Stonecutters Bridge is a landmark cable-stayed bridge that was constructed as part of the Route 8 project in Hong Kong. It has a main span of 1018m making it one of the longest cable-stayed spans in the world. The construction of the steel twin-box deck and 300m high concrete towers presented significant engineering challenges during the construction of the bridge particularly given the exposed location and high likelihood of typhoon winds.

We led the design checks of the permanent works for the joint venture. As well as the contractor's erection engineering proposals which necessitated the creation of a stage by stage construction analysis of the bridge to check that the bridge was structurally adequate through all the stages of the construction. As part of this analysis we interpreted the wind tunnel testing data and determined a methodology for incorporating the buffeting response into the erection analysis.

**KEY FACTS:**
- One of the longest cable-stayed bridges in the world
- Design checks
- Structural analysis