

For discussion
on 22 November 2007

PWSC(2007-08)60

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 - CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Universities

City University of Hong Kong

20EJ – Multi-media Building – stage 2

Members are invited to recommend to Finance Committee the upgrading of **20EJ** to Category A at an estimated cost of \$437.0 million in money-of-the-day prices for the construction of a Multi-media Building at the northern part of the campus of City University of Hong Kong in Kowloon Tong.

PROBLEM

City University of Hong Kong (CityU) requires additional space and accommodation to house specialized facilities to support the development of creative media programmes and activities.

PROPOSAL

2. The Secretary-General, University Grants Committee (SG, UGC), on the advice of the University Grants Committee (UGC) and the Director of Architectural Services (D Arch S) as UGC's Technical Adviser, and with the support of the Secretary for Education, proposes to upgrade **20EJ** to Category A at an estimated cost of \$437.0 million in money-of-the-day (MOD) prices for the construction of CityU's Multi-media Building.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of the stage 2 construction works under **20EJ** involves construction of a new nine-storey teaching and research complex of 13 400 square metres (m²) in net operational floor area (NOFA) at the northern part of the CityU campus in Kowloon Tong. A site plan is at Enclosure 1.

4. The proposed building has 11 classrooms, three lecture theatres, 27 teaching laboratories, one open laboratory and 20 research laboratories. There are also study space, staff offices, student/staff amenities and support facilities, and 46 open carparking spaces. A list of the facilities, the sectional plan and an artist's impression of the building are at Enclosures 2 to 4 respectively. With the stage 1 works under **22EJ** (mainly site formation works and pre-contract consultancy) nearing completion, CityU plans to start the stage 2 construction works in the first quarter of 2008 for completion in the first quarter of 2010.

JUSTIFICATION

5. The existing campus of CityU has been used for nearly 20 years. With the developments over time, CityU lacks adequate space to carry out teaching and research activities. According to the results of the Review on Space and Accommodation Requirements of the UGC-funded institutions carried out by the UGC in 2006, CityU would have a projected space shortfall of some 16% (equivalent to around 17 700 m² in NOFA) by the 2007/08 academic year. To address the problem, CityU has relocated some of its administrative and academic support units to leased premises nearby, so as to release space in the main campus for the provision of additional classrooms, laboratories, student and staff amenities, specialist laboratories, research centres and applied strategic development centres.

6. The School of Creative Media (the School) of CityU is a unique institute aiming at training a new generation of transmedia professionals and researchers who can integrate various media forms to produce world class creative products with contents drawing on our cultural root and local heritage. The School currently has about 350 students. The high standard of works by their students and staff is well recognised by the creative industries in Hong Kong as well as overseas countries. With a history of less than 10 years, they have won

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more than 30 awards from international film and video festivals, competitions and professional institutes. However, the future development of the School has been constrained by the acute shortage in accommodation to house specialized teaching spaces and facilities which are essential to support the development of creative media programmes and related research. To this end, CityU converted one floor of its covered carpark in 1998 for use by the School as a temporary arrangement. Nonetheless, this is highly unsatisfactory, particularly as the School takes in more undergraduate students and expands its research activities.

7. To alleviate the space shortfall and to provide permanent and proper accommodation for the School, the CityU proposes to construct a building of 13 400 m² in NOFA to provide additional teaching and study space, laboratories, offices, amenities and support facilities for the School and other related departments/centres such as the Department of English and Communications, Department of Computer Science, and the Centre for Applied Computing and Interactive Media.

8. By constructing a purpose-built Multi-media Building, specialist audio/visual equipment and appliances could be installed to support specialized teaching and research activities in creative media. Such facilities are instrumental to training students to become multi-media specialists and professionals who need to be equipped with the technical knowledge of digital media and also well-versed with the art of story-telling. Furthermore, the training and research activities to be conducted at the Multi-media Building will facilitate the integration of different media forms and better prepare students for the rapid technological changes in the multi-media industries. The Multi-media Building will also serve as a first-class laboratory for conducting applied empirical research on how people interact with new media technologies, and for generating theoretical and practical knowledge for advancing the technology and design of future systems.

9. As a state-of-the-art infrastructure, the Multi-media Building will adopt a special building element in its design that will inspire creativity, innovation and productivity. It will provide a focus and platform for the further development of creative digital media (as well as related arts and technologies) in Hong Kong. The Multi-media Building will also strengthen CityU's role as a leading training centre in creative media, thereby enhancing Hong Kong's regional competitiveness in this respect.

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10. CityU will allocate the space vacated by the School and other departments/centres to other faculties and departments after the completion of the Multi-media Building.

FINANCIAL IMPLICATIONS

11. The total estimated cost of the Multi-media Building is \$453.4 million in MOD prices, of which \$16.4 million will be funded by CityU's own source of funding primarily to support the cost of special building element.

12. SG, UGC, on the advice of D Arch S, recommends a capital funding of \$437.0 million in MOD prices to be provided by the Government (see paragraph 16 below), made up as follows –

	\$ million
(a) Building	185.4
(b) Building services	122.6
(c) Special building element ¹	15.9
(d) Drainage	3.6
(e) External works	12.0
(f) Consultants' fees for	14.5
(i) Tender assessment	0.5
(ii) Contract administration	7.5
(iii) Site supervision	6.5
(g) Furniture and equipment ²	36.6

/(h)

1 The additional building cost due to the design of the building in a crystalline shape is \$15.9m (in September 2007 prices).

2 Based on a list of furniture and equipment submitted by CityU.

	\$ million
(h) Specialist equipment ³	30.8
(i) Contingencies	<u>24.2</u>
Sub-total	445.6 (in September 2007 prices)
(j) Provision for price adjustment	<u>7.8</u>
Sub-total	453.4 (in MOD prices)
(k) Less CityU's contribution ⁴ from private funding source	<u>(16.4)</u>
Total	<u>437.0</u> (in MOD prices)

13. The facilities of the Multi-media Building are different from other teaching buildings. There is a genuine need for the provision of specialist equipment to provide necessary support for the creative media teaching and research activities and to bring the facilities in line with other institutions and top animation houses.

14. CityU will engage consultants to undertake tender assessment, contract administration and site supervision of the construction of the super-structure. A detailed breakdown of the estimate for consultants' fees by man-months is at Enclosure 5.

15. The construction floor area (CFA) of this project is 24 580 m². The estimated construction unit cost, represented by the building and building /services

3 The cost is estimated based on a list of specialist equipment required by CityU making reference to the setup in other institutions with creative media programmes, e.g. Beijing Film Academy, University of Southern California, etc.. Examples of major specialist equipment include D-cinema system, mixing, recording and playback system, studio-grade multi-format surround sound system for high performance "Sound Dubbing Theatres"; Motion Capture (Mocap) Camera System, sound stage facilities, computer system and software for "Moving Image Laboratories"; Mocap Data editing computer system and software for "Computer Studios"; Digital Video editing software and computer system for "Animation Laboratories"; E-cinema Grade System for professional standard "Screening Theatres". Some of these facilities and equipment are being used by top animation houses and movie editing shops in Hollywood.

4 The contribution of \$16.4 million by CityU is to cover the cost of the special building element (\$16 million in MOD prices) and the increase in the provision for price adjustment (\$0.4 million) from June 2007 when the project was last submitted to this Subcommittee and in September 2006 prices.

services cost, is \$12,531 per m² of CFA in September 2007 prices. D Arch S considers the estimated construction unit cost reasonable and comparable to those of similar projects for UGC-funded institutions such as **46EF** “Teaching complex at western campus” of the Chinese University of Hong Kong (with an estimated construction unit cost of \$12,330 per m² of CFA in September 2007 prices). A detailed account of the CFA vis-à-vis the construction unit cost of **20EJ** is at Enclosure 6.

16. Subject to approval, CityU will phase the expenditure as follows -

Year	\$ million (Sept 2007)	Price adjustment factor	\$ million (MOD)	Contribution by CityU \$ million	20EJ \$ million (MOD)
2007 - 08	2.4	1.00000	2.4	2.4	-
2008 - 09	119.8	1.00750	120.7	14.0	106.7
2009 - 10	205.3	1.01758	208.9	-	208.9
2010 - 11	109.8	1.02775	112.8	-	112.8
2011 - 12	8.3	1.03803	8.6	-	8.6
	<u>445.6</u>		<u>453.4</u>	<u>16.4</u>	<u>437.0</u>

17. We have derived the MOD estimate on the basis of the Government’s latest forecast of trend rate of change in the prices of public sector buildings and construction output for the period 2007 to 2012. CityU will tender the works through a fixed-price lump-sum contract because it can clearly define the scope of works in advance.

18. The project has no impact on tuition fees. The additional recurrent cost associated with this project will be funded by CityU. The proposal has no additional recurrent implication on the Government.

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PUBLIC CONSULTATION

19. While construction works for the project will be carried out within CityU's campus, the University had presented the stage 2 project to the Sham Shui Po District Council (SSPDC) on 3 April 2007. The project received favourable comments from members of the SSPDC. When the Legislative Council (LegCo) Panel on Education was consulted on the proposed project (stage 1) on 18 March 2002, Members indicated no objection to the stage 2 project.

20. The project was submitted under PWSC(2007-08)44 to this Subcommittee on 20 June 2007. In considering the project, Members requested the Administration to provide supplementary information which is now set out at Enclosure 7.

ENVIRONMENTAL IMPLICATIONS

21. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). The Director of Environmental Protection agreed that the project would not cause long-term environmental impact.

22. CityU has included in the project estimates the cost to implement suitable mitigation measures to control short-term environmental impacts to within established standards and guidelines. These include the use of silencers, mufflers, acoustics lining or shields for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

23. CityU has considered measures (e.g. use metal site hoardings and signboards so that these materials can be recycled or reused in other projects) in the planning and design stages to reduce the generation of construction waste where possible. In addition, CityU will require the contractor to reuse inert construction waste (e.g. excavated waste) on site or in other suitable construction sites as far as possible, in order to minimize the disposal of inert construction waste to public fill reception facilities⁵. CityU will encourage the contractor to

/maximize

⁵ 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.

maximize the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimize the generation of construction waste.

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

25. CityU estimates that the project will generate about 27 060 tonnes of construction waste. Of these, CityU will reuse about 10 553 tonnes (39.0%) of inert construction waste on site, deliver 14 342 tonnes (53.0%) of inert construction waste to public fill reception facilities for subsequent reuse, and dispose of 2 165 tonnes (8.0%) of non-inert construction waste at landfills. The total cost of accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$657,859 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne⁶ at landfills).

HERITAGE IMPLICATIONS

26. This project will not affect any heritage site, i.e. all declared monuments, graded historic buildings and sites of archaeological interests.

LAND ACQUISITION

27. The project does not require any land acquisition.

/BACKGROUND

⁶ 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/m³), nor the cost to provide new landfills (which are likely to be more expensive) when the existing ones are filled.

BACKGROUND INFORMATION

28. Under existing procedures, UGC-funded institutions submit capital works proposals to the UGC annually. The UGC examines all these proposals carefully, with professional advice provided by D Arch S who acts as UGC's Technical Adviser, and refers those supported proposals to the Government for consideration of bidding of funds under the established mechanism. Having examined CityU's proposal, SG, UGC has, in consultation with D Arch S, adjusted the project estimate proposed by CityU to arrive at the project estimate set out in paragraph 12 above.

29. We upgraded **22EJ** - Multi-media Building – stage 1 to Category A in May 2002 at an approved project estimate of \$46.4 million (in MOD prices). CityU engaged consultants to carry out site investigation and preliminary design work in September 2003 and to prepare detailed design and tender documents for the site formation contract in May 2006. The consultants have completed the site investigation, preliminary design and detailed design of the project. Site formation works is in progress and is expected to be completed in December 2007.

30. The proposed construction of the Multi-media Building – stage 2 will not involve any tree removal proposal. CityU will incorporate a planting proposal as part of the project, including an estimated 430 trees, 50 m² of bamboo planting, 290 m² of shrub and another 3 850 m² of shrub and groundcover to the cut slope.

31. CityU estimates that the proposed works will create about 315 jobs (285 for labourers and another 30 for professional/technical staff) providing a total employment of 6 800 man-months.

City University of Hong Kong
20EJ – Multi-media Building - stage 2
香港城市大學
20EJ — 多媒體大樓-第 2 階段



逸之路
Tat Chee Avenue

歌和老街
Cornwall Street

龍翔道
Lung Cheung Road



九龍橋火車站及地鐵站
KCR/MTR Station

香港城市大學
City University of Hong Kong

多媒體大樓
Multi-media Building

**City University of Hong Kong
20EJ Multi-media Building – stage 2**

List of Facilities

Facilities	Estimated floor area in net operational floor area (NOFA) (m²)
(a) Classroom Facilities - classroom and lecture theatres	1 700
(b) Study Space - individual study area, group study area and general use computing area	900
(c) Teaching Laboratories - moving image laboratories, screening rooms, sound dubbing theatre, animation laboratories, audio laboratories, basic editing laboratory, darkroom studios and general teaching laboratories	3 670
(d) Open Laboratory	300
(e) Research Laboratories - mobile multi-media laboratory, smart home and classroom laboratory, virtual and immersive reality laboratory, audio recording and editing laboratories, television studio, new media laboratories, and advanced editing research laboratory	3 640
(f) Office Facilities	1 360
(g) Student / Staff Amenities - exhibition, event, and common areas	1 160
(h) Support Facilities	670
Total	13 400

**City University of Hong Kong
20EJ – Multi-media Building - stage 2**



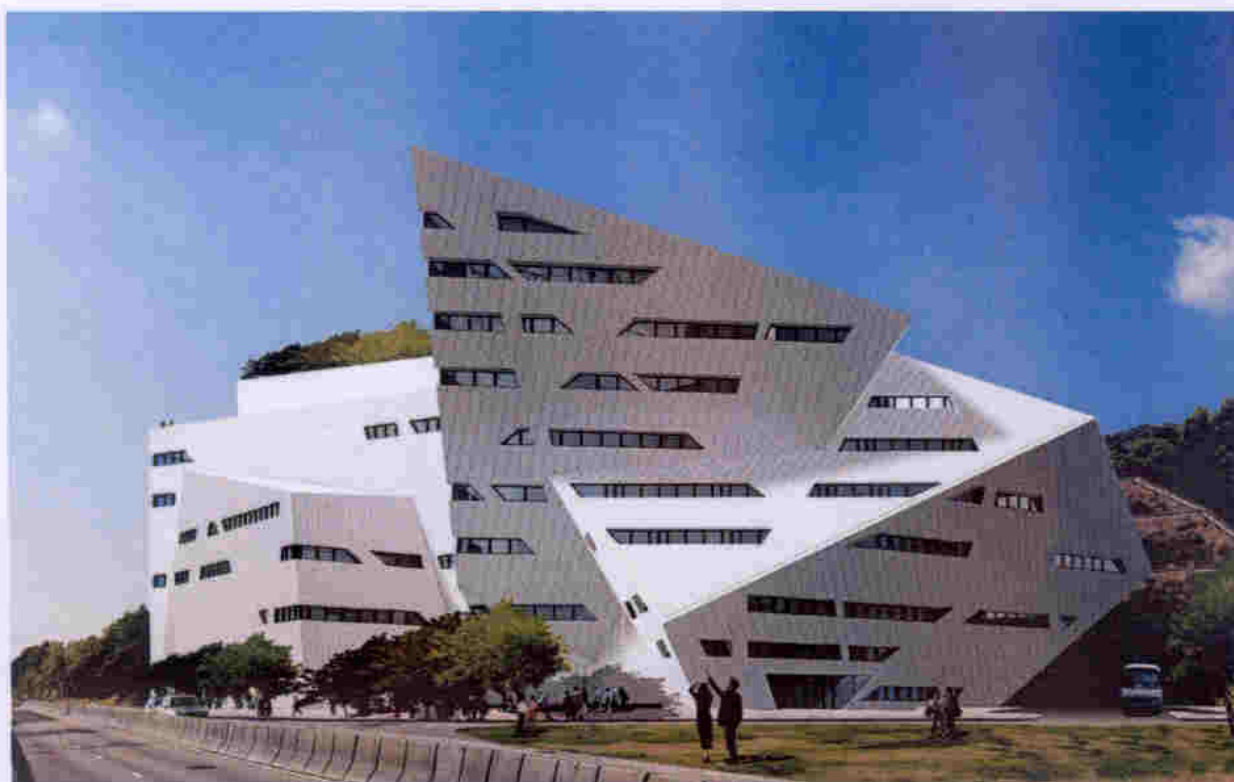
**多媒體大樓
Multi-media Building**



LEGEND:

L1	Moving Image Lab 1 Event Space	錄影實驗室一 活動場地	Moving Image Lab 2 Reception	錄影實驗室二 接待處
L2	Teaching Lab	教學實驗室		
L3	Event Space	活動場地	Exhibition & Assessment Area	展覽及評論空間
L4	Classrooms	課室	General Computing	電腦室
L5	Design & Shooting Lab Media Lab Meeting Room Coffee Area	設計及攝影實驗室 媒體實驗室 會議室 咖啡廳	TV Studio News Room Project Lab	電視製作中心 新聞工作室 項目實驗室
L6	Clusters Recording Studio Dance & Motion Capture	實驗及工作組群 錄音製作中心 影像捕捉工作室	Screening Rooms Audio Lab	放映室 影音實驗室
L7	Teaching Labs IT Centre Dept Office	教學實驗室 科技及技術中心 辦公室	Editing Lab Animation Studio	編輯工作室 動畫製作中心
L8	Function Room	活動室	Office	實驗及工作組群
L9	Garden Terrace	花園平臺	Teaching Lab	教學實驗室
	University Stair	大學梯階		

City University of Hong Kong
20EJ – Multi-media Building - stage 2
香港城市大學
20EJ — 多媒體大樓-第 2 階段



多媒體大樓外觀構思圖
Multi-media Building
Artist's Impression

City University of Hong Kong
20EJ – Multi-media Building – stage 2

Breakdown of the estimate for consultants' fee^(Note 1)

		Estimated man-months	Average MPS* salary point	Multiplier (Note 2)	Estimated fees (\$ million) (Sept 2007)
Consultants' staff costs					
(a) Tender assessment ^(Note 3)	Professional	-	-	-	0.4
	Technical	-	-	-	0.1
(b) Contract administration ^(Note 3)	Professional	-	-	-	5.4
	Technical	-	-	-	2.1
(c) Site supervision ^(Note 4)	Professional	49	38	1.6	4.5
	Technical	66	14	1.6	2.0
				Total	14.5

*MPS = Master Pay Scale

Notes

1. Having examined the consultants' fees estimated by CityU, the Director of Architectural Services considers the figures acceptable.
2. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff employed by University. (As at 1 April 2007, MPS point 38 = \$56,945 per month, MPS point 14 = \$18,840 per month.)
3. The consultants' fees are calculated in line with other universities' projects.
4. We will only know the actual man-months and actual costs after completion of the construction works.

**City University of Hong Kong
20EJ - Multi-media Building – stage 2**

Breakdown of the construction floor area (CFA) vis-à-vis the construction unit cost

(a) Breakdown of CFA	Estimated floor area (m²)
Net operational floor area (NOFA)	13 400
Circulation areas and toilets	10 200
Mechanical and electrical plants	980
CFA	<hr/> 24 580
(b) NOFA / CFA ratio	55%
(c) Estimated construction unit cost (represented by the building and building services costs)	\$12,531 per m ² of CFA (in September 2007 prices)

Enclosure 7 to PWSC(2007-08)60

City University of Hong Kong 20EJ - Multi-media Building – stage 2

Supplementary Information

In considering PWSC(2007-08)44 on the above project on 20 June 2007, Members of the Public Works Subcommittee (PWSC) requested the Administration to provide supplementary information. The information required is appended below and the costs quoted are at September 2006 price level as shown in the papers considered by PWSC at the meeting on 20 June for the sake of consistency and comparison purposes –

(a) **Criteria adopted by the Administration in assessing and vetting the funding proposals of capital subvention projects from the University Grants Committee (UGC)-funded institutions**

Proposals for capital subventions submitted by the UGC-funded institutions are considered by the UGC on an annual basis. The UGC has adopted the following criteria in considering the merits of each proposal, and to determine their relative priority. The projects will be assessed on whether they are required to comply with the statutory safety/health requirements; to relieve shortage of space having regard to the UGC's findings of the Space and Accommodation Review; to provide student hostels in accordance with the Government policy; to meet academic aims/objectives and approved student number targets of the institution concerned; to advance stated Government policy objectives; enhance and maintain the teaching, learning and research environment of the institution concerned; be conducive to the development of a particular area of excellence in the institution; or help promote an institution or Hong Kong as a regional education centre.

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The UGC considers the institutions' capital projects with reference to the advice of the Director of Architectural Services (D Arch S) who is its Technical Adviser in respect of the technical and costing issues of the capital works projects of the UGC-funded institutions. D Arch S will scrutinise the project proposals including design, cost and standard in detail and give appropriate advice to the UGC. In addition, D Arch S will examine the contractual and financial conditions of the projects to ensure that they represent good professional practice and are in line with the principles and practices adopted in Government building projects.

D Arch S will make reference to relevant projects of similar complexity, nature and scale in assessing and vetting the funding proposals from UGC-funded institutions. The unit construction costs of a large pool of relevant projects will be used as a basis to assess and vet the reasonableness of the cost estimate and to determine the level of support for the new project. The cost effectiveness of the building design (including area efficiency, choice of materials, suitable services installations, etc.) will also be examined from a government subvention standpoint.

(b) Whether the Administration had given special consideration in vetting the funding proposal for the above project, if so, reasons for the project to merit special consideration and details of the consideration.

In general, each capital works project will be considered based on its own merits and against the criteria as highlighted in part (a) above. For **20EJ**, we have taken into account the following factors in examining the funding application –

- (i) It is a special-purpose building comprising of special laboratories, studios and theatres which requires high storey height and stringent acoustic requirements to address the needs arising from teaching and research activities inside the building. Hence, it is reasonable that the unit construction cost of the project (\$11,900 per m² of CFA in September 2006 prices or \$12,531 per m² of CFA in September 2007 prices) is slightly higher than that of other teaching buildings of UGC-funded institutions e.g. Teaching Complex at Western Campus of the Chinese University of Hong Kong (\$11,604 per m² in September 2006 prices or \$12,330 per m² in September 2007 prices);

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- (ii) CityU has adopted a special building element in the design of the Multi-media Building with a view to inspire creativity, innovation and productivity which are instrumental to the training of a new generation of transmedia specialists and professionals. This special building element would not affect the building layout which achieves an efficiency level of 55% similar to other subvented buildings. CityU will contribute \$16 million in September 2007 prices from the University's private funding source to support the cost of the special building element; and
 - (iii) the facilities of the Multi-media Building are heavily equipped and fitted-out to provide the necessary support for creative media teaching and research activities. Hence, the Administration supports an amount of \$30.8m for specialist equipment (such as D-cinema system, mixing, recording and playback system, studio-grade multi-format surround sound system for high performance "Sound Dubbing Theatres", Mocap Camera System, sound stage facilities, computer system and software for "Moving Image Laboratories", Mocap Data editing computer system and software for "Computer Studios", Digital Video editing software and computer system for "Animation Laboratories", E-cinema Grade System for professional standard "Screening Theatres", etc.). We have also supported an amount of some \$20 million for the specialist furniture and equipment for the Enterprise Centre of Hong Kong University of Science and Technology Enterprise Centre (**9EL** approved by the LegCo in 2004) in view of its heavy research and development activities.
- (c) **Detailed breakdown of the capital funding for the project (with unit cost of each item and further details on the consultants' fee for the project), as well as similar breakdown of funding for the other two projects (i.e. School of Communication-cum-School of Creative/Visual Arts Building (19EH), Hong Kong Baptist University and Teaching building at Chak Cheung Street - phase 2 (48EF), The Chinese University of Hong Kong) for comparison purpose.**

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A table showing the cost comparison (in September 2006 prices) with **19EH** of HKBU and **48EF** of CUHK is at Appendix. **48EF** is a general teaching building for business studies while **20EJ** and **19EH** are purpose-built buildings to meet specific teaching needs of the relevant schools. Both **20EJ** and **19EH** comprise of special laboratories, studios and theatres which requires high storey height and stringent acoustic requirements, though to different standard and extent. It is therefore more meaningful to compare the costs of these two projects for reference purpose. The construction unit cost funded by the Government for the superstructure of **20EJ** is at the same level of **19EH** when the special building element funded by CityU is taken out, i.e. \$11,900 vis-à-vis \$11,857 per construction floor area (CFA) or \$21,828 vis-à-vis \$21,554 per net operational floor area (NOFA). The overall unit cost of **20EJ** funded by the Government is also comparable with **19EH** when the special building element and specialist equipment are taken out, i.e. \$16,228 vis-à-vis \$16,084 per CFA or \$29,769 vis-à-vis \$29,237 per NOFA.

On the other hand, **19EH** requires a lower level of government funding per CFA/NOFA as HKBU is able to secure a private donation of \$45 million for the project.

As regards the provision for consultants' fees for **20EJ**, it is adjusted from \$16.8 million to \$14.5 million. D Arch S considers the estimate for consultants' fees (at 4.5% of the construction and site development cost) reasonable and comparable to those of similar projects for UGC-funded institutions such as **19EH** "School of Communication-cum-School of Creative/Visual Arts Building" of the Hong Kong Baptist University which is at 4% of the construction and site development cost.

- (d) **Elaboration of the background information in paragraph 23 of PWSC(2007-08)44 (i.e. paragraph 29 of this paper) to illustrate the relation, if any, between the approved project estimate of \$46.4 million for site investigation, preliminary design and detailed design of the project and the estimated cost of \$437.0 million for the construction of the Multi-media building.**

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To meet the space shortfall and to provide proper and permanent accommodation for the expanding academic and administrative activities of the School of Creative Media, CityU submitted to PWSC a proposal for the construction of Multi-media Building in 2002 –

- In May 2002, Multi-media Building – stage 1 was upgraded to Category A (**22EJ**) with a project estimate of \$46.4 million (in MOD prices) for site investigation, preliminary sketch and design and site formation. The estimated total project cost (for both stage 1 and 2) at that time was \$550 million.
- In September 2003, consultants were hired to carry out site investigation and preliminary design work.
- In May 2006, the detailed design was prepared and the tender for site formation was awarded.

Site formation works is now in progress and expected to be completed in December 2007. To take forward the project, CityU therefore proposes to upgrade Multi-media Building – stage 2 (**20EJ**) to Category A at an estimated cost of \$437 million in MOD prices so as to carry out the construction work of the building (superstructure) upon completion of site formation.

/Detailed

Detailed Project Cost Breakdown of 20EJ, 19EH & 48EF (in September 2006 prices)

	20EJ – Multi-media Building (CityU)			19EH- School of Communication-cum-School of Creative/Visual Arts Building (HKBU)			48EF - Teaching Building at Chak Cheung Street-Phase 2 (CUHK)		
Construction Floor Area (CFA)	24 580 m ²			16 420 m ²			10 150 m ²		
Net Operational Floor Area (NOFA)	13 400 m ²			9 033 m ²			5 600 m ²		
	Cost [^]	Cost per m ² (CFA)	Cost per m ² (NOFA)	Cost	Cost per m ² (CFA)	Cost per m ² (NOFA)	Cost	Cost per m ² (CFA)	Cost per m ² (NOFA)
	\$M	\$/m ²	\$/m ²	\$M	\$/m ²	\$/m ²	\$M	\$/m ²	\$/m ²
Building	165.8 (185.4)	6,745	12,373	128.9	7,850	14,270	72.0*	7,094	12,857
Building Services	126.7 (122.6)	5,155	9,455	65.8	4,007	7,284	40.9	4,029	7,304
Construction cost	292.5 (308.0)	11,900	21,828	194.7	11,857	21,554	112.9	11,123	20,160
Site Development ^{&}	13.9 (15.6)	566	1,037	18.2	1,108	2,015	-	-	-
Consultants' Fees	16.8 (14.5)	683	1,254	8.5	518	941	3.6	355	643
Furniture & Equipment	36.6 (36.6)	1,489	2,731	24.3	1,480	2,690	7.1	700	1,268
Contingencies	39.1 (24.2)	1591	2,918	18.4	1,121	2,037	8.2	808	1,464
Saving due to economy of scale [#]	-	-	-	-	-	-	15.0	1,478	2,678
Project cost excluding specialist equipment and special building element	398.9 (398.9)	16,228	29,769	264.1 [391.8] ^Δ	16,084	29,237	146.8 [351.3] ^Δ	14,464	26,213
Special Building Element	14.2 (15.9)	578	1,060	-	-	-	-	-	-
Specialist Equipment	30.8 (30.8)	1,253	2,299	-	-	-	-	-	-
Total Project Cost	443.9 (445.6)	18,059	33,127	264.1	16,084	29,237	146.8	14,464	26,213

[^] Figure in the round bracket represents the amount in September 2007 prices.

* The building cost for **48EF** includes foundation works (\$12.6 million) which is met by private funding.

& Site development costs include drainage and external works. **48EF** does not have an estimate on this as it is built on top of phase 1 which is funded by private funding.

There is an estimated saving of \$15 million arising from developing phases 1 and 2 of the teaching building at Chak Cheung Street in tandem.

Δ This is the project cost excluding specialist equipment and special building element if the project scale is brought up to the scale of **20EJ**.