

**PROVIDING COST SAVING
CONDUIT SOLUTIONS FOR TUNNELS**



Case Study

LEGACY WAY TUNNEL

TRANSCITY JOINT VENTURE

Brisbane, Australia

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www.conduitspacers.com.au

The Spacer Company is a National Code Compliant Company



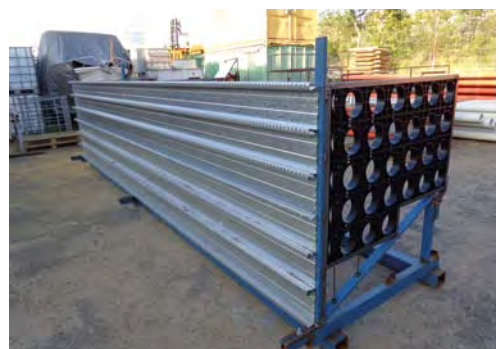
THE SPACER COMPANY TUNNEL PROJECT

In 2013 The Spacer Company commenced a project of designing and building banks of conduit modules for installation into twin 4.6km tunnels running from Toowong to Kelvin Grove in Queensland. This involved the installation of over 250,000m of conduit.

Conduits for both electrical and communication were required in banks throughout the tunnel. Using the Spacer Company pre-fabricated modules the contractor was able to dramatically speed up the installation of these conduits. The modules reduced the contractors job to simply bolting the modules to the side wall of the tunnel using the custom mounting bracket and gluing the conduits together. Bondek was supplied, fitted to each module to act as formwork for the backfilling process securing and protecting the conduits.

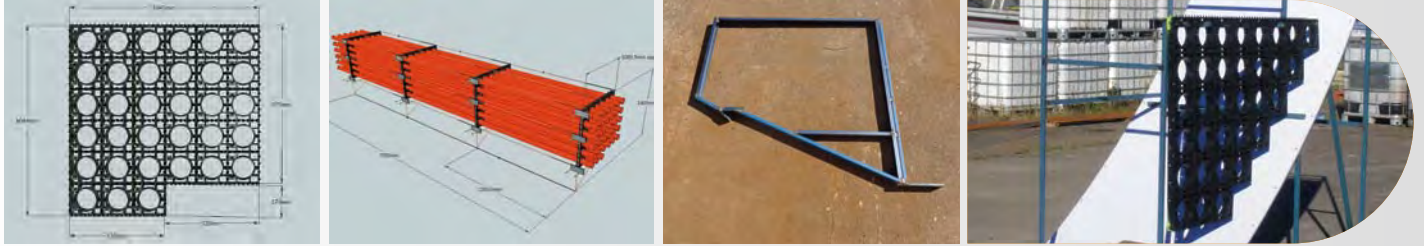
HOW THE PROCESS EVOLVED

A drawing of a basic C channel frame was produced by The Spacer Company in line with detailed requirements provided by the client. When constructed, this formed the sturdy frame into which banks of our injection moulded 100mm Conduit Spacers were inserted. BONDEK® was attached to these frames to be used as lost formwork. 8 metre lengths of appropriate conduit were then inserted to complete the module ready for transport. Lifting jigs were designed for transport purposes and to assist simple pick-and-place installation into the two tunnels.



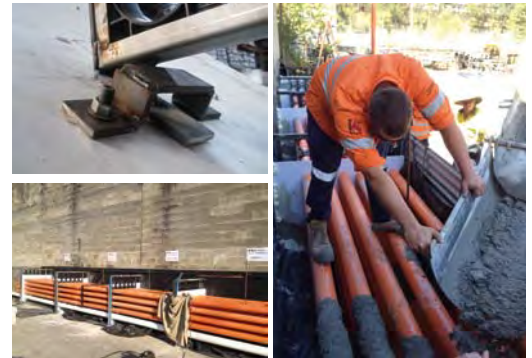
Design and Development of the Module Components

Each module needed to hold up to 43 conduits and a drainage pipe. The Spacer Company provided initial concept CAD images along with working prototypes using a model segment of the tunnel wall.



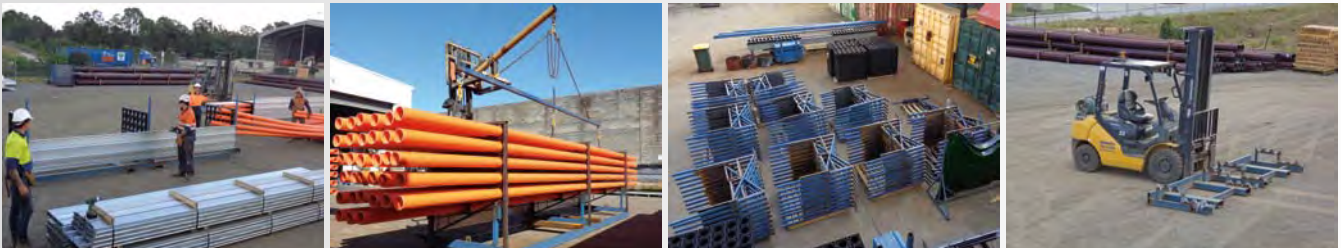
Prototype and Testing

The Spacer Company designed the concept of latching each conduit module onto the tunnel wall before being bolted into place. A working sample module was constructed and tested complete with back fill on our premises to ensure effectiveness of the design.



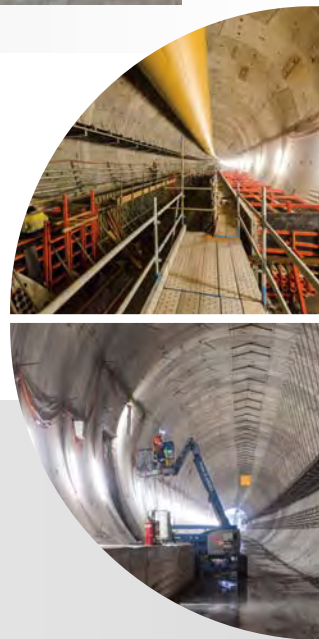
Manufacture and Handling

The Spacer Company developed custom lifting frames and beams to handle the modules. The assembly operation was located on the client's site in order to minimise transport costs.



Delivery and Installation Stage

The Spacer Company provided a stock management system whereby each module was uniquely identifiable for quality control, storage and delivery purposes. Modules were built and stored so that the client was able to call up deliveries.



Flexibility to Provide Solutions

Throughout the project The Spacer Company provided flexible solutions to any issues encountered. The Spacer Company provided CAD images for custom components to be CNC machined from tough, lightweight PVC sheeting. Short runs of specially constructed frames were produced to support the required conduits.



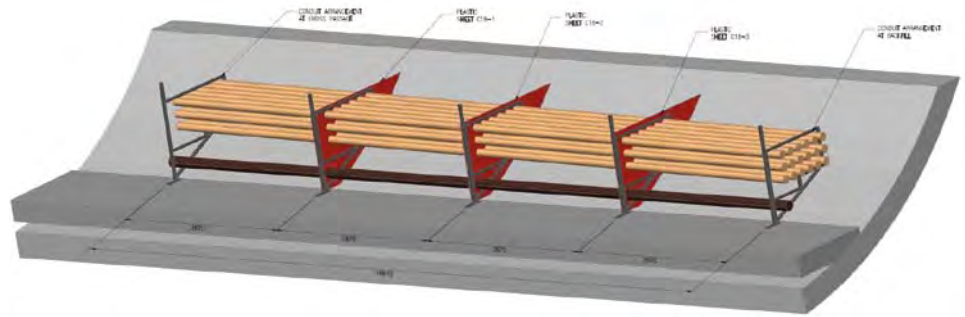


WHAT THE SPACER COMPANY CAN BRING TO THE TABLE

Based on the project's specific requirements we can provide innovative time saving solutions.

Based in Brisbane The Spacer Company can relocate our **operational team to your site** or suitable location close to site as required.

The Spacer Company has the capacity to **provide technical drawings** in line with your Engineer's requirements.



The Spacer Company can **provide labour services** for the **manufacture of modules** including welding and assembly services.

The Spacer Company provides a **complete service** to compliment and work with your **installation program**.

Consideration is provided for the **transportation of modules** in the most cost effective way. This can include design of **lifting jigs** for both truck transport and for transport into the tunnel for installation.

The Spacer Company can provide **prototype** conduit modules and lifting rigs for **testing** as required.

The Spacer Company Pty Ltd

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