

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Education Subventions

38EC – A direct subsidy scheme school (secondary-cum-primary) at Harmony Road, Siu Sai Wan

Members are invited to recommend to Finance Committee the upgrading of **38EC** to Category A at an estimated cost of \$126.4 million in money-of-the-day prices for the construction of a direct subsidy scheme school (secondary-cum-primary) at Harmony Road, Siu Sai Wan.

PROBLEM

We do not have enough schools to meet the forecast demand for secondary and whole-day primary school places by the 2007/08 school year. We also need to encourage school sponsors to set up “through-train” schools to provide students with coherent learning experience.

PROPOSAL

2. The Secretary for Education and Manpower (SEM), on the advice of the Director of Architectural Services (D Arch S), proposes to upgrade **38EC** to Category A at an estimated cost of \$126.4 million in money-of-the-day (MOD) prices for the construction of a direct subsidy scheme (DSS) school (secondary-cum-primary) at Harmony Road, Siu Sai Wan.

3. The amount of government subvention, being no more than the cost for constructing a standard design public sector school accommodating the same number of students, will be provided in the form of a capital grant to Hon Wah Educational Organisation (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 proposed school will adopt a non-standard design to accommodate a 19-classroom secondary section and an 18-classroom primary section, with the following planned facilities –

	Secondary section	Primary section
(a) classrooms	19	18
(b) small group teaching rooms	4	1
(c) guidance activity rooms	1	1
(d) interview rooms	1	1
(e) special rooms, including two computer-assisted learning rooms	9	2

Shared facilities

- (f) four special rooms;
- (g) nine staff rooms (the total area is not larger than the provision in the standard schedule of accommodation);
- (h) a staff common room;
- (i) a student activity centre-cum-lecture theatre;
- (j) a conference room;
- (k) a library;
- (l) an assembly hall (which can be used for a wide range of physical activities such as badminton, gymnastics and table-tennis);

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- (m) two multi-purpose areas;
- (n) three basketball courts (two at ground level and one at 6/F);
- (o) two green corners¹; and
- (p) ancillary accommodation, including one lift and relevant facilities for the handicapped.

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A comparison of the facilities at the proposed school with those at standard design schools is at Enclosure 1.

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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. Subject to approval of the capital grant by Finance Committee, the school sponsor plans to start the construction works in June 2004 for completion in January 2006.
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JUSTIFICATION

6. SEM forecasts that 423 secondary school classes in addition to the existing provision will be required in the territory between the 2004/05 and 2007/08 school years to meet the projected increase in demand for new school places². To date, Finance Committee has approved funding for nine new schools, which will reduce the shortfall in the number of classes to 201. **38EC**, which has been allocated to the school sponsor for operation under the DSS mode³, includes a 19-classroom secondary section. This will further reduce the territory-wide shortfall. We plan to meet the rest of the requirement through further school construction projects.

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¹ 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.

² The existing provision has included DSS school places. Details of our school place planning mechanism can be found in LC Paper No. 1058/03-04(01) discussed by the Legislative Council Panel on Education on 30 January 2004.

³ Under the DSS, a DSS grant based on the average unit cost for an aided school place is provided on a per student basis.

7. Secondary school places are planned on a territory-wide basis⁴. This has the advantage of containing the number of new schools required to be built. Nevertheless, in identifying sites for building new secondary schools, we would seek to balance the supply and demand at the district level as far as possible. As far as the Eastern District is concerned, if we exclude the supply of school places provided by DSS schools which may charge a school fee and recruit students from all over the territory, we project that it will have a shortfall of 95 secondary school classes by 2007⁵.

8. The Eastern District, in which **38EC** is located, currently has 28 public sector primary school premises providing 620 classrooms. SEM forecasts that 65 more classrooms will be required for full implementation of whole-day primary schooling in the district by the 2007/08 school year. To meet this demand, three primary school projects providing 43 additional classrooms will be completed for operation in the 2004/05 and 2005/06 school years. **38EC** will help reduce the remaining forecast shortfall in the district.

9. Apart from meeting the projected demand for school places from a macro-planning perspective, our School Building Programme is designed to upgrade the quality of education and to help implement various policy objectives. Among other things, we would like to promote the “through-train” mode through the allocation of school premises. Under the “through-train” arrangement, students of the linked primary schools are allowed to proceed to the linked secondary schools without going through the Secondary 1 school places allocation process. This will better enable the development of a coherent curriculum with continuity of learning experience throughout the primary and secondary schooling as well as professional collaboration between teachers of the primary and secondary sections. We also believe that this helps promote students’ effective learning and smoothen their transition from primary to secondary education.

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⁴ Primary school places are planned on a district basis to enable young children to attend schools close to their home.

⁵ Unlike DSS schools, government and aided schools provide non-fee charging school places in Secondary 1 to Secondary 3 and all their school places are subject to the Secondary School Places Allocation system administered on a district basis. If we nevertheless include the supply of school places of DSS schools in the district, there may still be a projected shortfall of 18 secondary classes by 2007.

10. The proposed project **38EC** is a secondary-cum-primary school. The primary and secondary sections of the “through-train” pair would be operated with the same philosophy and aspiration for education. Co-location also facilitates better interface, cross-level programmes for students, joint activities and sharing of experience among teachers and students of the primary and secondary sections.

FINANCIAL IMPLICATIONS

11. The capital grant for the school, calculated on the basis of the reference costs of a standard design public sector secondary school and a standard design public sector primary school, is \$126.4 million in MOD prices (see paragraph 14 below). The reference costs are based on an uncomplicated site with no unusual environmental or geotechnical constraints. The amount of capital grant is calculated as follows –

	\$ million
(a) Secondary section	59.5
The cost of building a standard design 30-classroom secondary school with 1 160 students is \$95.9 million in September 2003 prices as advised by D Arch S. The equivalent provision for the 19-classroom secondary section with 720 students ⁶ will be \$59.5 million. (\$95.9 million ÷ 1 160 x 720)	
(b) Primary section	68.2
The provision for the 18-classroom primary section with 621 students will be \$68.2 million in September 2003 prices which is the cost of building a standard design 18-classroom primary school.	
(c) Consultants' fees	3.9
The consultants' fees estimated by the school sponsor have been assessed by D Arch S as acceptable. For schools built by the Government, such services	

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⁶ The secondary section will have 15 classes of 40 students for Secondary 1 to 5, two classes of 30 students for Secondary 6 and two classes of 30 students for Secondary 7. The total number of students is 720.

are arranged through the Architectural Services Department.

\$ million

	Sub-total	131.6	(in September 2003 prices)
(d)	Provision for price adjustment	(5.2)	
	Total	126.4	(in MOD prices)

A detailed breakdown of the estimate for consultants' fees by man-month is at Enclosure 4.

12. The school sponsor estimates the construction cost of the school to be \$126.4 million in MOD prices (see paragraph 14 below). D Arch S has examined and endorsed the cost estimate, made up as follows –

\$ million

(a)	Piling	12.5	
(b)	Building	70.6	
(c)	Building services	23.0	
(d)	Drainage and external works	9.6	
(e)	Consultants' fees for –	3.9	
	(i) Contract administration	2.2	
	(ii) Site supervision	1.3	
	(iii) Out-of-pocket expense	0.4	
(f)	Contingencies	12.0	
	Sub-total	131.6	(in September 2003 prices)
(g)	Provision for price adjustment	(5.2)	
	Total	126.4	(in MOD prices)

13. The capital grant provided by the Government will be capped at \$126.4 million. The school sponsor will be responsible for all additional funding requirements, whether due to higher-than-expected tender outturn or other variations. The Government will retain all savings arising from lower-than-expected tender outturn.

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

Year	\$ million (Sept 2003)	Price adjustment factor	\$ million (MOD)
2004 – 05	45.0	0.97150	43.7
2005 – 06	85.9	0.95450	82.0
2006 – 07	0.7	0.95450	0.7
	<hr/> 131.6 <hr/>		<hr/> 126.4 <hr/>

15. We have derived the MOD estimate on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output for the period 2004 to 2007. The school sponsor will deliver the works through a fixed-price lump-sum contract because it can clearly define the scope of works in advance, leaving little room for uncertainty.

16. The cost of furniture and equipment for the school will be borne by the school sponsor. This is in line with the existing policy. We estimate that the annual recurrent expenditure for the secondary section to be \$24.2 million and that for the primary section to be \$13.8 million.

PUBLIC CONSULTATION

17. We consulted the Eastern District Council on 26 June 2003. Members of the Council supported the project. We also consulted the Legislative Council Panel on Education on 30 January 2004 on the planning and provision of public sector school places and various projects to be implemented in the School Building Programme in the next few years. The Panel on Education thoroughly discussed the Administration's policy and noted its plan to proceed with seeking funding approval from the Public Works Subcommittee for projects in the following three categories –

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- (a) whole-day primary schools;
- (b) reprovisioning and redevelopment projects; and
- (c) schools, including DSS and private independent schools, which have already been allocated to sponsoring bodies.

Members supported projects under categories (a) and (b). In respect of proposals under category (c), members asked that full background and justification, including the supply and demand balance of school places on both a territory-wide and district basis, be provided to facilitate consideration on a case-by-case basis.

ENVIRONMENTAL IMPLICATIONS

18. The school sponsor engaged a consultant to conduct a Preliminary Environmental Review (PER) for **38EC** in January 2002. The PER recommended the provision of air-conditioning for rooms exposed to traffic noise exceeding the limits recommended in the Hong Kong Planning Standards and Guidelines. The recommended mitigation measures are as follows –

Mitigation measures	Estimated cost \$ million (in Sept 2003 prices)
(a) Air-conditioning for 19 classrooms, four small group teaching rooms and ten special rooms from the 1/F to 6/F at the north-western façade	2.1
(b) Air-conditioning for the student activity centre-cum-lecture theatre on 1/F at the south-western façade	0.3
(c) Air-conditioning for 18 classrooms, one small group teaching room and two special rooms on 1/F to 4/F at the south-eastern façade	1.3

The school sponsor has included the cost of the above mitigation measures as part of the building services works in the project estimate.

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. At the planning and design stages, the school sponsor has considered measures to reduce the generation of construction and demolition (C&D) materials. The school sponsor has introduced more prefabricated building elements into the school design to reduce temporary formwork and construction waste. These include dry-wall partitioning and proprietary fittings and fixtures. The school sponsor will use suitable excavated materials for filling within the site to minimise off-site disposal. In addition, the school sponsor will require its contractors to use metal site hoardings and signboards so that these materials can be recycled or reused in other projects.

21. The school sponsor will require its contractors 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 control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip-ticket system. The school sponsor will require its contractors to separate public fill from C&D waste for disposal at appropriate facilities. The school sponsor will record the disposal, reuse and recycling of C&D materials for monitoring purposes. The school sponsor estimates that the project will generate about 9 000 cubic metres (m³) of C&D materials. Of these, the school sponsor will reuse about 5 850 m³ (65%) on site, 1 800 m³ (20%) as fills in public filling areas⁷, and dispose of 1 350 m³ (15%) at landfills. The notional cost of accommodating C&D waste at landfill sites is estimated to be \$168,750 for this project (based on a notional unit cost⁸ of \$125/m³).

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

⁸ 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.

LAND ACQUISITION

22. The project does not require land acquisition.

BACKGROUND INFORMATION

23. We upgraded **38EC** to Category B in December 2002. The school sponsor engaged consultants to undertake detailed design and tender documentation in March 2003, a topographical survey in May 2003 and ground investigation in July 2003 for the project. We will charge the Government's contribution of \$5.1 million to block allocation **Subhead 8100QX** "Alterations, additions, repairs and improvements to education subvented buildings". The consultants engaged by the school sponsor have completed all the services except for the preparation of tender documents which are being finalised.

24. The proposed construction of the school will not involve any tree removal proposal. We will incorporate planting proposal as part of the project, including estimated quantities of 20 trees and 250 shrubs.

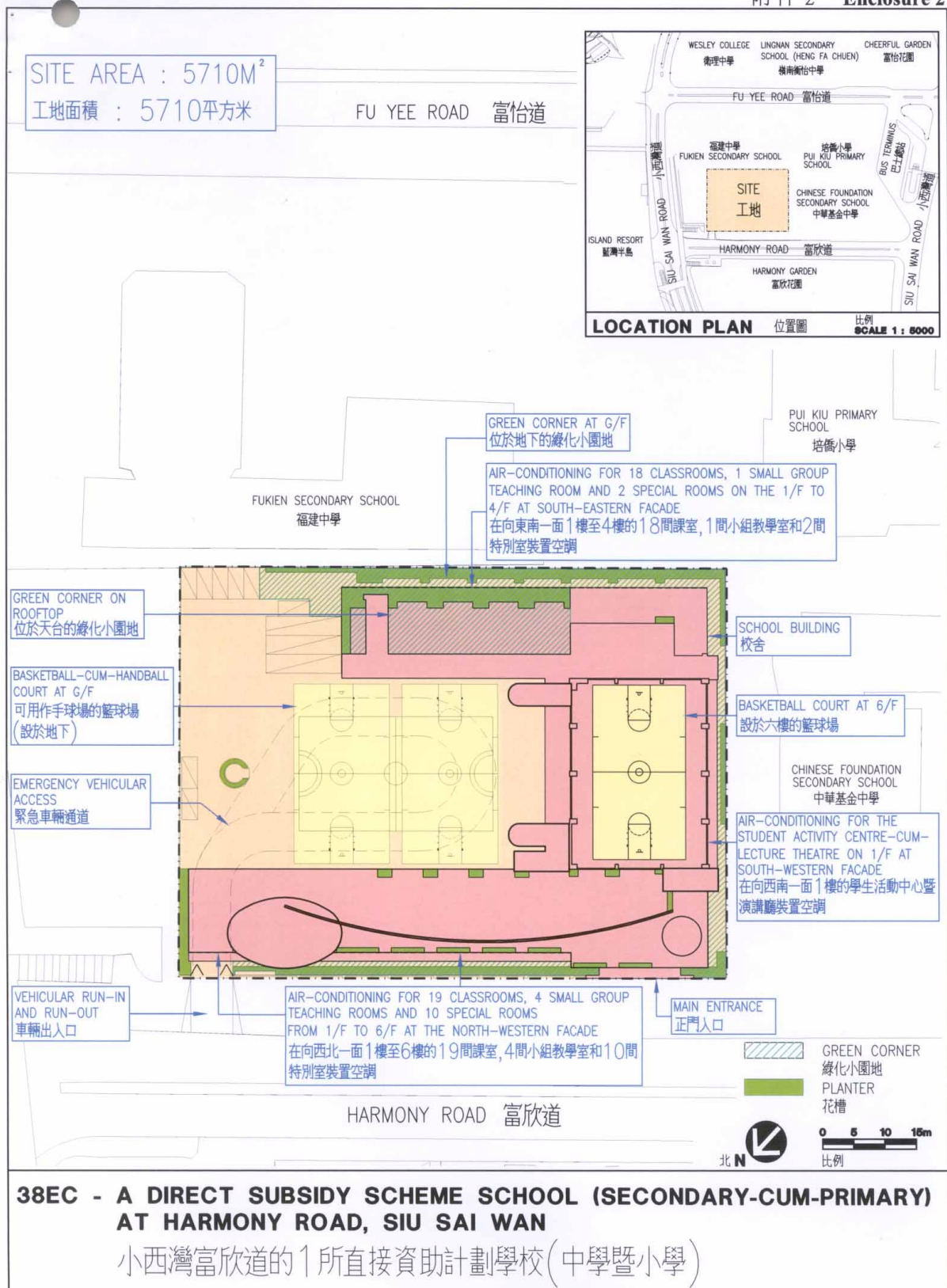
25. We estimate that the proposed works will create about 145 jobs (130 for labourers and another 15 for professional/technical staff) providing a total employment of 2 500 man-months.

Education and Manpower Bureau
April 2004

**38EC – A direct subsidy scheme school (secondary-cum-primary) at
Harmony Road, Siu Sai Wan**

**A comparison of the facilities proposed under 38EC with those at standard
design schools**

Facilities	38EC		Standard design school	
	19-classroom secondary section	18-classroom primary section	30-classroom secondary school	18-classroom primary school
Classroom	19	18	30	18
Small group teaching room	4	1	3	3
Guidance activity room	1	1	1	1
Interview room	1	1	2	1
Special room	9	2		
Special room (shared)		4	16	6
Staff room		9	1 or 2	1
Staff common room		1	1	1
Student activity centre		1 (cum-lecture theatre)	1	1
Conference room		1	1	1
Library		1	1	1
Assembly hall		1	1	1
Multi-purpose area		2	1	1
Basketball court		3	2	1
Green corner		2	1	1
Ancillary accommodation, including a lift and facilities for the disabled	Available		Available	Available





從西北面望向校舍的構思圖

View of the School Premises from North-Western Direction (Artist's Impression)



從東北面望向校舍的構思圖

View of the School Premises from North-Eastern Direction (Artist's Impression)

38EC - A DIRECT SUBSIDY SCHEME SCHOOL (SECONDARY-CUM-PRIMARY)
AT HARMONY ROAD, SIU SAI WAN
小西灣富欣道的一所直接資助計劃學校(中學暨小學)

Enclosure 4 to PWSC(2004-05)6

**38EC – A direct subsidy scheme school (secondary-cum-primary) at
Harmony Road, Siu Sai Wan**

Breakdown of the estimate for consultants' fees

			Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants' staff costs						
(i)	Contract administration ^(Note 2)	Professional	–	–	–	1.5
		Technical	–	–	–	0.7
(ii)	Site supervision ^(Note 3)	Technical	43.7	14	1.6	1.3
Sub-total						3.5
(b) Out-of-pocket expenses ^(Note 4)						
Lithography and other direct expenses						0.4
Sub-total						0.4
Total						3.9

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants. (As at 1 January 2004, MPS point 14 = \$18,603 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 **38EC**. The assignment will only be executed subject to Finance Committee's approval to upgrade **38EC** 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.