

## Project Profile

<b>Project:</b>	Ross Swing Bridge, Penzance, Cornwall
<b>Date:</b>	January – April 2009
<b>Structural Engineer:</b>	Cornwall County Council
<b>Client:</b>	Cornwall County Council
<b>Main Contractor:</b>	Cormac
<b>Precast Manufacturer:</b>	Cornish Concrete Products Ltd., Truro.

**Project details:** The Ross Swing Bridge in Penzance allows access through the harbour area. The bridge swings 30 yards to give a 44 foot gap to allow access to and from the dry dock. The original bridge was adapted from a disused railway turntable from Penzance station. This bridge served for many years until severe corrosion brought about its replacement in 1980. The existing structure was in need of major refurbishment. This involved replacing the existing timber deck with lightweight precast concrete panels using Lytag® lightweight aggregate, repainting the entire steel structure and upgrading the hydraulic system. (The concrete mix design included granite sand producing an oven dry density of 1580kg/m<sup>3</sup>). As the existing timber deck was being replaced by concrete, keeping weight to a minimum was essential. Also using concrete, as opposed to timber, would require less maintenance reducing lifecycle costs.

### Photographs:

