Engineering Referral Response

Application Number:	DA2023/1228
Proposed Development:	Demolition works and construction of a driveway with associated works.
Date:	20/09/2023
To:	Simon Ferguson Tuor
Land to be developed (Address):	Lot 20 DP 1287976 , 232 A Barrenjoey Road NEWPORT NSW 2106 Lot 21 DP 1287976 , 230 Barrenjoey Road NEWPORT NSW 2106 Lot 2 DP 776719 , 228 Barrenjoey Road NEWPORT NSW 2106

Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m2 or
- Alterations to existing or new driveways or
- Where proposals affect or are adjacent to Council drainage infrastructure incl. watercourses and drainage channels or
- Torrens, Stratum and Community Title Subdivisions or
- All new Commercial and Industrial and RFB Development with the exception of signage or
- Works/uses in flood affected areas

And as such, Council's development engineers are required to consider the likely impacts on drainage regimes.

Officer comments

8/09/23:
The applicant proposes driveway works including a passing bay to serve properties 228, 230 and 232A Barrenjoey Road Newport.

Access:
There is an existing shared driveway which benefits properties no. 234, 228, 226, 232A and 230A Barrenjoey Road.
The proposed works include a passing bay and driveway widening, with works proposed on lots 228, 230 and 232A.
Boundary adjustment was approved under SC2023/0003, which included the creation of an easement for a right of carriageway (A2).
Civil works plan prepared by HYVE Desings, job no. SC21028, sheets C001, C010, C020, C030, C032, C040, C042 - C046, C050, & C052, rev. G, dated 20/04/2023 have been provided.
Passing Bay
The proposed works driveway and passing bay works are wholly within the easements for right of

carriageway, with the appropriate lots being burdened and benefited from the easement.
The proposed passing bay meets the minimum dimension requirements in accordance with Clause B6.2 Internal Driveways of the P21DCP, where the driveway length exceeds 40 metres, a passing bay to an overall minimum width of 5.0 metres for a length of 10 metres with suitable transitions to the adjacent narrow driveway.
A proposed and existing utilities services plan has been provided including long sections for the passing bays and driveway. There do not appear to be conflicts with the proposed services.
Telstra/NBN lines are proposed in close proximity (200mm) from the bottom of the parking bay and (110mm) from the bottom of the ramp cross.
This is supported subject to written approval from the relevant service authorities.
The grades for the cross section of the passing lane is acceptable.
Driveway Widening
A traffic report has been provided by Varga Traffic Planning, dated 20 June 2023, which includes swept paths to demonstrate that the widening at the first bend is capable of allowing a large B99 vehicle to negotiate the corner in a single manoeuvre in both directions. It also states the passing bay will allow two cars travelling in opposing directions to pass each other.
Long sections of the driveway widening indicating a B85 vehicular scrape test has been provided on sheet C045 and is acceptable.
Sections of the proposed retaining wall have been provided. Appropriate pits have been proposed to collect runoff from the widening as shown on C030.
Driveway serving lot 20 (232A)
The traffic report prepared by Varga Traffic Planning shows that a vehicle can enter in a forward direction and exit in a forward direction in 2 manouvres.
The proposed parking facility is at a grade of 5% which is acceptable.
In accordance with Councils Standard profiles for driveways, a transition of 1 in 10 (10%) for a length of 1.5m from the parking facility is to be provided.
Sheet C042 indicates a proposed transition for the left side from 18% at the boundary to 5% at the parking facility (change in grade of 13%).
In accordance with Australian Standard AS/NZS 2890.1-2004: Parking Facilities - Off-Street Car Parking, a change of grade of more than 12.5% requires to be effected in 2 or more stages.
Given the change in grade at the right side is only 3.5%, the grades are generally acceptable.
Access is supported subject to conditions.

Stormwater:
All lots fall to the street. The lots are located in region 1 of the Water Management for Development Policy.
In accordance with appendix 16, part 4, OSD is required in this region if the additional impervious area of the development is more than 50m2 on a cumulative basis since February 1996.
Given there is no significant increase in impervious area comparative to the large site areas of 232A Barrenjoey Road (Lot 20: DP 1287976, 813m2), 230 Barrenjoey Road (Lot 21: DP. 1287976, 4,415m2), and property no. 232A is an undeveloped lot, no additional OSD is required as part of the application for the driveway works. However, as lot 20 is undeveloped, it is probable that OSD will be required once development is proposed. In accordance with clause 9.3.1 of the Water Management for Development Policy, the general requirement is to ensure the site's stormwater runoff after any development does not exceed the runoff prior to the development.
Sheet C030 in the set prepared by HYVE Designs shows the concept Stormwater Plans. There are newly proposed pits and pipes throughout the driveway to collect additional flows.
There is an existing connection to the TfNSW owned pit on Barrenjoey Road as indicated on the plan.
A hydraulic engineer is to provide certification that the existing/proposed stormwater drainage system is able to handle the proposed flows from any existing or potential new development on proposed Lots 21 and 20. If the existing drainage system has not adequate capacity then a stormwater management plan for the subdivision is to be prepared in accordance with Councils water management policy for development and Australian Rainfall and Runoff 2019.

Under SC2023/0003, an easement was created to drain water (A3).
It seems that the proposed 150diameter pipe which benefits lot 20 and connects the proposed pit A/1 to the existing pit at RL 66.8, is not wholly contained within the easement to drain water (A3).
Likewise, it is unclear whether the proposed pits E/1, F/1 and subsequent pipes are wholly contained within the easement to drain water.
Requesting that the applicant provide a revised/additional plan of Sheet C020 to clearly demonstrate that the proposed pits and pipes are within the easement to drain water prior to CC. This can be conditioned.
As such, stormwater is supported subject to conditions.

Geotech:
Crozier Geotechnical Consultants have provided a geotechnical report, project no. 2012-114.3, dated 8th August 2023.
The respective forms 1 and 1a have also been provided.
Geotech is supported subject to conditions.

As such, Development Engineering cannot support the application due to insufficient evidence to address Clause B5.15 of the DCP.

The proposal is therefore supported.

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

Recommended Engineering Conditions:

FEES / CHARGES / CONTRIBUTIONS

Construction, Excavation and Associated Works Security Bond(s)
The applicant is to lodge a bond with Council for the following:

Security Bond
As security against damage to Council's roads fronting the site caused by the transport and disposal of materials and equipment to and from the site a bond of $20,000.

Details confirming payment of the bond(s) are to be submitted to the Principal Certifier prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure.

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

Stormwater Disposal
The applicant is to submit Stormwater Engineering Plans for the new development within this development consent in accordance with AS/NZS 3500 and Council's Water Management for Development Policy, prepared by an appropriately qualified and practicing Civil or Hydraulic Engineer who has membership to Engineers Australia, National Engineers Register (NER) or Professionals Australia (RPENG) , indicating all details relevant to the collection and disposal of stormwater from the site, buildings, paved areas and where appropriate adjacent catchments. Stormwater shall be conveyed from the site to Barrenjoey Road.

The drainage plans must address the following:
i. The proposed pits and pipes shall be wholly contained within the existing easements to drain water.
ii. A hydraulic engineer is to provide certification that the existing/proposed stormwater drainage system is able to handle the proposed flows from any existing or potential new development on proposed Lots 21 and 20. If the existing drainage system has not adequate capacity then a stormwater management plan is to be prepared in accordance with Councils water management policy for development and Australian Rainfall and Runoff 2019.

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

Reason: To ensure appropriate provision for disposal of stormwater management arising from the development.

Geotechnical Report Recommendations have been Incorporated into Designs and Structural Plans

The recommendations of the risk assessment required to manage the hazards as identified in the Geotechnical Report prepared by Crozier Geotechnical Consultants dated 8/08/23 are to be incorporated into the construction plans. Prior to issue of the Construction Certificate, Form 2 of the Geotechnical Risk Management Policy for Pittwater (Appendix 5 of P21 DCP) is to be completed and submitted to the Accredited Certifier. Details demonstrating compliance are to be submitted to the Certifier prior to the issue of the Construction Certificate.

Reason: To ensure geotechnical risk is mitigated appropriately.

Engineering plans - Internal right of way, passing bay and retaining walls
The Applicant is to submit engineering plans for the Internal right of way , passing bay and retaining walls as required by the development. The Engineering plans for the new development works are to be generally in accordance with the Council's specification for engineering works - AUS-SPEC #1 and Australian/New Zealand Standard AS/NZS 2890.1:2004 parking facilities - Off-street car parking .The plans shall be prepared by a qualified NER or RPENG qualified Civil Engineer.

The design must include the following information:

1. Long sections and cross sections and pavement design for the ROW/driveway and passing bay.
2. Long sections and cross sections, structural details of any proposed retaining walls.

The engineering plans are to be submitted to and approved by the Certifier prior to the issue of the Construction Certificate.

Reason: To ensure engineering works are constructed in accordance with relevant standards and Council's specification.

Pre-Commencement Dilapidation Report
The applicant must prepare and submit a dilapidation report providing an accurate record of the existing condition of adjoining public property and public infrastructure (including roads, gutter,

footpaths, etc). A copy of the report must be provided to Council, any other owners of public infrastructure and the owners of adjoining and affected private properties.

The dilapidation report must be submitted to Council for written approval and the written approval is then to be submitted to the Certifier prior to the issue of the any Construction Certificate and the commencement of any works including demolition.

Reason: Protection of Council's infrastructure during construction.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Road Reserve
The applicant shall ensure the public footways and roadways adjacent to the site are maintained in a safe condition at all times during the course of the work.

Reason: Public safety.

Property Boundary Levels
The Applicant is to maintain the property boundary levels. No approval is granted for any change to existing property alignment levels to accommodate the development.

Details demonstrating compliance are to be submitted to the Principal Certifier.

Reason: To maintain the existing profile of the nature strip/road reserve.

Traffic Control During Road Works
Lighting, fencing, traffic control and advanced warning signs shall be provided for the protection of the works and for the safety and convenience of the public and others in accordance with RMS Traffic Control At Work Sites Manual (http://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical-manuals/tcws-version-4/tcwsv4i2.pdf) and to the satisfaction of the Roads Authority. Traffic movement in both directions on public roads, and vehicular access to private properties is to be maintained at all times during the works

Reason: Public Safety.

Site filling - Virgin Excavated Natural Material (VENM)
Where site fill material is necessary, fill materials must:

1. Be Virgin Excavated Natural Material (VENM) only, as defined in The Protection of the Environment Operations Act 1997.
2. Be free of slag, hazardous, contaminated, putrescibles, toxic or radioactive excavated material and soil, rock or similar material. Putrescibles and non-putrescibles solid waste (including demolition material) is not permitted.

The Applicant shall provide certification by a N.A.T.A. approved laboratory to the Principal Certifier for approval prior to importation of material.

Reason: To ensure protection of the natural environment.

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

Stormwater Disposal
The stormwater drainage works shall be certified as compliant with all relevant Australian Standards and Codes by a suitably qualified person. Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of an Occupation Certificate.

Reason: To ensure appropriate provision for the disposal of stormwater arising from the development.

Certification of Internal right of way, passing bay and retaining walls
The Applicant shall submit a certificate from a suitably qualified NER or RPENG qualified Civil Engineer certifying that the parking facility, passing bay, retaining walls and driveway were constructed in accordance within this development consent, council's specification for engineering works - AUS-SPEC #1 and Australian/New Zealand Standard AS/NZS 2890.1:2004 parking facilities - Off-street car parking.

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

Reason: Compliance with this consent.

Geotechnical Certification Prior to Occupation Certificate
The Applicant is to submit the completed Form 3 of the Geotechnical Risk Management Policy (Appendix 5 of P21 DCP) to the Principal Certifier prior to issue of the Occupation Certificate.

Reason: To ensure geotechnical risk is mitigated appropriately.