HIGH-PERFORMANCE PERMEABLE PAVEMENT

The New Standard for
Permeable Pavements

POROUSLANE

A Circular Economy Approach to Flood Free Cities and Healthier Waterways

The new standard for permeable pavement.

Our Journey

2016

Research started at University of Melbourne

2020

Company founded

2021

Licenced by University of Melbourne

Commercialised

Exclusive licence granted by University of Melbourne

2023

The team is growing! Bradley starts

Winning a Premier Sustainability award!

First Kerb & Channel trial

2024

Parkinson Group & first councils in VIC & SA become accredited installers

First Installation in Queensland partnering with L.E.A.F. Innovations

Kerb & Channel System commercialised

Partnering with WaterSmart NZ.

2025

The team keeps growing!

Finalists in Banksia National Sustainability awards *(still needs to be awarded)*

First install in Northern Territorry

Applications

Car Parks

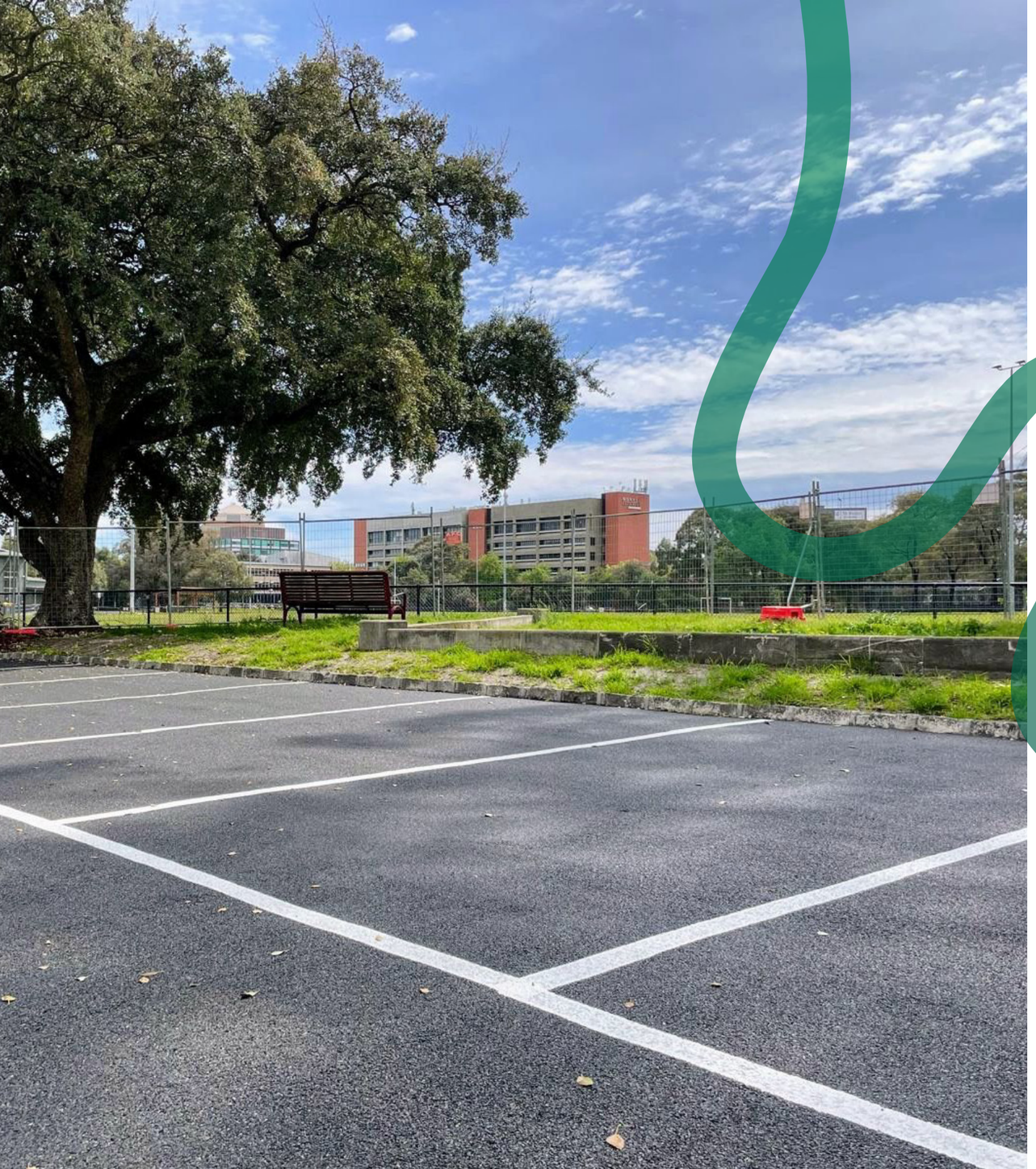
Footpaths

Shared User Paths

Tree Surrounds

Kerb & Channel

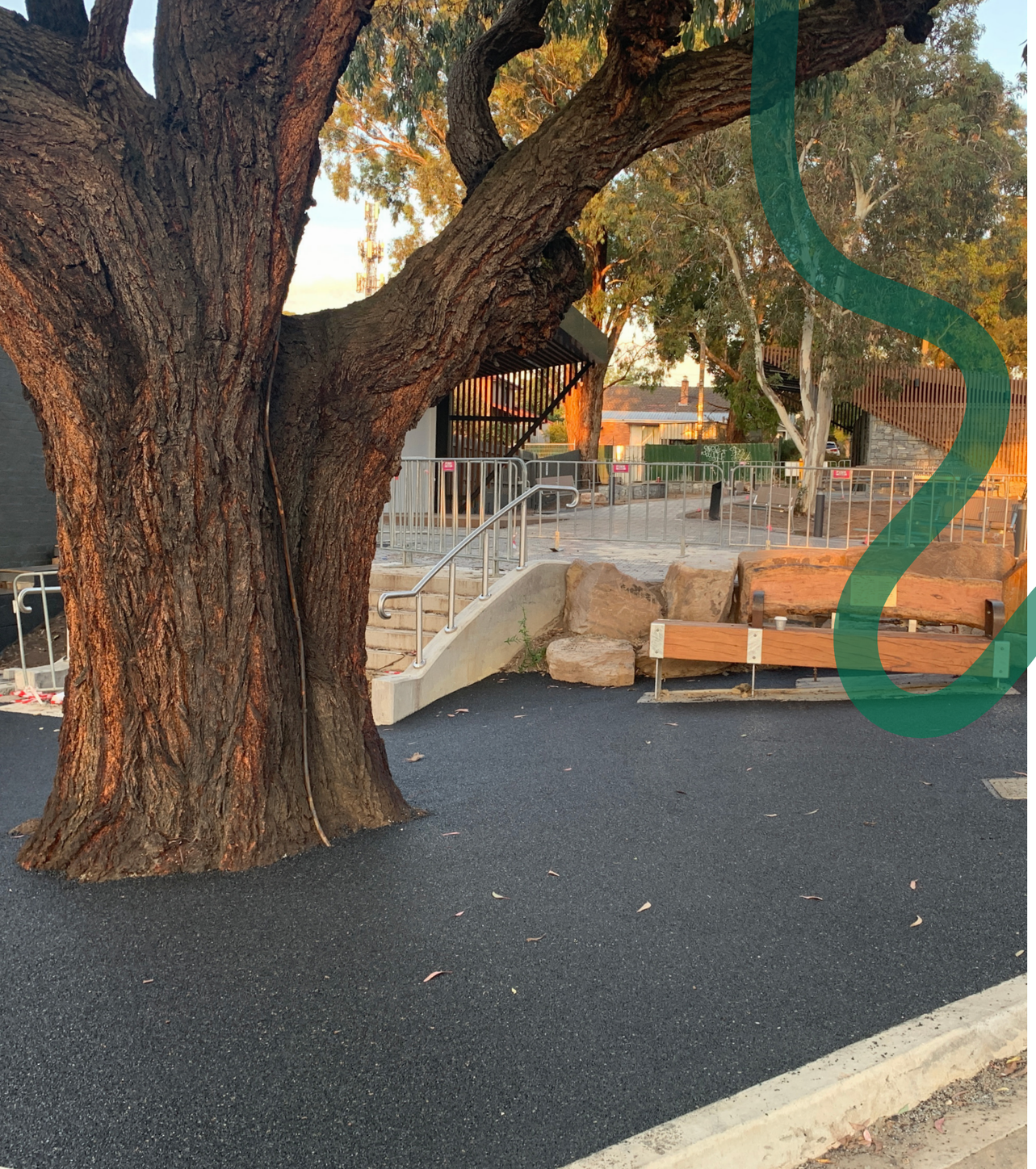
Other



24 months later...

Tree growth with Porous Lane

Tree growth without Porous Lane




Permanent Straightening
Ph: 9842 2222
ghd
HAIR


FIRE HOSE REEL

Kerb & Channel

Crack-Resistant Infrastructure

- Long-lasting, semi-flexible & highly crack-resistant
- 25-year design life & low maintenance.
- Absorbs & distributes tree root forces along the length of the kerb & channel.

Tree-Friendly Infrastructure

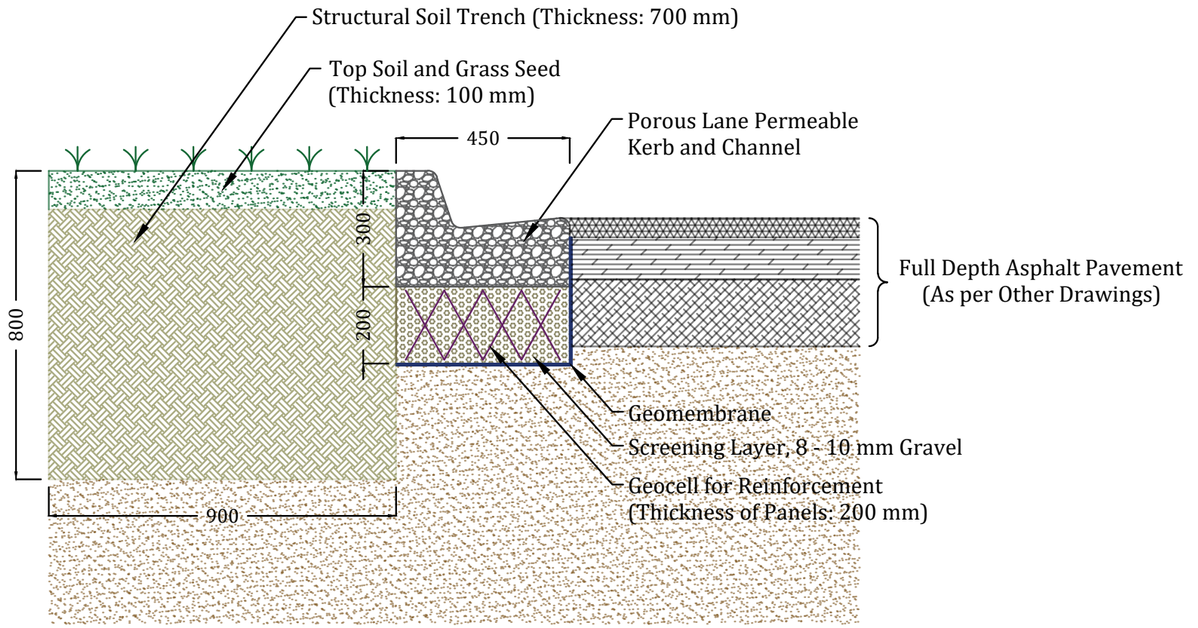
- Provides passive irrigation.
- Requires less excavation, ideal for Tree Protection Zones.

Water Sensitive Urban Design

- Harvests stormwater, reducing storm water runn-off.
- Can be combined with a storage layer to form on-site detention.

Certified Circular Economy

- Reduces urban heat island effects, 3-4 °C cooler
- Treats stormwater (nitrates, heavy metals and suspended solids)
- Made of 50% locally sourced recycled tyre material - 3 waste tyres per sqm



Merri-Bek Kerb & Channel

Client	City of Merri-Bek
Location	CB Smith Reserve, Fawkner, VIC
Size	22m
Waste tyres used	66

Description
Porous Lane Kerb & Channel to supply nature strip of water.

Goals
- Replicate the conditions similar to an urban nature strip
- Testing the effectiveness of the system in Reactive clay setting.

Outcome
- Waterinfiltration into the storage layer was highly effective.
- Exfiltration of storage layer into the reactive clay was slow.
- Kerb & channel system effectively stimulates the establishment of young trees in the nature strip.

Adelaide Kerb & Channel

Client	City of Mitcham
Location	Adelaide
Size	35m
Waste tyres used	105

Description

- Porous Lane Kerb & Channel on multiple section near trees.

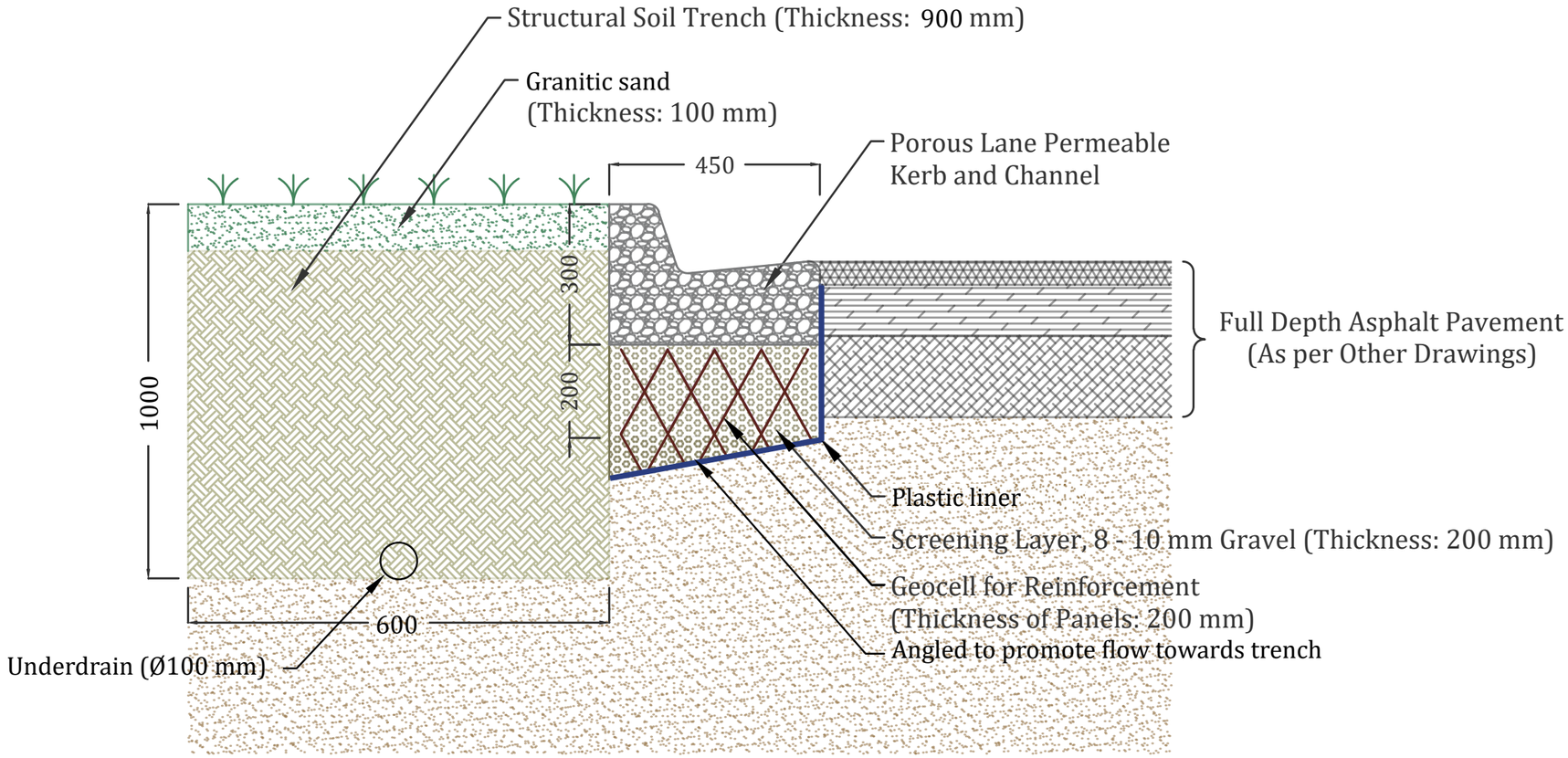
Goals

- Reduce pressure on the stormwater management system
- Minimize damage from tree roots heave, uplifting the concrete kerb & channel.
- Passive irrigation to the trees behind the kerb.

Outcome

- Reduction pressure on the stormwater management system.
- Damage risk minimised.
- Passively irrigating the tree behind the kerb.

Merri-Bek Kerb & Channel Profile



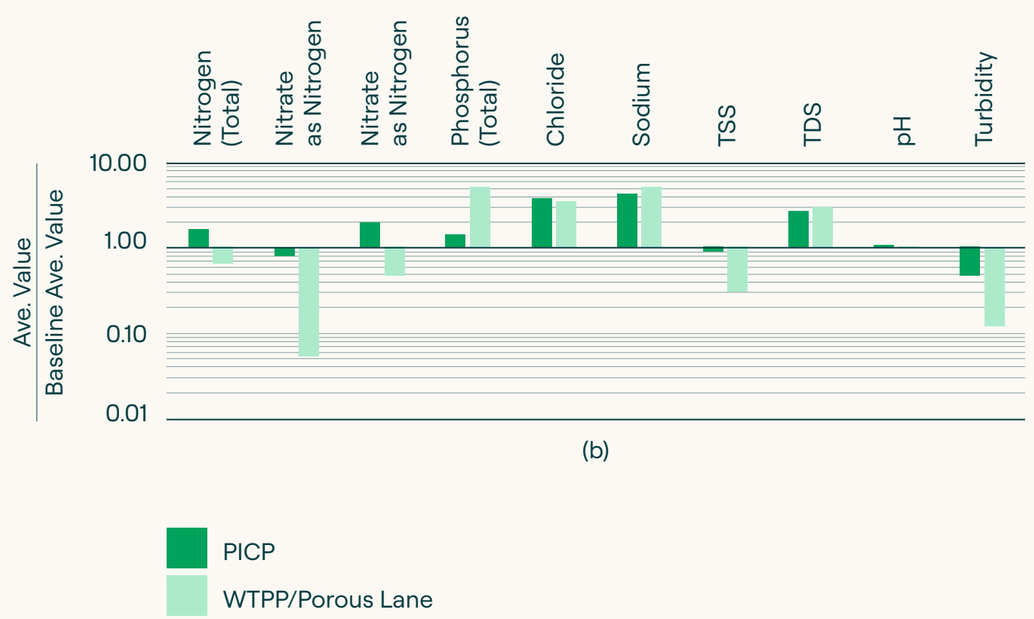
Installation Process

Installation Process

Semi-Flexible & Highly Crack-Resistant

Porous Lane

Stormwater Treatment - removal of pollutants from run-off

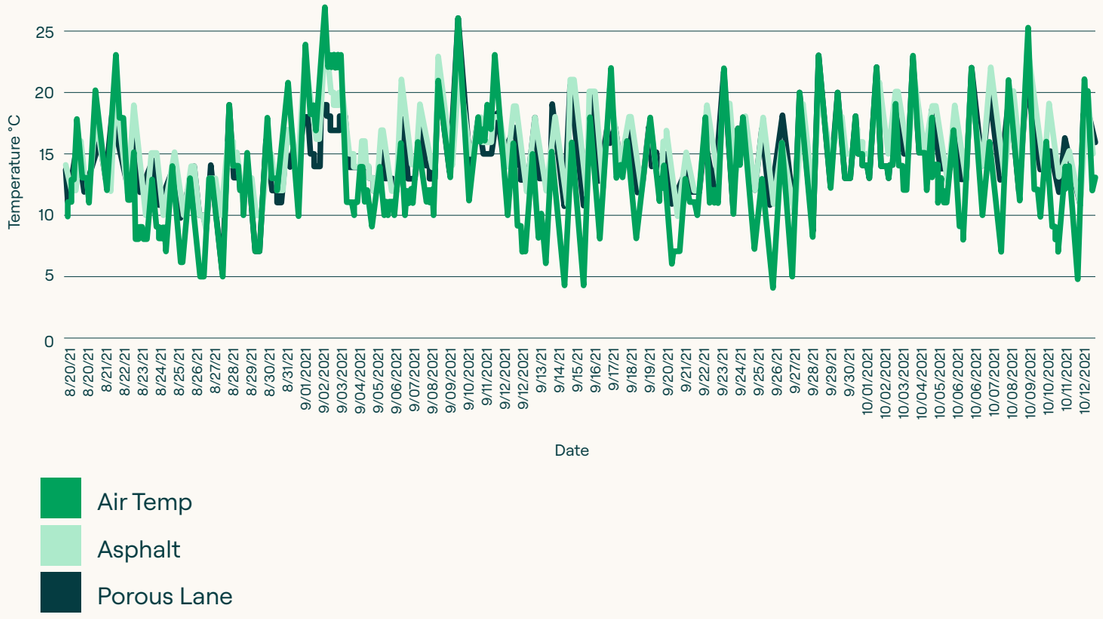


The results indicated reduction in nitrate as nitrogen (95%), total suspended solids (66%), turbidity (89%), and most of the heavy metals (up to 89% for some cases) by WTPP/Porous Lane.

Hydrological and water quality performance of Waste Tire Permeable Pavements: Field monitoring and numerical analysis. Ramin Raeesi, Yunxin Xue, Mahdi M. Disfani, Meenakshi Arora

Urban Heat Island; Green Canopy and Climate Change

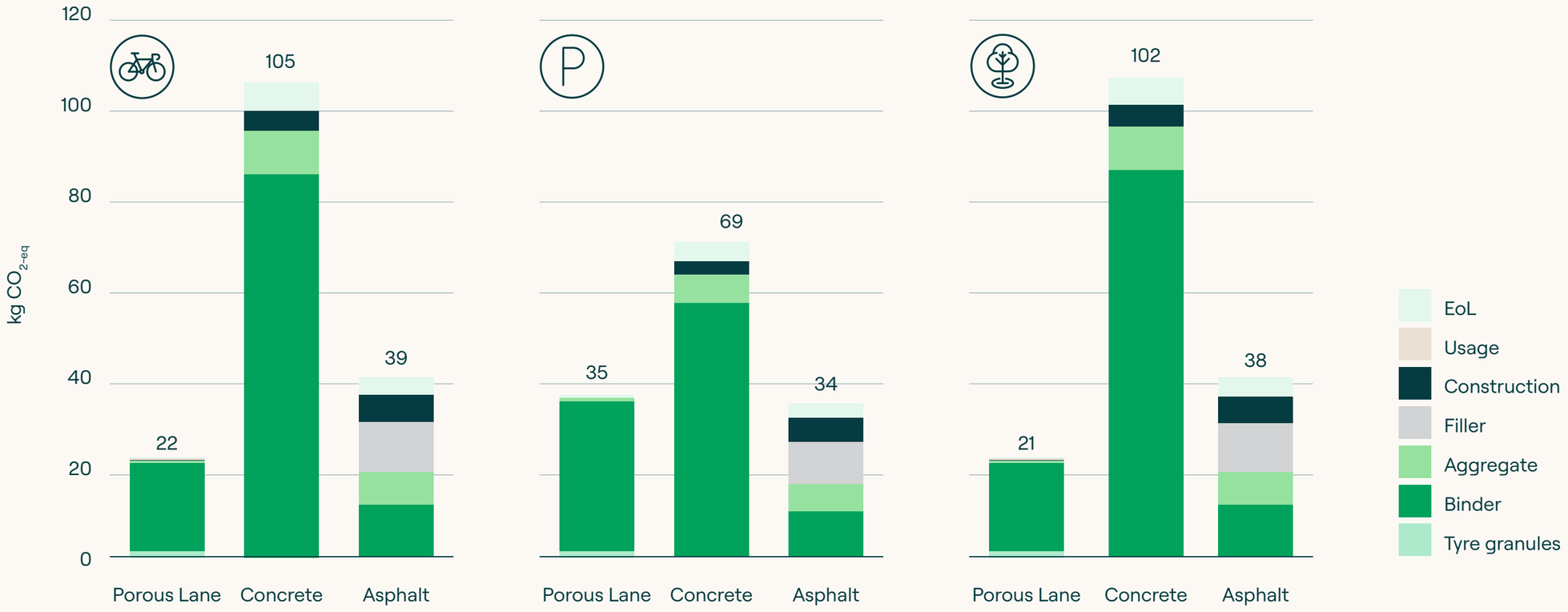
Permeable pavers compared to asphalt surface temperature

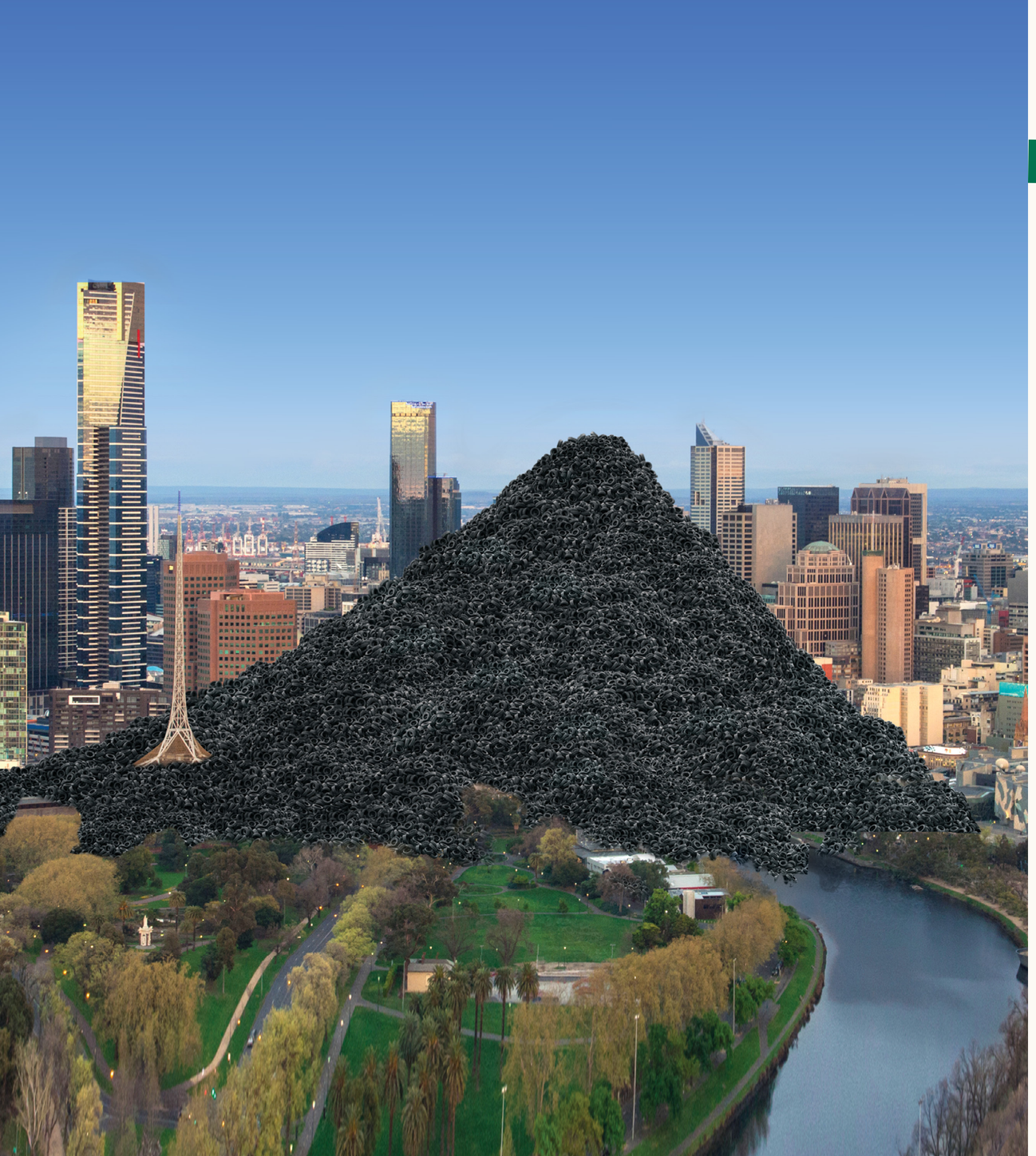


The results indicate that Porous Lane is on average 3-4 degrees cooler than an impermeable surface of the same colour.

Life Cycle Assessment – University of Melbourne

Carbon footprint comparison for three applications





Waste Tyres;
A Growing Mountain

Colour Options

“This is an excellent science driven innovation changing the game for councils”

—City of Mitcham Mayor

Selected Clients & Partners

Awards & Grants

Winner Premier's Sustainability Awards 2023

Premier's Sustainability Awards

Winners of the 2023 Premier's Sustainability Awards - Waste Recycling Solutions

Australian Government
Australian Research Council

Australian Research Council

Paving the way to greener roads and healthier waterways

Sustainability Victoria

Sustainability Victoria

Waste Tyre Permeable Kerbs; Design, Testing and Field Monitoring

TyreStewardship AUSTRALIA

Tyre Stewardship Australia

Large Scale Field Trial and Performance Monitoring of Tyre Derived Aggregate Permeable Pavements.

TyreStewardship AUSTRALIA

Accreditation

Porous Lane has partnered with the Tyre Stewardship Australia to provide new applications for end-of-life tyres.

THE UNIVERSITY OF MELBOURNE

Licence

Porous Lane is the exclusive licensee of the permeable pavement technology developed by the University of Melbourne

Help us build a greener future.

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