

## **ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE**

### **HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT**

#### **Medical Subventions**

#### **47MM – Remodelling of Tang Shiu Kin Hospital into an ambulatory care centre**

Members are invited to recommend to Finance Committee the upgrading of 47MM to Category A at an estimated cost of \$239.1 million in money-of-the-day prices for the remodelling of Tang Shiu Kin Hospital into an ambulatory care centre.

#### **PROBLEM**

We need to cope with the escalating demand for medical services in the Hong Kong East cluster<sup>1</sup>. The provision of ambulatory care services in the Causeway Bay - Wan Chai District is scattered over various locations and is far from being efficient in the delivery of health care services.

**/PROPOSAL .....**

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<sup>1</sup> At present, HA provides medical services for the community through eight hospital clusters. Each hospital cluster comprises a number of acute and convalescent/rehabilitation hospitals and institutions, providing a full range of comprehensive health care services to meet the health care needs of the community. The medical services for Wan Chai and Eastern districts are provided by the Hong Kong East hospital cluster which comprises Ruttonjee and Tang Shiu Kin Hospitals, Tung Wah Eastern Hospital, Wong Chuk Hang Hospital, Pamela Youde Nethersole Eastern Hospital, Cheshire Home (Chung Hom Kok), St John Hospital, Tang Chi Ngong Specialist Clinic and facilities in Southorn Centre.

**PROPOSAL**

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Health and Welfare, proposes to upgrade **47MM** to Category A at an estimated cost of \$239.1 million in money-of-the-day (MOD) prices to remodel Tang Shiu Kin Hospital (TSKH) into an ambulatory care centre.

**PROJECT SCOPE AND NATURE**

3. The project scope of **47MM** is to remodel TSKH into an ambulatory care centre by -

- (a) relocating from Southorn Centre (SC) the Physiotherapy and Occupational Therapy Out-patient Departments, Community Nursing Service Centre and Psychiatric Day Centre;
- (b) relocating from Ruttonjee Hospital (RH) the Geriatric Day Hospital and the Dementia Day Centre, with expansion in capacity in respect of the latter;
- (c) relocating from Tang Chi Ngong Specialist Clinic (TCNSC) the Dietetic Information Centre;
- (d) relocating within the premises of TSKH other existing facilities, including Integrated Clinic, Hospital Authority (HA) Staff Clinic, Pharmacy, Medical Social Services, Accident and Emergency Training Centre, General Administration, and Electrical and Mechanical Services Department Workshop; and
- (e) accommodating new facilities, including Family Medicine Training Centre and Rehabilitation Centre for patients suffering from cardiac, pulmonary and neurological illnesses.

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4. A site plan of TSKH is at Enclosure 1. We plan to start the works in December 2002 with a view to completion by December 2004.

**/JUSTIFICATION .....**

## JUSTIFICATION

### Rationalisation of Services

5. One of the main challenges facing the Hong Kong East cluster is the provision of adequate health care services to cope with the service demand of its ageing population. The growing elderly population of the cluster (with 12% aged 65 or above) has been exerting increasing pressure on the capacity of the nine hospitals and outpatient facilities within the cluster. Rationalisation of the medical services within the cluster is necessary in order to optimise the use of available resources to meet the escalating demand. At present, the five medical facilities in the Causeway Bay – Wanchai district, namely RH, TSKH, Tung Wah Eastern Hospital (TWEH), TCNSC and SC, are located in close proximity with a number of services duplicated. For more efficient and effective delivery of health care services, the service provision of these institutions has to be rationalised having regard to the community health needs.

6. Under the rationalisation programme of the Hong Kong East cluster -

- (a) TWEH has been redesignated as a major rehabilitation hospital cum ophthalmology centre;
- (b) RH has been redesignated as an acute general hospital absorbing and consolidating all acute services provided at TSKH and specialist outpatient services provided by TCNSC;
- (c) TSKH has been redesignated as an ambulatory care centre where services currently provided by SC and the Dietetic Information Centre at TCNSC are to be reprovisioned; and
- (d) HA premises at TCNSC and SC would be released for use in the delivery of other health and health-related services.

7. In accordance with this rationalisation programme, HA phased out and replaced the surgical services at TWEH by inpatient convalescent and rehabilitation services in February 1998, expanded TWEH's Ophthalmic Centre by absorbing the Ophthalmology Specialist Out-patient Clinic (SOPC) of TCNSC in December 1999, and relocated 88 convalescent/rehabilitation beds from TSKH

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to RH in October 1999. In February 2001, Finance Committee approved funding for project **3MG** entitled “Relocation of the Accident and Emergency Department of Tang Shiu Kin Hospital to Ruttonjee Hospital” to relocate the Accident and Emergency (A&E) Department and other inpatient diagnostic and allied health services provided by TSKH, including X-ray, Physiotherapy, Occupational Therapy, Speech Therapy, and Prosthetics and Orthotics to RH. The proposed remodelling of TSKH into an ambulatory care centre is the last key stage of this rationalisation programme.

### **Enhanced Ambulatory Care**

8. The advent of new and innovative technologies in both the surgical and medical fields, coupled with the recognition of the importance of preventive care, has resulted in a worldwide trend towards the provision of health care on ambulatory rather than inpatient basis. In this connection, ambulatory care services cover much more than clinical care in the traditional sense where patients are cured of or treated for an illness. The services provided comprise day programmes and outpatient clinics for the treatment and rehabilitation of the patients, preventive programmes such as wellness and health promotion programmes, as well as mental health programmes on psychological health, stress management and eating disorders. Development of ambulatory care facilities not only enhances cost-effectiveness, but improves patient satisfaction in terms of convenience and quality of care. It can also facilitate maintenance of public health. To enhance ambulatory care in the Hong Kong East cluster and better serve the health care needs of the community, HA proposes to remodel TSKH as an ambulatory care centre by consolidating existing ambulatory care services in the Causeway Bay – Wanchai district under one roof and expanding the scope of the ambulatory care facilities.

### **Relocation of Ambulatory Care Services to TSKH**

9. At present, the provision of ambulatory services in the Causeway Bay - Wan Chai District is scattered in various medical facilities. Apart from the SOPCs at TCNSC which will be relocated to RH so as to provide integrated secondary care there, HA proposes to centralize at TSKH all other ambulatory services, including the Physiotherapy and Occupational Therapy Out-patient Departments, the Psychiatric Day Centre and the Community Nursing Service Centre at SC, the Geriatric Day Hospital and the Dementia Day Centre at RH, the Integrated Clinic at TSKH, and the Dietetic Information Centre at TCNSC to achieve cost-effectiveness in the delivery of service and to better coordinate professional manpower and expertise to meet the rehabilitation and community care needs of the local population.

**/Expansion .....**

### **Expansion of Dementia Day Centre**

10. The Dementia Day Centre at RH is currently supported by a multi-disciplinary team of staff to provide comprehensive care for patients with dementia with a view to slowing down the progression of the disease and optimising the quality of life of demented patients. The Centre also runs programmes to empower the carers to look after their demented family members living in the community. HA estimates that about 5% of the elderly population (over 5 000 elderly people) in the Hong Kong East cluster is suffering from dementia. About one-third of demented patients are less-severely demented, and they can derive greater benefits from day care. There is however a severe shortage of dementia day places in the cluster. With only ten day places running one whole-day session per week, the Centre can only handle about 20 new cases a year. Apart from the existing Centre at RH, Wong Chuk Hang Hospital operates 12 places running four whole-day sessions per week which can cater for about 70 new cases per annum<sup>2</sup>. With the ageing population, the demand for day care is expected to increase rapidly in the coming years. HA therefore proposes to expand the capacity of the Dementia Day Centre to 30 places running five whole-day sessions per week to cater for about 200 new cases per annum upon its relocation from RH to TSKH. The opportunity will also be taken to provide a more comprehensive day programme<sup>3</sup> for demented patients.

### **New Facilities**

11. The increasing prevalence of cardiac, pulmonary and neurological illnesses due to the ageing population has generated considerable demand for related rehabilitation services. At present, the rehabilitation services for patients suffering from cardiac, pulmonary and neurological illnesses are provided by medical specialists of RH in collaboration with the allied health departments in RH. The services are provided in different physical locations and there is no comprehensive rehabilitation programme specifically designed for these patients. To alleviate the heavy burden of chronic illnesses on health care resources and to provide holistic patient care, a Rehabilitation Centre will be set up in TSKH to meet the rehabilitation needs of the increasing number of patients suffering from chronic cardiac, pulmonary and neurological illnesses. The proposed Centre will run full-day rehabilitation programmes to provide multi-disciplinary treatment for the patients, with particular emphasis on rehabilitation and allied health services.

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<sup>2</sup> The day programmes currently offered by RH and Wong Chuk Hang Hospital provide 25 and 35 day sessions for each patient respectively.

<sup>3</sup> The day programme will be enhanced to provide 40 day sessions for each patient.

We expect the Centre to have the capacity to handle a patient load which is 25% more than that currently handled by RH. The estimated annual throughput of the Centre is about 300 patients and 2 400 attendances, 450 patients and 1 400 attendances as well as 80 patients and 1 200 attendances for cardiac, pulmonary and neurological cases respectively.

12. Family medicine is a specialised discipline of medicine that provides primary, continuing and comprehensive care to an individual and the family in the community. The care is holistic, incorporating the interaction and interrelatedness of psycho-social and physical elements of health. Promotion of family medicine practice can enhance the effectiveness of primary medical care. In Hong Kong, the development of this specialty is still at an early stage. HA has started its four-year family medicine training programme since 1997-98, and set up 35 family medicine-based clinics to assist the SOPCs by providing stepped-down care to patients in stabilised conditions. To support the development of family medicine and provide structured training programmes for family medicine trainees to complement training at the family medicine-based clinics, a Family Medicine Training Centre has been set up in the Prince of Wales Hospital. The Centre is however unable to cope with the training needs of the existing 310 family medicine trainees in HA and the long term training requirement in respect of family medicine practice. HA therefore proposes to set up another Family Medicine Training Centre at TSKH, with a training capacity for about 400 doctors per annum.

## FINANCIAL IMPLICATIONS

13. We estimate the total cost of the project to be \$239.1 million in MOD prices (see paragraph 14 below), made up as follows -

	<b>\$ million</b>
(a) Building	125.0
(b) Building services	65.0
(c) Drainage and external works	1.5
(d) Demolition and structural strengthening works	11.3

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	<b>\$ million</b>	
(e) Furniture and equipment <sup>4</sup>	20.0	
(f) Contingencies	20.2	
	Sub-total	243.0 (in September 2001 prices)
(g) Provision for price adjustment	(3.9)	
	Total	239.1 (in MOD prices)

The construction floor area (CFA) of the project is about 14 278 square metres. The estimated construction unit cost for the remodelling works<sup>5</sup> of TSKH, represented by building and building services costs, is \$13,307 per square metre of CFA in September 2001 prices. The unit cost is comparable to that for other similar projects carried out by the Government.

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

Year	\$ million (Sept 2001)	Price adjustment factor	\$ million (MOD)
2002 – 03	5.0	0.98625	4.9
2003 – 04	80.0	0.98378	78.7
2004 – 05	80.0	0.98378	78.7
2005 – 06	40.0	0.98378	39.4
			/2006 – 07 .....

<sup>4</sup> Based on an indicative list of furniture and equipment items and their estimated prices.

<sup>5</sup> The proposed remodelling works comprise -

- (a) modifications of the existing floor layouts and construction of extension structures on existing roof terraces to meet operational requirements, with a vacant area of about 370 square metres to cater for future service development;
- (b) structural repairs and strengthening;
- (c) structural alterations including demolition of an existing multi-floor vehicular access ramp to provide for additional accommodation for new lift shafts and staircases; and
- (d) replacement and upgrading of existing building services installations to meet operational requirements and comply with prevailing statutory requirements and standards.

Year	\$ million (Sept 2001)	Price adjustment factor	\$ million (MOD)
2006 – 07	20.0	0.98378	19.7
2007 – 08	18.0	0.98378	17.7
	243.0		239.1

15. We derived the MOD estimates on the basis of Government's latest forecast of trend labour and construction prices for the period 2002 to 2008. We will tender the remodelling works under a lump-sum contract with provision for price fluctuation as the contract period will exceed 21 months.

16. HA has assessed the requirements for furniture and equipment (F&E) for this project, and estimates the F&E cost to be \$20 million. The proposed F&E percentage, which represents 10.4% of the total construction cost<sup>6</sup> of the project, is comparable to that for reprovisioning projects of similar scale. A list of major F&E items (costing \$1 million or above per item) to be procured for the project is at Enclosure 2.

17. We estimate the additional annual recurrent expenditure arising from the project to be \$ 14.44 million. With the implementation of the population based funding mechanism, the provision of recurrent funding will no longer be facility-based. No separate resources will therefore be provided to HA to cover recurrent consequences arising from this project.

## PUBLIC CONSULTATION

18. We consulted the Legislative Council Panel on Health Services on the proposal on 11 March 2002. Panel members supported the proposed project.

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<sup>6</sup> Represented by building, building services, and drainage and external works costs.



19. HA consulted the Community Building Committee of the Wan Chai District Council on the rationalisation of services in respect of RH, TSKH, TCNSC and SC on 10 April 2001. Members of the Committee had no adverse comments on the proposal. HA briefed the Wan Chai District Council on the remodelling of TSKH into an ambulatory care centre on 19 March 2002. Members of the Council supported the project.

## ENVIRONMENTAL IMPLICATIONS

20. We conducted a Preliminary Environment Review (PER) in April 2000 which concluded that the project will not cause any long term adverse environmental impact. We have included in the project estimate the cost to implement suitable mitigation measures to control the short term environmental impacts.

21. At the planning and design stages, D Arch S has considered measures to reduce the generation of construction and demolition (C&D) materials. D Arch S will use suitable excavated materials for filling within the site to minimise off-site disposal. To further minimize the generation of C&D materials, D Arch S will encourage the contractors to use non-timber formwork and recyclable materials for temporary works. In addition, D Arch S will require the contractor to use metal site hoardings and signboards so that these materials can be recycled or reused in other projects.

22. D Arch S will 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. D Arch S will ensure that the day-to-day operations on site comply with the approved WMP. D Arch S will control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip-ticket system. The contractor will be required 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. We estimate that the project will generate about 5 830 cubic metres (m<sup>3</sup>) of C&D materials. Of these, we will reuse about 4 372 m<sup>3</sup> (75%) on site, 525 m<sup>3</sup> (9%) as fill in public filling areas<sup>7</sup> and dispose of

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<sup>7</sup> A public filling area is a designated part of a development project that accepts public fill for reclamation purpose. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering.

933 m<sup>3</sup> (16%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$116,625 for this project (based on a notional unit cost<sup>8</sup> of \$125/m<sup>3</sup>).

## LAND ACQUISITION

23. The project does not require land acquisition.

## BACKGROUND INFORMATION

24. TSKH runs an A&E Department and provides allied health services including Speech Therapy, Prosthetics and Orthotics, Physiotherapy and Occupational Therapy.

25. RH is an acute general hospital with 599 beds. It provides a wide spectrum of inpatient and specialist outpatient services. Its clinical specialties include medicine, respiratory medicine, surgery and orthopaedics. It also provides comprehensive geriatric care by running a day hospital, an SOPC and community geriatric assessment services.

26. SC currently provides outpatient physiotherapy and occupational therapy services, and runs a Community Nursing Service Centre. The Psychiatric Day Centre in SC has been temporarily relocated to the Pamela Youde Nethersole Eastern Hospital, pending completion of this project.

27. TCNSC currently provides specialist outpatient services in medicine, surgery, orthopaedics and gynaecology. It also runs a Dietetic Information Centre which provides nutritional information to the public.

28. We announced our plan to remodel TSKH into an ambulatory care centre after the relocation of its A&E services to RH in the 2000 Policy Address. We upgraded 47MM to Category B in December 2000.

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<sup>8</sup> 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 per m<sup>3</sup>), nor the cost to provide new landfills (which is 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.

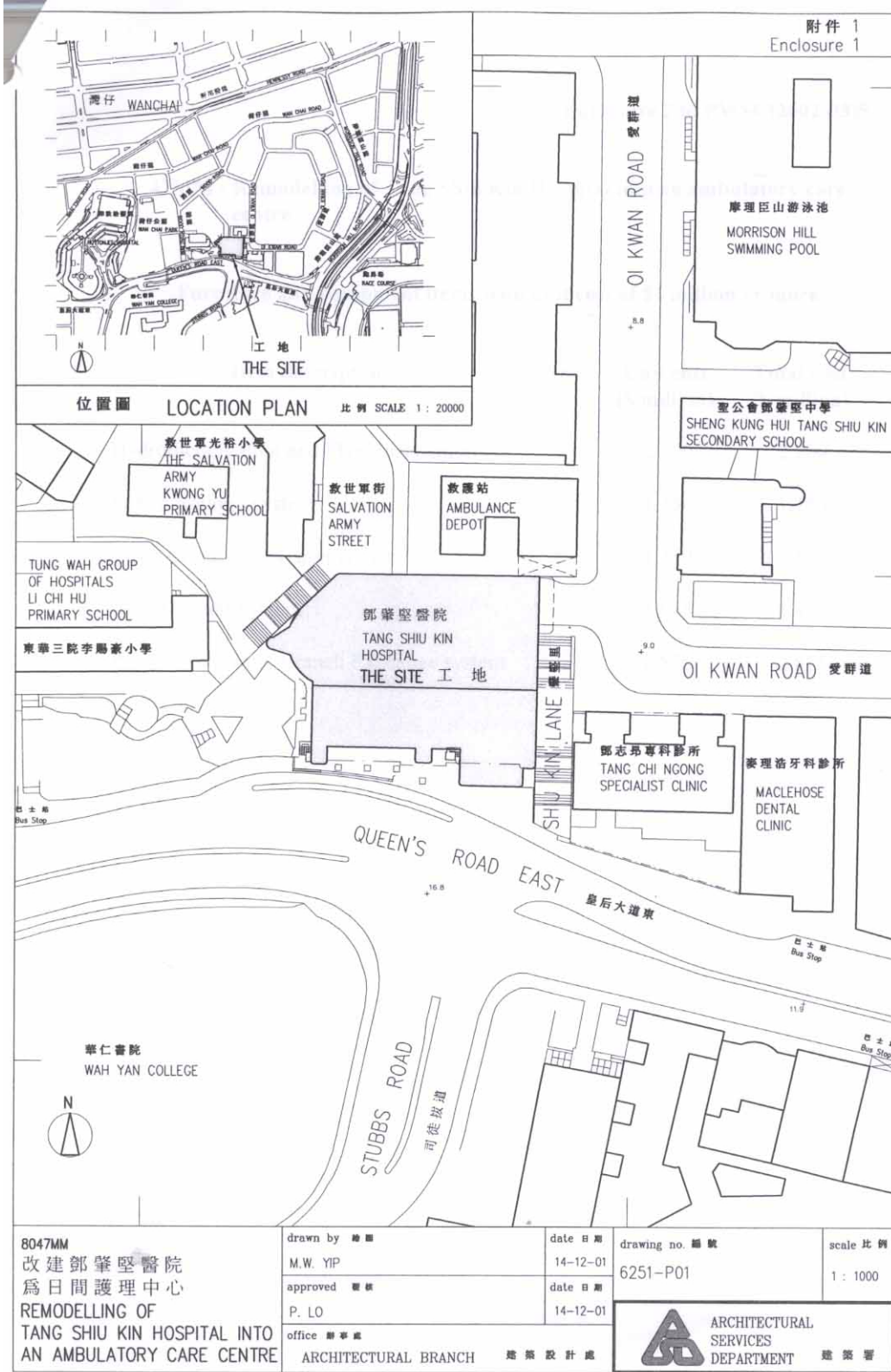
29. We obtained funding approval in February 2001 for project **3MG** to relocate the A&E Department of TSKH to RH at a capital cost of \$153.53 million. Construction of a new wing in the form of three additional floors on top of the podium of RH was completed in March 2002, and the inpatient allied health departments of TSKH have been relocated to the new wing and merged with those of RH. The A&E Department of TSKH is scheduled to be relocated to RH in August 2002 and the relocation of the SOPCs from TCNSC to RH is scheduled for October 2002. The remaining works covered by the approved project scope will be completed by April 2003.

30. To avoid potential risks to the health and safety of the public, patients and hospital staff, HA will completely vacate TSKH prior to the commencement of the alteration works. Apart from the relocation of inpatient beds, inpatient allied health departments and the A&E Department to RH as referred to in paragraph 7 above, the Integrated Clinic and HA Staff Clinic will be temporarily reprovisioned in TCNSC to ensure continuity of services. The A&E Training Centre at TSKH will also be temporarily reprovisioned in SC. DH's Social Hygiene Clinic at TSKH will be decanted and permanently reprovisioned in TCNSC.

31. We engaged a consultant to complete a PER for the project in April 2000 at a cost of \$53,300 under **Subhead 8100MX** "Hospital Authority – improvement works, feasibility studies, investigations and pre-contract consultancy services for building projects". We have completed the detailed design of the project and D Arch S is now preparing the tender document with in-house resources.

32. We estimate that the project will create some 245 jobs comprising ten professional/technical staff and 235 labourers, totalling 5 300 man-months.

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Health and Welfare Bureau  
April 2002



8047MM  
 改建鄧肇堅醫院  
 為日間護理中心  
 REMODELLING OF  
 TANG SHIU KIN HOSPITAL INTO  
 AN AMBULATORY CARE CENTRE

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**Enclosure 2 to PWSC(2002-03)5**

**47MM - Remodelling of Tang Shiu Kin Hospital into an ambulatory care centre**

**Furniture and equipment items with unit cost of \$1 million or more**

<b>Item description</b>	<b>Qty</b>	<b>Unit cost (\$ million)</b>	<b>Total cost (\$ million)</b>
Hydrotherapy Pool and Plant Installation	1	2.200	2.200
Public Address system	1	1.150	1.150
Close Circuit Television system	1	1.150	1.150
Audio Visual System	1	1.955	1.955
Private Automatic Branch Exchange system	1	2.875	2.875