

Livingstone Council: Changing the thinking about footpaths – one step at a time

Footpaths are the leading cause of headaches for councils all over the country.

Livingstone Shire Council have taken steps to reduce the problems that they face by changing the way that they design and install walkways and bike ways in Yeppoon.

Coastal regions in Central and Northern Queensland face the likelihood of inundation from cyclones every season. This increases the likelihood that a particular stretch of footpath will fail due to rust.

When salt comes into contact with concrete, it migrates through the porous concrete. When salts come into contact with steel, the steel rusts and in turn, as the steel breaks down; it expands in volume and causes concrete degradation which needs to be repaired.

In an Australian first, Livingstone Shire Council has taken steps to future proof their pavements and mitigate the need for remedial works by removing all steel from their footpaths. As a result, the council is conducting a 3km trial of the Lammermoor Beachfront footpaths in Yeppoon utilising K-FORM™ joints. K-FORM is a recycled plastic joint that allows for expansion and transfers load across the joint when used in conjunction with dowels. In this case, the council has opted for the standard 14mm glass fibre dowels, although other options are available – including Diamond Dowels™. Dowelling the joints will minimise vertical displacement between adjoining slabs, reducing the likelihood of trip hazards, and helping to keep the maintenance budget under control.

K-FORM is being placed every 6 metres, with no other joint solutions required. This new approach provides for far greater thermal expansion of the concrete than the current standard. Historically, the Livingstone Shire has constructed their footpaths in accordance with the RTA standard, which calls for the provision of 10mm expansion at 20 metre intervals.

Once completed, the Lammermoor Beachfront footpaths will span over 19kms comprising a concrete mix utilising Fibrecon™ MPP Poly Fibres. The Micro polypropylene fibres inhibit plastic shrinkage and settlement cracking, whilst the Structural Macro Fibres offers post crack performance. Greg Jackson from ICTCW in Rockhampton worked closely with the council, supplying materials for trial pours and providing the advice and backup that was needed to afford confidence in trialing the new K-FORM system.

The fast and easy installation of K-FORM enables the works crew at The Livingstone Shire Council to lay construct and pour 40 metres of footpath a day. It's little wonder that this new line of thinking has already generated significant interest from a neighbouring council...

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Location	Lammermoor Beach Front, Yeppoon, QLD
Developer/ Developer	Livingstone Shire Council
Distributors	ICTCW Rockhampton
Finish Date	August, 2017
Project Size	3 kms
Products Used	Danley™ K-FORM™

