Traffic Engineer Referral Response

Application Number:	DA2023/1224
Proposed Development:	Alterations and additions to the existing garden centre
Date:	19/02/2024
Responsible Officer	
Land to be developed (Address):	Lot 4 DP 737411 , 62 Myoora Road TERREY HILLS NSW 2084

Officer comments

The proposal is for an expansion of the existing Flower Power development on the site. The site has an area of 28,299 sqm and it is proposed to increase the gross floor area of the existing garden centre from approx4164m2 to 5870m2. The proposed development will incorporate additional retail area, a pet shop, a café, a fruit shop, a garden centre goods store, a plant store and a landscape shop. Additional outdoor nursery areas and bulky goods display areas are also proposed but these are not considered additional gross floor area. The development application also proposes changes to the access and parking arrangements with the offstreet parking supply proposed to increase from 127 spaces to 259 parking spaces.

The plans and traffic and parking assessment report have been reviewed.

Traffic Generation

The TfNSW guide to traffic generating development recommends that the peak hour traffic generation for a "plant nursery" be estimated based upon the following formula 57 vehicles plus 0.7 vehicles per 100sqm of site area. This equates to 255 vehicles per hour. Surveys conducted by the applicants traffic

consultant have found that the 2023 weekday peak traffic generation from the existing site is 51 vehicles per hour with the weekend peak hour traffic generation from the existing site being 183 vehicles per hour (during the Saturday AM peak period) i.e lower than the TfNSW estimate.

The development application will significantly increase the floor area of the site and result in a significant increase in traffic generation from the site however as the TfNSW formula is based upon site area, which remains unchanged it would not be useful to estimate the increased traffic generation from

the redeveloped site. To overcome this shortcoming the applicant has surveyed traffic generation from the Flower Power development in Milperra which is of a similar site area and scale to that proposed for the Terrey Hills site. The surveys have found that the traffic generation for the Thursday PM peak at the Milperra site was 228 vehicles per hour, while the Saturday peak was 524 vehicle per hour.

The level of traffic generated by the Milperra site is considered likely to be higher than that generated by the Terrey Hills site given the higher density and quantum of residential development surrounding the Milperra site and the larger retail area at the Milperra site however it is clear that the redeveloped site will attract a significantly higher level of traffic than the existing development on the site. The applicants traffic consultant has calculated that the proposed GFA of the Terrey Hills development (5870m2) will be some 1,897.4m2 (25%) smaller than the Milperra flower power site (which has a GFA of 7767.2m2) and has proposed that the generated traffic can therefore be reduced by this amount. This is considered acceptable. i. e the post development Saturday peak traffic from the site will be approximately 393 vehicles per hour (an increase of 210 vehicles per hour) while the week day peak (Thursday) traffic will be 172 vehicles per hour (an increase of 121 vehicles per hour).

The applicants traffic consultant has adopted a distribution of traffic associated with the redeveloped site which seems unlikely. In terms of traffic egressing the site while a predominance of traffic associated with the existing site egresses the site from its driveway at the north eastern corner 50% of egressing traffic from the developed site has been assigned to the driveway onto Myoora Road which would require such traffic to circulate through the Bulky goods and landscaping area. It is considered that the numbers egressing the site via the Myoora Road would be significantly lower, at most 10%, with most vehicles egressing via the two driveways on Cooyong Road. No egressing traffic has been assigned to the driveway located midway along the site on Cooyong Road.

In terms of ingressing traffic, there is no access from Myoora Road to the customer parking area and as such only traffic making deliveries or accessing the bulky goods landscaping area will enter via that driveway. The traffic report however assigns 30% of entering traffic to that driveway. At most 5% of traffic should be assigned to enter the site via that driveway. The closure of the ingress driveway off Mona Vale Road is likely to see a significant increase in vehicle movements into Cooyong Road which is reflected in the traffic consultants assignment of traffic however the proposed closure of the Flower Power site in Warriewood will see a significant increase in traffic using this site from the north. This traffic would tend to access the site via the right turn bay from Mona Vale Road and the assignment of only 15% of entering traffic to that movement seems low.

Given the above comments the traffic modelling conducted by the applicant should be revised to reflect a more realistic traffic assignment. It is noted that the previous traffic report for the previous (withdrawn) DA identified a need for the right turn bay for traffic turning from Mona Vale Road into Cooyong Road to be extended and this may still be the case noting the heavy opposing traffic flows and resultant delays in undertaking the right turn. Revised modelling is required to confirm whether this is still the case.

It is noted that the existing site access road off Mona Vale Road will be closed on traffic efficiency and safety grounds. This will intensify traffic movements to and from the site via Myoora Road and Cooyong Road with the driveway off Cooyong Road at the eastern end of the site considered likely to absorb the majority of the redirected traffic. The Mona Vale Road access driveway currently has a Saturday AM peak hour traffic inbound movement of 61 vehicles per hour with the applicant's traffic report estimating that post development an additional 96 vehicles/hour are likely to turn left into Cooyong Road to enter the site in the Saturday AM peak period. There will be a significant number up to 148 vehicles that will be entering the site via Cooyong Road in the Saturday peak. The eastern Cooyong Road driveway is likely to carry more than 300 vehicles per hour (combined in and outbound)

in Saturday peak periods. At these levels there is concern that queued traffic might create congested conditions both within the carpark and tailing back along Cooyong Road towards or into Mona Vale Road.

Further traffic analysis by the applicant's traffic consultant to better understand the impacts of the closure of the Mona Vale access driveway and the potential for queuing issues in and around the eastern driveway on Cooyong Road are required.

Parking

The existing garden centre development on the site provides parking for 127 vehicles with an observed peak parking demand of 91 spaces. The proposed expansion includes a proposal to increase the offstreet parking supply to 259 spaces. The Warringah DCP parking requirement that most closely reflects the uses on the site is "Landscape and garden supplies" which requires that parking be provided at the greater of 15 spaces or 0.5 spaces per 100m2 of site area. The later figure equates to 141.495 spaces (rounded up to 142 spaces) for a site area of 28299m2. The Traffic and Parking Impact report notes that this rate is the same as that reflected in the TfNSW Guide to Traffic Generating Development for "plant nurseries" . In the TfNSW guide it notes that offstreet parking should be provided to cater for peak parking periods at the facility and that parking for auxiliary facilities are not included, but that any increase to cater for auxiliary facilities should make appropriate allowance for dual or complementary use.

The traffic and parking impact report notes that the additional 3605m2 of retail space and 473m2 of café space will generate a demand for 172 additional parking spaces but applies a 25% reduction in generated parking demands to account for linked trips meaning that an additional 129 parking spaces are required. i.e 256 spaces. The developer proposes 259 parking spaces which is considered acceptable.

It is noted that 8 accessible parking spaces (exceeding the BCA of Australia requirement of 1 per 50 spaces) has been proposed. Accessible parking spaces appear to be designed to be compliant with the requirements of AS2890.6 but this will also be conditioned.

An omission from the carparking planned for the redeveloped site is an absence of parking spaces catering for cars towing trailers. It is however noted that the bulky goods display area and landscape shop would allow for cars with trailers to pull up and collect materials are circulate to and from Myoora Road in a forwards direction.

Loading and Servicing

The redeveloped site will provide for access to the site by vehicles up to and including a 19.0m semitrailer.

Swept path plots have been provided to demonstrate that a 19.0m semi-trailer can access the site and circulate through the Open Bulky Goods display area in a forwards direction to/from Myoora Road. It is noted that only right turn in and left turn out truck movements at the Myoora Road driveway have been plotted. This limits heavy vehicle movements past the Terrey Hills Public School or past homes in Cooyong Road and is supported. A condition will be imposed restricting truck movements to right in and left out of the property.

The truck loading/hardstand areas and truck turning areas are separated from customer parking areas however there is some sharing of access driveways by service vehicles and car movements although this is in a forwards direction and is not in areas which will be frequented heavily by pedestrians. Conditions will be imposed to restrict truck access to times when customer use of the driveways is low with no service vehicle access on weekends when customer activity will be highest to be permitted.

It is noted that the development is located within close proximity to the Terrey Hills Public School and that the primary truck access point is located off Myoora Road directly opposite the school. The mixing of heavy vehicle movements with intense before and after school activity, particularly pedestrian activity is inappropriate and unsafe. It is noted in the traffic report that the developer proposes to limit heavy vehicle movements to one inbound and one outbound movement during school peak periods however any truck movement at these times are considered inappropriate and a restriction will therefore be imposed as a condition of consent that any truck movements other than by small rigid vehicles are not to occur between 8:00am and 9:30am or between 2:30pm and 4:40pm Mon-Fri.

In view of the fact that the garden centre is at its busiest on weekends and that trucks must circulate through the customer parking areas no truck deliveries or servicing will be permitted on weekends. In addition, as the loading dock areas are primarily located near the south west corner of the site with customer parking located at the northern and eastern ends of the site a restriction on heavy vehicle movements into the site from Cooyong Road will be imposed i.e that all vehicles in excess of SRV (6.5m in length) are to access the site via Myoora Rd with all ingress and egress movements by semi

trailers and truck and bogey combinations to be to and from Myoora Road.

Access

The redeveloped site provides for some accessible paths of travel and marked pedestrian routes through the site however the level of detail is insufficient to determine if appropriately graded ramps and footpath connections are available.

The access report notes some areas of concern with regard to that accessible paths of travel and that further work will be required during the detailed stage to achieve compliance with AS1428.1:2009

There is an absence of footpaths along the site frontages and no pedestrian crossings or refuges providing connections to existing paths on opposite sides of the road. There is therefore poor pedestrian and cyclist connectivity to the site and inadequate pedestrian connection to bus stops near

the site. Council's adopted bike plan proposes a 3m wide shared path along the southern side of Cooyong Road. A footpath connection between that path and the bus stop on the eastern side of Myoora Road on the frontage of the site will also be required. These path works along the site frontages will be conditioned in conjunction with any approval for the development

Infrastructure works

The following infrastructure works will be requested in conjunction with any development approval for this work to offset impacts of the development:

1. As proposed and previously requested by TfNSW the vehicular access to Mona Vale Road will be deleted and replaced by kerb and gutter to match existing to TfNSW requirements

2. kerb & gutter should be provided along the full Cooyong Road frontage of the site to provide efficient drainage of the site, prevent parking on the nature strip and better cater for the generated traffic to and from the site. A shared Path along the south side of the site between Myoora Road and Mona Vale Road will also be required.

3. A footpath connection shall be provided on the east side of Myoora Rd between the existing bus stop and Cooyong Road with appropriately located pram ramps and widened traffic splitter islands (to better cater for pedestrian storage) provided to facilitate links to footpaths on the west side of Myoora Road and the north side of Cooyong Road.

4. A streetlighting upgrade shall be undertaken on Myoora Rd to provide a compliant level of streetlighting along the frontage of the site and in particular in the the vicinity of the site's Myoora Road driveway and bus stop. The applicant to prepare a streetlighting upgrade design and meet the cost of the upgrade works.

5. Redundant layback vehicle crossings on Myoora Road shall be removed and reinstated to kerb and gutter and turfed nature strip

6. Designs for extension of the right turn bay on Mona Vale Road, if required, shall be prepared and the turning bay increased in length at the applicants cost to a provide the required storage capacity.

Summary

prior to further consideration of the development the plans and traffic and parking impact report shall be amended to incorporate:

- revised assignment of traffic to more realistically reflect likely directions of traffic to and from the site

- additional traffic modelling to reflect revised distribution of traffic

- additional analysis to review potential queueing issues on Cooyong Road and within the site near the sites eastern vehicle entry/exit driveway

The proposal is therefore unsupported.

Note: Should you have any concerns with the referral comments above, please discuss these with the

Responsible Officer.

Recommended Traffic Engineer Conditions:

Nil.