

ANNEX F: OTHER ARTS AND CULTURAL FACILITIES AND COMMUNAL FACILITIES

1 Scope of Cost Estimates

- 1.1 The estimation of costs and revenues was one of the key tasks undertaken to provide input to the FA's financial model and analysis. The level of detail adopted in their estimation is appropriate to a financial assessment undertaken at this stage in the project cycle i.e. prior to master planning of the site and based on the broad recommendations of MAG and PATAG, the development parameters/requirements set under the October 2005 Package and the Invitation for Proposals (IFP). The level of detail is also appropriate given that the FA assignment was tasked with considering alternative PPP arrangements, financial viability and funding arrangements for the proposed statutory body; the purpose of which was to assist the government in the preparation of the institutional and funding arrangements for the WKCD.
- 1.2 It is important to appreciate, particularly for the estimation of capital and operation, maintenance and management (OMM) costs, that this FA assignment is not a feasibility study on individual facilities which would have involved detailed site and technical surveys, preliminary design, layout plans, etc. This assignment is not based on a master plan or design of engineering works or facilities, and site and technical surveys were not undertaken. Similarly, for the estimation of revenues, it is important to appreciate that demand for facilities is based on the recommendations of PATAG and MAG (high levels of demand and a target of 2.5 million visitors a year for M+). Independent market demand assessments were not undertaken as part of this assignment.
- 1.3 In consultation with relevant Government bureaux / departments, the FA developed a set of assumptions for a WKCD 'Base Case' in the level of detail required for the estimation of capital and OMM costs and revenues on an annual basis, based on the broad recommendations of PATAG and MAG and the development parameters/requirements of the October 2005 Package and the IFP, and making use of local and international experience and benchmarks where appropriate. This included the construction phasing and development programme of the facilities to be provided, their size¹, overhaul and maintenance requirements, collection acquisition costs, programming budget, annual attendance, number of performances, utilisation rates, admission charges, ticket price, hire charges, merchandise sales, rental income from resident company space, shops, restaurants and other uses, sponsorship and fundraising amongst others.

¹ The construction floor area (CFA) was estimated by the FA based on assumed gross floor area (GFA) and industry standards. GFA for M+ and the Exhibition Centre (EC) was provided by MAG. GFA for PA Venues was estimated by the FA based on the number of seats, provided by PATAG

Annex F: Other Arts and Cultural Facilities and Communal Facilities

Annex F.1: Other Arts and Cultural Facilities

			Remarks
I Capital Construction Cost Estimates			
(a)	GFA	15,000 sq.m.	assumed including 12,000 sq.m. for resident companies, 500 sq.m. for an Arts and Cultural Information Centre, international meetings / functions / events etc., 500 sq.m. for international arts and cultural organisations' Hong Kong office (e.g. United Nations Educational, Scientific and Cultural Organization (UNESCO), World Culture Open (WCO)), 1,000 sq.m. for meeting rooms / common facilities for artists / arts groups etc., and 1,000 sq.m. for the WKCD Authority office
(b)	GFA to CFA Ratio	1:	1.3
(c)	CFA	19,500 sq.m.	(c) = (a) x (b)
(d)	Unit cost	\$14,200 per sq.m. CFA (HK\$)	2006 3Q estimate, assumed to be of local office or workshops standard
(e)	Construction Cost (excludes professional fees, on costs, risks and inflation adjustment)	\$277 (million HK\$)	(e) = (c) x (d)
II Other Capital Costs			
Nil			
III Major Repair and Renovation Costs (before inflation adjustment)			
(a)	Foundation Costs	\$4,200 per sq.m. CFA (HK\$)	2006 3Q estimate
(b)	Construction Cost per CFA (excl. foundation costs)	\$10,000 per sq.m. CFA (HK\$)	(b) = I (d) - (a)
(c)	Fitting Out / M&E	39 (million HK\$)	(c) = I (c) x (b) x 20%
(d)	Major Repair and Renovation Costs	39 (million HK\$)	including fitting out and M&E
(e)	Major Repair and Renovation Costs as % of Construction Cost	14% [% to be applied to construction costs before on-costs to estimate major overhaul costs]	(e) = (d) / I (e)

IV Operating Costs

Assumed breakeven - rental, fundraising and other income to off-set operating and routine maintenance costs. The operating costs of OACF is estimated to be in the order of \$10 million a year:

- Government rents for 13,500 sq.m. office / resident company uses: \$1 million (assuming rateable value of \$20 per sq.ft. per month)
- Rates and government rents for 1,500 sq.m. Arts Information Centre and common facilities: \$0.2 million (assuming rateable value of \$12 per sq.ft. per month)
- Management and air conditioning fee for 1,500 sq.m. Arts Information Centre and common facilities: \$1 million (assuming \$5 per sq.ft. per month)
- Utilities, cleaning, repair and maintenance for 1,500 sq.m. Arts Information Centre and common facilities: \$0.8 million (assuming \$4 per sq.ft. per month; made reference to the unit rate of the HK Arts Centre Art Space 2005/06)
- Staff costs and admin overheads: \$3.6 million (~20% of HK Arts Centre 2005/06)
- Other expenditure (operating the Arts Information Centre, programmes and events, marketing and promotion): \$3.4 million

Note: Tenants will be required to pay management fees to cover cleaning and security and building maintenance costs
All numbers are rounded to 0 decimal places (nearest \$ million) for presentational ease.

Annex F: Other Arts and Cultural Facilities and Communal Facilities

Annex F.2: Public Open Space (Excl. Piazzas)

			Remarks
I Capital Construction Cost Estimates			
1 Public Open Space (at grade)			
(a) Floor Area	160,000 sq.m.		Consultants' assumption, considering it is unlikely for all public open space to be provided at grade given the long list of CACFs, the large residential sites (given height limits) and many CACFs are standalone buildings. Included the sites for construction of Phase 2 facilities, these open spaces will be replaced with rooftop gardens in Phase 2. The FA assumed that, ultimately in Phase 2, 14 ha of public open space will be provided at grade and 6 ha of rooftop gardens will be provided. Before the construction of Phase 2 facilities, the sites for Phase 2 facilities (about 2ha) will be paved as public open space. For costing purpose, the FA assumed that the total area of public open space at grade is 14ha + 2ha = 16ha.
(b) Unit cost	\$3,500 per sq.m. Floor Area (HK\$)		2006 3Q estimate
(c) Construction Cost (excludes professional fees, on costs, risks and inflation adjustment)	\$560 (million HK\$)		1(c) = 1(a) x 1(b)
2 Public Open Space (roof top gardens)			
(a) Floor Area	60,000 sq.m.		see 1 (a) above, included some rooftop gardens to be provided at Phase 2 for the re-provision of open space (at grade) when Phase 2 facilities are developed
(b) Unit cost	\$4,500 per sq.m. Floor Area (HK\$)		2006 3Q estimate
(c) Construction Cost (excludes professional fees, on costs, risks and inflation adjustment)	\$270 (million HK\$)		2(c) = 2(a) x 2(b)
3 Contingency Space (soft landscaping)			
(a) Floor Area	3,340 sq.m.		based on IFP
(b) Unit cost	\$2,000 per sq.m. Floor Area (HK\$)		2006 3Q estimate
(c) Construction Cost (excludes professional fees, on costs, risks and inflation adjustment)	\$7 (million HK\$)		3(c) = 3(a) x 3(b)
4 Total Construction Cost (excludes professional fees, on costs, risks and inflation adjustment)	\$837 (million HK\$)		4 = sum of 1 to 3
II Other Capital Costs			
Nil			
III Major Repair and Renovation Costs (before inflation adjustment)			Carried out every 30 years
(a) Major Repair and Renovation Costs as % of Construction Cost	50%		
(b) Major Repair and Renovation Costs (for 20ha of public open space and 0.3ha of contingency space)	\$356 (million HK\$)		(b) = (a) x 1 (b) x (140000 + 1 2 (a) + 1 3 (a)) / 1000000 [for major repair and renovation cost calculation, the unit construction cost for public open space at grade (i.e. \$3,500 per sq.m. Floor Area above) is assumed for all three types of public open spaces]
(c) Major Repair and Renovation Costs as % of Total Construction Cost	46%	[% to be applied to construction costs before on-costs to estimate major overhaul costs]	(c) = (b) / (140000* 1 (b) + 1 2(c) + 1 3(c))
IV Operating Costs			
See attached, plus management fee equivalent to 8% of operating costs to private operator under PSI scenarios			

Note: All numbers are rounded to 0 decimal places (nearest \$ million) for presentational ease.

Annex F: Other Arts and Cultural Facilities and Communal Facilities

Public Open Space (Excluding Piazzas) - PSC Base Case

Assumptions				Remarks
1	Physical Parameters			
1 . 1	Total Area (including contingency space)	20.3334	hectares	Victoria Park 19.35 ha - non sporting uses 12.9 ha
2	Staff Costs			
2 . 1	Level 1 Staff	\$928,548	per annum	Based on average salaries and benefits of Victoria Park (2006/07), non sporting staff only
2 . 2	Level 2 Staff	\$624,516	per annum	
2 . 3	Level 3 Staff	\$490,536	per annum	
2 . 4	Level 4 Staff	\$369,468	per annum	
2 . 5	Level 5 Staff	\$283,488	per annum	
2 . 6	Level 6 Staff	\$227,784	per annum	
2 . 7	Level 7 Staff	\$147,648	per annum	
3	Staffing Structure			Adjust no. of Level 5 to 7 staff for a larger park area
3 . 1	Level 1 Staff	1		Victoria Park, 1 staff per 12.9 ha non sporting uses
3 . 2	Level 2 Staff	1		Victoria Park, 1 staff per 12.9 ha non sporting uses
3 . 3	Level 3 Staff	1		Victoria Park, 1 staff per 12.9 ha non sporting uses
3 . 4	Level 4 Staff	3		Victoria Park, 4 staff per 12.9 ha non sporting uses
3 . 5	Level 5 Staff	3		Victoria Park, 1 staff per 12.9 ha non sporting uses
3 . 6	Level 6 Staff	16		Victoria Park, 10 staff per 12.9 ha non sporting uses
3 . 8	Level 7 Staff	25		Victoria Park, 16 staff per 12.9 ha non sporting uses
3 . 7	Total No. of Staff	50 = sum of [3.1] to [3.7]		Victoria Park, 34 staff per 12.9 ha non sporting uses
4	Operating Costs			
4 . 1	Horticulture Maintenance	\$67,442	per hectare per annum	based on Victoria Park (\$0.87m for 12.9 ha non sporting uses)
4 . 2	Park Facilities Maintenance	\$144,703	per hectare per annum	Victoria Park, \$180,879 (\$3.5m for 19.35 ha); assumed 80% of VP cost
4 . 3	Maintenance of Lighting, Electrical Equipment etc.	\$103,359	per hectare per annum	Victoria Park, \$129,199 (\$2.5m for 19.35 ha); assumed 80% of VP cost
4 . 4	Electricity	\$184,496	per hectare per annum	Victoria Park, \$263,566 (\$3.4m for 12.9 ha non sporting uses); assumed 70% of VP cost
4 . 5	Cleaning and security	\$480,620	per hectare per annum	based on Victoria Park (\$6.2m for 12.9 ha non sporting uses)
4 . 6	Store, Equipment and Supplies	\$9,302	per hectare per annum	based on Victoria Park (\$1.2m for 12.9 ha non sporting uses)

Annex F: Other Arts and Cultural Facilities and Communal Facilities

Public Open Space (Excluding Piazzas) - PSC Base Case

Revenue	HK\$ Million	Expenditure	HK \$ Million
1 Hire Income / Admissions	-	1 Staff Cost	11.3
2 Retail / Catering / Tenant Income	-	2 Admin Overheads	-
3 Programmes	-	3 Building Maintenance	6.4 incl. building, horticulture and equipment
4 Fundraising	-	4 Cleaning and Security	9.8
5 Other Income	-	5 Utilities	3.8
		6 Marketing	-
		7 Programmes	-
		8 Other Expenditure	0.2

Excl. depreciation, major refurbishment and insurance

Total	-	31.5
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Note: All numbers are rounded to 1 decimal place (nearest \$ million) for presentational ease.

Annex F: Other Arts and Cultural Facilities and Communal Facilities

Public Open Space (Excluding Piazzas) - PSI Base Case

Assumptions				Remarks
1	Physical Parameters			
1 . 1	Total Area (including contingency space)	20.3334	hectares	
2	Staff Costs			
2 . 1	Level 1 Staff	\$900,000	per annum	slightly lower than PSC
2 . 2	Level 2 Staff	\$600,000	per annum	slightly lower than PSC
2 . 3	Level 3 Staff	\$350,000	per annum	lower than PSC
2 . 4	Level 4 Staff	\$250,000	per annum	lower than PSC
2 . 5	Level 5 Staff	\$200,000	per annum	lower than PSC
2 . 6	Level 6 Staff	\$165,000	per annum	lower than PSC
2 . 7	Level 7 Staff	\$125,000	per annum	lower than PSC
3	Staffing Structure			
3 . 1	Level 1 Staff	1		same as PSC
3 . 2	Level 2 Staff	1		same as PSC
3 . 3	Level 3 Staff	1		same as PSC
3 . 4	Level 4 Staff	2		assumed more efficient operation, 1 staff less than PSC
3 . 5	Level 5 Staff	3		same as PSC
3 . 6	Level 6 Staff	13		assumed more efficient operation, 20% less staff than PSC
3 . 8	Level 7 Staff	20		assumed more efficient operation, 20% less staff than PSC
3 . 7	Total No. of Staff	41	= sum of [3.1] to [3.7]	
4	Operating Costs			
4 . 1	Horticulture Maintenance	\$67,442	per hectare per annum	same as PSC
4 . 2	Park Facilities Maintenance	\$115,762	per hectare per annum	assumed 20% lower than PSC (cost of private sector lower than ASD)
4 . 3	Maintenance of Lighting, Electrical Equipment etc.	\$82,687	per hectare per annum	assumed 20% lower than PSC (cost of private sector lower than EMSD)
4 . 4	Electricity	\$184,496	per hectare per annum	same as PSC
4 . 5	Cleaning and security	\$480,620	per hectare per annum	same as PSC
4 . 6	Store, Equipment and Supplies	\$7,442	per hectare per annum	assumed 20% lower than PSC (fewer staff and more efficient operation)

Annex F: Other Arts and Cultural Facilities and Communal Facilities

Public Open Space (Excluding Piazzas) - PSI Base Case

Revenue	HK\$ Million	Expenditure	HK \$ Million
1 Hire Income / Admissions	-	1 Staff Cost	7.6
2 Retail / Catering / Tenant Income	-	2 Admin Overheads	-
3 Programmes	-	3 Building Maintenance	5.4 incl. building, horticulture and equipment
4 Fundraising	-	4 Cleaning and Security	9.8
5 Other Income	-	5 Utilities	3.8
		6 Marketing	-
		7 Programmes	-
		8 Other Expenditure	0.2
		9 Insurance	-
		10 Rates and Government Rents	-
		Excl. depreciation and major refurbishment	
Total	-		26.7

Note: All numbers are rounded to 1 decimal place (nearest \$ million) for presentational ease.

Annex F: Other Arts and Cultural Facilities and Communal Facilities

Annex F.3: Fire Station Complex

			Remarks
I Capital Construction Cost Estimates			
(a)	GFA	13,240 sq.m.	based on IFP
(b)	GFA to CFA Ratio	1: 1.2	
(c)	CFA	15,888 sq.m.	(c) = (a) x (b)
(d)	Unit cost	\$16,000 per sq.m. CFA (HK\$)	2006 3Q estimate
(e)	Construction Cost (excludes professional fees, on costs, risks and inflation adjustment)	\$254 (million HK\$)	(e) = (c) x (d)
II Other Capital Costs			
1 Reprovision of Staff Quarters			
(a)	No. of flats	30	based on IFP
(b)	Average flat size in GFA	95 sq.m.	based on IFP
(c)	Assumed price of private residential	\$3,400 per sq.ft. GFA (HK\$)	average price of flats at Mei Foo Sun Chuen (selected as benchmark based on flat size, location and average price), flat size ranges from 70 to 107 sq.m.; price as at Dec 2006
(d)	Total price of flats	\$104,264,400 (HK\$)	(d) = (a) x (b) x (c) x 10.76
(e)	Real estate agency commission	\$1,042,644 (HK\$)	(e) = (d) x 1%
(f)	Legal fee	\$240,000 (HK\$)	(f) = (a) x \$8,000
(g)	Stamp duty	\$2,345,949 (HK\$)	(g) = (d) x 2.25%, rate for \$3.29. to \$4m flats
(h)	Renovation	\$6,000,000 (HK\$)	(h) = (a) x \$200,000
(i)	Sub-total	\$114 (million HK\$)	(i) = sum of (d) to (h)
2 Reprovision of Regional Office / Workshop / Dangerous Goods Stores at To Wah Road			
(a)	NOFA	2,917 sq.m.	based on IFP
(b)	NOFA to GFA Ratio	1: 1.2	
(c)	GFA to CFA Ratio	1: 1.2	
(d)	Unit cost	\$8,000 per sq.m. CFA (HK\$)	2006 3Q estimate
(e)	Construction cost	\$33,603,840 (HK\$)	(e) = (a) x (b) x (c) x (d)
(f)	Oncost	\$5,343,011 (HK\$)	(f) = (e) x 15.9%
(g)	Sub-total	\$39 (million HK\$)	(g) = (e) + (f)
3 Fireboat Station in WKCD			
(a)	NOFA	777 sq.m.	assumed to be simply structure without special provisions, and the standard is similar to police based on IFP
(b)	NOFA to GFA Ratio	1: 1.2	
(c)	GFA to CFA Ratio	1: 1.2	
(d)	Unit cost	\$9,000 per sq.m. CFA (HK\$)	2006 3Q estimate
(e)	Construction cost	\$10,069,920 (HK\$)	(e) = (a) x (b) x (c) x (d)
(f)	Oncost	\$1,601,117 (HK\$)	(f) = (e) x 15.9%
(g)	Sub-total	\$12 (million HK\$)	(g) = (e) + (f)
4 Fireboat Pier in WKCD			
(a)	Site area	250 sq.m.	50m x 5m as per IFP
(d)	Unit cost	\$5,000 per sq.m. CFA (HK\$)	2006 3Q estimate
(e)	Construction cost	\$1,250,000 (HK\$)	(e) = (a) x (b) x (c) x (d)
(f)	Oncost	\$206,250 (HK\$)	(f) = (e) x 16.5%
(g)	Sub-total	\$1 (million HK\$)	(g) = (e) + (f)
5	Total Other Costs	\$166 (million HK\$)	5 = sum of 1 to 4

III Major Repair and Renovation Costs

Not included assuming the fire station complex will be returned to the Fire Services Department upon completion

IV Operating Costs

Not included assuming the fire station complex will be returned to the Fire Services Department upon completion

Note: All numbers are rounded to 0 decimal places (nearest \$ million) for presentational ease.

Annex F: Other Arts and Cultural Facilities and Communal Facilities

Annex F.4: Electricity Substation and Salt Water Pumping Station

				Remarks
I Capital Construction Cost Estimates				
1	Electricity Substation			new facility to be developed and run by China Light and Power Co. Ltd. (CLP)
(a)	GFA		500 sq.m.	based on IFP
(b)	GFA to CFA Ratio	1:	1.2	
(c)	CFA		600 sq.m.	(c) = (a) x (b)
(d)	Unit cost		\$0 per sq.m. CFA (HK\$)	cost to be borne by CLP
2	Salt Water Pumping Station			existing facility run by Water Services Department (WSD)
(a)	GFA		800 sq.m.	based on IFP
(b)	GFA to CFA Ratio	1:	1.2	
(c)	CFA		960 sq.m.	(c) = (a) x (b)
(d)	Unit cost		\$0 per sq.m. CFA (HK\$)	see Annex A for the cost of decking over salt water pumping station (an identified site constraint)
II Other Capital Costs				
Nil				
III Major Repair and Renovation Costs				
Not included, to be borne by CLP and WSD				
IV Operating Costs				
Not included, to be borne by CLP and WSD				

Note: All numbers are rounded to 0 decimal places (nearest \$ million) for presentational ease.

Annex F: Other Arts and Cultural Facilities and Communal Facilities

Annex F.5: Police Post and Refuse Collection Point

			Remarks
I Capital Construction Cost Estimates			
1 Police Post			
(a) GFA		350 sq.m.	based on IFP
(b) GFA to CFA Ratio	1:	1.2	
(c) CFA		420 sq.m.	(c) = (a) x (b)
(d) Unit cost		\$9,000 per sq.m. CFA (HK\$)	2006 3Q estimate
(e) Construction Cost (excludes professional fees, on costs, risks and inflation adjustment)		\$4 (million HK\$)	(e) = (c) x (d)
2 Refuse Collection Point			
(a) GFA		570 sq.m.	based on IFP
(b) GFA to CFA Ratio	1:	1.2	
(c) CFA		684 sq.m.	(c) = (a) x (b)
(d) Unit cost		\$13,000 per sq.m. CFA (HK\$)	2006 3Q estimate
(e) Construction Cost (excludes professional fees, on costs, risks and inflation adjustment)		\$9 (million HK\$)	(e) = (c) x (d)
II Other Capital Costs			
Nil			
III Major Repair and Renovation Costs			
Not included assuming the public facilities will be returned to the relevant Government departments upon completion			
IV Operating Costs			
Not included assuming the public facilities will be returned to the relevant Government departments upon completion			
Note: All numbers are rounded to 0 decimal places (nearest \$ million) for presentational ease.			

Annex F: Other Arts and Cultural Facilities and Communal Facilities

Annex F.6: Public Toilets

			Remarks
I Capital Construction Cost Estimates			
(a)	GFA	1,200 sq.m.	based on IFP
(b)	GFA to CFA 1:	1.2	
(c)	CFA	1,440 sq.m.	(c) = (a) x (b)
(d)	Unit cost	\$15,000 per sq.m. CFA (HK\$)	2006 3Q estimate
(e)	Construction Cost (excludes professional fees, on costs, risks and inflation adjustment)	\$22 (million HK\$)	(e) = (c) x (d)
II Other Capital Costs			
Nil			
III Major Repair and Renovation Costs (before inflation adjustment)			Carried out every 20 years
(a)	Foundation Costs	\$3,000 per sq.m. CFA (HK\$)	2006 3Q estimate
(b)	Construction Cost per CFA (excl. foundation costs)	\$12,000 per sq.m. CFA (HK\$)	(b) = I (d) - (a)
(c)	Fitting Out / M&E	5 (million HK\$)	(c) = I (c) x (b) x 30%
(d)	Major Repair and Renovation Costs	5 (million HK\$)	including fitting out and M&E
(e)	Major Repair and Renovation Costs as % of Construction Cost	24% [% to be applied to construction costs before on-costs to estimate major overhaul costs]	(e) = (d) / I (e)
IV Operating Costs			

The cost of operating roadworks and pedestrian facilities is \$0.4 million per annum (2006 prices), plus management fee to the private operator (equivalent to 8% of operating costs) under PSI scenarios. The cost is \$0.5 million per annum (2006 prices) under PSC scenario.

Note: All numbers are rounded to 0 decimal places (nearest \$ million) for presentational ease.