Hong Kong-Zhuhai-Macao Bridge

The Hong Kong-Zhuhai-Macao Bridge (HZMB) is a mega-size sea crossing project linking the Hong Kong Special Administrative Region to the east and Zhuhai City of Guangdong Province and the Macao Special Administrative Region to the west. It is regarded as an important part of the ever-expanding network of expressways in the Pearl River Delta region. With a total length of 55 kilometres, the HZMB straddles across Lingding Channel of the Pearl River Estuary. The construction works of the Main Bridge started on 15th December 2009 and has passed authorities' evaluation after its completion in February 2018. The Bridge is designed to have a service life of 120 years. With a six-lane longest tunnel and the steel bridge structure, it is the longest bridge-cum-tunnel sea-crossing expressway in the world.

The HZMB consists of three main construction projects, including a main construction project of the sea-crossing bridge-cum-tunnel road, cross-border checkpoints of Hong Kong, Zhuhai and Macao, and the cross-boundary land-based connection among Hong Kong, Zhuhai and Macao. Among the construction works, the major work of a 29.6-kilometer-long main bridge adopts the design of bridge-island-tunnel combination, which includes a 6.7-kilometer-long tunnel running across the Lingding West Channel and the Tonggu Channel, and the rest 22.9-kilometer main bridge connects an artificial island on both ends of the tunnel so that it can allow the interchangeability of bridge and tunnel. The main part of the sea-crossing bridge-cum-tunnel road was built in accordance with the standard of a dual 3-lane carriageway with a designated speed of 100 km/h. The HZMB is composed of a non-navigable span bridge and a navigable span bridge. The three cable-stayed bridges of the navigable span bridge run east to west across the major navigation channels like the Qingzhou Channel, the Jianghai Channel and the Jiuzhou Channel, which meet the navigation requirement of the passing of 3,000 tons vessels, 5,000 tons vessels and 3,000 tons vessels respectively. It allows 300,000-ton oil tankers to pass above the tunnel.

The Hong Kong-Zhuhai-Macao Bridge Authority, jointly organized by the governments of the People's Government of Guangdong Province, the Hong Kong Special Administrative Region and the Macao Special Administrative Region, is mainly responsible for the construction, operation, maintenance and management of the Bridge. The three regions are responsible for the respective customs inspections, and the construction and administration of the Boundary Crossing Facilities have also been assumed by each of the parties. The Macao and the Zhuhai Boundary Crossing Facilities both locate on the Zhuhai-Macao Boundary Crossing Artificial Island at the Macao New Urban A Zone. The Macao Boundary Crossing Facilities, located on the south of the Zhuhai-Macao Boundary Crossing Artificial Island and covering an area of approximately 71.61 hectares consist of a passenger clearance building, an east parking lot and a west parking lot. The HZMB will drastically slash the travel time among Hong Kong, Zhuhai, and Macao from several hours to 30 minutes that a 'one-hour living circle' will be created.

The Macao Special Administrative Region Government Infrastructure Development Office proactively coordinates the overall infrastructure construction of the Macao's Boundary Crossing Facilities with an aim to ensure that adequate preparations would be made for the opening of the HZMB. The commissioning of the HZMB will promote the growth in economy, trade and tourism of Hong Kong, Zhuhai and Macao. The creation of a 'one-hour living circle' complies with the national policies of building a closer connection among the three places and is thus beneficial to Macao's long-term developments.

Macao Post and Telecommunications Bureau Translation: NextVector Consultants Ltd.

Acknowledgments: Some of the photos are supplied by the Hong Kong-Zhuhai-Macao Bridge Authority, CCCC Highway Consultants Co., Ltd., CCCC-FHDI Engineering Co., Ltd., Xinhua News Agency, Mr. Hao Xiaotian, Mr. Chan Hin Io and Mr. Lee On.