

Overview

Location

Carlisle Road,
Westbourne Park, SA

Project Name

Carlisle Road resurfacing

Owner

City Of Mitcham

Product

Inno2



City of Mitcham, South Australia

To celebrate Earth Day 2020, the City of Mitcham asked Boral to assist its community achieve a cleaner environment by taking used plastic, rubber and glass out of waste and using them in council roads. Avoiding landfill reduces hefty disposal fees paid by councils and levied on residents; while repurposing these high value materials can save energy and preserves natural resources used for new products.

Product Performance*

The proportions of repurposed materials in the asphalt mix are given in the table below.

INNOVO2

Asphalt component	%w/w Asphalt Mix
Bitumen	6
PET Plastic	1
RAP	10
Other components	83

Rut resistance and fatigue life measurements on production samples of the sustainable Fine AC mix with high binder content resulted in performance levels equal to or higher than standard Fine AC mix typically used on local streets around Adelaide. It confirms that recycled material alternatives deliver exceptional value for money.

Outcomes

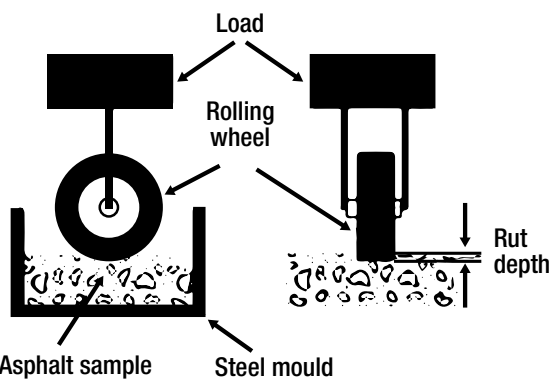
The equivalent of 450,000 used plastic bottles and 150 tonnes of reclaimed asphalt pavement (RAP) were redirected from landfill and recycled in the asphalt surfacing laid on Carlisle Road. PET plastic was sourced directly from municipal waste collection, processed through a material recycling facility, while the RAP was extracted from Adelaide streets.

The road was laid in the City of Mitcham to coincide with Earth Day on Wednesday April 22. Carlisle Street, Westbourne Park, is one of two 'recycled road' demonstration sites rolled out by City of Mitcham and its contractor Boral using recycled materials.

City of Mitcham Mayor Dr Heather Holmes-Ross said the use of the plastic bottles in an asphalt mix road was a first for South Australia. The 450,000 bottles that were recycled into the asphalt would reach a height of 60 kilometres if stacked on top of each other. This plastic mix is stronger and lasts longer than traditional asphalt.

"The current projects are part of a new initiative that was based around an open 'expression of interest' we put out to the state to attract new innovations of incorporating recyclables into asphalt and encouraging private industry to push the boundaries of what is achievable."

Dr Holmes-Ross



For more information please visit
www.boral.com.au/asphalt