

**For information**

**Legislative Council Panel on Planning, Lands and Works  
132CD –Drainage improvement works at Tsing Lun Road,  
Tuen Mun**

**PURPOSE**

This paper briefs Members on the Administration's proposal to upgrade **132CD** -"Drainage improvement works at Tsing Lun Road, Tuen Mun" to Category A at an estimated cost of about \$41 million in money-of-the-day (MOD) prices for drainage improvement works in Tuen Mun.

**PROPOSAL**

2. The proposed works will alleviate the flooding problem in Tsz Tin Tsuen and Chung Shan in Tuen Mun.

3. The scope of the proposed works comprises –

- (a) construction of about 180 metres (m) long twin-cell box culvert and a total length of about 220 m long single-cell box culverts at Tsing Lun Road;
- (b) widening about 120 m of the existing nullah near Lam Tei Interchange; and
- (c) conversion of about 200 m of the existing nullah alongside Tsing Lun Road to a local drainage channel.

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

4. We plan to start the construction of the proposed works in April 2005 for completion in October 2007.

## JUSTIFICATION

5. The existing drainage catchment of Tsz Tin Tsuen and Chung Shan areas in the north-western part of Tuen Mun comprises mainly agricultural land, open spaces, village areas and rural upland areas. Stormwater run-offs from the catchment are discharged into the existing Tuen Mun River Channel via the box culvert at Siu Hong Road. Due to insufficient capacity of the box culvert at Siu Hong Road, the low-lying areas of Tsz Tin Tsuen and Chung Shan are susceptible to flooding during heavy rainstorms. On 14 April 2000, an area of over 10 hectares was flooded with a maximum flood depth of 1 m. We therefore propose to improve the capacity of the existing drainage system by constructing new box culverts at Tsing Lun Road and widening a section of the existing nullah near Lam Tei Interchange.

6. Upon completion of the proposed drainage works, the main drainage system for Tsz Tin Tsuen and Chung Shan will generally be improved to withstand rainstorms with a return period<sup>1</sup> of one in 50 years.

## FINANCIAL IMPLICATIONS

7. We estimate the cost of the proposed works to be about \$41 million at MOD prices, made up as follows –

	<b>\$ million</b>
(a) Box culverts at Tsing Lun Road	28
(b) Widening of the existing nullah near Lam Tei Interchange	8
(c) Conversion of the existing nullah to a local drainage channel	2
(d) Environmental mitigation measures	1
(e) Contingencies	2
Total	41 (in MOD prices)

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<sup>1</sup> “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.

8. We estimate that the annual recurrent expenditure for operating and maintaining the proposed works would be about \$100,000.

## **PUBLIC CONSULTATION**

9. We consulted the Environmental, Hygiene and District Development Committee (EHDDC) of Tuen Mun District Council on 16 July 2004 on the proposed drainage improvement works. Members of the EHDDC supported implementation of the proposed works.

## **ENVIRONMENTAL IMPLICATIONS**

10. The proposed works is not a designated project under the Environmental Impact Assessment Ordinance. We completed a Preliminary Environmental Review (PER) for the project and concluded that the project would not result in long-term environmental impact. The PER concluded that with the implementation of the recommended mitigation measures, the environmental impacts arising from the project could be mitigated to within established standards and guidelines. We have included about \$1 million in MOD prices for implementation of environmental mitigation measures.

11. We estimate that about 26 800 cubic metres (m<sup>3</sup>) of construction and demolition (C&D) materials will be generated by the proposed works. Of these, about 18 300 m<sup>3</sup> (68%) will be reused on site, 7 500 m<sup>3</sup> (28%) will be reused as fill in public filling areas<sup>2</sup> and 1 000 m<sup>3</sup> (4%) will be disposed of at landfills.

12. We have considered ways of minimising the generation of C&D materials in the planning and design stages. We have optimised the size and shape of the box culverts. Furthermore, typical sections of reinforced concrete structures were adopted to minimise the use of formwork. We will ensure that the day-to-day operations on site comply with the waste management plan. We will require the contractor to reuse the excavated material as filling material 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 materials, we will encourage the contractor to use non-timber formwork and recyclable material for temporary works. We will also require the contractor to carry out on-site sorting to recover reusable/recyclable material from C&D materials to

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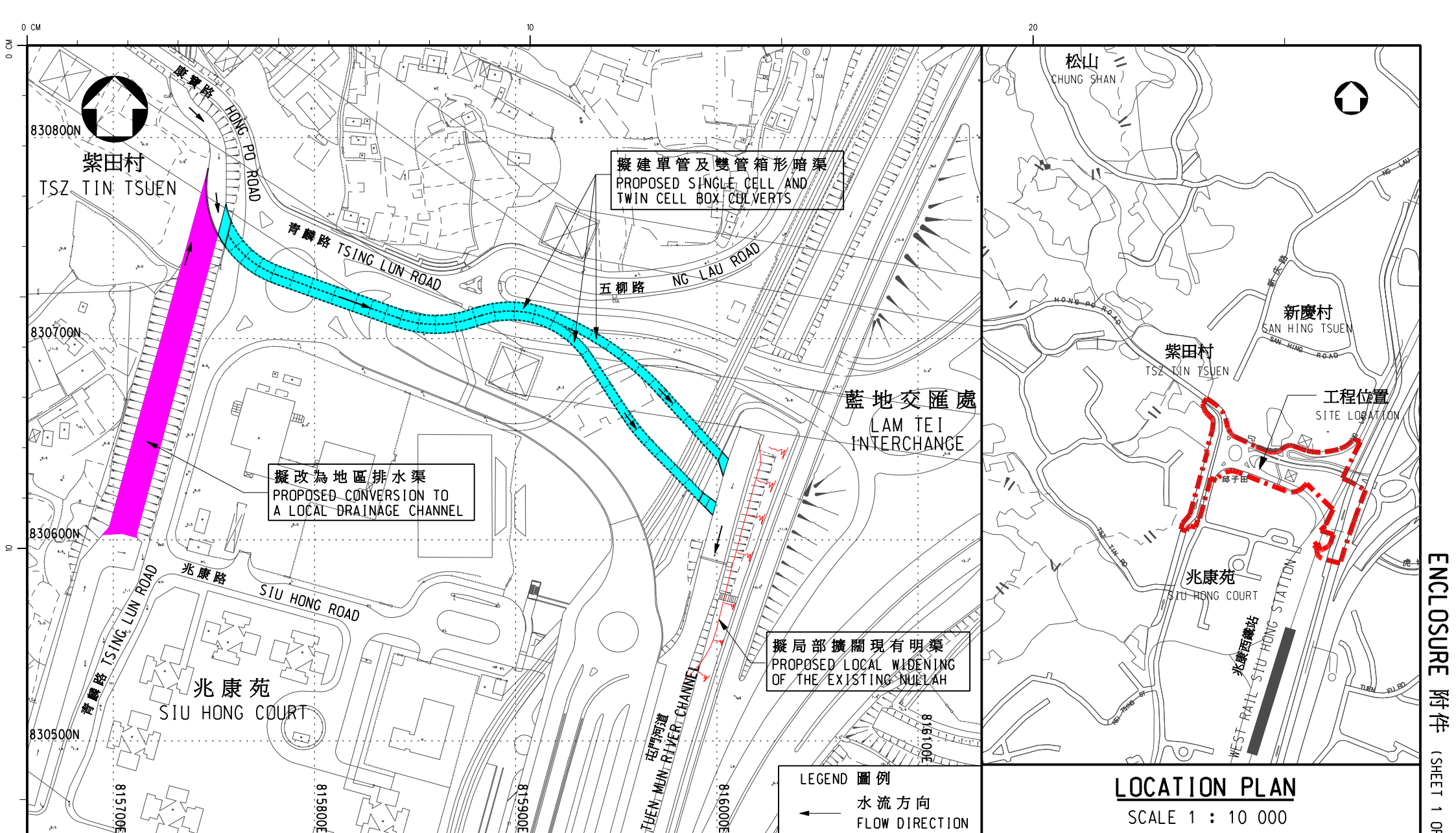
<sup>2</sup> A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering and Development.

minimise disposal of public fill and C&D waste. 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 contractors to separate public fill from C&D waste for disposal at appropriate facilities. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

### **WAY FORWARD**

13. We intend to submit our proposal of upgrading of **132CD** for consideration by the Public Works Subcommittee in November 2004 with a view to seeking funding approval of the Finance Committee in December 2004.

Environment, Transport and Works Bureau  
November 2004




LEGEND 圖例  
 水流方向  
 ← FLOW DIRECTION

LOCATION PLAN  
 SCALE 1 : 10 000

圖則名稱 drawing title  
 工務計劃項目第 4132CD - 屯門青麟路雨水排放系統改善工程  
 PWP ITEM NO. 4132CD - DRAINAGE IMPROVEMENT WORKS AT TSING LUN ROAD, TUEN MUN

繪畫 drawn	C. L. CHEUNG	日期 date	05.10.04
核對 checked	C.Y. LAI	日期 date	02.11.04
批核 approved	B.K. KWOK	日期 date	02.11.04
部門 office	排水工程部 DRAINAGE PROJECTS DIVISION		

圖則編號 drawing no.	比例 scale
DDN/132CD/0821	1 : 2500 OR AS SHOWN
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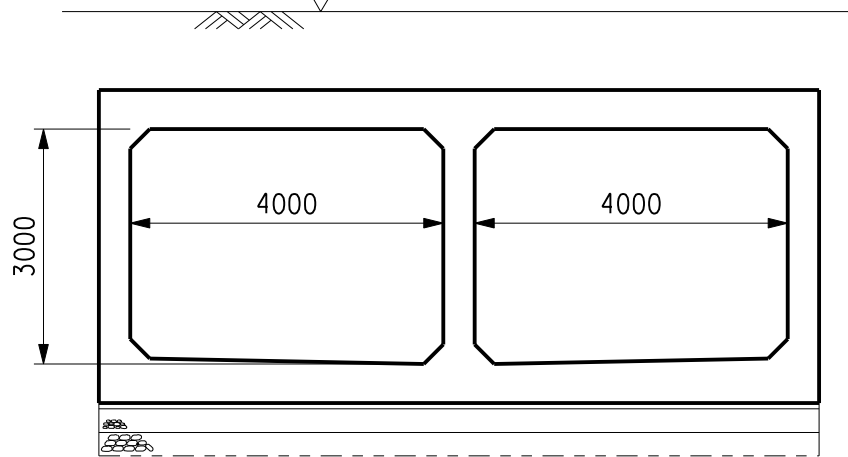
ENCLOSURE 附件 (SHEET 1 OF 2) (全二張其一)

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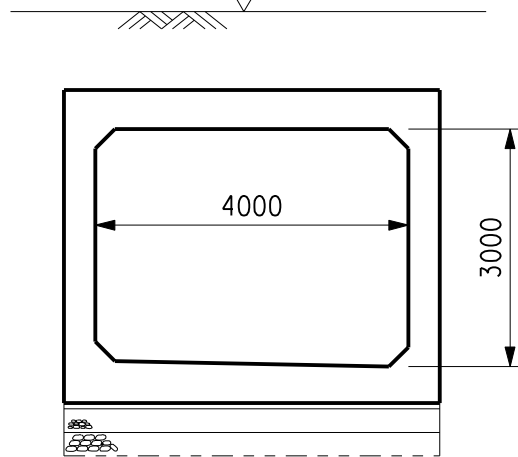
路面水平 ROAD LEVEL



雙管箱形暗渠橫截面圖

TYPICAL CROSS SECTION OF TWIN CELL BOX CULVERT

路面水平 ROAD LEVEL




單管箱形暗渠橫截面圖

TYPICAL CROSS SECTION OF SINGLE CELL BOX CULVERT

圖則名稱 drawing title
工務計劃項目第4132CD-屯門青麟路雨水排放系統改善工程 PWP ITEM NO. 4132CD - DRAINAGE IMPROVEMENT WORKS AT TSING LUN ROAD, TUEN MUN

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ENCLOSURE 附件 (SHEET 2 OF 2) (全二張其二)