



Lot 200 Ocean Reef Road

Client:
LandCorp

Location:
Wanneroo WA

Construction Period:
Sep 14 – Mar 15

Project overview

Lot 200 Ocean Reef Road is a 30,000m² triangular shaped parcel of land bounded by Ocean Reef Road to the South, Backshall Place to the North and existing residents to the east. The area is predominantly low lying with loose sand and organic material, that in its current state unsuitable for development. In accordance with the State Government wanting to increase infill development where possible, Landcorp made the decision to remediate the site and create a 32 lot residential development.

Half the site contained loose sand to a depth of approx 3m and the other half was near natural groundwater and contained a layer of organic material approx 1m thick. The works required compaction of the loose sand and also removal of the organic material and complete importation of approx 30,000m³ of fill to new design levels. DM Civil were also required to complete earthwork certification so that an “A” class site was achieved.

The project also included construction of Remastone noise wall, limestone block retaining walls, sewer, storm water, water, gas, Telstra and Electrical services with several connections to existing assets at Watson Road, Wishart Loop and Backshall Place.

Through our considerable experience in land development, remediation skills and working within the community, DM Civil were engaged to complete this important development for LandCorp.

Significant achievements and benefits

Residents were located on the North and Eastern boundaries of the work site. As a result, managing dust throughout the works was critical to minimise the impact on these residents. Through good construction practices and monitoring weather conditions, dust was never recorded leaving site and no complaints were raised for the duration.



The western half of the site contained loose sand to a depth of approx 3m. This material was unsuitable for building homes or services due to its relative low strength. Original option was to dig out this material, replace and compact in layers to meet geotechnical requirements. This would have been time consuming and expensive. DM Civil implemented an alternative compaction method called High Density Impact Compaction. Using a specialised high impact roller, the 3m of loose sand could be compacted from the surface, providing the solid foundation required without any excavation and replacement of material required.

The new sewer reticulation was originally designed to connect with an existing main sewer at a depth of 6m. With the high water table, constrained site and for environmental considerations, the ground water extracted could not be disposed offsite. Through liaison with the consultant and Water Corporation, an alternative solution was found whereby an internal drop was used to connect with the existing sewer allowing the design levels to be brought up by approx 1.8m. This was significant in reducing the ground water encountered, reducing the environmental impact of the works.

An existing pre-school was operating at the eastern end of the site. To provide an event for the children, DM Civil organised a site visit where all the kids could get close access to the heavy machinery and see the works in action. This was the highlight of their week.

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By providing alternative construction methods, implementation of new design principals, presenting strong community liaison skills and tight management structure, DM Civil ensured this project was a success for the client LandCorp.

Contact DM Civil to discuss your land development projects.

GUARANTEED PERFORMANCE

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