

Traffic Engineer Referral Response

Application Number:	DA2022/1530
Proposed Development:	Demolition works and construction of housing for seniors or people with a disability
Date:	11/05/2023
Responsible Officer	
Land to be developed (Address):	Lot 9 DP 737255 , 171 Forest Way BELROSE NSW 2085

Officer comments

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The proposed application is for the demolition of existing dwellings/ structures and construction of a seniors housing development, comprised of 35 self-contained units (12 x 2-bedroom units + 22 x 3-bedroom units and 1 x 4-bedroom units).

Parking

The parking provided has been assessed against rates required in the Warringah LEP 2000 as it is noted that SEPP Housing 2021 does not apply to this land as it is located in the B2 Oxford Falls Valley. The car parking required under the Warringah LEP for a development that is not a residential care facility and is not provided by the Department of Housing or a community housing provider is at least 0.5 spaces per bedroom ie 0.5 x 94 spaces = 47 spaces. Schedule 17 of the LEP also requires that visitor parking be provided but does not propose a rate. The Warringah DCP requires multi-dwelling housing to provide visitor parking at a rate of 1 space per 5 units i.e 7 spaces. i. e the minimum car parking requirement is 54 spaces

Parking provided is 1 ambulance space + 72 on-site car parking spaces (comprised of 59 residential car parking spaces + 13 visitor parking spaces). No workers/employees are proposed for the development, hence employee parking is not required.

The parking provisions exceed the LEP requirements and are well in excess of the cannot refuse rates outlined in the Warringah LEP 2000 and are acceptable.

Traffic Generation

The current site is occupied by a two-storey brick dwelling house with 2 separate driveway accesses. As per RTA Guide to Traffic Generating Developments 2002, residential houses are envisioned to generate:

- Daily vehicle trips = 9 per dwelling
- Weekday peak hour vehicle trips = 0.85 per dwelling

updates traffic surveys commissioned by Roads and Maritime Services have however found low density residential developments now generate 10.7 trips per day and 0.99 trips per dwelling in the evening peak and 0.95 trips per dwelling in the morning peak.

i.e the two existing dwellings might generate a combined total of 21.4 trips per day and approximately 2 trips per hour in peak periods.

The applicant has utilised the traffic generation rates provided within the above-mentioned RTA guide for seniors housing developments and calculated an upper limit estimate of 70 daily vehicle trips and 7 vehicle trips per evening peak hour (based on daily vehicle trips = 2 per dwelling, evening peak hour trips = 0.2 per dwelling).

However, TfNSW has commissioned updated traffic surveys which revealed weekday daily trips for seniors housing developments were now slightly increased at 2.1 per dwelling, with peak hour trips now found to 0.4 per dwelling, doubling the rate. Furthermore, within the 10 surveyed sites which these results are based on, 2 locations are within the Northern Beaches Area; Dee Why and Allambie Heights. Therefore, the applicant has taken this into account when calculating the traffic generation rates:

- Daily vehicles trips = $2.1 * 35 = 73.5$ trips
- Weekday peak hour vehicle trips = $0.4 * 35 = 14$ trips/ hour

i.e the development is anticipated to generate $73.5 - 21.4 = 52.1$ additional daily trips and $14 - 2 = 12$ additional trips in the peak hour.

This moderate level of increased traffic generation will be distributed onto Forest Way, a large state road, capable of handling the additional traffic. It is noted that Transport for NSW (TfNSW) who are responsible for Forest Way, a State Road have not raised any concerns regarding the traffic generated or the new point of vehicular access. Furthermore, as vehicles leaving the site are required to exit to the left and the first opportunity to turn right is signalised and is approximately 400 metres from the site, there is adequate distance and opportunity for vehicles leaving the site to merge into the right lane to turn right.

Given the above, there are no concerns relating to increased level of traffic from the site

Vehicular Access

Vehicular access to site will remain via Forest Way, under the jurisdiction of TfNSW who have not raised concerns regarding the vehicular access arrangements. At the prelodgement meeting it was suggested that a deceleration lane may be required however the applicant's traffic consultant has reviewed the access arrangements in terms of Austroads Guide to Road Design requirements and found that a basic left turn is appropriate for access to and from the development. Swept paths plots have been prepared and have reviewed internal circulation for access by ambulance and 6.4m service vehicles and waste collection vehicles. It is noted that the applicant has not provided swept path plots to demonstrate access circulation by a B99 vehicle between the carparking on levels 6 & 7 and as noted by Council's development engineer there is concern that vehicles exiting the level 6 carpark level will conflict with vehicles circulating in the level 7 carpark. This will need to be reviewed and measures

outlined to manage conflict such as signal control. It is also noted that access to and from car parking spaces by a B85 vehicle has not be provided and there is some concern regarding ingress and egress from parking space No. 1 on level 6. These plots and additional details to manage vehicle conflict will be requested as consent conditions.

Access to public transport

The Warringah LEP requires that developments for housing for older people should be located within 400m of a transport service that will can take residents to and from relevant services and facilities. As demonstrated within applicant's report, the site is served by multiple bus services with a southbound bus stop sited 93m south of the developments pedestrian access point to Forest Way. The nearest bus stop able to be safely accessed on the northbound side of Forest Way is located south of Perentie Road approx 440m walking distance from the junction of the development's pedestrian access point with the property boundary. This lies outside 400m maximum contemplated by the LEP however, as highlighted in the applicant's traffic report both the 282 & 283 services operate as a loop route on Forest Way and loops through Belrose via via Glen Street and Wyatt Avenue travelling south along Forest Way past the development. This service can take residents to and from destinations such as Forest Way, Chatswood and Glenrose Shops and therefore meets the LEP transport requirements.

The proposal is therefore supported.

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

Recommended Traffic Engineer Conditions:

DEVELOPMENT CONSENT OPERATIONAL CONDITIONS

Staff and Contractor Parking

The applicant is to make provision for parking for all construction staff and contractors for the duration of the project. All Staff and Contractors are to use the basement parking once available. All necessary facilities are to be provided to accommodate this requirement including lighting in the basement, security cameras, etc.

Reason: To ensure minimum impact of construction activity on local parking amenity.

Parking Enclosure

No parking spaces, or access thereto, shall be constrained or enclosed by any form of structure such as fencing, cages, walls, storage space, or the like, without prior consent from Council.

Reason: To ensure accessibility is maintained.

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

Vehicular Swept Paths

Vehicular manoeuvring paths must be provided to demonstrate all vehicles can enter or depart the site in a forward direction without encroaching on required car parking spaces. The drawings must be compliant with Australian/New Zealand Standard AS/NZS 2890.1:2004 - Parking facilities - Off-street car parking.

In particular:

1. the passing of B99 & B85 vehicles in opposing directions between the level 6 & 7 carparking areas
2. ingress and egress plots for B85 vehicle using parking space 1 of the level 6 parking area

are to be provided for Council review

Details demonstrating compliance with this condition must be submitted to the Certifier prior to the issue of the construction Certificate.

Reason: To ensure compliance with Australian Standards relating to manoeuvring, access and parking of vehicles.

Construction Traffic Management Plan

As a result of the site constraints, limited vehicle access and parking, a Construction Traffic Management Plan (CTMP) and report shall be prepared by a TfNSW accredited person and submitted to and approved by the Northern Beaches Council Traffic Team prior to issue of any Construction Certificate.

Truck movements must be agreed with Council's Traffic and Development Engineer prior to submission of the CTMP.

The CTMP must address following:

- The proposed phases of construction works on the site, and the expected duration of each construction phase
- The proposed order in which works on the site will be undertaken, and the method statements on how various stages of construction will be undertaken
- Make provision for all construction materials to be stored on site, at all times
- The proposed areas within the site to be used for the storage of excavated materials, construction materials and waste containers during the construction period
- The proposed method of access to and egress from the site for construction vehicles, including access routes and truck routes through the Council area and the location and type of temporary vehicular crossing for the purpose of minimising traffic congestion and noise in the area, with no access across public parks or reserves being allowed
- The proposed method of loading and unloading excavation and construction machinery, excavation and building materials, formwork and the erection of any part of the structure within the site. Wherever possible mobile cranes should be located wholly within the site
- Make provision for parking onsite. All Staff and Contractors are to use the basement parking once available
- Temporary truck standing/ queuing locations in a public roadway/ domain in the vicinity of the site are not permitted unless approved by Council prior
- Include a Traffic Control Plan prepared by a person with suitable RMS accreditation for any activities involving the management of vehicle and pedestrian safety
- The proposed manner in which adjoining property owners will be kept advised of the timeframes for completion of each phase of development/construction process. It must also specify that a minimum Fourteen (14) days notification must be provided to adjoining property owners prior to the implementation of any temporary traffic control measure
- Include a site plan showing the location of any site sheds, location of requested Work Zones, anticipated use of cranes and concrete pumps, structures proposed on the footpath areas (hoardings, scaffolding or shoring) and any tree protection zones around Council street trees
- Take into consideration the combined construction activities of other development in the

surrounding area. To this end, the consultant preparing the CTMP must engage and consult with developers undertaking major development works within a 250m radius of the subject site to ensure that appropriate measures are in place to prevent the combined impact of construction activities, such as (but not limited to) concrete pours, crane lifts and dump truck routes. These communications must be documented and submitted to Council prior to work commencing on site

- The proposed method/device to remove loose material from all vehicles and/or machinery before entering the road reserve, any run-off from the washing down of vehicles shall be directed to the sediment control system within the site
- Specify that the roadway (including footpath) must be kept in a serviceable condition for the duration of construction. At the direction of Council, undertake remedial treatments such as patching at no cost to Council
- The proposed method of support to any excavation adjacent to adjoining properties, or the road reserve. The proposed method of support is to be designed and certified by an appropriately qualified and practising Structural Engineer, or equivalent
- Proposed protection for Council and adjoining properties
- The location and operation of any on site crane

The CTMP shall be prepared in accordance with relevant sections of Australian Standard 1742 – “Manual of Uniform Traffic Control Devices”, RMS’ Manual – “Traffic Control at Work Sites”.

All fees and charges associated with the review of this plan is to be in accordance with Council’s Schedule of Fees and Charges and are to be paid at the time that the Construction Traffic Management Plan is submitted.

Reason: To ensure public safety and minimise any impacts to the adjoining pedestrian and vehicular traffic systems.

Removal of Redundant Driveways

All redundant driveways shall be removed and reinstated to Transport for NSW standard kerb and gutter. Suitably prepared plans shall be submitted to for an approval under and approved by Council & Transport for NSW prior to the issue of the Construction Certificate. All costs associated with the works shall be borne by the applicant.

A plan checking fee (amount to be advised) and lodgement of a performance bond may be required from the applicant prior to the release of the approval.

Reason: To maximise on street car parking by removing driveways that are no longer needed in accordance with Council policy.

Pedestrian sight distance at property boundary

A pedestrian sight triangle of 2.0 metres by 2.5m metres, in accordance with AS2890.1:2004 is to be provided at the vehicular access to the property and where internal circulation roadways intersect with footpaths or other pedestrian access areas.

Details demonstrating compliance are to be submitted to the Certifier prior to the issue of the Construction Certificate.

Reason: To maintain pedestrian safety.

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT

Work Zones and Permits

Prior to commencement of the associated works, the applicant shall obtain a Work Zone Permit where it is proposed to reserve an area of road pavement for the parking of vehicles associated with a construction site.

A separate application is required with a Traffic Management Plan for standing of construction vehicles in a trafficable lane and a Roads and Maritime Services Work Zone Permit shall be obtained for State Roads.

Reason: To ensure Work zones are monitored and installed correctly.

Road Occupancy Licence

Prior to commencement of the associated works, the applicant shall obtain a Road Occupancy License from Transport Management Centre for any works that may impact on traffic flows.

Reason: Requirement of TMC for any works that impact on traffic flow.

Demolition Traffic Management Plan

As a result of the site constraints, limited vehicle access and parking, a Demolition Traffic Management Plan (DTMP) shall be prepared by an suitably accredited person and submitted to and approved by the Northern Beaches Council Traffic Team prior to commencing any demolition work.

The DTMP must:-

- Make provision for all construction materials to be stored on site, at all times.
- The DTMP is to be adhered to at all times during the project.
- Specify construction truck routes and truck rates. Nominated truck routes are to be distributed over the surrounding road network where possible.
- Provide for the movement of trucks to and from the site, and deliveries to the site. Temporary truck standing/ queuing locations in a public roadway/ domain in the vicinity of the site is not permitted unless prior approval is granted by Council's Traffic Engineers.
- Include a Traffic Control Plan prepared by an TfNSW accredited traffic controller for any activities involving the management of vehicle and pedestrian traffic.
- Specify that a minimum fourteen (14) days notification must be provided to adjoining property owners prior to the implementation of any temporary traffic control measures.
- Include a site plan showing the location of any site sheds, location of requested Work Zones, anticipated use of cranes, structures proposed on the footpath areas (hoardings, scaffolding or temporary shoring) and extent of tree protection zones around Council street trees.
- Take into consideration the combined construction activities of other development in the surrounding area. To this end, the consultant preparing the DTMP must engage and consult with developers undertaking major development works within a 250m radius of the subject site to ensure that appropriate measures are in place to prevent the combined impact of construction activities. These communications must be documented and submitted to Council prior to work commencing on site.
- Specify spoil management process and facilities to be used on site.
- Specify that the roadway (including footpath) must be kept in a serviceable condition for the duration of demolition. At the direction of Council, the applicant is to undertake remedial treatments such as patching at no cost to Council.

The DTMP shall be prepared in accordance with relevant sections of Australian Standard 1742 – "Manual of Uniform Traffic Control Devices", RMS' Manual – "Traffic Control at Work Sites".

All fees and charges associated with the review of this plan is to be in accordance with Council's Schedule of Fees and Charges and are to be paid at the time that the Demolition Traffic Management Plan is submitted.

Reason: This condition is to ensure public safety and minimise any impacts to the adjoining pedestrian and vehicular traffic systems. The DTMP is intended to minimise impact of construction activities on the surrounding community, in terms of vehicle traffic (including traffic flow and parking) and pedestrian amenity adjacent to the site.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Implementation of Demolition Traffic Management Plan

All works and demolition activities are to be undertaken in accordance with the approved Demolition Traffic Management Plan (DTMP). All controls in the DTMP must be maintained at all times and all traffic management control must be undertaken by personnel having appropriate TfNSW accreditation. Should the implementation or effectiveness of the DTMP be impacted by surrounding major development not encompassed in the approved DTMP, the DTMP measures and controls are to be revised accordingly and submitted to Council for approval. A copy of the approved DTMP is to be kept onsite at all times and made available to the accredited certifier or Council on request.

Reason: To ensure compliance and Council's ability to modify the approved Construction Traffic Management Plan where it is deemed unsuitable during the course of the project.

Implementation of Construction Traffic Management Plan

All works and construction activities are to be undertaken in accordance with the approved Construction Traffic Management Plan (CTMP). All controls in the CTMP must be maintained at all times and all traffic management control must be undertaken by personnel having appropriate TfNSW accreditation. Should the implementation or effectiveness of the CTMP be impacted by surrounding major development not encompassed in the approved CTMP, the CTMP measures and controls are to be revised accordingly and submitted to Council for approval. A copy of the approved CTMP is to be kept onsite at all times and made available to Council on request.

Reason: To ensure compliance of the developer/builder in adhering to the Construction Traffic Management procedures agreed and are held liable to the conditions of consent.

Ongoing Management

The applicant shall be responsible in ensuring that the road reserve remains in a serviceable state during the course of the demolition and building works.

Reason: To ensure public safety.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Basement Garage Traffic Signal System

To prevent conflicting vehicle flows on the internal basement garage ramp between level 6 & 7 parking areas and to avoid vehicles having to reverse up/ down the ramp, a traffic signal system must be installed at each ramp entry, designed to warn drivers about to enter the parking levels of any conflicting vehicle approaching.

The signal system must;

- be clearly visible from ramp entrances,
- is to clearly indicate to an approaching driver, by way of red light or wording, that an opposing vehicle has entered the ramp,
- Incorporate linemarking to delineate traffic flow and nominate waiting bay locations to allow vehicles to overtake another.

Details of the system, including the system operation, components and placement within the development, must be specified by a practising Traffic Engineer. This engineer is to submit a compliance certificate to the Principal Certifier that the system has been installed and operating as designed, in accordance with the requirements of this condition, prior to the issue of an Occupation Certificate issued for the development.

Reason: To ensure no vehicle conflicts within the basement carpark.

ON-GOING CONDITIONS THAT MUST BE COMPLIED WITH AT ALL TIMES

Landscaping adjoining vehicular access

The applicant must ensure that the planting chosen for any land immediately adjacent to the driveway and adjacent to any driveway intersections must not exceed a height of 1m

Reason: To maintain unobstructed sight distance for motorists.