Providing expert advice on an Australian first

MAIN Roads has featured in another of a series of innovative case studies developed by the Building Research, Innovation, Technology and Environment (BRITE) Project of the Cooperative Research Centre for Construction Innovation.

The case studies demonstrate the benefits of innovation in the Australian building and construction industry. Main Roads is a project partner on the BRITE Project.

The department provided diagnostic testing and consulting expertise on the project to install the first fibre-reinforced polymer (FRP) (fibre composite) bridge deck on Australia's road network, at Coutts Crossing in New South Wales.

The new bridge deck design offered substantial benefits over traditional design, including:

- ❑ installation in only five days, instead of eight to 10 weeks
- ❑ 90 per cent saving on traffic control costs
- ❑ 75 per cent saving on bridge transportation costs.

The innovations were:

- ❑ FRP bridge deck, which was constructed in modules
- ❑ hybrid engineering of the material usage (glass, carbon and concrete).

This composite design has not been used before. Coutts Crossing is Australia's first FRP bridge deck on a road network. It is also one of the first of these bridge decks in the world.

The development of the Coutts Crossing bridge pushed the boundaries of conventional bridge construction methods and materials, as well as current fibre composite technology worldwide.

Engineer (Bridge Design) Louise Chandler contributed technical expertise to the project, particularly when a prototype was designed and tested. She ensured the prototype could become a commercial product for MR to use on Queensland's road networks, and met MR's design, safety and environmental criteria.

For more information, contact BRITE Project Leader Dr Karen Manley on 3864 1762, email: k.manley@qut.edu.au, or visit www.brite.crcci.info

An Australian first ... Main Roads expertise is being utilised in cutting edge projects

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