Finished product of the new bridge supporting the widening of Victoria Rd in Ryde.

The Hills

Some feats of innovative engineering were required for the widening of Victoria Rd

John Besley, Northern District Times
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The arduous task of widening Victoria Rd in Ryde has been conducted without any disruption to traffic thanks to an especially unique feat of engineering.

Roads and Maritime Service hired engineering company Perfect Engineering to construct a bridge that would widen busy Victoria Rd enough for a bus lane on the northern side, opposite Ryde Aquatic Leisure Centre.

The company, however, had to implement a number of innovative techniques to utilise the sharp embankment.

The steep cliff face meant that the engineering company needed to think innovatively to develop the support railing.

The project has gone so smoothly that the entire construction has gone largely unnoticed by motorists.

"We used some untraditional methods to construct the support which was pretty exciting," Perfect Engineering's project engineer, Elie Nakhel, said.

Much of the bridge supports remains unseen by the public.

"Even now that it's done, people driving past wouldn't even know that it's there."

Spanning 150m of Victoria Rd, the project was to construct shoring support and a retaining wall for an extra lane between Frank St and Tennyson Rd.

The bridge is designed without a traditional bridge deck.

But to do this without affecting traffic, the task involved excavating into the Victoria Rd cliff face itself before then installing shoring supports to allow for the retaining wall to be built.

According to Mr Nakhel, the deeply technical nature of this construction along with the narrow area of the site meant that Project Engineering were required to implement some "quite unique" techniques to get the job done.

The concrete slabs of the retaining wall were constructed upon a unique gantry structure.

"It's designed like a bridge but without a traditional bridge deck, involving a lot of bridgeworks that can't be seen," he said.

Another innovative technique employed was the provision of a gantry structure for workers to construct concrete slabs, which served as a platform in lieu of traditional scaffolding which would have been unsuitable due to the narrow working conditions of the cliff face.