

Sunshine Cove (Wises Farm)

Maroochydore | Sunshine Coast



Scope of Works

Sunshine Cove (originally Wises Farm) is a multi-precinct residential, commercial and high-density area. Originally a flood plain, Shadforth transformed this 106-hectare site into a development comprising 11 precincts and more than 8 kilometres of boardwalk, pedestrian and bicycle pathways.

Over 1.5 million cubic metres of earthworks was completed in less than two years in a marine mud environment, with over 3.4 metres of rain falling on the site during construction. To overcome these challenges, Shadforth developed and extremely complex construction methodology covering environment, safety and testing.

Shadforth commenced work at Sunshine Cove in 2006 and has since completed the following works:

- 16 Civil stage packages
- 60 Hectares - Clearing and grubbing
- 1,800,000m³ - Bulk earthworks
- >7kms - Roadworks
- > 7km - Sewer and water
- > 5,500m² - Retaining and revetment walls
- Major stormwater and sewerage pump station
- Development of a parklands and park
- Creation of major lakes and the transformation of a flood plain into a river system
- Multiple major intersection upgrades
- Electrical works and landscape works
- Acid sulphate soil management

Project Overview

Client

**Felix Hill Pty Ltd /
Chardan**

Start Date

June 2006

Completion Date

Ongoing

Contract Sum to Date

\$40.1 Million

Shadforth Team

Construction Manager

Jeremy Linton

Project Manager

Sean Thrussell

Site Supervisor

David Curtis

Darryl Hart

Anthony Rook

Safety Manager

Grant Fowler

Quality Assurance

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Environmental Officer

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Project Particulars

Early Works

Early works were staged to achieve milestones set in the contract; they consisted of extending Cornmeal Creek to its final design to allow the construction of a bridge for the future Maroochy Boulevard. Building pads were also established on the Eastern and Western side of Maroochy Boulevard to dispose of the fill from the excavation.

The existence of Acid Sulphate Soils (ASS) was identified through test holes and soil testing. Multiple bunded treatment pads were established to place, dry and treat the highly acidic marine mud in 300mm layers. Once treated, validation testing was conducted before the placement of the next layer. A series of drains were established to deal with stormwater between treatment pads. A permanent in-situ water quality monitoring station was installed at the outlet weir to monitor water quality.

The lake system was divided into seven separate portions with bunds to control and manage stormwater run-off. The site also managed the extensive upstream water catchment that flowed onto the site by installing a seven metre deep stormwater pit and submersible pump, diverting the water through the site via a clean water diversion drain. Water quality was controlled through ongoing water treatment in each of the lakes and pumping over bunds, ensuring water quality met the release criteria by the time it reached the discharge point. A 930m long, 600mm diameter poly pipe was installed to allow the pumping of water from the end of Cornmeal Creek to the start of the lake system to allow for recirculation and aiding in water quality. This site was located in the middle of Maroochydore with the outflow of the water flowing through the Sunshine Plaza, so it was absolutely paramount to maintain adequate control measures to attain good water quality. The project was a success, with water quality actually improving through the site; attributable to the control measures installed and managed.

