



# SAMI SOLUTIONS

## GlasGrid RTA Wagga Wagga



GlasGrid Solution No. 2



Left: The extent of cracking on the Hume Highway prior to treatment with GlasGrid and AC overlay. Above: The paving process.

## RTA reflects on success of GlasGrid

During the past 12 months, the Roads and Traffic Authority at Wagga Wagga has included GlasGrid in two pavement rehabilitation projects to prevent the recurrence of reflective cracking.

The first project for which GlasGrid was used was on a heavily trafficked section of the Hume Highway at Mungy Mungy, just north of Coolac.

This 1 km long section of asphalt pavement is only a couple of years old, but was exhibiting extensive longitudinal and transverse cracking, caused by an extremely rigid stabilised sub-base.

Peter Knee, Pavements Engineer with the RTA Wagga Wagga, said the most appropriate option was to overlay the existing pavement, which was only about 200 mm thick.

After sealing the worst cracks, a correction course ranging in thickness from about 50 mm to more than 100 mm



Checking that GlasGrid has properly bonded to the underlying AC layer prior to paving.

was placed.

The RTA became aware of GlasGrid following a presentation by a representative from Bay Mills in Canada, where GlasGrid was developed and is manufactured (GlasGrid is distributed in Australia by SAMI Pty Limited).

"Based on what we were told, we thought it was certainly worth trialling," said Peter.

"The existing stabilised base was very hard, which would have made other options such as milling the surface an expensive process.

"We were also attracted to the user friendliness of GlasGrid. Because it is self-adhesive, you can put it down and start paving immediately. This helps to speed up the whole pavement rehabilitation process, which is extremely important when you are working on a major road such as the Hume Highway.



**Installation of GlasGrid is quick and easy.**

"No other system we looked at was as easy or quick to use," he said.

During the construction phase of the project, the RTA discovered a couple of ways to make GlasGrid perform better.

One of these was that the GlasGrid seemed to stick to the pavement surface better when placed in full sunlight. Another was that it was better to terminate the GlasGrid before it reached the edge of the pavement — the RTA was concerned that extending the GlasGrid right to the edge of the pavement may cause the top and bottom layers of asphalt to debond.

A 70 mm thick layer of dense grade AC14 was placed over the GlasGrid, which was laid directly on top of the correction course, with the pavement being topped off with a 30 mm thick layer of open grade 10 asphalt.

To monitor the long term performance of the various systems, the RTA installed a

couple of test sections, one with a polymer geogrid, one with GlasGrid and the other with no reinforcement at all.

"So far, the road is performing very well with only slight rutting in some places and no visible cracks," concluded Peter.

Impressed by the performance of GlasGrid on the Hume Highway project, the RTA Wagga Wagga has also recently used the product on the rehabilitation of the main street in Wagga Wagga, Edward Street.



**The AC wearing course being placed over GlasGrid.**

With more than 20,000 vehicle movements each day and, because the RTA opted to deep lift stabilise the pavement, it was decided to include GlasGrid and a polymer geogrid in the pavement design to prevent any longitudinal or transverse cracking of the pavement being reflected in the asphalt surface.

For this project, the polymer geogrid was applied directly to the stabilised surface, with the GlasGrid sandwiched between two 40 mm thick layers of asphalt.

A control section using just GlasGrid has also been included.

The RTA Wagga Wagga has also specified GlasGrid on another pavement rehabilitation project, a 1 km long section of the Newell Highway at Jerilderie, where it will again be used in conjunction with a polymer geogrid.

*This Case Study has been produced with the kind assistance of the RTA Wagga Wagga.*



For further information on any of the products featured in this Case Study or any of SAMI's other specialist road maintenance products and services, please contact:

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