

For information

Legislative Council Panel on Planning, Lands and Works

**92CD – Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai
drainage improvements, stage 1, phase 2B – Kam Tin**

PURPOSE

This paper briefs Members on the Administration's proposal to upgrade part of **92CD** "Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai drainage improvements, stage 1, phase 2B – Kam Tin", to Category A at an estimated cost of about \$145 million in money-of-the-day (MOD) prices for the drainage improvement works in Cheung Chun San Tsuen and Kam Tsin Wai in Yuen Long.

PROJECT SCOPE

2. The scope of the proposed drainage improvement works to be part-upgraded, as shown on the plan at **Enclosure 1**, comprises –

- (a) construction of about 1.3 kilometres (km) of drainage channel and provision of ancillary works in Cheung Chun San Tsuen; and
- (b) construction of about 0.8 km of drainage channel and provision of ancillary works in Kam Tsin Wai.

3. We plan to start the proposed works in mid 2006 for completion in early 2009.

JUSTIFICATION

4. Owing to the low-lying nature and the inadequate capacity of the existing streamcourses, Cheung Chun San Tsuen and Kam Tsin Wai are susceptible to frequent flooding during heavy rainstorms. Moreover, changes in land use in the areas over the years have resulted in paving of tracts of natural ground and this has made them impermeable. Rainwater which would previously dissipate naturally through ground infiltration can no longer do so. This has led to an increase in surface run-off and aggravated the extent of flooding in the areas.

5. Following completion of the river training works for the Shan Pui River and Kam Tin River in phases at the downstream end, we have already started to carry out the drainage improvement works for their tributaries and local drainage systems in stages. To bring early improvement, we propose to construct drainage channels in Cheung Chun San Tsuen and Kam Tsin Wai to alleviate the flooding risks in the areas concerned and to meet the community's increasing expectation for better flood protection. Upon completion of the proposed drainage improvement works, the standard of flood protection in Cheung Chun San Tsuen and Kam Tsin Wai would be raised generally to withstand a rainstorm with a return period¹ of one in 50 years.

FINANCIAL IMPLICATIONS

6. We estimate the cost of the proposed works to be \$145 million (in MOD prices), made up as follows–

	\$ million
(a) Drainage improvement works and ancillary works in-	117
(i) Cheung Chun San Tsuen	91
(ii) Kam Tsin Wai	26
(b) Environmental mitigation measures	3
(c) Consultants' fees for	12
(i) contract administration	1
(ii) site supervision	11
(d) Contingencies	13
Total :	<u>145</u> (in MOD prices)

7. We estimate the annual recurrent expenditure arising from this project to be \$800,000.

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

PUBLIC CONSULTATION

8. We consulted the Kam Tin Rural Committee, the Town Planning and Development Committee under the Yuen Long District Council and Pat Heung Rural Committee on 30 April, 14 July and 17 July 2004 respectively. All supported implementation of the proposed works.

9. We gazetted the proposed works under the Foreshore and Sea-bed (Reclamations) Ordinance and the Roads (Works, Use and Compensation) Ordinance on 17 June 2005. We did not receive any objection under the Foreshore and Sea-bed (Reclamations) Ordinance. However, we received four objections under the Roads (Works, Use and Compensation) Ordinance. Two objectors requested the alignment of the drainage channel be shifted to avoid resumption of their lots. One objector requested the whole of his lot be resumed and the remaining objector requested for compensation of his facilities. We held meetings in August 2005 with the objectors. After our explanations, all objectors withdrew their objections unconditionally in September 2005.

ENVIRONMENTAL IMPLICATIONS

10. The proposed drainage improvement works in Kam Tsin Wai is a designated project whereas the proposed works in Cheung Chun San Tsuen is not a designated project under the Environmental Impact Assessment (EIA) Ordinance. We have completed the Project Profile (PP) for the proposed works in Kam Tsin Wai for direct application of the environmental permit under the EIA Ordinance and the permit was duly obtained in November 2005. We have also completed the Environmental Study (ES) for the proposed works in Cheung Chun San Tsuen. Both the PP and ES conclude that the environmental impacts arising from the proposed works could be mitigated within established standards and guidelines with full implementation of the recommended mitigation measures. We will implement the mitigation measures as recommended.

11. For short-term impacts during construction, we will control noise, dust and site run-off within the standards and guidelines through 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 stream flows in the works contract.

12. We have considered ways in the planning and design stages to reduce the generation of construction and demolition (C&D) materials. In addition, we will require the contractor to reuse inert C&D materials on site or in other suitable construction sites as far as possible, in order to minimise the disposal of C&D materials to public fill reception facilities². We will encourage the contractors to maximise the use of recycled or recyclable C&D materials, as well as the use of non-timber formwork to further minimise the generation of construction waste.

13. We will also require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. We will ensure that the day-to-day operations on site comply with the approved WMP. We will control the disposal of public fill and C&D waste to public fill reception 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, reuse and recycling of C&D materials for monitoring purposes.

14. We estimate that the project will generate about 153 500 tonnes of C&D materials. Of these, we will reuse about 86 500 tonnes (56.4%) on site, deliver 66 600 tonnes (43.4%) to public fill reception facilities for subsequent reuse and dispose of 400 tonnes (0.2%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfill sites is estimated to be about \$2 million for this project (based on an unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonnes at landfills³).

15. We estimate that the project will generate about 16 500 tonnes of uncontaminated mud and 24 600 tonnes of contaminated mud to be excavated from the watercourses. We will deliver the uncontaminated mud by barges to the marine disposal areas. Of the 24 600 tonnes of contaminated mud, we will deliver some 18 600 tonnes by barges to the contaminated mud disposal area at the East Sha Chau and we will reuse the remaining 6 000 tonnes after special treatment.

² Public filling reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of public fill in public fill reception facilities 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 they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m³), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

TRAFFIC IMPLICATIONS

16. We have carried out traffic impact assessment (TIA) for the proposed works. The TIA has concluded that the proposed works would not cause unacceptable traffic impact.

BACKGROUND INFORMATION

17. In June 2001, we upgraded part of **92CD** to Category A as **114CD** “Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai drainage improvements, stage 1, phase 1 – Yuen Long and Tin Shui Wai” at an estimated cost of \$210.7 million in MOD prices. We started the works in December 2001 and completed them in November 2005.

18. In June 2003, we upgraded part of **92CD** to Category A as **133CD** “Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai drainage improvements, stage 1, phase 2A – Kam Tin and Ngau Tam Mei” at an estimated cost of \$139.3 million in MOD prices. We started the works in June 2004 for completion in February 2007.

19. To bring early improvement, we will start the proposed works in Cheung Chun San Tsuen and Kam Tsin Wai in mid 2006 for completion in early 2009. The planning and design of the remaining drainage improvement works under **92CD** in Cheung Po, Ma On Kong and Yuen Kong San Tsuen are underway.

20. When designing the drainage channels under the proposed works, we have tried our best to keep the felling of trees to a minimum, but it is still necessary to remove about 280 trees including 180 trees to be felled and 100 trees to be replanted within the site, all of which are not important trees⁴. We will incorporate planting of about 350 trees as part of the project.

21. We estimate that the proposed works will create about 85 jobs (69 for labourers and another 16 for professional/technical staff) providing a total employment of 2 300 man-months.

⁴ Important trees include trees on the Register of Old and Valuable Trees, and any other trees which meet one or more of the following criteria –

- (a) trees over 100 years old;
- (b) trees of cultural, historical or memorable significance;
- (c) trees of precious or rare species;
- (d) trees of outstanding form; or
- (e) trees with trunk diameter exceeding one metre (measured at one metre above ground level).

WAY FORWARD

22. Members are invited to support our proposal for part-upgrading of **92CD** for consideration by the Public Works Subcommittee in June 2006 with a view to seeking funding approval of the Finance Committee in July 2006.

**Environment, Transport and Works Bureau
February 2006**

