

Frank Katsanevas EDP Reference: S-02188.LOA.001 Gosford

SH Gosford Residential Pty Ltd

email: enquiries@edp-au.com

web: <u>www.edp-au.com</u> Office: +61 2 8484 5810

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Central Coast Quarter - Concept SSDA Modification

Dear Frank,

SH Gosford Residential Pty Ltd (St Hilliers) engaged EDP Consultants Pty Ltd (EDP) to review the proposed Concept State Significant Development Application (SSDA) Modification for the Master Plan of 26-30 Mann Street, Gosford NSW (the site), in relation to a proposed additional basement level.

Previous investigations reviewed in preparation of this letter include:

- Updated Detailed Site Investigation, 26-30 Mann Street, Gosford NSW, SH Gosford Residential Pty Ltd, EDP Consultants Pty Ltd, April 2021, S-02188.DSI.001 V3 (EDP 2021a).
- Acid Sulfate Soils Management Plan, 26-30 Mann Street, Gosford NSW, SH Gosford Residential Pty Ltd, EDP Consultants Pty Ltd, August 2021, S-02188.ASSMP.001 V3 (EDP 2021b).
- Geotechnical Investigation, 32 Mann Street, Gosford NSW, St Hilliers Property Pty Ltd, Douglas Partners, June 2017, 83186.00 (DP 2017).

In consideration of the suitability of the site for the proposed basement, EDP has considered the following key factors:

- Proposed basement excavation depth.
- Extent of known contamination.
- Depth to permanent water table.

Proposed basement excavation depth

Based on information provided by St Hilliers, the proposed basement will require excavation to the depth of -2.6 m Relative Level (mRL).

Extent of known contamination

Based on the review of EDP 2021a, 20 shallow test pits to target depth of 1.5 meters below ground level (mbgl) and 5 deeper bore holes (to 5 mbgl) were excavated across the site. The logs noted the presence of fill materials reported to range in depth from 0.5-1.5 mbgl. Below this fill layer, natural sand was recorded in all investigation locations.

The investigation report is considered suitable to characterise and delineate contamination at the site, and no further assessment of contamination is required for the proposed basement.

Depth to permanent water table

Based on the review DP 2017, groundwater was observed at a depth of 1.5 mbgl (~1.2 mRL). Some variability in groundwater depth is expected, and as an unconfined aquifer the water level is expected to be impacted by rainfall. The distance from Brisbane Water and construction of Central Coast Highway is expected to result in negligible tidal influence.



Discussion

EDP considers the investigation reports suitable to inform the feasibility of the proposed additional basement level. The proposed excavation to a depth of -2.6 mRL will result in the generation of additional surplus natural sand/sediment that will require management under the ASSMP (EDP 2021b). The depth to groundwater (~1.2 mRL) will likely require the basement to be tanked to prevent ingress. A tanked basement will not impact on any acid sulfate soils remaining in contact with the basement walls and floor following the implementation of the ASSMP. Careful management during construction dewatering will be required in accordance with the ASSMP.

EDP concludes that the additional proposed basement is feasible and practical following the completion of the detailed design phase.

Should you have any queries please feel free to contact the undersigned on 0419 602 448.

Yours sincerely

Ryan Jacka

Principal Environmental Consultant

Certified Environmental Practitioner

EDP Consultants Pty Ltd



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