

4 March 2021  
E22434.G21

Attn: Mr Raja Jamal  
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Dear Raja,

## **Preliminary Geotechnical Investigation Review Proposed Co-Living Development 175-177 Cleveland Street, Redfern NSW**

### **Introduction**

At the request of Perpetual Corporate Trust Limited (The Client), EI Australia (EI) is pleased to provide this review of the following reports:

- Preliminary Geotechnical Investigation (PGI) Report referenced E22434 GA, dated 18 March 2015 for the proposed mixed-use development at 175-177 Cleveland Street, Redfern, NSW.

At the time of our previous PGI, the proposed mixed-use development involved the construction of an eight storey building and a two level basement carpark. The Finished Floor Level (FFL) of Basement 2 (B2) was proposed to be at Reduced Level (RL) of 13.75m. A Bulk Excavation Level (BEL) of RL 13.5m had been assumed at the time to allow for the construction of B2 slab. Based on the latter, maximum bulk excavation to a depth of about 9.0m was expected and locally deeper excavations would have been required.

The purpose of this letter report is to review the comments and recommendations provided in the PGI for the purpose of guiding geotechnical advice required for the construction of the proposed development.

The following documents were supplied by the client to assist us with the preparation of this environmental report review.

- Architectural drawings prepared by Mark Shapiro Architects, Project No. 20008, Issue A, dated 26 February 2021.

Based on the review of the above drawing, we note the following:

- The proposed development will comprise six storeys of mixed-use development with a single level basement.
- The lowest new B1 basement car park now has a proposed FFL of RL 16.1m based on current structural engineers designs. This is assumed to require bulk excavations to a depth of 3.5m to 7.0m (or to an RL of about 15.8m). This depth includes an allowance of 300 mm of over excavation to allow for the construction of the basement floor slab. Locally deeper excavations will be required for footings, service trenches, lift overrun pits and pump out stations.

### **Comments**

Based on the above, we are in the opinion that all previous comments and recommendations provided in our previous PGI report referenced above are still valid in principal and remain unchanged except:

- Following excavation, extremely weathered and distinctly shale is expected to be exposed at bulk excavation level. Regardless, as per the previous recommendations, EI recommends that the building be founded on piles to either Unit 4 or 5 quality shale based on the expected column loads.
- Following demolition, EI recommends at least three additional cored boreholes be drilled in previously inaccessible areas to the west and south to confirm subsurface conditions in these areas.

## Limitations

This report has been prepared for the exclusive use of Perpetual Corporate Trust Limited who is the only intended beneficiary of EI's work. The scope of the inspections carried out for the purpose of this report is limited to those agreed with Perpetual Corporate Trust Limited.

No other party should rely on the document without the prior written consent of EI, and EI undertakes no duty, or accepts any responsibility or liability, to any third party who purports to rely upon this document without EI's approval.

EI has used a degree of care and skill ordinarily exercised in similar works by reputable members of the geotechnical industry in Australia as at the date of this document. No other warranty, expressed or implied, is made or intended. Each section of this report must be read in conjunction with the whole of this report, including its appendices and attachments.

The conclusions presented in this report are based on a limited investigation of conditions, with specific sampling locations chosen to be as representative as possible under the given circumstances. EI's professional opinions are reasonable and based on its professional judgment, experience, training and results from analytical data. EI may also have relied upon information provided by the Client and other third parties to prepare this document, some of which may not have been verified by EI.

EI's professional opinions contained in this document are subject to modification if additional information is obtained through further investigation, observations, or validation testing and analysis during remedial activities. In some cases, further testing and analysis may be required, which may result in a further report with different conclusions.

## Closure

Please do not hesitate to contact the undersigned should you have any questions.

For and on behalf of,  
EI Australia

**Author:**



**Stephen Kim**  
Senior Geotechnical Engineer