Engineering Referral Response

Application Number:	DA2022/2152
Proposed Development:	Demolition works and subdivision of land into 9 lots including tree removal and infrastructure work
Date:	17/11/2023
To:	Adam Croft
Land to be developed (Address):	Lot 295 DP 820302 , 122 A Crescent Road NEWPORT NSW 2106 Lot 111 DP 556902 , 124 Crescent Road NEWPORT NSW 2106 Lot 3 DP 210342 , 128 Crescent Road NEWPORT NSW 2106 Lot 21 DP 545339 , 57 The Avenue NEWPORT NSW 2106 Lot LIC 407538 , 57 The Avenue NEWPORT NSW 2106 Lot LIC 460612 , 57 The Avenue NEWPORT NSW 2106 Lot 1 DP 503390 , 126 Crescent Road NEWPORT NSW 2106 Lot 2 DP 210342 , 55 The Avenue NEWPORT NSW 2106 Lot 111 DP 556902 , 122 Crescent Road NEWPORT NSW 2106 Lot 112 DP 556902 , 122 Crescent Road NEWPORT NSW 2106 Lot LIC 188424 , 122 Crescent Road NEWPORT NSW 2106 Lot 295 DP 820302 , 122 Crescent Road NEWPORT NSW 2106 Lot 295 DP 820302 , 122 Crescent 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

Engineering Comments 15.11.23
A overland flow path has been provided. Easement conditions will be provided.
The DRAINS modelling has not satisfactorily modelled the existing peak stormwater flows through the site. Conditions will be placed to ensure all flows up to the 5% AEP are conveyed through Council's piped stormwater system.

Updated comments 2/11/23

The overland flow path report prepared by BG and E engineering is not supported for the following reasons:
1) The design engineer has not complied with Councils previous request that the overland flow path that commences at the Council sag pit in Crescent road is to be aligned from the current sag point in the Crescent Road and follow the alignment of the proposed re diverted Council SW line to the discharge point. The width of the overland flow path is to be a minimum width of 3m to align with the required council pipe easement width. The overland flow path is to be in favor of Council .
A site inspection would confirm that this is achievable and the falls along Councils re diverted stormwater line can be achieved.
The driveway entry of the proposed Lot 4 will need to be moved to the northern side of Crescent road to avoid conflict with the overland flow path.

If the designer is not willing to adopt Councils requirement that the current council stormwater running through the site is to be maintained and upgraded if required and the overland flow path is to be designed to the follow the line . This may limit the site area available for building on proposed Lots 4 and 5.

The current overland flow location is located a distance from the proposed rediverted Council line and is not acceptable.

2) THE DRAINS model that supports the overland flow study and rediverted stormwater line is to be submitted to Council for review. A corresponding catchment plan is to be overlayed over the DRAINS pit and pipe layout.

3) The submitted engineering plans for the internal road are acceptable .
4) The design engineers submission that On site stormwater detention is not required given the sites location in the catchment is accepted.
5) The proposed subdivision titling is to be provided to council given that there will be shared subdivision assets including the internal access road and stormwater quality treatment devices , Community title may be appropriate to ensure the long term maintenance and upgrade of these assets .

Previous comments comments 30/10/23

The proposed 9 Lot subdivision and marina development is not supported for the following reasons:
1) The site is affected by overland stormwater flows in larger storm events predominately along the line the of the existing Council 375mm Concrete stormwater line which runs from the sag point in Crescent Road to the existing seawall .
An overland stormwater flow study is to be prepared by a NER/RPENG qualified civil engineer to determine the extent of the overland flow path and impacts on the development including the proposed construction of dwellings. The study is to be prepared by a suitable computer hydrological/hydraulic model . Councils preferred model is DRAINS. The overland flow cross-sections are to be determined by the HEC Ras programme or similar.

It is noted that the design engineers BG and E propose to re divert Councils existing 375mm RCP stormwater (SW) line which runs through the current site to the southern boundary with a 3m wide stormwater drainage easement over the re diverted drainage line. This proposal is supported by Councils stormwater assets team

The current proposed location of the overland flow swale is not acceptable as the overland flow path needs to be aligned with the sag pit Crescent road ie the lowest point . Any overland flow originating from this location cannot physical enter the proposed swale given its separation from the current sag point. Any over land flow path should be aligned from the current sag point in the Crescent Road and follow the alignment of the proposed re diverted Council SW line to the discharge point.

The following needs be addressed by the study :
- The existing overland flow regime is to be mapped. All proposed residential housing is to be keep clear of the overland flow path.
- The re diverted Council stormwater line running through the site is to be upgraded to have a minimum hydraulic capacity of 5/100 AEP. Flows in excess of this event are to be controlled via an above overland flow path to the 1 /100 AEP.
-The overland flow path is to be contained with a widened 3m easement from the sag point in Crescent Road to the outlet.
- The study is to also review velocity depth ratio in relation to pedestrian safety.
-The overland flow study/report is to be prepared in accordance with ARR 2019 - Section Flood estimation and use the Initial/ Continuing Hydraulic Loss model.

-The Council stormwater line upgrade works are to be designed in accordance with Councils Auspec one design guideline.

2) Construction of the Headwall outlet and upgraded pipeline requires a controlled activity permit. Comments from Councils Coast and Catchment Team will be required on the new headwall/pipe construction.

3) A Stormwater management plan will need to detail the provision of On site stormwater detention (OSD)in accordance with Councis water management policy for development. A DRAINS model is required to determine the required OSD storage volumes and post developed discharge rates to the

1/100AEP storm event. The pre developed scenario for the model is to be state of nature. Additionallly water quality treatment devices are to be provided for the proposed subdivision in accordance Councils water management policy for development. Councils Coast and Catchment Team can be contacted for more detailed comments.

4) Engineering plans for the internal access road are required to be prepared by a NER or RPENG qualified civil engineer in accordance with Councils Auspec One design guideline. Long sections and cross sections of the access road and pass bays are to be provide . Any proposed retaining walls are also to be detailed on the engineering plans. All Councils Transport Network comments are to be incorporated into the design of the engineering plans.

5) The proposed subdivision titling is to be provided to council given that there will be shared subdivision assets including the internal access road and stormwater quality treatment devices .

Previous referral comments
The proposed 9 Lot subdivision and marina development is not supported for the following reasons:
1) The site is affected by overland stormwater flows in larger storm events predominately along the line the of the existing Council 375mm Concrete stormwater line which runs from the sag point in Crescent Road to the existing seawall .
An overland stormwater flow study is to be prepared by a NER/RPENG qualified civil engineer to determine the extent of the overland flow path and impacts on the development including the proposed construction of dwellings. The study is to be prepared by a suitable computer hydrological/hydraulic model . councils preferred model is DRAINS. The overland flow cross-sections are to be determined by the HEC Ras programme or similar.

The following needs be addressed by the study :
- The existing overland flow regime is to be mapped. All proposed residential housing is to be keep clear of the overland flow path.
- The Council stormwater line running through the site is to be upgraded to have a minimum hydraulic capacity of 5/100 AEP. Flows in excess of this event are to be controlled via an above overland flow path to the 1 /100 AEP.
-The overland flow path is to be contained with a widened 3m easement from the sag point in Crescent Road to the outlet.
- The study is to also review velocity depth ratio in relation to pedestrian safety.
-The overland flow study/report is to be prepared in accordance with ARR 2019 - Section Flood estimation and use the Initial/ Continuing Hydraulic Loss model.

2) Construction of the Headwall outlet and upgraded pipeline requires a controlled activity permit. Comments from Councils Coast and Catchment Team will be required on the new headwall/pipe

construction.

3) A Stormwater management plan will need to detail the provision of On site stormwater detention (OSD)in accordance with Councis water management policy for development. A DRAINS model is required to determine the required OSD storage volumes and post developed discharge rates to the 1/100AEP storm event. The pre developed scenario for the model is to be state of nature. Additionallly water quality treatment devices are to be provided for the proposed subdivision in accordance Councis water management policy for development. Councils Coast and Catchment Team can be contacted for more detailed comments.

4) Engineering plans for the internal access road are required to be prepared by a NER or RPENG qualified civil engineer in accordance with Councils Auspec One design guideline. Long sections and cross sections of the access road and pass bays are to be provide . Any proposed retaining walls are also to be detailed on the engineering plans. All Councils Transport Network comments are to be incorporated into the design of the engineering plans.

5) The proposed subdivision titling is to be provided to council given that there will be shared subdivision assets including the internal access road and stormwater quality treatment devices and possibly the marina berths.

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 (Road works)
The applicant is to lodge a bond with Council for the following:

Drainage Works
As security against any damage or failure to complete the construction of stormwater drainage works required as part of this consent a bond of $400,000.00 (four hundred thousand).

Crossing / Kerb & Gutter / Footpath Works
As security against any damage or failure to complete the construction of any vehicular crossings, kerb and gutter, any footpath works and removal of any redundant driveways required as part of this consent a bond of $100,000.00 (one hundred thousand)

Road Works
As security against any damage or failure to complete the construction of road pavement/shoulder reconstruction works required as part of this consent a bond of $100,000.00 (one hundred thousand)

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 $50,000.00 (fifty thousand)

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 SUBDIVISION WORKS CERTIFICATE

Subdivision Works Certificate
A Subdivision Works Certificate is to be approved by Certifier for the provision of engineering works.

Engineering plans for the subdivision works within this development consent are to be submitted to the Certifier for approval under Section 6.13 of the Environmental Planning and Assessment Act 1979.

Civil Engineering plans for the subdivision works are to be designed in accordance with the Council's specification for engineering works – AUS-SPEC #1. The plans shall be prepared by a suitably qualified Civil Engineer, who has membership to Engineers Australia, National Engineers Register (NER) and registered in the General Area of Practice for civil engineering. The design must include the following information:

1. Detailed drawings of the internal subdivision stormwater drainage system.
2. Detailed design of water quality treatment devices.
3. Detailed design of road pavement and kerb & gutter works.
4. Detailed design of all uitility service works (gas, electricity, water, sewer, telecommunications).
5. Undergrounding of electricity supply on the The Avenue frontage of site

The Subdivision Works Certificate must be supported by engineering plans, calculations, specification or any certification relied upon.

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

Stormwater Drainage Application (Easement Drainage Works)
The applicant is to provide a stormwater drainage application under Section 68 of the Local Government Act 1993 to Council for approval. The submission is to include four (4) copies of Civil Engineering plans for the design of the diversion of Council's stormwater drainage infrastructure which are to be generally in accordance with the civil design approved with the Development Application and Council's specification for engineering works - AUS-SPEC #1. The form can be found on Council's website at www.northernbeaches.nsw.gov.au > Council Forms > Stormwater Drainage Application Form.

The fee associated with the assessment and approval of the application is to be in accordance with Council's Fees and Charges. Details demonstrating compliance are to be submitted to the Certifier prior to the issue of the Subdivision Works Certificate.

The following amendments are required:
1. The horizontal alignment of the pipe diversion is to be in accordance with civil engineering plans by BG&E project no. S22042, drawing no. CI-0200 rev G dated 03.11.23 or as determined by Council.
2. The minimum pipe size for the proposed diversion works is to be a Class 3 525 mm diameter RCP.

The pipe amplification works shall begin at existing Council Pit SPP55510 and continue to the outlet into the waterbody.
3. Provide detail for all internal road stormwater connections to Council's drainage easement.
4. No private or subdivision infrastructure such as stormwater pits or any services (gas, electricity, water, sewer, telecom) other than crossing services are permitted within Council's 3 metre drainage easement.
5. Provide a detailed design, including longitudinal section of bund designed to channel flows from road low point into overland flow channel.
6. The overland flow channel within the 3 metre drainage easement benefitting Council is to be amended to a trapezoidal channel, 500mm deep with a 1 metre wide base and 1:2 sides. Provide detailed design of overland flow channel. Provide a vegetation plan for the channel, showing native grasses, tuffs, sedges with a maximum 1 metre height at maturity. Trees, shrubs etc, are not permitted within the drainage easement/ overland flow swale.
7.. The following amendments are required to drainage longitudinal section on project no. S22042, drawing no. CI-0341 rev B dated 03.11.23:
(i) Show all existing crossing services on road reserve and proposed services within subdivision.
(ii) All pipe sizes from the existing Pit SPP55510 to proposed Pit 4 are to be increased to Class 3 525 mm RCP.
(iii) All pipe sizes from proposed Pit 4 to outlet are to be increased to Class 3 600 mm RCP.
(iv) The invert of the KIP pit at Ch 12.0 is to be lowered by 1.5m to an invert level of 11.69.
(v) The invert of the inlet pipe at Pit 1 is to be lowered by 500mm.
(vi) Show all pit connections from the internal road stormwater system.

The required amendments to drawings showing the proposed diversion of Council's stormwater assets are to be shown on amended plans. The plans should clearly indicate the works proposed to be undertaken as part of the Stormwater Drainage Application (Section 68).

Reason: To ensure appropriate provision for disposal and maintenance stormwater management and compliance with the BASIX requirements, arising from the development.

Submission of Roads Act Application for Civil Works in the Public Road (Council Stormwater Drainage Asset Works)
The Applicant is to submit an application for approval for Infrastructure works on Councils roadway. Engineering plans for the new development works within the road reserve and this development consent are to be submitted to Council for approval under the provisions of Sections 138 and 139 of the Roads Act 1993.

The application is to include four (4) copies of Civil Engineering plans for the design of diversion of Council's stormwater drainage infrastructure which are to be generally in accordance with the Council's specification for engineering works - AUS-SPEC #1. The plan shall be prepared by a qualified civil engineer. The design must include the following information:

The following amendments are required:
1. The horizontal alignment of the pipe diversion is to be in accordance with civil engineering plans by BG&E project no. S22042, drawing no. CI-0200 rev G dated 03.11.23 or as determined by Council.
2. The minimum pipe size for the proposed diversion works is to be a Class 3 525 mm diameter RCP. The pipe amplification works shall begin at existing Council Pit SPP55510 and continue to the outlet into the waterbody.
3. The following amendments are required to drainage longitudinal section on project no. S22042, drawing no. CI-0341 rev B dated 03.11.23:
(i) Show all crossing services.

(ii) All pipe sizes from the existing Pit SPP55510 to proposed Pit 4are to be increased to Class 3 525 mm RCP.
(iii) All pipe sizes from proposed Pit 4 to outlet are to be increased to Class 3 600 mm RCP.
(iv) The invert of the KIP pit at Ch 12.0 is to be lowered by 1.5m to an invert level of 11.69.
(v) The invert of the inlet pipe at Pit 1 is to be lowered by 500mm

The required amendments to drawings showing the proposed diversion of Council's stormwater assets are to be shown on amended plans. The plans should clearly indicate the works proposed to be undertaken as part of the Roads Act Application (Section 138).

The fee associated with the assessment and approval of the application is to be in accordance with Council's Fee and Charges.

An approval is to be submitted to the Certifier prior to the issue of the Subdivision Works Certificate

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

Pre-Construction Stormwater Assets Dilapidation Report
The Applicant is to submit a pre-construction / demolition Dilapidation Survey of Council's Stormwater Assets is to be prepared by a suitably qualified person in accordance with Council's Guidelines for Preparing a Dilapidation Survey of Council Stormwater Asset, to record the existing condition of the asset prior to the commencement of works. Council's Guidelines are available at:Engineering Specifications.

The pre-construction / demolition dilapidation report must be submitted to Council for approval and the Certifier prior to the issue of the Subdivision Works Certificate.

Reason: Protection of Council's Infrastructure.

Pre-Commencement Dilapidation Report
The applicant must prepare and submit a pre-commencement 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 pre-construction / demolition 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 Subdivision Works Certificate and the commencement of any works including demolition.

Reason: Protection of Council's Infrastructure during construction.

Pre-Construction Road Reserve Dilapidation Report
Pursuant to Section 97 of the Local Government Act, 1993, Council requires prior to the issue of Subdivision Works Certificate, or commencement of any excavation and demolition works, payment of a Trust Fund Deposit as per the current rates in Council's Fees and Charges. The Deposit is required as security against damage to Council property during works on the site. The applicant must bear the cost of all restoration works to Council's property damaged during the course of this development. All building work must be carried out in accordance with the provisions of the Building Code of Australia.

Note: Should Council property adjoining the site be defective e.g. cracked footpath, broken kerb etc.,

this should be reported in writing, or by photographic record, submitted to Council at least seven (7) days prior to the commencement of any work on site. This documentation will be used to resolve any dispute over damage to infrastructure. It is in the applicant's interest for it to be as full and detailed as a possible.

Reason: To ensure security against possible damage to Council property.

Structures Located Adjacent to Council Pipeline or Council Easement
All structures are to be located clear of any Council pipeline or easement. Footings of any structure adjacent to an easement or pipeline are to be designed in accordance with Council's Water Management Policy; (in particular Section 6 - Building Over or Adjacent to Constructed Council Drainage Systems and Easements Technical Specification). Structural details prepared by a suitably qualified Civil Engineer, who has National Engineers Register (NER) or Professionals Australia (RPENG) demonstrating compliance are to be submitted to the Certifier for approval prior to the issue of the Subdivision Works Certificate.

Reason: Protection of Council's infrastructure.

Geotechnical Report Recommendations have been correctly incorporated into designs and structural plans
The Applicant is to submit Form 2 of the Geotechnical Risk Management Policy for Pittwater (Appendix 5 of P21 DCP) and is to be completed and submitted to the Accredited Certifier, prior to issue of the Subdivision Works Certificate.

Reason: To ensure geotechnical risk is managed appropriately.

Traffic Management and Control
The Applicant is to submit an application for Traffic Management Plan to Council for approval prior to issue of the Subdivision Works Certificate. The Traffic Management Plan shall be prepared to RMS standards by an appropriately certified person.

Reason: To ensure appropriate measures have been considered for site access, storage and the operation of the site during all phases of the construction process.

Structural Adequacy and Excavation Work
Excavation work is to ensure the stability of the soil material of adjoining properties, the protection of adjoining buildings, services, structures and / or public infrastructure from damage using underpinning, shoring, retaining walls and support where required. All retaining walls are to be structurally adequate for the intended purpose, designed and certified by a Structural Engineer, except where site conditions permit the following:

(a) maximum height of 900mm above or below ground level and at least 900mm from any property boundary, and
(b) Comply with AS3700, AS3600 and AS1170 and timber walls with AS1720 and AS1170.

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

Reason: To provide public and private safety.

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 Council's drainage easement.

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 Aargus dated 23.12.2022 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.

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT

No Access Through Adjoining Park/Reserves
Access to the site through an adjoining park/reserve is prohibited without the written approval of the Council.

Reason: To ensure protection of council parks/reserves.

Utilities Services
Prior to the commencement of demolition works, written evidence of the following service provider requirements must be provided to the Principal Certifier:

a) a letter from Ausgrid demonstrating that satisfactory arrangements can be made for the installation and supply of electricity,
b) a response from Sydney Water as to whether the proposed works subject to this consent would affect any Sydney Water infrastructure, and whether further requirements need to be met, and
c) other relevant utilities or services - that the development as proposed to be carried out is satisfactory to those other service providers, or if it is not, the changes that are required to make the development satisfactory to them.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the commencement of demolition works.

Reason: To ensure relevant utility and service providers' requirements are provided to the Principal Certifier.

Public Liability Insurance - Works on Public Land
Any person or contractor undertaking works on public land must take out Public Risk Insurance with a minimum cover of $20 million in relation to the occupation of, and approved works within Council's road reserve or public land, as approved in this consent. The Policy is to note, and provide protection for Northern Beaches Council, as an interested party and a copy of the Policy must be submitted to Council prior to commencement of the works. The Policy must be valid for the entire period that the works are being undertaken on public land.

Reason: To ensure the community is protected from the cost of any claim for damages arising from works on public land.

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.

Footpath Construction
The applicant shall provide a 1.5 metre wide footpath for the entire frontage of the site on The Avenue. The works shall be in accordance with the following:

(a) All footpath works are to be constructed in accordance with Section 138 Road Act approval
(b) Council is to inspect the formwork prior to pouring of concrete to ensure the works are in accordance with Section 138 Road Act approval for footpath. Details demonstrating compliance are to be submitted to the Principal Certifier.

Reason: To ensure compliance of footpath works with Council's specification for engineering works.

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.

Kerb and Gutter Construction
The Applicant is to construct kerb and gutter and associated works along the entire The Avenue frontage of the site in accordance with Northern Beaches Council Drawing No. A4 2276/A. Prior to the pouring of concrete, the works are to be inspected by Council and an approval issued.

The approval is to be submitted to the Principal Certifier.

Reason: To facilitate the preservation of on street parking spaces.

CONDITIONS THAT MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF ANY STRATA SUBDIVISION OR SUBDIVISION CERTIFICATE

Certification of Council Drainage Works and Works as Executed Data within Private Land
The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed works have been constructed in accordance with this consent and the approved Section 68 approved plans. Works as Executed data (details overdrawn on a copy of the approved drainage plan) certified by a registered surveyor in relation to boundaries and/or relevant easements prepared in accordance with Council's 'Guideline for preparing Works as Executed data for Council Stormwater Assets' within the subject site, shall be submitted to the Principal Certifier prior to the issue of the Subdivision Certificate.

Reason: To ensure compliance of drainage works with Council's specification for engineering works.

Certification of Civil Works and Works as Executed Data on Council Land
The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed works have been constructed in accordance with this consent and the approved Section 138 and/or Construction Certificate plans. Works as Executed data certified by a registered surveyor in relation to boundaries and/or relevant easements, prepared in accordance with Council's 'Guideline for preparing Works as Executed data for Council Assets' in an approved format shall be submitted to the Principal Certifier for approval prior to the issue of the Subdivision Certificate.

Reason: To ensure compliance of works with Council's specification for engineering works.

Easement Creation
The Applicant shall create an easement for drainage (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision, to accompany the Section 88B instrument to ensure all drainage infrastructure is located within the appropriate easement(s).

The Applicant shall create an easement for services (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision, to accompany the Section 88B instrument to ensure all utility services are located within the appropriate easement(s).

The Applicant shall create an easement to drain water in favour of Council over the overland flow channel to encompass the 1 in 100 year recurrence frequency predicted water surface level, including a 500mm freeboard and a 500mm minimum margin in plan. The easements are to be detailed on the final plan of subdivision.

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

Reason: Council's Subdivision standards and statuatory requirements of the Conveyancing Act 1919.

Positive Covenant for Drainage Structures
The Applicant shall submit a positive covenant (under the provisions of Section 88B of the Conveyancing Act) to be created on the final plan of subdivision and accompanying 88B instrument. The covenant will require the proprietor of the land to maintain the overland flow swale in accordance with the standard requirements of Council. The terms of the positive covenant are to be prepared to Council's standard requirements, which are available from Northern Beaches Council. Northern

Beaches Council shall be nominated as the sole authority empowered to release, vary or modify such covenant.

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

Reason: To ensure ongoing maintenance of the on-site stormwater detention system

Provision of Services for Subdivision
The applicant is to ensure all services including water, electricity, telephone and gas are provided, located and certified by a registered surveyor on a copy of the final plan of subdivision.

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

Reason: To ensure that utility services have been provided to the newly created lots.

Right of Carriageway
The Applicant shall create a right of carriageway (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision and accompanying 88B instrument, to include all vehicular access and manoeuvring areas.

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

Reason: Council's subdivision standards and the statutory requirements of the Conveyancing Act 1919.

Restriction as to User (Drainage Structures)
The Applicant shall create a restriction as to user (under the provisions of Section 88B of the Conveyancing Act) on the title over the overland flow swale and drainage structures within stormwater easement benefitting Council, restricting any alteration to the levels and/or any construction on the land. The terms of such restriction are to be prepared by a registered surveyor with terms acceptable to Council at the applicant's expense. Council shall be nominated as a party to release, vary or modify such restriction.

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

Reason: To ensure no modification of the overland flow swale and Council's stormwater infrastructure without Council's approval.

Restriction as to User (Vehicular Access)
The Applicant shall submit a restriction as to user (under the provisions of Section 88B of the Conveyancing Act) to be incorporated on the title of Lot 2 and Lot 3. The restriction shall preclude that lot from utilising its frontage for vehicular traffic except for the section created as a Right of Carriageway. The wording of the restriction of use is to be prepared by a surveyor, with terms acceptable to Council.

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

Reason: To ensure compliance with Council policy for vehicular access.

Services
The Applicant shall ensure all utilities/services and street lighting is installed. The Applicant is to submit a Certification stating the above requirement has been complied with by the relevant authority(s) and/or authorised contractor.

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

Reason: To ensure services have been provided in accordance with the relevant authorities requirements.

Sydney Water Compliance Certification
The Applicant shall submit a Section 73 Compliance Certificate under the Sydney Water Act 1994 issued by Sydney Water Corporation. Application must be made through an authorised Water Servicing Co-ordinator. Please refer to the Building Developing and Plumbing section of the web site www.sydneywater.com.au <http://www.sydneywater.com.au> then refer to “Water Servicing Coordinator” under “Developing Your Land” or telephone 13 20 92 for assistance.

Following application a “Notice of Requirements” will advise of water and sewer infrastructure to be built and fees to be paid. Please make early contact with the coordinator, since building of water/sewer infrastructure can be time consuming and may impact on other services and building, driveway or landscape design.

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

Reason: To ensure compliance with the statutory requirements of Sydney Water.

Easement for Drainage
The Applicant shall create an easement for drainage (under the provisions of Section 88B of the Conveyancing Act) on the final plan of subdivision, to accompany the Section 88B instrument to ensure all drainage infrastructure is located within the appropriate easement(s).

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

Reason: Council’s Subdivision standards and statutory requirements of the Conveyancing Act 1919.

Release of Subdivision Certificate
The final plan of subdivision will not be issued by Council until the development has been completed in accordance with terms and conditions of the development consent.

Reason: Council’s subdivision standards and the statutory requirements of the Conveyancing Act 1919.

Subdivision Certificate Application
The Applicant shall submit a Subdivision Certificate Application to Council, which is to include a completed Subdivision Certificate form and checklist, a final plan of subdivision prepared in accordance with the requirements of the Conveyancing Act 1919, four copies of the final plan of subdivision and all relevant documents including electronic copies. This documentation is to be

submitted to Council prior to the issue of the Subdivision Certificate. All plans of survey are to show connections to at least two Survey Co-ordination Permanent Marks. The fee payable is to be in accordance with Council's fees and charges.

Reason: Statutory requirement of the Conveyancing Act 1919.

Title Encumbrances
The Applicant shall ensure all easements, rights of carriageway, positive covenants and restrictions as to user as detailed on the plans and required by the development consent are to be created on the title naming Council as the sole authority empowered to release or modify.

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

Reason: To ensure proper management of land.