Traffic Engineer Referral Response

Application Number:	DA2024/0499
Proposed Development:	Demolition works and construction of three residential flat buildings
Date:	09/05/2025
Responsible Officer	
Land to be developed (Address):	Lot 1 DP 213608 , 120 Frenchs Forest Road West FRENCHS FOREST NSW 2086 Lot 2 DP 213608 , 118 Frenchs Forest Road West FRENCHS FOREST NSW 2086 Lot 14 DP 25713 , 11 Gladys Avenue FRENCHS FOREST NSW 2086 Lot 24 DP 25713 , 116 Frenchs Forest Road West FRENCHS FOREST NSW 2086

Officer comments

Not Supported.

Referral comments 8/5/25

The Applicant has provided updated Architectural Plans, and an amended Traffic Impact Assessment (TIA) has been prepared by Genesis Traffic, (dated 23 April 2025), with respect to access, parking, and traffic generation impacting the road network.

The majority of the concerns in relation to circulation within the basement car park and provision of on-site loading facilities has mostly been addressed. The amended car park design adopts a one-way circulation for the parking aisles which removes the conflict areas of the previous layout and the need for waiting bays to enable vehicles to pass. Pavement arrows have been included to show the direction of traffic flow along with 'No Entry' signs The signs shown on the Basement 1 and 2 Plans are located in the middle of the parking aisle and it is not clear how the signs will be installed. It may be that the signs are to be attached to the concrete slab above, however the 'No Entry' sign would not be very visible to approaching drivers as it would need to be installed in the parking aisle perpendicular to the direction of the where the vehicle would exit. A more useful and appropriate sign for visibility purposes would be a 'No Right Turn' or 'No Left Turn' sign attached to an existing column or pole. A Stop Line installed at the exit of the parking aisle with the pavement arrow marked closely behind the line would also help indicate and reinforce the proposed traffic flow. The additional signage and linemarking measures are required for both the Basement 1 and Basement level car park.

A central loading bay has been provided in the Basement 2 level carpark for deliveries and service vehicles, with the clearance height increased to 3.5m for SRV access. Waste collection will continue to be undertaken in the dedicated loading bay provided adjacent to driveway and bin holding area. The facility is situated close to the lifts for Building B, however the basement layout and location of the proposed storage cages does not provide convenient access to lifts for Building A. This means that a

delivery driver would need to unload in the loading bay and transport the goods along the circulation roadway to access the Building A lifts. A more direct and safe accessible route should be provided to reduce the travel distance and minimise the travel path shared with circulating traffic. An existing 1m path is provided for access to the storage cages located immediately north of the Loading Bay and Bulky Waste room. This path should be extended westwards all the way through to provide access to the Building A lifts. The changes would require reconfiguration of Garbage Room A to provide a 1m path between the lifts and the Garbage Room for access and changes to the storage areas. This can be achieved by widening the room 1.2m westwards and relocating the 2 motorcylce bays (2.5m long x 1.2m wide) to the eastern side of the lifts by replacing the proposed storage cages. The total area of the amended garbage room is larger than the current proposal so should be sufficient size, however the amendments should also be referred to Council's Waste Officer to ensure that any changes meets all their design requirements.

Additional storage areas should be provided to replace the necessary removal of the specific storage cages. There is currently a single storage cage (2.5m long x1.5m wide) provided to the eastern side of Garbage Room A. This storage area can be widened to 2m to create 2 storage cages (2.5m long x 1m wide) to replace one of the storage cages removed to enable the connecting path extension to the lifts. The change would also require a reduction of the adjacent parking aisle width from 4.5m to 4m, which still provided sufficient access due to the one-way circulation. The two new storage cages do not obstruct turning movements as they are not located directly opposite the angled parking bays.

An additional two new storage cages can be provided in the south-east area of the Basement 2 level car park. There appears to be sufficient space for two storage cages (2.5m long x 1m wide) within the secured area behind the shutter door immediately east of the circulation roadway. Amendments should also be made to the storage area containing 4 cages located adjacent to the stairway, as one of the cages would be inaccessible as it is situated between two cages. The area should be reconfigured to provide four storage cages (2.5m long x 1m wide) parallel to the southern wall. A sketch plan of the suggested amendments are marked for further consideration.

The overall proposal provides a total of 140 parking spaces for residential uses, however it should be noted that this is the maximum amount permissible as the parking requirements must comply with the special area controls for Part G9 Frenchs Forest Town Centre of the Warringah Development Control Plan 2011. The number of residential parking spaces should be reduced if the parking layout does not provide safe access for users and other minimum requirements cannot be achieved. The amended proposal therefore is not acceptable in its current form, however could be supported with the suggested changes and updated amended plans. Alternative solutions may be acceptable if they adequately address the remaining issues relating to access and parking.

Referral comments 24/12/24

This development application involves the demolition of the existing structures to facilitate the construction of three residential flat buildings, comprising a total of 124 units (9 x 1-bedroom units, 77 x 2-bedroom units and 38 x 3-bedroom units).

Traffic Generation

The future traffic generation for the 124-unit development will be similar to the previously proposed 127-unit development. The new development is expected to generate approximately 24 vehicle trips (0.19 vtph per unit) during the AM peak hour, and 19 vehicle trips (0.15 vtph per unit) during the PM peak hour. The nett increase for the site is estimated to be 20 vehicle trips during the AM peak hour, and 15 vehicle trips during the PM peak hour.

The SIDRA analysis of the intersections shows that the existing road network overall operates at a Level of Service (LOS) A during the AM peak and Level of Service (LOS) B during the PM peak The LOS is maintained for both the AM and PM peak following the addition of the subject development.

The existing intersection of Gladys Avenue and Frenchs Forest Road West however operates at LOS C during the AM and PM peak and remains at LOS C post-development which is still considered satisfactory. The 95% Queue Length (Q95) in Gladys Avenue has increased during the AM peak from 9.5m to 14.3m post-development. The additional traffic may result in increased queuing of vehicles exiting Gladys Avenue which may then block access into Gladys Avenue from Frenchs Forest Road West. It is therefore likely that the existing 'No Stopping' restriction on the western side of Gladys Avenue will need to be extended to provide safe access into Gladys Avenue.

Parking

The amended Traffic and Impact Assessment (TIA) undertaken by Genesis Traffic, states that parking is provided on three levels of basement parking. A total of 176 vehicle spaces is proposed comprising 140 residential spaces, 13 visitor spaces (including 3 car wash bay and 3 Electrical Vehicle Charging Spaces) and 17 Car Share spaces. The parking spaces provided do not exceed the maximum number of resident and visitor parking permitted, and would satisfy the minimum required car share, wash bay, electric vehicle charging, parking spaces for people with disabilities.

The development also requires a minimum of 64 motorcycle parking spaces (0.5 spaces per dwelling), 248 resident bicycle spaces (2 spaces per dwelling) and 31 visitor bicycle parking spaces (0.5 spaces per dwelling) provided on Basement 2. The TIA indicates that the 124 resident bicycle spaces will be provided on the Mezzanine level while 124 bicycle spaces will be provided within the individual enclosed storage spaces.

The columns in the basement car park (300mm wide) are typically indicated by black bars between the car park spaces. There are clear drawing errors on the Basement 1 and 2 plans - Drawing No.s A101/A and A102/A, Revisions A; where some black bars are shown within the car park spaces and several even located in the parking aisles. Both drawings need to be reviewed and updated to show the actual location of the columns.

The Basement 1 plan has additional errors showing a residential parking space blocking the access to the lifts to Building B, and has notes indicating 21 motorcycle where 23 motorcycle spaces are shown on this plan.

Access & Circulation

An 8.6m wide two-way driveway will be provided at the Gladys Avenue cul-de-sac to provide access to the at-grade loading bay and basement car park. The WDCP requires that servicing and loading be accommodated internally within the building. The TIA states that refuse collection will occur on-site in the provided loading bay accessed via Gladys Avenue. Council waste trucks will enter the loading area in a reverse manner and exit the site in a forward direction.

The proposed loading bay is supported by the Transport network team for waste collection otherwise the vehicle would block the adjacent access driveways should kerbside collection be attempted from the street, which would also be impractical due to the large number of bins for the development.

The TIA does not provide details on how the 124-unit development site will be serviced. The loading bay is located adjacent to a bin hold area and bin hoist/service lift, connecting to Basement 1 level where the Garbage Rooms are located for each building. There does not appear to be any loading facility within the basement car park.

The Plans still show a minimum headroom clearance of 2.2m for access to the basement car park, which is insufficient for a Small Rigid Vehicle (SRV) where a 3.5m clearance height is required. It is not clear whether delivery drivers will have access to the bin hoist or whether they are expected to wheel their loads down the steep driveway. The proposed loading bay may be reasonable for waste collection, however is not considered acceptable for other services such as removalists or deliveries of bulky goods. If the loading bay is to be used, further details are required on how deliveries can be made to the overall development site. The existing 'No Stopping' restrictions in the turning area prevent a delivery vehicle parking to unload which would also not be particularly convenient and far from Building A.

The blind aisle on the Basement 2 plan appears to be less than the 1m required for the car park space located in the south-east corner of the building. Dimensions are required on this plan to confirm whether the minimum 1m has actually been provided. Otherwise the southern wall which also provides the ramp access up to Basement 1, would need to be extended slightly further outwards or changes to the car park layout are required to comply with the standards. It should also be noted that the Genesis Traffic drawings have the North bearing shown incorrectly.

The TIA provides some swept path assessments showing B85 and B99 vehicle passing, however these are incomplete and/or do not show the most critical areas where passing does not seem possible. There are a number of poorly located car park spaces which are both difficult to access and have reduced visibility for either the driver parking the vehicle or the oncoming vehicle passing through the area. The parking spaces of greatest concern are the two spaces located between the ramp and lifts to Building A on Basement 1, and the same spaces on Basement 2. The spaces are also located in the parking aisles of highest traffic movement for Basement 1 and 2. It is not possible for two vehicles to pass each other between the lifts and the subject spaces. It is recommended that the subject parking spaces be removed to provide greater circulation width, or reallocated for use as storage or motorcycle parking, which reduces the obstruction and pinch point at this location.

No additional swept paths have been provided to demonstrate access to any of the parking spaces. It is not clear how the Basement 2 parking space located in the south-east corner of Building A is safely accessed. There are no convex mirrors or waiting bays shown on this level and even if these additional measures were installed, the area for manoeuvring is constrained and is likely to require multiple reversing manoeuvres in the travel path of oncoming vehicles which have restricted visibility. It is requested that additional swept paths be provided for this location and any other critical spaces within the car park with access concerns.

The new development provides a total of 124 units which is 3 units less than the previous 127 units, however this proposal provides one additional parking space with a total of 140 residential parking spaces. It should be noted that special area controls apply to developments within the Precinct 05 Frenchs Forest Road West Neighbourhood Centre. To support the reduction of car trips and encourage the use of sustainable transport, minimum parking rates apply for dedicated Car Share spaces, Electrical Vehicle Charging spaces as well as motorcycle and bicycle parking. The maximum parking rates have been applied for this development, however this has been done at the

consequence of safe access and a more efficient and functional parking layout for future residents. The maximum allowable number of parking spaces should therefore be reduced accordingly. The amended proposal has addressed only some of the design deficiencies previously raised. The proposal is still not acceptable in its current form and further improvements are required. It is requested that the above recommendations be considered and addressed in the amended plans for review.

Referral comments 15/7/24
This development application involves the demolition of the existing structures to facilitate the construction of three residential flat buildings, comprising a total of 127 units (9 x 1-bedroom units, 85 x 2-bedroom units and 33 x 3-bedroom units).

Parking

The proposed development property is located within Part 8 Frenchs Forest Precinct of the Warringah Local Environmental Plan 2011 (WLEP) and Part G9 Frenchs Forest Town Centre of the Warringah Development Control Plan 2011 (WDCP). Under WDCP, the proposed development property is within Precinct 05 Frenchs Forest Road West Neighbourhood Centre. The WDCP has special area controls to provide adequate on-site parking for a mix of development and vehicle types, and to support the reduction of car trips and encourage the use of sustainable transport. The WDCP specifies maximum parking rates for residents and visitor parking; and minimum parking rates for dedicated Car Share spaces, Electrical Vehicle Charging spaces as well as motorcycle and bicycle parking.

The Traffic and Impact Assessment (TIA) undertaken by Genesis Traffic, states that parking is provided on three levels of basement parking. A total of 169 vehicle spaces is proposed comprising 139 residential spaces, 13 visitor spaces (including 3 car wash bay and 3 Electrical Vehicle Charging Spaces) and 17 Car Share spaces. It is noted that 7 residential spaces and 7 visitor spaces are identified as Small car spaces (2.3m wide x 5m long) compared to a standard parking space (2.4m wide x 5.4m long). The parking spaces provided do not exceed the maximum number of resident and visitor parking permitted, and would satisfy the minimum required car share, wash bay and parking spaces for people with disabilities.

The development also requires a minimum of 64 motorcycle parking spaces (0.5 spaces per dwelling), 254 resident bicycle spaces (2 spaces per dwelling) and 32 visitor bicycle parking spaces (0.5 spaces per dwelling). The TIA indicates that the resident bicycle spaces will be provided within the individual enclosed storage spaces. The 32 visitor bicycle parking spaces are provided with double tier bike racks/lockers on Basement 1 level. It is not clear on the Architectural Plans the location and total number of motorcycle spaces provided. The notes on the relevant plans would suggest that there is a total of 52 spaces, however only 44 spaces appear to be shown on the plans. Neither total amounts to the required 64 motorcycle parking spaces. Clarification is required on the actual number of spaces provided and all spaces need to be clearly marked.

Access and Circulation

Vehicular access to the development site is provided via a new two-way driveway located off the Gladys Avenue cul-de-sac. The access driveway width is 8.2m at the site frontage and 5.5m at the property boundary. The circulation roadway and ramp widths between the basement levels is

generally between 6.1-6.5m wide, however the ramp from the Mezzanine level to the Lower Ground level is only 4.1m. The Architectural Plan proposes 20 residential and 20 motorcycle parking spaces on the Lower Ground level. The reduced ramp widths and parking aisle widths on the Lower Ground level relies on the provision of 3 Waiting Bays and installation of convex mirrors for residents to access parking spaces. The swept path assessment provided for the Lower Ground level shows vehicles encroaching over the marked Waiting Bay areas in order to access parking spaces. Residents with parking spaces on this level already need to circulate over 2 levels and would be further inconvenienced by the poor car park layout. The awkward access to the Lower Ground parking level can be avoided by providing a minimum ramp width of 6.1m similar to what has been proposed between the other car park levels.

AS2890.1:2004 requires the aisle be extended a minimum of 1m beyond the last parking space for blind aisles. The TIA states that a non-compliant 0.7m blind aisle has been provided with a 6.2m wide aisle to facilitate easier turning manoeuvres. These adjustments have not been made as the non-compliances apply to the blind aisles located at the southern end of the basement levels which are 5.8 and 5.825m wide. Regardless, the parking modules should be designed in accordance with AS2890.1:2004 by providing the required widths rather than modifications to accommodate any deficiencies.

The WDCP requires that servicing and loading be accommodated internally within the building. The Applicant proposes a loading bay (3.5m wide x 8.82m long) accessed off Gladys Avenue to enable on-site waste collection. The loading bay is located adjacent to a bin hold area and bin hoist/service lift, connecting to Basement 1 level where the Garbage Rooms are located for each building. There does not appear to be any loading facility within the basement car park. The Plans show a minimum headroom clearance of 2.2m for access to the basement car park. This minimum provides general access for both cars and light vans, but not for a Small Rigid Vehicle (SRV) where a 3.5m clearance height is required. The proposed loading bay may be reasonable for waste collection, however is not considered acceptable for other services such as removalists or deliveries of bulky goods. The current proposal would require a removalist/delivery driver to unload from the at-grade loading bay, use the service lift to access the basement level, enter the boom gate and move the goods along the parking aisle just to reach the lift for the required building. A delivery to Building A would traverse a distance of over 150m with the existing traffic circulating around the car park. The basement car park should therefore be designed to incorporate a centrally located service bay.

Traffic Generation

The future traffic generation has been assessed in accordance with Roads and Maritime Services (RMS) 'Guide to Traffic Generating Developments 2002' and the updated traffic generation rates in the Technical Direction (TDT 2013/04a) document. The TIA reports that the 127-unit development will generate approximately 24 vehicle trips (0.19 vtph per unit) during the AM peak hour, and 19 vehicle trips (0.15 vtph per unit) during the PM peak hour. The traffic generation from the existing 4 dwellings is approximately 4 vehicle trips (0.95 vtph per dwelling) during the AM peak hour, and 4 vehicle trips (0.99 vtph per dwelling) during the PM peak hour. The nett increase for the site is estimated to be 20 vehicle trips during the AM peak hour, and 15 vehicle trips during the PM peak hour.

The projected development traffic movements were added onto the surveyed background traffic and reanalysed using SIDRA. The assessment shows that the existing road network overall operates at a Level of Service (LOS) A and is maintained at LOS A following the addition of the subject development. The existing intersection of Gladys Avenue and Frenchs Forest Road West however operates at LOS C and remains at LOS C post-development which is still considered satisfactory. The SIDRA analysis shows that the 95% Queue Length (Q95) in Gladys Avenue has increased from 9.5m to 14.3m post-development. The additional traffic may result in increased queuing of vehicles exiting

Gladys Avenue which may then block access into Gladys Avenue from Frenchs Forest Road West. It is therefore likely that the existing 'No Stopping' restriction on the western side of Gladys Avenue will need to be extended to provide safe access into Gladys Avenue.

The WDCP controls for resident and visitor parking applies a maximum permitted number, while a minimum number is required for car share, to reduce car ownership and provide additional and more sustainable transport options. If the Applicant proposes to apply the maximum numbers for resident and visitor spaces, this should not be at the expense of a sub-standard parking layout which does not provide for the needs of future residents of the 127 unit development.

There are a number of issues which can not be supported due to the proposed parking facilities and location, parking layout, access and circulation. Changes should be made to the design to improve safety, functionality and comply with AS2890.1:2004. Amended plans to address the above issues should be accompanied by a swept path analysis to demonstrate access to circulation roadways, and manoeuvring into parking spaces.

- Increase ramp width from 4.1m to minimum 6.1m wide, between the Mezzanine level to the Lower Ground level, to reduce the number of Waiting Bays and convex mirrors required for access and safety.
- Waiting Bay areas to be located outside the swept paths for access to parking spaces.
- Provide a minimum of 1m beyond the last parking space for blind aisles. The basement footprint could be increased by 0.3m (further south).
- The use of Small Car spaces to provide 7 residential spaces and 7 visitor spaces is unacceptable. The reduced parking space size are not in isolated areas of the building but apply to entire parking aisles. The basement footprint could be increased by 0.4m (further west) to provide the standard 5.4m length. The required 2.4m width can be provided by removing a car/motorcycle space and/or rearranging the parking layout.
- Provision of minimum 64 motorcycle parking spaces. Clarification on actual number of spaces provided and all spaces to be clearly marked on the Plans.
- Provision of a centrally located Service Bay within Basement 1 level for a minimum Small Rigid Vehicle (SRV). Minimum 3.5m clearance height is required for SRV.
- Visitor and Car Share spaces are to be publicly accessible, i.e cannot be located behind a roller shutter where they are not accessible by visitors. The 'Residential Only Shutter' is marked on the Basement 1 Level plan near the lift access for Building B. There is 1 Visitor EV Charging space (Basement Level 1) and 7 Visitor Small Car spaces (Mezzanine) located behind the shutter. The location of the roller shutter and Visitor Spaces need to be relocated to ensure public access.

The development site consolidates 4 existing allotments which should provide the opportunity for a compliant and uncomplicated parking layout. The proposed access and parking arrangement is a sub-standard design and does not facilitate safe or efficient access from the public road to the basement car park, and movement between car park levels. There are also requirements for drivers to give way or wait in marked Waiting Bays (some within the swept paths areas which is not permitted) located in parking aisles or at the top/bottom of the ramp if they detect a vehicle entering from the convex mirror. The maximum allowable number of parking spaces should be reduced accordingly to produce a safe, efficient and compliant parking layout. The proposal is not acceptable in its current form and it is requested that the above recommendations be considered and addressed in the amended plans for review.

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.