

Forum on Urban Green Low Carbon Development Standards in Guangdong-Hong Kong-Macao Greater Bay Area

Theme of forum – Regional collaborative innovation and development; building a green and low carbon city

2018.11.25

The “Urban Green Low Carbon Development Standards in Guangdong-Hong Kong-Macao Greater Bay Area” Forum organized by the Guangdong Provincial Academy of Building Research was successfully held in Guangzhou on 25 November 2018. The opening ceremony of the forum was hosted by Prof. Deng Hao, Associate Dean of the Guangdong Provincial Academy of Building Research. Mr. Chen Shaoxiang, Secretary of the Party Committee of the Guangdong Academy of Building Research, gave a welcome speech, Mr. Cai Wei, Deputy Director of the Guangdong Provincial Department of Housing and Urban-Rural Development, and Mr. Ma Chunsheng, General Manager of the Guangdong Academy of Building Sciences gave an opening speech.

The following CNERC representatives attended the Forum:

- Prof. K. F. Chung Director
- Dr. H. C. Ho Deputy Secretary General

Prof. Chung is also the President of Hong Kong Constructional Metal Structures Association (HKCMSA), and Dr. Ho is the Technical Officer of HKCMSA.

In order to deepen exchange and discussion on green construction standards and safety standards, as well as to explore the collaborative mode of building a green and low-carbon urban circle under the scale of the Greater Bay Area, the forum was held to invite experts and scholars from Guangdong, Hong Kong and Macao to discuss on the issues:

- Academician Liu Jiaping Academician of Chinese Academy of Engineering
Dean, School of Architecture, Xi'an University of
Architecture and Technology
- Academician Wu Shuoxian Academician of Chinese Academy of Sciences
Professor, School of Architecture, South China University
of Technology
- Professor K. F. Chung President of Hong Kong Constructional Metal Structures

Association

Associate Head of Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University

- Mr. Ye Zhaofeng Senior Engineer, Civil Engineer Laboratory, Macau
- Professor Yang Shichao Associate Dean, Guangdong Academy of Building Research

Regarding the development of green buildings and low-carbon cities, Academician Liu proposed the evaluation criteria for green buildings, including energy conservation, land saving, water conservation and material saving. Architects should work closely with professional engineers to develop and coordinate the requirements and implementation of various indicators to ensure the effective implementation of green design and integration. Academician Wu also explained the green requirements of green buildings in environmental greening, intelligent lighting, carbon emission control and indoor sound and light heat. At present, the country's green building development is lacking of the foundation of independent research, while adopting international standards the international standards as development of existing standards and testing methods may not be fully compatible. Academician Wu also proposed specific requirements for building a livable city, including green urban planning, ecological corridor design, the concept of three-dimensional greening, and the construction of an underground pipeline network. It also needs to pay attention to the facilities and policies of the disadvantaged communities.

As for the wind resistance of the building structure, Prof. Chung reported on the design failure of the international landmark buildings in the past, and reviewed several classic failure modes, and proposed the construction of metal roofing and enclosure products. Effective dynamic wind load testing should be carried out before meeting the dynamic wind resistance and long-term structural stability requirements of the building structure in coastal wind-affected areas. Mr. Ye reported on the latest Macau Wind Load Design Code, which was updated in Macau. He introduced the updated contents of the code and compared the strongest wind speed and wind load records of the typhoon "Tian Ge" last year. At the end, Prof. Yang introduced the latest edition of "Guangdong Provincial Green Buildings and Wind Resistance Standards", and reviewed the broken structure and typical failure mode of the building structure under strong winds.



Mr. Ma Chunsheng, General Manager of the Guangdong Academy of Building Sciences giving an opening speech.



Academician J. P. Liu



Academician S. X. Wu



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Prof. K. F. Chung giving a presentation at the Forum.



Mr. Z. F. Ye



Prof. S. C. Yang

Experts and professors explain the latest development in wind and wind load specifications for building structures

Signing of a collaborative agreement on Wind Resistance Standard in Guangdong-Hong Kong-Macao Greater Bay Area with Guangzhou Institute of Building Science

The representatives of Guangdong, Hong Kong and Macao signed a collaborative agreement on the study of Guangdong-Hong Kong-Macao Greater Bay Area Standards in Wind Resistance. Prof. S. C. Yang, Associate Dean of Guangdong Provincial Academy of Building Research, Prof. K. F. Chung, President of Hong Kong Constructional Metal Structures Association, Mr. J. X. Li of Macau Construction Industry Association were the representatives. The three parties agreed to collaborate on the coordinated research on the “Typhoon Standards for Building Envelopes in Guangdong-Hong Kong-Macao Greater Bay Area”, and the relevant technical standards were coordinated and uniformed.



Signing ceremony of a collaborative agreement on Wind Resistance Standard in Guangdong-Hong Kong-Macao Greater Bay Area with Guangzhou Institute of Building Science