

Santubong Bridge

CLIENT: Jurutera Bintang Senari

LOCATION: Santubong, Malaysia

YEAR OF COMPLETION: 2026

The new Santubong Bridge is a key element of the Jalan Sultan Tengah Road Upgrade, designed to increase capacity and support future transport needs.

Located adjacent to the existing bridge, it mirrors the structural form to maintain visual continuity. The 335m-long, three-span structure features an in-situ post-tensioned twin-cell concrete box girder, with a 145m main span and 95m end spans. Constructed using the balanced cantilever method, the deck varies in depth from 8m at the piers to 3m at midspan, carrying two lanes of road traffic and one dedicated ART lane across a 18.35m-wide deck.

The main span is integral with river piers founded on 3.5 m-deep pile caps supported by 1.5 m-diameter bored piles (45 m long) socketed into rock beneath approximately 25 m of river water and very soft marine clay.

We undertook both the preliminary and detailed design, addressing complex ground conditions and vessel impact on both superstructure and substructure.

KEY FACTS:

- Balanced cantilever construction method
- Post-tensioned twin cell box
- Complex ground conditions
- Designed for vessel & Log Impact

