

Design innovation of Shiziyang Bridge

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ABSTRACT

Shiziyang link Project, with an investment of approximately 40 billion RMB, is a landmark project in the Guangdong-Hong Kong-Macao Greater Bay Area. The main bridge is a 2180m double-decker, 8+8 lane suspension bridge, which will become the largest span double deck truss girder suspension bridge in the world. The lower deck adopts closed-box girder, and the upper deck adopts open girder. The upper and lower decks are connected by warren trusses. The tower adopts steel-concrete composite tower. The main cable uses high-strength steel wires with zinc-aluminum alloy coatings, possessing a tensile strength of 2060MPa. The long hangers are provided with anti-thrust cable clamps. Gravity anchorage adopts circular diaphragm wall foundation.

Keywords: 2180m suspension bridge, steel-concrete composite tower, double-decker, truss girder.