



McDOWALL AFFLECK
CONSULTING ENGINEERS
Responsive. Reliable. Results.



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ENGINEERS
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Helena Valley, WA

Midland Project Management Pty Ltd - Helena Valley Views Estate

Overview

McDowall Affleck were involved with this project from inception through to final completion. We assisted the developer right through the initial investigations on site, servicing and engineering reports for rezoning application of the land from rural to residential, obtaining the WAPC approval and then completing the design of the earthworks, roads, drainage, sewer and water reticulation, underground power and NBN (with UPD as our partners).

Type of Engineering Work

Civil Engineering - Land Development

Work Timeframe

September 2009 - August 2015

Contract Value

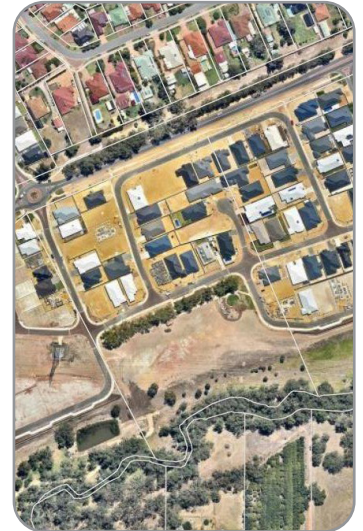
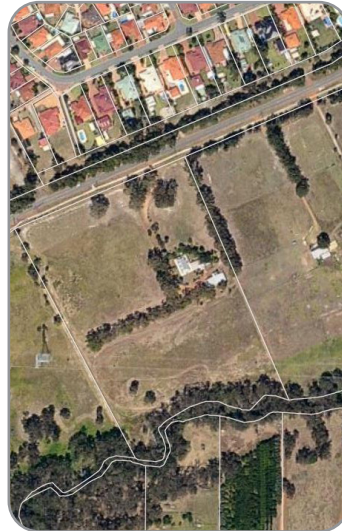
\$13.85 million

McDowall Affleck Contact

Michael Ferritto

Scope of Work

- Design of earthworks, retaining walls, roads, drainage, sewer and water reticulation, underground power and NBN
- Superintendence of all upgrade works



Project Challenges

- There were significant issues to overcome in order for the site to be able to be serviced with sewer and water. We had to design a 1.3km 225 diameter sewer main through existing road reserves, under Western Power 330kV transmission tower easements, through the land being developed and into adjoining land owners lots so that they could develop their subdivision as well as a National Lifestyle Village. In order for the sewer main to be able to be constructed, preliminary earthworks were need to be constructed in order to place enough fill over the sewer main prior to the actual subdivision works being undertaken.
- We also had to design 440m of 250 diameter lead in water main to service the site and then ultimately be extended through the site to service the adjacent subdivision. This involved boring 130m of 315PE pipes under existing roads, services, footpath and vegetation.
- The site comprised of sand, laterite over pebbly silt of Guildford Formation and clay adjacent to the Helena River floodplain. The site was constrained by the sloping grades from Helena Valley Road to the Helena River and floodplain, a small dam, 330kV transmission towers cutting through the site, the various soil types, subsoil flows, existing houses to be kept within the subdivision and significant vegetation to be preserved on the site.



Value Engineering

We designed the earthworks to produce builder ready lots with varying heights of limestone block retaining walls up to 3m high including walls along the Helena River flood plain. Our structural team within McDowall Affleck were able to provide all the necessary structural design and detailing for the limestone block retaining walls where required in house without reverting to external sub consultants...another benefit of dealing with McDowall Affleck.

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