

East Village on Knutsford, Fremantle WA

CLIENT Landcorp

YEAR 2019

SCOPE OF WORK

- Geotechnical investigation
- Interpretive analyses and reporting
- Borrow material assessment



Earthworks on the mixed use residential development site in Fremantle, WA.

The proposed development comprises a three storey, mixed use residential precinct, with a mix of dwelling densities from R40 to R60/100. The brownfield site presented several geotechnical challenges, and the project scope included an assessment of a potential source of borrow material for structural fill.

The multistorey mixed use development occupies the former WA Museum Depot site east of Fremantle. The project contributes to the WA objectives of urban infill and increasing population density as part of the Perth & Peel @ 3.5 Million strategic future planning framework.

Douglas Partners were engaged to provide geotechnical services for the project, commencing with a detail geotechnical investigation. The investigation addressed several geotechnical challenges for the

project, including:

- The presence of shallow limestone pinnacles, with depth to rock varying from 0.5 m to more than 3 m over short distances;
- The presence of deep loose sand between the pinnacles; and
- The presence on the site of uncontrolled fill from the previous use of the site as a storage depot.

The investigation was designed to specifically target these anticipated conditions to allow practical and efficient advice to be developed. Site preparation advice dealt with the pinnacle and loose sand situation by creating a uniform pad of compacted material 1.5 m thicker, eliminating the need to rip out the full depth of the pinnacles, and foundation advice was given to accommodate this solution.

Douglas Partners' scope was expanded to include assessment of old stockpiles on a nearby site for suitability for use as fill on the study project. Douglas Partners undertook detailed geotechnical and environmental studies of the stockpiles and provided practical

advice on screening of the material to allow its incorporation into the project.

Subsequently, Douglas Partners were engaged to provide construction phase support to the contractor in turning our advice into reality.

“As a result of Douglas Partners advice, significant project savings were achieved through screening and re-use of previously stockpiled material. This helped to achieve the sustainability objectives of the project.”

*Jonathan Small
Civil Engineer
Tabec.*

