

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Government Offices – Intra-governmental services

**63KA – Central Government Complex, Legislative Council Complex,
exhibition gallery and civic place at Tamar, Central**

**50RE – Planning and Infrastructure Exhibition Gallery at Tamar - exhibits
design and fabrication**

Members are invited to recommend to Finance
Committee -

- (a) the upgrading of **63KA** to Category A at an estimated cost of \$4,679.3 million in money-of-the-day prices for the design and construction of the Central Government Complex, Legislative Council Complex, Exhibition Gallery and Civic Place at Tamar; and
- (b) the upgrading of **50RE** to Category A at an estimated cost of \$174.9 million in money-of-the-day prices for the design and fabrication of exhibits in the Exhibition Gallery.

/PROBLEM

PROBLEM

The existing Central Government Offices and Legislative Council (LegCo) Building cannot meet the demand in terms of the requirements for office space and modern working environment. There is also no permanent exhibition venue in Hong Kong to display our infrastructural and development initiatives.

PROPOSAL

2. The Director of Architectural Services (D Arch S), with the support of the Director of Administration, proposes to upgrade **63KA** to Category A at an estimated cost of \$4,679.3 million in money-of-the-day (MOD) prices for the design and construction of the Central Government Complex (CGC), LegCo Complex, Exhibition Gallery, Civic Place and associated facilities at Tamar. At the same time, D Arch S, with the support of the Secretary for Housing, Planning and Lands, also proposes to upgrade **50RE** to Category A at an estimated cost of \$174.9 million in MOD prices for the related design and fabrication of exhibits in the Exhibition Gallery.

PROJECT SCOPE AND NATURE

3. The scope of **63KA** comprises the design and construction of -
- (a) the CGC, with a total construction floor area (CFA) of 136 200 square metres and consisting of -
 - (i) a low block for accommodating the Chief Executive's Office, the Executive Council and Secretariat, and other ancillary facilities; and
 - (ii) high block(s) for accommodating the offices of the Principal Officials, offices of Bureaux, other offices, functionally related facilities including conference rooms, press room and multi-purpose hall, and other ancillary facilities;
 - (b) the LegCo Complex, with a total CFA of 36 000 square metres and consisting of -
 - (i) a low block for accommodating the LegCo Chamber, conference rooms, press room, dining hall and other ancillary facilities; and

/(ii)

- (ii) high block(s) for accommodating Members' offices, staff offices of the LegCo Secretariat, library and other ancillary facilities;
- (c) the Exhibition Gallery, with a total CFA of 24 000 square metres and consisting of -
- (i) exhibition facilities including atrium, thematic exhibition areas, learning centre and children's gallery;
 - (ii) community education facilities including resource centre, public forum, conference hall and briefing rooms;
 - (iii) visitor services facilities including restaurants, cafeteria, bookstore and souvenirs shop; and
 - (iv) administrative and supporting facilities;
- (d) the Civic Place, with a total area of about two hectares, which will be designed as a passive recreational space for the public;
- (e) 590 carparking spaces¹ and other ancillary facilities such as loading and unloading areas and mechanical plant rooms (with a total CFA of 49 500 square metres) for the CGC, the LegCo Complex and the Exhibition Gallery; and
- (f) two covered pedestrian footbridges connecting -
- (i) the south of the development at Tamar with Admiralty; and
 - (ii) the east of the development at Tamar with the existing footbridge system linking CITIC Tower.

4. The scope of **50RE** comprises the design, fabrication and installation of exhibits in the Exhibition Gallery. The deliverables of the project include -

/(a)

¹ The 590 carparking spaces include 380 carparking spaces for the CGC, 120 carparking spaces for the LegCo Complex and 90 carparking spaces for the Exhibition Gallery.

- (a) audio-visual/animated displays;
- (b) audio-visual and/or interactive facilities;
- (c) models and other exhibits; and
- (d) fitting-out works for exhibits.

5. A site plan of Tamar is at **Enclosure 1**. For **63KA**, we plan to start the construction works in early 2004 for completion in 2007. As for **50RE**, we plan to start the planning and design of the exhibits and other facilities in late 2003 and complete the fitting-out, fabrication and installation works in 2007.

JUSTIFICATION

6. We will develop the Tamar site as the prime civic core of Hong Kong. It will accommodate the proposed CGC, LegCo Complex, Exhibition Gallery and Civic Place. The justifications for the major components of the project are set out below.

CGC

7. The offices of the Government Secretariat are mainly housed in the Central Government Offices and Murray Building. Both buildings are over 30 years old. The premises can no longer meet the office space requirement of the Government Secretariat and the maintenance expenses have been increasing over the years. The old buildings also pose considerable constraints for upgrading them satisfactorily to provide a modern office working environment and cope with the latest technological changes. Some offices of the bureaux are currently out-stationed in scattered government buildings or leased premises.

8. The development of a new CGC at Tamar will provide a long-term solution to the above problems. The new complex will bring together offices of the Chief Executive, Executive Council and Secretariat, Government Secretariat and other functionally related facilities within one modern development. The more convenient and rational accommodation arrangement will help improve the operational efficiency of the Government. A table summarising the existing and planned arrangement for accommodating the relevant offices and facilities is at **Enclosure 2**.

/LegCo

LegCo Complex

9. The existing LegCo building was constructed in 1911 as the then Supreme Court. It is not large enough to accommodate all the staff and facilities of LegCo. Part of the LegCo Secretariat and offices of LegCo Members are currently accommodated in nearby leased premises and the West Wing of CGO due to the shortage of space in the LegCo Building. The situation is not satisfactory and not conducive to the efficient operation of the legislature. The proposed new LegCo Complex will solve the accommodation problem by providing purpose-built premises to meet the long-term accommodation requirements of the LegCo. A table showing the existing and planned arrangement is at **Enclosure 3**.

Exhibition Gallery

10. Many major cities in the Asia Pacific region such as Shanghai, Singapore and Sydney have permanent exhibition facilities to showcase their major development plans and projects. We see the need to construct a special facility in Hong Kong to provide the public and visitors with an overview of our major infrastructure projects and development plans. The temporary Planning and Infrastructure Exhibition Gallery (with a gross floor area of 500 square metres) at Edinburgh Place can only display a limited number of smaller-scale models and exhibits. It can only entertain a limited number of visitors due to size and layout constraints. Nevertheless, it has been receiving very positive response from visitors, including overseas delegations and relevant professional groups.

11. The proposed Exhibition Gallery will provide a permanent venue to manifest the vision of Hong Kong's future development and showcase our infrastructure programme and development plans. It will be an important resource centre to facilitate community education on our urban planning and major infrastructure development. The Gallery will also serve as an attraction for overseas delegations and tourists, contributing to a better understanding of our vibrant city. Details of the proposed major facilities in the Gallery are set out in **Enclosure 4**.

12. The Exhibition Gallery will form an integral part of the civic core at Tamar which, together with the Civic Place, will present a lively and interesting mix of uses by the public. We envisage that the Gallery will be well received by the community and overseas visitors. A table setting out the proposed size and projected visitation of the Exhibition Gallery vis-à-vis major museums in Hong Kong is at **Enclosure 5**.

Civic Place

13. The Tamar site is about 4.2 hectares in size. It includes two hectares of land zoned for “Open Space” in the relevant Outline Zoning Plan. We propose to develop the open space (the Civic Place) and the proposed CGC, LegCo Complex and Exhibition Gallery under an integrated approach. The form, scale and massing of the buildings should blend coherently with the landscape design and setting of the Civic Place. The Civic Place will be designed as a passive recreational space for the enjoyment of the public. Connected to the future waterfront promenade, it will form part of a larger and more prominent open space network.

Pedestrian footbridges

14. The two proposed pedestrian footbridges will provide safe, covered and convenient access to the CGC, LegCo Complex, other facilities at the Tamar site and the future waterfront promenade. The footbridges are included in this project as they will be essential linkages for access to and from the Tamar site. We will also proceed to seek the necessary authorisation for the construction of the footbridges under the Roads (Works, Use and Compensation) Ordinance (Cap 370) after the detailed alignment has been worked out.

Other Considerations

15. In specifying our requirements for the design and construction of the various components of the project, we see the need to -

- (a) encourage the use of new methods and technologies that are environmentally-friendly and conducive to efficient and effective building management and maintenance in the long term; and
- (b) cater for the current and future operational requirements of the headquarters of the Hong Kong Special Administrative Region Government and LegCo .

16. To this end, we will require the design of the offices of the CGC to be sufficiently flexible to cater for future organisational changes. In respect of the LegCo Complex, we will require the tenderers to build in the flexibility for future expansion. We will also consider relevant assessment criteria to encourage the use of new or environmentally-friendly methods and technologies in the context of tender selection.

/FINANCIAL

FINANCIAL IMPLICATIONS

17. We estimate the total cost of **63KA** to be \$4,679.3 million in MOD prices, made up as follows -

	\$ million
(a) Site works	30.0
(b) Piling	195.0
(c) Basement construction	322.3
(d) Building	2025.5
(e) Building services	1172.2
(f) Drainage and external works	120.0
(g) Landscaping works	60.0
(h) Pedestrian footbridges	113.0
(i) Information technology infrastructure and cabling	91.0
(j) Chilled water supply system for air-conditioning	50.0
(k) Furniture and equipment ²	351.7
(l) Consultancy fees for	42.7
(i) Quantity surveying consultants	13.0
(ii) Civil engineering consultants	2.0
(iii) Structural engineering consultants	7.7
(iv) Electrical and mechanical engineering consultants	20.0

/(m)

² The estimate is made having regard to the past trend of approved furniture and equipment estimates for other design-and-build government offices buildings.

	\$ million	
(m) Overseas inspections and factory/laboratory visits	0.3	
(n) Contingencies	457.4	
	<hr/>	
Sub-total	5,031.1	(in September 2002 prices)
(o) Provisions for price adjustment	(351.8)	
	<hr/>	
Total	4,679.3	(in MOD prices)

Items (a) and (b) above are for the construction of hoarding, covered walkways, allowance for site clearance, minor site levelling, additional site investigation, survey, geotechnical monitoring work, and piling and foundation works, etc. Item (c) includes excavation, construction of diaphragm walls, pile caps and basement slabs, etc. for basement construction. Item (d) comprises construction of the superstructure of the low and high blocks of the CGC and the LegCo Complex, and the Exhibition Gallery. It includes the external facades, internal construction and finishes, plumbing and drainage installations and roof features etc. Item (e) comprises electrical, ventilation, air-conditioning and fire protection systems, lifts and escalators, window cleansing equipment and a central refuse collection system etc. Item (f) comprises construction of steps, railing, fencewall, minor out-building, external lighting, irrigation system, external paving and finishes, etc. Item (i) is for the provision of network infrastructure, floor cabling, backbone cabling, cable closets and provisions of network management equipment etc.

18. As regards item (l), D Arch S proposes to engage consultants after the award of contract to undertake quantity surveying services, electrical and mechanical engineering consultant to advise on and supervise electronic and security systems, civil engineering consultant to design and supervise the chilled water supply system within Central Reclamation III and structural engineering consultants for checking the contractor's seismic and deep basement construction designs. A breakdown of the estimate for consultants' fees by man-months is at **Enclosure 6**.

19. The total CFA of **63KA** is about 245 700 square metres. The estimated construction unit cost, represented by building and building services costs, is \$13,015 per square metre of CFA in September 2002 prices. The unit cost is comparable to the corresponding figures of other government design-and-build office projects.

20. Subject to approval, we will phase the expenditure for **63KA** as follows -

Year	\$ million (Sept 2002)	Price adjustment factor	\$ million (MOD)
2003 – 04	15.1	0.94300	14.2
2004 – 05	360.4	0.93003	335.2
2005 – 06	1,001.3	0.93003	931.2
2006 – 07	1,501.8	0.93003	1,396.7
2007 – 08	1,001.2	0.93003	931.2
2008 – 09	800.9	0.93003	744.9
2009 – 10	350.4	0.93003	325.9
	5,031.1		4,679.3

21. We estimate the total cost of **50RE** to be \$174.9 million in MOD prices, made up as follows -

	<u>\$ million</u>
(a) Consultancy fees for	28.4
(i) detailed design for exhibits and related fitting-out	19.4
(ii) contract administration and site supervision for exhibition works	9.0
(b) Exhibits fabrication and installation	100.0
(c) Related fitting-out works	47.2
	/(c)

(d) Contingencies	12.4
Sub-total	188.0 (in September 2002 prices)
Provision for price adjustment	(13.1)
Total	174.9 (in MOD prices)

22. Subject to approval, we will phase the expenditure for **50RE** as follows -

Year	\$ million (Sept 2002)	Price adjustment factor	\$ million (MOD)
2003 – 04	1.0	0.94300	0.9
2004 – 05	10.0	0.93003	9.3
2005 – 06	36.0	0.93003	33.5
2006 – 07	76.0	0.93003	70.7
2007 – 08	47.0	0.93003	43.7
2008 – 09	12.0	0.93003	11.2
2009 – 10	6.0	0.93003	5.6
	188.0		174.9

23. We have derived the MOD estimates on the basis of the Government's latest forecast of trend labour and construction prices for the period 2003 to 2010. For **63KA**, we will tender the majority of the works through a design-and-build contract. We intend to award the contract on a fixed-price lump sum basis as we can clearly define the scope of works in advance, leaving little room for uncertainty. The contract will provide for price adjustments as the contract period will exceed 21 months. Regarding **50RE**, we will commission a consultancy study on the detailed design of the exhibits and related fitting-out for the Exhibition Gallery. Works on fabrication and installation of exhibits and the related fitting-out will be tendered under separate contracts.

/24.

24. We estimate the additional annual recurrent expenditure arising from **63KA** and **50RE** to be \$100.4 million.

PUBLIC CONSULTATION

25. We consulted the LegCo Panel on Planning, Lands and Works in May 2002 on the Government's proposal to develop the Tamar site for the new CGC, LegCo Complex and other compatible community facilities. After formulating a more detailed proposal, we consulted the Panel again on 4 April 2003. Members were generally supportive of the proposals. There were some questions about the visitation level and cost-effectiveness of the Exhibition Gallery. Relevant information is set out in **Enclosure 4**. There were also comments on the importance of fair selection of tenders and reduction of construction waste which we would pay due regard to in implementing the tender selection and construction.

26. We briefed the Central and Western District Council on the plan to develop the Tamar site in October 2002. The Council also expressed general support for the proposal.

ENVIRONMENTAL IMPLICATIONS

27. D Arch S completed a Preliminary Environmental Review (PER) in October 1998. The PER concluded that the project would have no long-term environmental impact. The Director of Environmental Protection vetted the PER and agreed that an Environmental Impact Assessment would not be necessary.

28. During construction, we will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contract. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

29. At the planning and design stages, D Arch S has considered measures to reduce the generation of construction and demolition (C&D) materials, such as requiring the contractor to use more recycled materials in

/project

project design to reduce temporary formwork and construction waste. We will use suitable excavated materials for filling within the site to minimise off-site disposal. In addition, we will require the contractor to use metal site hoardings and signboards so that these materials can be recycled or reused in other projects.

30. D Arch S will require the contractor to submit a waste management plan (WMP) for scrutiny and agreement. The WMP will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. D Arch S will ensure that 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. D Arch S will also 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. We estimate that the project will generate about 580 000 cubic metres (m³) of C&D materials. Of these, we will reuse 8 000 m³ (1.4%) of C&D materials on site, 482 000 m³ (83.1%) as fill in public filling areas³ and dispose of 90 000 m³ (15.5%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$11.25 million for this project (based on a notional unit cost⁴ of \$125/m³).

LAND ACQUISITION

31. The project does not require land acquisition. Subject to the final design and alignment, the construction of the footbridge linking to Admiralty may affect a small number of shops and require resumption. Any cost of resumption and clearance will be charged to Head 701 Subhead 1100CA "Compensation and ex-gratia allowance in respect of projects in the Public Works Programme".

BACKGROUND INFORMATION

32. The Executive Council decided in April 2002 that the Government should proceed to develop the Tamar site for the new CGC together with a new

/LegCo

³ 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.

⁴ 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 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.

LegCo Complex and other compatible community facilities. The selection of contractor for the relevant design-and-build contract is a two-stage exercise. We completed the Stage I prequalification exercise in December 2002 and prequalified five applicants for participation in the subsequent tender. We will finalise the user requirement and proceed to the Stage II tendering in the second quarter of 2003.

33. A Special Selection Board has been set up to assess the applications for prequalification and the tenders and decide on the award of contract. The Board is chaired by the Chief Secretary for Administration with two LegCo Members, two senior government officials and a former professor in architecture as Members.


34. We conducted the site investigation work and the pre-contract consultancy services for topographical survey and other services relating to the preparation of preliminary project feasibility study, including preliminary environmental review, traffic impact assessment, value management workshop and preparation of prequalification and tender documents during the period from November 1997 to April 2003 at a total cost of \$14.98 million. The expenditure has been charged to the block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees for items in Category D of the Public Works Programme".

35. We estimate that the proposed works under **63KA** will create some 2 720 jobs comprising 80 professional staff, 190 technical staff and 2 450 labourers, totalling 73 000 man-months. The proposed works under **50RE** will also create some 155 jobs comprising 25 professional/technical staff and 130 labourers, totally 4 000 man-months.

Housing, Planning and Lands Bureau
Administration Wing
April 2003



位置圖 LOCATION PLAN 比例 1:20000

S3KA	Central Government Complex, Legislative Council Complex, exhibition gallery and civic place at Tamar, Central	drawn by	S.C. Li	date	04-2003	drawing no.	AB/6104/SK001	scale	1:2000
	在中環添馬艦興建政府總部、立法會大樓、展覽館和文娛用地。	approved	C.P. Chow	date	04-2003	 ARCHITECTURAL SERVICES DEPARTMENT			
S09E	Planning and Infrastructure Exhibition Gallery at Tamar-exhibits design and fabricates	office	ARCHITECTURAL BRANCH						
添馬艦展出的香港規劃及基建展覽館一類品設計及製作。									

**Existing and Planned Arrangement for
Office Accommodation - Central Government Complex (CGC)**

	Facilities	Existing area (m ²)	Area required in the new CGC (m ²)
1.	Chief Executive's Office	1 064	1 566
2.	Executive Council and its Secretariat	779	1 188
3.	Chief Secretary for Administration's and Financial Secretary's Offices, including Administration Wing and other offices ^{Note 1}	6 963	7 433
4.	Offices of Bureaux	47 156	47 952
5.	Common and Ancillary Facilities ^{Note 2}	2 993	7 892
	<i>Sub-total</i>	58 955	66 031
		Allowance for Expansion (5%)	3 302
		Total	69 333

Note 1: Other offices include Central Policy Unit, Efficiency Unit and Secretariat Press Office Support Office

Note 2: Common and Ancillary Facilities include multi-purpose hall, press rooms, conference rooms, function hall, dining room and building management office, etc

Existing and Planned Arrangement for Office Accommodation - LegCo Complex

	Facilities	Existing area (m ²)	Total area required in the new LegCo Complex (m ²) [subject to agreement with the LegCo Commission]
1.	Members' offices and facilities	2 820	4 160
2.	Staff offices	3 050	3 550
3.	Meeting facilities	820	3 652
4.	Ancillary facilities ^{Note 1}	2 720	4 640
	Total area (m ²)	9 410	16 002
5.	Car-parking spaces	30	120

(Note: In addition to the space requirements for the New LegCo Complex set out above, it is estimated that a total area of 2 300m², subject to agreement with the LegCo Commission, will be required for an increase of every 15 LegCo seats in future. The implementation of any such expansion plan will be subject to the outcome of relevant future policy review and availability of funding)

Note 1: Ancillary facilities include the Ante-Chamber, press facilities, library, facilities for the Redress System, dining facilities (other than space requirement for kitchens in the Dining Hall and Cafeteria, which are subject to the size requirements under the Food Business Regulation of Public Health and Municipal Services Ordinance), computer server rooms, printing room and building management room, etc.

Proposed Major Facilities of Exhibition Gallery

The major facilities of the Exhibition Gallery will include –

(a) Exhibition Area

- (i) The Exhibition Area will have a large atrium where visitors can learn about Hong Kong's future development and competitive edge through audio and visual materials. Within the atrium we propose different thematic sections to provide visitors with a holistic vision of Hong Kong's development plans and highlight the city's key advantages and the role of planning in maintaining our leading edge. A big 'wow' attraction at the atrium would take the form of a large-scale digitally enhanced model to engage and draw a wide range of audiences.
- (ii) Apart from the core area of the atrium, there will be four major thematic exhibition areas. Under 'City of Communities', the main focus will be urban development which aims at conveying the message that Hong Kong is always looking to plan for growth and progress and meeting the aspirations of its citizens for a better living environment. Under 'City of Networks', the main theme will be transport/logistics/information technology which aims at showing our strategic location and connections on many levels – international, regional, local, virtual and community. We will highlight, under 'City of Life', the multiplicity of Hong Kong's way of life and attractiveness as Asia's premier tourist destination. Sustainable development will feature as the main theme under 'City of Harmony', where we would show how Hong Kong strives to integrate economic and social development with environmental protection, so as to continue to build our sustainable city.
- (iii) In addition to the thematic exhibition areas, there will be a learning centre/children's gallery catering for young visitors. The exhibitions would be displayed and conveyed through a variety of media such as digital models, a spectacular audio visual show, responsive AV environment of virtual city and journeys, and highly interactive models and exhibits. Temporary exhibitions will also be arranged to maintain popularity of the Gallery.

(b) Community Education Facilities

- (i) To facilitate community education and public exchange of views, the Gallery will provide a public forum, conference hall, briefing rooms, and a resource centre. The resource centre will provide the public with latest information on planning and infrastructure, such as the statutory town plans and consultation documents on major planning and infrastructure projects.

(c) Administrative, commercial and ancillary facilities

- (i) We will provide administrative facilities such as visitor services, ticketing offices and staff office. There will also be restaurants, cafeteria and shops such as bookstore and souvenir shop to serve visitors to the Gallery or Civic Place, and other members of the public.

Size and Visitation Level of Exhibition Gallery and Museums

	Proposed Exhibition Gallery at Tamar	Temporary Gallery at Edinburgh Place	Science Museum of Leisure and Cultural Services Department (LCSD)	History Museum of LCSD	Heritage Museum of LCSD
Total Gross Floor Area	18 600 m ²	500 m ²	17 500 m ²	17 500 m ²	32 000 m ²
Annual Recurrent Cost (A)	\$44 million	\$2 million	\$60 million ⁽ⁱ⁾	\$66 million ⁽ⁱ⁾	\$91 million ⁽ⁱ⁾
Annual Visitation Level (B)	800 000 – 830 000 ⁽ⁱⁱ⁾	60 000 ⁽ⁱⁱⁱ⁾	868 000 ^(iv)	897 000 ^(iv)	783 000 ^(iv)
Operating Cost per Visitor (A/B)	\$55	\$38	\$69	\$73	\$116

Note

- (i) Part of the cost will be for the maintenance of the exhibits which are of different nature for different museums.
- (ii) Forecast for 2007 to 2011, based on the findings of an Interpretative Planning Study on the Planning and Infrastructure Exhibition Gallery.
- (iii) Full year projection. For the nine months from July 2002 to March 2003, total visitation is about 40 000.
- (iv) For calendar year 2002

**63KA – Central Government Complex, LegCo Complex, Exhibition
Gallery and Civic Place at Tamar**

Breakdown of estimate for consultants' fees

Consultants' staff cost		Estimated man- months	Average MPS* salary point	Multiplier	Estimated fee (\$million)
(a) Quantity surveying	Professional	78.0	38	2.0	9.0
	Technical	104.0	14	2.0	4.0

					Sub-total

(b) Civil engineering	Professional	14.0	38	2.0	1.6
	Technical	10.0	14	2.0	0.4

					Sub-total

(c) Structural engineering	Professional	58.0	38	2.0	6.7
	Technical	27.0	14	2.0	1.0

					Sub-total

(d) Electrical and mechanical engineering	Professional	164.5	38	2.0	19.0
	Technical	25.0	14	2.0	1.0

					Sub-total

					Total
					42.7

*MPS = Master Pay Scale

Notes

- (1) A multiplier of 2.0 is applied to the average MPS point to estimate the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices. (At 1 October 2002, MPS point 38 is \$57,730 per month and MPS point 14 is \$19,195 per month.)

- (2) The figures given above are based on estimates prepared by the Director of Architectural Services. We will only know the actual man-months and actual fees when we have selected the consultants through the usual competitive bidding system.