ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Education Subventions

57EC – A private independent school (secondary-cum-primary) at Caldecott Road, Sham Shui Po

Members are invited to recommend to Finance Committee the upgrading of **57EC** to Category A at an estimated cost of \$228.6 million in money-of-the-day prices for the construction of a private independent school comprising a 30-classroom secondary section and a 30-classroom primary section at Caldecott Road, Sham Shui Po.

PROBLEM

We need to provide more diversity in our school system and give parents more choices in the selection of schools for their children. We also need to facilitate an increase in school places offering non-local curricula to provide relief for the international school sector.

PROPOSAL

2. The Secretary for Education and Manpower (SEM), on the advice of the Director of Architectural Services (D Arch S), proposes to upgrade **57EC** to Category A at an estimated cost of \$228.6 million in money-of-the-day (MOD) prices for the construction of a non-profit-making private independent school (PIS) comprising a 30-classroom secondary section and a 30-classroom primary section at Caldecott Road, Sham Shui Po.

3. The overall construction cost of the school premises is estimated to be \$304.2 million in MOD prices, comprising \$228.6 million of Government subvention and \$75.6 million to be borne by the school sponsor. The amount of Government subvention, being no more than the cost of constructing standard design public sector schools accommodating the same number of students, will be provided in the form of a capital grant to the school sponsor for the sole purpose of building the school. The school sponsor will be responsible for the design and construction of the school to meet its own curriculum needs.

PROJECT SCOPE AND NATURE

4. The project involves the demolition of a school building on the site¹ and the construction of the new school premises with the following planned facilities –

		Secondary section	Primary section
(a)	classrooms	30	30
(b)	special rooms	16	6
(c)	staff rooms	1	1
Shar	red facilities		
(d)	staff common room;	1	
(e)	assembly hall;	1	
(f)	small group teaching rooms;	7	,
(g)	guidance activity rooms;	2	
(h)	interview rooms;	4	
(i)	student activity centres;	2	,
(j)	conference rooms;	2	,
			/(k)

The school building, which was used as the former campus of Sir Robert Black Colleage of Education, has been constructed for more than 40 years. Its facilities are far below the standards of existing and new schools. We recommend that the school building be vacated and demolished for the construction of a new school premises.

(k)	library;	1
(1)	multi-purpose areas;	2
(m)	basketball courts;	3
(n)	swimming pool;	1
(o)	a 50-metre running track ² ;	1
(p)	green corner ³ ;and	1
(q)	ancillary accommodation including three lifts and relevant facilities for the handicapped	

A comparison of the facilities proposed under **57EC** with those of standard design schools is at Enclosure 1.

5. The proposed school will meet the planning target of providing two square metres of open space per student. A site plan is at Enclosure 2 and views of the school premises (artist's impression) are at Enclosure 3. The school sponsor plans to start works in March 2007 for completion in June 2009.

JUSTIFICATION

6. The proposed through-train school in Sham Shui Po will provide students with the opportunity of continuous progression in learning through their school years from ages 5 to 18. The proposed school will run a self-designed curriculum with an international dimension for both the primary and secondary sections. The curriculum for the primary section (comprising six grade levels) focuses on fostering a positive attitude towards learning and developing basic learning skills. As for the secondary section (comprising seven grade levels), the programme is enquiry-based with emphasis on positive education, critical and creative thinking, with International General Certificate of Secondary Education (IGCSE) as an exit point.

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Making optimal use of the space of the campus, a 50-metre running track will be provided.

The green corner is a designated area inside the campus to enable students to develop an interest in horticulture and the natural environment. The green corner may include a green house, a weather station and planting beds.

- 7. The pre-university diploma programme (similar to matriculation levels) offers a comprehensive two-year curriculum that generally prepares students to fulfill requirements of various national education systems. Subject to the authorization by International Baccalaureate Organisation, the curriculum of the pre-university programme will be based on the International Baccalaureate Diploma Programme that is expanding rapidly around the world.
- 8. The proposed school promotes bilingual education. Although English will be used as the medium for teaching and learning for the major subjects, the curriculum will put a strong emphasis on Chinese language (Putonghua) and moral education. Capitalising on its rich experience in school operation in Hong Kong, the school sponsor will continue to promote co-curriculum activities and students will be expected to pursue languages, mathematics, humanities, science and the arts at all levels.
- 9. Since the school will be recruiting students from all over the territory and operating on a self-financing basis, its operation should only have a marginal impact, if any, on the supply and demand balance of public sector school places in Sham Shui Po District. The school is expected to provide an alternative for local students to enrol in private international schools. This can also free up places in the international schools where supply is tight.

FINANCIAL IMPLICATIONS

- 10. The capital grant for the PIS is calculated having regard to the reference cost of a standard design 30-classroom public sector secondary school and that of a standard design 30-classroom public sector primary school. The reference costs are based on an uncomplicated site with no unusual environmental or geotechnical constraints. Due to the site topography, difficult ground conditions and peculiarity of the school site, we plan to provide the school sponsor with additional grants for demolition, site formation, slope upgrading and piling.
- 11. The school sponsor estimates the construction cost of the school to be \$304.2 million in MOD prices (see paragraph 13 below) made up as follows –

\$ million

(a) Demolition

8.5

		\$ million	
(b)	Site formation	6.6	
(c)	Slope upgrading	2.8	
(d)	Piling	42.2	
(e)	Building	123.9	
(f)	Building services	57.2	
(g)	Drainage	4.9	
(h)	External works	19.6	
(i)	Consultants' fees for –	3.8	
	(i) Construction administration 2.2	2.	
	(ii) Sitesupervision 1.2		
	(iii) Out-of-pocket expenses 0.4		
(j)	Contingencies	27.0	
	Sub-tota	1 296.5	(in September 2006 prices)
(k)	Provisions for price adjustment	7.7	
	Tota	1 304.2	(in MOD prices)

A comparison of the reference cost of a 30-classroom primary school and 30-classroom secondary school project with the capital grant of \$228.6 million in

MOD prices (see paragraph 12 below) is set out in Columns (C) and (D) of Enclosure 4. Columns (D) and (E) give a comparison between the capital grant and the estimated cost of **57EC**. A detailed breakdown of the estimate for consultants' fees by man-months as accepted by D Arch S is at Enclosure 5.

12. The estimated construction cost of the PIS (\$304.2 million in MOD prices) is higher than the capital grant (\$228.6 million in MOD prices), largely due to above-standard facilities such as swimming pool and their associated costs in the building elements like piling, associated building works and building services, etc. The difference (\$75.6 million) will be borne by the school sponsor and the capital grant provided by the Government will be capped at \$228.6 million in MOD prices. The school sponsor will be responsible for all additional funding requirements, whether due to higher-than-expected tender outturn or other variations. The Government and the school sponsor will share all savings arising from lower-than-expected tender outturn (excluding the site specific preparation works i.e. demolition and slope upgrading) on a pro-rata basis of their estimated contribution to the project (i.e. 74.2% for the Government and 25.8% for the school sponsor). For specific site preparation works under Government's subvention, the Government will retain all savings in case they arise.

13. Subject to approval, the school sponsor will phase the expenditure as follows –

Year	\$ million (Sept 2006)		Price adjustment factor	\$ million (MOD)		
	Capital grant under 57EC	Construction cost		Capital grant under 57EC	Construction cost	
2006 – 07	0.0	1.2	1.00000	0.0	1.2	
2007 – 08	1.8	75.3	1.01250	1.8	76.2	
2008 – 09	181.5	181.5	1.02769	186.5	186.5	
2009 – 10	34.0	34.0	1.04310	35.5	35.5	
2010 – 11	4.5	4.5	1.05875	4.8	4.8	
	221.8	296.5		228.6	304.2	

14. We have derived the MOD estimate on the basis of Government's latest forecast of trend rate of change in the prices of public sector building and contribution output for the period 2006 to 2011. The school sponsor will deliver the works through fixed-price lump-sum contracts because it can clearly define the scope of works in advance. The contract will not provide for price adjustment because each contract period will not exceed 21 months.

15. The cost of furniture and equipment and the recurrent expenditure for the school will be borne by the school sponsor. There will not be any recurrent expenditure for the Government. These arrangements are in line with the existing policy.

PUBLIC CONSULTATION

- 16. We consulted the Sham Shui Po District Council on **57EC** on 8 June 2006. We have not received any adverse comment.
- 17. The Legislative Council Panel on Education discussed the policy on land and financial assistance for PIS in March 1999. Members supported the policy to foster the growth of a quality private school sector. We also consulted the Legislative Council Panel on Education on 24 October 2005 on our review of allocated projects in the School Building Programme. The Panel noted our recommendation to proceed with the three remaining allocated PIS projects, including the current proposal, in order to provide choice for parents who seek non-mainstream curriculum (one of the three projects has since then been approved by Finance Committee in February 2006). We also circulated to the Panel an information note on this project on 22 December 2006. We have not received any adverse comment from the Panel.

ENVIRONMENTAL IMPLICATIONS

- 18. The consultant employed by the school sponsor completed a Preliminary Environmental Review (PER) for **57EC** in July 2006. The PER recommended provision of air-conditioning and well gasketted windows glazing for rooms exposed to traffic noise exceeding the limits recommended in the Hong Kong Planning Standards and Guidelines. With such mitigation measures in place, the project will not have any long term environmental impacts. The school sponsor will bear the cost of these measures.
- 19. During construction, the school sponsor will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contracts. 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.

- 20. The school sponsor has considered measures in the planning and design stages to reduce the generation of construction and demolition (C&D) materials where possible. The school sponsor will require the contractor to reuse inert C&D materials on site or in other suitable construction sites as far as possible (e.g. use suitable excavated materials for filling within the site, use metal site hoardings and signboards so that these materials can be recycled or reused in other projects), in order to minimize the disposal of C&D materials to public fill reception facilities. The school sponsor will encourage the contractor to maximize the use of recycled or recyclable C&D materials, as well as the use of non-timber formwork to further minimize the generation of construction waste.
- The school sponsor 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. The school sponsor will ensure that the day-to-day operations on site comply with the approved WMP. The school sponsor will also control the disposal of public fill, C&D materials and C&D waste to public fill reception facilities⁴ and landfills respectively through a trip-ticket system. The school sponsor will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities. The school sponsor will also record the disposal, reuse and recycling of C&D materials for monitoring purposes.
- The school sponsor estimates that the project will generate about 39 500 tonnes of C&D materials. Of these, the school sponsor will deliver 35 050 tonnes (88.7%) to public fill reception facilities for subsequent reuse, and 1 700 tonnes (4.3%) to sorting facilities⁴ in order to retrieve the inert portion for reuse as public fill. In addition, the school sponsor will dispose of 2 750 tonnes (7.0%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfill sites, together with the cost for handling the materials at sorting facilities is estimated to be \$1.46 million for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities, \$100/tonne at sorting facilities and \$125/tonne⁵ at landfills).

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Sorting facilities and public fill reception facilities are specified in Schedule 3 and Schedule 4 respectively 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.

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.

LAND ACQUISITION

23. The project does not require any land acquisition.

BACKGROUND INFORMATION

- We upgraded **57EC** to Category B in September 2005. The school sponsor has engaged consultants to carry out topographical survey in June 2006, the PER and site investigation in July 2006, and detailed design in August 2006 and will carry out tender documentation in February 2007 for the project. The costs for the above services amount to \$4.9 million. We will charge the Government contribution of \$3.9 million to block allocation **Subhead 8100QX** "Alterations, additions, repairs and improvements to education subvented buildings". The consultants have completed all services except for the preparation of tender documents which are being finalised.
- 25. To facilitate the development of a vibrant private school sector, the Government has since 1999 been providing land grants at nominal premium to school sponsors for operating PISs⁶. A capital grant, the amount being no more than the cost for constructing a standard design public sector school accommodating the same number of students, will also be provided to the school sponsors for the sole purpose of building the schools. The financial assistance and

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⁶ Up to now, we have upgraded the following PIS projects to Category A –

Project code	Project title	Upgrading date
29EC	A private independent school at Po Kong Village Road, Wong Tai Sin	March 2002
39EC	A private independent school (secondary-cumprimary) in Area 90B, Ma On Shan	July 2003
44EC	A private independent school (secondary-cumprimary) at Shum Wan Road, Aberdeen	July 2004
46EC	A private independent school (secondary-cumprimary) at Kong Sin Wan Tsuen, Pok Fu Lam	December 2004
87EB	A private independent secondary school at Norfolk Road, Kowloon Tong	January 2005
54EC	A private independent school (secondary-cumprimary) in Area 11, Sha Tin	June 2005
37EC	A private independent school (secondary-cum- primary) in Area N4b, Discovery Bay	February 2006

the provision of land at nominal premium will help high quality non-profit making school sponsors overcome a major hurdle for entry. In addition, the assistance will give school sponsors incentives to charge affordable school fees. In each school year, the school is required to set aside a sum, which will not be less than 10% of its total school fee income, to provide scholarship and other financial assistance for deserving students. Apart from the capital grant, PISs will not receive any recurrent or further capital financial assistance from the Government. They enjoy greater autonomy in resource management and curriculum (they may run local or non-local curriculum). Compared to schools receiving public funding, they have greater capacity to serve students (including children of expatriates working in Hong Kong) wishing to pursue non-local curriculum.

- 26. The proposed construction of the school will involve removal of 18 trees, three of which will be transplanted and 15 of which will be felled. All trees to be removed are not important trees⁷. We will incorporate planting proposals as part of the project, including no less than 52 trees.
- We estimate that the proposed works will create about 300 jobs (270 for labourers and another 30 for professional/technical staff) providing a total employment of 5 100 man-months.

Education and Manpower Bureau January 2007

[&]quot;Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

⁽a) trees of 100 years old or above;

⁽b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, trees as landmark of monastery or heritage monument, and trees in memory of an important person or event;

⁽c) trees of precious or rare species;

⁽d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or

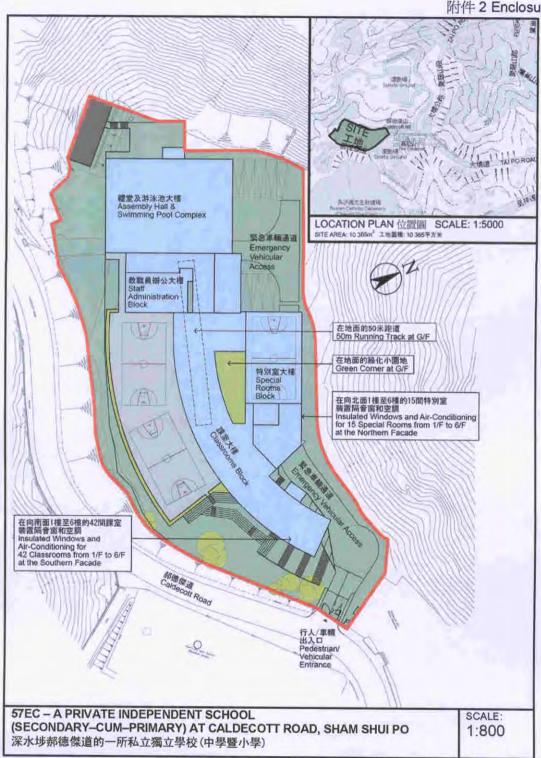
⁽e) trees with trunk diameter equal or exceeding 1.0 metre (measured at 1.3 metre above ground level), or with height/canopy spread equal or exceeding 25 metres.

57EC – A private independent school (secondary-cum-primary) at Caldecott Road, Sham Shui Po

A comparison of the facilities proposed under 57EC with those of standard design schools

Facilities	57EC		Standard design school		
	30-classroom secondary section	30-classroom primary section	30-classroom secondary school	30-classroom primary school	
Classroom	30	30	30	30	
Special room	16	6	16	6	
Staff room	1	1	1	1	
Staff common room	1		1	1	
Assembly hall	1		1	1	
Small group teaching room	7	1	3	4	
Guidance activity room	2		1	1	
Interview room	4		2	2	
Student activity centre	2	2	1	1	
Conference room	2	2	1	1	
Library	1		1	1	
Multi-purpose area	2	2	1	1	
Basketball court	3	3	2	1	
Swimming pool	1		-	-	
Green corner	1		1	1	
Ancillary accommodation, including lifts and relevant facilities for the handicapped	Available		Available	Available	

附件 2 Enclosure 2





從西面望向校舍的構思圖 VIEW OF THE SCHOOL PREMISES FROM WESTERN DIRECTION (ARTIST'S IMPRESSION)



從南面望向校舍的構思圖 VIEW OF THE SCHOOL PREMISES FROM SOUTHERN DIRECTION (ARTIST'S IMPRESSION)

57EC – A PRIVATE INDEPENDENT SCHOOL (SECONDARY – CUM – PRIMARY) AT CALDECOTT ROAD, SHAM SHUI PO 深水埗郝德傑道的一所私立獨立學校(中學暨小學)

/(**A**)

A comparison of the reference cost of a 30-classroom (CR) primary school and 30-classroom secondary school project with the estimated cost of 57EC

	(A) 30-CR Primary School \$ million (at Sept 2006 prices)	(B) 30-CR Secondary School \$ million (at Sept 2006 prices)	(C) Standard Total (A)+(B) Reference Cost* \$ million (at Sept 2006 prices)	(D) Standard Total plus Additional Capital Subvention for 57EC \$ million	(E) Total Cost of 57EC including School Sponsor's Contribution \$ million	
(a) Demolition	_	_	_	8.5	8.5	(See Note A)
(b) Site Formation	_	_	_	0.9	6.6	(See Note B)
(c) Slope Upgrading	_	-	_	2.8	2.8	(See Note C)
(d) Piling	9.0	10.5	19.5	32.8	42.2	(See Note D)
(e) Building	46.0	55.3	101.3	101.3	123.9	(See Note E)
(f) Building services	13.0	16.2	29.2	29.2	57.2	(See Note F)
(g) Drainage	2.1	2.4	4.5	4.5	4.9	
(h) External works	9.0	9.9	18.9	18.9	19.6	
(i) Consultant's fee	-	-	-	3.0	3.8	(See Note G)
(j) Price adjustment	-	-	-	6.8	7.7	
(k) Contingencies	7.9	9.4	17.3	19.9	27.0	(See Note H)
Total	87.0	103.7	190.7	228.6	304.2	(See Notes I and J)

		(A) 30-CR Primary School \$ million (at Sept 2006 prices)	School \$ million (at Sept 2006	(A)+(B) Reference	Total plus Additional Capital Subvention for 57EC \$ million	O
(1)	Construction floor area	10 727 m ²	12 133 m ²	22 860 m ²	28 620 m ²	28 620 m ²
(m)	Construction unit cost $\{[(e) + (f)] \div (1)\}$	\$5,500/m ²	\$5,893/m ²	\$5,709/m ²	\$4,560/m ²	\$6,328/m ²

Assumptions for reference cost

- The estimation is based on the assumption that the school site is 1. uncomplicated and without unusual environmental restrictions. allowance is reserved for specific environmental restrictions such as the provision of insulated windows, air-conditioning and boundary walls to mitigate noise impacts on the school.
- 2. No site formation works/geotechnical works are required as they are normally carried out by other Government departments under a separate engineering vote before handing over the project site for school construction.
- 3. Piling cost is based on the use of 112 steel H-piles at an average depth of 30m for 30-classroom primary school and 130 steel H-piles at an average depth of 30m for 30-classroom secondary school, assuming that percussive piling is permissible. No allowance is reserved for the effect of negative skin friction due to fill on reclaimed land.
- Cost for drainage and external works is for a standard 30-classroom primary school site area of $6\,200~\text{m}^2$ and a standard 30-classroom 4. secondary school site are of 6 950 m² built on an average level site without complicated geotechnical conditions, utility diversions, etc. (i.e. a "greenfield" site).
- 5. No consultancy services are required.

- 6. Furniture and equipment costs are excluded as they are usually borne by the sponsoring bodies of new schools.
- 7. The reference cost for comparison purpose is subject to review regularly. We will review, and revise if necessary, the reference cost which should be adopted for future projects.

Notes

- A. The demolition works are required to demolish the existing buildings on site for the construction of the new school premises. The existing buildings were the former campus of Sir Robert Black College of Education which will be vacated prior to demolition.
- B. Site formation works are required to form the platform level for the construction of the new school premises and the emergency vehicular access. The school sponsor will bear part of the site formation cost which is due to above-standard design.
- C. The slope upgrading works are due to the inherited terrain of the site where several platforms have to be formed prior to the construction works. According to field test result, slope stabilisation is required for an adjacent slope to bring it up to current standard. Under the draft Lease Conditions, the school sponsor will be responsible for maintenance of this slope in future.
- D. The piling cost is higher than the reference cost because non-percussive piling system is required. If percussive steel H-piles are used, the pile bases are susceptible to damage due to hard driving. The school sponsor will bear part of the higher piling cost which is due to above-standard design of the building.
- E. The school sponsor will bear part of the building cost which is higher than the reference cost because of larger construction floor area.
- F. The school sponsor will bear part of the building services cost which is higher than the reference cost because of larger construction floor area and the provision of a swimming pool.
- G. Having examined and revised the consultants' fees estimated by the school sponsor, D Arch S considers \$3 million acceptable as the amount of capital subvention to pay for the consultants' fees. For schools built by the Government, such services are arranged through the Architectural Services Department. The school sponsor will top up the fees exceeding this amount. A breakdown of the consultants' fees to be supported by capital subvention is at Enclosure 5.

- H. The provision for contingency is around 10% of the relevant estimates.
- I. It is standard practice to provide the school sponsor with a capital grant, being no more than the construction cost for a standard design public sector school accommodating the same number of students, for building the school. As the school sponsor may wish to put in more facilities or to accommodate less students, any shortfall will have to be met by the school sponsor. The cost of building a standard design 30-classroom secondary school with 1 160 students is \$104.6 million in September 2006 prices. As advised by D Arch S, the equivalent provision for the 30-classroom secondary section with 1 150 students (as proposed by the school sponsor) will be \$103.7 million (\$104.6 million ÷ 1 160 x 1 150) and the cost of building a standard design primary school with 1 035 students (accepted by the school sponsor) is \$87.0 million in September 2006 prices. The above estimates together with the capital grant in respect of demolition (\$8.5 million), site formation (\$0.9 million), slope upgrading (\$2.8 million), piling works (\$13.3 million), consultants' fees (\$3.0 million), contingencies (\$2.6 million) and price adjustment (\$6.8 million) as shown in Column (D) of this enclosure add up to the total capital grant at \$228.6 million in MOD prices.
- J. The primary section will have 30 classes of 34.5 students each on average for Year 1 to 5. The total number of primary students will be 1 035. The secondary section will have 843 students in 22 classes for Year 6 to 10 and 307 students in eight classes for Year 11 to 12. The total number of secondary students will be 1 150.

57EC – A private independent school (secondary-cum-primary) at Caldecott Road, Sham Shui Po

Breakdown of the estimate for consultants' fees

				Estimated man-months	Average MPS* salary point	Multiplier	Estimated fee (\$ million)
(a)	Cor	nsultants' staff cost					
	(i)	Contract administration ^(Note 2)	Professional Technical	_ _	<u>-</u> -	_ _	1.1 0.6
	(ii)	Site supervision ^(Note 3)	Technical	34.7	14	1.6	1.0
						Sub-total	2.7
(b)	Out	e-of-pocket expenses ^(Note 4)					
		nography and other direct enses					0.3
						Sub-total	0.3
						Total	3.0

^{*} MPS = Master Pay Scale

Notes

- 1. A multiplier of 1.6 is applied to the average MPS point to estimate the resident site staff cost supplied by the consultants. (As at 1 January 2006, MPS point 14 is \$18,010 per month).
- 2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **57EC**. The assignment will only be executed subject to Finance Committee's approval to upgrade **57EC** to Category A.
- 3. We will only know the actual man-months and actual costs for site supervision after completion of the works.
- 4. Out-of-pocket expenses are the actual costs incurred. The consultants are not entitled to any additional payment for overheads or profit in respect of these items.