



The Association of Consulting Engineers of Hong Kong

香港顧問工程師協會

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Legislative Council of HKSAR
Panel on Development

Panel on Development Special Meeting on 13 April 2019
Receiving Public Views on “Studies Related to Artificial Islands in the Central Waters”

Reclamation and new town developments in HK has a very significant contributions to the development of HK over the last few decades since 1970s. Consulting engineers always play an important role in reclamation and new town developments. In this respect, the Association of Consulting Engineers of Hong Kong (ACEHK) would like to express our following supporting views on the development of artificial islands in the central waters under the Lantau Tomorrow Vision (LTV).

1. Support for the artificial islands in the central waters

- 1.1. Compare to other options for the creation of sizable land for future development of HK, artificial islands in the central waters provide a quick and straight forward solution. Also, there will be more free hand for the artificial island on the future infrastructure and transport planning to best suit the context and enable cost effective solution, unlike other land creation options which are constrained by the existing congested environments.
- 1.2. Shortage of land for further development of HK to meet the housing demand is unprecedented severe. Reclamation to create new town supported by new infrastructure has been proven to be successful in the history of HK. Recent success stories (between 1973 – 1996) includes Tuen Mun, Tai Po, Sha Tin, Ma On Shan, Kwun Tong, West Kowloon, Tseung Kwan O, Central and Wanchai waterfront.
- 1.3. The Engineering Profession has already accumulated extensive experiences with the planning and infrastructure implementation of many major reclamations, new town developments together with the existing and expansion of the HK airport, and we would be well prepared to manage the challenges ahead for the success of Lantau Tomorrow Vision (LTV).
- 1.4. The Engineering Profession is also fully aware of the issues we need to face including latest aspect like environmental, climatic changes and wave protection, etc. We are confident that they could be addressed within the realms of our current skills and technology with an innovative mindset.
- 1.5. The development of LTV will not only create the land for future development of HK, but also create an opportunity to connect north-west New Territories to Central via the artificial island. Such transport links will effectively relief both existing highways (e.g. Lantau Link) and railways (e.g. West Rail, Tung Chung Line) capacity problems. The connectivity of the current Western District will also be significantly enhanced with the new transport link connecting to the Lantau via the future artificial islands.
- 1.6. Given the ageing building in the old districts, this pose a significant risk to the residents and pedestrian. The new land created under the LTV will provide the decanting space to speed up the urban renewal.
- 1.7. With so many new initiatives and new objectives to be attained for LTV, we would strongly recommend Government to set up another separate authority to administer the whole Study and future maintenance for the related infrastructure in order to overcome many inter-departmental hurdles.



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2. The “Studies Related to Artificial Islands in the Central Waters”

- 2.1. The Study should bring forth overseas experiences and newly developed technology to enhance the level and quality of the development to meet up with new planning concepts and the related demands.
- 2.2. The LTV requires a long term vision to reinforce HK’s positioning in the geographic region in order to be in competition with places like Singapore, and at the same time to establish our strategic status in the Greater Bay Area. The Study should adopt an integrated planning and engineering approach to achieve a holistic development framework engaging the most up-to-date concept and technology for its implementation.
- 2.3. As the LTV is not only for resolving the imminent housing problems in HK, it is destined to be a future metropolis to enhance the Livability, Sustainability, Smart, and Resilient aspects in HK, therefore a new and innovative approach would be warranted. On this basis, we would consider new standards should be established relating to specific aspects both for planning and infrastructure developments in order to achieve these initiatives, and it is highly likely that more lands will be needed to fulfil these ends. The designated 1000ha of reclamation should only serve as a starting framework but should be open subject to the findings of the Study. Land bank approach should be considered in order to maximize the area of land can be formed in the central waters.
- 2.4. Most importantly the infrastructure and transport planning need to serve a new type of development, not only for the external transportation links, but with many self-contained intercity infrastructures which could be involving new types of transit system, integrated transport and urban land use in a 3D concept integrating both above ground and underground space development. The Study should thoroughly look into the engineering application for these aspects to ensure they are practically implementable. New standards and guidelines are needed to suit.
- 2.5. The study should cover in-depth research of climate change impacts to future reclamation and coastal protection infrastructure, flood resilience and new town planning, and also consider the application of pioneer technology for reclamation and ground treatment methods.
- 2.6. The LTV will demand mega scale reclamation works involving huge quantities of all kind of construction materials including the sand fill and general filling materials. The Study should investigate their supply sources to facilitate future downstream construction works.
- 2.7. The financial aspect of LTV is one of the most debated issues. Besides the values of the land created, we believe there are many potential procurement methods, including BOT, PPP, etc, to generate financial returns to support many of the infrastructure developments. The Study should develop a strategy with innovative approach to promote their implementation with different options of the financial arrangement if there is a concern on the financial burden of Government funding.
- 2.8. For the packaging of the various studies for LTV, we expect the consultancy assignments will split into different packages so that more consulting engineering firms can have the chance to participate. Also, the consulting engineering firm should be leading all the supporting disciplines in the studies in order to ensure the practical implementation of the project can be formulated.
- 2.9. For the procurement of the consultancy assignments, we highly recommend the selection criteria should have more weighting on the technical proposal instead of the fee. This will encourage more out of the box thinking on the technical and innovative ideas by the bidders.



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3. Other Comments

- 3.1. ACEHK can proactively involve in the public engagement exercise of LTV to safeguard any misleading public opinions particularly on engineering subjects.
- 3.2. Engineering Profession fully support the LTV initiatives as the most important strategic development for the future of Hong Kong in the decades to come. The “Studies” should be conducted ASAP in order to enable the implementation of this LTV development.
- 3.3. On the cost control of the project, PCMO should be involved in the early stage of the studies in order to ensure the project cost for the major infrastructures have been properly scrutinized.

Yours sincerely

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