

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 - NEW TOWNS AND URBAN AREA DEVELOPMENT

New Territories West Development

Civil Engineering - Land development

**410CL – Reclamation works for district open space and government/
institution/community facilities in north Tsing Yi**

Members are invited to recommend to Finance Committee the upgrading of **410CL** to Category A at an estimated cost of \$116.9 million in money-of-the-day prices to carry out reclamation and site formation works for the proposed district open space and government/institution/community facilities in north Tsing Yi.

PROBLEM

We need to carry out reclamation and site formation works for the provision of district open space (DOS) and government/institution/community (GIC) facilities in north Tsing Yi.

PROPOSAL

2. The Director of Territory Development (DTD), with the support of the Secretary for Planning and Lands, proposes to upgrade **410CL** to Category A at an estimated cost of \$116.9 million in money-of-the-day (MOD) prices to carry out reclamation and site formation works for the proposed DOS and GIC facilities in north Tsing Yi.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of 410CL comprises -

- (a) reclamation of about 3.8 hectares (ha) of foreshore and seabed;
- (b) site formation of about 3.2 ha of land;
- (c) construction of about 520 metres of seawall;
- (d) associated drainage works;
- (e) decontamination works;
- (f) environmental mitigation measures; and
- (g) environmental monitoring and audit (EM&A) programme for the works mentioned in items (a) to (f) above.

A site plan showing details of the proposed works is at Enclosure 1. We plan to start the proposed works in January 2002 for completion in June 2006.

JUSTIFICATION

4. In the Tsing Yi Outline Zoning Plan, approved in April 1999, an area of about 7 ha at the west of Tsing Tai Court in Tsing Yi is earmarked for DOS development and GIC use. The area was previously occupied by shipyards which were a source of noise nuisance to residents nearby. The clearance of the shipyards was completed in June 2000.

5. We plan to develop the vacated shipyard site and form about 3.8 ha of land adjacent to the shipyard by reclamation. We will develop these areas, totalling about 7 ha for the provision of DOS (5.6 ha) and GIC¹ facilities (1.4 ha) to serve a population of 53 000 in north Tsing Yi.

/6.

¹ At present, the Director of Planning is reviewing the GIC facilities to be provided for supporting the development in Tsing Yi.

6. The Government is committed to maximising the use of public fill in land formation and reclamation projects so as to minimise its disposal at the landfills. The proposed reclamation and site formation works will use public fill and will provide about 500 000 cubic metres (m^3) of public filling capacity. This will help alleviate the shortage of public filling area in the territory.

FINANCIAL IMPLICATIONS

7. We estimate the capital cost of the project to be \$116.9 million in MOD prices (see paragraph 8 below), made up as follows -

| | \$ million | |
|---------------------------------------|------------|----------------------------------|
| (a) Reclamation and land formation | 14.8 | |
| (b) Seawall | 12.9 | |
| (c) Drainage works | 2.6 | |
| (d) Decontamination works | 59.0 | |
| (e) Environmental mitigation measures | 4.7 | |
| (f) EM&A works | 13.0 | |
| (g) Contingencies | 10.5 | |
| | <hr/> | |
| | Sub-total | 117.5 (in September 2000 prices) |
| | <hr/> | |
| (h) Provision for price adjustment | (0.6) | |
| | <hr/> | |
| | Total | 116.9 (in MOD prices) |
| | <hr/> | |

The Director of Civil Engineering (DCE) will carry out the construction supervision using existing resources, with the exception of the EM&A works for which DCE will employ consultants. A breakdown by man-months of the estimate for the consultancy services is at Enclosure 2.

8. Subject to approval, we will phase the expenditure as follows -

| Year | \$ million (Sept 2000) | Price adjustment factor | \$ million (MOD) |
|-------------|-----------------------------------|--|-----------------------------|
| 2001 - 2002 | 1.0 | 0.98000 | 1.0 |
| 2002 - 2003 | 20.0 | 0.97976 | 19.6 |
| 2003 - 2004 | 34.0 | 0.98759 | 33.6 |
| 2004 – 2005 | 27.0 | 0.99549 | 26.9 |
| 2005 – 2006 | 20.0 | 1.00346 | 20.1 |
| 2006 – 2007 | 15.5 | 1.01149 | 15.7 |
| | <hr/> 117.5 <hr/> | | <hr/> 116.9 <hr/> |

9. We have derived the MOD estimate on the basis of the Government's latest forecast of trend labour and construction prices for the period from 2001 to 2007. We will tender the proposed works under a standard remeasurement contract because the quantities of works involved may vary according to the actual ground conditions. The contract will provide for price adjustments as the contract period will exceed 21 months.

10. We estimate the annually recurrent expenditure arising from the project to be \$39,500.

PUBLIC CONSULTATION

11. We consulted the Environment and Planning Committee of the then Kwai Tsing District Board on 7 June 1996. Members supported the proposed works and requested Government to proceed with the works as early as possible. However, they were concerned about the potential environmental impacts arising from the reclamation works, and requested Government to adopt mitigation measures, as far as practicable, to minimize any adverse impact to the environment during construction.

12. We gazetted the proposed reclamation on 15 July 1994 under the Foreshore and Sea-bed (Reclamations) Ordinance and received eight objections from the shipyard operators. The objections were mainly on the grounds of disturbance to their business which would result from the relocation, and the associated relocation costs. They also raised other issues such as the value of the shipyards to the economy, the loss of jobs and the suitability of the relocation site for use as shipyards. They requested to continue their business on the existing site or be given more compensation for the relocation. Subsequently, several LegCo case conferences were held, at which the Administration briefed Members on the objections, the need for the scheme, and the actions which had been taken to overcome the objections. Three of the objectors withdrew their objections after discussion with Government. The then Governor in Council overruled the five unwithdrawn objections and authorized the reclamation scheme on 14 January 1997 without modification.

13. We circulated an information paper on this project to the LegCo Panel on Planning, Lands and Works in May 2001. The Panel did not make any comment on the proposal.

ENVIRONMENTAL IMPLICATIONS

14. The project is a designated project (DP) under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance. As the project was authorized under the Foreshore and Seabed (Reclamations) Ordinance on 14 January 1997, the project is an exempted DP by virtue of Section 9(2)(c) of the EIA Ordinance and environmental permits are not required for its construction, operation and decommissioning. The environmental impact of the project has been fully assessed in an EIA report approved by the Director of Environmental Protection. We will implement the measures recommended in the EIA report, which include -

- (a) carrying out a detailed land contamination study to confirm the nature and extent of land contamination identified in the EIA study and to recommend remedial measures to be adopted for the reclamation and site formation works; and
- (b) controlling the possible pollution arising during construction.

15. We completed the land contamination study in May 2001 and will implement the recommended remedial measures in carrying out the decontamination works for the shipyard site. The remedial measures include using biopiling for treating soil contaminated with hydrocarbons and solidification/stabilization for soil contaminated with metals. Most of the treated soil will be reused as filling material in

the project. Less than 1 000 m³ of soil contaminated with polychlorinated biphenyls (PCBs) will be disposed of at landfills. The notional cost of accommodating the contaminated soil at landfill sites is estimated to be \$125,000 (based on a notional unit cost² of \$125/m³).

16. We will incorporate the environmental mitigation measures and monitoring requirements recommended in the EIA report into the works contract to keep the short term environmental impacts during the construction stage within established standards and guidelines. These measures include -

- (a) implementing appropriate working methods and pollution avoidance measures for dredging, filling, transporting and dumping of materials to minimize adverse impacts on water quality;
- (b) frequent watering of the site and the provision of wheel-washing facilities to reduce emission of dust; and
- (c) the use of temporary noise barriers and silenced construction plant and appropriate scheduling of work to reduce noise generation.

We will also implement an EM&A programme to ensure compliance with the EIA recommendations. We estimate the cost of implementing the decontamination works to be \$59 million, the environmental mitigation measures to be \$4.7 million and the EM&A works to be \$13 million. We have included these costs in the overall project estimate.

17. We estimate that some 500 000 m³ of public fill will be used in the reclamation and about 10 000 m³ of construction and demolition (C&D) materials will be generated by the project. Of these, about 8 000 m³ (80%) will be reused on site and 2 000 m³ (20%) will be disposed of at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$250,000 (Footnote 2 refers). We have considered in the planning and design stages ways to minimize the generation of C&D materials and to maximize the use of public fill. We will require the contractor to submit a waste management plan for approval with waste avoidance and reduction measures, including waste segregation on site. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the

/contractor

² 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 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.

contractor to implement necessary measures to minimize the generation of C&D materials and to reuse and recycle C&D materials. We will control the disposal of C&D wastes to designated landfills through a trip-ticket system. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

LAND ACQUISITION

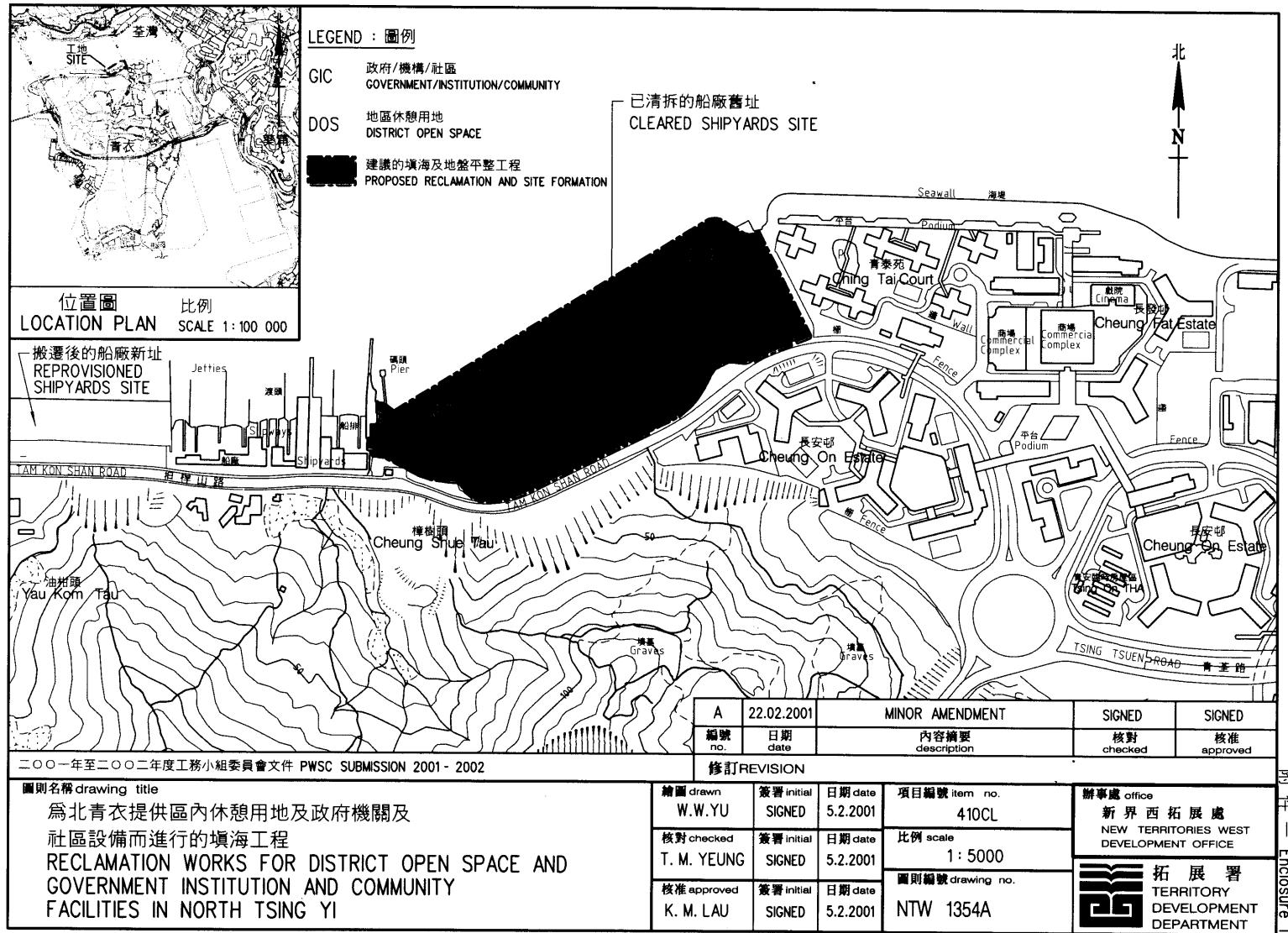
18. There were 15 shipyards operating on Government land held under Short Term Tenancies (STTs) and another three shipyards on six private lots within the proposed reclamation site. The Director of Lands (D of L) terminated 14 of these STTs on 24 April 1997 and the remaining one on 24 July 1997 affecting a total land area of about 2.5 ha. On 26 April 1997, D of L resumed the private lots with a total area of about 1 ha. Other than the 18 shipyards, 15 workshops and business undertakings were also cleared. The final clearance of the shipyard site was completed on 1 June 2000. The land resumption and clearance affected 153 persons. The Director of Housing has offered the latter accommodation in accordance with the existing policy. The total cost of land acquisition and clearance charged to **Head 701**-Land Acquisition is about \$209 million.

BACKGROUND INFORMATION

19. We upgraded **410CL** to Category B in October 1994. The project has suffered from serious delay due to the objections from the shipyard operators to the clearance of the shipyards themselves. Negotiations with the operators started in January 1997, but were not completed until June 2000.

20. As the works agent of the proposed works, DCE has completed the detailed design and drawings for the works using in-house resources.

21. We estimate that the project will create some 50 new jobs comprising ten professional/technical staff and 40 labourers totalling 1 420 man-months.



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Breakdown of the estimates for consultants' fees

| Consultants' staff costs | | Estimated man-months | Average MPS* salary point | Multiplier factor | Estimated fees (\$ million) |
|---------------------------------------|--------------|-----------------------------|--|--------------------------|------------------------------------|
| (a) EM&A works | Professional | 42 | 38 | 2.4 | 5.8 |
| | Technical | 158 | 14 | 2.4 | 7.2 |
| Total consultants' staff costs | | | | | 13.0 |

* MPS = Master Pay Scale

Notes

1. A multiplier factor of 2.4 is applied to the average MPS point to arrive at the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices. (At 1.4.2000, MPS pt. 38 = \$57,525 p.m. and MPS pt. 14 = \$19,055 p.m.)
2. The figures given above are based on estimates prepared by the Director of Civil Engineering. We will only know the actual man-months and fees when we have selected the consultants through the usual competitive lump sum fee bid system.