



17 February 2025

REFERRAL RESPONSE – DEVELOPMENT ENGINEERING

FILE NO: **Development Applications: 413/2024/1**

ADDRESS: 488-492 Old South Head Road ROSE BAY 2029

PROPOSAL: Demolition of the existing buildings and construction of a new four storey mixed use building comprising a Woolworths supermarket at Ground floor and Level 1 and 13 residential apartments at Levels 1-3, three levels of basement car parking and associated services; site remediation; earthworks; landscaping; signage and siteworks.

FROM: Mr R Lam

TO: Ms L Samuels

1. ISSUES

- None

2. DOCUMENTATION

I refer to the following documents received for this report:

- Statement of Environment Effects, referenced 2240289, prepared by Ethos Urban, dated 4 October 2024.
- Architectural Plans, referenced 2401, prepared by PBD Architects, dated 26/09/2024.
- Survey Plans, referenced 51101 001DT-Rev C, prepared by LTS, dated 29/07/2024.
- Flood Risk Management Report, referenced SY211740-Rev A, prepared by Northrop, dated 2 October 2024.
- Stormwater Report, referenced 240961-Rev B, prepared by Northrop, dated 1 October 2024.
- Revised Stormwater Management Plan, referenced 240961-C, prepared by Northrop, dated 02/12/24.
- Geotechnical Report, referenced 229319.00, prepared by Douglas Partners, dated 2 October 2024.
- Structural Statement, referenced SY240-054, prepared by Van Der Meer, dated 13 September 2024.
- WaterNSW referral Response, dated 30 January 2025.
- Austgrid Referral Response, undated.

3. ASSESSMENT

Comments have been prepared on the following. **Where Approval is recommended, Conditions of Consent follow at the end of the comments.**



a. Site Drainage comments

The applicant has satisfactorily addressed the stormwater issue which was raised previously. As such, the submitted revised concept stormwater plans are considered acceptable in principle subject to refinements at the CC stage. Stormwater runoff will be discharged to the Council's underground drainage system by gravity via the provision of stormwater filtration/treatment system. Condition will be imposed to ensure this filtration pit will not be subject to backwater effect from the Council's underground drainage system.

Generally, Council's Infrastructure & Sustainability Services Division is satisfied that adequate provision could be made for the disposal of stormwater from the land it is proposed to develop and complies with Chapter E2 "Stormwater and Flood Risk Management" DCP.

b. Flooding & Overland Flow comments

The site is located within a flood affected area. Council's Drainage Engineer has determined that the proposal is satisfactory, subject to suitable engineering condition. Refer to HPE 24/206684.

c. Impacts on Council Infrastructure comments

The applicant will be required to upgrade existing infrastructures such as footpath and the construction of new vehicular crossings as part of this application which can be conditioned accordingly. The applicant is also required to extend the Council's underground drainage system for the proposed stormwater connection in Albemarle Road. These infrastructure works will be subject to detailed assessment as part of the S138 application.

d. Traffic comments

Please refer to comments from Council's Traffic Engineer separately.

e. Vehicle Access & Accommodation comments

Vehicular access and parking arrangement are considered acceptable in terms of parking dimensions. Refer to comments from Council's Traffic Engineers regarding to location and gradients of the access driveways for both residential and loading dock area.

f. Geotechnical, Hydrogeological and/or Structural comments

A desktop Geotechnical Report by Douglas Partners, Ref: 229319.00, dated 2 October 2024, has been submitted in support of the application. The proposal involves excavation with a maximum depth of about 11m for the proposed basement level car park.

Based upon the available data, the report identified that the subsurface conditions depth of natural sand with various density from a depth beneath the fill to a depth of at least 25m. Sandstone bedrock is expected to at depths in excess of 25m and also likely to be highly variable. The sandstone could be interbedded with bands of shale and laminate. Groundwater has been measured and the bulk excavation will be about 7m below the maximum groundwater table previously measured. Temporary dewatering will be required for the basement excavation and construction.

The report made comments and recommendations on the following:

- *Shoring and support,*
- *Vibration Monitoring,*



- *Excavation method,*
- *Further Geotechnical input.*

Council's Infrastructure & Sustainability Services Division has no objections to the proposed excavation on technical grounds. Notwithstanding this, Council's Planning Officer is also to undertake an assessment of the proposed excavation against the relevant excavation objectives and controls prescribed under the LEP and DCP.

4. RECOMMENDATION

Council's Development Engineer has determined that the proposal is satisfactory, subject to the following conditions:

A. GENERAL CONDITIONS

A.5 Approved Plans & Supporting documents

Reference	Description	Author/Drawn	Date(s)
229319.00	Geotechnical Report	Douglas Partners	02 October 2024
240961-Rev B	Stormwater Report	Northrop	01 October 2024
240961 DA-C01.01-C DA-C04.01-C DA-C10.01-C	Stormwater Management Plan	Northrop	02/12/2024 02/12/2024 02/12/2024

A.8 Ancillary Aspects of Development (section 4.17(2) of the Act)

A.31 No Underpinning works

A.32 Vehicular Access and Garaging

Driveways and vehicular access ramps shall be designed to provide adequate ground clearance to the underside of B99 vehicles. In all respects, the proposed vehicular access including any parking spaces must be designed and constructed to comply with the minimum requirements of AS2890.1, AS2890.2, AS2890.6 and the Council's DCP.

Condition Reason: To prevent car scraping and to ensure vehicular access ramps and parking spaces are designed in accordance with the Australian Standard.

B. BEFORE DEMOLITION WORK COMMENCES

B.4 Erosion and Sediment Controls – Installation

B.7 Public Road Assets Prior to Any Work/Demolition

B.14 Payment of Security and Fees

Property Damage Security Deposit (S138)	\$1,441,453	No	T115
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B.16 Dilapidation Reports for Existing Buildings

Before any site work commences, dilapidation surveys and dilapidation reports must be conducted and prepared by a professional structural engineer for all buildings and/or



structures that are located within the likely “zone of influence” of any excavation, dewatering and/or construction induced vibration as determined applicable by the structural engineer.

These properties must include (but is not limited to):

No. 28 & 28A Albemarle Avenue
No. 494-496 Old South Head Road

Where access is not granted to any adjoining properties to prepare the dilapidation report, the report must be based on a survey of what can be observed externally and it must be demonstrated, in writing, to the satisfaction of the Principal Certifier, that all reasonable steps were taken to obtain access.

The completed dilapidation reports must be submitted to the Principal Certifier for approval, and an approved copy of the reports must be submitted to Council with the Notice of Commencement prior to the commencement of any development work.

No less than two (2) days before any site work commences, neighbouring building owner(s) must be provided with a copy of the dilapidation report for their property(ies).

Notes:

- The dilapidation report will be made available to affected property owners on request and may be used by them in the event of a dispute relating to damage allegedly caused by the carrying out of the development.
- This condition cannot prevent neighbouring buildings being damaged by the carrying out of the development.
- Council will not be held responsible for any damage which may be caused to adjoining buildings as a consequence of the development being carried out.
- Council will not become directly involved in disputes between the developer, its contractors and the owners of neighbouring buildings.

Condition Reason: To establish and document the structural condition of adjoining properties for comparison as site work progresses and is completed and ensure neighbours and Council are provided with the dilapidation report.

(Autotext 16B)

B.18 Adjoining Buildings Founded on Loose Foundation Materials

B.19 Piezometers for the Monitoring of Ground Water Levels

Before any site work commences, 2 piezometers within the excavation area and a further 2 piezometers around the perimeter of the wall must be provided. The piezometers are to be installed to monitor ground water levels (GWL) before and during all dewatering works for the construction phase.

The GWL monitoring wells and monitoring program must be maintained until the issue of the occupation certificate.

The GWL are to be regularly monitored during the course of the works as required by the work method statement for the control of GWL. Any damaged piezometers are to be replaced to allow uninterrupted monitoring.



Where there are any movements in the GWL outside a safe range set by the work method statement for the control of GWL, corrective action must be undertaken under the direction of the professional engineer (hydrological/geotechnical engineer).

Condition Reason: To ensure that piezometers are provided to monitor ground water levels.

B.21 Works (Construction) Zone – Approval and Implementation

C. ON COMPLETION OF REMEDIATION WORK

Nil

D. BEFORE ISSUE OF A CONSTRUCTION CERTIFICATE

D.13 Road and Public Domain Works

Before the issue of any construction certificate, a separate application under Section 138 of the Roads Act 1993 is to be made to, and be approved by Council, for the following infrastructure works. The infrastructure works must be carried out at the applicant's expense:

- a) The removal of all redundant vehicular crossings including layback and gutter and reinstatement to standard kerb and gutter in accordance with Council's and TfNSW's Specification, Council's standard drawing RF2_D and to the satisfaction of Council's Assets Engineers,
- b) The removal of the existing kerb and gutter and the construction of a new 5.5m wide vehicular crossing to access the proposed basement in accordance with Council's standard drawing RF2_D, Crossing Specification and to the satisfaction of Council's Assets Engineers. The new crossing shall be constructed at a right angle to the street kerb in plain concrete, with its centreline aligned with the centreline of the proposed driveway at the property boundary. Design longitudinal profiles along each edge/side of the proposed crossing, starting from the centreline of the road to the parking slab, must be submitted for assessment,
- c) **The removal of the existing kerb and gutter and the construction of a new XXXm wide vehicular crossing (to be determined by Council's Traffic Engineer) to access the proposed loading dock** in accordance with Council's standard drawing RF2_D, Crossing Specification and to the satisfaction of Council's Assets Engineers. The new crossing shall be constructed at a right angle to the street kerb in plain concrete, with its centreline aligned with the centreline of the proposed driveway at the property boundary. Design longitudinal profiles along each edge/side of the proposed crossing, starting from the centreline of the road to the parking slab, must be submitted for assessment,
- d) The reconstruction of the existing 1.8m wide concrete footpath including pram ramps for the full frontage of the site in [Albemarle Avenue](#) in accordance with Council's Specification for Roadworks, Drainage and Miscellaneous Works and to the satisfaction of Council's Assets Engineers. A maximum crossfall of 3% must be provided for the footpath from the property boundary towards the top of kerb. A design longitudinal surface profile (scale 1:100) and cross sections (scale 1:50) at every 5 metres intervals must be submitted for assessment,
- e) The reconstruction of full width footpath with Rose Bay pavers for the full frontage of the site in [Old South Head Road](#) in accordance with Council's Specification. A maximum crossfall of max. 3% shall be provided for the full width footpath from the property



boundary to the top of kerb. A design longitudinal surface profile (scale 1:100) and cross sections (scale 1:50) at every 5 metres interval must be submitted,

- f) The reinstatement of all damaged kerb and gutter and road pavement to Council's Specification and to the satisfaction of Council's Assets Engineers,
- g) Where a grass verge exists, the balance of the area between the footpath and the kerb over the full frontage of the proposed development must be turfed. The grass verge must be constructed to contain a uniform minimum 75mm of friable growing medium and have a total cover of Couch turf.
- h) The construction of a new kerb inlet pit (KIP) with 1.8m precast lintel over the existing Sydney Water's underground pipeline in [Albemarle Avenue](#) with the extension of the Council's underground drainage system using minimum Class 4, 375mm RRJ steel reinforced concrete pipes (RCP) with minimum 1% grade in accordance with Council's Specification for Roadworks, Drainage and Miscellaneous Works, Council's Standard Drawing DR1 and to the satisfaction of Council's Assets Engineers. Detailed design including longitudinal section of the proposed 375mm RCP shall be prepared by a chartered professional civil engineer. Trench details shall be included in the design drawings to comply with Council's Specification and AS3725. A copy of the approved plans from Sydney Water for the proposed stormwater connection must be submitted with this S138 application,
- i) The construction of a new kerb inlet pit (KIP) with 1.8m precast lintel for the proposed stormwater connection. The proposed KIP must be provided within the frontage of the site and be located at a minimum distance of 0.5m from the layback of the proposed crossing to comply with Council's Specification. The grates shall be Class D, "bicycle friendly" type.
- j) The developer shall be responsible for carrying out all service investigations to allow a gravity connection,
- k) An infrastructure bond will be used as security to ensure the satisfactory completion of the infrastructure works. The security or bank guarantee must be the original unconditional bank guarantee with no expiry date.
- l) Council may use all or part of the Infrastructure Bond as well as the Property Damage Security Deposit to meet the cost of removing or completing the works if they do not meet Council's requirements.
- m) The Deposit/Bond will not be released until Council has inspected the site and is satisfied that the Works have been completed in accordance with Council approved drawings and to Council requirements.

Before the issue of any construction certificate, the principal certifier must be provided with the original receipt(s) for the payment of all of the following security bonds and fees:

Description	Amount	Indexed	Council Fee Code
SECURITY under section 4.17(6) of the <i>Environmental Planning and Assessment Act 1979</i>			
Infrastructure Works Bond - completing any public work required in connection with the consent.	\$ 236,800	No	T113
Infrastructure Works Bond – remedying any defects in any public work that arise within 6 months after the work is completed	\$ Nil	No	T113



INSPECTION FEES

under section 608 of the *Local Government Act 1993*

Public Road and Footpath Infrastructure Inspection Fee	\$ 1,348	Yes	T45
TOTAL SECURITY AND FEES	\$ 238,148		

How must the payments be made?

Payments must be made by:

- cash deposit with Council,
- credit card payment with Council, or
- bank cheque made payable to Woollahra Municipal Council.

The payment of a security may be made by a bank guarantee where:

the guarantee is by an Australian bank for the amount of the total outstanding contribution,

- the bank unconditionally agrees to pay the guaranteed sum to the Council on written request by Council on completion of the development or no earlier than 12 months from the provision of the guarantee whichever occurs first [NOTE: a time limited bank guarantee or a bank guarantee with an expiry date is not acceptable],
- the bank agrees to pay the guaranteed sum without reference to the Applicant or landowner or other person who provided the guarantee and without regard to any dispute, controversy, issue or other matter relating to the development consent or the carrying out of development in accordance with the development consent,
- the bank guarantee is lodged with the Council prior to any site works being undertaken, and
- the bank's obligations are discharged when payment to the Council is made in accordance with the guarantee or when Council notifies the bank in writing that the guarantee is no longer required.

Notes:

- **Road** has the same meaning as in the Roads Act 1993.
- Changes in levels may arise from the detailed design of buildings, road, footpath, driveway crossing grades and stormwater. Changes required under Roads Act 1993 approvals may necessitate design and levels changes under this consent. This may in turn require the Applicant to seek to amend this consent.
- Works or structures over, on or under public roads or footpaths are subject to sections 138, 139 and 218 of the Roads Act 1993 and specifically:
 - Construction of driveways and/or new or alterations to footpath paving
 - Alteration and/or extension to Council drainage infrastructure
 - Alteration and/or addition of retaining walls
 - Pumping of water to Council's below ground stormwater system
 - Installation of soil/rock anchors under the roadway
 - Installation of Stormwater outlet pipes across the nature strip
- An "Application to Carry Out Works in a Public Road" form must be completed and lodged, with the application fee, at Council's Customer Services. Detailed plans and specifications of all works (including but not limited to structures, road works, driveway crossings, footpaths and stormwater drainage etc) within existing roads, must be attached, submitted to and approved by Council under section 138 of the Roads Act 1993, before the issue of any construction certificate.
- Detailed engineering plans and specifications of the works required by this condition must accompany the application form. The plans must clearly show the following:
 - Engineering drawings (plan, sections and elevation views) and specifications of the footpath, driveways, kerb and gutter, new gully pit showing clearly the connection point of site outlet pipe(s). The connection drainage lines must be as direct as possible and generally run perpendicular to the kerb alignment.



- Engineering drawings of the new drainage line to be constructed joining the new and existing drainage pits including services.
- All driveways must include a design longitudinal surface profile for the proposed driveway for assessment. The driveway profile is to start from the road centreline and be along the worst case edge of the proposed driveway. Gradients and transitions must be in accordance with clause 2.5.3, 2.6 of AS 2890.1 – 2004, Part 1 – Off-street car parking. The driveway profile submitted to Council must be to (1:25) scale (for template checking purposes) and contain all relevant details: reduced levels, proposed grades and distances.
- The existing footpath level and grade at the street alignment of the property must be maintained unless otherwise specified by Council. Your driveway levels are to comply with AS2890.1 and Council's Standard Drawings. There may be occasions where these requirements conflict with your development and you are required to carefully check the driveway/garage slab and footpath levels for any variations.
- Any adjustments required from the garage slab and the street levels are to be carried out internally on private property.
- Drainage design works must comply with the Woollahra DCP 2015 Chapter E2 – Stormwater and Flood Risk Management.
- Temporary ground anchors may be permitted, in accordance with Council's "Rock Anchor Policy".
- Services: Prior to any excavation works, the location and depth of all public utility services (telephone, cable TV, electricity, gas, water, sewer, drainage, etc.) must be ascertained. The Applicant must be responsible for all public utility adjustment/relocation works, necessitated by the development work and as required by the various public utility authorities and/or their agents.
- All public domain works must comply with the latest version of Council's "Specification for Roadworks, Drainage and Miscellaneous Works" unless expressly provided otherwise by these conditions. This specification and the application form can be downloaded from www.woollahra.nsw.gov.au.
- When an application under the Roads Act is required, then four (4) weeks is to be allowed for assessment.
- An application must be made to Council by the person who paid the security for release of the securities held under section 4.17 of the Act.
- The securities will not be released until the Occupation Certificate has been lodged with Council, Council has inspected the site and Council is satisfied that the public works have been carried out to Council's requirements. Council may use part or all of the security to complete the works to its satisfaction if the works do not meet Council's requirements.
- Council will only release the security upon being satisfied that all damage or all works, the purpose for which the security has been held have been remedied or completed to Council's satisfaction as the case may be.
- When determining whether the works within public land are satisfactory, Council will consider the ownership, construction quality, maintenance, operations, and public utility of such item/s.
- Upon completion of each section of road, drainage and landscape work to Council's satisfaction, 90% of the bond monies held by Council for these works will be released upon application. 10% may be retained by Council for a further 6 month period and may be used by Council to repair or rectify any defects or temporary works during the 6 month period.

Condition Reason: To ensure the design of the road, footpaths, driveway crossings and public stormwater drainage works are detailed and approved under section 138 of the Roads Act 1993 and to ensure the works are completed to Council's satisfaction.

D.21 Provision for Energy Supplies

D.25 Soil and Water Management Plan – Submissions & Approval

D.36 Professional Engineering Details

D.37 Engineer Certification



D.40 Geotechnical and Hydrogeological Design, Certification and Monitoring

Before the issue of the construction certificate, the applicant must submit, for approval by the Principal Certifier, a detailed geotechnical report prepared by a Geotechnical Engineer with National Engineering Register (NER) credentials in accordance with Chapter E2 of Council's DCP and Council's document "Guidelines for Preparation of Geotechnical and Hydrogeological Reports". The report must include a Geotechnical / Hydrogeological Monitoring Program together with civil and structural engineering details for foundation retaining walls, footings, basement tanking, and subsoil drainage systems, as applicable, prepared by a professional engineer, who is suitably qualified and experienced in geotechnical and hydrogeological engineering.

These details must be certified by the professional engineer to:

- a) Provide appropriate support and retention to ensure there will be no ground settlement or movement, during excavation or after construction, sufficient to cause an adverse impact on adjoining property or public infrastructure,
- b) Provide appropriate support and retention to ensure there will be no adverse impact on surrounding property or infrastructure as a result of changes in local hydrogeology (behaviour of groundwater),
- c) Provide details of cut-off walls or similar controls prior to excavation such that any temporary changes to the groundwater level, during construction, will be kept within the historical range of natural groundwater fluctuations. Where the historical range of natural groundwater fluctuations is unknown, the design must demonstrate that changes in the level of the natural water table, due to construction, will not exceed 0.3m at any time,
- d) Provide tanking to below ground structures to prevent the entry of seepage water such that subsoil drainage/ seepage water is NOT collected and discharged to the kerb and gutter,
- e) Provide a Geotechnical and Hydrogeological Monitoring Program that:
 - will detect any settlement associated with temporary and permanent works and structures,
 - will detect deflection or movement of temporary and permanent retaining structures (foundation walls, shoring bracing or the like),
 - will detect vibration in accordance with AS 2187.2 Appendix J including acceptable velocity of vibration (peak particle velocity),
 - will detect groundwater changes calibrated against natural groundwater variations,
 - details the location and type of monitoring systems to be utilised,
 - details the pre-set acceptable limits for peak particle velocity and ground water fluctuations,
 - details recommended hold points to allow for the inspection and certification of geotechnical and hydrogeological measures by the professional engineer, and details a contingency plan.

Condition Reason: To ensure that geotechnical and hydrogeological impacts are appropriately managed.

D.41 Ground Anchors

D.45 Parking Facilities



D.51 Stormwater Management Plan

Before the issue of any construction certificate, the applicant must submit, for approval by the Principal Certifier, detailed stormwater management plans prepared and certified by a chartered professional civil engineer, which detail the following:

- a) General design in accordance with the concept stormwater management plans, referenced 240961-Rev C, prepared by Northrop, dated 02/12/24, other than amended by this and other conditions,
- b) The discharge of stormwater from the site, by direct connection, to a new kerb inlet pit (KIP) over the existing Sydney Water's underground pipeline in [Albemarle Avenue](#),
- c) The provision of a minimum 1.2m x 1.2m boundary junction pit shall be provided prior to discharging stormwater from the site to the street drainage system. The stormwater outlet pipe must be made by using 300 diameter pipe which must be located within the frontage of the subject site with a minimum grade of 1% to comply with the Council's DCP and AS3500.3,
- d) In order to prevent any backwater effects, invert level of the proposed stormwater outlet pipe at the stormwater treatment chamber must be designed so that it is set above the 1% AEP flood level in [Albemarle Avenue](#),
- e) The installation of stormwater filtration /treatment system which includes but not limited to the installation of ATLAN Stormsack and 2 x ATLAN Filter (SF.30-EMC) to achieve the minimum the water quality targets stipulated in Chapter E2.2.3 of the Council's DCP,
- f) All below ground structures are to be fully tanked such that subsoil drainage/ seepage water is not collected and discharged to the kerb and gutter in accordance with Chapter E2.2.5 and 2.2.10 of the Council's DCP. Notation to this requirement shall be clearly depicted on the drawings,
- g) The dimensions of all drainage pits and access grates must comply with AS3500.3,
- h) Compliance the objectives and performance requirements of the BCA, and
- i) General compliance with the Council's Woollahra DCP 2015 Chapter E2 – Stormwater and Flood Risk Management.

The *Stormwater Management Plan* must also include the following specific requirements:

Layout plan

A detailed drainage plan at a scale of 1:100 based on drainage calculations prepared in accordance with the Australian Government publication, *Australian Rainfall and Run-off, 2019 edition* or most current version thereof. It must include:

- a) All pipe layouts, dimensions, grades, lengths and material specification,
- b) Location of proposed rainwater tanks,
- c) All invert levels reduced to Australian Height Datum (AHD),
- d) Location and dimensions of all drainage pits,
- e) Point and method of connection to Councils drainage infrastructure, and
- f) Overland flow paths over impervious areas.

For the proposed stormwater connection to the Council's drainage infrastructure, separate approval under Section 138 of the Roads Act 1993 must be obtained from Council for those works prior to the issue of any Construction Certificate.

All Stormwater Drainage System work within any road or public place must comply with Woollahra Municipal Council's *Specification for Roadworks, Drainage and Miscellaneous Works (2012)*.



Note: This Condition is imposed to ensure that site stormwater is disposed of in a controlled and sustainable manner.

Note: The collection, storage and use of rainwater is to be in accordance with *Standards Australia HB230-2008 "Rainwater Tank Design and Installation Handbook"*.

Condition Reason: To ensure that site stormwater is disposed of in a controlled and sustainable manner.

D.52 Non-Gravity Drainage Systems

D.54 Flood Protection

Before the issue of any construction certificate, the construction certificate plans and specifications required under clause 7 of the Development Certification and Fire Safety Regulation, must include a Flood Risk Management Plan on the basis of the Flood Planning Level (FPL).

Flood Warning:

- a) A permanent flood risk management plan shall be installed in a prominent area of the basement carpark,
- b) A permanent flood risk management plan shall be installed in a prominent area frequented by the shopping centre employees,
- c) A permanent flood risk management plan shall be installed in a prominent lobby,

Fencing

- a) The development shall be protected by a waterproof wall/facade designed to protect the development to the flood planning level,
- b)

Below Ground Car parking

- a) The driveway entry shall be protected by a physical crest with the threshold set to the flood planning level of 12.7m AHD,
- b) The loading dock pedestrian entry shall be protected by an automatic mechanical flood barrier with the threshold set to the flood planning level of 12.8m AHD,
- c) The main loading dock entry shall be protected by an automatic mechanical flood barrier with the threshold set to the flood planning level of 12.8m AHD,
- d) Permanent brass plaques shall be mounted adjacent to all automatic mechanical flood barriers explaining their purpose and operation,
- e) Emergency self-powered lights, indicating the safe exit to a flood free area above the probable maximum flood (PMF) shall be installed in the car parking area,

Floor levels

- a) The pedestrian entry to the lobby shall be protected by an automatic mechanical flood barrier with the threshold set to the flood planning level of 12.9m AHD,
- b) The main pedestrian entry from Old South Head Road shall be protected by an automatic mechanical flood barrier with the threshold set to the flood planning level of 13.2m AHD,
- c) The minor pedestrian entry from Old South Head Road shall be protected by an automatic mechanical flood barrier with the threshold set to the flood planning level of 13.2m AHD,
- d) Permanent brass plaques shall be mounted adjacent to all automatic mechanical flood barriers explaining their purpose and operation,



Flood Proof Material

a) Flood compatible materials shall be used for all flood exposed construction,

Electricals

a) All flood exposed electrical wiring and equipment shall be waterproofed or able to be easily isolatable,

Certification

a) All flood protection measures shall be inspected and certified as fit for purpose after construction is complete by an engineer experienced in flood mitigation,

Flood protection is to comply with Woollahra DCP 2015, Part E General Controls for All Development, Chapter E2 –Stormwater and Flood Risk Management.

Notes:

- The revised driveway profile, gradients and transitions must be in accordance with Australian Standard 2890.1, Part 1: Off-street car parking. The driveway profile submitted to Council must contain all relevant details: reduced levels, proposed grades and distances. Council will not allow alteration to existing reduced levels within the road or any other public place to achieve flood protection.

Condition Reason: To ensure the development incorporates flood inundation protection measures.

E. BEFORE BUILDING WORK COMMENCES

E.14 Erosion and Sediment Controls – Installation

F. DURING BUILDING WORK

F.7 Maintenance of Vehicular and Pedestrian Safety and Access

F.11 Maintenance of Environmental Controls

F.12 Compliance with Geotechnical/Hydrogeological Monitoring Program

F.13 Support of Adjoining Land Owners

F.14 Vibration Monitoring

F.15 Erosion and Sediment Controls – Maintenance

F.17 Disposal of Site Water during Construction

F.19 Site Cranes

F.20 Check Surveys – boundary location, building location, building height, stormwater drainage system and flood protection measures relative to AHD

F.24 Compliance with Council's Specification for Roadworks, Drainage and Miscellaneous Works Road Works and work within the Road and Footway

F.33 Shoring and Adequacy of Adjoining Property

While site work is being carried out, the person having the benefit of the development consent must, at the person's own expense:

a) protect and support the adjoining premises from possible damage from the excavation.



For the purposes of section 4.17(11) of the Act, the following condition is prescribed in relation to a development consent for development that involves an excavation that extends below the level of the base of the footings of a building on adjoining land.

Notes:

- This condition does not apply if the person having the benefit of the development consent owns the adjoining land or the owner of the adjoining land has given consent in writing to that condition not applying.

Condition Reason: To protect and support the adjoining premises from possible damage from the excavation.

G. BEFORE ISSUE OF AN OCCUPATION CERTIFICATE

G.7 Commissioning and Certification of Systems and Works

G.9 Commissioning and Certification of Public Infrastructure Works

G.29 Works within Public Land (including Council, State or Federal owned land or property)

G.32 Positive Covenant and Works-As-Executed Certification of Stormwater Systems

Prior to issue of any Occupation Certificate, stormwater drainage works are to be certified by a professional engineer with works-as-executed drawings prepared by a registered surveyor and submitted, for approval by the Principal Certifying Authority, certifying:

- a) compliance with conditions of development consent relating to stormwater,
- b) the structural adequacy of the on-site stormwater filter vault,
- c) that only one stormwater outlet pipe has been constructed in accordance with the approved stormwater plans,
- d) that a stormwater treatment system has been constructed in accordance with the approved plans and meets the water quality targets stipulated in the Council's DCP,
- e) that all below ground structures are fully tanked such that subsoil drainage/ seepage water is NOT collected and discharged into the kerb and gutter in accordance with the approved stormwater drawings,
- f) pipe invert levels and surface levels to Australian Height Datum, and
- g) contours indicating the direction in which water will flow over land should the capacity of the pit be exceeded in a storm event exceeding design limits.

A positive covenant pursuant to section 88E of the *Conveyancing Act 1919* must be created on the title of the subject property, providing for the indemnification of Council from any claims or actions and for the on-going maintenance of the on-site detention system, including any pumps and sumps incorporated in the development. The wording of the Instrument must be in accordance with Council's standard format and the Instrument must be registered with the NSW Land Registry Services.

Note: The required wording of the Instrument can be downloaded from Council's website www.woollahra.nsw.gov.au. The PC must supply a copy of the WAE plans to Council together with the Occupation Certificate.

Note: Occupation Certificate must not be issued until this condition has been satisfied.

H. OCCUPATION AND ONGOING USE

H.29 Ongoing Maintenance of the On-site Stormwater Treatment and Pumpout Systems

The owner(s) must in accordance with this condition and any positive covenant:



- a) permit stormwater to be detained and treated by the Systems;
- b) keep the systems clean and free of silt rubbish and debris;
- c) maintain renew and repair as reasonably required from time to time the whole or part of the treatment system so that it functions in a safe and efficient manner;
- d) carry out the matters referred to in paragraphs (b) and (c) at the Owners expense;
- e) not make any alterations to the system or elements thereof without prior consent in writing of the Council and not interfere with the system or by its act or omission cause it to be interfered with so that it does not function or operate properly;
- f) Not take any act, matter or thing which would prevent the overland flow path and flood protection measures (e.g. mechanical flood barriers) from operating in a safe and efficient manner;
- g) Not allow any structure to encroach upon the overland flow path;
- h) Not make any alterations to the flood protection measures and overland flow path or elements thereof without prior consent in writing of the Council and not interfere with the flood protection measures and overland flow path or by its act or omission cause it to be interfered with so that it does not function or operate properly;
- i) permit the Council or its authorised agents from time to time upon giving reasonable notice (but at any time and without notice in the case of an emergency) to enter and inspect the land with regard to compliance with the requirements of this covenant;
- j) comply with the terms of any written notice issued by Council in respect to the requirements of this clause within the time stated in the notice; and
- k) where the Owner fails to comply with the Owner's obligations under this covenant, permit the Council or its agents at all times and on reasonable notice at the Owner's cost to enter the land with equipment, machinery or otherwise to carry out the works required by those obligations.

The Owner

- a) indemnifies the Council from and against all claims, demands, suits, proceedings or actions in respect of any injury, damage, loss, cost, or liability (**Claims**) that may be sustained, suffered, or made against the Council arising in connection with the performance of the Owner's obligations under this covenant except if, and to the extent that, the Claim arises because of the Council's negligence or default; and
- b) releases the Council from any Claim it may have against the Council arising in connection with the performance of the Owner's obligations under this covenant except if, and to the extent that, the Claim arises because of the Council's negligence or default.

Note: This condition has been imposed to ensure that owners are aware of require maintenance requirements for their stormwater systems.

Note: This condition is supplementary to the owner(s) obligations and Council's rights under any positive covenant.

I. BEFORE ISSUE OF A SUBDIVISION WORKS CERTIFICATE

I.1 Electricity Substations – Dedication as Road and/or Easements for Access