

**Supplementary Information Note for the
Panel on Economic Development of the Legislative Council**

Redevelopment of the Air Mail Centre of Hongkong Post

The Government consulted the Panel on Economic Development (“the Panel”) of the Legislative Council (“LegCo”) on 22 March 2021 on our proposal to redevelop the Air Mail Centre (“AMC”) of Hongkong Post (“HKP”) at the Hong Kong International Airport (“HKIA”). As requested by members at the meeting, and in response to questions raised separately by a Panel member in a letter to the Chairman of the Panel of 18 March 2021, this paper provides supplementary information on the redevelopment plan for reference by the Panel.

Development of a Competitive Postal and Logistic Hub in the Guangdong-Hong Kong-Macao Greater Bay Area (“GBA”)

2. Hong Kong has a crucial role to play in the development of the GBA as a postal and logistics hub for the country by leveraging our prime geographical location as an aviation hub, our advanced logistics infrastructure and our strong international postal network, as well as by creating synergy with other cities in the GBA to achieve mutual growth.

3. The “Implementation Opinions on the Promotion of the Development of Postal Industry of the Guangdong-Hong Kong-Macao Greater Bay Area”¹ (“Implementation Opinions”), promulgated jointly by the State Post Bureau, the National Development and Reform Commission, the Ministry of Transport, the Ministry of Commerce and the General Administration of Customs in December 2020, positions the GBA to take a leading role in the development of the postal industry of the country. The postal services in the GBA would be further developed towards catering for medium to high end products by providing more high quality and standardised as well as internationally leading services. The development directions in the Implementation Opinions include:

¹ Available at http://www.spb.gov.cn/zc/flfgjzc_1/202012/t20201221_3656022.html.

- (a) establishing a smooth and highly efficient delivery network and international postal and express delivery hub by capitalising on a cluster of world-class airports in the GBA;
- (b) supporting the postal administrations of Guangdong, Hong Kong and Macao in strengthening complementarity of advantages in the conveyance and handling of inward and outward airmail; and putting in place coordinated development of postal services of the three places that complement and support each other in the development of the GBA;
- (c) capturing the full advantages of the Hong Kong-Zhuhai-Macao Bridge to speed up the development of an express logistics network for postal and delivery services in the GBA;
- (d) reinforcing Hong Kong's status as an international hub for air freight;
- (e) assisting in the expansion of import and export businesses of cross-border e-commerce ("CBEC"); pressing ahead with the coordinated development of postal express delivery and e-commerce business to support external trade transformation and the CBEC; and
- (f) expediting the capacity expansion and efficiency enhancement of the postal industry by developing new forms of business such as supply chain services, cold chain and express delivery, time certain delivery, as well as integrated warehousing and delivery.

4. The "Implementation Opinions" states that by 2025, the mailing and delivery services in the GBA will reach the standard of serving this international first-class bay area and a world-class city cluster. This whole postal services system will play an increasingly fundamental and strategic role in the economic and social development of the GBA. And by 2035, innovation-driven, convenient and efficient mailing and delivery services will be established in the GBA, thus further strengthening the international competitiveness of the postal industry in the GBA and providing exemplary guidance for the development of the postal industry in the country.

5. Under the GBA policy framework, postal administrations of the Mainland, Hong Kong (i.e. HKP) and Macao will work closely together for measures that further strengthen mutual collaboration. Specifically, China Post has accepted HKP's proposal to explore implementing "single-window customs clearance" that facilitates customs clearance and tax payment online for inward mail from Hong Kong and Macao. On the development of hardware facilities such as operating sites for inward and outward mails as well as express items in the GBA as stated in the "Implementation Opinions", China Post takes note of HKP's plan to redevelop the AMC by equipping it with the latest technology and enhancing its capacity so as to support the overall positioning and the development directions of the postal industry in the GBA. The redevelopment of the AMC is pivotal to Hong Kong and specifically HKP in fulfilling its important role in the development of the GBA, leveraging our edge as an international aviation hub that provides excellent connectivity to places around the world.

Competitive Advantages of HKP in E-commerce Delivery as Compared with Private Logistics Operators

6. In contrast with private logistics operators that are generally profit-oriented, HKP focuses on fulfilling the basic postal needs of the Hong Kong community through providing efficient and affordable postal services and serving last mile delivery even for very remote areas. With the increasing trend of e-substitution, the booming of global e-commerce market and the growth of the GBA market, as well as technological advancement, HKP considers it necessary to enhance and strengthen its business strategies for e-commerce mails in tandem. In fact, e-commerce delivery has become a main strategic focus for many postal administrations in the light of sharp decline in volume of traditional mail leading to revenue decrease while e-commerce market has grown exponentially over the last decade. In general, it is the trend for postal administrations worldwide to leverage their pre-existing resources and postal network to grow their e-commerce delivery business both locally and globally to serve the needs of consumers and the public.

7. As compared to private logistics operators, HKP enjoys competitive advantages in terms of its extensive geographic coverage for last mile delivery both locally and globally; ability to keep its prices simple, transparent and reasonable; and the simpler customs clearance procedures and lower import taxes for international shipment of e-commerce parcels through postal channel. This also explains why postal channel currently dominates the world's e-commerce delivery market with 45% to 65% market share by volume.

8. With Hong Kong being an international logistics and postal hub in the GBA, HKP is well positioned to collaborate with China Post on delivering more mail traffic for CBEC. Together with the implementation of the new business strategies as outlined in the Panel paper LC Paper No. CB(4)645/20-21(01), it is reasonable to expect the international mail traffic in the redeveloped AMC to grow at a target rate of 4% to 5.5% per year (the currently traffic growth rate is around 1% to 2% per year), and achieve around 3% to 4% market share in the coming years from the existing 1% to 2%.

Projected Mail Volume to be Handled in the Redeveloped AMC

9. The traffic volume under the existing AMC has already reached 34 000 tonnes in 2018/19, 85% of its maximum capacity of some 40 000 tonnes. Although the traffic volume is expected to drop in 2020/21 due to the epidemic, the Airport Council International and the International Air Transport Association forecast that the global air traffic volume will return to 2018/19 levels by around 2023/24, which will restore the growth momentum for HKP international mail traffic. With the booming CBEC market and the new business strategies to be implemented by HKP, the mail traffic volume is projected to exceed the maximum capacity of the existing AMC by 2023/24 the earliest. The redevelopment of the AMC is therefore a prerequisite for HKP to capture the future CBEC opportunities and better serve the public through the implementation of the new business strategies.

10. With the booming CBEC market and implementation of HKP's new business strategies, the international mail traffic in the new AMC is targeted to grow at 4% to 5.5% per year, reaching 141 000 to 179 000 tonnes by the end of 2046/47, close to the new AMC's maximum capacity of around 180 000 tonnes. The following table shows that the new AMC can cope with the growth of the international mail volume for the next 15 to 20 years –

	2027-28	2030-31	2034-35	2039-40	2046-47
Traffic volume (tonnes)	65 000 – 76 000	73 000 – 90 000	86 000 – 112 000	105 000 – 146 000	141 000 – 179 000

11. To ensure that basic postal service will be maintained without interruption during the redevelopment of the AMC, there will be three key areas for mail handling, viz.:

- (a) the Decanting Building to be constructed at the existing AMC site to handle inbound and outbound handover functions of mail bags with airline representatives;
- (b) the mail processing functions in the existing AMC to be temporarily relocated to the General Post Office of HKP; and
- (c) the e-commerce mail processing to be carried out at other facilities, like the cargo terminal operators ("CTOs"), at the HKIA and the surrounding area.

12. The overall international traffic volume for HKP is projected to increase from about 35 000 tonnes in 2021/22 to 55 000 tonnes by 2026/27). The processing capacity of these interim measures is expected to be sufficient to handle the increasing international mail traffic during the construction period of the new AMC. Upon the completion of the new AMC in 2027/28, the international mail traffic volume temporarily handled in the General Post Office and other facilities will be transferred to the new AMC.

Financial Viability of the Redeveloped AMC

13. The intelligent technologies in the new AMC will enable high degree of automatic conveyance of mail items or bags to the appropriate floors and areas for handling, hence achieving greater cost effectiveness. The total operating cost for the new AMC will decrease by around 11% to \$240.8 million in 2027/28, as compared to the estimated operating cost (without the new AMC) of \$271.5 million, but with a 3.6 fold increase in the net operational floor area of the new AMC, from the current 12 600 m² to 46 000 m² in future.

14. With the implementation of HKP's new business strategies, the financial assessment shows that the new AMC (with additional capacity) could generate a profit² of around \$1.0 billion to \$1.3 billion in 2030/31. Without redevelopment, the profit generated from the AMC (capped at the existing maximum capacity of 40 000 tonnes) is forecast to be around \$0.5 billion to \$0.6 billion in 2030/31. Hence, the AMC redevelopment will result in an additional profit of around \$0.5 billion to \$0.7 billion in 2030/31, which would gradually increase over time to about \$2.2 billion to \$3.2 billion in 2046/47, thereby achieving a financial return³ of above 10% over the 20-year period from 2027/28 to 2046/47, and the new AMC is projected to payback in 12 to 14 years. The above indicates that the new AMC is a financially viable investment for the Government.

15. Even though the new AMC is projected to generate positive returns, HKP is obliged by the Government to fulfil Universal Service Obligations ("USO") to provide traditional mail services to the local community at a low price. There have been operating losses from the traditional mail services in the recent years due to the decline in volume of letter mail and the operating losses are expected to continue due to the increased trend of e-substitution. That means to a large extent, the additional return generated from the new AMC will be very essential to cross-subsidise the continued loss of local USO services. In fact, the local traditional letter mail services are considered to be a loss-making business for most postal administrations and would generally require to be cross-subsidised by the profits generated from the provision of international mail services.

² Refers to Earnings before Interest, Tax, Depreciation and Amortization (EBITDA).

³ The financial return is calculated by comparing the difference in net projected cash flows (i.e. net operating returns less construction costs) between the with and without AMC redevelopment cases.

Application of Advanced Technologies in the Redeveloped AMC

16. While the existing AMC requires labour-intensive manual handling on receipt, segregation and conveying of mails to different areas for processing, the new AMC will be equipped with a modern centralised Material Handling System (“MHS”) underpinned by the use of artificial intelligence (“AI”) technologies, automation and digitalisation to facilitate efficient processing of mail items and customs clearance. This MHS will be comparable to those being adopted in leading logistics operators as well as in overseas postal processing centres. Major components and functions of the MHS have been set out in **Annex C** of the Panel paper, and is annexed to this paper for members’ easy reference.

17. In essence, the AI technologies will enable trucks entering into the new AMC to be automatically assigned to the appropriate loading dock for unloading of mails. Henceforth, robots will carry the mail bags to the operating hall for transportation via internal automatic conveyance system to different floors for robotic and mechanised sortation. Sorting capacity will be increased by 20 times from the existing 1 000 pieces per hour to 20 000 pieces per hour. Likewise, there will be automatic storage and retrieval system in the Warehouse Management System for high value and fast-moving goods through the use of high throughput automatic shuttle. With the assistance of digitalisation, mails in the AMC can be rapidly retrieved for x-ray screening, and there will be more tracking points to facilitate closer tracking from acceptance through air conveyance to last mile delivery. Advanced Elevating Transfer Vehicle will be installed in the new AMC with around 400 storage spaces, as compared to the current 50 spaces, for transporting air freight containers and storing them before handing over to airlines.

Operation Mode for the Redeveloped AMC

18. While the existing AMC adopts a high degree of manual handling in its operation, the operation mode of the redeveloped AMC will be largely based on a high degree of automation and digitalisation, as well as the new cold chain and temporary warehouse for high value and fast moving goods facilities.

19. In our engagement with the logistics industry, many leading logistics service providers and CTOs in the airport have expressed interest in

collaborating with HKP at the redeveloped AMC in the service areas of cold chain and temporary warehousing logistics. In this connection, HKP will collaborate with private logistics operators who will bring in the expertise, market insights and experience to operate these new facilities in the redeveloped AMC. These logistics professionals from the private sector will also bring in new skills and knowledge to the civil servants of HKP when it comes to operating such facilities.

20. For mail handling, as the redeveloped AMC will still rely on postal channel as a major channel for the inbound and outbound shipment, its operation will hence continue to depend on the knowledge and experience of the existing staff of HKP who are familiar with the postal procedures and policies to handle mail items under postal channel through the redeveloped AMC.

Analysis of the Alternative Options for Financing the Redevelopment of the AMC Project

21. HKP requires full funding support from the Government in the form of trading fund capital for the Post Office Trading Fund (“POTF”) to finance the redevelopment proposal.

22. Under the Trading Funds Ordinance (Cap. 430), HKP as a trading fund department is not a separate legal entity and cannot borrow funds from external parties, such as the banks. Same as other government departments, the financing arrangement is subject to the Financial Secretary’s approval. In 2018-19 Budget, the Financial Secretary announced that \$5 billion had been reserved for the redevelopment of the AMC for enhancing the efficiency and capacity. In fact, financing the redevelopment of the AMC through loans borrowing from whichever channels would be undesirable as repayment of loan principal and interest expense would increase the operating cost of HKP, necessitating more frequent and deeper upward postage adjustments to recoup the costs.

23. On the other hand, based on the current reserve level (total of HKP’s Development Reserve and Retained Earnings amounting to \$2 billion as at end March 2020), HKP would not be able to fund the \$4.6 billion redevelopment project by internal funds, thus making this option equally not feasible.

Way Forward

24. As stated in the Panel paper, we will proceed to seek funding support from the Finance Committee for the proposed financial arrangements, followed by a LegCo resolution seeking appropriation of the necessary funds into POTF.

Hongkong Post

April 2021

Major Components and Functions of the Material Handling System

(I) Cross-belt Sorter / Robotic Solutions

The cross-belt sorter and/or robotic solutions are widely used in automating the sortation process of mail items in the postal and logistics industry. With the high growth of e-commerce traffic, more packet-sized items are expected in the future. Sorting these items with up-to-date machine in the redeveloped Air Mail Centre (“AMC”) could greatly improve both the efficiency and accuracy of the current operation.

(II) Warehouse Management System

The Warehouse Management System is an automated storage and retrieval system that could achieve high throughput with the use of shuttle. It is widely used in warehouse and distribution facilities for years and recently the technology has been extended for use in e-commerce and postal facilities as well. It will greatly assist the handling of high value and fast-moving goods in the redeveloped AMC.

(III) Elevating Transfer Vehicle (“ETV”)

The ETV is used for transporting air freight containers and storing them before handing over to airlines. It has been used in the current AMC and other Cargo Terminal Operators. With the expected growth in mail traffic, a larger-scale and more advanced ETV will be installed in the redeveloped AMC with around 400 storage spaces, comparing to the current 50 spaces, so as to cope with future demand.

(IV) Internal Conveyor System

All the above equipment and other facilities at different floors of the redeveloped AMC will be interconnected by an Internal Conveyor System. Mail items or bags will be efficiently conveyed through the system from their arrival at the AMC to the appropriate sorting machineries or processing areas automatically. This method is commonly used in many e-commerce handling facilities, such as large global online shopping platform and e-tailor. When it is time for lifting mails to airlines, all prepared mail bags will be conveyed through the Internal Conveyor System to the ground floor of the new AMC for departure security screening, which will also be conducted automatically with latest security screening technology.