For information **PWSCI(2000-01)33**

NOTE FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

Supplementary information on school projects

INTRODUCTION

When Members considered papers PWSC(2000-01)53, 54, 55 and 56 on two secondary and six primary school projects (as listed in the Enclosure 1) on 8 November 2000, the Administration undertook to provide further information on the following-

(a) for each of the school projects considered, the estimated percentage of construction and demolition (C&D) materials which would be disposed of at landfills, and the reasons behind if these percentages substantially deviated from 16%; and

(b) the recent tender results for school projects.

THE ADMINISTRATION'S RESPONSE

Construction and demolition materials

2. Broadly speaking, C&D materials generated from school construction projects can be divided into the following three categories:

(a) materials that can be recycled/reused in the same projects or in other works projects;

(b) inert materials[1] that can be used as fill in public filling areas; and

(c) construction wastes[2] that will be disposed of at landfills.

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[1] Inert materials include earth, slurry, rock, broken concrete, brick, rubble, glass and other durable materials. These can be used as public fill in reclamation or site formation works.

[2] These include organic materials such as timber, bamboo, plastics, paper or cardboard packaging, food scraps and other wastes from the workforce and on-site activities. These materials cannot be used for construction or public filling purpose and will be treated in the same way as municipal waste.

3. To present Members with a more complete picture, we now set out below, for each of the school projects listed in Enclosure 1, the total volume of C&D materials generated, as well as the volume and percentage breakdown in respect of each of the categories of C&D materials mentioned in paragraph 2 above.

Project No.	**Total C&D materials generated (m^3)**	**Materials to be recycled/reused in the same projects/other works project (m^3 (%))**	**Inert materials[3] to be used as fill in public filling areas (m^3(%))**	**Construction wastes to be disposed of at landfills (m^3(%))**
237ES	4 900	3 650 (74.5%)	400 (8.2%)	850 (17.3%)
252EP	4 420	3 310 (74.9%)	350 (7.9%)	760 (17.2%)
276EP	3 760	2 810 (74.7%)	300 (8.0%)	650 (17.3%)
268EP	3 200	2 400 (75.0%)	250 (7.8%)	550 (17.2%)
286EP	4 440	3 340 (75.2%)	350 (7.9%)	750 (16.9%)
287EP	2 400[4]	1 600 (66.7%)	350 (14.6%)	450 (18.7%)
170ES	5 030	3 780 (75.1%)	400 (8.0%)	850 (16.9%)
267EP	4 370	3 260 (74.6%)	350 (8.0%)	760 (17.4%)

4. As explained in the information note referenced PWSCI(2000-01)34 prepared by the Environment and Food Bureau, 16% represents the percentage of construction wastes in the overall total volume of C&D materials created by all construction and demolition activities combined at the present time. This percentage therefore represents neither the proportion of construction wastes that will be produced at any one particular site, nor a static target at which the Government is aiming.

5. Ways of minimizing the generation of C&D materials for the above projects have been considered at the planning and design stage. More prefabricated building elements such as dry-wall partitioning and proprietary fittings/ fixtures have been introduced into school designs in order to avoid temporary formwork and construction waste. To further minimize the generation of C&D materials, we will require the contractor to use metal site hoardings and signboards so that these

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[3] Since all the proposed schools will be constructed on formed sites, therefore demolition or site formation works are not required. As a result, the volume of inert C&D materials produced by these school projects for use as public fill is relatively small.

4 **287EP** generated less C&D materials than other school projects because the drains of the site are closer to ground level and the site has a regular shape thus reducing excavation for the boundary wall.

materials can be recycled or reused in other projects. We will also require the contractor to submit for the Director of Architectural Services's approval a waste management plan setting out measures to reduce the generation of C&D materials as well as the disposal, reuse and recycling plan for such materials.

Recent tender results

6. During the 1999-2000 Legislative Council session, Finance Committee approved the funding for a total of 13 schools. Amongst them, nine have their tenders awarded so far. The tender award dates and the tender prices of these nine projects are at Enclosure 2.

7. The tender prices do not include the costs of landscaping, utility connections and road run-ins (approximately $2 million per school) as well as the cost of furniture and equipment (approximately $4.5 million per primary school and $9.4 million per secondary school).

Education and Manpower Bureau
Housing Bureau
November 2000

Enclosure 1 to PWSCI(2000-01)33

List of school projects discussed at 8 November 2000 PWSC meeting

Paper No.	Project No.	Project Title
PWSC(2000-01)53	237ES	Secondary school at Kai Lai Road, Kowloon Bay
	252EP	Primary school at Wang Chiu Road, Kowloon Bay
	276EP	Primary school at Kai Lai Road, Kowloon Bay
PWSC(2000-01)54	268EP	A 24-classroom primary school at the junction of Tsing King Road and Tsing Luk Street, Tsing Yi
PWSC(2000-01)55	286EP	Primary school in Kwai Chung Estate Redevelopment
	287EP	Primary school in Area 1, Tai Po
PWSC(2000-01)56	170ES	Secondary school in Area 109, Tin Shui Wai
	267EP	Primary school in Area 109, Tin Shui Wai

List of recent tender results for school projects

Project		Date of Award	Tender Awarded ($ million)
(a)	**30-classroom primary schools**		
258EP	Primary school in Area 29, Tuen Mun	28.1.2000	79.78
265EP	Primary school in Hung Hom Bay, Kowloon	28.1.2000	79.30
269EP	Three primary schools at Po Kong Village Road, Kowloon	15.11.2000	82.80 (average for each school)
(b)	**24-classroom primary schools**		
266EP	Primary school at Kin Tak Street, Yuen Long	12.4.2000	111.48[5]
270EP	Primary school at Yee Shun Street, Chai Wan	14.7.2000	74.79
271EP	Primary school in Area 44, Fanling	22.2.2000	74.56
275EP	Primary school in Area 10, Tsing Yi	14.11.2000	101.91[6]
278EP	Primary school in Sau Mau Ping Estate Phase 9	30.5.2000	68.80
(c)	**Secondary schools**		
236ES	A secondary school at Po Kong Village Road, Kowloon	15.11.2000	98.30

For Members' information, the current reference construction costs for standard schools (in September 2000 prices) are as follows -

(a) 30-classroom primary school - $86.9 million

(b) 24-classroom primary school - $79.2 million

(c) secondary school - $102.3 million

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[5] The tender price of **266EP** is comparatively higher due to high piling cost from the use of large diameter deep bored piles.

[6] The tender price of **275EP** is comparatively higher due to the use of raft foundation for the school.