For discussion **PWSC(2009-10)32**
on 10 June 2009

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS
Quarters – Internal security
60JA – Construction of rank and file quarters for Immigration Department at Wo Yi Hop Road, Kwai Chung

Members are invited to recommend to Finance Committee the upgrading of **60JA** to Category A at an estimated cost of $275.0 million in money-of-the-day prices for the construction of rank and file quarters for the Immigration Department at Wo Yi Hop Road, Kwai Chung.

PROBLEM

There is a substantial shortfall in departmental quarters (DQ) for married rank and file (R&F) members of the Immigration Department (ImmD).

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Security, proposes to upgrade **60JA** to Category A at an estimated cost of $275.0 million in money-of-the-day (MOD) prices for the construction of R&F quarters for ImmD at Wo Yi Hop Road, Kwai Chung ("the Project").

/PROJECT …..

PROJECT SCOPE AND NATURE

3. The Project comprises the design and construction of –

(a) two residential blocks of 8 and 13 storeys for the provision of 144 Grade 'H' quarter units;

(b) a single storey podium of management office, guard booth and communal areas including two multi-function rooms and outdoor children playing facilities;

(c) 18 car-parking and motorcycle parking spaces at ground floor; and

(d) landscaping features at open space and podium roof.

A site layout plan is at Enclosure 1. We plan to start the proposed works in April 2010 for completion in July 2012.

JUSTIFICATION

4. It is an established Government policy to provide, subject to availability of resources, DQ for married disciplined services staff (including disciplined staff of the ImmD).

5. As at 1 March 2009, there were 1 695 R&F members in the ImmD eligible for DQ but only 940 units were available, representing a shortfall of 755 units, or about 45%. An eligible rank and file staff generally needs to wait for about six years to be allocated a DQ unit, up from an average of two years in 2004.

6. If no additional DQ is provided, we expect the shortfall will intensify. The ImmD has recruited some 550 R&F staff in 2007 and 2008 to cater for, among other things, the commissioning of the Shenzhen Bay Control Point, Lok Ma Chau Spur Line Control Point and Sky Plaza at the Hong Kong International Airport. In the coming years, the ImmD will continue to recruit R&F staff to fill vacancies and posts created under new initiatives. These new recruits will become eligible for DQ after the probationary period of three years and after they get married. There are at present about 1 300 single R&F members. These single officers constitute a significant potential demand for DQ. We estimate that the ImmD will be short of 851 DQ units, or 47%, for R&F staff in 2012 if the rate of supply of DQ remains unchanged. This is detrimental to staff morale and retention of staff.

/**FINANCIAL** …..

FINANCIAL IMPLICATIONS

7. We estimate the capital cost of the Project to be $275.0 million in MOD prices (see paragraph 8 below), made up as follows –

		$ million	
(a)	Site works	3.6	
(b)	Geotechnical works	22.1	
(c)	Piling	25.4	
(d)	Building	118.9	
(e)	Building services	34.7	
(f)	Drainage	1.9	
(g)	External works	7.5	
(h)	Additional cost of energy conservation measures	2.6	
(i)	Furniture and equipment[1]	6.3	
(j)	Consultants' fees for contract administration and construction supervision	5.9	
(k)	Contingencies	21.3	
	Sub-total	250.2	(in September 2008 prices)
(l)	Provision for price adjustment	24.8	
	Total	275.0	(in MOD prices)

/We …..

[1] Based on an indicative list of furniture and equipment items required, including furniture in quarters and management office.

We propose to engage consultants to undertake contract administration and construction supervision of the Project. A breakdown of the estimate for consultants' fees by man-months is at Enclosure 2. The construction floor area (CFA) of the Project is about 11 900 square metres (m^2). The estimated construction unit cost, represented by the building and the building services costs, is $12,908 per m^2 of CFA in September 2008 prices. The unit cost is comparable to similar projects of the Government.

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

	$ million (Sept 2008)	**Price adjustment factor**	**$ million (MOD)**
2010 – 11	28.0	1.05570	29.6
2011 – 12	83.0	1.07681	89.4
2012 – 13	70.0	1.09835	76.9
2013 – 14	33.0	1.12032	37.0
2014 – 15	22.0	1.15113	25.3
2015 – 16	14.2	1.18566	16.8
	250.2		275.0

9. We have derived the MOD estimates on the basis of the Government's latest forecast of the trend on rate of change in the prices of public sector building and construction output for the period 2010 to 2016. We will tender the Project as a design-and-build contract. We will deliver the works through a lump-sum contract with provision for price adjustment.

10. We estimate the annual recurrent expenditure of the Project to be $5.9 million, which mainly includes expenditure on management and maintenance services, and electricity for common areas.

PUBLIC CONSULTATION

11. We consulted the Kwai Tsing District Council on the Project in April 2009. Members have no objection to the Project. We also consulted the owners' corporations and mutual aid committees of residential buildings nearby the Project site. They also have no objection to the Project.

12. We consulted the Legislative Council Panel on Security on 7 April 2009. Members have no in-principle objection to submitting the Project to the Public Works Subcommittee and the Finance Committee.

ENVIRONMENTAL IMPLICATIONS

13. Apart from minimising the environmental impact, we are also keen on introducing features in this Project (details in paragraph 18 to 20 below) to contribute positively to the environment. The Project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We employed a consultant to conduct a Preliminary Environmental Review (PER) on the Project in August 2008. The Director of Environmental Protection vetted the PER. He concluded that the Project has no long term environmental impact and recommended that suitable noise abatement measures should be adopted, such as incorporation of architectural fins or the use of fixed glazing. We will require the design-and-build contractor to carry out further environmental review to work out the exact package of the noise abatement measures at the detailed design stage. The cost for implementation of such measures has been included in the Project cost estimate.

14. During construction, we 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, and the building of barrier wall for noisy construction activities; frequent cleaning and watering of the site; and the provision of wheel washing facilities.

15. We have considered measures in the planning and design stage to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that they can be recycled or reused in other projects). In addition, we will require the relevant contractor to reuse inert construction waste on site (e.g. use of excavated materials for filling within the site) or in other

/suitable …..

suitable construction sites as far as possible in order to minimise the disposal of inert construction waste to public fill reception facilities [2]. We will encourage the relevant contractor to use recycled or recyclable inert construction waste, as well as non-timber formwork to further minimise the generation of construction waste.

16. We will also require the relevant contractor to submit for approval a waste management plan, which will include measures to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the relevant contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

17. We estimate that the Project will generate in total about 16 400 tonnes of construction waste. Of these, about 8 400 tonnes (51.2%) of inert construction waste will be reused on site and 6 700 tonnes (40.9%) of inert construction waste will be delivered to public fill reception facilities for subsequent reuses. The 1 300 tonnes (7.9%) of non-inert construction waste will be disposed of at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be $343,400 (based on a unit cost of $27/tonne for disposal at public fill reception facilities and $125/tonne[3] at landfills).

ENERGY CONSERVATION MEASURES

18. This Project has adopted various energy efficient features, including –

(a) heat recovery fresh air pre-conditioners in the air-conditioned spaces for heat energy reclaim of exhaust air;

/(b) …..

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[2] Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

[3] The 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/m^3), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

(b) T5 energy efficient fluorescent tubes with electronic ballast and lighting control by occupancy sensors in common area of the quarter building;

(c) compact fluorescent lamps with electronic ballast and lighting control by daylight sensors;

(d) light-emitting diode (LED) type exit signs; and

(e) automatic on/off switching of lighting and ventilation fans inside lifts.

19. For renewable energy technologies, we will install a small scale solar photovoltaic system for corridor lightings. For greening features, we will provide landscape and green roof in the appropriate area on the ground level open space and podium roof for environmental and amenity benefits. For recycled features, we will provide a rainwater recycling system for irrigation purpose.

20. The total estimated cost for the above features is around $2.6 million (including about $60,000 for energy efficient features), which has been included in the cost estimate for this Project. The energy efficient features will achieve 2.6% energy savings in the annual energy consumption with a payback period of about 4.3 years.

HERITAGE IMPLICATIONS

21. This Project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interests and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

22. The Project does not require any land acquisition.

/**BACKGROUND** …..

BACKGROUND INFORMATION

23. We upgraded **60JA** to Category B in March 2008. We engaged contractors to carry out ground investigations in October 2008 and a topographical survey in May 2008. We employed consultants to undertake the PER in August 2008, a traffic impact assessment (TIA) in August 2008 and utility mappings in May 2008. We also employed a quantity surveying consultant to prepare the tender documents in October 2008. The total cost of these works and services is $1.3 million. We have charged this amount to block allocation **Subhead 3100GX** "Project feasibility studies, minor investigations and consultants' fees in Category D of the Public Works Programme". The contractors have completed the ground investigations and topographical survey. The consultants have completed the PER, TIA and utility mappings. The quantity surveying consultant is finalising the tender documents.

24. The Project will involve felling of five trees. All trees to be felled are not "important trees"[4]. We will incorporate planting as part of the Project, including estimated 40 trees, 10 000 shrubs/ground covers and climbers.

25. We estimate that the Project will create about 165 jobs (150 for labourers and another 15 for professional/technical staff) providing a total employment of 3 600 man-months.

Security Bureau
Immigration Department
May 2009

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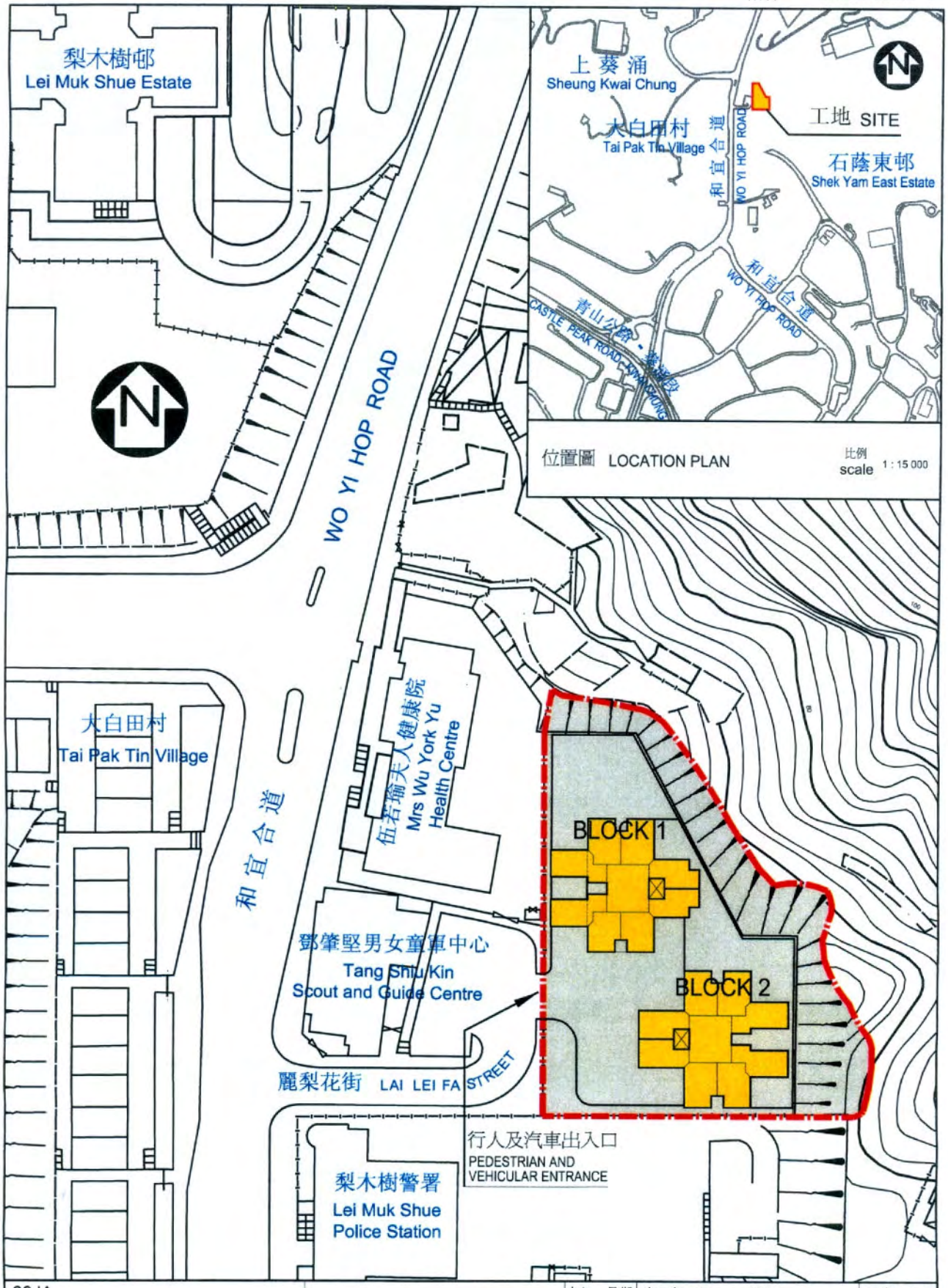
[4] An "important tree" refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

(a) trees of 100 years old or above;
(b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree s 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 as 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

附件一 ENCLOSURE 1



60JA

葵涌和宜合道入境事務處
員佐級職員宿舍建造工程

CONSTRUCTION OF RANK AND FILE
QUARTERS FOR IMMIGRATION DEPARTMENT
AT WO YI HOP ROAD, KWAI CHUNG

drawn by 繪圖	K.H. CHAN	date 日期	05/09
approved 覆核	PEGGY YU	date 日期	05/09
office 辦事處	PROJECT MANAGEMENT BRANCH 工程策劃管理處		

drawing no. 編號 AB/7267/XA201

scale 比例 1 : 1 000

ARCHITECTURAL SERVICES DEPARTMENT 建築署

Enclosure 2 to PWSC(2009-10)32

60JA – Construction of rank and file quarters for Immigration Department at Wo Yi Hop Road, Kwai Chung

Breakdown of the estimate for consultants' fees (in September 2008 prices)

		Estimated man-months	Average MPS* salary point	Multiplier	Estimated fee ($ million)
Consultants' fees for contract administration (Note 1) and construction supervision (Note 2)	Professional	-	-	-	2.1
	Technical	-	-	-	3.8
				Total	5.9

* MPS = Master Pay Scale

Notes

1. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for **60JA**. The assignment will only be executed subject to Finance Committee's approval to upgrade **60JA** to Category A.

2. The consultants' staff cost for construction supervision is based on the estimate prepared by the Director of Architectural Services. We will only know the actual man-months and actual costs after completion of the construction works.