

Atlantis®
GREEN CITIES FOR LIFE

Snapper Creek Car & Trailer Park

Project Location

Queensland, Australia

Atlantis Application

Permeable Surface

Project Overview

Sincorporating separate surface treatments for vehicle circulation and parking. Atlantis Gravel Cell® and Turf Cell® systems were used to create gravel driveways and grassed parking areas while maintaining a permeable ground surface.

Approximately 4,300 m² of 52 mm cellular pavement was incorporated across dedicated car parking and combined car-and-trailer parking areas.

Technical Summary

Project	Snapper Creek Car & Trailer Park
Location	Queensland, Australia
Application	Permeable Surface
Completion	July 2014
Size	Approx. 4,300 m²
Surface Use	Vehicles & Trailers
Atlantis System	Gravel Cell® & Turf Cell®

Design Challenge

The project required a large parking facility capable of accommodating passenger vehicles and vehicles towing trailers while maintaining a permeable surface treatment. The pavement also needed to accommodate the site's existing sandy material and provide separate gravel circulation areas and grassed parking zones.

01 Accommodate both standard vehicle parking and car-and-trailer parking.

02 Provide stable gravel driveways under regular vehicle movements.

03 Establish trafficable grassed parking areas.

04 Maintain surface permeability across the cellular pavement areas.

05 Reduce direct compaction of the underlying soil and protect grassed surfaces from vehicle loading.

06 Integrate two surface finishes within a common permeable pavement strategy.

Solution

Two Atlantis cellular systems were incorporated according to the required surface function. Gravel Cell® was used within gravel circulation areas to confine and stabilise aggregate under vehicle traffic, while Turf Cell® was used within grassed parking areas.

The natural sandy site material was excavated to approximately 300 mm. A Tensar grid was installed within the excavation before the excavated material was replaced and compacted.

Within Gravel Cell® areas, a 100 mm gravel layer was installed before the cellular modules were positioned and filled with gravel. Turf Cell® modules were filled with soil, with grass established by seeding rather than pre-grown turf.

Benefits

- Separate gravel and vegetated surfaces incorporated within one parking facility.
- Cellular confinement stabilised aggregate within vehicle circulation areas.
- Turf Cell® provided trafficable grassed parking areas.
- Permeable surface treatment maintained across the cellular pavement.
- Cellular systems reduced direct vehicle-induced compaction of underlying soil.
- System configuration accommodated both cars and vehicles with trailers.
- Approximately 4,300 m² of cellular pavement incorporated across the site.

Considerations

The documented installation incorporated different construction treatments according to the intended finished surface:

1. Natural sandy material excavated to approximately 300 mm.
2. Tensar grid positioned within the excavation.
3. Excavated sandy material reinstated over the grid and compacted.
4. A 100 mm gravel layer installed beneath the Gravel Cell® areas before placement and gravel filling of the cells.
5. Turf Cell® modules filled with soil and grass established by seed.

Project Outcomes

- Approximately 4,300 m² of 52 mm cellular pavement installed.
- Gravel Cell® used to create permeable gravel circulation areas.
- Turf Cell® used to establish grassed vehicle parking areas.
- Dedicated areas provided for cars and car-and-trailer combinations.
- Grass established from seed rather than pre-grown turf.
- Project completed and operational in mid-2014.

The project incorporated two cellular pavement treatments according to surface function: gravel-filled cells within circulation areas and soil-filled, vegetated cells within parking areas. Both formed part of the same permeable pavement installation.

Did You Know?

Snapper Creek incorporated two different cellular pavement finishes within the same installation.

Gravel Cell® provided confined gravel surfaces for vehicle circulation, while Turf Cell® provided reinforced grassed parking areas. Both systems maintained a cellular, permeable pavement structure while responding to different surface requirements.









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Thank You For Your Attention



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