

For information

**Legislative Council Panel on Planning, Lands and Works
125CD – Drainage improvement from Tung Kok Wai to San Wai, Fanling**

PURPOSE

This paper briefs Members on the Administration's proposal to upgrade **125CD** "Drainage improvement from Tung Kok Wai to San Wai, Fanling" to Category A at an estimated cost of about \$66 million in money-of-the-day (MOD) prices for improving the existing drainage system in areas around Tung Kok Wai and San Wai in Fanling.

BACKGROUND

2. In April 2002, we included **125CD** "Drainage improvement from Tung Kok Wai to San Wai, Fanling" in Category B for the drainage improvement works from Tung Kok Wai to San Wai, Fanling.

3. We have substantially completed the detailed design for the proposed works using in-house staff resources and plan to start construction in early 2006 for completion in early 2008.

PROPOSAL

4. The scope of **125CD** comprises the construction of about 920 metres (m) of single-celled box culverts from Tung Kok Wai to San Wai, Fanling, with widths varying from 4 to 5 m and heights varying from 2.5 to 3.5 m, as well as ancillary drainage works. A site plan showing the location of the proposed works is at **Enclosure**.

JUSTIFICATION

5. At present, stormwater run-off within the drainage catchment area from Tung Kok Wai to San Wai is collected and discharged via a predominantly shotcrete lined watercourse into Ma Wat River lying on the eastern fringe of Fanling. The watercourse runs through environmentally non-sensitive areas currently zoned for low density residential development, agricultural use and Government/Institutional/Community uses. Planning permission has recently

been given for more intensive development on some of the agricultural lands. Adjoining low lying areas are flood prone due to the low drainage capacity of the existing watercourse. To relieve the flooding hazard and facilitate the planned development, we propose to replace the existing watercourse from Tung Kok Wai to San Wai by box culverts, with a view to minimizing land resumption and visual impacts due to the new drainage works.

6. Upon completion of the proposed drainage works, the main drainage system in the areas from Tung Kok Wai to San Wai will generally be improved to withstand rainstorms with a return period¹ of one in 50 years.

FINANCIAL IMPLICATIONS

7. We estimate the project cost of the proposed works under **125CD** to be about \$66 million at MOD prices, made up as follows –

	\$ million
(a) Construction of box culverts and ancillary works	59
(b) Environmental mitigation measures	2
(c) Contingencies	5
Total	66 (in MOD prices)

8. We estimate that the proposed works will give rise to an additional annual recurrent expenditure of about \$100,000.

PUBLIC CONSULTATION

9. We consulted the North District Council on 19 March 2002. Members of the District Council supported implementation of the proposed works.

¹ “Return period” is the average number of years during which a severity of flooding will occur once, statistically. A longer return period means a rare chance of occurrence of a more severe flooding.

10. We gazetted the proposed drainage works under the Roads (Works, Use and Compensation) Ordinance on 7 and 14 May 2004. We received two objections during the statutory objection period, both of which have been withdrawn either unconditionally or with conditions acceptable to departments concerned.

ENVIRONMENTAL IMPLICATIONS

11. The project is not a designated project under the Environmental Impact Assessment Ordinance, and will not cause long-term environmental impact. The existing watercourse is not ecologically important, with no flora and fauna species or natural habitats of conservation concern. The environmental sensitivity of the surrounding areas of the proposed drainage works is assessed as low. We will incorporate pollution control measures in the works contract to control noise, dust and site run-off to ensure compliance with the established guidelines and standards during the construction stage.

12. We have considered in the planning and design stages ways of minimising construction and demolition (C&D) materials as far as possible. The alignment of the proposed drainage channel was determined such that least excavation and demolition of existing structures would be required. We will also require the contractor to submit a waste management plan (WMP) for approval, with appropriate mitigation measures, including the allocation of an area for waste segregation. We will ensure that the day-to-day operations on site comply with the WMP. We will require the contractor to re-use the excavated materials as filling materials on site or on other construction sites as far as possible to minimise the disposal of public fill to public filling facilities. To further minimise the generation of C&D waste, we will encourage the contractor to use non-timber formwork and recyclable material for temporary works. We will control disposal of public fill and C&D waste to public filling facilities and landfills respectively through a trip-ticket system. We will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities. We will record the disposal and reuse of C&D materials for monitoring purposes.

13. We estimate that about 33 300 cubic metres (m³) of C&D materials will be generated by the project. Of these, we will reuse about 12 000 m³ (36%) on site and 18 000 m³ (54%) as fill in public filling areas² and dispose of 3 300 m³ (10%) at landfills. The notional cost³ of accommodating C&D waste

² 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 area requires a licence issued by the Director of Civil Engineering and Development.

³ This estimate has taken into account the cost for developing, operating and restoring the landfills after

at landfill sites is estimated to be \$412,500 for this project (based on a notional unit cost of \$125/m³).

JOB CREATION

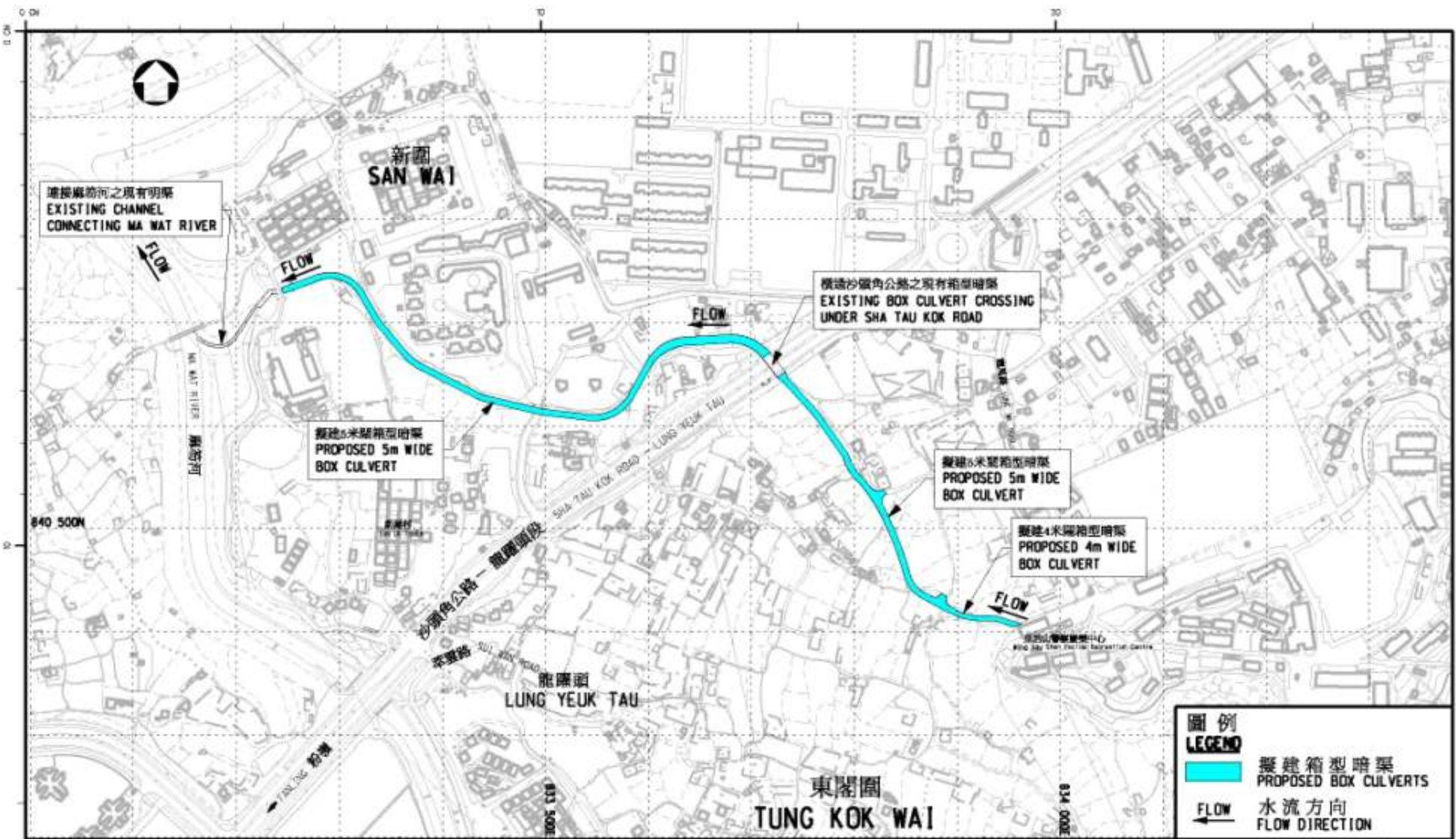
14. We estimate that the proposed works will create about 52 jobs (45 for labourers and another seven for professional/technical staff) providing a total employment of 1 100 man-months.

WAY FORWARD

15. We intend to submit our proposal of upgrading of **125CD** to the Public Works Subcommittee in October/November 2005 with a view to seeking funding approval of the Finance Committee in November/December 2005.

Environment, Transport and Works Bureau
June 2005

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 are likely to be more expensive) when existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.



圖例
LEGEND

 擬建箱型暗渠
PROPOSED BOX CULVERTS

 水流方向
FLOW DIRECTION

圖則名稱 drawing title
 工務計劃項目第 4125CD 號
 粉嶺東閣圍至新圍雨水排放系統改善工程
 PWP ITEM No. 4125CD
 DRAINAGE IMPROVEMENT FROM TUNG KOK WAI TO SAN WAI, FANLING

繪製 drawn	C.L. CHEUNG	日期 date
核對 checked	C.H. YEE	日期 date
審核 vetted	B.K. KWOK	日期 date
部門 office	排水工程處 DRAINAGE PROJECTS DIVISION	

圖則編號 drawing no. 比例 scale
DDN/125CD/0871 1 : 5 000

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 香港特別行政區政府渠務署
 DRAINAGE SERVICES DEPARTMENT
 GOVERNMENT OF THE HONG KONG
 SPECIAL ADMINISTRATIVE REGION

ENCLOSURE 附件