

**立法會**  
**Legislative Council**

LC Paper No. CB(1)1098/13-14  
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by the Administration)

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**Panel on Development**

**Minutes of special meeting**  
**held on Tuesday, 7 January 2014, at 4:30 pm**  
**in Conference Room 3 of the Legislative Council Complex**

**Members present** : Dr Hon LAU Wong-fat, GBM, GBS, JP (Chairman)  
Hon James TO Kun-sun  
Hon CHAN Kam-lam, SBS, JP  
Hon Emily LAU Wai-hing, JP  
Hon Abraham SHEK Lai-him, GBS, JP  
Hon Frederick FUNG Kin-kee, SBS, JP  
Hon Cyd HO Sau-lan  
Hon CHAN Kin-por, BBS, JP  
Dr Hon Priscilla LEUNG Mei-fun, SBS, JP  
Hon IP Kwok-him, GBS, JP  
Hon Mrs Regina IP LAU Suk-ye, GBS, JP  
Hon Alan LEONG Kah-kit, SC  
Hon LEUNG Kwok-hung  
Hon Albert CHAN Wai-yip  
Hon Michael TIEN Puk-sun, BBS, JP  
Hon James TIEN Pei-chun, GBS, JP  
Hon WU Chi-wai, MH  
Hon YIU Si-wing  
Hon Gary FAN Kwok-wai  
Hon CHAN Chi-chuen  
Dr Hon Kenneth CHAN Ka-lok  
Hon CHAN Yuen-han, SBS, JP  
Hon LEUNG Che-cheung, BBS, MH, JP  
Hon Alice MAK Mei-kuen, JP  
Dr Hon KWOK Ka-ki  
Dr Hon Fernando CHEUNG Chiu-hung

Dr Hon CHIANG Lai-wan, JP  
Ir Dr Hon LO Wai-kwok, BBS, MH, JP

**Member attending** : Hon Ronny TONG ka-wah, SC

**Members absent** : Hon Tony TSE Wai-chuen (Deputy Chairman)  
Dr Hon LAM Tai-fai, SBS, JP  
Hon CHAN Hak-kan, JP  
Hon CHAN Han-pan

**Public officers attending** : **Agenda item I**

Mr CHAN Chi-ming  
Deputy Secretary for Development (Works) 2

Mr HON Chi-keung, JP  
Director of Civil Engineering and Development

Mr LAM Sai-hung  
Head of Civil Engineering Office  
Civil Engineering and Development Department

Mr WONG Kin-por  
Chief Engineer / Boundary Control Point  
Civil Engineering and Development Department

**Clerk in attendance** : Ms Sharon CHUNG  
Chief Council Secretary (1)6

**Staff in attendance** : Mr Anthony CHU  
Senior Council Secretary (1)6

Mr Fred PANG  
Council Secretary (1)6

Ms Christina SHIU  
Legislative Assistant (1)6

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Action

**I PWP Item No. 5019GB -- Liantang/Heung Yuen Wai Boundary Control Point and associated works -- site formation and infrastructure works**

(LC Paper No. CB(1)638/13-14(01) -- Administration's paper on PWP Item No. 5019GB -- Liantang/Heung Yuen Wai Boundary Control Point and associated works -- site formation and infrastructure works

LC Paper No. CB(1)638/13-14(02) -- Paper on the Liantang/Heung Yuen Wai Boundary Control Point project prepared by the Legislative Council Secretariat (Updated background brief))

The Chairman declared that he owned land in the area related to the agenda item under discussion, i.e., Heung Yuen Wai.

2. Deputy Secretary for Development (Works)2 ("DS(W)2/DEV") briefed members on the proposal to increase the approved project estimate ("APE") of PWP Item No. 19GB "Liantang/Heung Yuen Wai Boundary Control Point" ("LT/HYW BCP") and associated works - site formation and infrastructure works" ("the Project") by \$8,550.0 million from \$16,253.2 million to \$24,803.2 million in money-of-the-day prices. The details of the proposal were given in the Administration's paper (LC Paper No. CB(1)638/13-14(01)). He advised that, due to the surge in construction prices, the poor ground condition for tunnelling works and tenderers' perception on the higher risks associated with construction constraints, the overall prices of the returned tenders for the contracts under the Project were higher than expected. After reviewing the tendering results and the financial position of the Project, the Administration considered the increase in the APE necessary to cover the additional costs of the Project as well as the associated increase in the provision for price adjustment and contingencies. He said that subject to members' support, the Administration planned to seek the endorsement of the Public Works Subcommittee ("PWSC") for the funding proposal in January 2014 with a view to seeking the approval of the Finance Committee ("FC") in February 2014.

3. With the aid of a powerpoint presentation, Chief Engineer / Boundary Control Point, Civil Engineering and Development Department briefed members on the scope and progress of the Project, the details of the revised project cost estimate as well as the reasons leading to the proposed cost increase.

*(Post-meeting note: A soft copy of the powerpoint presentation materials was circulated to members vide LC Paper No. CB(1)697/13-14(01) by email on 8 January 2014.)*

4. The Chairman reminded members that in accordance with Rule 83A of the Rules of Procedure ("RoP") of the Legislative Council ("LegCo"), they should disclose the nature of any direct or indirect pecuniary interests relating to the subjects under discussion at the meeting before they spoke on the subjects. Under Rule 84 of RoP of LegCo, a member should not vote upon any question in which he had a direct pecuniary interest except under certain circumstances as provided for in Rule 84.

#### Estimation and control of project costs

5. In view of the severe cost overrun of the Project, Mr Frederick FUNG and Dr KWOK Ka-ki cast doubt on the accuracy of the Administration's estimation of project costs and the adequacy of the methodology adopted. Dr KWOK said that factors leading to higher tender prices such as constraints imposed to the temporary traffic arrangements at Fanling Highway, remoteness of the site, etc. should have been taken into account at an early stage. Mr FUNG expressed a similar view and stressed that the Administration should learn from the experience of cost overrun. He stated that he would not support the present funding proposal.

6. In reply, Director of Civil Engineering and Development ("DCED") advised that of the 96 projects under the purview of the Civil Engineering and Development Department ("CEDD") launched in the past 10 years involving a total APE of \$47.4 billion, only three needed an increase in APE, amounting to \$0.1 billion in total. He considered that the Administration's estimation of project costs was generally reliable. He explained that when the Administration applied for funding for the Project in 2012, the cost estimate was based on the market situation and the data available up to early 2012, by making reference to the cost information of similar infrastructure projects such as the Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road, the Central-Wan Chai Bypass and the reconstruction and

improvement of Tuen Mun Road, which had been tendered out from the period 2008 to 2012. A risk analysis approach, namely "Estimating using Risk Analysis", had been adopted to ensure the quality of cost estimation. While admitting with hindsight that the estimation had failed to grasp the market pulse in 2012, DCED stressed that the Administration had prepared the cost estimate for the Project with best information and efforts.

7. Mr IP Kwok-him and Mr YIU Si-wing said that the public would find a deviation of more than 52% from the original cost estimate unacceptable. Ms Emily LAU was concerned about the affordability of the increased costs in a number of major works projects from the perspective of public finances and queried whether the Administration had exercised effective monitoring over public works expenditures. She urged the Administration to explore ways to reduce the additional funds requested.

8. In response, DS(W)2/DEV advised that the Administration all along attached great importance to keeping works budgets under control. In the past 10 LegCo sessions, FC had approved the funding of around 600 capital works projects, among which only 34 needed an increase in APE. The increased amount was 3.4% of the total original APE. Meanwhile, there was cost reduction in many projects. He continued that the budgetary control of Hong Kong's capital works projects was good as compared with that of some other 30 overseas countries. While there was in general a 20% cost overrun in capital works projects in overseas countries, the rate for Hong Kong was -1%, meaning that cost overrun had only occurred with individual projects. While admitting that the cost overrun of the Project was undesirable, DCED advised that to protect public funds, the Administration had cancelled the tender exercise for Contract 1 of the Project in December 2012, upon receiving higher-than-expected tender prices, and had re-packaged the works of Contract 1 into Contracts 5 and 6 to reduce cost.

9. Mr YIU Si-wing enquired about the cost saving that could be achieved by re-packaging contracts. He said that regarding the contracts that had already commenced, the Administration should negotiate with the contractors concerned to lower the cost increase. DCED replied that a cost saving of about \$0.9 billion was achieved by re-packaging the works of Contract 1 into Contracts 5 and 6. He added that it was not practicable to re-package other contracts of the Project in view of their scopes and nature.

#### Contract prices

10. The Panel noted that the Project was divided into six contracts, i.e. Contracts 2 to 7, for implementation. Mr Michael TIEN observed that, for the contracts already issued, there were significant differences between the Administration's original estimates and the actual tender prices. He queried whether the proposed revised project cost estimate, i.e. \$24,803.2 million, was a reliable estimate for covering the costs of the contracts yet to be issued. Mr IP Kwok-him asked whether the revised estimate was meant to be the ultimate budget ceiling of the Project.

11. DCED responded that as Contracts 2, 3 and 5 had already commenced in 2013 and the tender assessment for Contract 6 was in progress, the costs associated with these contracts would be relatively stable. While it was difficult to commit at this stage that the proposed revised estimate was the final budget, the Administration was confident that it should be sufficient to cover the total cost of the Project. Head of Civil Engineering Office, CEDD ("Head of CEO/CEDD"), added that the total cost of Contracts 4 and 7, yet to be put up for tender, were anticipated to be less than \$1 billion. At Mr James TO's request, the Administration would provide the names of the contracting parties and their parent companies in respect of Contracts 2, 3 and 5.

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12. Noting that the cost overrun was partly caused by tenderers' higher-than-expected risk assessment to cater for the tight works programme of the Project, Mr WU Chi-wai suggested that, with a view to saving cost, the Administration should take measures to lower the risks and then re-conduct the tenders. On the tight construction duration, he asked whether there was room for delaying the target completion date of the Project. DCED responded that the works programme of the Project was comparable to that of other tunnelling works such as the one for Eagle's Nest Tunnel. Individual tenderers might have put additional risk premiums in their bids as they anticipated that the ground condition at the site concerned might increase the uncertainty of the Project. He advised that, apart from the construction duration, construction constraints had also led to higher-than-expected tender prices but this factor had only contributed to an increase in the project cost of around \$380 million.

#### Provision for price adjustment

13. In response to Mr WU Chi-wai's enquiry on whether it was appropriate to include the component of provision for price adjustment in the proposed cost increase given that contractors had already built in additional risk premiums in their bids for the contracts, DCED advised that it was

Government practice to adjust the monthly payments to contractors to cover market fluctuation in labour and material costs under the mechanism of Contract Price Fluctuation Payment ("CPFP").

14. Mr LEUNG Kwok-hung and Mr YIU Si-wing enquired about the risk-sharing between the Administration and contractors under CPFP. They opined that the risks of cost fluctuation should not be shouldered entirely by the Administration. Mr LEUNG said that some contractors might have submitted bids with unreasonably low prices in order to secure the contracts, but asked for additional payments afterwards under CPFP. In view of the serious cost overrun of the Project, he suggested that the Administration should provide the concerned contracts to the Panel for members to study the issues related to the responsibility for sharing the cost increase. Dr KWOK Ka-ki and Ms Emily LAU were concerned that the existing mechanism for providing price adjustment might give room for tenderers to profiteer. At the request of Mr IP Kwok-him and to facilitate members' consideration of the proposal, the Administration would provide a detailed analysis and breakdown to explain what had led to the increases of 46.5% in construction prices and 34.9% in the provision for price adjustment, including the weighting of CPFP in the increases, and advise whether the factors leading to the increases could have been taken into account in working out the previous cost estimate.

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#### Site investigations for tunnel construction works

15. The Panel noted that the works under 19GB included the construction of the 4.8-km Lung Shan Tunnel between the proposed interchanges at Fanling Highway and Sha Tau Kok Road, and the poor ground condition encountered for tunnel construction had caused an additional cost of about \$698.6 million, representing 8.2% of the proposed total increase. Ir Dr LO Wai-kwok enquired about the respective proportions of the additional cost which were attributable to escalating construction prices and technical problems. Miss Alice MAK asked why the poor ground condition would lead to such a huge cost increase and enquired whether the difficulties encountered in the site investigations for the construction of the tunnel were peculiar to Hong Kong. Dr Kenneth CHAN pointed out that FC had approved a funding of \$265.8 million back in early 2011 for the Administration to commission the detailed design and site investigation to take forward the development of the LT/HYW BCP. He queried why the information about the poor ground condition had not been made known to LegCo Members at an earlier stage.

16. In response, DCED explained that construction of tunnels was technically complex and demanding in nature. It was not possible for site investigations to provide 100% accurate information on the actual ground condition. About 1.5% of the estimated cost of the tunnelling works had been spent on site investigations. Such an amount had already exceeded the relevant international standard for site investigation works in respect of tunnel construction. While site investigation by means of vertical core drilling had already provided useful geological information for cost estimation for the tunneling works, the consultant had done further site investigation in late 2011 using horizontal core drilling to obtain more information on the actual ground condition and to reduce uncertainty. The results of the further site investigation revealed that the ground condition was poorer than the Administration had envisaged. DCED advised that as the progress of the investigation works had been affected by adverse weather and access problems at the site near Lau Shui Heung, part of the results of the further site investigation could not be timely incorporated in the tunnel design and the additional cost for tunnelling works. In other words, the poor ground condition had not been reflected in the cost estimate prepared for the funding application in early 2012.

17. In response to Dr Kenneth CHAN's enquiry on how the adverse weather and access problems had affected the site investigation works, DCED explained that a longer-than-expected period had been taken by the Administration to discuss with the villagers in the area where the site investigation works were conducted. The foggy weather during the performance of the investigation works had also affected the transportation of machines by helicopter to the relevant site.

18. Mr Frederick FUNG cast doubt on the reliability of the information provided by the Administration in its previous papers on the Project. Dr Kenneth CHAN considered it unacceptable that the Administration had not updated LegCo Members about the poor ground condition until submitting the current funding proposal. In response, DCED said that even if the additional cost arising from the poor ground condition had been discovered earlier, an increase in the total project cost was inevitable.

19. Mr CHAN Chi-chuen queried whether the Administration had reflected in the previous funding proposals all the risks arising from the poor ground condition that had come to its attention, including the faults identified. He also questioned whether it was safe to proceed with the tunnelling works given the poor ground condition. DCED replied that works



would be carried out to withstand the poor ground condition in the fault zones in a safe manner.

20. Mr LEUNG Che-cheung noted that the extent of mixed ground in a section of the tunnel had been found to be longer-than-estimated by about 120%. He enquired whether similar difficulties had been found in other tunnelling works in Hong Kong. In response, DCED advised that mixed ground was not uncommon in the territory. He said that in a sewerage project to construct a deep sea tunnel, it had taken almost a year to construct the part across the Tolo Channel Fault.

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21. Mr LEUNG Kwok-hung queried whether the Administration or the consultant for the tunnelling works should be held responsible for failing to use appropriate sampling techniques for effective site investigations. Mr James TO shared Mr LEUNG's concern. At the request of Mr TO, the Administration would provide the name of the consultant undertaking the site investigation works and the relevant assessment on whether the Administration could put a claim on the consultant concerned for failing to take into consideration the poor ground condition in preparing the design and cost estimation of the tunnelling works in a timely manner. DCED explained that it was a matter of professional judgment as regards which sampling method was to be used in a site investigation. He advised that no conclusion could be drawn at this juncture to assert that the consultant had not conducted the site investigation works in a responsible manner.

22. Dr CHIANG Lai-wan expressed disappointment that the Administration had not accurately estimated and effectively controlled the project cost. In view of the possible difficulties in future tunnelling works, Dr CHIANG enquired whether the Administration would widen the relevant section of Sha Tau Kok Road in order to save the need for constructing the Lung Shan Tunnel. DCED replied that the Lung Shan Tunnel formed part of the Connecting Road ("CR"), designed to be a high speed road, between the LT/HYW BCP and Fanling Highway. The widening of Sha Tau Kok Road would not be able to serve the same purpose. Moreover, the proposed route of CR should be maintained as it was the best alignment option causing minimal adverse impact to residents nearby and the surrounding environment.

Overall planning for the projects under the Capital Works Programme

23. Dr KWOK Ka-ki, Miss CHAN Yuen-han and Ms Emily LAU opined that the over-concentration of implementation of projects under the Capital Works Programme in recent years might have pushed up the construction prices. Dr KWOK questioned which party should be accountable for the poor overall planning for implementation of public works projects. Ms LAU enquired whether the cost increases could be lowered if the projects were spread out across different times. She cautioned that the Administration should consider the fallback option in the event that the present funding proposal was rejected by FC.

24. Dr Fernando CHEUNG questioned about the consequence in respect of financial loss in the event that the present funding proposal was rejected by FC. He enquired about the amount of public money that had been spent on the issued contracts associated with the Project, i.e. Contracts 2, 3 and 5. DCED replied that the awarded contract sums of Contracts 2, 3 and 5 involved a total of about \$12 billion. He advised that if these contracts had to be terminated due to the lack of funds, the Administration would need to discuss the consequence in respect of contract payments with the relevant contractors. DCED advised that the construction of the LT/HYW BCP, the seventh land crossing between Hong Kong and Shenzhen, was vital to enhancing the handling capacity of the existing BCPs to cater for the growing cross-boundary travel demand. In response to Dr CHEUNG's concern that the economic benefit to be generated by the operation of the LT/HYW BCP would be below the total project cost, DCED advised that the assessment taken by the Administration had indicated that the quantifiable benefits on the Hong Kong side on savings in vehicle operation costs and value of time saved for travellers over a 32-year period (from 2018 to 2050) would be in the order of \$50 billion at 2010 prices. He said that apart from the above quantifiable economic benefits, the Project would generate other intangible benefits to the society.

25. Dr Fernando CHEUNG and Mr Albert CHAN stated that they opposed the funding proposal. Mr CHAN opined that members of the public did not consider that there was an urgency to proceed with the construction of the new BCP. He said that, to reduce public works expenditure, the Administration should review the priorities of implementation of public works projects and postpone or shelve the non-essential ones.

*[To allow sufficient time for discussion, the Chairman suggested and members agreed that the meeting be extended to 6:15 pm.]*

26. While acknowledging the need for developing the LT/HYW BCP to provide an efficient access between the northeast New Territories and eastern Shenzhen, Mr IP Kwok-him urged the Administration to seriously consider whether there was room to postpone the implementation of the Project. Taking into account that the existing BCPs, though crowded during the Chinese New Year holidays, had not reached their maximum handling capacities, Dr CHIANG Lai-wan said that the Administration should consider suitably deferring the implementation of the Project until completion of other major infrastructure projects.

27. In response, DCED advised that according to the latest forecast, the overall construction expenditure over the next few years would be stably maintained at the level of \$170 billion per year, of which about \$70 billion per year would be the Administration's expenditure on capital works projects. He did not consider that deferring the implementation of a works project would necessarily drive down its cost. By way of illustration, DCED said that in 1994, the awarded contract sum for the design and construction of Ting Kau Bridge was \$1.7 billion, however, the awarded contract sum for the construction of the Stonecutters Bridge in 2004 had risen to \$2.7 billion. In 2004, there had been a sharp reduction in the number of capital works projects underway.

#### Construction prices and manpower

28. Noting that the overall construction expenditure would hit a record high of \$170 billion per year in the next few years, Mr Albert CHAN cautioned that construction prices might continue to increase having regard to the Government's initiative to increase housing supply and the fact that Hong Kong would undergo in a few years' time a cycle of large-scale maintenance works for the public rental housing units built some 25 years ago.

29. Mrs Regina IP was concerned about the increase in labour cost in the construction industry and the measures to address the rising construction prices. She enquired about the trades in the industry which faced the most acute problems of labour shortage. DS(W)2/DEV replied that there was a shortage of bar benders and fixers, carpenters and construction plant operators. While he did not rule out the possibility that the work in some of these trades could be undertaken by local construction workers in another trade through appropriate training, he considered that it was also necessary to attract more young people to join the construction industry. To increase the

supply of construction workers, the Administration had been supporting the Construction Industry Council ("CIC") to strengthen the training for local construction personnel. CIC had rolled out various initiatives including the "Build Up" publicity campaign to attract young people to join the construction industry. Contractors encountering genuine difficulties in recruiting suitable workers locally could apply for importation of workers under the Supplementary Labour Scheme ("SLS"). To reduce the demand for construction workers, contractors were encouraged to adopt wider use of mechanization and prefabricated components. Overall design of works projects would be simplified, standardized and adopt single integrated elements. DS(W)2/DEV envisaged that as the construction expenditure over the next few years would be stably maintained at a certain level, there should not be large fluctuations in the demand for construction workers.

30. Miss CHAN Yuen-han did not subscribe to the view supporting importation of workers. She opined that many local workers who wished to work at construction sites had not successfully secured employments because of the Administration's lack of advance planning. Miss Alice MAK were doubtful that there was an increase ranging from about 18% to 46% in the daily wages of construction workers involved in viaduct works, as stated in the Administration's paper. She considered that there was not much improvement in the income of construction workers and opined that the Administration should not blame the local construction workers for the escalation of construction costs. DCED replied that according to the statistics released by the Census and Statistics Department, there had been a higher-than-expected increase in the wages of construction workers since mid-2012. He clarified that the increase in the wages of construction workers was only one of the factors leading to the increase in the cost of the Project.

31. In response to Mrs Regina IP's enquiry on whether and how the use of prefabricated components in the Project could help achieve cost savings, DCED advised that about 40% to 50% of precasting would be applied to the construction of the Connecting Road, mainly in the section between Sha Tau Kok Road and the LT/HYW BCP.

*[The Chairman suggested and members agreed that the meeting be further extended to 6:20 pm.]*

32. Ir Dr LO Wai-kwok enquired whether the Administration had taken any measures to shorten the processing time for the applications under SLS. DS(W)2/DEV replied that the industry was contemplating more relevant

guidelines to enhance the applicants' understanding of the requirements regarding the information that should be included in SLS applications to facilitate quick processing of such applications.

Submission of the proposal to the Public Works Subcommittee

33. The Chairman enquired whether members supported the proposal that PWP Item No. 5019GB be submitted to PWSC. He put the question to vote. Two members voted for the proposal, 10 voted against and one abstained. The Chairman concluded that the proposal was negatived.

**II Any other business**

34. There being no other business, the meeting ended at 6:20 pm.

Council Business Division 1  
Legislative Council Secretariat  
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