

**立法會**  
**Legislative Council**

LC Paper No. CB(1) 1260/99-00  
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**Panel on Housing**

**Minutes of special meeting to discuss measures  
to improve building quality in public housing flat  
held on Thursday, 9 December 1999, at 8:30 am  
in the Chamber of the Legislative Council Building**

**Members present** : Hon LEE Wing-tat (Chairman)  
Hon Gary CHENG Kai-nam, JP (Deputy Chairman)  
Hon David CHU Yu-lin  
Hon HO Sai-chu, SBS, JP  
Hon Edward HO Sing-tin, SBS, JP  
Hon LEE Cheuk-yan  
Hon NG Leung-sing  
Hon Mrs Selina CHOW LIANG Shuk-ye, JP  
Hon Ronald ARCULLI, JP  
Hon CHAN Yuen-han  
Hon CHAN Kam-lam  
Hon LEUNG Yiu-chung

**Member attending** : Ir Dr Hon Raymond HO Chung-tai, JP

**Members absent** : Hon Albert HO Chun-yan  
Hon Fred LI Wah-ming, JP  
Hon James TO Kun-sun  
Hon Andrew WONG Wang-fat, JP  
Dr Hon YEUNG Sum  
Hon SZETO Wah

**Public officers  
attending** : **For item II**

Housing Department

Mr Tony MILLER  
Director of Housing

Mr Raymond BATES  
Deputy Director/Works

Mr T C YUEN  
Business Director/Development

Mrs Doris MA  
Assistant Director/Special Duties

Mr S C LAM  
Chief Structural Engineer

Mr Andrew LAI  
Head, Corporate Strategy Unit

Housing Bureau

Miss Sandy CHAN  
Principal Assistant Secretary

Buildings Department

Mr K K CHOI  
Assistant Director/Structural Engineering

Mr S W HUI  
Chief Officer/Management

Mr K H HUI  
Chief Structural Engineer

**Attendance by invitation : For item I**

Hong Kong Institution of Engineers

Ir Prof C C CHAN  
President

Ir Dr John LUK  
Senior Vice President

Association of Consulting Engineers of Hong Kong

Mr Tony C K SHUM  
Chairman

Mr Kenneth T K LAU  
Past Chairman

Mr Carmine K H SIU  
Council Member

Hong Kong Construction Association Limited

Mr Jimmy TSE  
President

Mr Louis WONG  
Vice President

Mr Ric GROSVENOR  
Chairman, Building Committee

Mr David CHIU  
Chairman, Piling Contractors Committee

**For item II**

Housing Authority

Dr Hon Rosanna WONG  
Chairman

**Clerk in attendance** : Mrs Mary TANG, Chief Assistant Secretary (1)6

**Staff in attendance** : Miss Becky YU, Senior Assistant Secretary (1)3

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**I Meeting with professional institute/association**

Hong Kong Institution of Engineers (HKIE)  
(LC Paper No. CB(1) 548/99-00(01))

Ir Dr John LUK remarked that the Housing Department (HD) should prepare a quality client's brief setting out the design criteria, construction standards and other statutory requirements before inviting tenders for each housing project. To ensure that reasonable fees were awarded to the consultants and contractors, HD should establish a mechanism to determine a reasonable price for each tender which would serve as a yardstick for evaluation of tenders and avoid unrealistically low offers which might have a bearing on construction quality. Contracting companies should be required to employ adequate qualified and experienced supervisory staff for quality assurance. Consideration should also be given to encourage a third party auditing to ensure impartiality. Given that HD had the necessary data and experience, Dr LUK suggested that instead of adopting a lead-consultant/sub-

consultant system, HD should take a more pro-active role in coordinating professional consultants.

Association of Consulting Engineers of Hong Kong (ACEHK)  
(LC Paper No. CB(1) 548/99-00(02))

2. As building quality hinged on the quality of construction and supervision, Mr Kenneth LAU opined that HD should define clearly the scope of service, role, duties and responsibility of all parties concerned. The prevailing tendering system with too much emphasis on fee competition should be reviewed as this had driven the consultant fees down to a level where it was no longer possible to provide satisfactory service on adequate supervision during construction. Reference should be made to the existing practice for civil works where consultants were reimbursed by the Government on the remuneration for resident site staff plus on cost for administration and management of the staff. To avoid the spiral downward of building quality as a result of low tender prices and multi-level subcontracting, consideration should be given to require the main contractors to declare all domestic subcontractors before commencement of the construction work. They should be held accountable for quality control of their subcontractors. Finally, HD should make known to the consultants and contractors its standard of acceptance of building works.

Hong Kong Construction Association Limited (HKCA)  
(LC Paper No. CB(1) 548/99-00(03))

3. Mr Jimmy TSE considered that the performance of the construction industry could be further enhanced by encouraging self-regulation within the industry and promoting partnership between contractors and developers. To start with, HKCA would need the support of the relevant government authorities and developer organizations to take forward measures such as the issue of codes of practice and guidelines on disciplinary actions against defaulting contractors. On the partnering approach, Mr TSE remarked that this aimed to change the current confrontational relationship between contractors and developers and enable them to work towards the same goal of producing quality buildings. The concept was well accepted in some advanced countries such as the United States of America and the United Kingdom. He also suggested the establishment of a statutory body to support the development of the construction industry through strategic planning, new technology development, staff training and licensing for construction workers and possibly subcontractors.

Discussion session

4. On *tendering system*, Mr LEE Cheuk-yan and Mrs Selina CHOW asked if the poor building quality was attributed to the over-emphasis on low tender prices of public housing projects. Dr LUK/HKIE advised that the existing competitive tendering system in the selection and appointment of consultants and contractors was acceptable as this would enhance competition. The important point was to prevent possible abuse by unethical consultants or contractors who tended to submit low bids and profiteer through the delivery of substandard works. To this end, HD should reject unrealistically low tender offers. Expressing similar views, Mr Louis WONG/HKCA opined that HD should terminate the consultants or contractors concerned and re-enter the contracts in the event of non-compliance with the quality standard requirements.

5. Mr NG Leung-sing sought clarification on paragraphs 2.4 of the ACEHK's submission which stated that consultants had to give their narrowest interpretation of the consultant brief under the existing tendering system of HD. Mr LAU/ACEHK explained that the brief was the basis upon which consultants would assess and quantify the resource requirements and fee required to provide a satisfactory service. Therefore, it was necessary that HD should set out clearly in the brief the scope of service, duties and responsibilities of all parties concerned. Any omission or repetition in complementary briefs might result in the evasion of responsibility by some parties. He also pointed out that unlike the tendering system in other works departments whereby 80% of the assessment weighting would be for technical proposal and 20% for tender price, HD placed too much emphasis on prices which would inevitably drive the consultants to give a lower estimate on the resources required to achieve a lower tender price.

6. On *subcontracting system*, Mr Louis WONG/HKCA advised that subcontracting in the construction industry was necessary to ensure effective use of manpower resources to meet the cyclical and highly fluctuating demand of labour. He nevertheless agreed that excessive multi-layering of subcontracting and total assignment of contract were not acceptable and should be banned. As to whether HD should include in the contract provisions on subcontracting, Mr LAU/ACEHK advised that if HD could specify clearly in the client's brief the presence of professional engineers to monitor construction on site, the tendering contractors concerned would be more cautious in pricing the tender.

7. Ir Dr HO Chung-tai noted that under the existing consultant contracts of HD, engineers were appointed by consultants. He asked whether HD should appoint engineers direct with a view to strengthening monitoring of engineering works to prevent recurrence of similar incident of unusual ground settlement in public housing blocks in Tin Shui Wai. Mr LAU/ACEHK advised that the appointment of lead consultants with support from sub-consultants was not uncommon in infrastructural projects such as the Tsing Ma Bridge. While agreeing that the appointment of engineers by consultants was not a problem, Dr LUK/HKIE pointed out that as the lead consultant would only award sub-contracts to engineers after the award of contract by HD, the engineers might have to enter into competitive bidding again to bid even lower despite the original bids were already on the low side. Mr Tony SHUM/ACEHK also cautioned about the unclear division of works between the architect as the lead consultant and the engineers as sub-consultants. By way of illustration, the design and supervision of foundation works should be the responsibility of structural engineers but, under the subcontracting system, clerks of works appointed by the lead consultant were responsible for the supervision work. He therefore considered it more desirable for engineers to be directly appointed by HD.

8. As regards the problem of site settlement in public housing blocks in Tin Shui Wai, Dr LUK/HKIE advised that this might be attributed to the use of prestressed precast concrete (Daido) piles in these blocks. To ascertain the cause of the problem, HKIE recommended that a thorough examination on piling should be carried out on all public housing blocks within the area. Ir Dr HO however noted that Daido piles were not allowed to be used or could only be used in specific conditions. Dr LUK/HKIE clarified that subject to the engineering system, different piles would be used under different situations. He nevertheless agreed that the Buildings Department had attached stringent criteria on the use of Daido piles in private developments, particularly in high-rise buildings with high safety

factor.

9. On *acceptance of building works*, Mr LEE Cheuk-yan asked if the consultants and contractors were aware of the quality standard requirements of HD. Mr WONG/HKCA advised that at present, contractors were required to set up a site mock-up unit in accordance with the specifications which would serve as a yardstick on the acceptable standard. The acceptance of the mock-up flats would be subject to the approval by HD. However, as different HD staff had different acceptance standards, contractors might find it difficult to meet their rising expectations. The building of “Central Sample Units” was therefore recommended to facilitate a better understanding of the acceptable standard. Noting that rising expectations would only help to improve building quality, Mr LEE asked if the problem with building quality was attributed to the failure of HD staff in enforcing the quality standard requirements. Mr WONG/HKCA stated that the construction industry had in the past been able to hand over flats to HD with a list of minor defects but this had been rejected by the present day standards. HKCA welcomed the change as it put across a positive message on quality assurance. Dr LUK/HKIE however pointed out that the defects referred to by Mr WONG/HKCA mainly related to workmanship. Possible latent defects such as subsequent settlement and concrete cracks should be properly dealt with during various stages of the project to ensure compliance with the quality standard requirements.

10. Mr Ronald ARCULLI expressed concern that in addition to the quality standard requirements, contractors had to observe other non-quality related statutory requirements such as those relating to environmental protection and illegal workers. Non-compliance would result in penalty or suspension of tendering opportunities. Mr TSE/HKCA agreed that the additional legislation had inevitably reduced the already insufficient construction time of contractors. The situation would be further aggravated if the sites were located in new developed areas where public transport was not available. He therefore urged that in considering any new regulatory measures on the industry, the Administration should take into account the constraints of the industry such as inadequate supply of skilled labour and experienced supervisory staff and the lack of technology. Mr Ric GROSVENOR/HKCA added that the industry had been going through a journey from unsatisfactory to high building standard over the past ten years. During the period, HKCA had put in place new initiatives such as the site safety induction training scheme or the “Green Card Scheme” which had become a statutory requirement now. HKCA also recognized that quality construction hinged on the skill of workers and was working closely with the Construction Advisory Board to develop a quality assurance system for workers. Apart from registering the levels of skill of workers, the system would enable the development of training programmes for workers to improve their skills. In addition, HKCA was studying, in consultation with some developer and subcontractor associations, the feasibility of a “Organized Specialist Subcontractors Scheme” to improve the quality standard of subcontractors, remove “broker” subcontractors and reduce the number of tiers of subcontracting.

11. Noting that the Administration’s pledge for annual provision of 85,000 flats had put much pressure on the construction industry, Mrs Selina CHOW asked what other alternatives, apart from improving workers’ skills, were available to alleviate the pressure. Mr TSE/HKCA admitted that in the past, the industry had not compiled any statistics on the demand of workers in different trades until the need arose. The proposed registration system would provide a better picture on the supply of labour and enable HKCA to ascertain the resources required for training workers.

12. Mrs CHOW sought elaboration on the partnering approach proposed by HKCA. Mr TSE/HKCA explained that both the clients and the contractors would become over defensive if they were too involved in the question of responsibility for building defects. The partnering approach aimed to foster a close working relationship between the two parties so that they could work together and agree on mutually acceptable solutions to problems through discussion. He emphasized that the industry was not trying to evade responsibility but problems did arise in the course of construction having regard to the large number of works and parties involved. As to whether partnership was commonly adopted in the private housing sector, Mr TSE/HKCA advised that efforts were being made to promote the wider use of such an approach in the private sector. Dr LUK/HKIE supplemented that HKIE was also an advocate for partnership. Through efforts such as exchange of technical know-how, HKIE could help its contractors to achieve the required standards. The objective was to reach an optimum solution rather than minimum cost.

## **II Meeting with Housing Authority and Housing Department** (LC Paper Nos. CB(1) 548/99-00(04), (05) and (06))

13. The Chairman of the Housing Authority (CHA) highlighted the salient points in the speaking note at the Appendix. She stressed that residents interest was the Housing Authority (HA)'s prime consideration in public housing production. There would be no compromise for structural safety and building quality. HA was working with the Works Bureau to review the operation of the construction industry and the building construction process with a view to formulating both long-term and short-term measures to improve building quality. Members, the industry and the public would be consulted on the preliminary findings of the review which would be completed in early 2000.

14. While appreciating the belated review on building quality of public housing, Mr LEE Cheuk-yan opined that the review should include the acceptance standard of building works as some deputations had criticized the lack of clear guidelines in this respect. CHA clarified that the specifications on quality standards were set out clearly in the tender documents. She however agreed that apart from clear specifications, communication between HD and contractors was important when problems arose. To facilitate a better understanding on the HA's quality standard requirements, consideration was being given to provide "Centralized Sample Units" as proposed by the industry. Clear benchmarks would also be provided at different stages of construction.

15. The Director of Housing (D of H) considered the allegation on unclear specifications on quality standards unjustified since a large number of standard components were used in public housing production, and the contractors were required to build sample flats on site in accordance with the specifications. Notwithstanding, D of H agreed that there was room for improvement in the way which site inspection was conducted. As HD had been improving its procedures through the introduction of the Performance Assessment Scoring System (PASS) and the requirement for consultants and contractors to be certified to the International Standards Organization 9001 and 9002, they might have driven both HD and contractors to put greater emphasis on checking of systems and paper work rather than dealing with problems on site. Having reviewed the existing PASS, a new PASS 2000 would be introduced to assess the performance of contractors during the construction period.

In response to Mr LEE Cheuk-yan's question on site inspection, the Business Director/Development (BD/D) confirmed that additional manpower would be deployed to step up site inspection by HD staff.

16. As regards the criticism on the use of different acceptance standards by different HD staff, D of H stressed that as HD was dealing with a substantial number of flats, the audit function was essential to ensure that all the parties involved could achieve a certain standard. It should be noted that people living in public housing were those who could not afford to rectify building problems inside their flats after intake. This underpinned the need for HD to accept the flats in good standard. BD/D supplemented that an internal audit team had been set up to inspect all sample flats on site to ensure consistency.

17. While appreciating the proposed inclusion of HA buildings under the Buildings Ordinance and the acceptance procedures of the Buildings Department, Ms CHAN Yuen-han enquired about the time-table for implementing the proposal. CHA advised that a definite time-table was not available as the proposal would involve changes to the existing legislation, re-deployment of manpower resources and work arrangements. HA would consult the relevant authorities before reaching a final decision. Meanwhile, efforts would be made to enhance the independent monitoring role of HD through internal restructuring.

18. On *tendering system*, CHA acknowledged that apart from tender prices, past performance of tenderers was an important element in the evaluation of tenders. As such, HA had agreed to implement a preferential tender award system for building contracts whereby 20% of the assessment weighting would be for performance and 80% for tender sum. Assessment weightings between price and performance for consultant contracts were 50:50 for ordinary projects and 30:70 for more complicated contracts. These weightings would be examined in the current review.

19. On *subcontracting system*, Mr LEE Cheuk-yan pointed out that "broker" subcontractors still existed despite the prohibition of total assignment of contracts by HD. He asked how HD could tackle the problem. The Deputy Director/Works (DD/W) advised that HD could terminate and re-enter a contract if there was full assignment of the works. However, given the large scale and complexity of a housing project, a certain degree of subcontracting was necessary. HD's prime target was to discourage excessive multi-level subcontracting which would create communication problem. The problem would be examined in the current review.

20. On *employment of permanent (monthly-rated) workers*, Ms CHAN Yuen-han said that as one of the largest clients of the construction industry, HA should take the lead in encouraging its contractors to employ more permanent workers. CHA agreed that job security was essential in fostering a sense of belonging among workers. To this end, HA was considering to require its contractors to employ a percentage of monthly-rated craftsmen for certain key trades. She however emphasized that changes would take time as these would involve training for new entrants. DD/W added that there were divergent views on the current employment system within the industry. Some considered it adequate and flexible while others, including HA, felt that the current system encouraged a temporary transient type of labour force which did not have a loyalty to a particular company. This would have a bearing on both the safety and quality of building construction. A more permanent and stable career for people joining the industry was therefore necessary. Apart

from encouraging the employment of monthly-rated craftsmen for certain key trades, other measures such as better tendering opportunities for contractors who had a more stable workforce would be considered by HA, in consultation with the industry.

21. Mrs Selina CHOW attributed the confrontational relationship between HA and the construction industry to the multiple roles of HA being both the client and the monitoring agent. She stressed that HA should not put all the blame on the industry and penalize it when problems arose without regard to the pressure in meeting the housing production target. She said that HA should seriously consider the partnership approach proposed by the industry. In reply, CHA recognized that building construction was a complicated process which required the concerted efforts of various parties. She agreed that a partnering relationship between HA and the industry should be established through promoting mutual trust, improving communication at different levels and at different stages of construction, risk-sharing and an equitable appeal mechanism to handle disputes.

22. In concluding, the Chairman instructed that a list of concerns raised at the meeting and the previous one on 7 December 1999 should be prepared for onward transmission to HA so that it could take into account all these views in the review.

### **III Any other business**

23. There being no other business, the meeting ended at 10:40 am.

Legislative Council Secretariat  
31 March 2000