

## Construction Industry Council

### Committee on Environment, Innovation and Technology

Meeting No. 004/14 of the Committee on Environment, Innovation and Technology for 2014 was held on 30 October 2014 (Thursday) at 2:30 pm at CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong.

Present:	Kevin POOLE	(KP)	Chairman
	Andrew CHAN	(AKYC)	
	Stephen LAI	(SLI)	
	Christopher LEUNG	(KYL)	
	Simon WONG	(SW)	Chair of TF-RFID
	Sam-choi CHAN	(SCC)	Construction Site Workers General Union
	Stephen YIM	(SnY)	Housing Department
	Clarice YU	(CY)	Buildings Department
	Chung-leung WONG	(CLWo)	Development Bureau
In Attendance:	Ka-chun MAK	(KMK)	Architectural Services Department
	Harry LAI	(HLA)	Electrical and Mechanical Services Department
	Albert KWAN	(AK)	Hong Kong University
	Kin-chung LAM	(KCL)	Civil Engineering and Development Department
	Victor WONG	(VWg)	Senior Manager – Council Services
	Ivan KO	(IK)	Manager – Council Services
	Stella WONG	(SaW)	Senior Officer – Council Services
Apologies:	Paul CHONG	(PC)	
	Reuben CHU	(RC)	
	Robert LAM	(RL)	
	Wai-wah HO	(WWH)	Chair of TF-RSS
	Thomas NG	(TN)	The University of Hong Kong
	Ringo YU	(RY)	Hong Kong Construction Association
	Ping-wai CHOW	(PWC)	Hong Kong Construction Industry Employees General Union
	Chuen-fai WONG	(CFW)	Environmental Protection Department

## PROGRESS REPORT

### Action

#### 4.1 **Product Certification of Steel Reinforcing Bars for Use in Construction Works in Hong Kong – Feasibility Study**

Members took note of Paper CIC/EIT/P/019/14 regarding the progress of the study

KCL briefed the report and highlighted the followings:

- The Review in the Study showed that product certification of steel reinforcing bars was feasible to adopt in Hong Kong.
- A proposal on the management framework and a draft product conformity certification scheme had been prepared.
- The study was now at the stage of engaging possible scheme owners with DevB and expected to be completed in early next year.

#### 4.2 **Task Force on River Sand Substitutes Research**

Members received a presentation by AK on Paper CIC/EIT/P/021/14 regarding the research findings.

All key testing had been completed. A revised “Recommended Specifications for Aggregates for Mortar” would be submitted to Task Force members for discussion within 2 months.

**AK**

Members’ comments on the report were as follows:

- The AAR (alkaline aggregate reaction) requirement could be removed for river sand substitutes.
- There was sufficient amount of waste glass supply in Hong Kong but the high processing cost was the major barrier hindering the industry from adopting it.
- The variation of quality of recycled crashed aggregate was large; as such it was suggested to apply it in less strength products only.
- The un-desire shape of crashed waste glass and recycled fine aggregate would not affect the present concreting method (i.e. pumping) if used in non-structural applications. However, another processing step could be added, if needed, to grind the

particles to a round shape like river sand for pumping but it would induce a higher processing cost.

**4.3 Task Force on Schematic Design for Application of RFID, GPS and Sensor Technology in Monitoring the Movement of Construction Waste**

Members took note of Paper CIC/EIT/P/024/14 regarding the progress of the last Task Force meeting.

Throughout the previous Task Force meetings, a number of components were suggested to be incorporated into the proposed solution, they are: RFID, GPS, camera, and weight sensor system. However, in consideration of factors especially setup cost, running cost, complexity of the system, heavy load of data transfer, ease of the use of the system, data privacy, etc, it was found that only RFID (that means to exclude GPS, camera, and weight sensor system) could provide the most cost effective solution to better manage the dump truck, which is the purpose of the Task Force.

Members had no comments on the components of the proposed solution (that is, to adopt RFID device only) and the proposed scope and requirement of the use of the solution in phase one.

**4.4 Confirmation of the Progress Report of the Previous Meeting**

Members took note of Paper CIC/EIT/R/003/14 and confirmed the progress report of the last meeting held on Thursday, 10 July 2014 at CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong.

**4.5 Matters Arising from Last Meeting**

**4.5.1 Page Number in Meeting Agenda**

Page number had been included in the meeting agenda for easy tracing of papers as suggested in the last meeting in item 3.12 of Paper CIC/EIT/R/003/14.

## Action

### 4.5.2 **New Proposal on Overall Strategy for Management and Reduction of Construction Waste in Hong Kong**

CLWo raised that there was a need to start off a new project on the subject because the measures provided in the C&D Waste Policy Report and C&D Waste Technical Report mentioned in the post meeting note of item 3.7 were not sufficient to provide any overall strategy to solve the construction waste issue.

Chairman suggested to:

- obtain C&D waste composition data from the government to get an overview of the current situation; and,
- conduct desktop research and come up with a proposal for discussion in the next meeting.

**CLWo**

**CIC  
Secretariat**

### 4.6 **Tender for the Survey on the Potential Utilisation of Prefabrication Yard in Hong Kong (Survey Study)**

Members took note of Paper CIC/EIT/P/023/14 regarding the proposed assignment brief.

The objectives of the Assignment are:

- (a) to identify if a local prefabrication yard will help to improve the acute manpower situation;
- (b) to identify if the local prefabrication yard can attract new comers to the construction industry given the working environment in a prefabrication would be much better than in construction site;
- (c) to identify if construction workers would prefer to work in the prefabrication yard, even with a lower salary; and
- (d) to identify if construction industry stakeholders in Hong Kong are willing to adopt prefabrication method in construction projects and are prepared to switch their current practice, e.g. construction and

## Action

design methods, to facilitate the use of prefabrication, etc.

A comment was received to revise items 3.1 and 3.2 so that sub-consulting/ subletting should be deleted.

**CIC  
Secretariat**

Members had no further comments on the Paper.

### 4.7 **Preparation of BIM Standards to Facilitate the Submission of General Building Plan (GBP) to Buildings Department (Phase One)**

Members took note of Paper CIC/EIT/P/025/14 regarding the preparation of the standards.

Views from the participants of the Project Clients Summit – Development of BIM Implementation Strategies held in September 2014 and recommendation from Chairperson of the Working Group on Roadmap for BIM Implementation – Ms. Ada FUNG had been sought, BIM Standards to facilitate the submissions of GBP to Buildings Department would definitely help to spearhead the adoption of BIM in Hong Kong's construction industry. The scope of first phase of this proposed BIM Standards to facilitate the submissions of GBP to Buildings Department would cover the checking of Gross Floor Area, Usable Floor Area, and Fire Resisting Construction.

The purpose of this standard aimed not to suggest replacing or substituting Building Department's existing practice but to provide a third party method to help the industry to have a quick method to quality check their submission via BIM technology before making submission to Buildings Department so as to reduce time wasted in quality check by manual or rejection by Buildings Department if any. Buildings Department was optional to consider using this quick method for first screening before checking for details by manual.

Members had no comments on the Paper.

*[Post meeting note:*

*Buildings Department suggested renaming the title of this*

*consultancy study by deleting the phrase “to Buildings Department” as they considered that this is not a study to solely meet the requirements of Building Department, but should cover a wider scope of submissions to all relevant departments, including Planning Department, Lands Department, Housing Department, Architectural Services Department, etc. who also need to check GFA, UFA and FRC related calculations on GBP submissions related to private, public and government buildings; although the phase one study may cover the checking requirements of Buildings Department only.]*

#### **4.8 Task Group on Establishment of Industry Standard for BIM Implementation**

Members took note of Paper CIC/EIT/P/026/14 regarding the progress of the Task Group.

Members had no comments on the Paper.

#### **4.9 BIM Hong Kong Standard – Draft 4**

Members took note of Paper CIC/EIT/P/027/14 regarding the Draft 4 of BIM Standard 1 - Project Execution Plan.

Four volumes of the draft standards, they are: (i) Project Execution Plan, (ii) Modelling Methodology, (iii) Level of Development, (iv) Component Presentation Style and Data Organisation had been commented by Task Group on establishment of BIM standards. Further views would be collected through a series of stakeholders' engagement forums in Nov and Dec 2014. The progress of the work was on schedule.

The followings were highlighted:

- All latest copies of the draft BIM Standards were available on CIC's website for download.
- MEP modelling was covered up to the design stage only in phase 1 of the BIM Standards consultation as current computational power was not high enough to handle all the details in construction and as-built stages. However, the handling of it would be covered in later phases depending on

the evolution of the software and/ or hardware technology.

Members had no comments on the Paper.

#### **4.10 Updated Events Plan of BIM Year 2014**

Members took note of Paper CIC/EIT/P/028/14 regarding the most updated BIM Year Plan and promotional events held recently.

The following events were highlighted:

- APEC 2014 in 7 Aug 2014: CIC, China and Taiwan participants are planning to form a Greater China BIM Alliance aiming to enhance BIM experience sharing in the Greater China region. The inaugural is planning to be held in Hong Kong in 2015.
- Project Clients Summit in 11-12 Sept 2014: Three BIM implementation strategy reports for client sectors of government, public and private would be produced by end 2014 based on the valuable views collected from participants. They would be provided to Members for review and would then be published to the industry for public access, if applicable.
- CIC is organising a BIM Excellence Award. The Award opens for nomination from 5th Nov 2014 and ends on 18th Dec 2014. Further details of the award could be found on CIC's website.

Members had no comments on the Paper.

#### **4.11 Work Plan for Year 2015**

Members took note of Paper CIC/EIT/P/029/14 regarding the Work Plan for Year 2015.

The key work items in 2015 are as follows:

- To complete BIM Standards (phase 1) and carry out BIM initiatives;
- To carry out pilot testing of RFID in construction waste monitoring;

## Action

- To implement research results of river sand substitutes (phase 2);
- To conduct survey on the potential utilisation of prefabrication yard.

Members had no comments on the Paper. Chairman advised that new work items would be also welcome in future committee meetings.

### 4.12 **Tentative Meeting Schedule for Year 2015**

Members took note of Paper CIC/EIT/P/030/14 regarding the meeting schedule for year 2015.

Members had no comments on the Paper.

### 4.13 **Innovation Awards**

Members received a presentation by the Chairman on the update of Innovation Awards proposal. An international prize of HK\$300,000 was introduced with the expectation to exchange innovation ideas with the rest of the world. The total sum of the prize awards remained unchanged.

After much deliberation, Members had no comments on the update.

### 4.14 **Tentative Date of Next Meeting for 2014**

15 January 2014 at 2:30 pm at CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong. **All to note**

There being no further business, the meeting was adjourned at 4:30 pm