

Singapore HSR PIE Crossing

CLIENT: AECOM

LOCATION: Singapore

YEAR OF COMPLETION: 2017

We carried out the preliminary and reference design for this 550m long extradosed bridge for the HSR crossing the PIE highway, with main spans of 175m.

The twin cell concrete box deck was supported by two planes of extradosed cables arranged in a parallel layout down both sides of the deck and supported on concrete pylons and piers, on bored pile foundations.

The HSR interaction with the structure was a critical aspect of the design, requiring a stiff structural arrangement to satisfy the deflection and vibration requirements for HSR operation.

The bridge layout and construction sequence were dictated by the existing dual carriageway expressway over which the HSR passes.

KEY FACTS:

- Extrados Bridge
- Insitu segmental box girder deck
- High Speed Rail

