From:DYPXCPWEB@northernbeaches.nsw.gov.auSent:19/11/2024 3:44:19 PMTo:DA Submission MailboxSubject:Online Submission

19/11/2024

MS Liz Mayfield 5 Viewland ST Bundanoon NSW 2578

# RE: DA2024/1310 - 9999 Warringah Road DEE WHY NSW 2099

Submission Regarding Development Application No DA2024/1310 for Lot 6 Sec 8 DP 1521, 2 Sydenham Road, Brookvale

Dear Sir/Madam

We are writing to raise concerns regarding the above Development Application for the proposed development at 2 Sydenham Road, Brookvale, as it poses significant risks to adjacent properties, including ours at 7 Orchard Road, Brookvale. Our submission focuses on findings outlined in the Report on Geotechnical Investigation ("the Report") prepared by Crozier Geotechnical Consultants, dated 12 September 2024.

## Key Concerns:

1. Structural integrity of adjacent properties

Adjacent properties are likely founded on shallow soils that may loosen due to construction activity. There is a high probability of settlement, regardless of excavation support, unless preemptive measures such as permeation grouting are undertaken.

## 2. Excavation depth and ground stability risks

The proposed bulk excavation to a depth of 8.00m, which will extend to all property boundaries, presents a "Very High" risk to property and life if sufficient stabilising measures are not implemented. The risk arises even with excavation support systems due to soil loosening and the proximity of existing shallow foundations.

The Report explicitly warns that neighbouring structures, including ours, are at risk of differential settlement and potential undermining during the excavation and foundation phases. Inadequate support during excavation could induce settlement or cause structural damage to neighbouring properties, including ours.

## 3. Impact of vibrations

Vibrations from construction activities could compromise the stability of neighbouring properties. Vibrations and soil movement due to deep excavation in loose and dense alluvial

soils, compounded by groundwater at 4.00m depth, exacerbate these risks.

Driven-style support systems, which might generate vibrations during installation, are deemed unsuitable. Even so, vibrations from other constructions could compromise the stability of neighbouring structures. The Report notes that care needs to exercised during demolition of existing structures and large scale breakers (ie,  $\geq$ 500kg) should be avoided to prevent damage to neighbouring structures.

4. Landslide and property damage risk

The Report considers that the stability hazards associated with the proposed works are likely to affect all neighbouring properties.

Without appropriate mitigation measures, the likelihood of a landslip event (> 20m<sup>3</sup>) is classified as "Almost Certain," with potential catastrophic damage to adjacent properties.

5. Acid sulfate soils (ASS)

The Report confirms the presence of Potential Acid Sulfate Soils (PASS) at depths below 4.00m, which, when disturbed, could lead to environmental hazards if not appropriately managed. The treatment plan relies on careful containment and lime neutralisation, which may not be feasible at the projected excavation scale.

### 6. Groundwater management

Dewatering to accommodate construction below the groundwater table could lead to significant hydrogeological changes, increasing the risk of subsidence or settlement in neighbouring properties. Monitoring and mitigation plans must extend to adjacent sites to prevent unforeseen impacts.

## **Requests to Council**

1. Confirmation that engineering plans account for the risks in the Report.

2. Require the applicant to provide detailed engineering designs for excavation, excavation support and shoring plans addressing risks to neighbouring properties, including continuous secant or diaphragm walls and bracing systems, verified by independent geotechnical experts.

3. Mandate real-time monitoring of soil movement and vibrations before and during construction with emergency protocols for immediate corrective action to safeguard adjacent properties.

4. Require a dilapidation survey of all surrounding properties before commencing any works to document pre-existing conditions.

5. Impose conditions for post-construction evaluations to ensure no structural damage has occurred to neighbouring properties.

As a concerned neighbours, we request that the Council consider these risks and impose stringent conditions to mitigate potential adverse impacts on surrounding properties.

Thank you for considering our submission. Please do not hesitate to contact us should you require further information or wish to discuss our concerns.

Yours faithfully,

Owners of units 2, 3 and 4 of 7 Orchard Road, Brookvale Strata No SP55545:

Liz Mayfield and Michael Trimboli (unit 2) <u>5 Viewland Street, Bundanoon, 2578</u>

Jennifer Leonard and Frank Leonard (unit 3) <u>48 Karrakatta Road, Goo</u>de Beach, 6330

Derek Rynenberg (unit 4) <u>4/7 Orchard Road,</u> Brookvale, 2110