



## Seventeen Mile Rocks & Duporth Rd Intersection Upgrade Seventeen Mile Rocks, Queensland, Australia

**Council:** Brisbane City Council  
**Main Contractor:** Doval Constructions Pty Ltd  
**Retaining Wall Contractor:** Concrib Pty Ltd  
**Project Value:** ≈ \$6 million

Seventeen Mile Rocks Road is a sub-arterial road that links the ever-growing Centenary suburbs of Brisbane with the inner West. As a result of new residential development in the area, Seventeen Mile Rocks Road was unable to cope with increased traffic volumes. This was particularly the case at the Duporth Avenue intersection.

Brisbane City Council undertook a traffic improvement program that required the road to be realigned to ease congestion, and improve safety by increasing the length of the merge lane. New pedestrian pathways and a bicycle lane were also incorporated in the project.

Due to the topography of the site, access and time restrictions on a project, Doval Constructions appointed Concrib Pty Ltd and Geoinventions to design and construct a near vertical retaining wall using the Stone<sup>®</sup> Strong system manufactured by Concrib. The aesthetics of StoneStrong's chiselled-granite facing also played a part in the selection of the retaining wall facing.

The Stone<sup>®</sup> Strong retaining wall varied in height from 3.2m to 6.0m and was constructed on a 150mm thick concrete footing founded on extremely weathered sandstone. To provide additional stability to the retaining mass gravity structure, no fines concrete was used behind the Stone<sup>®</sup> Strong blocks to increase the mass of the structure to resist the sliding and overturning moments.

A near vertical retaining wall created more space for pedestrian access tracks and the overall intersection widening. Adopting the Stone Strong system enabled the contractors to greatly reduce the amount of excavation required for the backfill zone yielding a substantial saving in both construction time and excavation volume.

The project was completed three weeks ahead of schedule reducing public inconvenience due to construction activities.