## **Construction Industry Council**

### **Committee on Environment**

Meeting No. 004/16 of the Committee on Environment for 2016 was held on 25 November 2016 (Friday) at 2:30 pm at Zero Carbon Building Multi-Purpose Hall, 8 Sheung Yuet Road, Kowloon Bay, Kowloon, Hong Kong.

| Present:       | Kevin POOLE<br>Christopher LEUNG<br>Stephen LAI<br>Shu-jie PAN | (KP)<br>(KYL)<br>(SLI)<br>(PSJ) | Chairman                                                                                                                                  |
|----------------|----------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
|                | Ringo Shek-man YU                                              | (RiYu)                          | Chairperson of Task Force on<br>Strategy for Management and<br>Reduction of Construction and<br>Demolition Waste in Hong Kong<br>(TF-MRW) |
|                | Raymond CHEUNG                                                 | (WMC)                           | Development Bureau (DevB)                                                                                                                 |
|                | Dorothy MA                                                     | (DMa)                           | Environmental Bureau (EnB)                                                                                                                |
|                | Harry LAI                                                      | (HLA)                           | Electrical and Mechanical Services Department (EMSD)                                                                                      |
|                | Wai-kwong WONG                                                 | (WWK)                           | Architectural Services Department (ArchSD)                                                                                                |
|                | Sam-choi CHAN                                                  | (SC)                            | Construction Site Workers General Union (CSWGU)                                                                                           |
|                | Benny CHOW                                                     | (BCw)                           | Hong Kong Green Building Council (HKGBC)                                                                                                  |
|                | Ka-lung CHAN                                                   | (KLCn)                          | Hong Kong Federation of Electrical<br>and Mechanical Contractors<br>(HKFEMC)                                                              |
| In Attendance: | Luke HAHN                                                      | (HKY)                           | Hong Kong Housing Authority (HKHA)                                                                                                        |
|                | Tin-cheung CHEUNG                                              | (TnC)                           | Buildings Department (BD)                                                                                                                 |
|                | Bobo CHONG                                                     | (BoC)                           | Hong Kong General Building                                                                                                                |
|                |                                                                | , ,                             | Contractors Association (HKGBCA)                                                                                                          |
|                | Samson LAI                                                     | (SLyk)                          | Environmental Protection Department (EPD)                                                                                                 |

|             | Alex LAM       | (ALam)     | Environment Protection Department (EPD)                             |
|-------------|----------------|------------|---------------------------------------------------------------------|
|             | Hau-wai CHEUNG | (HWC)      | Executive Director                                                  |
|             | Justin LI      | (JL)       | Assistant Director                                                  |
|             | Sally LEUNG    | (SYLg)     | Manager – Council Services                                          |
|             | Penny LAU      | (PeL)      | Manager – Management Support                                        |
|             | James WONG     | (JsW)      | Manager – Research & Development                                    |
|             | Alan TANG      | (AnTg)     | Government Secondee – Research &                                    |
|             |                |            | Development                                                         |
| Presenter:  | Wei PAN        | (PnW)      | The University of Hong Kong (HKU)                                   |
|             | Albert KWAN    | (KHK)      | Hong Kong Concrete Institute                                        |
|             |                | ,          | (HKCI)                                                              |
|             | Jamie YEUNG    | (JYg)      | Hong Kong Concrete Institute                                        |
|             |                |            | (HKCI)                                                              |
|             | Dorothy CHUNG  | (DyC)      | Mercado Solutions Associates Ltd                                    |
|             | T LEING        |            | (MSA)                                                               |
|             | Tommy LEUNG    | (TyLg)     | Mercado Solutions Associates Ltd                                    |
|             | Sam CHAN       | (SCn)      | (MSA) The University of Hong Kong                                   |
|             | Salli CHAN     | (SCII)     | The University of Hong Kong (HKU)                                   |
| Apologies:  | Reuben CHU     | (RCU)      |                                                                     |
| ripologies. | Ada FUNG       | (AF)       | for Permanent Secretary for                                         |
|             | nua i ono      | (111)      | Transport and Housing (Housing)                                     |
|             | Siu-wai HUI    | (SWH)      | Director of Buildings                                               |
|             | Robert LAM     | (PHL)      | 2 notice of 2 minings                                               |
|             | Ivan FU        | (FI)       |                                                                     |
|             | Kenneth MO     | (KM)       |                                                                     |
|             | Sai-yen YU     | (SYYu)     |                                                                     |
|             | Sunny CHAI     | (SyCi)     | Hong Kong R&D Centre for                                            |
|             | ·              | , <b>,</b> | Logistics and Supply Chain  Management Enabling Technologies (LSCM) |
|             | Ping-wai CHOW  | (PCH)      | Hong Kong Construction Industry Employees General Union (HKCIEGU)   |

| Shun-cheng LEE      | (LeSC) | The Hong Kong Polytechnic        |
|---------------------|--------|----------------------------------|
|                     |        | University (HKPU)                |
| Edward Chek-pui LO  | (CPL)  | Hong Kong General Building       |
|                     |        | Contractors Association (HKGBCA) |
| Thomas Shiu-tong NG | (TN)   | The University of Hong Kong      |

(HKU)

#### PROGRESS REPORT

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# 4.1 Confirmation of the Progress Report of the Com-ENV Meeting No. 003/16 held on 1 September 2016

Members took note of and confirmed the Progress Report CIC/ENV/R/003/16 of the last Com-ENV meeting held on Friday, 25 November 2016.

## 4.2 Matters Arising from the Previous Meeting

PeL updated Members on the following 4 matters:

Agenda item 3.6 Regarding the 12 previously funded projects related to Environment and Sustainability, CIC Secretariat had prepared a list of deliverables and timeline for each of the project and was reported under Agenda item 4.9.

Agenda item 3.9 Regarding the interim report indicating the research outcomes of the research project "Retrofitting Existing Building (Energy Efficiency) – A Quantitative Approach", City University of Hong Kong (CityU) would submit the interim report for discussion in early 2017.

Agenda item 3.10 Regarding the progress update of the Mckinsey Interim Report follow up, CIC Secretariat would update the status of the recommendations and circulate the updated list to Members for

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their comments two weeks before the next Com-ENV Meeting.

The Chairman encouraged Members to look through the list of recommendations and to discuss the way forward in the next Com-ENV Meeting.

Agenda item 3.11 Regarding the further elaboration from Hong Kong Green Building Council (HKGBC), BCw updated Members on the future roadmap of the operation schemes and ways to update or revamp the assessment criteria under Agenda 4.8.

# 4.3 Progress update on the Provision of Consultancy Services for the Survey on the Potential Utilisation of Prefabrication Yard in Hong Kong

PeL briefed Members on the paper CIC/ENV/P/018/16 regarding the "Progress update on the Provision of Consultancy Services for the Survey on the Potential Utilisation of Prefabrication Yard in Hong Kong".

Mercado Solutions Associates Ltd. (MSA) conducted a series of data collection and expert interviews from July to September 2016. A total of 648 construction industry stakeholders from different sectors were successfully enumerated by means of self-administered questionnaire and telephone or face-to-face interview.

The draft Survey Report was submitted by MSA to the CIC Secretariat on 5 November 2017 for discussion in the Com-ENV Meeting No. 004/16. As the questions in the questionnaire were endorsed by Members in the Com-ENV Meeting No. 002/16, the survey findings would therefore be restricted to the questions asked. After deliberation, the CIC Secretariat would circulate the draft Survey Report to Members for comments after the meeting.

CIC Secretariat Members took note of the progress update on the Provision of Consultancy Services for the Survey on the Potential Utilisation of Prefabrication Yard in Hong Kong and agreed that the final Survey Report should be submitted to Council for approval.

(MSA joined the meeting at 2.45pm)

# 4.4 Survey on the Potential Utilisation of Prefabrication Yards in Hong Kong

DyC from MSA presented the findings and recommendations from "Survey on the Potential Utilisaton of Prefabrication Yards in Hong Kong.

Members were briefed on the background and survey objectives, methodology and enumeration results, key findings, and conclusion and recommendations.

(MSA left the meeting at 3:35pm) (HKCI joined the meeting at 3:40pm)

# 4.5 Progress update of the Task Force on Strategy for Management and Reduction of Construction & Demolition (C&D) Waste in Hong Kong and its Consultancy Services by

RiYu briefed Members on the paper CIC/ENV/P/019/16 regarding the "Progress update of the Task Force on Strategy for Management and Reduction of Construction & Demolition (C&D) Waste in Hong Kong and its Consultancy Services".

Meeting No. 002-16 of the Task Force on Strategy for Management and Reduction of Construction & Demolition (C&D) Waste in Hong Kong (TF-MRW) was held on 31 October 2016. PolyU Technology and Consultancy Co. Limited (PolyU) attended the meeting and updated Members of TF-MRW on the progress of the Consultancy

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Project, including the literature review on current local statutory and overseas policies and measures, proposed lists of focus group meetings and interviews and on-site snapshot survey for the non-inert construction waste composition in Hong Kong.

It was agreed in the meeting, after deliberation by Members of TF-MRW, that PolyU would only need to provide an executive summary of the literature review in Chinese language and also a Chinese version of the gist of findings in the Final Report. The final report was targeted to be completed by early 2017 and that PolyU would present the Consultancy Project to Members of Com-ENV in the next Com-ENV Meeting. Members took note of the progress report.

# 4.6 Better Utilisation of Ultimate Strength Gain of Concrete with Pozzolanic Materials for Sustainable Development of Construction Works in Hong Kong

Albert KWAN from the Hong Kong Concrete Institute (HKCI) presented the research project on "Better Utilisation of Ultimate Strength Gain of Concrete with Pozzolanic Materials for Sustainable Development of Construction Works in Hong Kong".

Members were briefed on the research initiative, research methodology, test results, conclusion and recommendation for further studies. Given that there is substantial strength gain for concrete with pozzolanic materials after its 28 days, HKCI suggested revising the acceptance criteria in the existing General Specifications (GS) for government works.

HKCI explained that the research report would include the standard deviation and confidence level of the test results, as well as a desktop study showing other jurisdictions on the use of cement supplementary materials in concrete.

CIC Secretariat would arrange HKCI to present the research project

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to the Standing Committee of Concrete Technology (SCCT) under Secretariat DevB.

[Post meeting note: HKCI presented the research project to SCCT at its meeting on 22 December 2016. Members welcomed the findings of the research and suggested departments to facilitate HKCI to collect more site data for verification of the results before revising the General Specifications (GS).]

Members took note of the research project on "Better Utilisation of Ultimate Strength Gain of Concrete with Pozzolanic Materials for Sustainable Development of Construction Works in Hong Kong".

(HKCI left the meeting at 4:05pm) (HKU joined the meeting at 4.06pm)

# 4.7 Feasibility of Delivering High-rise Low Carbon Buildings in Hong Kong

Wei PAN from the University of Hong Kong (HKU) presented the research project on "Feasibility of Delivering High-rise Low Carbon Buildings in Hong Kong".

Members were briefed on the challenges and opportunities Hong Kong faced in carbon reductions, the feasibility of delivering high-rise low or zero carbon buildings in Hong Kong, the strategies for building towards zero carbon, and the follow-up recommendations.

Members took note of the research project and would like the CIC Secretariat to circulate the powerpoint presentation and draft research Secretariat report for review.

(HKU left the meeting at 4.40pm)

[Post Meeting Note: CIC Secretariat and Senior Management discussed with HKU on the research report and presentation after the

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meeting. HKU would review and update the draft final report and power point slides.]

### 4.8 **Update from HKGBC**

BCw from Hong Kong Green Building Council (HKGBC) updated Members on the progress of "HKGBC Green Product Accreditation and Standards (HK G-PASS)", "HKGBC Benchmarking and Energy Saving Tool – Office Buildings (HK BESTOF)", and also "BEAM Plus" including "BEAM Plus – Neighbourhood".

(KYL and SLI left the meeting at 5:05pm)

### 4.9 **Update from Task Force on Research**

AnTg briefed Members on the paper CIC/ENV/P/020/16 regarding the progress report on 12 previously funded projected related to Environment and Sustainability.

Members were updated on the objectives, deliverables and status of the research projects. The Secretariat would identify and formulate strategies for the projects that are worth pursuing further. At the same time, the Secretariat would also identify the projects that be applied to the recommendations listed in the Mckinsey Interim Report.

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### 4.10 Tentative Work Plan and Budget for Year 2017

JL briefed Members on the paper CIC/ENV/P/021/16 regarding the tentative work plan and budget for year 2017.

The Secretariat would fine-tune the work plan with more details and clearer deliverables.

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## 4.11 Tentative Meeting Schedule for Year 2017

Members took note on the tentative meeting schedule for year 2017.

## 4.12 **Any Other Business**

The Environmental Protection Department (EPD) informed Members that they were reviewing the waste disposal charging scheme and would continue to work closely with the CIC on promulgating the latest updates and formulating strategies to minimise construction wastes generation.

### 4.13 **Tentative Date of Next Meeting**

7 March (Tuesday) at 2:30 pm at the Construction Industry Council to note ZCB in Kowloon Bay.

There being no further business, the meeting was adjourned at 5:40pm.

CIC Secretariat November 2016