MOORES CREEK TRUNK Sewer Bridge

Client: Rockhampton Regional Council

Engineering Consultant: Calibre Consulting (Qld) Pty Ltd

Geotechnical Consultant: Butler Partners (Regional) Pty Ltd

Principal Contractor: JMKelly Builders Pty Ltd

BACKGROUND:
As a result of an existing 375dia. trunk sewer main across Moores Creek in Rockhampton getting destroyed by Tropical Cyclone Marcia in February 2015, Calibre Consulting (Qld) Pty Ltd were commissioned by Rockhampton Regional Council to design a robust replacement solution including provision of geotechnical, civil and structural engineering services, with Butler Partners (Regional) Pty Ltd as a specialist geotechnical sub-consultant.

DESIGN:
The solution was bespoke to the needs of the project and incorporated a 35m single span box girder truss bridge on bored pier abutments to convey a new 375dia. heavy duty PE main across Moores Ck once again, providing a stronger and smarter configuration to mitigate the risk of this infrastructure being lost again in a future natural disaster. Associated access works, creek bank protection, temporary retaining structures and piling rig / crane pads were also designed as an integral part of the project to ensure construction was safe and practical.

Other major considerations included tides, existing abutment conditions, debris loading, overturning forces and protection against vandalism and the elements. Ease of maintenance and replacement in the future were also closely considered in the final design, to ensure that the solution was not only structurally robust and practical to construct, it was fit for purpose at all points in the life cycle for Rockhampton Regional Council as the asset owner.

PROJECT DELIVERY:
Following a traditional tender process, the Contract was awarded to JMKelly Builders Pty Ltd as the Principal Contractor. The benefits of true collaboration between Council, Consultants and the Contractor were realised during the construction phase, with the works coming together in a safe, efficient and practical manner to deliver a great outcome.

Chris’s presentation covered all aspects of the design approach, and challenges during design and construction, whilst also discussing the benefits of thinking outside the box early in the project, and making constructability and Safety in Design top priority.

Chris is the Civil Manager for Calibre Consulting (Qld) Pty Ltd in Rockhampton.

Preparation and presentation of a technical paper can earn you up to 45 CPD hours.