For information **PWSCI(2008-09)7**

NOTE FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

Supplementary information on

267ES – Conversion of a primary school premises in Area 104, Tin Shui Wai to support reprovisioning of a secondary school

INTRODUCTION

The Public Works Subcommittee (PWSC), at its meeting held on 20 June 2008, voted in support of the captioned school project as proposed in the paper referenced **PWSC(2008-09)35**. Members requested the Administration to provide supplementary information on the estimated cost items for the project, including information on the costs for construction of the new extension block before the relevant Finance Committee meeting.

THE ADMINISTRATION'S RESPONSE

Supplementary information on estimated cost items for the construction of the new extension block of 267ES

2. **267ES** is a school conversion project, the scope of which includes construction of a new extension block and conversion works in the existing building. Its cost breakdown is set out below—

/(a) .....

		$ million		**Remarks**
(a)	Piling		16.5	A
(b)	Extension Block		39.8	B
	(i) Building	30		
	(ii) Building services	9		
(c)	Drainage		1.2	
(d)	External works		7.7	C
(e)	Conversion works		5.3	D
	(i) Building conversion	3		
	(ii) Building services conversion	1		
(f)	Additional energy conservation measures		0.7	
(g)	Consultants' fees for –		5.7	
	(i) Contract administration	1		
	(ii) Site supervision	4		
(h)	Contingencies		7.1	
	Sub-total		84.0	(in September 2007 prices)
(i)	Provision for price adjustment		8.6	
	Total		92.6	(in MOD prices)

/Remarks .....

Remarks—

A. Piling ($16.5 million)

The project includes building a new school extension block with comparatively high piling cost due to complicated ground conditions. The piling cost of $16.5 million is based on an estimate of 94 nos. non-percussive cast in-situ concrete piles of 610mm diameter at an average depth of 31m. It also makes allowance for working within the existing school compound which is in operation during the construction stage, imposing safety, environmental, spatial and operational considerations on construction activities.

B. Construction Unit Cost ($10,964/$m^2$)

The construction floor area (CFA) of the new extension block is 3 630m^2. The estimated construction unit cost is $10,964/$m^2$ (represented by the building and building services costs per CFA = $30.8 million + $9.0 million / 3 630$m^2$ = $10,964/$m^2$).

The construction unit cost for the extension block of **267ES** is higher than that of a standard school because—

(a) the CFA for the extension block of the project is significantly smaller than that of a new school project and hence cannot benefit from economy of scale as a new school project;

(b) the construction unit cost reflects difficulties of construction within a school compound in existing operation, as many safety, environmental, spatial and operational considerations are imposed on the project implementation;

(c) the new extension block accommodates special rooms and laboratories which are all high density service areas requiring many more special facilities, such as laboratory benches, power points, gas supply points, plumbing and drainage provisions, fume cupboards, and dedicated ventilation system etc., than normal classrooms; and

/(d) .....

(d) due to the remote location of the lift in the existing school building, a new fireman's lift is required for the new extension block to meet current fire services standards.

C. External Works ($7.7 million)

The cost for external works is attributed to the re-provisioning requirements of basketball courts, car parking spaces, school bus maneuvering area, and the associated changes to underground building services. The cost also reflects the constraints of construction in maintaining safe and smooth operation of school buses and vehicular access of the school as well as the operation of schools in the vicinity.

D. Conversion Works ($5.3 million)

Conversion works have to be carried out within the existing school building without affecting its normal operation. The estimated cost reflects the constraints of limited construction accessibility, restricted working space and time, and possible disruption to construction to suit the operation of the school or its other activities. Phasing and decanting works have to be allowed to ensure smooth operation of the school, and hence higher cost.

Comparing Unit Cost

3. For the purpose of comparing unit cost of building projects, it has been an established practice that the construction unit cost represented by the building and building services cost per unit construction floor area (CFA) be adopted in PWSC papers. The site development costs such as piling, drainage, external works etc. are not included as components of the construction unit cost due to the fact that these items are unique in nature and will vary significantly depending on the site conditions and constraints.

Education Bureau
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