ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Support - Others

189GK – Construction of a joint-user building for reprovisioning a refuse collection point and setting up a community recycling centre at the junction between Hung Yuen Road and Hung Ping Road, Yuen Long

> Members are invited to recommend to the Finance Committee the upgrading of **189GK** to Category A at an estimated cost of \$189.7 million in money-of-the-day prices for the construction of a joint-user building for reprovisioning a refuse collection point and setting up a community recycling centre at the junction between Hung Yuen Road and Hung Ping Road, Yuen Long.

PROBLEM

We need to construct a joint-user building (JUB) to relocate and reprovision a village-type refuse collection point (RCP) at Hung Tai Road with a permanent off-street RCP and set up a community recycling centre¹ (CRC) to cater for the actual need arising from new housing development and anticipated population growth of the Hung Shui Kiu New Development Area (NDA).

/PROPOSAL ...

CRCs have been rebranded as "Recycling Stores" since November 2020.

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PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Food and Health, proposes to upgrade **189GK** to Category A at an estimated cost of \$189.7 million in money-of-the-day (MOD) prices for the construction of a JUB for reprovisioning an RCP and setting up a CRC at the junction between Hung Yuen Road and Hung Ping Road, Yuen Long.

PROJECT SCOPE AND NATURE

3. The proposed site occupies an area of 743 square metres (m^2) at the junction between Hung Yuen Road and Hung Ping Road, Yuen Long. The scope of the project comprises –

- (a) the construction of a six-storey JUB for the provision of -
 - (i) a permanent off-street RCP that meets the current planning standards;
 - (ii) a CRC;
 - (iii) office and ancillary facilities for the Food and Environmental Hygiene Department (FEHD); and
- (b) the demolition of the existing village-type RCP at Hung Tai Road.

4. The site and location plan, floor plans, a sectional drawing, an artist's impression and a barrier-free access plan for the project are at **Enclosures 1 to 7**. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee for target completion, including demolition works of the village-type RCP at Hung Tai Road, in around three years.

/JUSTIFICATION ...

JUSTIFICATION

5. Currently, the handling of domestic waste from Hung Tai Road and its vicinity in Hung Shui Kiu relies on the waste collection service of the village-type RCP (YL-96) under FEHD at Hung Tai Road. The RCP, which has been used since before 1992, can accommodate 1.5 tonnes of refuse. The current intake of 3.8 tonnes of refuse per day, however, far exceeds its design capacity. With the gradual development of Hung Shui Kiu, a number of residential buildings were successively built in the vicinity. To cater for the actual need arising from the developments in the area, and taking into account the future housing development and anticipated population growth of the area², there is an actual and imminent need to relocate and reprovision the RCP. A site at the junction between Hung Yuen Road and Hung Ping Road has been earmarked for construction of an RCP.

6. Starting from 2011, the Environmental Protection Department (EPD) provided funding support via the Environmental and Conservation Fund for non-profit-making organisations (NPOs) to operate 17 CRCs and two community recycling vehicles in 15 districts so as to provide the public with a recycling channel. To enhance such recycling support at community level, EPD has started providing regular funding support since 2020 to engage eligible NPOs through contracts to operate 22 new CRCs in all 18 districts across the territory. These new CRCs have been commencing operation progressively.

Permanent ...

² The Planning Department (PlanD) and the Civil Engineering and Development Department announced the Hung Shui Kiu NDA Planning and Engineering Study (the Study) in September 2016. According to the Hung Shui Kiu NDA Revised Recommended Outline Development Plan (ODP) prepared under the Study, the Hung Shui Kiu NDA will be the next-generation new town of Hong Kong, accommodating about 218 000 residents, including new population of 176 000.

Permanent Off-street RCP

7. The permanent off-street RCP^3 on the ground floor of the JUB can accommodate 30 tonnes of refuse. It will adopt an enclosed design with cover and collect refuse by an enclosed compaction trailer. The vehicular ingress/egress of the RCP^4 will be on the side facing Hung Ping Road with relatively low pedestrian and vehicular flows so as to minimise impacts on nearby residents. Water scrubber system will be installed in the RCP to filter the air exhausted. The RCP will also be equipped with a roll call point on the ground floor of the building as well as changing rooms and storage facilities, toilets, bathrooms, a pantry and water dispensers on the mezzanine floor for use by staff of FEHD and its contractors.

CRC

8. EPD plans to set up a CRC^5 on the first floor of the JUB and an NPO will be engaged to manage its operation to process the recyclables collected from the community in the CRC then transport to downstream recyclers for further processing or recycling. The CRC will also have space for organising publicity, educational and promotional activities on waste reduction and recycling so as to enhance awareness of the public on waste reduction and recycling as well as to cultivate a green lifestyle.

IOffice ...

³ The new RCP is responsible for receiving household waste and refuse collected by street sweeping within its catchment area covering Hung Chi Road, Hung Tin Road, Castle Peak Road – Hung Shui Kiu, Hung Kei Road, part of San Lee Uk Tsuen, part of Tan Kwai Tsuen Road, Hung Tak Road and Hung Shun Road (with the map of catchment area at **Enclosure 8**, which completely covers and exceeds the entire catchment area of the existing village-type RCP (YL-96) at Hung Tai Road), except household waste from estates currently provided with refuse collection service.

⁴ An indoor refuse collection vehicle (RCV) operational area of 60 m² will provide sufficient space for RCVs to completely enter the ground floor of the RCP for waste collection and turnaround. The impact on the traffic flows on Hung Yuen Road and Hung Ping Road is therefore insignificant.

⁵ The latest service hours of CRCs are from 9 a.m. to 7 p.m. from Monday to Sunday with nighttime self-service recycling. They are open all year round except for Christmas and Lunar New Year holidays.

Office and ancillary facilities

9. FEHD's existing office in Yuen Long District is insufficient to meet actual operational need. Under the principle of optimal utilisation of land resources, the second to the fourth floors of the JUB will be used as offices for about 80 staff of the Environmental Hygiene Section, Cleansing and Pest Control Section and Hawkers Section of the Yuen Long District Environmental Hygiene Office where ancillary facilities, including a conference room, a file storage room, a food and environmental samples storage room, a breast-feeding room, changing rooms and toilets, will be provided.

Demolition of the village-type RCP

10. Upon completion of the JUB and commissioning of the permanent off-street RCP on the ground floor, the village-type RCP at Hung Tai Road will be demolished.

FINANCIAL IMPLICATIONS

11. We estimate the capital cost of the project to be \$189.7 million in MOD prices, broken down as follows –

		\$ million (in MOD prices)		
(a)	Site works	3.2		
(b)	Piling	22.9		
(c)	Building	71.5		
(d)	Building services	40.2		
(e)	Drainage	2.2		
(f)	External works	4.7		

		\$ million (in MOD prices)		
(g)	Demolition works	0.8		
(h)	Additional energy conservation, green and recycled features	2.6		
(i)	Furniture and equipment ⁶	2.2		
(j)	 Consultants' fees for (i) contract administration (ii) management of resident site staff (RSS) 	8.2 7.5 0.7		
(k)	Remuneration of RSS	14.0		
(1)	Contingencies	17.2		
	Total	189.7		

12. We propose to engage consultants to undertake contract administration and site supervision for the project. A detailed breakdown of the estimate for consultants' fees and RSS costs by man-months is at **Enclosure 9**. The construction floor area (CFA) of this project is about 3 774 m². The estimated construction unit cost, represented by the building and building services costs, is \$29,597 per m² of CFA in MOD prices. We consider this unit cost comparable to that of similar projects built by the Government.

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The estimated cost is based on an indicative list of furniture and equipment required.

13. Subject to funding approval, we plan to phase the expenditure as follows –

Year	\$ million (in MOD prices)
2021 - 2022	7.3
2022 - 2023	31.8
2023 - 2024	59.9
2024 - 2025	48.4
2025 - 2026	19.1
2026 - 2027	14.6
2027 - 2028	8.6
	189.7

14. 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 2021 to 2028. We will deliver the construction works through a lump-sum contract as the scope of the works can be clearly defined in advance. The contract will provide for price adjustment.

15. We estimate the annual recurrent expenditure arising from this project to be \$5.9 million.

/PUBLIC ...

PUBLIC CONSULTATION

16. FEHD, in collaboration with the Architectural Services Department (ArchSD) and EPD, briefed the Environmental Improvement Committee of the Yuen Long District Council (YLDC) on the proposed project on 11 March 2019. Members supported the project and its design, and passed a motion requesting the Government to proceed with the construction works as soon as possible⁷.

17. Upon request of the Environment, Climate Change, Agriculture and Fisheries Committee (ECCA&FC) of YLDC, FEHD, together with EPD, PlanD and ArchSD attended the meeting of the ECCA&FC on 9 March 2020 to brief members of the proposed project again. At the meeting, the ECCA&FC passed a motion requiring FEHD to suspend the proposed project and improve the design of the JUB in consultation with relevant departments, maximise or increase the plot ratio, re-design the space of the JUB according to community needs and increase public services.

18. To tie in with community development and meet public needs, apart from the proposed JUB site, the Government has reserved a piece of land adjacent to the JUB for developing an elderly home and a clinic. PlanD has also reserved land for constructing Government, Institution or Community facilities, including government joint-user complex, social welfare facilities, etc., in the Hung Shui Kiu/Ha Tsuen NDA. On plot ratio, the development plot ratio of the JUB is 4.36, which is slightly higher than its reference plot ratio⁸ and similar to that of nearby development⁹. In this light, the current design of the JUB has fully optimised the plot ratio to achieve optimal use of the land. Meanwhile, the height of the JUB¹⁰ has taken into consideration air circulation as well as its co-ordination and compatibility with the developments nearby.

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⁷ The motion reads "The Committee requests FEHD to expedite the reprovisioning of a refuse collection point cum construction of a composite building and setting up of a community recycling centre at the junction of Hung Yuen Road and Hung Ping Road in Hung Shui Kiu".

⁸ At the initial planning stage of the project, PlanD proposed to FEHD in 2016 that the plot ratio of 4 to serve as a reference for planning of the project. At the detailed design stage, the attainable plot ratio may differ, depending on the detailed design and technical considerations.

⁹ The plot ratio of Hung Fuk Estate is 3.8.

¹⁰ According to the ODP, the overall building height limit of the planning area adjacent to the JUB site is eight storeys. In view of the operational requirements of the RCP and CRC, the proposed six-storey JUB is nearly 30 metres (m) high (actually about 40 m above the Hong Kong Principal Datum), which is similar to an eight-storey residential building.

19. Subsequently, representatives of the Food and Health Bureau, FEHD, EPD, PlanD and ArchSD met with the Chairman and relevant members of the ECCA&FC on 25 September 2020 to further exchange views on the background of the proposed project, current design proposal, site constraints and operation of the CRC. At the meeting, members were also briefed on the usage arrangements of the multi-purpose room of the CRC by departmental representatives. As long as daily operational needs are met, the multi-purpose room may be available for booking, through the CRC operator, by local residents and community organisations for organising educational and promotional activities for environmental protection. Members raised no objection to the proposed project.

20. We consulted the Legislative Council Panel on Food Safety and Environmental Hygiene on 10 November 2020. Members of the Panel generally supported the project. Supplementary information required by Members during the meeting was provided on 11 January 2021.

ENVIRONMENTAL IMPLICATIONS

21. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap 499). A Preliminary Environmental Review (PER) was completed for the project. The PER concluded that the project would not cause long-term adverse environmental impacts. We shall implement mitigation measures recommended in the PER including a full enclosure design to contain the refuse collection activities in an enclosed environment, and installation of odour removal equipment¹¹. We have included in the project estimate the cost to implement such mitigation measures.

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¹¹ The proposed RCP will be located on the ground and the mezzanine floors of an enclosed building and installed with facilities for odour abatement, noise reduction and sewage and vehicle exhaust treatment. The RCP will also be equipped with an enclosed compaction trailer for refuse collection, which can effectively reduce any nuisances caused to its vicinity during operation. As the RCP to be reprovisioned is designed to maintain negative pressure inside, with odour treatment and air purification by means of a water scrubber system and air purifiers, the exhaust air quality will meet the requirements of EPD without any impacts to the surrounding environment. Besides, the location of the exhaust air outlet has been carefully calculated with a height of approximately 10 m from the pavement surface to minimise potential nuisances to pedestrians.

22. At the planning and design stages, we have considered measures to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects). In addition, we will require the contractor to reuse inert construction waste which is generated during new building construction (e.g. use of excavated materials 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 facilities (PFRFs)¹². We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

23. At the construction stage, we will 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 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 control the disposal of inert construction waste and non-inert construction waste at PFRFs and landfills respectively through a trip-ticket system.

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

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PFRFs are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste at public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

25. We estimate that the project will generate in total about 2 570 tonnes of construction waste including construction waste generated when constructing new building and demolishing existing RCP. Of these, we will reuse about 70 tonnes (2.7%) of inert construction waste on site and deliver 2 130 tonnes (82.9%) of inert construction waste to PFRFs for subsequent reuse. We will dispose of the remaining 370 tonnes (14.4%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRFs and landfill sites is estimated to be \$0.2 million for this project (based on a unit charge rate of \$71 per tonne for disposal at PFRFs and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

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

LAND ACQUISITION

27. The project does not require any land acquisition.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

28. This project will adopt various forms of energy efficient features and renewable energy technologies including –

- (a) a variable refrigerant volume air-conditioning system for offices; and
- (b) a photovoltaic system.

29. For greening features, we will provide greening on rooftop and suitably incorporate vertical greening on facades of the JUB for environmental and amenity benefits.

30. The total estimated additional cost for adoption of the above features is around \$2.6 million (including around \$0.3 million for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 4.5% energy savings in the annual energy consumption with a payback period of about eight years.

BACKGROUND INFORMATION

31. We upgraded **189GK** to Category B in September 2017. We engaged consultants to undertake various services, including site investigation, ground investigation, layout design, detailed design and tender documentation at a total cost of about \$7.8 million. The services and works by the consultants were funded under block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme". The site investigation, ground investigation, layout design and detailed design have been completed.

32. The proposed works will involve removal of 36 trees. All trees to be removed are not important trees¹³. We will incorporate planting proposals as part of the project, including the planting of about 36 trees, 230 shrubs, 6 240 groundcovers and 70 climbers.

33. We estimate that the proposed works will create about 45 jobs (37 for labourers and eight for professional or technical staff) providing a total employment of 1 100 man-months.

Food and Health Bureau January 2021

¹³ "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

⁽a) trees of 100 years old or above;

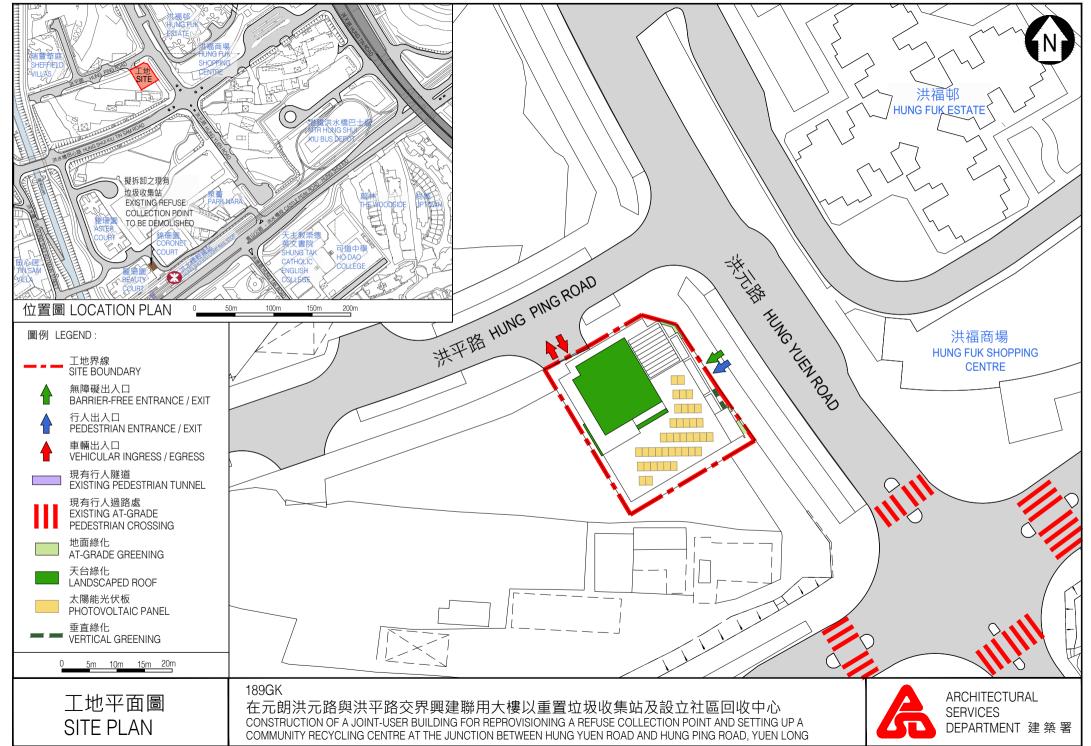
⁽b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of important persons or events;

⁽c) trees of precious or rare species;

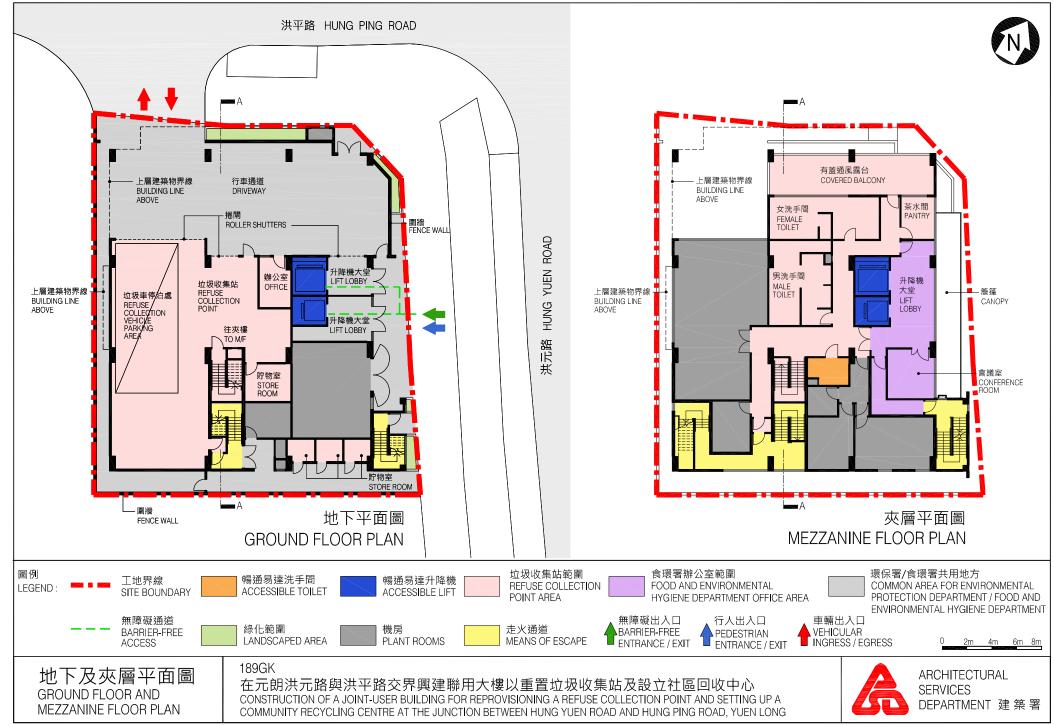
⁽d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or

⁽e) trees with trunk diameter equal or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

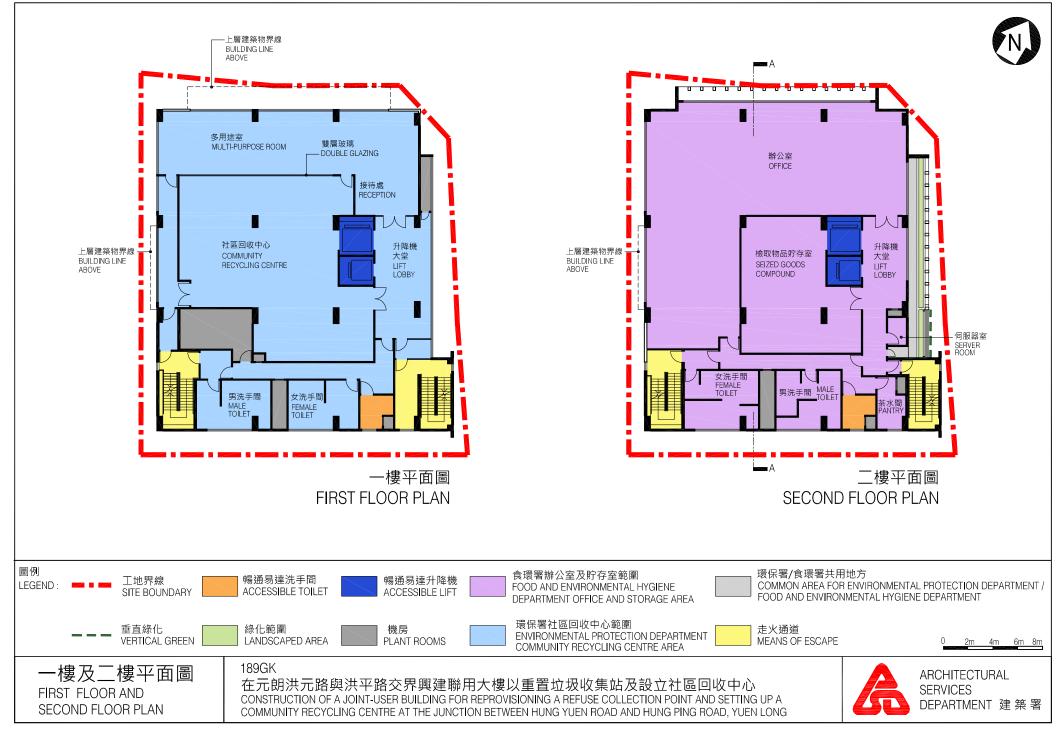
附件1 ENCLOSURE 1



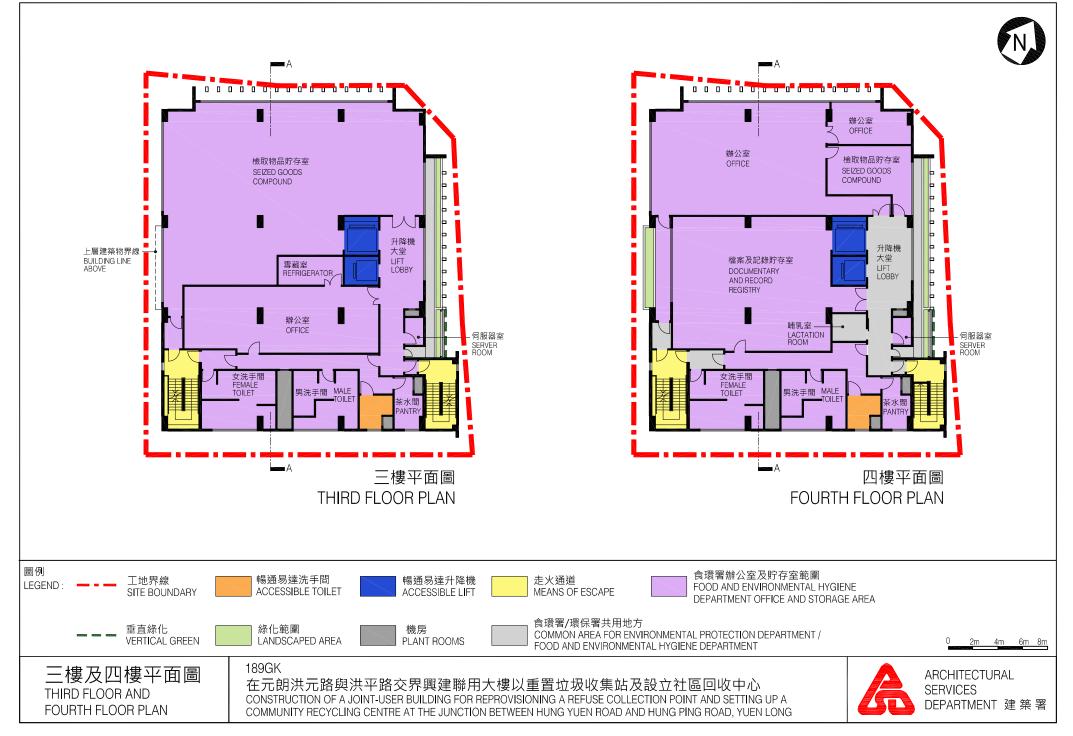
附件2 ENCLOSURE 2

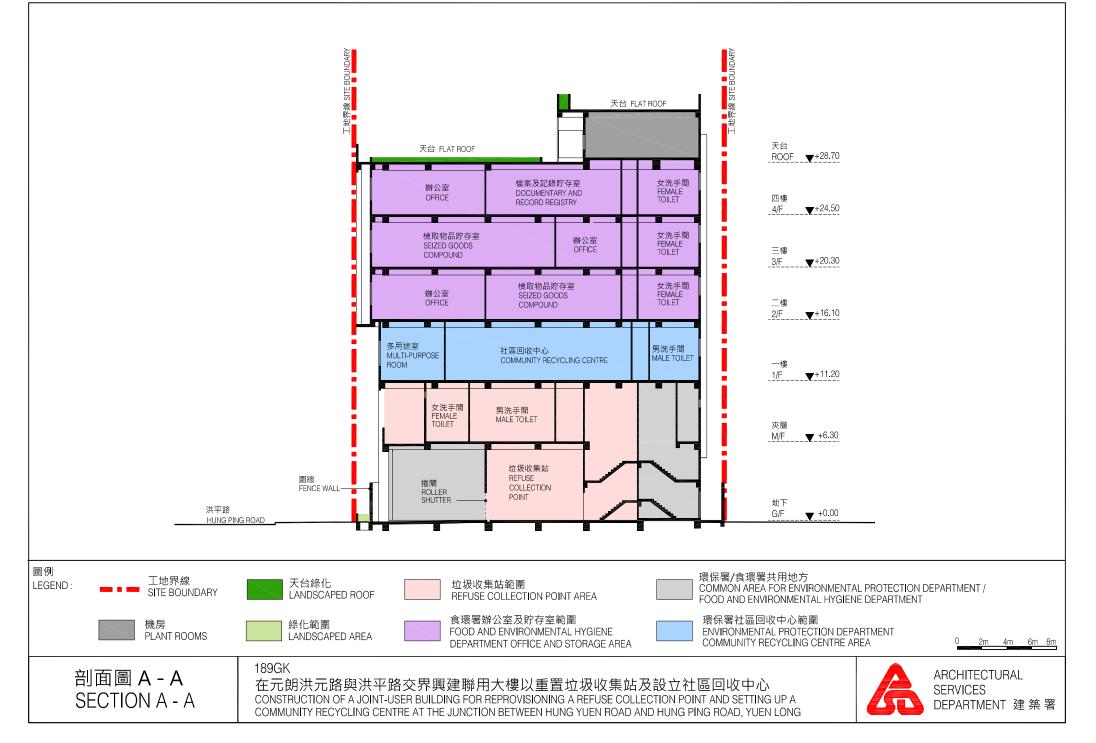


附件3 ENCLOSURE 3



附件4 ENCLOSURE 4



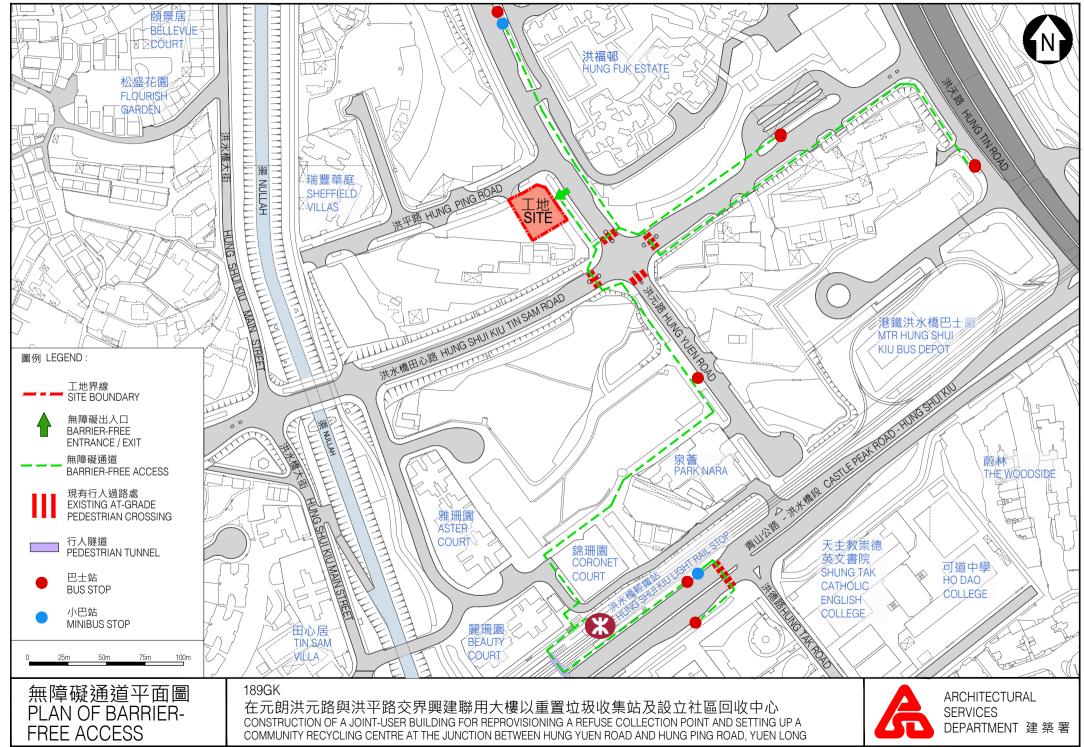




構思圖 ARTIST'S IMPRESSION 189GK 在元朗洪元路與洪平路交界興建聯用大樓以重置垃圾收集站及設立社區回收中心 CONSTRUCTION OF A JOINT-USER BUILDING FOR REPROVISIONING A REFUSE COLLECTION POINT AND SETTING UP A COMMUNITY RECYCLING CENTRE AT THE JUNCTION BETWEEN HUNG YUEN ROAD AND HUNG PING ROAD, YUEN LONG



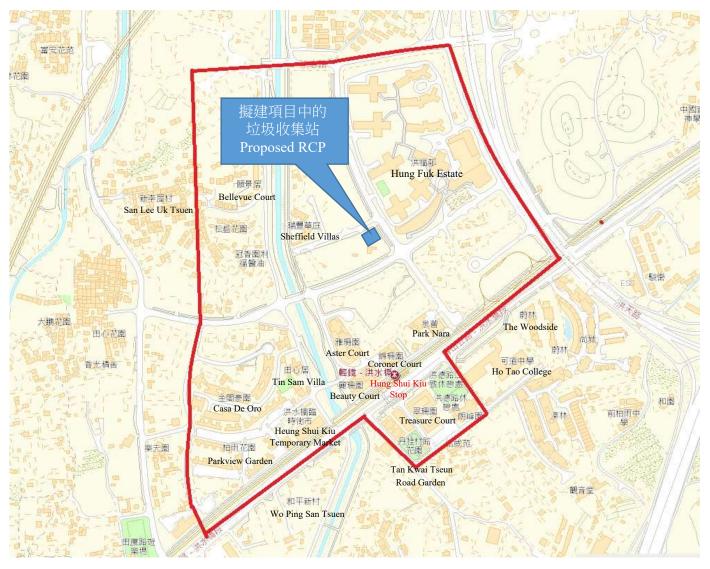
附件7 ENCLOSURE 7



附件 8 ENCLOSURE 8

工程計劃中的永久離街垃圾收集站服務範圍

Catchment Area of the Permanent Off-street Refuse Collection Point (RCP) under the Project



189GK – Construction of a joint-user building for reprovisioning a refuse collection point and setting up a community recycling centre at the junction between Hung Yuen Road and Hung Ping Road, Yuen Long

Breakdown of the estimate for consultants' fees and resident site staff costs (in September 2020 prices)

		Estimated man- months	Average MPS [*] salary point	Multiplier (Note 1)	Estimated fee (\$ million)
Consultants' fees for contract administration (Note 2)	Professional Technical		_ _	-	4.7 1.6
uummsuuum				Sub-total	6.3 #
Resident site staff (RSS) costs ^(Note 3)	Professional Technical	9 232	38 14	1.6 1.6 Sub-total	1.2 11.2 12.4
Comprising -					
(i) Consultants' fees for management of RSS			0.6#		
(ii) Remuneration of RSS			11.8#		
				Total	18.7
	contract administration ^(Note 2) Resident site staff (RSS) costs ^(Note 3) Comprising - (i) Consultants' fees for management of RSS (ii) Remuneration of	contract administration (Note 2)TechnicalResident site staff (RSS) costs (Note 3)Professional TechnicalComprising -(i) Consultants' fees for management of RSS(ii) Remuneration of(iii) Remuneration of	man- monthsConsultants' fees for contract administration (Note 2)Professional Technical–Resident site staff (RSS) costs (Note 3)Professional Technical9 232Comprising -(i) Consultants' fees for management of RSS(ii) Remuneration of	Estimated man- monthsMPS* salary pointConsultants' fees for contract administration (Note 2)Professional TechnicalResident site staff (RSS) costs (Note 3)Professional Technical938 23214Comprising - (i) Consultants' fees for management of RSS0.6#0.6#(ii) Remuneration of11.8#	Estimated man- monthsMPS* salary pointMultiplier (Note 1)Consultants' fees for contract administration (Note 2)Professional TechnicalResident site staff (RSS) costs (Note 3)Professional Technical9381.6Resident site staff (RSS) costs (Note 3)Professional Technical9381.6Comprising -(i) Consultants' fees for management of RSS0.6#0.6#(ii) Remuneration of RSS11.8#

* MPS = Master Pay Scale

Notes

- 1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of RSS supplied by the consultants (as at now, MPS salary point 38 = \$85,870 per month and MPS salary point 14 = \$30,235 per month).
- 2. The consultants' fees for contract administration are calculated in accordance with the existing consultancy agreement for provision of contract administration and site supervision of **189GK**. The assignment will only be executed subject to Finance Committee's funding approval to upgrade **189GK** to Category A.
- 3. The consultants' staff cost for site supervision is based on the estimate prepared by the Director of Architectural Services. We will only know the actual manmonths and actual costs after completion of the construction works.

Remarks

The cost figures in this Enclosure are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 11 of the main paper.