

**Public Works Inquiry into the state controlled roads from Birdsville to Bedourie and Birdsville to Windorah**

**Submission No:** 10  
**Submitted by:** Syngensis  
**Publication:**  
**Attachments:** No attachment  
**Submitter Comments:**

Committee Secretary  
 Transport and Resources Committee  
 Parliament House  
 George Street Brisbane Qld 4000  
 Email: [trc@parliament.qld.gov.au](mailto:trc@parliament.qld.gov.au)

Thursday, 17 August 2023

**Re: POLYPAVE® Introduction - Inquiry into State Controlled Roads**

Reference: Infrastructure Inquiry Call for Submissions <https://www.parliament.qld.gov.au/Work-of-Committees/Inquiries/Inquiry-Details?id=4257>

Dear Committee Secretary

Pavement Construction Pty Ltd (PCL) is the Queensland based parent entity for Polypave® an innovative, non-toxic Australian 'polymer' roads construction technology. Additional information is attached for your perusal and further technical details are available on request.

Infrastructure built with Polypave® will resolve Queensland's regional roads (and rail) challenges.

We are currently progressing through Australian Road Research Board (ARRB) Polypave® test processes and product certification. Final certification is expected September 2023.

Terms of Reference. The table below outlines how Polypave® will assist the Committee to deliver a long lasting, resilient solution to demonstrate its performance for future regional infrastructure projects.

1	'..apparent suitability of the works for the purpose'.	Current flexible pavement design, construction and maintenance programmes utilising existing technologies are no longer appropriate. Adoption of water proof and resilient infrastructure construction technologies (Polypave®) will benefit all stakeholders.
2	'..value for money achieved, or likely to be achieved, by the works'.	Polypave® infrastructure is long lasting, resilient, and can be constructed from in situ materials. Its durability over planned life will significantly decrease maintenance and tarmac repair costs. ARRB testing (ARRB Permeability Test result 25 Jul 2023) confirms Polypave® is <b>750 times more impermeable</b> compared to existing flexible road pavements.
3	'..the present and prospective public value of the works'. '..the balance of public and private sector involvement in the works'.	The potential for decreased construction CAPEX and OPEX over planned life. Further, PCL has developed a training programme to assist local government and regional civil engineering entities to construct regional Polypave® infrastructure, ensuring roads spend stays in regional communities.
4	'..impact of the works on the community, economy and environment'	Polypave® is non-toxic, easily transported in bulk and long life. Further details can be provided when retried. Polypave® can also utilise existing failed flexible materials in construction to decrease vehicle gravel haulage lowering greenhouse emissions.
5	'..suitability of the works in meeting the needs and in achieving the stated purpose of the works'.	Following training, Polypave® roads construction can be completed at a rate up to 400m (10m) per day with heavy vehicle use of the tarmac within 24hours. Construction can also be done during wet weather.

**Request.** We respectfully request that the Committee accepts our submission and that it permits Mr John Lyons (PCL Technical Director) and Mr Ted Turnour (Syngensis) connect with your Committee to provide additional technical information. Mr Ted Turnour will contact your Committee by eMail Friday 18 August to confirm receipt to our submission.

Yours faithfully



Brendan Rasmussen (Director)





# A State opportunity..

## Leadership in fixing regional road networks

<https://www.abc.net.au/news/rural/2023-08-17/unsealed-queensland-roads-coasting-millions-in-lost-revenue/>

### Queensland has a regional roads problem..... The solution is here and it's Australian.

All States and Territories have regional infrastructure challenges caused primarily by historical use of flexible pavements. Traditionally the Federal government provides the infrastructure funding which the States oversee in addition to managing road design. This process today is not delivering consistent and long lasting regional road outcomes and the situation will worsen given increasing heavy vehicle freight tasks and climate change challenges.

We need a step change and a new approach to future proof regional road infrastructure construction.

**The Solution.** Polypave® is a resilient infrastructure solution, cost effective and with rapid all season construction benefits. It is:

1. **Australian IP** - Queensland based Pavement Construction Proprietary Limited (PCL)
2. **modern polymer technology** that is easily transported, cost effective, non-toxic and long life
3. produces a quick build **waterproof, long life, robust pavement** addressing current and future regional transport needs
4. lends itself to **regional SME** civil engineering and **local government** construction, and
5. will be 're-homed' to Australia for **regional manufacture** (ideally in multiple locations).

Additional benefits include:

- recycle in-situ failed pavement reducing truck haulage movements
- increased road durability and resilience particularly in high rainfall/wet season locations
- opportunity for all seasons road construction including high rainfall and light snow conditions, and
- use of non potable water with applicable environmental and costs savings.

**The Queensland Opportunity.** The Queensland opportunity is to demonstrate and provide national leadership in regional roads strategy. Internal discussions with PCL has confirmed potential to re-homebase Polypave® manufacture into regional Australia, potentially Queensland.

Further product and video information is available on request.



John Lyons B.T (Civil) MBA  
Technical Director PCL



Ted Turnour  
Director Syngensis

