



SUSTAINABLE AGGREGATES

SOUTH AUSTRALIA

WINONA STREET FINDON

Residential development

Products

The demolition of a former SA Housing Trust estate in Findon in 2008 has been replaced by medium density housing comprising multi-story apartment blocks and associated internal access roads. The pavement comprised two granular layers in which DPTI specification PM1/20RG (grading based) was used for a 200mm basecourse overlying a 200mm subbase comprise of PM 2/20RG (grading based) and a 40mm hot mix asphalt wearing course.

Application

Construction was undertaken by Epic Constructions. The Findon development required a road network to be built through its new apartment complex at the intersection of Findon and Grange roads. The roads have been built and handed over to the City of Charles Sturt council as public roads, as apartment buildings become available for sale.

Royal Park Salvage utilised ARR's range of recycled materials to construct the interconnecting roads between the Findon apartment buildings. The lower base was constructed using natural soils taken from the excavation of the apartment under-crofts.

Environment

Recycled materials were chosen as the nearest source of pavement material saving approximately 10kms in haul distance. In addition the use of recycled materials took advantage of:

Disposal of demolition waste to the same recycling facility as purchase of new pavement material allowing back loading in deliveries

- Reduced material haul (7kms) compared to the nearest quarry source (22kms)
- 30% reduction in CO² emissions in terms of manufacture of recycled pavement materials
- Avoidance of demolition waste to landfill

Performance

Although constructed in 2008, the pavements have incurred around 80% of the structural traffic loading used for design life. This occurs due to the high volume of loaded trucks and machinery delivering building materials to site such as concrete transit mixes, bricks, timber, tiles and occupant removal trucks.

No visible structural distress has been observed as would be expected with this type of granular pavement and it is expected to exceed its design life in view of firm subgrade and relatively thick granular layers.



CONTACT INFORMATION

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