

**Confirmed Minutes of the 135th Meeting of
the Environmental Impact Assessment Subcommittee
on 24 October 2016 at 9:30 am**

Present:

Prof Nora TAM, BBS, JP (Chairperson)
Dr HUNG Wing-tat, MH (Deputy Chairman)
Ir Cary CHAN
Prof CHAU Kwai-cheong, BBS, JP
Dr Billy HAU
Dr Michael LAU
Prof Albert LEE
Ir MA Lee-tak, SBS
Miss Yolanda NG, MH
Dr Eric TSANG
Mr Luther WONG, JP
Ms Becky LAM (Secretary)

Absent with Apologies:

Prof John NG

In Attendance:

Prof Paul LAM, SBS, JP	Chairman, Advisory Council on the Environment (ACE)
Mr K F TANG	Assistant Director (Environmental Assessment), EPD
Mr Simon CHAN	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)
Miss Dora CHU	Executive Officer (CBD) 1, EPD
Mr Alan CHUNG	Executive Manager (CBD), EPD
Miss Apple LEUNG	Executive Officer (CBD) 2, EPD

In Attendance for Item 2:

Mr WONG Chuen-fai	Principal Environmental Protection Officer (Strategic Assessment), EPD
Mr Edward LAM	Senior Environmental Protection Officer, EPD
Mr CHEUNG Kwok-wai	Senior Nature Conservation Officer (North), AFCD
Ms Eva YAU	Nature Conservation Officer (Yuen Long), AFCD

Project Proponent Team
*Civil Engineering and
Development Department*

Mr Ambrose CHEONG, Deputy Project Manager (NTW)
Mr Tony CHEUNG, Chief Engineer/New Territories 3(NTW)

Mr Dennis FUNG, Senior Engineer/6(NTW)
Ms Phoebe WU, Engineer/13(NTW)

Planning Department

Ms April KUN, Chief Town Planner/Studies & Research
Ms Apple LAU, Town Planner/Studies and Research
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AECOM

Mr Freeman CHEUNG, Project Environmental Team Leader
Mr Igor HO, Project Manager
Ms Gigi LAM, Environmental Consultant (Ecology)
Mr Lawrence TSO, Environmental Consultant (Land Contamination)

URBIS Limited

Ms Jennifer MAHONEY, Senior Landscape Architect
Mr Stephen KIRSU, Senior Landscape Architect

In Attendance for Item 3:

Mr Ken WONG

Principal Environmental Protection Officer (Metro Assessment), EPD

Miss Queenie NG

Senior Environmental Protection Officer (Metro Assessment) 2, EPD

Ms Maureen CHANG

Assistant Environmental Protection Officer (Metro Assessment) 22, EPD

Project Proponent Team

Architectural Services

Department

Home Affairs Bureau

Mr Raymond LAU, Senior Project Manager/332
Ms Vicky LAM, Project Manager/376
Ms Linda LAW, Principal Assistant Secretary (Recreation & Sport)2
Mr James BLAKE, Project Reviewer
Mr Lawrence LAM, Senior Building Services Engineer (Recreation & Sport)
Mr Michael MAK, Senior Architect (Recreation & Sport)
Mr Keith MAN, Senior Engineer (Recreation & Sport)
Mr H K YUEN, Senior Leisure Manager (Recreation & Sport)

Leigh & Orange Ltd

Ms Ivy LEE, Principal Director
Mr Alan LI, Director

URBIS Limited

Mr Sion EDWARDS, Director
Mr Sampson MOK, Landscape Designer

<i>WSP/Parsons Brinckerhoff</i>	Dr JIANG Wei, Technical Director Mr Daniel HO, Director Mr Dennis LEE, Associate
<i>Cinotech Consultants Ltd</i>	Dr CHAN Hon-fai, Managing Director Mr K S LEE, Associate
<i>Maurice Lee and Associates Ltd.</i>	Ir Maurice LEE, Managing Director
<i>Ramboll Environ Hong Kong Limited</i>	Mr Calvin CHIU, Senior Manager

Action

The Chairperson welcomed Members to the meeting and informed that apologies of absence had been received from Prof John Ng.

Item 1 : Matters arising from the minutes of the 134th meeting

2. The Chairperson informed that the Environmental Impact Assessment Subcommittee (EIASC) last met on 17 October 2016 to discuss the EIA reports on “Sha Tin Cavern Sewage Treatment Works” and “Kai Tak Multi-purpose Sports Complex”. The meeting had agreed that the project proponent of the latter EIA report would be required to provide supplementary information on the study before the Subcommittee could make recommendations to the full council on the EIA report. The Subcommittee also agreed that the project proponent and the consultant team should attend this meeting to answer any questions which Members might have on the EIA report.

Item 2 : EIA Report on “Hung Shui Kiu New Development Area” *(ACE-EIA Paper 7/2016)*

3. The Chairperson advised that the meeting would discuss the EIA report on “Hung Shui Kiu New Development Area”. The public inspection period of the report was from 5 September to 4 October 2016 and a total of 15 public comments were received. The public comments received by EPD and the gist of major issues/concerns had been circulated to Members before the meeting.

4. The Chairperson informed that the discussion would be divided into the Presentation and Question-and-Answer Session which would be opened to the public while the Internal Discussion Session would remain closed.

5. The Chairperson invited declaration of interest from Members. A Member, being a member of the World Wide Fund (WWF), advised that WWF had submitted comments to EPD on the EIA report. The Chairperson also declared of her ownership of a flat in Hung Shui Kiu (HSK) which was situated

outside the new development area (NDA). Two Members declared that they were members of the Town Planning Board. Another Member declared that he was commissioned to conduct a study on electric minibuses and buses. The meeting agreed that the Members could stay on and continue participating in the discussion, and the Chairperson could stay on to chair the meeting.

6. The Chairperson reminded Members to keep confidentiality of the discussion on the EIA report.

[The project proponent team joined the meeting at this juncture.]

Presentation Session (Open Session)

7. Mr Ambrose Cheong gave an overview of the background and the needs and benefits of the Project. With the aid of a powerpoint presentation, Mr Igor Ho and Mr Stephen Kirsu followed to brief Members on the project layout, key public concerns as well as findings of the environmental impact assessment (EIA).

Question-and-Answer Session (Open Session)

Air pollution impacts

8. A Member was concerned that there would be industrial / residential interface issues between the western cluster of lots for industries, logistics facilities, port back-up, storage and workshop uses and the residential clusters along the eastern fringe of the HSK NDA. He was of the view that the Government should explore the feasibility of providing other land with low rent for industries and other specified uses. With reference to the calculation of industrial and port backup emissions which had included and assumed uncontrolled emissions from concrete batching plants, he sought clarification from the project proponent about the current location and the future arrangement for the plant. With the understanding that the project would be implemented in stages from 2019 to 2038, the Member concerned about the emission factors for estimating traffic emissions, which included the assumption on the ratio of diesel, petroleum and electric vehicles and the level of technological advancement.

9. To address the housing demand and economic needs, Mr Ambrose Cheong explained that it was considered necessary to include different types of land use within the HSK NDA. He advised that after careful planning, the industrial zone and the special industry area assigned to the northern and western parts of the project area were separated from the residential area. New roads would be provided to connect the industrial area to the Kong Sham Western Highway and thereby reduce the movement of heavy goods vehicles through the residential areas. He further advised that assessments on the impact on the environment and residents had been conducted for each development stage, and

mitigation measures were proposed with an aim to reducing the impacts to an acceptable level.

10. Regarding the emissions from the concrete batching plant, Mr Freeman Cheung explained that there were no available data on the particle size distribution associated with concrete batching plants under control, an estimate based on the United States Environmental Protection Agency (USEPA) Compilation of Air Pollution Emission Factors (AP-42) was made for the determination of the particle size distribution. Mr Igor Ho supplemented that the existing concrete batching plants located within the NDA including the one next to the Kong Sham Western Highway would be removed due to the Project. For air quality impact assessment purpose, the new concrete batching plants were assumed to be located at the northern portion of the industrial area. Considering that HSK NDA was a large-scaled project, he said that concrete batching plants within the HSK NDA would help reduce the pressure on cross-district traffic. Given that the emission from US and local plants could vary greatly, a Member suggested that data could be obtained from local plants to facilitate better simulation of the air quality.

11. Mr Wong Chuen-fai advised that the plant would be a designated project under the Environmental Impact Assessment Ordinance (EIAO) if it had a total silo capacity of more than 10,000 tonnes in which cement was handled or manufactured. Mr Freeman Cheung advised that while the new concrete batching plants would have a total silo capacity of less than 10,000 tonnes, the operation of the plants would be subject to the licensing requirements stipulated under the Air Pollution Control (Specified Processes) Regulations. He further advised that the new plants would be located at 400 to 500 metres away from the San Sang San Tsuen egretty and the majority of ardeids were recorded to have a northeastward flight path moving away from the concrete batching plant towards the major watercourses such as the Tin Shui Wai (TSW) Main Channel.

12. Mr Freeman Cheung advised that the EMFAC-HK model was adopted for the estimation of vehicle emission rates, and based on the population intake years, two assessment scenarios, i.e. 2024 to 2030 and 2031 to 2039, were studied to evaluate the operational air quality impact. While the estimation was based on the current technology level, he and Mr Wong Chuen-fai explained that the model had taken into account legislation and initiatives that were committed by the Government, including the phasing out of pre-Euro IV diesel commercial vehicles and implementation of Euro V and VI emission standards. The emission rate was projected to decrease between 2024 and 2030 and would level off between 2031 and 2039. A Member considered that there would be rapid developments in the use of electric vehicles, and considered that sufficient land and power supply should be reserved for the establishment of electric vehicle charging infrastructure. Mr Tony Cheung replied that on top of developing Environmentally Friendly Transport Services (EFTS), promoting the use of electric vehicles was one of the green initiatives that would be considered. Mr

Ambrose Cheong advised that CEDD had been liaising with the power company to provide a stable supply of electricity for the HSK NDA, and reserve land for the construction of electric substations.

Noise impacts

13. Considering that the villages and the residential areas were sensitive receivers of air and noise, a Member enquired about the ratio of heavy goods vehicles utilizing the district distributor roads D2, D4 and D5. On top of the use of low noise road surfacing and noise barriers set out in the EIA report, he suggested that measures proactively addressing the noise source should be considered, such as restricting the heavy goods vehicles from using the district distributor roads D2, D4 and D5, particularly during night time. He mentioned that heavy goods vehicles could generate high noise impact especially on worn out and uneven road surfaces, which would be very disruptive to the nearby residents especially during night time. Considering that the stage 3 developments surrounded the existing villages at the centre of the HSK NDA, the Member asked whether there would be any noise mitigation measures other than using quiet powered mechanical equipment (PME) during construction. He suggested the project proponent to consider maximizing the use of the precasting construction method.

14. Mr Igor Ho explained that heavy goods vehicles could make use of the Kong Sham Western Highway and the new primary distributor road P1. The ratio of heavy goods vehicles on roads D2, D4 and D5 were estimated at 1%, 2% and 4% respectively and would have low impact on the air quality and noise contribution of less than 1 decibel. He further advised that roads D2 and D4 would be partly depressed with a view to mitigating traffic noise on top of increasing connectivity between the residential area and the open space, and sufficient buffer would be provided at road D5. A Member concerned that there would be residential sites and villages to the east and the west of road D2 respectively, the extensive use of low noise road surfacing and noise barriers might not be cost-effective. He strongly suggested the project proponent to consider restricting heavy goods vehicles from using road D2 during night time. Mr Ambrose Cheong explained that the existing Tin Ying Road would be removed; sufficient replacement roads had to be provided in order to meet the traffic needs. Road D2, which was originally the existing Ping Ha Road with existing users including heavy goods vehicles, would be one of the main routes for replacing Tin Ying Road. He added that there were existing facilities within Ha Tsuen which might involve the use of heavy goods vehicles.

15. Having consulted the Transport Department (TD), Mr Ambrose Cheong said that any measures to restrict the use of road D2 by heavy goods vehicles would possibly lead to complaints from the users. He however assured Members that mitigation measures set out in the EIA report including low noise road surfacing, depressed road and noise barriers would be adopted to minimize the

noise impacts to the nearby residential area, and the Highways Department (HyD) would conduct road maintenance works regularly to ensure that the road should remain in good condition.

16. Regarding the construction of stage 3 developments, Mr Igor Ho explained that while the precast method would be primarily adopted for the construction of residential buildings, he considered the main source of noise would be from the site formation and piling works. He assured Members that work procedures would be strictly designed to minimize the air quality and noise impacts and the contractors would be encouraged to use the precast method as far as possible.

17. A Member considered it undesirable to remove Tin Ying Road for residential developments, since it was a major route for accessing the Hong Kong Wetland Park and other facilities in TSW. Nevertheless, with a view to further mitigating noise at road D2, he suggested the project proponent to select tree species with dense branches reaching towards the ground level, such as junipers, for tree planting along the roadside and central dividers. Mr Ambrose Cheong advised that apart from providing land for residential developments, the replacement of Tin Ying Road also increased the connectivity between HSK NDA and TSW, provided more local open space and allowed TSW residents to make use of the recreational spaces along the riverside promenade. Footbridges would be provided across the river to facilitate better physical and social integration between HSK NDA and TSW. As regards tree planting along the roadside and central dividers, he said that the tree species would be further explored during the detailed design stage.

Land contamination problems

18. With reference to the project proponent's response to a Member's written enquiry (*copy at Annex*), another Member asked whether the assessment had covered both current and historical potential contaminated land uses. He also enquired whether there was a contingency plan for dealing with unforeseen pollutants or large-scale land contamination problems.

19. Mr Igor Ho explained that various approaches had been undertaken to identify any potentially contaminated areas, including site surveys, helicopter reconnaissance and review of historical aerial photos. He mentioned that many sites were currently inaccessible as they were occupied by private owners, and would be subject to reviews after land resumption. According to the site surveys, helicopter reconnaissance and desktop review, a severe land contamination problem was not expected. A one-year lead time had been allowed for conducting site investigation to ascertain the extent of land contamination and formulating assessment reports and remediation action plans for approval by the EPD. The land decontamination works could be carried out in conjunction with the site formation works of different stages/phases of the development, for which

3 years had normally been allowed.

20. Mr Freeman Cheung supplemented that potential land contaminated sites included vehicle maintenance workshops, recycling facilities, petrol filling stations, and the contaminating activities usually took up a relatively small portion of the sites which limited the extent of land contamination. Mr Tony Cheung added that the potential land contaminated sites were sparsely distributed, and land contamination on a large scale was not expected. With reference to the historical aerial photos, he said that the vehicle maintenance workshops had only been in operation in the recent 10 to 20 years. He said that alternative arrangements such as offsite treatment of contaminated soil could be explored to tie in with the development programme of HSK NDA.

21. A Member opined that as the HSK NDA was among the first projects involving the resumption of brownfield sites, it should set an example for future development of other brownfield sites. Considering that large scale planting would be carried out within the project site, he suggested the project proponent to conduct soil test before planting. Mr Ambrose Cheong agreed to pay extra attention to the soil quality and assured Members that the decontamination works would be conducted in a satisfactory manner in compliance in accordance with the EPD standards and requirements. The Member stressed that contaminated soil must not be used or re-used for planting even after treatment.

Environmental sustainability issues

22. A Member enquired whether environmental targets for the design and construction of buildings would be set, for instance, adopting Building Environmental Assessment Method (BEAM) or Leadership in Energy and Environmental Design (LEED) assessment criteria as well as setting carbon emission and energy consumption targets. He further sought information regarding the district cooling system (DCS) which was proposed as one of the green initiatives in the Project. Mr Igor Ho explained that the DCS provided centralized air conditioning by supplying chilled water to commercial buildings, government facilities and hospitals. As compared to installing individual air-conditioning systems, the DCS could help save energy, reduce greenhouse gas emissions and free up roof space for other uses. The Member opined that as the DCS would involve the use of heat exchangers and pump house, detailed study should be conducted to ascertain whether the adoption of DCS would be more energy-efficient.

23. Mr Tony Cheung explained that a series of feasibility studies on the adoption of the proposed green initiatives were planned to be conducted after completion of the HSK NDA Planning and Engineering Study and a Member's suggestion on the setting of environmental targets could be considered at that time. The Member considered that the targets should be set based on the best practicable means approach with a view of achieving environmental

sustainability. Another Member followed that the feasibility of generating renewable energy should be explored to reduce net energy consumption and carbon emissions.

24. A Member said that it was important to include waste sorting and separation mechanism at the Refuse Collection Point (RCP) given the Municipal Solid Waste Charging Scheme to be implemented in the near future. Another Member followed that many residents had expressed their dissatisfaction towards the current management of the existing RCP during public engagement and were concerned about the set-up of the new RCP. Mr Tony Cheung advised that the adoption of an automatic refuse collection system would be explored to minimize the nuisance caused to residents during the transportation of refuse.

25. A Member pointed out that odour nuisances from the RCP could be largely attributed to the organic waste. He suggested the project proponent to explore the feasibility of composting organic waste for reuse in community farming, which would reduce the amount of organic waste transported to the RCP and thereby improve the odour problem.

Protection of the egretty

26. A Member enquired the reason for scheduling only the site formation and construction works of some sites outside the breeding season of the ardeids. Considering that eco-corridor designated for the ardeid flight path was narrow, he further enquired whether the buildings near the flight path and the egretty would adopt a stepped height profile. He also suggested the project proponent to consider including features such as screening in the design of the riverside promenade to minimize the disturbances by human activities to the ardeids and other wild animals. Ms Gigi Lam explained that as the majority of ardeids were recorded to have a northeastward flight path towards the foraging grounds at the TSW Main Channel and associated watercourses, the proposed developments that were spaced over 100 metres to the south of the egretty were expected to have a low impact on the ardeids, especially when mitigation measures were deployed. Regarding the design of the riverside promenade, she advised that tree planting might be considered as screening to reduce disturbance to ardeids and other wildlife.

27. Ms Gigi Lam advised that the 100 metres wide open space was sufficient to provide an unobstructed flight path to the ardeids. Ms April Kun supplemented that the width of the open space should be sufficient to protect the flight path for ardeids of the five recorded nests at the concerned egretty, while the number of recorded ardeids at the egretty was less than ten in recent years. She said that a stepped height profile would be encouraged for the buildings near the flight path and the egretty.

28. A Member enquired whether there would be any follow-up measures in

case ardeids did not remain at the egretty. Mr Ambrose Cheong said that CEDD had been liaising with the Agriculture, Fisheries and Conservation Department (AFCD) to strengthen monitoring before the construction phase and to devise measures if necessary. Monitoring would also be carried out under the EM&A Programme of the project during the construction phase. In order to attract ardeids to stay in the egretty, the Member suggested the project proponent to make reference to the fishponds in the Deep Bay area and consider establishing small-scale intensively-managed fishponds in the vicinity of the egretty to provide a stable food source for ardeids during the construction stage. Ms Gigi Lam said that the ardeid flight path to the foraging grounds at the TSW Main Channel and associated watercourses were unobstructed and therefore it was considered unnecessary to provide additional food source to the ardeids. Besides, ardeids were recorded to favour the foraging grounds at the TSW Main Channel and associated watercourses. The Member considered that the establishment of fishponds near the egretty was intended to be a proactive measure to increase the chances for ardeids to remain at the egretty during the construction phase.

29. A Member observed that the bamboo clump at the egretty was in a poor condition with the exotic climber *Mikania micrantha* growing over it. He considered that there should be better management of the egretty before construction of the project to conserve the bamboo by cutting the climber during the non-breeding season. Given that there would be revitalization works carried out in the TSW Main Channel, the Member enquired whether there were any measures to mitigate the potential disturbances to the ardeids. He further suggested that the ecological value of the area reserved for community farming should be enhanced by having wet agriculture fields to cater for the possible use of the area by ardeids as foraging grounds.

30. Ms Gigi Lam explained that AFCD would carry out vegetation management work at the egretty outside the breeding season when considered necessary. She further advised that the revitalization works would only involve one section of the TSW Main Channel at a time which had a long profile; ardeids could still utilize the other unaffected sections and the associated watercourses. She said that detailed design of the area for community farming would be subject to further studies and review.

Management of the open spaces and green belts

31. A Member observed that there were no implementation details available in the study and he was concerned about the adequacy of the supply of native species for the large planting areas. He suggested and a Member supported that temporary on-site tree banks or nurseries could be established to ascertain an adequate supply of native species. A Member added that the selection of native and adaptive species for planting should be considered carefully with due regard to the suitability and ecological value. Mr Ambrose Cheong explained that

establishing an on-site nursery was one of the recommendations mentioned in the EIA report, and the selection of native and adaptive species would be subject to further review.

32. A Member raised his concern that green belts without any maintenance parties would be abandoned and gradually be turned into dumping grounds. He suggested that these areas should be converted into local open spaces under the management of the Leisure and Cultural Services Department (LCSD). Ms April Kun explained that a review of green belts had been conducted during the revision of the Recommended Outline Development Plan, which included the conversion of some of the green belt areas into local open space, including a vegetated knoll at Tung Tau Tsuen. She explained that some existing graves near villages had to be retained in the green belt zones. Given that the remaining green belt areas were mostly Government land, she advised that the Government would be responsible to manage these areas properly.

Conservation of heritage

33. Ms April Kun explained that the boundary of the HSK NDA covered 19 traditional villages, including 17 villages covered in full, which belonged to Ping Shan Heung and Ha Tsuen Heung dated back to the Ming dynasty and were of rich cultural and heritage value. All declared monuments and graded historic buildings found within the traditional villages would be all preserved. She advised that there were around 7 hectares of farmlands sparsely distributed outside the village zones that would be affected by the project. Ms Kun advised that taking into account the public's aspiration, community farming area and farmers' market were proposed with the aim of promoting well-being and a healthy living style. While detailed implementation arrangements would be subject to further liaison with the relevant departments, she said that it was a planning intention to adopt a more innovative design to allow future residents in HSK NDA and nearby areas to engage in community farming.

34. With the observation that the existing villages were surrounded by the proposed commercial, industrial and residential areas, a Member enquired whether the concept of promoting harmony between urban and rural areas had been taken into account for the development of HSK NDA. He suggested that the heritage trail could help to promote heritage conservation and education, to strengthen ecological connectivity to the retention lake, and to enhance harmony between urban and rural areas. The Member questioned the likelihood for the special industry sector to create the targeted number of employment opportunities for HSK NDA and the neighbouring areas including TSW.

35. A Member suggested the project proponent to make reference to overseas examples in the design of the heritage trail, such that it could serve the educational purpose via utilizing different media including sound and images.

36. Mr Ambrose Cheong said that due consideration would be given to ensure good integration between the existing villages and the new developments, by providing a local open space in front of Ha Tsuen for organising various traditional activities , and enhancing the connectivity of the villages to other areas. He advised that there would be a combination of commercial, industrial and community services developments to create around 150,000 of employment opportunities, and two feasibility studies were under progress to explore feasible measures to accommodate brownfield operations through land efficient means. Ms April Kun supplemented that the creation of substantial amount of employment opportunities in the HSK NDA could bring benefits in balancing the job distribution pattern in the whole territory, providing new employment opportunities not only for the NDA residents but also for the adjacent areas including TSW New Town as well as for the whole North West New Territories, addressing the problem of over concentration of employment in the urban area and thereby easing the burden on the transportation system.

Enhancing connectivity within the HSK NDA

37. In reply to a Member's enquiry regarding the provision of all-weather pedestrian walkways between residential areas and the HSK and TSW Stations, Mr Tony Cheung advised that covered pedestrian walkways might be provided at areas with high pedestrian flow connecting with major transport nodes subject to further liaison with relevant departments. The Member pointed out that the resident areas at the eastern part of the project area were closer to the TSW Station than the HSK Station. Mr Igor Ho confirmed with the Member that the Green Transit Corridor (GTC) comprising of the pedestrian walkway, cycle tracks and EFTS would link the HSK Station to the residential areas. As the major part of the TSW Station was located outside the Project area, the GTC would extend to connect to one end of the TSW Station. . While confirming that enhancing the walkability between the residential areas and the HSK and TSW Stations was one of the planning intentions of the project, Mr Ambrose Cheong said that the provision of covered walkway would be subject to further review and consultation with TD and in accordance with to the relevant guidelines during the detailed design stage.

38. The Chairperson concluded that Members had high expectations towards the project and asked the project proponent to take into consideration the comments and suggestions raised by Members. There being no further questions from Members, the Chairperson thanked the project proponent team for their presentation and clarification on the project.

[The project proponent team left the meeting at this juncture.]

Internal Discussion Session

39. The Chairperson advised that the EIA Subcommittee could make recommendations to ACE on the EIA report with the following approach:

- (i) endorse the EIA report without condition; or
- (ii) endorse the EIA report with conditions and details of the proposed conditions; or
- (iii) defer the decision to the full Council for further consideration – highlight issues or reasons for not reaching a consensus or issues to be further considered by the full Council; or
- (iv) reject the EIA report and inform the project proponent if the right to go to the full Council.

40. The Chairperson proposed and Members agreed to endorse the EIA report with conditions and details of the proposed conditions.

Adequate land reserve and power supply for electric vehicles

41. A Member suggested and the other Members agreed that a condition should be included to require the project proponent to reserve adequate land for the provision of power supply and associated infrastructure for the establishment of electric vehicle charging infrastructure.

Minimizing of noise impacts

42. In order to minimize the noise impacts to the villages and the residential area, a Member also suggested that the use of road D2 by heavy goods vehicles during night time should be banned. Mr K F Tang pointed out that with the various mitigation measures proposed by the project proponent, the noise criteria as set out in the Technical Memorandum had already been met. The Chairperson suggested and Members agreed to strongly recommend the project proponent to consider restricting the use of roads D2, D4 and D5 by heavy goods vehicles, especially during night time to reduce the traffic noise impact on nearby residential areas.

Detailed assessment of the land contamination

43. Considering that there were limitations associated with using historical aerial photos in evaluating the extent of land contamination, a Member opined that the project proponent should conduct detailed assessments and soil analysis after land resumption and treating decontamination in the first priority. Mr K F Tang concurred and remarked that the project proponent should endeavour to comply with EPD's standards and requirements for handling land contamination issues. He assured Members that under existing protocol the project proponent would be required to conduct detailed evaluation, followed by site investigation

and thorough decontamination works for the project area during the implementation stage.

44. The Chairperson proposed and Members agreed to include a condition to require the project proponent to conduct detailed assessment of the land contamination of all development sites within the project area, and to devise and implement a remediation action plan to ensure decontamination of the sites during the implementation stage. Besides, contaminated soil must not be used for planting and landscaping.

Selection of tree species for landscape planting

45. A Member suggested recommending the project proponent to select trees species with better noise insulation effects for planting along the roadside and central dividers. Mr K F Tang advised that, based on overseas experiences, typically, 10 metres of densely planted tree belt could only provide noise reduction of 1 dB(A). That said, while roadside planting could do little to mitigate noise, tree planting could help provide a visual screening effect. The Member opined that the noise reduction effect could vary greatly with different ways of planting and species with different physical and growth characteristics.

46. The Chairperson suggested and Members supported to recommend the project proponent to consider using appropriate tree species that could provide better noise screening effect and facilitate the trapping of particulates, especially for road-side planting.

47. A Member suggested that the project proponent should be required to submit a landscape and planting plan to the ACE for comments. As the project fell under Schedule 3 of EIAO and no environmental permit would be required, Mr K F Tang agreed that it would be appropriate for the project proponent to separately report back to ACE on the results and recommendations of the detailed studies conducted after the completion of the planning and engineering study.

48. The Chairperson and Members supported that a recommendation should be included to request the project proponent to devise a detailed landscape and planting plan for the HSK NDA, including setting up of a local stocking nursery, and to consult ACE on the plan.

Protection of San Sang San Tsuen Egretty

49. A Member suggested and Members agreed to recommend the project proponent to keep monitoring the San Sang San Tsuen Egretty and remove invasive climber on bamboo clump of the Egretty from now on until completion of the project.

Preservation of cultural heritage

50. A Member reiterated his earlier comment that the heritage trail could be used to preserve the cultural heritage resources, strengthen the connection between the villages and the new developments and neighbouring areas such as TSW, and promote education and urban-rural integration. The Chairperson proposed and Members supported to strongly recommend the project proponent to explore additional functions of the heritage trail to promote heritage conservation and education, strengthen ecological connectivity to the retention lake, and enhance harmony between urban and rural areas.

Other environmental impacts

51. A Member proposed and another Member supported to include a condition regarding the provision of an all-weather pedestrian walkway of appropriate walking distance between the residential area at the eastern part of the project area and the TSW Station.

52. Mr K F Tang explained that the engineering feasibility study of the HSK NDA was a designated project (DP) under Schedule 3 of the EIA Ordinance (EIAO), and it covered other DPs under Schedule 2 of the Ordinance. While a DP under Schedule 3 of EIAO was required to undertake an EIA study, Environmental Permit (EP)s were only required for DPs under Schedule 2 of EIAO for their construction and operation. He suggested and a Member agreed to allow more flexibility at this stage by using more generic terms in the conditions and recommendations.

53. The Chairperson proposed with the support from Members that the project proponent would be strongly recommended to strengthen the connectivity and walkability between the existing and planned residential areas and the TSW Station.

54. With reference to a Member's earlier comment, the Chairperson suggested and Members agreed to recommend the project proponent to exercise better management and control over the proposed Refuse Collection Points to minimize odour nuisance.

55. With reference to the earlier comments raised by a Member, the Chairperson proposed and Members agreed to recommend the project proponent to set environmental targets for the HSK NDA for achieving environmental sustainability in terms of green building design and construction, carbon footprint and energy reduction, renewable energy generation, waste separation and recycling, and recycling of food waste for use in farming and fisheries. Members were of the view that the project proponent should set a more stringent target, for instance, achieving the "Platinum" rating under the BEAM Plus for New Buildings.

56. A Member suggested with support from Members that the project proponent should be recommended to conduct a detailed study to ascertain whether the proposed DCS could bring about environmental benefits in terms of energy efficiency before taking forward the proposed green initiative.

57. The meeting agreed that the project proponent team would not be required to attend the full Council meeting scheduled on 14 November for the report.

[Four Members left the meeting at this juncture.]

[Post meeting note: The list of proposed conditions and recommendations were circulated to Members for comments on 28 October 2016.]

Item 3 : EIA Report on “Kai Tak Multi-purpose Sports Complex”
(ACE-EIA Paper 5/2016)

58. The Chairperson invited Members to declare interest. No interest was declared.

[The project proponent team joined the meeting at this juncture.]

Question-and-Answer Session (Open Session)

59. The Chairperson advised that project proponent had already provided written responses to information requested by Members raised at the last EIASC meeting. She reminded that the focus of this meeting was to seek clarifications on the responses provided by the project proponent and the project proponent to answer any questions which Members might have on the captioned report.

Landscape and tree planting

60. A Member sought clarifications from the project proponent on the following issues:

- (i) the textual composition of the soil for the project;
- (ii) the percentages of sand, silt and clay; and
- (iii) given that the percentage of sand in the soil mix was up to 65%, whether the remaining composition would be equally distributed among silt and clay.

61. Ms Linda Law explained that the soil specifications they adopted would meet higher standards than the General Specification adopted by the Architectural Services Department (ArchSD). Mr Sion Edwards supplemented that they were adopting particular specification to enhance the performance of the product in achieving rapid plant establishment and optimal growth. Not only would the soil

mix consist of completely decomposed granite (CDG) and organic fabricators as a conditioner, but enhanced specifications would also provide upper limits for some chemical components that might, in high quantities, inhibit the achievement of the planting objectives in the medium and long term. He further said that in terms of texture they would use CDG in a range of specified particulate sizes, and they might layer the texture to provide appropriate sub-base within that component. In response to a Member's concern, Mr Sion Edwards pointed out that the use of such enhanced soil specifications appeared to have been successful in achieving good growth results in terms of plant establishment and onward growth in many projects involving large areas of planting in public parks.

62. A Member asked the project proponent to confirm whether urban ecology would be considered as a planting strategy. He suggested making reference to the Street Tree Management Plan which the Home Affairs Bureau (HAB) and the Development Bureau conducted in identifying the appropriate species of urban trees that could be planted to enhance urban ecology. He considered that the street tree management plan was better reference in comparison to the Hong Kong Greening Master Plan (HKGMP) given different goals were identified in the HKGMP. Mr Sion Edwards advised that the use of trees in the Greening Master Plan would ensure compatibility with approaches in the District. He added that many of the proposed tree species would also be listed as trees having special ecological value in the Street Tree Management Plan Document. He thanked the Member for his suggestion and would refer to the Street Tree Management Plan to ensure the incorporation of trees of special ecological value.

Turf grass management

63. A Member enquired on the shadow patterns that would be casted on the Main Stadium when the retractable roof was closed, and whether the design of the roof would be transparent to enable sunlight come in. He further questioned the species of turf grass that would be selected because its plant growth would have implication on the use of pesticides and carbon footprint if transportation of the turf from another site was involved.

64. Ms Linda Law explained that the design of the retractable roof was not transparent but it would remain open most of the time, except for certain events in order to reduce noise impact, if necessary. She explained that with reference to the results of the shadow analysis and the overseas experience in turf grass management in sport stadia, they would formulate the best practical option on turf grass management with minimal environmental impact for the Main Stadium. Growing high quality turf with minimal environmental impact would be one of the considerations in tender evaluation.

65. The Chairperson asked the project proponent to explain further which turf grass would be selected and the impact of shadow effect on the turf.

66. Mr H K Yuen explained that the most common grass species in Hong Kong were Bermuda and Carpet grass. Given the fact that there were many other kinds of warm season grass species, trials would be conducted to ascertain which grass species would be the most suitable for growing under the semi-enclosed environment in the Main Stadium.

67. A Member asked if turf grass would be established on site or they would be transferred from another site to the Main Stadium, as well as their associated environmental impacts in respect of the use of water resources, possible escape of residual pesticides and fertilizers in the surface runoff, and the embedded energy involved during the transportation of the turf. Ms Linda Law assured that they would comply with the standard stated in the EIA Report with a view to minimizing environmental impacts.

68. Dr Chan Hon-fai confirmed that the EIA was conducted based on the assumption that turf grass would be established on site. Mr H K Yuen further explained that they had not selected any grass species for turf establishment because there was a wide variety of turf grass with different degree of shade tolerance characteristics. As such, trials would be conducted to identify the most suitable shade tolerance species under the microclimate of the Main Stadium.

Air quality and ventilation

69. A Member emphasized the need to improve outdoor air quality for the health benefits of the venue users, especially the athletes given that many activities would be conducted outdoor. He suggested that measures such as tree planting for the purpose of screening particulates could be adopted. He considered that while the traffic and mode of transportation at major transport links surrounding the project site was an uncontrollable factor, the project proponent could improve the air quality within the site by promoting the use of electric vehicles (EVs). He added that adequate power supply and sufficient space should be provided for the establishment of electric vehicle charging facilities in order to facilitate the users to travel into and around the site by electric private cars, buses and coaches.

70. Ms Linda Law explained that they had explored ways to develop a sustainability strategy. The Technical Guidelines for Electric Vehicle Charging-enabling for Car Parks of New Building Developments would be followed and they would coordinate with the CLP Power Hong Kong Limited to allow adequate electrical power for the Sports Park. Besides, the building disposition would be designed with an aim to facilitating the provision sufficient breezeway to enhance air ventilation.

71. A Member and the Chairperson considered that the response provided by the project proponent was not related to the issue of outdoor air quality, but more relevant to the issue of sustainability. Additionally, the Member expressed disappointment that the project proponent failed to include more measures to

enhance air quality, in addition to the use of de-NO_x paint.

72. Mr Sion Edwards explained that most of the open spaces were close to the external perimeters of the site, which adjoined nearby road links. In roadway locations adjoining the Neighbourhood Park, there was an intention to provide dense screening planting comprising small leaf plants and trees in order to help trap dust and particulates coming from external sources and to increase the effective bio-mass of planting in proximity to recreational spaces. As such, there was a planning intention to pursue the above mentioned arrangements in the periphery areas.

Sustainability and management of carbon footprint

73. A Member considered rainwater harvesting could be utilized for the irrigation of plants. Dr Jiang Wei stated that the proposed measures such as rainwater harvesting and air-conditioning condensate recycling would be adopted.

74. A Member opined that the measures to minimize carbon footprint provided by the project proponent were rather superficial. Instead, he considered it important to set a target for the long-term management of carbon footprint, including, but not limited to, architectural and structural design of the buildings. Another Member echoed the view of the Member that the measures proposed by the project proponent mainly focused on the objectives without setting environmental targets for long term sustainability.

75. In response, Dr Jiang Wei explained that a comprehensive study on sustainability was conducted which recommended sustainability measures such as the adaption of natural lighting at some specific locations. Ms Ivy Lee added that their target was to achieve the BEAM Plus New Buildings “Gold” rating for all buildings of the project. The requirement to meet the BEAM Plus New Buildings “Gold” rating would be laid down in the future tender document.

76. A Member and the Chairperson questioned that given the iconic feature of the project, the project proponent should consider achieving a higher rating such as the BEAM Plus “Platinum” rating. Ms Ivy Lee explained that “Platinum” rating for sports facilities might not be cost-effective as in the case of residential or commercial development, and she considered the target to achieve “Gold” rating for sports facilities had indicated their commitment to a high standard.

77. Ms Linda Law supplemented that they were on par with the standard adopted in other countries on the construction of sports facility of similar scale, and “Gold” rating or equivalent was considered as an appropriate target with reference to these examples internationally.

Visual impact

78. Ms Ivy Lee explained that studies had been conducted to determine the appropriate scale, layout and height for the Main Stadium, which involved benchmarking against similar international stadia. She added that reference was made to the Kallang National Stadium in Singapore which had similar capacity as the proposed Main Stadium in Hong Kong (i.e. 55,000 and 50,000 respectively). Having considered the scale, layout and environmental impacts of the project, the proposed height of the Main Stadium was less than 65 metres in the Reference Design Drawings which was considered appropriate for a building of this scale and would have a positive visual impact as a landmark along the waterfront.

79. Ms Ivy Lee explained that the area next to the Main Stadium facing the harbour front was designated to be a dining cove. The terraced deck of the dining cove would allow easy access to the water front. Besides, a large open space was designed along the central passageway connecting to the main plaza to cater for different activities to be held. As for the design of the Indoor Sports Centre Building, various elements such as an indoor main arena and an ancillary sports hall would be included, as well as sports-related retail component and a healthcare centre. These facilities were designed with an aim to integrating with surrounding open space and harmonizing with the landscape.

80. A Member enquired on the rationale for a sloped passageway connecting to the entrance of the Main Stadium. Ms Ivy Lee explained that the Main Stadium was located at the landscape deck above Road D2 which basically bisects the project site, so a sloped passageway was designed to facilitate access and crowd dispersal to and from the Main Stadium.

81. A Member commented that the design of the project did not apply the concept of urban ecology. He suggested that the project proponent should incorporate the concept of urban ecology at the detailed design stage. Mr Sion Edwards explained that soft-landscaped open spaces were located around the perimeter of the site and provided opportunities for direct ecological connections with adjoining sites, which were largely pedestrian streets and open spaces and parks. For example, the Neighbourhood Park that was located along the North-eastern edge of the development was to be designed to provide diverse vegetation and habitats, which could potentially connect directly with adjoining landscaped pedestrian streetscapes, the Station Square and the Grid Neighbourhood area. He added that other vegetated open spaces within the perimeter of the site also provided similar connectivity opportunities to other green spaces, such as to Metro Park and from the landscape decks of the main stadium to the adjoining waterfront promenade.

[The project proponent team left the meeting at this juncture.]

Internal Discussion Session

82. The Chairperson advised that the EIA Subcommittee might make recommendations to ACE on the EIA report with the following consideration:

- (i) endorse the EIA report without condition; or
- (ii) endorse the EIA report with conditions and details of the proposed conditions; or
- (iii) defer the decision to the full Council for further consideration – highlight issues or reasons for not reaching a consensus or issues to be further considered by the full Council; or
- (iv) reject the EIA report and inform the project proponent if the right to go to the full Council.

83. The Chairperson proposed and Members agreed to endorse the EIA report with conditions and recommendations.

84. A Member was not satisfied that the project proponent failed to provide clear answers to the questions on the application of the concept of urban ecology, and the selection of turf grass for the Main Stadium as it would have implications on the management of carbon footprint, the use of pesticides and fertilizers, and use of water resources, etc.

Landscape and turf management

85. The Chairperson proposed and Members agreed that a condition would be imposed on the project proponent to devise a detailed planting and landscape design plan by applying the concepts of urban ecology and ecological connectivity. The plan should be provided to the ACE for comments prior to submission to the DEP for approval before commencement of construction works.

86. With regard to the turf management, the Chairperson and Members agreed to require the project proponent to devise a grass management plan for the public open space, the Main Stadium and the Public Sports Ground with a view to identifying and justifying the choices of resilient grass species that would be tolerant to wear and environmental stresses, providing the quality of surface appropriate for its functions and taking into account the shadow effect of the retractable roof on grass growth inside the Main Stadium; identifying the justifying the specifications for soil including mix and particle compositions, nutrient content, etc. to enhance grass growth with less need for fertilizers, pesticides and irrigation; exploring the efficient use of water resources; and avoiding or minimizing the escape of residual fertilizers and pesticides into surface runoff. The plan should be provided to the ACE for comments prior to submission to the DEP for approval before commencement of construction works.

Air quality

87. Taking into account a Member's suggestion, the Chairperson proposed and Members agreed that a condition would be imposed in which the project proponent had to ensure adequate power supply and provision of space for the establishment of EV charging facilities to facilitate the use of electric vehicles including, but not limited to, private cars, coaches and buses.

88. The Chairperson also made reference to a Member's suggestion of including a condition to require the project proponent to devise a detailed plan on the application and implementation of the best practicable means (BPM) including, but not limited to, large scale planting, use of de-NO_x paints and devices to actively filter air pollutants, for the project so as to enhance the best air quality for the venue users, in particular athletes. The plan should be submitted to the DEP for approval before commencement of construction works.

Noise impact

89. Mr K F Tang suggested that since the noise impact caused by percussive piling was subject to control under the Noise Control Ordinance, it would be more appropriate to address the issue of percussive piling as a recommendation rather than condition. The Chairperson and Members agreed to recommend the project proponent to explore the use of quiet piling methods and avoid percussive piling for the construction of the project as far as practicable.

Sustainability and minimization of carbon footprint

90. The Chairperson suggested and Members agreed that the project proponent should be recommended to set targets for achieving environmental sustainability in the design and construction of buildings, devise measures to minimize the carbon footprint and energy consumption. Latest projects, local and overseas of similar nature should be used as reference in setting the targets. The project proponent should also be recommended to explore the feasibility of renewable energy generation, and provide mechanisms for resource recovery.

91. A Member further suggested that the project proponent should aim to achieve a higher BEAM Plus (New Building) "Platinum" rating for all buildings, and provide explanations if only BEAM Plus (New Building) "Gold" rating was adhered to.

Construction and demolition waste

92. The Chairperson suggested that the project proponent should minimize construction and demolition waste generated from the construction of the project, including the use of Building Information Modeling (BIM).

Visual impact

93. The Chairperson was of the view that the project should use softer material and building design to enhance the visual and landscape quality. She suggested that the proposed architectural design and the materials used for construction of the Main Stadium should be reviewed with a view to harmonizing it with the surrounding landscape.

94. The meeting agreed that the project proponent team would not be required to attend the full Council meeting scheduled on 14 November for the report.

[Post meeting note: The list of proposed conditions and recommendations were circulated to Members for comments on 28 October 2016.]

Item 4 : Any other business

95. There was no other business for discussion at the meeting.

Item 5 : Date of next meeting

96. The Chairperson advised Members that the next Subcommittee meeting was scheduled on 18 November 2016 for the discussion of the EIA report on “Proposed Low-rise and Low-density Residential Development at Various Lots and their Adjoining Government Land in D.D. 104, East of Kam Pok Road, Mai Po, Yuen Long. New Territories”.

**EIA Subcommittee Secretariat
November 2016**

A Member's enquiry concerning the EIA report on "Hung Shui Kiu New Development Area"

Regarding Hung Shui Kiu NDA, there are many car repair shops in this area as observed during our last visit. I suspect that site decontamination may be required. If this is the case, a few years of time (say 3-4 years) for site investigation and remediation may be required. I wonder whether the CEDD already considers this issue in the phase development of HSK.

Project Proponent's response

Under the EIA study, desktop study, helicopter reconnaissance and site surveys had been conducted to assess the land contamination impact within the Hung Shui Kiu (HSK) New Development Area (NDA). A total of 480 potentially contaminated sites were identified, of which 253 potentially contaminated sites were used as open area storage, container storage and warehouse sites which were less likely land contaminated sites. The remaining more likely contaminated sites were not large scale nor long established polluting installations/facilities. In particular, the number of potentially contaminated sites being used as vehicle maintenance workshops was about 53 and they were scattered around in different areas of HSK NDA.

Petroleum compounds will be the likely types of chemicals of concerns in the vehicle maintenance workshops. The remediation techniques for these types of chemicals are common in Hong Kong. As land contamination, if any, will be localised within these isolated sites, site formation works could be carried out in parallel with insitu decontamination works. Alternative arrangement of excavating the contaminated soil for offsite treatment could also be explored for minimising the impact on the development programme.

Under the implementation programme at Appendix 2.4 of the EIA report, after the possession of the site, one year lead time has been allowed for the site investigation to ascertain the extent of any land contamination and formulation of contamination assessment reports and remediation action plans for approval by EPD. Then, the land decontamination works could be carried out in conjunction with the site formation works of different stages/phases of the development, for which 3 years have normally been allowed. Therefore, the land contamination issue has been duly considered in the EIA report and the implementation programme for the phased development of HSK NDA.