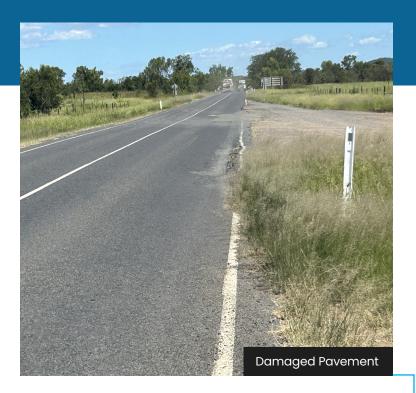
## Case Study Sealed Road Inspection & Remediation Planning

AE Young Engineers was engaged to inspect a 12-kilometre section of sealed road, assessing pavement, culverts, and drainage conditions. A risk-based assessment was used to prioritise defects, enabling the road operator to allocate resources efficiently for remediation.



## **Inspection & Safety** Considerations

Maintaining vehicle access while ensuring safe inspection procedures was a key priority. The inspection process included:

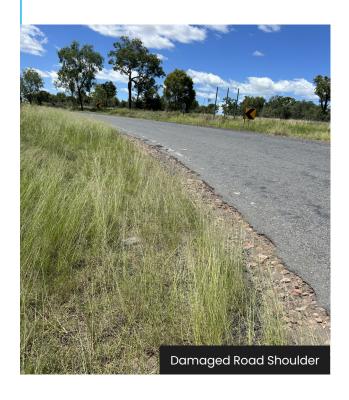
- Job Safety Analysis (JSA) to identify and mitigate risks.
- Confined space permits for culvert inspections.
- Traffic management planning to allow safe and uninterrupted road use.

## Repair Methodology & **Engineering** Solutions

To minimize disruption to road users, AE Young Engineers developed strategic repair methodologies, including:

- Temporary bypass roads to maintain traffic flow.
- Staged remediation to allow progressive repairs without full closures.
- Engineered repair solutions complying with Australian **Standards** and state engineering sign-off requirements.

By combining detailed assessment, risk prioritization, and strategic remediation planning, AE Young Engineers provided a cost-effective and efficient approach to road maintenance and infrastructure longevity.

















Fault Number: AR18.1		Area: Culvert 8400	Risk Rating:	High	17
Location: CH8400	Component:	Culvert.	Inspected by: AY	Audit Date: Jan-24	

Description of Fault:	: Culvert holding water and showing signs of corrosion.				
Failure Mode:	Failure of CMP.				
Potential Incident:	Culvert failure.				
Severity:	Consequence Type				
	*Life altering or long-term / permanent disabling injury or illness to one or more persons				
	Substantial impact to the environment, where recovery of the ecosystem function takes between 1-3 years; infringement notice but prosecution unlikely				
	*Between US\$10 million and up to US\$50million AND Moderate impact on the business' ability to meet its financial commitments AND/OR May need to borrow additional case to meet current liabilities				
	*Substantial impact lasting greater than 2 months on legal rights or compliance; e.g. State; moderate penalties for breach; reported formally to exemal authority; significant effort to correct				
	*Substantial impact lasting 2-6 months on community reputation, investment attractiveness, social value proposition or ability to access opportunities at a sub-national level e.g. State; significant effort to correct.				
		·			
Likelihood:	Likely	Will frequently occur.			
Recommended Action:	Clean inlet and outlet side to improve water flow.				
	Inspect culvert once water is removed.				
Action Time Frame:	Prompt Action Required.				







