Development Proposal for Lung Kwu Tan Reclamation and the Re-planning of Tuen Mun West Area

PURPOSE

This paper briefs Members on the preliminary development proposals for Lung Kwu Tan reclamation (LKT) and the re-planning of Tuen Mun West area (TMW) (collectively referred as LKT/TMW).

PLANNING VISION AND POSITIONING – "SMART AND GREEN INDUSTRIAL PORT"

- 2. Located at the western end of the New Territories, LKT/TMW has extensive sea frontage and is in proximity to the Northern Metropolis, the Hong Kong International Airport (HKIA) and the Pearl River Delta region, with excellent transport connectivity through land transport and marine access. Specifically, LKT leads north to Lau Fau Shan, Tsim Bei Tsui, Pak Nai and the Hung Shui Kiu/Ha Tsuen New Development Area, which is the "high-end professional services and logistics hub" of the Northern Metropolis connecting with Qianhai. TMW is also located near multiple existing and planned strategic transport infrastructure facilities. Currently, it only takes about 10 to 20 minutes to travel from LKT/TMW to Tung Chung and the HKIA via the Tuen Mun-Chek Lap Kok Link. Its transport connectivity with other parts of Hong Kong would be further improved by road infrastructure projects under planning, including Route 11, Tuen Mun Bypass, and the proposed upgrading of Nim Wan Road and Deep Bay Road¹. Externally, apart from the Hong Kong-Zhuhai-Macao Bridge providing land access to the other cities of the Greater Bay Area (GBA), LKT/TMW is also connected through marine access to various ports in the GBA including Nansha Port in Guangzhou and Zhongshan Port in Zhongshan, with the potential of developing a coastal economic belt between Hong Kong and western Shenzhen.
- 3. Leveraging on its strategic location to promote industry development, we propose an "industry-led" planning approach for LKT/TMW and provide new developable land of about 301 hectares (ha) in total, including new land to be created through near-shore reclamation of about 190 ha (around 145 ha at LKT and 45 ha at TMW) and modification of existing land of about 111 ha (34 ha at LKT and 77 ha at TMW). Having considered the views of the relevant stakeholders and the market, we propose "Smart and Green Industrial Port" as the development positioning of LKT/TMW for developing four core industries with growth potential, namely green / new energy, advanced construction, circular economy and modern logistics / River Trade Terminal (RTT). All four core industries can be developed into green industries, with potential to adopt innovative technologies such as wide application of automation, artificial intelligence and the Internet of Things for smart production. These four core

The improvement works of Deep Bay Road is under the purview of Lau Fau Shan project of the Northern Metropolis.

industries, which require marine transport and large land area for operation, could make full use of the unique geographical advantages and convenient transport network of LKT/TMW. They could also generate synergies with other existing operations² in the area, and help Hong Kong move towards carbon neutrality.

BROAD LAND USE PROPOSALS

4. With funding approval from the Finance Committee of the Legislative Council (LegCo), the Civil Engineering and Development Department and the Planning Department jointly commissioned a planning and engineering study in December 2023. The "industry-led" development positioning gained wide support from the LegCo Members. The broad land use concept plan for the "Smart and Green Industrial Port" at **Enclosure 1** encompasses the following key planning highlights.

(I) Core industries with growth potential

5. We propose modern and orderly park-type development (Enclosure 2) for the four core industries, creating clustering effect leading to high efficiency and integration as well as fostering synergies among the industries, which would promote innovation and new technology, improve productivity and enhance regional competitiveness. Large land area would support the low-to-medium density park development which is conducive to raising operational efficiency and accommodating large-scale facilities. The industry park would also provide supporting facilities and high-quality environment for the development of the industries, the development landscape and ambience of which being distinct from that of a traditional industrial area. The industries at LKT/TMW would drive economic development and create diverse job opportunities which would further enhance the home-job balance of the Tuen Mun Having regard to the operational needs of the industries and other district. considerations, we propose to develop green / new energy and advanced construction at LKT, and circular economy and modern logistics / RTT at TMW, with details set out below:

LKT

(a) **Green / new energy**: Decarbonisation, improvement of energy efficiency and the popularisation of electric vehicles are among the major trends reshaping the landscape of the new energy industry. In line with the Government's policy directions of promoting development of new energy (including promoting the use and supply of new energy in marine, road and air transport to spearhead the green transformation of the industries), we propose to reserve about **54 ha** of land for green / new energy uses. Possible uses include storage and production facilities for green / new energy (such as

Including EcoPark, Permanent Aviation Fuel Facility, Shiu Wing Steel Mill, Green Island Cement, Castle Peak Power Station, etc.

biodiesel, green methanol, green ammonia, and liquefied hydrogen, etc.). These uses would be concentrated in the northern part of the LKT reclamation area, where the relatively long berthing frontage and deep sea access would support transport of green energy by sea. 10 out of the 54 ha of land is earmarked as strategic reserve for retaining land capacity (particularly sites with sea frontage) to meet the land requirement arising from future development of green / new energy and related technologies in Hong Kong.

(b) Advanced construction: To support the Government in strengthening Hong Kong's leading regional position in the adoption of advanced construction technologies, we propose to reserve about 47 ha of land in the southern part of the LKT reclamation area for developing an advanced construction park to foster the development of local advanced construction, including research and development, testing, certification, production and storage, such as related facilities for Modular Integrated Construction (MiC), Multi-trade Integrated Mechanical, Electrical and Plumbing (MiMEP), production of prefabricated rebar and sustainable concrete, as well as other related supporting uses, etc. The development of advanced construction could utilise the marine access thereat for the transportation of prefabricated parts, and create synergy with the existing related industries at TMW (e.g. steel mill and cement plant). Furthermore, the proposed sea-crossing bridge directly connecting the LKT reclamation area to the existing Lung Mun Road (see paragraph 6(a) below) would meet the new transport needs of the advanced construction park. Of the 47 ha of land, 10 ha serves as strategic reserve for keeping land capacity to meet the future development needs of the advanced construction industry.

TMW

(c) Circular economy: We propose to reserve about 32 ha of land³ for circular economy uses for achieving the Government's goal as set out in the "Waste Blueprint for Hong Kong 2035". Possible uses include recycling-related facilities, yard waste recycling and treatment facilities and other circular economy industries, which would encourage recycling enterprises to develop low-carbon and green businesses. The land concerned is near the existing EcoPark and other industrial services facilities, fostering collaboration among the industries and driving technological advancements. Differing from traditional recycling operations, development of the circular economy industry aims at supporting local green technology industries to commercialise research outputs into marketable products, such as upcycling local waste materials into high-value products like acoustic metamaterial products and core materials for electricity-free cooling products. By

Including 3 ha of industry land at LKT, which is mainly reserved for reorganisation of the brownfield operations related to the circular economy in the area.

promoting upcycling and setting up local production lines, the proposed development could strengthen Hong Kong's manufacturing capabilities, enhance the industry chain of the recycling industry and advance the development of local green and low-carbon circular economy.

Modern logistics / RTT: We propose re-planning the RTT and the (d) surrounding area, reserving about 39 ha of land4 at TMW for modern logistics-related uses. Considering that the utilisation of the berths in RTT (occupying 65 ha) remains on the low side in recent years, we propose retaining part of the RTT (35 ha) for modern logistics / RTT uses for continual river trade and its potential future growth, while giving planning flexibility in allowing the land to be used for other modern logistic uses arising from the government's policies and global developments (including uses facilitated by digital technologies). This would better equip Hong Kong to cope with the ever-changing development of the shipping and logistic industries, with a view to consolidating Hong Kong's position as an international maritime centre and international logistics hub. Furthermore, we propose the remaining 4 ha of land to be used for relocation of the Tuen Mun Public Cargo Working Area (TMPCWA) in Tuen Mun Area 16 (see paragraph 9(b) below).

(II) Improvement of transport connectivity

- 6. In order to support the development of the "Smart and Green Industrial Port" in the future, and having taken into account the new transport demand, we propose to improve the local road transport system in the following two aspects -
- (a) construction of a new sea-crossing bridge to link up the LKT reclamation area to Lung Mun Road⁵ for providing a more direct driving route leading to LKT and Black Point to cope with the increase in traffic flow, thereby effectively reducing the traffic load along the existing Lung Kwu Tan Road (especially the section near the LKT Village); and
- (b) upgrading of the existing Lung Mun Road which connects LKT/TMW to Tuen Mun Town Centre, including widening a section of about 1.5 km long from single-2 to dual-2 carriageway. This would raise the traffic capacity of Lung Mun Road and support the additional traffic demand of LKT/TMW.

In addition to the 39 ha of land, another 2 ha of industry land at LKT is reserved mainly for reorganisation of the brownfield operations of the logistic industry in the area.

For the transport connection between LKT reclamation area to Lung Mun Road, the estimated cost for constructing a sea-crossing bridge is about 50% lower than that of constructing a tunnel. The time needed for constructing a sea-crossing bridge is also shorter by about 45% (by about 3.5 years). The sea-crossing bridge is therefore the most cost-effective option.

7. According to the traffic assessment, the proposed development would only generate traffic demand of about 3 000 pax/hour to and from LKT/TMW by road, not being able to justify extending the Tuen Mun South Extension Line westwards to connect to LKT/TMW. Regarding the feasibility of extending the proposed Hong Kong Island West – Hung Shui Kiu Rail Link (passing through the Kau Yi Chau Artificial Islands) further westward to TMW after its landing at Tuen Mun East, we will consider it concurrently as and when we conduct further study for the Rail Link.

(III) Creating a New Generation Industry Park

- 8. In addition to the modern park-type development mentioned in paragraph 5 above, we will enhance the environment and facilities of LKT/TMW and uplift the industry park and the adjacent area for the enjoyment of local residents and working population -
- (a) **Provision of mixed facilities** We propose to provide various transport and community facilities in LKT/TMW (including public transport interchange, pedestrian walkway and cycling tracks, communal open space/ amenity areas, and other ancillary facilities such as multifunctional spaces for retail, food and beverage, recreational facilities and training purposes, etc. to serve the nearby working population) for providing a quality and convenient community environment for both the local residents and working population, as well as other ancillary and mixed facilities.
- (b) Enhancing environmental capacity the proposed development at LKT/TMW would preserve the natural beach and the water bodies in front of the LKT Village (in particular that the scale of the LKT reclamation has been reduced by one-third as compared with the proposal years ago), and would not affect the existing ecologically important habitats⁶ in the area. To enhance the overall environmental capacity and biodiversity in the area, two green channels⁷ are proposed along the northern and eastern coasts of the LKT reclamation area (Enclosure 3). This would encourage water-friendly design, introduce eco-shorelines and provide amenity and green landscape, thereby creating a pleasant and diverse communal space. The green channels would also preserve most of the existing natural shorelines to the north and east of the LKT reclamation area.

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The ecologically important habitats at LKT area, including the LKT Valley Site of Special Scientific Interest (SSSI), Siu Lang Shui SSSI, Pak Long and Nam Long Fung Shui Woodland, etc. are excluded from the development area. Technical study will be conducted to assess the possible impact of the proposed development on these sites, and propose mitigation measures, if needed.

The two green channels along the northern and eastern coasts of the LKT reclamation area are around 50 metres (m) wide, with a length of about 900m and 1 100m respectively. One side of the green channels is the preserved natural shoreline while the other side is the artificial seawall along the reclaimed land.

- (c) **Urban rural integration** – In respect of urban design, we will give emphasis to the integration of the industry park with the rural setting. Apart from the knoll being a natural barrier between the industrial port at the LKT reclamation area and the village, the green corridor at the edge of the park serving as buffer together with the relatively low-rise design of the buildings near the village, would all help to minimise the visual impact of the new development on the existing village. The greenery/amenity areas at the LKT reclamation area as well as the two proposed coastal green channels would also uplift the overall environment. Green corridors would be formed at the reclamation area for retaining the visual openness from the LKT Village, the Chinese White Dolphin Lookout and the Cenotaph towards the LKT beach and the sea. The proposed development would not affect the existing historic / cultural resources⁸ at LKT area. In addition to improvement of the living environment, local residents would benefit from the proposed new community facilities and open spaces, infrastructure and improved transport connections. The new development of the industry park would also create diversified employment opportunities for the local residents.
- (d) Smart and green infrastructure We will promote the adoption of smart, green, and resilient infrastructure construction. Seawalls and land formation level of the reclamation area will be suitably designed according to the latest standards to enhance the resilience of the reclamation area in the face of climate change and extreme weather. We propose the implementation of a blue-green drainage system, with incorporation of porous pavement, green roof and rainwater harvesting system to establish climate-resilient blue-green infrastructure. At the same time, the application of smart construction in the course of the design and construction of the proposed sea-crossing bridge would be explored, such as the use of ultra-high strength steel and ultra-high performance concrete. We will also apply smart construction methods such as the MiC method and Design for Manufacture and Assembly (DfMA), with an aim of increasing productivity and enhancing cost-effectiveness of the projects.

(IV) Re-planning and Modification for Enhancing Land Use Efficiency

- 9. The proposed development at LKT/TMW provides a good opportunity for replanning and modification of the existing land in the area, including -
- (a) Reorganisation of existing brownfield operations There are currently some brownfield operations scattered in LKT. We propose to reserve sites in LKT (including open-air sites or sites for developing multi-storey buildings) for the relocation and reorganisaion of the existing brownfield operations according to their industries, thereby also facilitating their upgrading and

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⁸ Including the Lau Ancestral Hall, Tin Hau Temple, the Cenotaph, etc.

transformation along with the development of the core industries of advanced construction, circular economy and modern logistics in the area.

- (b) Relocation of TMPCWA to TMW we propose to make use of part of the marine frontage of the land reserved for "modern logistics / RTT" uses for relocating the existing TMPCWA to the TMW reclamation area. This would free up the development potential of around 4 ha in Tuen Mun Area 16 for other uses more compatible with the surrounding non-industrial area (such as residential, community facilities, open spaces)⁹, addressing the long-standing request of the local community.
- 10. While we have previously put forward the proposal of a residential development-oriented planning for TMW area¹⁰, having taken into account the views of the stakeholders and the trades, we consider it more appropriate to make the best use of the locational advantage of the TMW area to provide more land for the development of different industries. Residential development, if proposed at TMW which has a predominant industrial character, would not be compatible with the surrounding industrial uses. Moreover, the potential of residential development at TMW is also subject to the Airport Height Restrictions¹¹. Taking the above factors into consideration, and given that Hong Kong does not lack housing land in the medium to long term, we take the view that the development at TMW should be industry-focused.

The future use in Tuen Mun Area 16 would be subject to further study.

The relevant proposal was mentioned in the Government's submission seeking funding approval for the planning and engineering study.

TMW area is subject to height control under the Airport Height Restrictions ascending from 53mPD (seaside) to 120mPD (inland side) which impose significant limitations on the development potential of TMW area for residential uses. The existing Government infrastructural facilities (including Pillar Point Sewage Treatment Works and Butterfly Beach Laundry), as well as industrial operations / facilities (including the public fill bank and EcoPark, sawmills, Chu Kong Warehouse and Cargo Handling Area, etc.) would give rise to land use compatibility issue with residential use (including potential adverse environmental impact such as odour, air quality, noise). The existing/planned land transport infrastructure and the nearby marine traffic/operations would also bring environmental impact unfavourable for residential use.

NEAR-SHORE RECLAMATION AREA

11. With the above proposal, the area of LKT near-shore reclamation of about 145 ha remains the same as that proposed to LegCo in 2023. This represents a one-third reduction from the original reclamation proposal back in 2020, for reducing the impact of the development project on the LKT Village. To provide more usable sea frontage and improve the usability of the coastline for the relevant industry uses, the western edge of the reclamation area would be straightened. Apart from this, the reclamation area at RTT basin is slightly adjusted from 40 ha to about 45 ha to provide sufficient sea frontage for industry development. Based on the ecological surveys conducted so far, it is anticipated that the reclamation project would not have any adverse ecological impact.

LAND USE BUDGET

12. The proposed land use budget for the "Smart and Green Industrial Port" is summarised below:

Land Uses		Area (ha)	Percentage
A. Industry Uses			
	Green / New Energy	54	18 %
Core	Advanced Construction	47	15 %
Industries	Circular Economy	32	11 %
	Modern Logistics / RTT	41	13 %
Industrial Services		2	1 %
B. Other Uses			
Public Facilities		40	14 %
Open Space		12	4 %
Road / Amenity Area		73	24 %
Total Development Area (A+B)		301	100 %

13. Based on the proposed land uses, it is preliminarily estimated that about 35 000 job opportunities would be created.

NEXT STEPS

14. We consulted the Panel on Development of LegCo on the above proposal on 22 July 2025. We are conducting a public engagement exercise from 1 August to 30 September 2025. Amongst others, we will hold district-based roving exhibitions and briefing sessions with relevant stakeholders (including trade-related advisory bodies,

other advisory bodies, statutory bodies, rural committee, District Council, etc.). Members of the public are welcomed to express their views by post or email, etc..

- 15. Taking into account the public views received, we will further refine the broad land use proposal and conduct detailed engineering / technical assessments for formulating a Recommended Outline Development Plan for LKT/TMW.
- 16. We plan to commence planning and other statutory procedures next year. Subject to the resource allocation for public works projects and the financing arrangement, our current target is to commence reclamation works at LKT in early 2028 with the first batch of land to be available in 2029.

ADVICE SOUGHT

17. Members are invited to offer theirs views on the preliminary development proposals and the reclamation extent for the "Smart and Green Industrial Port".

ATTACHMENTS

Enclosure 1 LKT and TMW Broad Land Use Concept Plan
Enclosure 2 Rendered Illustrations of LKT and TMW
Enclosure 3 Rendered Illustration of Green Channel in LKT

DEVELOPMENT BUREAU CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT PLANNING DEPARTMENT AUGUST 2025