Category 4: Excellence in Pavement Recycling and Stabilisation in Local Government

Tooloom Road Upgrade, Tenterfield Shire Council

Jed Martin Hiway Stabilizers Australia



2021 AustStab Awards of Excellence





Project Overview

- The Tooloom Road General Mass Limit Heavy Vehicle Access Project was jointly funded by the NSW and Federal Governments
- 6m wide existing pavement
- Safety upgrade required for safe passage of tourism and logging traffic
- Existing pavement very badly deformed
- Far north town of Urbenville left feeling "isolated" from remainder of Tenterfield Shire
- Tenterfield Shire Council was seeking a best value for money alternative to maximise length of upgrade for the funds available







Objectives

- Complete pavement sampling, investigation and design with council to determine appropriate treatment
- Maximise local business utilisation to maximise benefit to the local communities
- Upgrade pavement to consistent 8m wide seal on 9m wide pavement
- Correct pavement shape and curves to allow for a safe 100km/h speed environment







Design

- Samples were collected from 42 locations utilising council crew and soil lab
- Existing pavement depths were recorded at each sample location
- CBR and UCS testing undertaken to determine binder % and type
- Design outcomes were
 0 150mm DGB overlay with
 2-3% triple blend stabilised to
 250mm depth







Key Challenges

- Wet weather morning showers and afternoon storms almost daily
- Significant flooding events during construction
- Hidden services with very limited records available
- Limiting impact to natural flora and fauna
- Minimise use of quarry resources and damage to adjacent road network











Key Outcomes

- Over 13km of road widened, overlayed, pre-pulverized, reshaped, stabilised and sealed within an 8 week construction period
- Hiway Stabilizers utilised a team of highly experienced in-house staff and key subcontractors to deliver in record timeframes required by council
- Maximised the use of local subcontractors
- All quality requirements met or exceeded with no NCRs







Triple Bottom Line Assessment

Planet – Environmental Performance

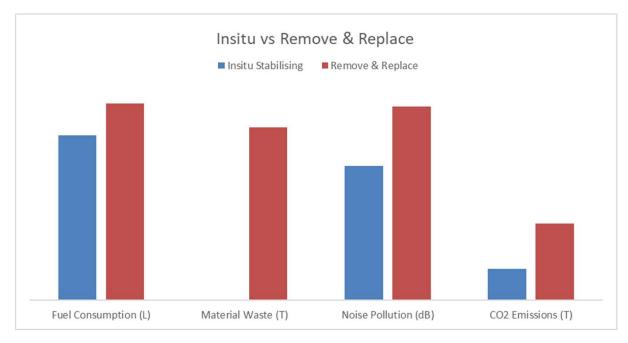
Reduced Landfill, Haulage and new materials

People – Social Performance

Minimised trucking movements, traffic congestion, pedestrian impacts and noise

Profit – Economic Performance

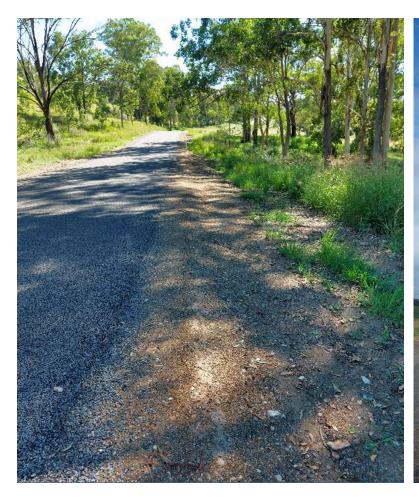
 Reduced fuel consumption, no material to landfill, no tip fees, limited quarry materials, cost savings, shorter project delivery

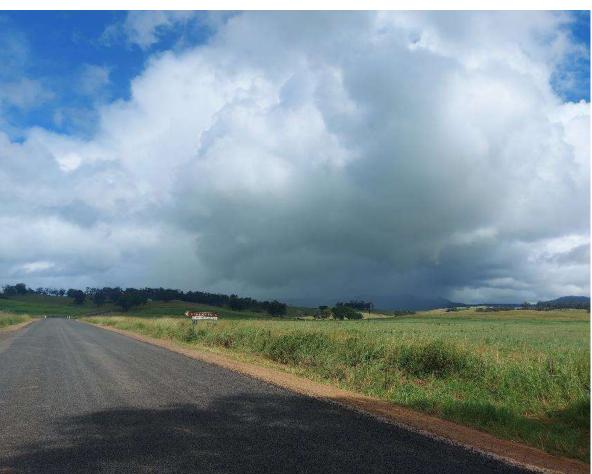






Completion





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