

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Fitting Out – Internal security

180IC – Fitting-out works for Government facilities at new air cargo terminal

Members are invited to recommend to the Finance Committee the upgrading of **180IC** to Category A at an estimated cost of \$174.3 million in money-of-the-day prices for carrying out fitting-out works for Government facilities at a new air cargo terminal at the Hong Kong International Airport.

PROBLEM

We need to provide Government facilities at the new air cargo terminal which is being constructed by Cathay Pacific Services Limited (CPSL) at the Hong Kong International Airport (HKIA) to provide additional handling capacity to cater for the forecast growth in air cargo.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Transport and Housing, proposes to upgrade **180IC** to Category A at an estimated cost of \$174.3 million in money-of-the-day (MOD) prices for carrying out fitting-out works for Government facilities at the new air cargo terminal at HKIA.

/PROJECT

PROJECT SCOPE AND NATURE

3. The proposed scope of **180IC** comprises the design and fitting-out works for Government facilities located inside the new air cargo terminal at HKIA. The proposed works will provide a net operational floor area (NOFA) of about 2 427 square metres (m²), with the following facilities –

- (a) Customs and Excise Department (C&ED) – NOFA of 2 192 m²
 - (i) cargo examination facilities including six cargo examination halls, operating area for the breakdown cargo x-ray machine, palletized cargo clearance area and operation command centre, special equipment rooms, detention/transshipment bond and exit guard booth;
 - (ii) operation and case processing facilities for different units/teams, dog kennel, operation briefing room, duty office/duty collection office, arms loading/unloading bay; and
 - (iii) logistics and IT support facilities including logistics support office, conference room, multi-purpose cum staff common room, store rooms, closed-circuit television and server/network equipment rooms, changing rooms with shower facilities and pantries;
- (b) Agriculture, Fisheries and Conservation Department (AFCD) – NOFA of 74 m²
 - (i) general office, counter cum waiting area, interview cum inspection room, inoculation and animal inspection room, and changing room with shower facilities;
- (c) Food and Environmental Hygiene Department (FEHD) – NOFA of 137 m²
 - (i) general office (including a reception area and store room), interview room, food inspection room, laboratory, walk-in freezer room, walk-in chiller room, server room, and changing rooms with shower facilities; and

/(d)

(d) Hong Kong Police Force (HKPF) – NOFA of 24 m²

(i) Police equipment room.

4. A site plan and location plan of the new air cargo terminal is at Enclosure 1. Layout plans of the proposed Government facilities are at Enclosures 2 to 8. A perspective view of the new air cargo terminal is at Enclosure 9. To tie in with the construction programme of the new air cargo terminal, subject to the approval of the Finance Committee, we plan to start the fitting-out works in July 2011 for completion in December 2012 so as to meet the planned operation of the new air cargo terminal in early 2013. We need to seek funding approval now, given that the time required for the procurement of specialised equipment under the project (to support the clearance of air cargo at the new cargo terminal) is expected to take at least 13 months from invitation of tenders to delivery.

JUSTIFICATIONS

5. Trading and logistics is one of the four pillar industries in the Hong Kong economy, accounting for about 26% and 24% of our gross domestic product (GDP) and employment respectively. Air cargo has been a key component of the trading and logistics industry especially in respect of high value goods, with the air cargo throughput at HKIA growing at an average annual rate of 6.8% during 1999 to 2009. In 2009, the air cargo throughput of HKIA exceeded 3.3 million tonnes, representing a value of about \$1,821 billion, accounting for 35.3% of Hong Kong's total external merchandised trade value. HKIA has been the world's busiest international cargo airport since 1996.

6. Despite the global economic slowdown in the light of the financial downturn, according to the Airport Authority's forecast, HKIA's air cargo throughput is expected to grow at an average rate of over 4% per annum in the coming two decades. During the first six months of 2010, the air cargo traffic of HKIA reached 2 million tonnes, which represented a yearly growth of 35.1%. It is important that HKIA has sufficient air cargo handling capacity to meet the increasing demand.

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7. CPSL is constructing a new air cargo terminal with a design capacity of 2.6 million tonnes per annum, for completion by early 2013. CPSL, together with the other air cargo terminal operators at HKIA, is expected to increase the airport's total general and express air cargo handling capacity to 7.4 million tonnes per annum. The timely commencement of the new air cargo terminal is essential to maintaining HKIA's competitiveness as a hub for international air cargo traffic, especially at a time when HKIA is facing fierce competition from others in the region. The new air cargo terminal should be equipped with adequate Government facilities.

8. According to the established arrangement¹, CPSL will provide rent-free accommodation for the Government's use, while the Government will be responsible for the fitting-out works. As the fitting-out works for the Government facilities are integral to the new air cargo terminal development being undertaken by CPSL, we intend to entrust the design and fitting-out works for **180IC** to CPSL.

FINANCIAL IMPLICATIONS

9. We estimate the cost of the project to be \$174.3 million in MOD prices (please see paragraph 10 below), broken down as follows –

	\$ million
(a) Building works	28.0
(b) Building services	24.9
(c) Additional energy conservation measures	0.1
(d) Furniture and equipment ²	88.4
(e)	

¹ In response to questions from a Member of the Legislative Council (LegCo) Panel on Economic Development at the meeting held on 22 November 2010, we wish to advise that the Audit Commission has not carried out any review on the proposed arrangement. The franchise agreements for the two existing air cargo terminals require the franchisees to provide rent-free accommodation for the Government's use. The Airport Authority has included the same requirement in the tender documents for the new cargo terminal project.

² Based on an indicative list of furniture and equipment required by various departments, items include specialized x-ray inspection systems and contraband detectors.

	\$ million	
(e) Entrustment fees for the design and fitting-out works ³	8.5	
(f) Contingencies	6.0	
Sub-total	155.9 ⁴	(in September 2010 prices)
(g) Provision for price adjustment	18.4	
Total	174.3	(in MOD prices)

The construction floor area (CFA) of **180IC** is about 3 200 m². The estimated construction unit cost, represented by the building and the building services costs, is \$16,531 per m² of CFA in September 2010 prices. We consider the estimated project cost reasonable as compared with other similar projects undertaken by the Government.

10. Subject to approval, we will phase the expenditure as follows –

Year	\$ million (Sept 2010)	Price Adjustment Factor	\$ million (MOD)
2011-12	10.0	1.04250	10.4
2012-13	84.0	1.09463	91.9
2013-14	50.0	1.14936	57.5
2014-15	10.0	1.20682	12.1
2015-16	1.9	1.27169	2.4
	155.9		174.3

/11.

³ Subject to further negotiation with CPSL, entrustment fees estimated at 16% of the value of the entrusted works would be paid to CPSL for carrying out the entrusted design and fitting-out works for the Government facilities.

⁴ The cost estimate has been revised from \$159 million to \$155.9 million in September 2010 prices following a costing review conducted when this funding submission was under preparation.

11. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period 2011 to 2016. The contract will provide for price adjustments.

12. We estimate the annual recurrent expenditure arising from **180IC** to be \$98.1 million.

PUBLIC CONSULTATION

13. The Airport Authority has consulted the relevant stakeholders, including the Carrier Liaison Group (comprising airlines providing air cargo services), the Hong Kong Association of Freight Forwarding And Logistics Limited, the Hong Kong Exporters' Association, the Hong Kong Shippers' Council, the Hong Kong International Courier Association, the Chamber of Hong Kong Logistics Industry Limited and Hong Kong Association of Aircargo Truckers Limited. They support the new air cargo terminal development and the provision of Government services therein.

14. We consulted the LegCo Panel on Economic Development on 22 November 2010. Members generally supported the project.

15. Panel Members asked for information on the competitiveness of HKIA vis-à-vis the airports in Guangzhou and Shenzhen in terms of the aviation network and cargo handling capacity per annum. HKIA's aviation network consists of about 160 destinations (including about 40 Mainland cities), whereas we understand Guangzhou's aviation network consists of about 155 destinations (including about 100 Mainland cities) and Shenzhen's consists of about 100 destinations (including about 70 Mainland cities). HKIA's total general and express air cargo handling capacity is expected to reach 7.4 million tonnes per annum upon completion of the new cargo terminal project, whereas we understand Guangzhou and Shenzhen's air cargo handling capacity is expected to reach about 3.6 million tonnes and 2.4 million tonnes per annum by 2020 respectively.

/ENVIRONMENTAL

ENVIRONMENTAL IMPLICATIONS

16. This is not a designated project under the Environmental Impact Assessment Ordinance. The project will not cause any long-term adverse environmental impact. We have included in the project estimates the cost to implement suitable mitigation measures to control short-term environmental impacts.

17. During construction, we will require CPSL to control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contract. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

18. During planning and design stages, we will require CPSL to consider measures to reduce the generation of construction waste where possible (e.g. using more prefabricated building elements including dry-wall partitioning and proprietary fittings and fixtures in the fitting-out works to reduce temporary formworks). In addition, we will require the contractor to reuse inert construction waste (e.g. use of inert construction waste for filling within the site) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities⁵. We will encourage the contractor to maximise the use of recycled / recyclable inert construction waste as well as the use of non-timber framework to further minimise the generation of construction waste.

19. We will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will require CPSL to ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will also require the contractor to control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

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⁵ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a license issued by the Director of Civil Engineering and Development.

20. We estimate that the project will generate in total about 64 tonnes of construction waste. Of these, we will reuse 3 tonnes (4.7%) of inert construction waste on site and deliver 10 tonnes (15.6%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of 51 tonnes (79.7%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$6,645 for this project (based on a unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne⁶ at landfills).

HERITAGE IMPLICATIONS

21. This project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interests and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

22. This project does not require any land acquisition.

ENERGY CONSERVATION MEASURES

23. This project has adopted various forms of energy efficient features, including –

- (a) demand control of fresh air supply with carbon dioxide sensors;
- (b) T5 energy efficient fluorescent tubes with electronic ballast and lighting control by occupancy sensors; and
- (c) light-emitting diode (LED) type down-lights and exit signs.

/24.

⁶ This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90 per m³), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

24. The total estimated additional cost for adoption of the energy efficient features is around \$120,000, which has been included in the cost estimate of this project. The energy efficient features will achieve 2.3% energy savings in the annual energy consumption with a payback period of about three years.

BACKGROUND INFORMATION

25. We upgraded **180IC** to Category B in September 2010.

26. The proposed fitting-out works will not involve any tree removal or planting proposals.

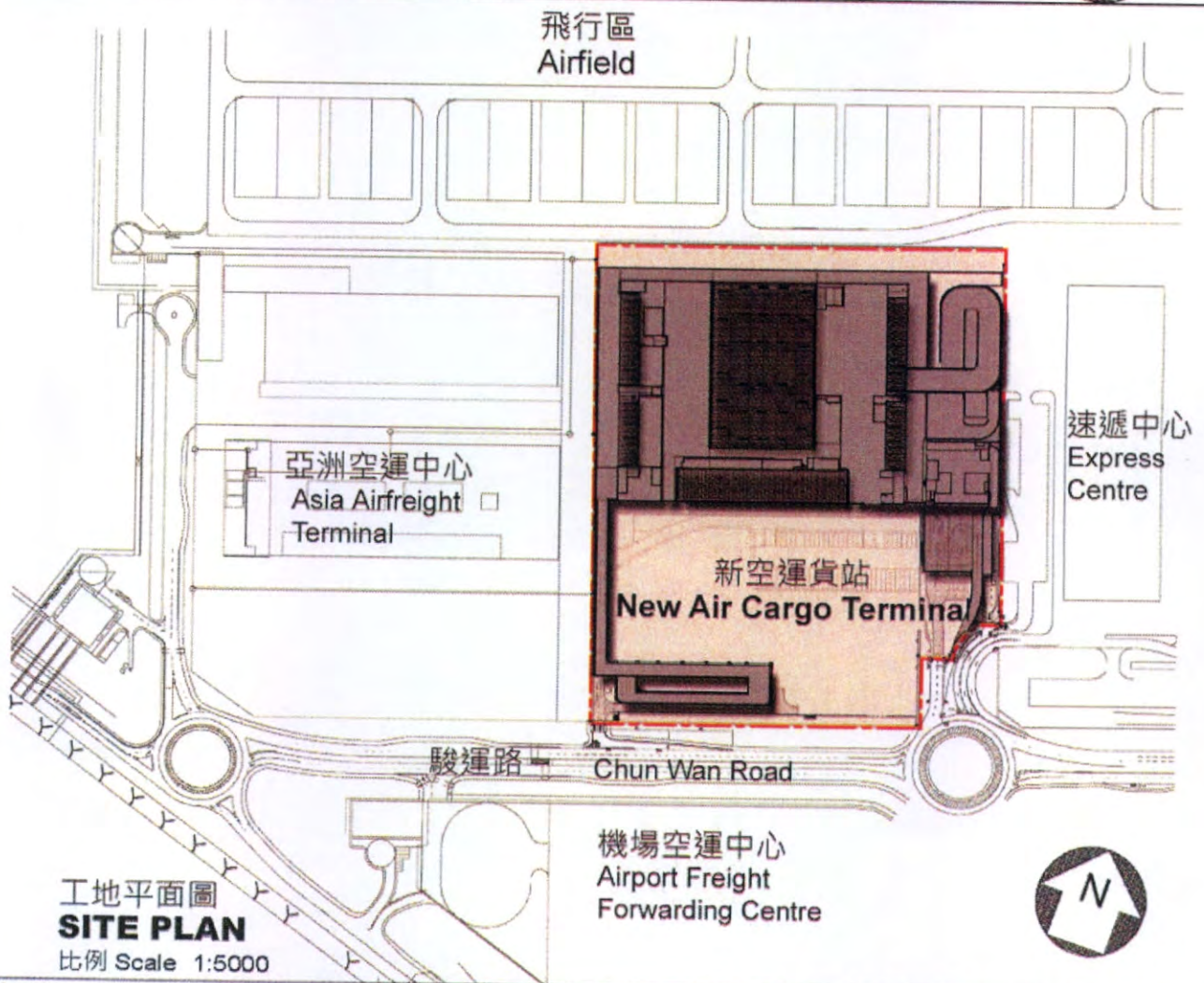
27. We estimate that the project will create about 80 jobs (72 for labourers and eight for professional/technical staff) providing a total employment of 1 280 man-months.

Transport and Housing Bureau
December 2010




位置圖
LOCATION PLAN

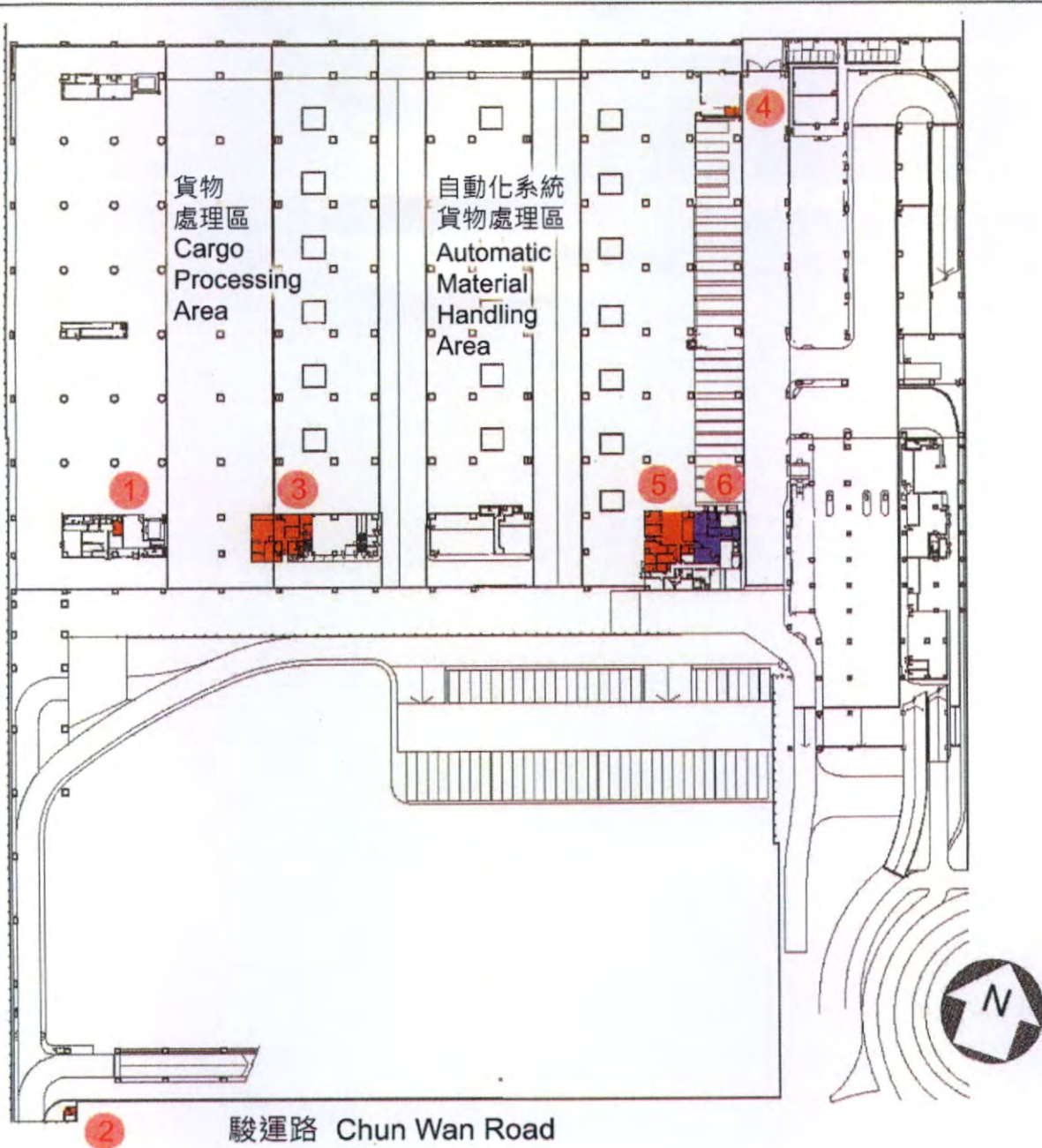
比例 Scale 1:50000



工地平面圖
SITE PLAN

比例 Scale 1:5000


title 180IC 新空運貨站裝置政府設施工程 Fitting-out works for government facilities at New Air Cargo Terminal	drawn by Billy CHOW	date Oct 2010	drawing no. PMB1/7980/XA201	scale 1:5000
	approved W.Y. LEE	date Oct 2010	 ARCHITECTURAL SERVICES DEPARTMENT	
	office PROJECT MANAGEMENT BRANCH 1			

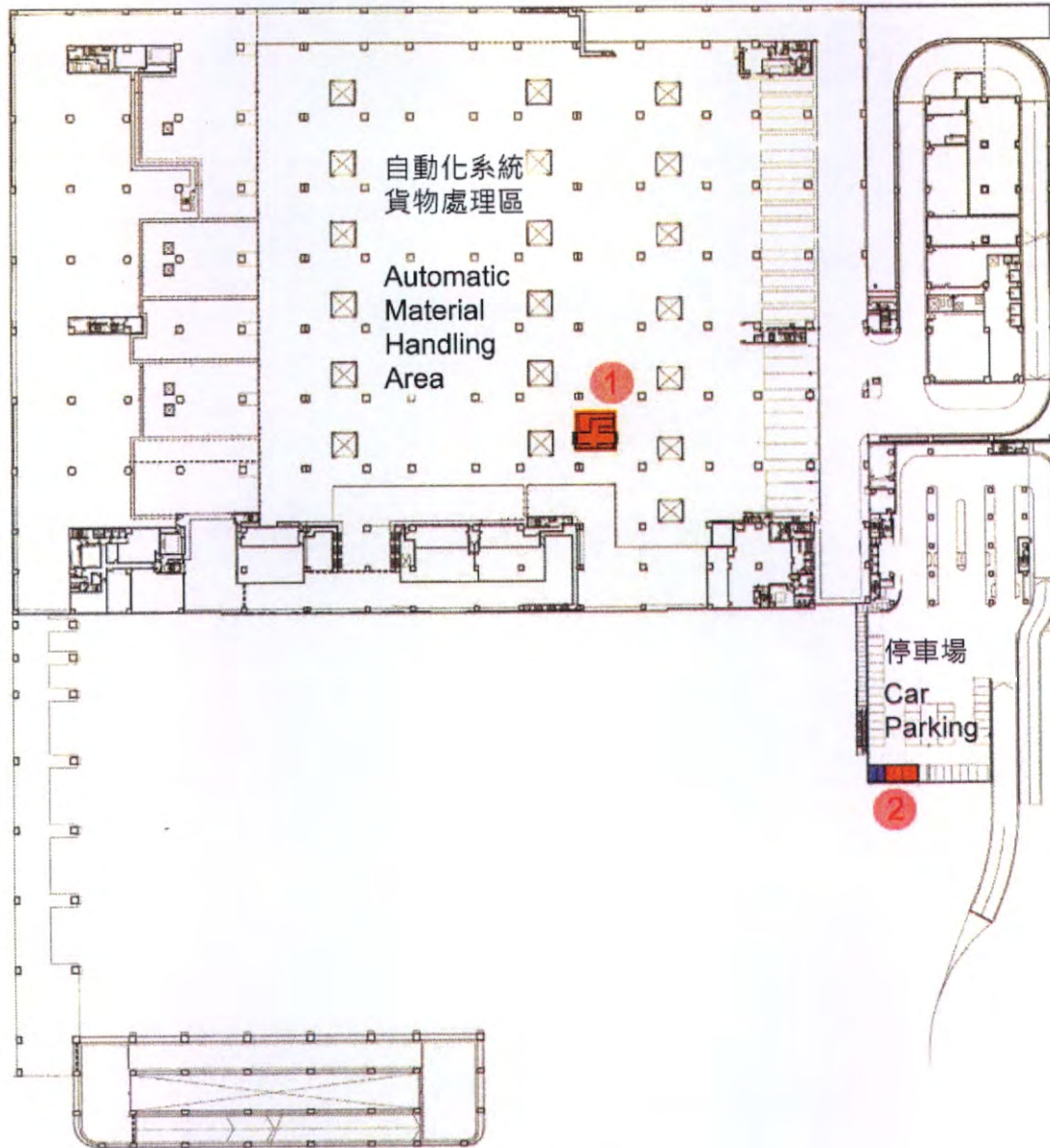


圖例
Legend

- ① 海關小隊辦公室及狗房
C&ED Detector Dog Team Office cum Dog Kennel
- ② 海關出口站崗亭
C&ED Exit Guard Booth
- ③ 海關出口驗貨設施
C&ED Export Cargo Examination Facilities
- ④ 海關電腦網絡儀器室
C&ED Network Equipment Room
- ⑤ 海關濕貨驗貨設施
C&ED Perishable Cargo Examination Facilities
- ⑥ 食環署總務室、化驗室及食物檢驗設施
FEHD General Office, Laboratory & Food Inspection Facilities

首層(地面)平面圖 LEVEL 1 (G/F) LAYOUT PLAN

title 1801C 新空運貨站裝置政府設施工程 Fitting-out works for government facilities at New Air Cargo Terminal	drawn by Billy CHOW	date Oct 2010	drawing no. PMB1/7980/XA202	scale 1:2000
	approved W.Y. LEE	date Oct 2010	 ARCHITECTURAL SERVICES DEPARTMENT	
	office PROJECT MANAGEMENT BRANCH 1			




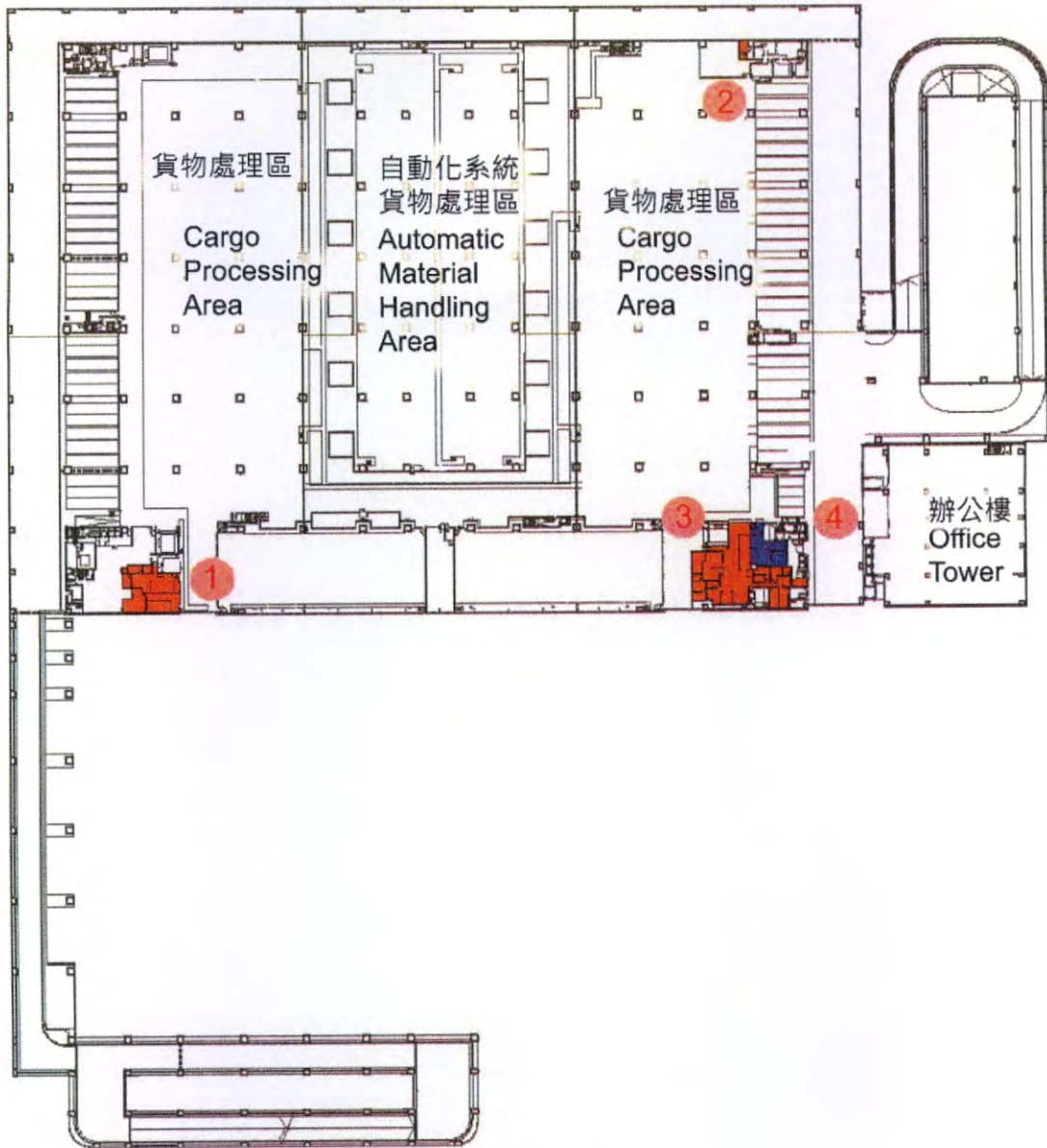
駿運路 Chun Wan Road

圖例
Legend

- ① 海關托板貨物清關設施
C&ED Palletized Cargo Clearance Facilities
- ② 漁護署停車位(1個)
AFCD Car Parking (1 no.)
食環署停車位(1個)
FEHD Car Parking (1 no.)
海關停車位(4個)
C&ED Car Parking (4 nos.)

第二層平面圖 LEVEL 2 LAYOUT PLAN

title 180IC 新空運貨站裝置政府設施工程 Fitting-out works for government facilities at New Air Cargo Terminal	drawn by Billy CHOW	date Oct 2010	drawing no. PMB1/7980/XA203	scale 1:2000
	approved W.Y. LEE	date Oct 2010	 ARCHITECTURAL SERVICES DEPARTMENT	
	office PROJECT MANAGEMENT BRANCH 1			



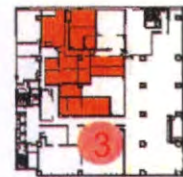
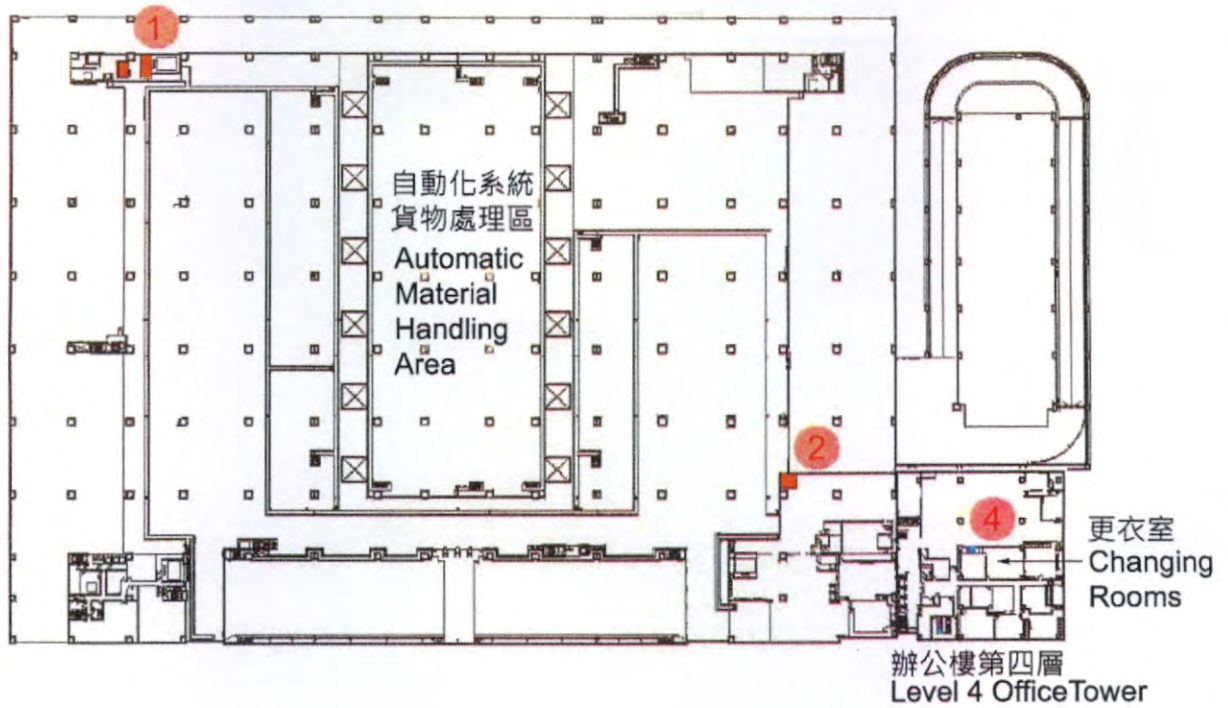
駿運路 Chun Wan Road

圖例
Legend

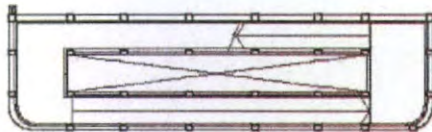
- 1** 海關出口驗貨設施/分拆貨物驗貨設施
C&ED Export Cargo Examination Facilities/
Breakdown Cargo Examination Facilities
- 4** 漁護署總務室、動物防疫注射及檢查設施
AFCD General Office ,
Inoculation and Animal Inspection Facilities
- 2** 海關電腦網絡儀器室
C&ED Network Equipment Room
- 3** 海關入口驗貨設施
C&ED Import Cargo Examination Facilities

第三層平面圖 LEVEL 3 LAYOUT PLAN

title 180IC 新空運貨站裝置政府設施工程 Fitting-out works for government facilities at New Air Cargo Terminal	drawn by	Billy CHOW	date	Oct 2010	drawing no.	PMB1/7980/XA204	scale	1:2000
	approved	W.Y. LEE	date	Oct 2010	ARCHITECTURAL SERVICES DEPARTMENT			
	office	PROJECT MANAGEMENT BRANCH 1						



辦公樓第五層
Level 5 Office Tower




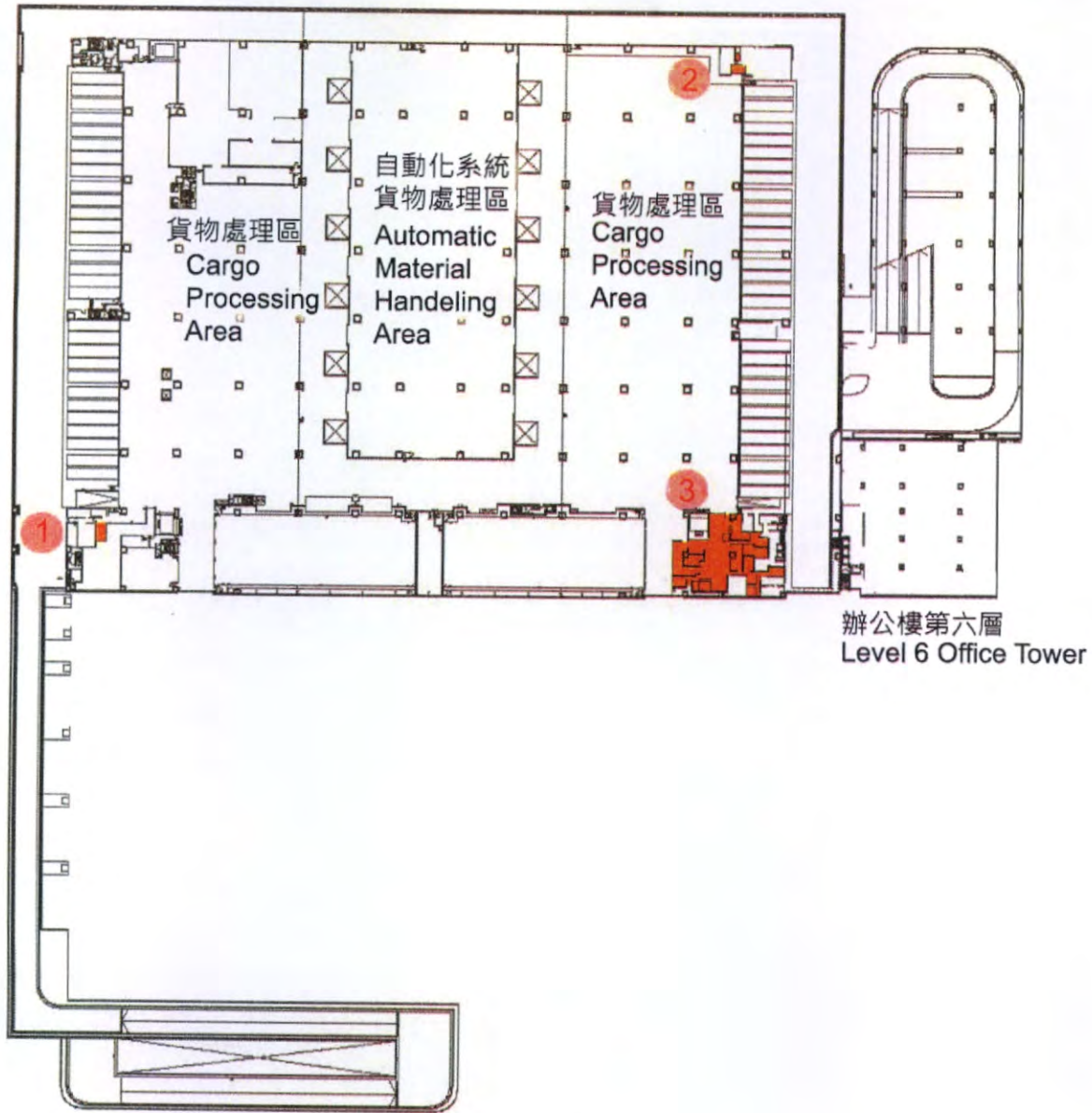
駿運路 Chun Wan Road

圖例
Legend

- ① 海關制服貯存室/電腦網絡儀器室
C&ED Uniform Store / Network Equipment Room
- ② 海關分拆貨物X光機
C&ED Breakdown Cargo X-ray Machine
- ③ 海關行政及後勤支援室
C&ED Administrative & Support Office
- ④ 漁護署及食環署專用的淋浴間(各兩個)
Shower cubicles for AFCD & FEHD's exclusive use (2 nos. for each)

第四層平面圖 LEVEL 4 LAYOUT PLAN

title 180IC 新空運貨站裝置政府設施工程 Fitting-out works for government facilities at New Air Cargo Terminal	drawn by Billy CHOW	date Oct 2010	drawing no. PMB1/7980/XA205	scale 1:2000
	approved W.Y. LEE	date Oct 2010	 ARCHITECTURAL SERVICES DEPARTMENT	
	office PROJECT MANAGEMENT BRANCH 1			




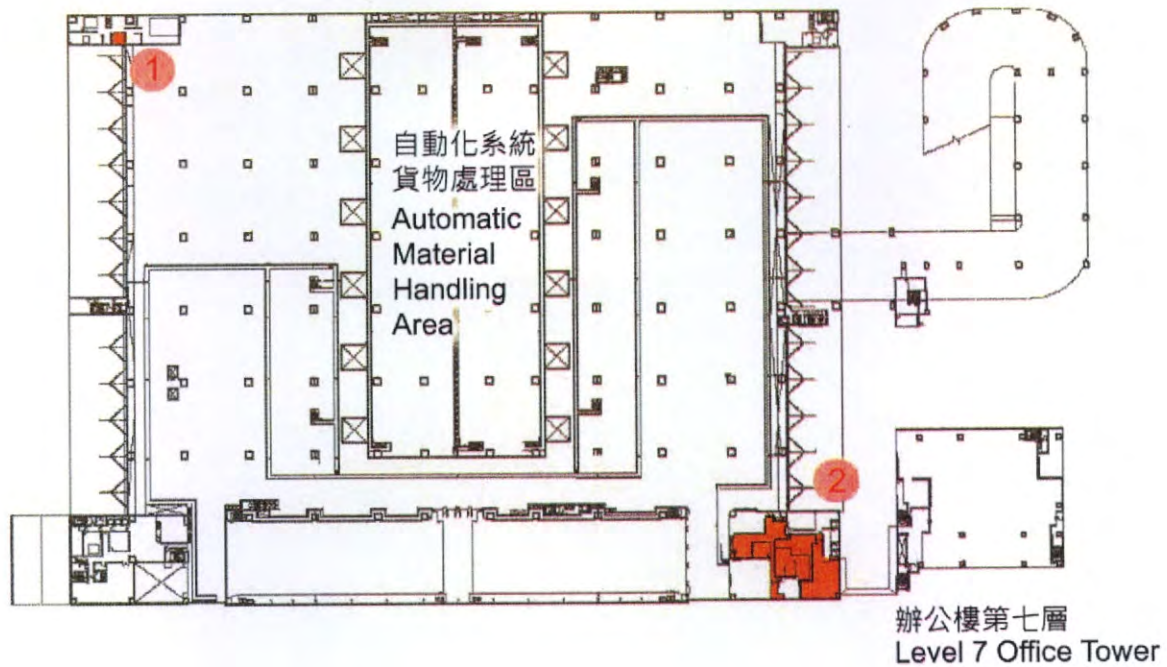
駿運路 Chun Wan Road

圖例
Legend

- ① 海關電腦網絡儀器室
C&ED Network Equipment Room
- ② 海關電腦網絡儀器室
C&ED Network Equipment Room
- ③ 海關入口驗貨設施
C&ED Import Cargo Examination Facilities

第五層平面圖 LEVEL 5 LAYOUT PLAN


title 1801C 新空運貨站裝置政府設施工程 Fitting-out works for government facilities at New Air Cargo Terminal	drawn by Billy CHOW	date Oct 2010	drawing no. PMB1/7980/XA206	scale 1:2000
	approved W.Y. LEE	date Oct 2010	 ARCHITECTURAL SERVICES DEPARTMENT	
	office PROJECT MANAGEMENT BRANCH 1			

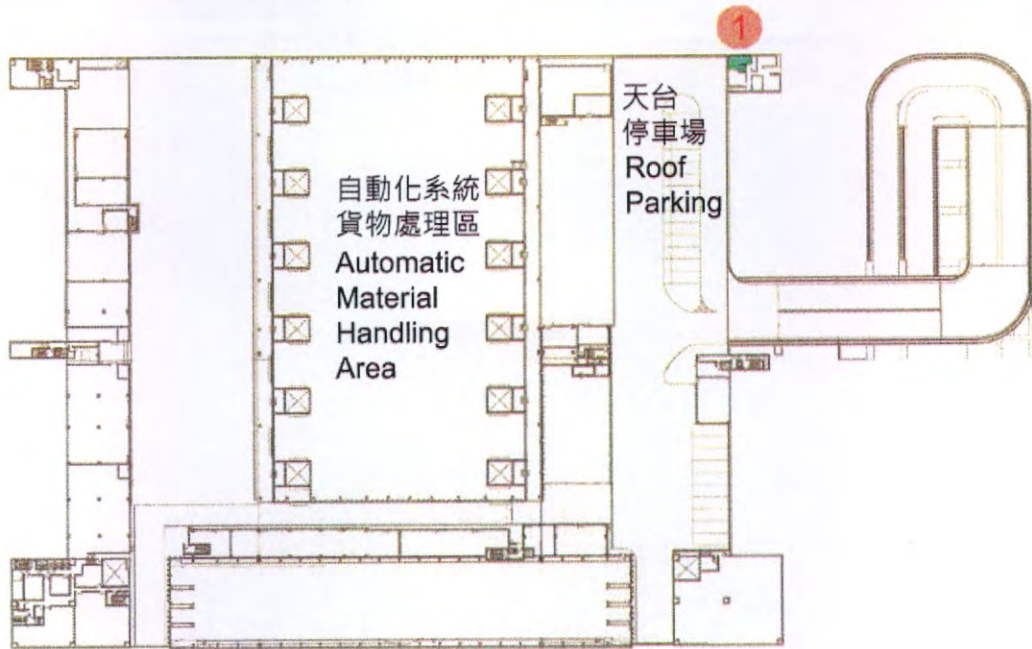


圖例
Legend

- ① 海關電腦網絡儀器室
C&ED Network Equipment Room
- ② 海關托板貨物清關及行動指揮中心/設有淋浴設備及廁所的更衣室
C&ED Palletized Cargo Clearance and Operation
Command Centre /
Changing Showering & Toilet Facilities

第六層平面圖 LEVEL 6 LAYOUT PLAN


title 180IC 新空運貨站裝置政府設施工程 Fitting-out works for government facilities at New Air Cargo Terminal	drawn by Billy CHOW	date Oct 2010	drawing no. PMB1/7980/XA207	scale 1:2000
	approved W.Y. LEE	date Oct 2010	 ARCHITECTURAL SERVICES DEPARTMENT	
	office PROJECT MANAGEMENT BRANCH 1			



圖例
Legend

- ① 警察裝備室
Police Equipment Room

第七層平面圖 LEVEL 7 LAYOUT PLAN

title 1801C 新空運貨站裝置政府設施工程 Fitting-out works for government facilities at New Air Cargo Terminal	drawn by Billy CHOW	date Oct 2010	drawing no. PMB1/7980/XA208	scale 1:2000
	approved W.Y. LEE	date Oct 2010	 ARCHITECTURAL SERVICES DEPARTMENT	
	office PROJECT MANAGEMENT BRANCH 1			



新空運貨站
New Air Cargo Terminal

亞洲空運中心
Asia Airfreight Terminal

速遞中心
Express Centre

駿運路 Chun Wan Road

從南面望向新空運貨站 View of New Air Cargo Terminal from South Direction (Artist's Impression)	1801C 新空運貨站裝置政府設施工程 Fitting-out works for government facilities at New Air Cargo Terminal	drawn by BILLY CHOW	date Oct 2010	drawing no. PMB1/7980/XA209	scale N.T.S.
		approved W.Y. LEE	date Oct 2010	 ARCHITECTURAL SERVICES DEPARTMENT	
		office PROJECT MANAGEMENT BRANCH 1			