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 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.
Stonecutters bridge is a landmark cable stayed bridge being 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. This presents significant engineering challenges during the construction of the bridge particularly with regard to the control of wind buffeting deflections of the deck during cantilevering.

We undertook a study on behalf of the joint venture contractor to review the effectiveness of a temporary tuned mass damper in controlling deck deflections and accelerations due to wind buffeting. The study provided quantitative appraisal of the benefits of a TMD and highlighted the structural, physiological and quality related impacts of deck oscillations due to wind buffeting.