

**For discussion  
on 23 June 2004**

**PWSC(2004-05)32**

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

### **HEAD 703 – BUILDINGS**

**Recreation, Culture and Amenities – Open spaces**

**398RO – Implementation of Harbour Lighting Plan – phase 2**

Members are invited to recommend to Finance Committee the upgrading of **398RO** to Category A at an estimated cost of \$60.8 million in money-of-the-day prices for the implementation of phase 2 of the Harbour Lighting Plan.

### **PROBLEM**

Phase 1 of the Harbour Lighting Plan (the Plan) is confined to 18 buildings on Hong Kong Island. There is a need to further develop the Plan by extending it to cover more buildings on both sides of the Harbour to enhance the night vista of Hong Kong.

### **PROPOSAL**

2. The Director of Architectural Services (D Arch S), with the support of the Secretary for Economic Development and Labour, proposes to upgrade **398RO** to Category A at an estimated cost of \$60.8 million in money-of-the-day (MOD) prices for the implementation of phase 2 of the Plan.

**/PROJECT .....**

## PROJECT SCOPE AND NATURE

3. The scope of **398RO** comprises –
  - (a) Installation of architectural lighting and control systems for three government buildings, namely, Hong Kong Cultural Centre, Hong Kong Museum of Art and Hong Kong Coliseum; and
  - (b) Implementation of the overall multi-media system to control the movement, colour and intensity of the individual lighting systems installed in all participating buildings (about 33 in total). This will allow the synchronisation of the lighting systems to achieve overall choreography of the lights with a suitable musical score. This multi-media system is an essential part of the project to create the phase 2 Show.

———— The 18 buildings participating in phase 1 of the Plan are shown at Enclosure 1. The  
———— different lighting effects used by the buildings in phase 1 are shown at Enclosure 2.  
———— Artist's impressions of the proposed lighting effects for each of the government  
buildings to be covered in phase 2 are at Enclosure 3. We plan to start the project in  
September 2004 for completion by end 2005.

## JUSTIFICATION

4. Victoria Harbour (the Harbour) is an invaluable asset. In order to showcase the Harbour in a new and vibrant way and further capitalise on this asset, the Tourism Commission undertook a consultancy to devise the Plan to cover the key icon buildings around the Harbour. Phase 1 of the Plan, comprising 18 private and public buildings on Hong Kong side, was completed in January 2004 with the launch of "A Symphony of Lights" (the Show), an 18-minute multi-media light and sound show staged across the Harbour every night. Outside the show time, individual buildings use their lighting systems to highlight the profile of their buildings' architecture thereby adding to the impact of the night vista of the Harbour.

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5. The Show has been very well received by the tourism trade, visitors and the local community. According to the Hong Kong Inbound Travel Association<sup>1</sup>, the show has been included in the itineraries of almost all night tours for visitors. It is estimated that the Show attracted an audience of 800 000 to the Tsim Sha Tsui waterfront during the launch month in January 2004. During the 1 May 2004 Golden Week, the total number of audience for the Show at the Hong Kong Cultural Centre Piazza and the newly opened Avenue of Stars was about 100 000. According to a survey conducted by the Hong Kong Tourism Board (HKTB) during the aforesaid Golden Week, respondents gave an average score of 8 (out of 10) to the Show; 99% of them would recommend the Show to their friends and relatives; and 79% would watch the Show again when they visit Hong Kong next time.

6. There has been extensive and positive coverage in the media, both locally and outside Hong Kong. The latter includes newspaper, magazine and television coverage in many key source markets including the Mainland, Singapore, the United States of America, Germany, Italy, the United Kingdom and Australia. HKTB is actively promoting the Show to all our short and long haul markets and has received very good feedback from the trade. Operators of tour ferries, hotels and restaurants in Tsim Sha Tsui are using the Show to market their business.

7. As projected by HKTB, the number of visitors in 2004 is expected to be about 20.5 million. If a visitor stays one more night for the Show, the average additional expenditure per person will be about \$1,400. The Show, among other tourism initiatives (e.g. the "Avenue of Stars"), is expected to help attract tourists to stay longer in Hong Kong and the potential benefits to our economy as a whole will be enormous. In view of the popularity of the Show and the economic benefits that can be generated, the tourism sector strongly supports that the Plan be further developed to its full potential by including more buildings on both sides of the Harbour under phase 2 of the Plan.

8. A number of private buildings have already agreed or indicated interest in joining phase 2 of the Plan. We are actively recruiting other suitable buildings to join the Plan and estimate that the total number of participating buildings to be around 33. To complement private sector involvement and to demonstrate the Government's continued commitment, we recommend that three

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<sup>1</sup> The Hong Kong Inbound Travel Association was established in January 2001 and is composed of about 140 local inbound agents and tour operators.

government buildings located near the waterfront in Kowloon, viz Hong Kong Cultural Centre, Hong Kong Museum of Art and Hong Kong Coliseum to join the Plan. These are particularly prominent and visually attractive buildings in key positions along the harbour front. Phase 2 of the Plan will add a new vibrancy to our spectacular night view of the Harbour as well as present a unique show to visitors and residents of Hong Kong.

## FINANCIAL IMPLICATIONS

9. We estimate the cost of the project to be \$60.8 million, in MOD prices (see paragraph 10 below), made up as follows –

	<b>\$ million</b>	
(a) Installation of architectural lighting and control systems for three government buildings	36.9	
(i) Hong Kong Cultural Centre	21.2	
(ii) Hong Kong Museum of Art	6.9	
(iii) Hong Kong Coliseum	8.8	
(b) Implementation of the overall multi-media system	15.0	
(c) Electrical and Mechanical Services Trading Fund (EMSTF) charges <sup>2</sup>	5.9	
(d) Contingencies	5.8	
	Sub-total	63.6 (in September 2003 prices)
(e) Provision for price adjustment	(2.8)	
	Total	60.8 (in MOD prices)
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<sup>2</sup> Since its establishment on 1 August 1996 under the Trading Fund Ordinance, the EMSTF charges government departments for design and technical consultancy services for E&M installations provided by the Electrical and Mechanical Services Department. The services rendered for this project include carrying out the design on all E&M installations and providing technical advice to the Government on all E&M works and their impacts on the project from maintenance and general operation points of view.

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

<b>Year</b>	<b>\$ million (Sep 2003)</b>	<b>Price Adjustment Factor</b>	<b>\$ million (MOD)</b>
2004 – 2005	6.4	0.97150	6.2
2005 – 2006	47.7	0.95450	45.5
2006 – 2007	6.4	0.95450	6.1
2007 – 2008	3.1	0.96643	3.0
	63.6		60.8

11. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output for the period from 2004 to 2008. We propose to entrust the proposed lighting works to the Electrical and Mechanical Services Department in view of the Department's familiarity with the existing electrical and mechanical systems/networks of the three participating government buildings and their experience gained from phase 1 of the Plan. We will deliver the lighting works and the overall multi-media system by fixed-price lump-sum contracts because we can clearly define the scope of works in advance, leaving little room for uncertainty. The contracts will not provide for price adjustments because the contract period will not exceed 21 months.

12. We estimate the annual recurrent expenditure for the three government buildings to be \$170,000.

## **PUBLIC CONSULTATION**

13. As some of the proposed lighting techniques were new to Hong Kong and also as a means to demonstrate some of these techniques and test the public reaction, the Tourism Commission, with the sponsorship from the private sector, staged a one-off demonstration of a multimedia light and sound show at the Piazza of the Hong Kong Cultural Centre during the first week of the Chinese New Year in

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February 2003. On display were a range of lighting effects combined into a unique show backed by an enthralling musical score and complementary architectural lighting. Over 180 000 people saw the show and the response from the local community, visitors and the media was very positive. The success of this demonstration allowed work to proceed on the more ambitious permanent show now taking place in the Harbour every night.

14. In March 2003, the Tourism Commission consulted the Tourism Strategy Group<sup>3</sup>. The Group fully supported the implementation of the Plan in view of its tremendous economic benefits to Hong Kong.

15. We briefed Members of the Legislative Council Panel on Economic Services on the proposed project on 24 May 2004. Members supported the proposal.

## ENVIRONMENTAL IMPLICATIONS

16. This is not a designated project under the Environmental Impact Assessment Ordinance. It is unlikely that this project will give rise to adverse environmental impact.

17. 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 contract. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities. The proposed works will only generate a very small amount of construction and demolition (C&D) material which is largely packaging waste. D Arch S will control the disposal of public fill and C&D waste to designated public filling facilities and landfills respectively through a trip-ticket system. We estimate that about 3 cubic metres (m<sup>3</sup>) of C&D waste will be generated by the project and will be disposed of at landfills. The notional cost of accommodating C&D waste at

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<sup>3</sup> The Tourism Strategy Group, which comprises mainly unofficial members from various sectors of the tourism trade including hotels, travel agents, airlines, dining and entertainment, sports and leisure, retail, the Hong Kong Tourism Board as well as academics from the tourism related faculty, is responsible for considering and making recommendations to the Government in respect of tourism development from a strategic perspective.

landfill sites is estimated to be \$375 for this project (based on a notional unit cost<sup>4</sup> of \$125/m<sup>3</sup>).

18. As in the case of phase 1, we will utilise energy-saving high efficiency lighting systems for the lighting in phase 2. This can reduce the overall power consumption by 30% on average in comparison with traditional lighting installation.

## LAND ACQUISITION

19. The project does not require any land acquisition.

## BACKGROUND INFORMATION

20. The Tourism Commission commissioned a consultancy study to develop the Plan in August 2002. The objective of the Plan is to improve the lighting effects of the buildings on both sides of the Harbour to further enhance the night vista of Hong Kong and strengthen its position as a premier tourist destination.

21. With the support from the Tourism Strategy Group, the Tourism Commission then took forward the implementation of the Plan in partnership with the private sector. During phase 1 of the Plan, the Government took the lead to improve the lighting effects for two government buildings (City Hall and Queensway Government Offices). Subsequently, two public buildings (Hong Kong Convention and Exhibition Centre and Hong Kong Academy for Performing Arts), thirteen other private buildings and the Chinese People's Liberation Army (PLA) Forces Hong Kong Building also joined the Plan. This partnership resulted in a world first for Hong Kong: "A Symphony of Lights" which was launched in January 2004. The Show was enhanced with rooftop pyrotechnic displays during the launch month and the 1 May 2004 Golden Week. Photographs of the Show with and without rooftop pyrotechnics are at Enclosure 4.

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<sup>4</sup> This 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 per m<sup>3</sup>), nor the cost to provide new landfills (which are likely to be more expensive) when the existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.

22. The private buildings and the PLA are responsible for the capital costs of their own lighting design, lighting equipment and control system as well as the recurrent costs of maintenance and electricity. Government's contribution to phase 1 of the Plan is at Enclosure 5. The capital cost for each of the government and public buildings was funded under block allocation **Subhead 3101GX** "Minor building works for items in Category D of the Public Works Programme".

23. We upgraded **398RO** to Category B in May 2004.

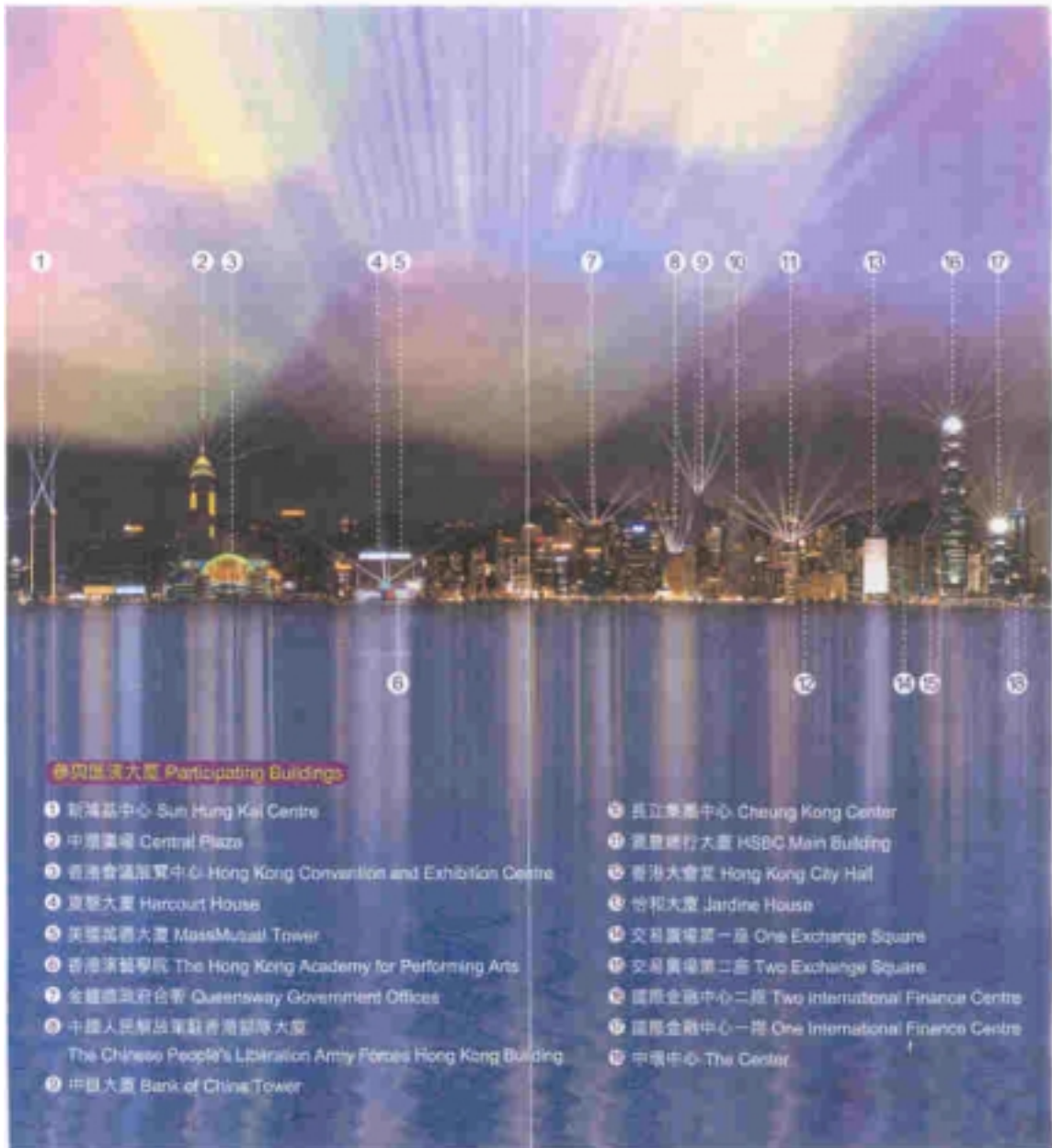
24. The proposed phase 2 of the Plan will not involve any tree removal or planting proposal.

25. We estimate that the project will create about 55 jobs (30 for labourers and another 25 for professional/technical staff) providing a total employment of 600 man-months.

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Tourism Commission  
Economic Development and Labour Bureau  
June 2004



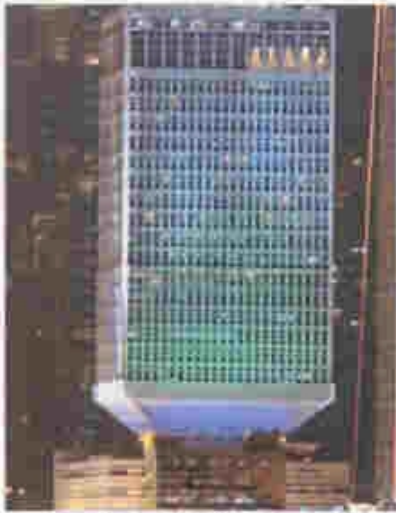
**The 18 Buildings Participating in Harbour Lighting Plan – phase 1**  
**參與「維港照明計劃」第 1 期的 18 座大廈**



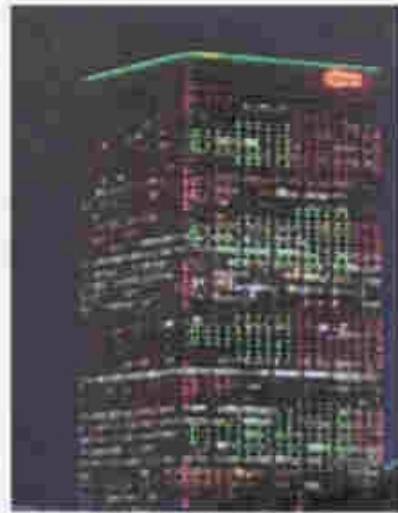
**參與匯演大廈 Participating Buildings**

- |  |   |
|--|---|
| ① 新鴻基中心 Sun Hung Kai Centre  | ⑩ 長江集團中心 Cheung Kong Center                 |
| ② 中環廣場 Central Plaza   | ⑪ 渣打銀行大廈 HSBC Main Building                 |
| ③ 香港會議展覽中心 Hong Kong Convention and Exhibition Centre                              | ⑫ 香港大會堂 Hong Kong City Hall                 |
| ④ 皇朝大廈 Harcourt House  | ⑬ 怡和大廈 Jardine House                        |
| ⑤ 美蘭花園大廈 MassMutual Tower  | ⑭ 交易廣場第一座 One Exchange Square               |
| ⑥ 香港演藝學院 The Hong Kong Academy for Performing Arts                                 | ⑮ 交易廣場第二座 Two Exchange Square               |
| ⑦ 全線總政府合署 Queensway Government Offices   | ⑯ 國際金融中心二期 Two International Finance Centre |
| ⑧ 中國人民解放軍駐香港部隊大廈<br>The Chinese People's Liberation Army Forces Hong Kong Building | ⑰ 國際金融中心一期 One International Finance Centre |
| ⑨ 中國大廈 Bank of China Tower   | ⑱ 中環中心 The Center                           |

### 維港照明計劃第 1 期所採用的各種照明效果



泛光燈：為外牆加添色彩



光纖：變出不同圖案



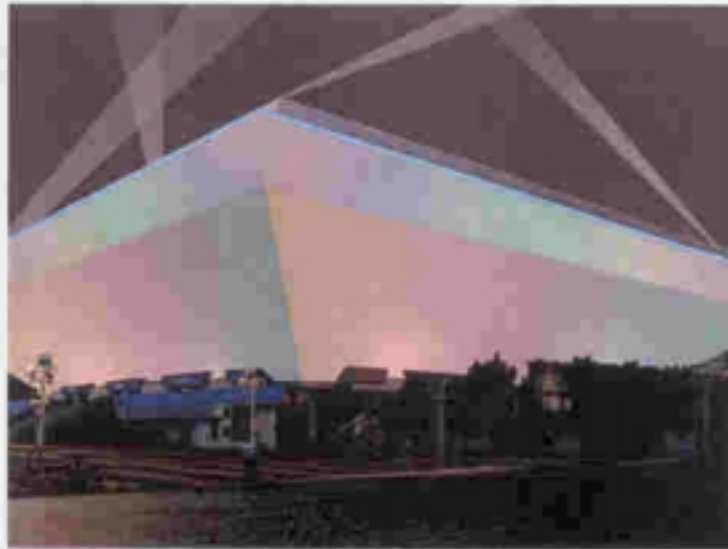
發光二極管燈：在不同時段顯現不同顏色



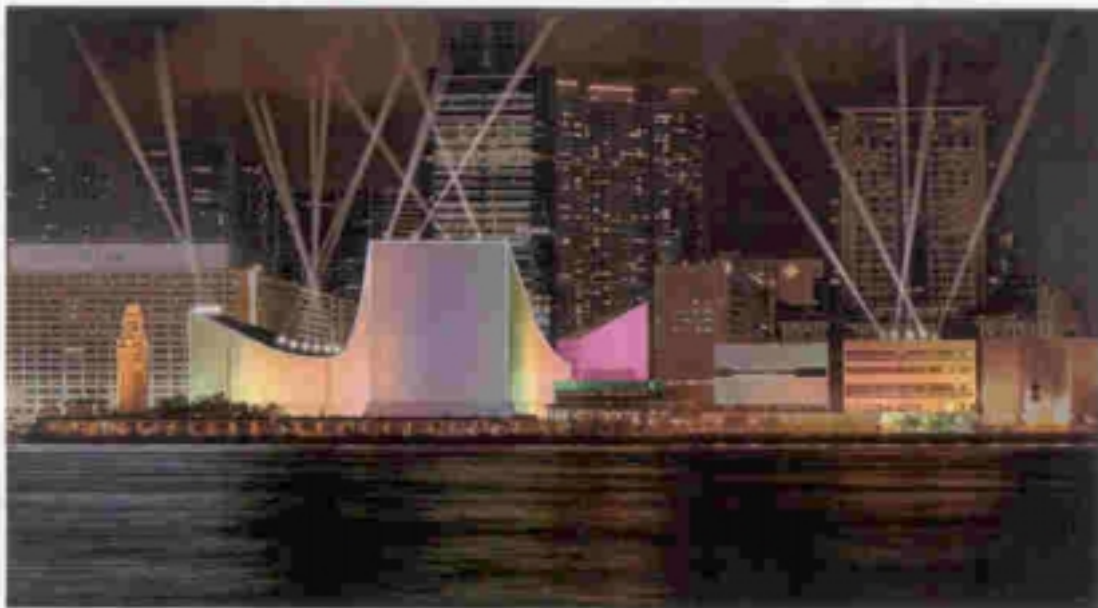
探射燈：調校光暗，  
向不同角度投射



激光：發出強而有力的光柱



香港體育館照明系統構思圖  
HONG KONG COLISEUM LIGHTING PLAN (ARTIST'S IMPRESSION)



香港文化中心及香港藝術館照明系統構思圖  
HONG KONG CULTURAL CENTRE AND HONG KONG MUSEUM OF ART LIGHTING PLAN  
(ARTIST'S IMPRESSION)

398RO

進行維港照明計劃-第2期工程  
IMPLEMENTATION OF HARBOUR  
LIGHTING PLAN - PHASE 2

drawn by  
M. F. Chung

date

drawing no.

scale

ADG-003

N.T.S.

approved  
T. K. Chan

date

office  
GENERAL ENGINEERING  
SERVICES DIVISION

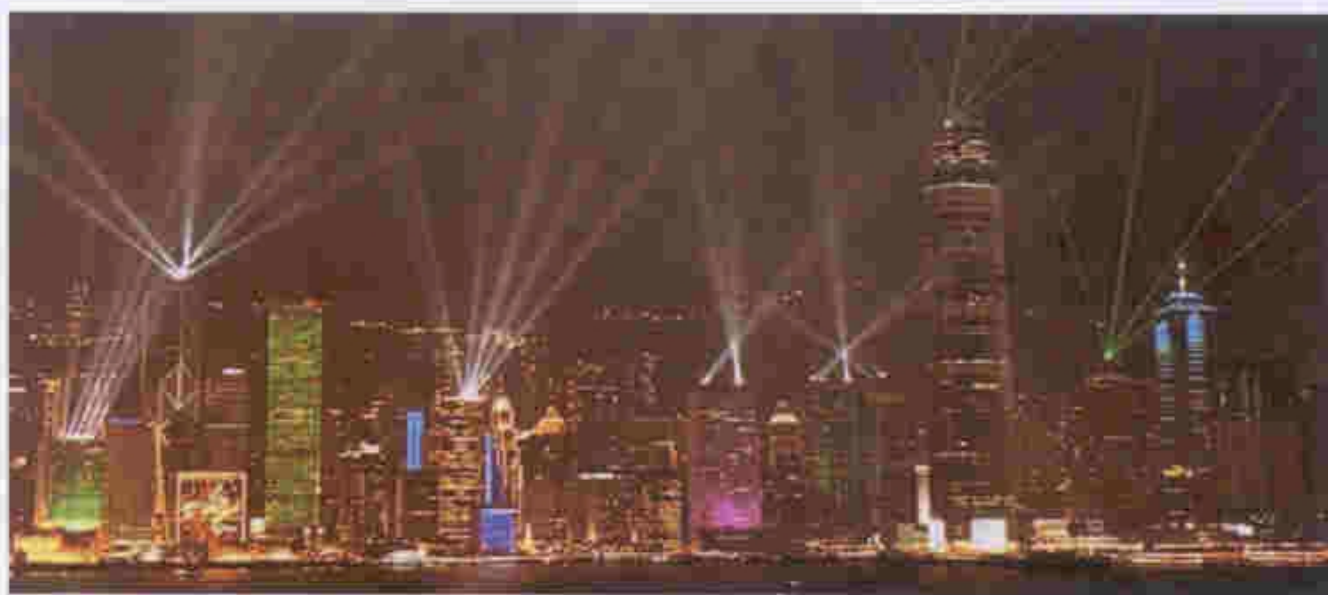


ARCHITECTURAL  
SERVICES  
DEPARTMENT



## A Symphony of Lights

### 幻彩詠香江



## A Symphony of Lights (enhanced with rooftop pyrotechnics)

### 幻彩詠香江 (加插煙火效果)



**Costs Incurred by Government/Public Buildings in Harbour Lighting Plan – phase 1**

<b>Name of Building</b>	<b>Capital cost of the lighting system (\$ million)</b>	<b>Funded by</b>	<b>Estimated maintenance cost of the lighting system per month (\$)</b>	<b>Department/ Organisation to bear the maintenance cost</b>	<b>Estimated cost of electricity for “A Symphony of Lights” per month (\$)</b>	<b>Department/ Organisation to bear the electricity cost</b>
<b>(a) Government buildings</b>						
Hong Kong City Hall	3.6	Minor works block allocation Subhead 3101GX	1,500	Architectural Services Department	110	Leisure and Cultural Services Department
Queensway Government Offices	3.2	Minor works block allocation Subhead 3101GX	1,300	Architectural Services Department	470	Information Services Department
<b>(b) Public buildings</b>						
Hong Kong Convention and Exhibition Centre	12.8	Minor works block allocation Subhead 3101GX	5,000	Hong Kong Convention and Exhibition Centre Management Ltd.	2,100	Hong Kong Convention and Exhibition Centre Management Ltd.
The Hong Kong Academy for Performing Arts	6.8	Minor works block allocation Subhead 3101GX	2,700	The Hong Kong Academy for Performing Arts	700	The Hong Kong Academy for Performing Arts

Note : The production cost of “A Symphony of Lights” was \$9.5 million and was absorbed by the Tourism Commission.