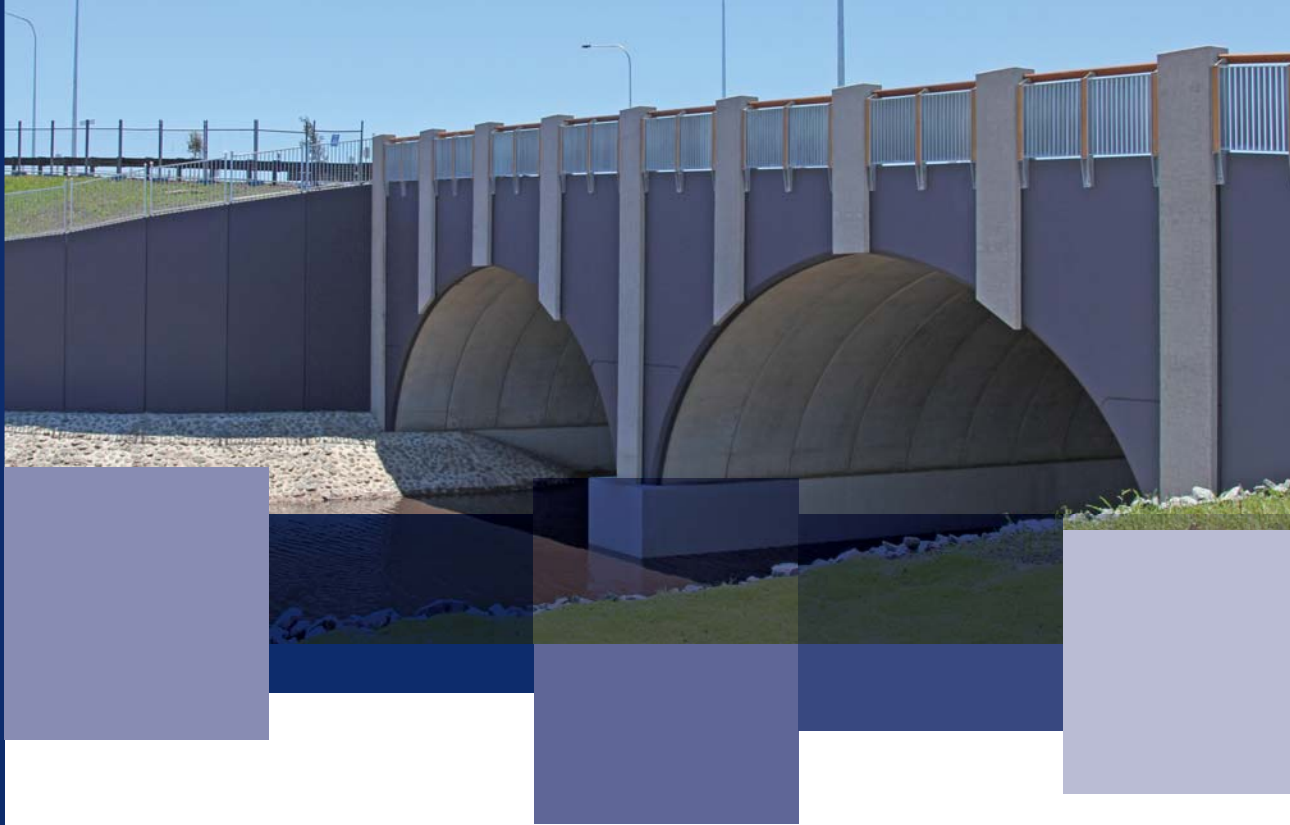


Capestone Arch Bridge



A STATEMENT ENTRANCE

Contemporary, impressive and striking. These are just some of the words being used to describe the entrance to the Capestone master planned community at Mango Hill in Brisbane's north.

The urban development includes in excess of 1,500 homes on 230 hectares of land, located around the principal feature of a central lake. It's designed to be spacious and tranquil lakeside living, just 40 minutes' drive from the central business district.

PRECAST FEATURE BRIDGE MAKES STATEMENT ENTRANCE

Setting the entry scene for Capestone is a statement precast concrete arch bridge, manufactured by National Precast member Humes. The precaster's Northern Region Engineered Solutions Manager Colin Roome, says the bridge is a significant part of the main entrance. "The developer required a bridge structure to get into the estate. They didn't want a traditional bridge. They wanted one to enhance the development and the Capestone name, while being aesthetically pleasing to blend in well with their man-made lake".

COMPLEXITY EASILY OVERCOME

The arch structure might appear a straight forward project, but according to Mr Roome it was quite the opposite.

Precaster
Humes

Contractor
BMD Urban

Development Owner
Urbex (BMD Group)

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“In my 30 years with the company I’ve worked on plenty of arch structures but, with over 150 different precast components, this was definitely the most complex one we’ve ever undertaken”.

The components included 80 half arch units, 14 spandrel wall units and 62 wing wall units, many with different lengths and profiles, which all had to fit together with no room for error.

The final result is an impressive 72 metre-long and five metre high structure with twin 15 metre spans over the waterway. It is a high performance custom bridge solution with excellent visual appeal.

MAN-MADE PRECAST LAKE

To overcome complexities, precast was also used to manufacture more than 200 metres of patterned retaining wall for around the central man-made lake.

“We needed to ensure consistent and high standards of quality on the patterned precast,” said Mr Roome. The pattern was created with a rubber form liner, with the design chosen in conjunction with the BMD Group project team. The result is a stunning feature that lines the lake and compliments the arch bridge.

THRIVING ON CHALLENGE

The Capestone precast project demonstrates the solutions offered by precast concrete, particularly for designs which are more complex. It also showcases the range of products manufactured at Humes’ high tech multi-million dollar facility at Ipswich.

Mr Roome says the complex nature of the project made it all the more satisfying for his team, particularly when they were able to walk over the bridge and admire the overall affect and practicality of the finished structure.

Visit [humes.com](https://www.humes.com), for more information and advice on your next project.