Engineers Australia (MIEAust, PEng)
- Fellow and Past President, NSW & ACT Branch of the Australian Institute of Traffic Planning and Management (AITPM)
- Member, CE-001-00-01 Work Group (development of Parking Standards), Standards Australia
- Member, Road Safety Panel of The Institute of Public Works Engineering Australia (IPWEA)

I have been practising in the fields of traffic engineering, transport planning and parking and access design for over 35 years.

I have read and agree to be bound by Schedule 7 Expert Witness Code of Conduct, the Joint Expert Report Policy and Conference of Expert Witnesses Policy (both Policies commenced on 12 June 2015).

Please do not hesitate to contact the undersigned If you have any questions or require more information.

Yours faithfully,

Oleg I. Sannikov
Director
MEngSc (Traffic Engineering)
MIEAust PEng
FAITPM

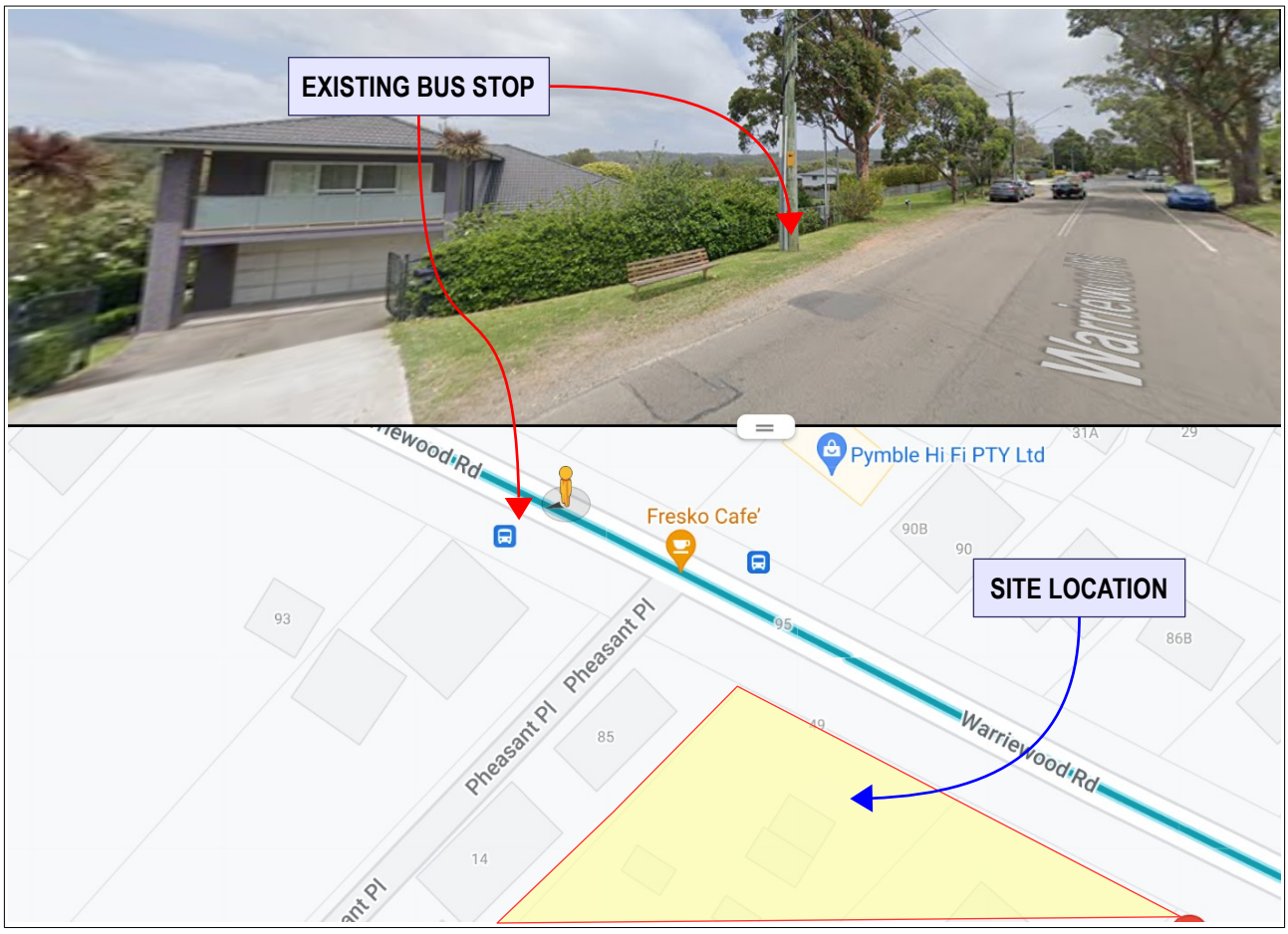
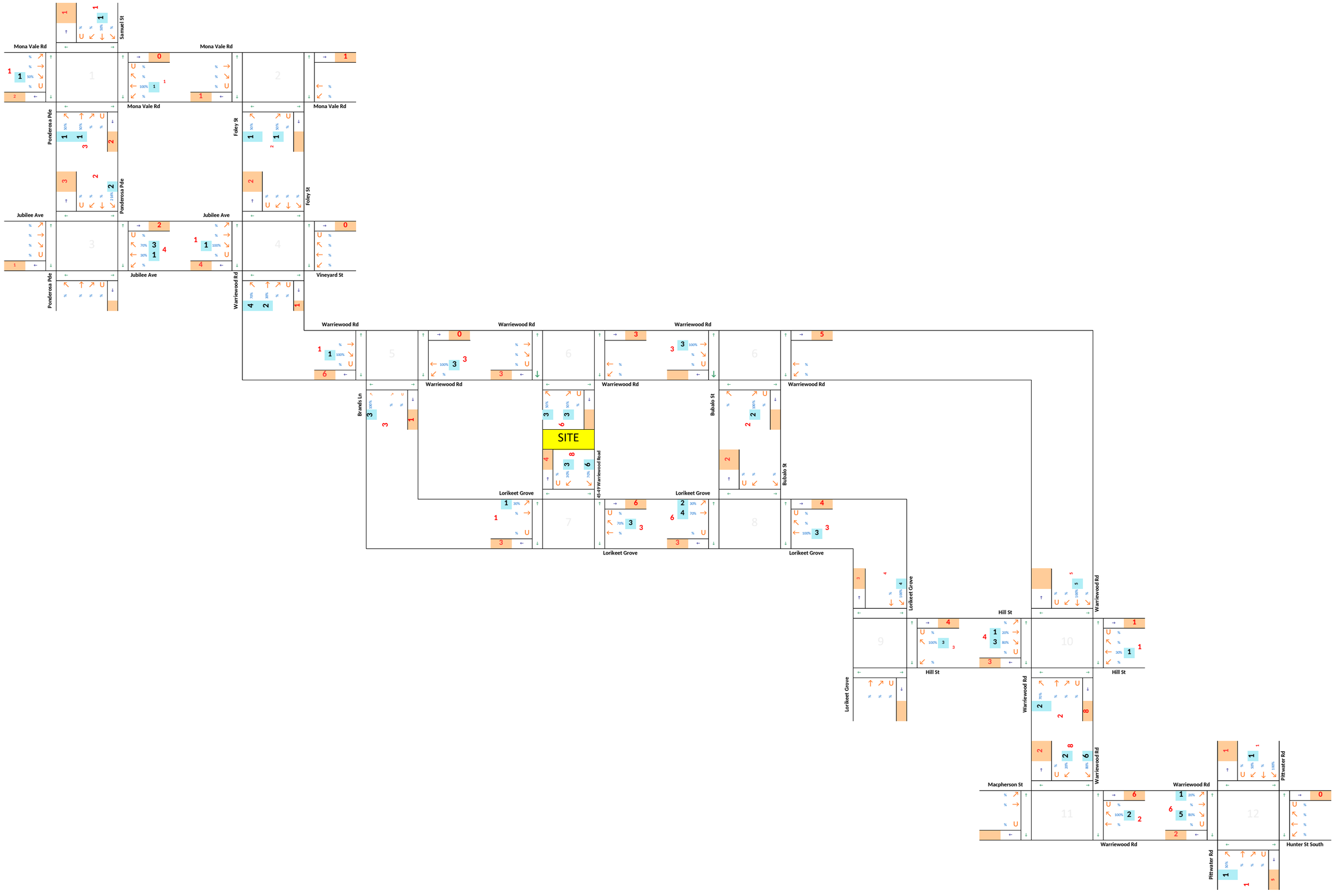


Figure 1. Existing bus stop near the site.

Attachment: estimated traffic generation and distribution

Additional traffic - Morning peak



Additional traffic - Afternoon peak