

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

**HEAD 711 - HOUSING**

**Education - Primary**

**201EP - Primary school in area 101, Tin Shui Wai, Yuen Long**

Members are invited to recommend to Finance Committee the upgrading of **201EP** to Category A at an estimated cost of \$100 million in money-of-the-day prices for the construction of a 30-classroom primary school in area 101, Tin Shui Wai, Yuen Long.

**PROBLEM**

There are not enough primary schools in Yuen Long District to meet the increase in demand for school places.

**PROPOSAL**

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Housing and the Secretary for Education and Manpower, proposes to upgrade **201EP** to Category A at an estimated cost of \$100 million in money-of-the-day (MOD) prices for the construction of a primary school in area 101, Tin Shui Wai, Yuen Long.

**PROJECT SCOPE AND NATURE**

3. The proposed primary school is a standard design 30-classroom

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school building. It will have -

- (a) 30 classrooms;
- (b) six special rooms, including a computer-assisted learning room and a language room;
- (c) four remedial teaching rooms;
- (d) a guidance activity/interview room;
- (e) two interview rooms;
- (f) two staff rooms and a staff common room;
- (g) a student activity centre;
- (h) a conference room;
- (i) a library;
- (j) an assembly hall;
- (k) a multi-purpose area; and
- (l) ancillary accommodation including a lift and relevant facilities for the handicapped.

#### **JUSTIFICATION**

4. To meet the increase in demand for primary school places and to help achieve the policy target of enabling 60% of pupils in public sector schools to study on a whole-day basis by the commencement of the school year 2002/03, the Director of Education (D of E) has been making plans to construct an additional 73 primary schools for completion by August 2002. To date, five of these schools have been completed, 40 school projects have been upgraded to Category A and are at various stages of construction.

5. Yuen Long District now has 45 public sector primary schools

/providing .....

providing 674 classrooms. D of E forecasts that an additional 508 classrooms will be required to meet the increase in demand for school places by the school year 2002/03. Ten primary schools providing 300 classrooms have already been upgraded to Category A and planned for completion in the school year 2001/02. **201EP** will further reduce the shortfall by 30 classrooms to 178 classrooms. The remaining shortfall will be met by other school projects which are currently being planned.

6. The public housing development at Tin Shui Wai Area 101 will produce about 9 000 housing flats for a population intake of 30 000 in 2001. **201EP** will meet the demand from the population of the area and will also reduce the district shortfall by 30 classrooms.

## FINANCIAL IMPLICATIONS

7. We estimate the capital cost of the project to be \$100 million in MOD prices (see paragraph 8 below), made up as follows -

	<b>\$ million</b>	
(a) Piling	11.3	
(b) Building	52.0	
(c) Building services	12.0	
(d) Drainage and external works	9.0	
(e) contingencies	8.4	
	<hr/>	
Sub-total	92.7	(at December 1998 prices)
(f) Provision for price adjustment	7.3	
	<hr/>	
Total	100.0	(in MOD prices)
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The construction floor area of **201EP** is 10 727 square metres. The construction unit cost, represented by building and building services costs, is \$5,966 per square metre at December 1998 prices. D Arch S considers this construction unit cost reasonable. A comparison of the standard cost of a primary school with the project estimate of this school is at the Enclosure.

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

<b>Year</b>	<b>\$ million (Dec 1998)</b>	<b>Price adjustment factor</b>	<b>\$ million (MOD)</b>
1999 - 2000	4.4	1.02625	4.5
2000 - 2001	50.5	1.06217	53.6
2001 - 2002	28.4	1.09934	31.2
2002 - 2003	9.4	1.13782	10.7
	92.7		100.0

9. We derived the MOD estimates on the basis of Government's latest forecast of trend labour and construction prices for the period 1999 to 2003. We will tender the works under fixed-price lump-sum contract because we can clearly define the scope of works in advance, leaving little room for uncertainty.

10. The cost of furniture and equipment, estimated to be \$4.2 million, will be borne by the school sponsor as the school will be allocated for operating as a new aided school. We estimate the additional annually recurrent expenditure for the school to be \$19.5 million.

## **PUBLIC CONSULTATION**

11. We consulted the Social Services and Publicity Committee of the

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Yuen Long Provisional District Board in March 1999. Members of the Committee supported the project.

**ENVIRONMENTAL IMPLICATIONS**

12. Based on the Preliminary Environment Review completed by D Arch S in December 1998, the Director of Environmental Protection agrees that the proposed school would not be subject to any adverse environmental impacts. We will control noise, dust and site run-off nuisances during the construction through the implementation of appropriate mitigation measures in the relevant contracts.

**LAND ACQUISITION**

13. The project does not require any land acquisition.

**BACKGROUND INFORMATION**

14. We upgraded **201EP** to Category B in May 1997. D Arch S has completed site investigations for the project and is in the process of preparing the detailed working drawings and tender documents using in-house staff resources. We plan to start the construction works in November 1999 for completion in May 2001.

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Housing Bureau  
April 1999

**A comparison of the standard cost of a 30-classroom primary school project  
with the estimated cost of 201EP**

		<b>Standard cost*</b>	<b>201EP</b>	
		<b>\$ million (at Dec 1998 prices)</b>		
(a)	Piling	9.5	11.3	(See note A)
(b)	Building	52.0	52.0	
(c)	Building services	12.0	12.0	
(d)	Drainage and external works	9.0	9.0	
(e)	Contingencies	8.3	8.4	
	Total	90.8	92.7	
(f)	Construction floor area	10 727m <sup>2</sup>	10 727m <sup>2</sup>	
(g)	Construction unit cost { [(b)+(c)] ÷ (f) }	\$5,966/m <sup>2</sup>	\$5,966/m <sup>2</sup>	

**\* Assumptions for standard cost**

1. The estimation is based on the assumption that the school site is uncomplicated and without abnormal environmental restrictions. No allowance is reserved for specific environmental restrictions such as the provision of insulated windows, air-conditioning and solid 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 the handing-over of the project site for school construction.
3. Piling cost is based on the use of 112 numbers of steel H-piles at an average depth of 30 metres, on the assumption that percussive piling is permissible. It also includes costs for pile caps, strap beams and testing.

No allowance is reserved for the effect of negative skin friction due to fill on reclaimed land.

4. Cost for drainage and external works is for a standard 30-classroom primary school site area of 6 200 square metres 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 body of an aided school.
7. The standard cost for comparison purpose is subject to review regularly. We have recently updated the standard cost of a primary school from \$85.3 million at December 1997 prices to \$90.8 million at December 1998 prices. The updated standard cost estimate also reflects a minor increase in the construction floor area of a primary school from 10 526 square metres to 10 727 square metres. We will continue to review periodically, and revise if necessary, the standard cost which should be adopted for future projects.

**Note**

- A. The piling cost is higher because it is based on the provision of 112 numbers of steel H-piles at average depth of 35 metres instead of 30 metres in a standard school.

(PWSC0116/WIN4)



輕鐵總站  
LRT TERMINUS

AREA 105

AREA 106

輕鐵預留區

路 ROAD L13

路 ROAD L12

LRT RESERVE

AREA 102

SITE AREA = 6950 m<sup>2</sup> P S TR

擬建中學地盤 (169ES)  
PROPOSED SECONDARY SCHOOL  
(30 CLASSROOM)

警署  
POLICE STATION

西北區排水明渠拓建工程  
WESTERN DRAINAGE CHANNEL EXTENSION

散步廣場  
PROMENADE

行人出入口  
PEDESTRIAN ENTRANCE

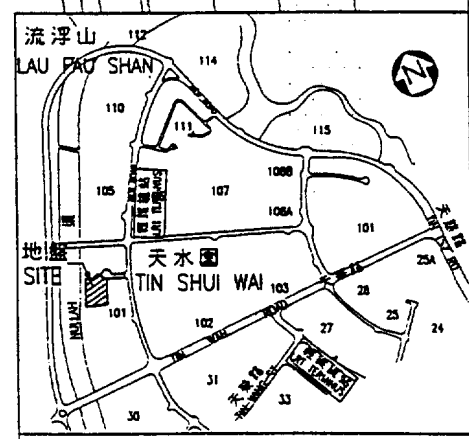
路 ROAD

NCC

AREA 101

201EP  
擬建小學  
PROPOSED PRIMARY  
SCHOOL SITE

SITE AREA = 6200 m<sup>2</sup>



位置圖 LOCATION PLAN SCALE: DIAGRAMATIC

title 201EP  
天水圍第101區  
擬建壹所小學  
PRIMARY SCHOOL IN  
AREA 101, TIN SHUI WAI

drawn by ANNA LEUNG  
M.F. WONG

date  
15.01.99

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date  
15.01.99

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drawing no.  
AB/5636/XB101

scale  
1:1500



ARCHITECTURAL  
SERVICES  
DEPARTMENT