

Construction Industry Council

Committee on Environment and Technology

Meeting No. 001/13 of the Committee on Environment and Technology for 2013 was held on 17 January 2013 (Thursday) at 2:30 pm at CIC Headquarters, 15/F, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong.

Summary notes of the Committee on Environment and Technology (Com-ENT) Meeting No.001/13:

Agenda Item	Paper	Major Resolutions/ Progress Highlights
1.1	CIC/ENT/R/005/12	Confirmation of the Progress Report of the Previous Meeting – Members of the Com-ENT confirmed the Progress Report CIC/ENT/R/005/12 of the meeting held on 22 November 2012.
1.2	---	Matters Arising from the Previous Meeting: (i) The Research on Adhesion Technologies for External Wall Tiles was concluded with the Study Report of both English version and Chinese version uploaded to CIC’s website for public access.
1.3	CIC/ENT/P/001/13 CIC/ENT/P/002/13 CIC/ENT/P/003/13 (for discussion)	Presentation on Research on River Sand Substitutes for Concrete Production and Cement Sand Mortar Production (Phase One) <i>Phase One Final Report</i> The Researcher delivered a presentation on the final report: 1. identified the following possible river sand substitutes for the production of concrete and production of cement sand mortar:

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		<ul style="list-style-type: none"> - Substitute 1: Manufactured Sand - Substitute 2: Crushed Waste Glass - Substitute 3: Recycled Aggregate - Substitute 4: Furnace Bottom Ash <ol style="list-style-type: none"> 2. Substitute 4 - furnace bottom ash was not an option because of limited supply and not sufficient for the market usage; 3. Substitute 3 - recycled aggregate could be a viable substitute to river sand; however, production technique and quality standard of recycled aggregate have to be defined clearly before use; 4. Substitute 2 - crushed waste glass is also a viable substitute to river sand; however, the problems of possible risk of alkali-silica reaction, high brittleness of glass, and high production cost have to be resolved; 5. Substitute 1 - manufactured sand is the most viable substitute to river sand with respect of its reasonable production cost, packing density and workability; and it is also suitable for the production of high-performance concrete; 6. it was recommended to pursue the following tasks in Phase Two study: <ul style="list-style-type: none"> - Priority 1: Develop Construction Standard for Aggregates for Mortar - Priority 2: Research on Effects of Fines Content on Concrete - Priority 3: Specifications and Classification of Manufactured Sand - Priority 4: Research on Crushed Waste Glass as Aggregate for Mortar - Priority 5: Research on Recycled Aggregate as Aggregate for Mortar <p>Members endorsed the final report for onward submission to the Council for approval.</p>

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		<p><i>The Way Forward</i></p> <p>In order to cope with the substantial market demand, Members agreed that further study would be necessary and all aforesaid five priorities should be covered in the Phase Two study.</p> <p>In order to achieve consistency and continuity between the two phases of studies, and to expedite the research process to fulfil the upcoming market demand of the substitutes, Members also agreed to invite HKU to submit a proposal with a view to considering single tender for the Phase Two study.</p> <p>Members agreed that the current Task Force would continue to work towards the Phase 2 study and invited Mr. HO Wai-wah (Chair of the Task Force on Phase One study) to stay as the Chair of the Task Force. Mr. HO accepted to continue the chairmanship of the Task Force.</p> <p><i>Feasibility Study on Identification of New Quarry Sites in Hong Kong</i></p> <p>GEO of CEDD commissioned a “Feasibility Study on Identification of New Quarry Sites in Hong Kong”. The key issues of the first Focus Group Meeting were summarised as follows:</p> <p>I) The current situation in Hong Kong:</p> <ul style="list-style-type: none">a. all the existing quarries will be closed down after ten years. By then, Hong Kong will no longer have its own local supply of rock and aggregate.b. currently, approx 70% of the aggregate is imported from Mainland whereas approx 30% being locally supplied.

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		<p>II) Participants of the Focus Group expressed the follows:</p> <ol style="list-style-type: none"> a. maintaining approx 30% of local supply of aggregate is necessary; b. opportunities of using the quarry sites left behind were suggested, for example landfills for dumping solid waste, area for processing recycled aggregate, precast concrete yard, etc; c. realised dilemma between the concerns of the public and green groups (e.g. public nuisance/ pollution problem/ Fung Shui problem) versus the value of land converted from closed quarry sites; d. the needs of sustaining local quarry by comparing carbon footprints of local quarry deliverables and that outside Hong Kong.
1.4	CIC/ENT/P/004/13 (for information)	<p>Carbon Labelling Scheme Implementation Proposal</p> <p>HKGBC and HKU delivered a presentation on the implementation proposal:</p> <ol style="list-style-type: none"> 1. the proposed implementation scheme would be executed by the concerted efforts of the CIC, HKGBC, Hong Kong Accreditation Service and the University of Hong Kong; 2. the proposed scheme consisted of training, auditing and certification processes. 3. the CIC's Carbon Labelling Scheme was proposed to integrate with HKGBC's Green Building Product Labelling Scheme and Hong Kong BEAM Plus. <p>Some Members concerned the integration of the CIC's Carbon Labelling Scheme and HKGBC's Green Building Product Labelling Scheme as they would be operated separately by the CIC and HKGBC. The industry practitioners may be confused by the two schemes because the nature of the certification was quite similar and some of the certification products (e.g. cement, tiles, etc) could be found in both schemes.</p>

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		Members suggested that the CIC and HKGBC should form a joint working group to work out a system to effectively execute/ promote both carbon labelling scheme and green labelling scheme to avoid confusion to the industry practitioners.
1.5	CIC/ENT/P/005/13 (for information)	<p>Research Proposals by Research Institutes</p> <p>The following six research submissions have been accepted by both Com-ENT and Com-ANF:</p> <ol style="list-style-type: none"> 1. Formulation of sustainable trigeneration system design for high-rise commercial buildings in Hong Kong; 2. Development of high modulus concrete for tall buildings; 3. Development of an automatic image collection and analysis system for improving onsite construction productivity; 4. Innovative design technique for steel-concrete composite structures in Hong Kong; 5. Adopting Eurocodes by Hong Kong construction industry technical guide on effective design and construction to European Steel Code; 6. S-Helmet – a proactive construction safety management system based on real-time localization.]
1.6	CIC/ENT/P/006/13 (for information)	<p>Procedures for Vetting Research Proposals of the CIC Research Funding Grants</p> <p>It was expected that multi-disciplinary research proposals would be received in future. As such, it would be preferable to have a new Task Force with multi-disciplinary representatives to evaluate the research proposals and to make recommendation on the funding grants. In this regard, it would be more appropriate for Com-ANF to deliberate the matter and no discussion at the meeting of Com-ENT would be necessary. Hence, the Paper for this agenda was dropped.</p>

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1.7	CIC/ENT/P/007/13 (for information)	Task Force on Administration of the CIC Research Funding Grants The matter had been discussed under agenda item 1.6 and the Paper for this agenda item was also dropped.
1.8	CIC/ENT/P/008/13 (for discussion)	Working Group on Strategic Implementation of Prefabrication and Modular Construction Members endorsed the report for onward submission to the Council for further deliberation.
1.9	CIC/ENT/P/009/13 (for discussion)	Strategic Implementation of Prefabrication and Modular Construction (Phase Two) Members agreed the scope of the Phase Two study in principle: <ul style="list-style-type: none">a. Manpower - any manpower saving, impact on existing labour market, and effectiveness of attracting new bloods to join the industry;b. Local Yard - study on the requirements of establishing a prefabrication yard in Hong Kong and its competitiveness over the same in Mainland;c. Type - opportunities to widen the scope of adoption in other types of building components and their alternative technical solutions on vertical positioning such as less reliance on tower crane;d. Scope - opportunities to adopt precast construction of structural building elements. Members also agreed to set up a new task force for Phase Two study.

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1.10	CIC/ENT/P/010/13 (for information)	Report of The Hong Kong Construction Association – Hong Kong’s Construction Industry Vision 2020 In absence of the spokesman of HKCA for the environment and energy efficiency issues in the Vision 2020, Chairman advised to defer this agenda item to the next meeting again.
1.11	---	Any Other Business a. Audit service for the Report on Construction KPI for the publications of year 2010 and 2011 would be awarded in January 2013; and it was estimated that the audit service would be completed by end March 2013. b. In light of recent Policy Address delivered by Chief Executive, The Chairman suggested exploring opportunities in relation to any items (mentioned in the Policy Address) relevant to construction environment and technology.