

**For information**

**Legislative Council Panel on Planning, Lands and Works  
126CD - Drainage improvement in East Kowloon – Package B**

**PURPOSE**

This paper briefs Members on the Administration's proposal to upgrade the first phase of **126CD** "Drainage improvement in East Kowloon – Package B" to Category A at an estimated cost of about \$242 million in money-of-the-day (MOD) prices for the drainage improvement works in Hung Hom, Kowloon City and San Po Kong.

**BACKGROUND**

2. In September 2000, we completed a comprehensive review of the drainage systems in East Kowloon under **80CD** "Drainage master plan study in Sai Kung, East Kowloon and Southern Lantau" (the Study). The Study identified that some of the existing drainage systems in East Kowloon are inadequate to meet the required flood protection standard and recommended a programme of drainage improvement works to tackle the flooding problem in the areas.

3. In April 2002, we included **126CD** in Category B of the public works programme for the drainage improvement works in East Kowloon. We planned to implement the works in two packages. Package A comprises the drainage improvement works in Tsim Sha Tsui, To Kwa Wan, Wong Tai Sin and Yau Tong. Package B comprises drainage improvement works in Hung Hom, Kowloon City, San Po Kong and Kwun Tong.

4. In April 2003, we engaged consultants to undertake site investigations, surveys, the traffic impact assessment (TIA) study and detailed design for the project at a cost of \$13 million in MOD prices. We have charged this amount to block allocation **Subhead 4100DX** "Drainage works, studies and investigations for items in Category D of the Public Works Programme". The consultancy commenced in June 2003.

5. In July 2004, we upgraded part of **126CD**, i.e. the Package A, to Category A as **134CD** entitled “Drainage improvement in East Kowloon – Package A” at an estimated cost of \$251.5 million for carrying out the drainage improvement works in Tsim Sha Tsui, To Kwa Wan, Wong Tai Sin and Yau Tong. The construction works commenced in May 2005 for completion in October 2008.

6. We have recently worked out the traffic arrangements for the proposed drainage improvement works in Hung Hom, Kowloon City and San Po Kong and plan to start the first phase of package B works in May 2006 for completion in January 2010. Planning and design of the remaining drainage improvement works in Kwun Tong is underway.

## **PROJECT SCOPE**

7. The scope of the proposed works in Hung Hom, Kowloon City and San Po Kong to be part-upgraded to Category A under **126CD** comprises -

- (a) construction of about 4.3 kilometres (km) of stormwater drains ranging from 300 millimetres (mm) to 1800 mm;
- (b) construction of about 1.3km of box culvert of internal sizes ranging from 2.3 metres (m) wide and 1.8 m high to 3 m wide and 2.9 m high; and
- (c) ancillary works.

A site plan showing the locations of the proposed works is at **Enclosure**.

## **JUSTIFICATION**

8. The drainage catchment area of East Kowloon covers major residential, industrial and commercial districts in parts of Tsim Sha Tsui, Hung Hom, To Kwa Wan, Kowloon City, San Po Kong, Wong Tai Sin, Kwun Tong and Yau Tong. We developed the existing drainage systems decades ago to meet the flow requirements and standards at that time. Flooding records show that parts of the existing drainage systems are found inadequate to abate flooding, thereby causing nuisance to the public and disruption to traffic. We have completed a comprehensive assessment of the drainage systems in this catchment area and concluded that the existing drainage systems require improvement to alleviate the flooding risks in the districts and to meet the community’s increasing expectation for better flood protection.

9. To bring early improvement to the flooding problems and minimise possible disruption to traffic, we have planned to carry out the drainage improvement works in packages. While the construction of the Package A works in Tsim Sha Tsui, To Kwa Wan, Wong Tai Sin and Yau Tong has already started, we will implement the Package B works in two phases. The first phase of Package B covering works in Hung Hom, Kowloon City and San Po Kong is now ready for commencement.

10. Upon completion of the proposed works in the first phase of Package B, the standard of flood protection in Hung Hom, Kowloon City and San Po Kong would be raised generally from its existing flood protection level of less than 10 years to withstand a rainstorm with a return period<sup>1</sup> of one in 50 years.

## FINANCIAL IMPLICATIONS

11. We estimate the project cost of the proposed works to be about \$242 million (in MOD prices), made up as follows -

		<b>\$ million</b>
(a)	Drainage works	195
(b)	Consultants' fees for	
	i) contract administration	1
	ii) site supervision	<u>21</u>
		22
(d)	Environmental mitigation measures	3
(c)	Contingencies	<u>22</u>
	Total :	<u>242</u> (in MOD prices)

12. We estimate that the annual recurrent expenditure arising from this project to be about \$0.5 million.

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<sup>1</sup> "Return period" means the average number of years during which a certain severity of flooding will occur once, statistically. A longer return period means a rare chance of occurrence of a more severe flooding.

## **PUBLIC CONSULTATION**

13. We consulted Wong Tai Sin District Council and the Traffic and Transport Committee of Kowloon City District Council on the proposed works on 13 and 29 September 2005 respectively. Both supported the implementation of the proposed drainage improvement works.

## **ENVIRONMENTAL IMPLICATIONS**

14. The first phase of **126CD** which we now propose to upgrade to Category A is not a designated project under Environmental Impact Assessment Ordinance. We completed the Environmental Review for the proposed works in February 2004 which concluded that there would be no insurmountable impacts on the air quality, water, waste management, visual impacts and ecology aspects.

15. For short-term impacts during construction, we will control noise, dust and site run-off within established standards and guidelines through the implementation of mitigation measures, such as the use of temporary noise barriers and silenced construction plants to reduce noise generation, water-spraying to reduce emission of fugitive dust, and strict control on diversion of sewage flows in the works contracts. We will incorporate a relevant clause into the works contract to require the contractor to carry out the recommended environmental mitigation measures to control pollution and disposal of contaminated soil in accordance with the relevant regulations during construction.

16. We will require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate mitigation measures like the allocation of an area for waste segregation. We will ensure that the day-to-day operations on site comply with the WMP, and will encourage the contractors to use steel instead of timber in formwork and temporary works to reduce the generation of waste. We will require the contractor to implement necessary measures to minimise the generation of construction and demolition (C&D) materials and to reuse C&D materials as fill material as far as possible. We will control disposal of public fill and C&D waste to designated public filling facility and landfills respectively through a trip-ticket system. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

17. We estimate that the project will generate about 91 500 cubic metres ( $\text{m}^3$ ) of C&D materials. Of these, we will reuse about 42 000  $\text{m}^3$  (46%) on site and about 48 500  $\text{m}^3$  (53%) as fill to public filling areas<sup>2</sup> and dispose of about 1 000  $\text{m}^3$  (1%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$125,000 for this project (based on a notional<sup>3</sup> unit cost of \$125/ $\text{m}^3$ ).

## **TRAFFIC IMPLICATIONS**

18. To minimise possible disruption to traffic during construction, we have completed the TIA study for the proposed works. During construction, we will maintain smooth traffic flow through temporary traffic management measures as far as possible and display notice boards on site to explain the reason of temporary traffic arrangements and the expected completion date of the concerned section of works. In addition, telephone hotlines will be set up for public enquiries or complaints. Construction works in busy road sections will be carried out in non-peak hours. We will also establish a Traffic Management Liaison Group (TMLG) under the contract to discuss, scrutinise and agree on the proposed temporary traffic management measures. Representatives from the Transport Department, Hong Kong Police Force, Highways Department, District Offices and various road public transport operators will be invited to attend the TMLG meetings and every temporary traffic arrangement has to be agreed by the TMLG before implementation. The TMLG will also take into account all relevant factors such as site restrictions, existing and future traffic conditions, pedestrian safety, access to buildings/shop fronts and provision of emergency vehicles access while considering the temporary traffic arrangements.

## **JOB CREATION**

19. We estimate that the proposed works will create about 110 jobs (88 for labourers and another 22 for professional/technical staff) providing a total employment of 3 900 man-months

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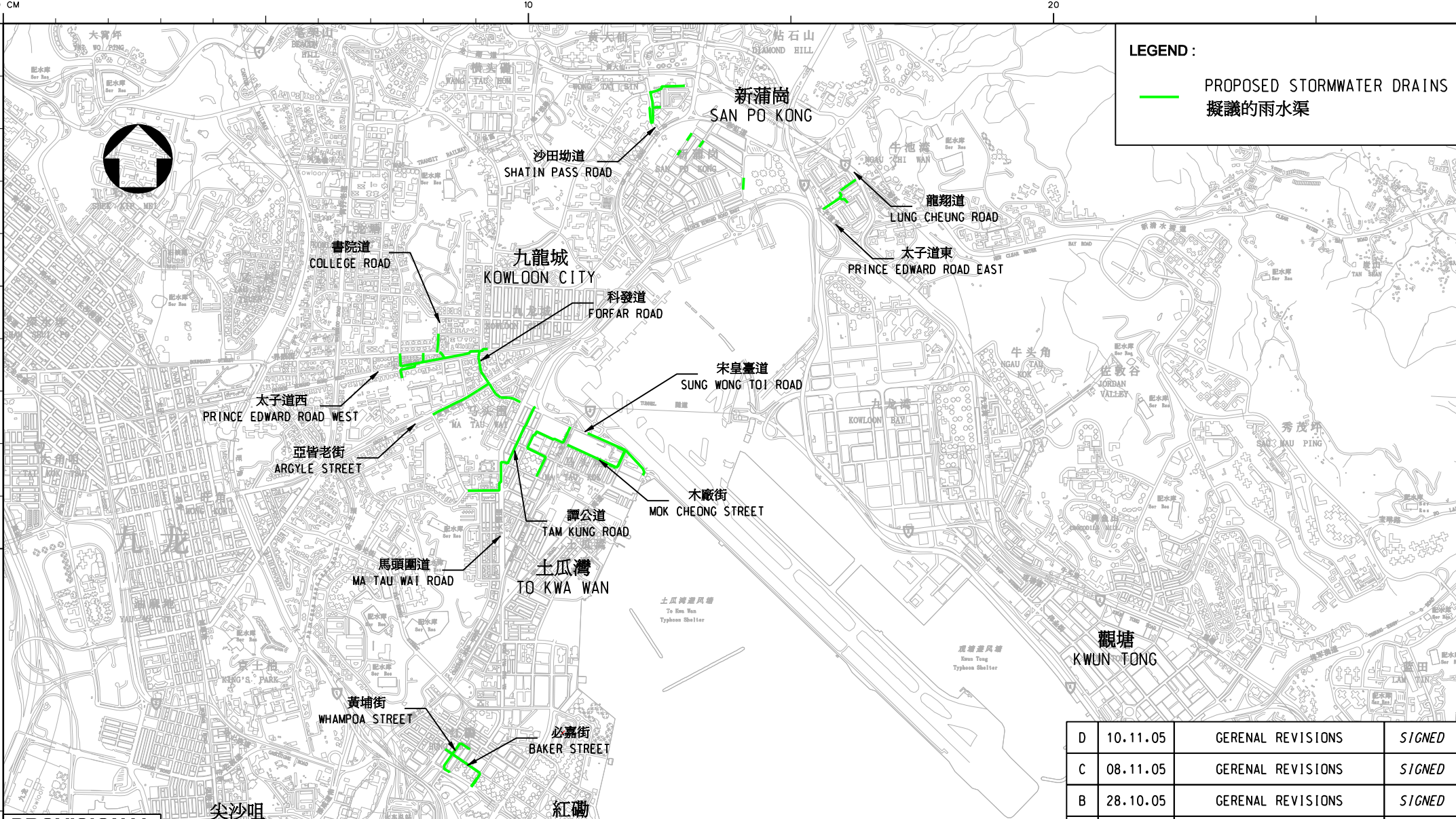
<sup>2</sup> A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling facility requires a licence issued by the Director of Civil Engineering and Development.

<sup>3</sup> The 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/ $\text{m}^3$ ), nor the cost to provide new landfills (which are likely to be more expensive) when the existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.

## **WAY FORWARD**

20. We intend to submit our proposal for part-upgrading of **126CD** to the Public Works Subcommittee in December 2005 with a view to seeking funding approval of the Finance Committee in January 2006.

**Environment, Transport and Works Bureau**  
**November 2005**



LEGEND :

PROPOSED STORMWATER DRAINS  
擬議的雨水渠

PROVISIONAL  
SUBJECT TO AMENDMENT

圖則名稱 drawing title  
工務計劃項目編號126CD -  
東九龍雨水排放系統改善計劃 - B 部分  
PWP ITEM No. 126CD -  
DRAINAGE IMPROVEMENT IN EAST KOWLOON -  
PACKAGE B

繪畫 drawn	SIGNED C. K. LAM	日期 date	07.04
核對 checked	SIGNED C. N. CHEUNG	日期 date	07.04
批核 approved		日期 date	
部門 office	工程管理部 PROJECT MANAGEMENT DIVISION		

D	10.11.05	GERENAL REVISIONS	SIGNED
C	08.11.05	GERENAL REVISIONS	SIGNED
B	28.10.05	GERENAL REVISIONS	SIGNED
A	23.09.05	GERENAL REVISIONS	SIGNED

圖則編號 drawing no.  
DPM/126CD/1805D

比例 scale  
N. T. S.

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ENCLOSURE  
附件