

3 July 2019

Jalal Ziaolhagh
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Stormwater design in support of the proposed seniors' living development at 49 Forest Way

Dear Jalal

Stellen Consulting was engaged to assess the proposed seniors' living development at 49 Forest Way, Frenchs Forest, in reference to stormwater drainage.

The stormwater management plan is described in the following Stellen Consulting drawings:

DR-000 Revision 1 - Legend
DR-001 Revision 1 - Pipe Layout and Details
DR-002 Revision 1 - Roof Layout
DR-003 Revision 1 - Details
DR-004 Revision 1 - Site Areas

The stormwater management plan conforms to the relevant requirements of the following with the following noted exceptions:

- Australian Standard AS3500.3 – *Plumbing and Drainage: Part 3 Stormwater Drainage*
- State Environmental Planning Policy (*Housing for Seniors or People with a Disability*) 2004
- Northern Beaches Council (Warringah) – *On-Site Stormwater Detention Technical Specification* ⁽¹⁾

Exceptions:

1. The SEPP - Seniors Living Policy and BASIX requirements take precedence over the Northern Beaches Council DCP and drainage policies. Clause 36 of the SEPP relates to stormwater and states the following:

The proposed development should:

- (a) *control and minimise the disturbance and impacts of stormwater runoff on adjoining properties and receiving waters by, for example, finishing driveway surfaces with semi-pervious material, minimising the width of paths and minimising paved areas, and*

The proposed development discharges stormwater to Adam Street by two kerb outlets placed a minimum 15m apart to reduce the risk of concentrated kerb flows spilling onto the road. Additionally, the proposed development reduces the area discharging overland to the adjoining properties by an estimated 630m² which is a significant improvement when compared to the existing site conditions.

- (b) *include, where practical, on-site stormwater detention or re-use for second quality water uses*

Clause (b) explicitly calls for the development to include on-site detention (OSD) OR rainwater reuse for second quality water uses. The use of "or" within the wording of the clause requires the use of one or the other and not both. As a result of the BASIX requirements for the site, a rainwater reuse system must be installed. The development proposes to provide a 10kl rainwater reuse system, which is 8kl in addition to the minimum BASIX requirement for the development.

For the development to comply with both clause (b) and the BASIX certificate it is not possible to provide OSD. A proposal to install both OSD and a rainwater reuse system would be in direct conflict with clause (b).

The proposed development meets all requirements of the SEPP outlined above. To meet the requirements of both the SEPP and the BASIX certificate it is not possible for the development to provide the OSD system recommended by council's stormwater policy. A proposal to install both OSD and a rainwater reuse system would be in direct conflict with the SEPP which takes precedence over the Northern Beaches Council DCP and stormwater policies.

We recommend the stormwater design (as described in the drawings) as a safe and practical solution to support the development.

Please contact me if you have any inquiries.

Kind regards,

Stuart Steinle-Davies



Engineer

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Drawing List

Architectural Drawings by Walsh²

Revision A

DA100	Site Plan
DA101	Basement plan
DA102	Ground plan
DA103	Level 1 Plan
DA104	Roof Plan