



## **THE HONG KONG HOUSING AUTHORITY**

### **Memorandum for the Building Committee**

#### **Proposed Revised Master Layout Plan and Project Development Budget for Redevelopment of Kwai Chung Estate Phases 3 & 4**

#### **PURPOSE**

To seek Members' endorsement to the proposed revised Master Layout Plan and Project Development Budget for Redevelopment of Kwai Chung Estate Phases 3 & 4.

#### **BACKGROUND**

2. Kwai Chung Estate was constructed in the early sixties and is earmarked for redevelopment in the Comprehensive Redevelopment Programme.

3. Past events relevant to the project are as follows –

	<b>Date</b>	<b>Events</b>
(a)	12 November 1992	Planning Brief for the whole Redevelopment approved by the then Development Progress Committee.
(b)	18 February 1993	Client Brief and Concept Plan (for Phases 1 to 6) and Project Estimate (for Phases 1 and 2) approved by the Building Committee (BC) (Paper No. BC 22/93 refers).
(c)	23 December 1998	Proposed amendment to the Planning Brief approved by Tsuen Wan, Kwai Tsing & Sham Shui Po District Planning Conference (DipCon Paper No. 7/98 refers).

- (d) 14 January 1999 The Neighbourhood Community Centre (NCC) Site in Phase 8 agreed to be included into the Public Housing Development Programme (PHDP) by Strategic Planning Committee (Paper No. SPC 6/99 refers).
- (e) 29 April 1999 Revised Client Brief for Phases 2 and 7, revised Concept Plan for Phases 2 to 8 approved by BC (Paper No. BC 75/99 refers).
- (f) 22 September 1999 Proposed Development Parameters, Project Development Costs Ceiling for Redevelopment of Kwai Chung Estate Phases 3 - 5 approved by SPC (Paper No. SPC 31/99)
- (g) 23 September 1999 Proposed Master Layout Plan and Project Development Budget for Redevelopment of Kwai Chung Estate Phases 3 & 4 approved by BC (Paper No. BC 156/99 refers)
- (h) 2 March 2000 Proposed revised housing type for Phase 5 (from HOS to PRH) and respective development parameters and development cost ceilings for the redevelopment of Kwai Chung Phases 3, 4 and 5 approved by SPC (Paper No. SPC 10/2000 refers).
- (i) 23 March 2000 BC approved the conversion of 4 nos. of blocks in Phase 5's development from Rental (PRH) to Buy or Rent (BRO) with provision of air-conditioning as noise mitigation measures (Paper No. BC 215/99 refers)

## PROPOSED AMENDMENTS

4. Due to the changes in Phase 5 from HOS to PRH and some minor changes requested by Social Welfare Department, the following proposed amendments to Phases 3 & 4 are required –

- (a) Reduction of 433 nos. private car parking and 2 nos. of light goods vehicles parking (LGV) in Phases 3 & 4 induced by the change of Phase 5 from HOS to PRH;

- (b) Relocation of LGV from lower ground to level 2 in Phase 3 to occupy those surplus carparking spaces and minimize lower ground's excavation works;
- (c) Relocation of the Residential Care Homes for the Elderly (RCHE) from the domestic block to the podium floors. Number of bed space increased from 100 to 122 as per Social Welfare Department's request;
- (d) Increase of 62 flats in the domestic block in Phase 4 made available by the relocation of the RCHE above; and
- (e) The 150-place Day Nursery in Phase 4 revised to 100-place as per Social Welfare Department's request.

## MASTER LAYOUT PLAN

5. The revised Master Layout Plan at part II of the Annex 1 generally complies with the amended Planning Brief approved in above paragraph 3(c).

6. Phase 3 comprises --

- (a) Two nos. 41-storey New Harmony 1 (NH1) (Option 6) and one no. 41-storey New Harmony 1 (Option 1) linked with one no. 36-storey New Harmony Annex 5 (NAX5) all above a 4-storey podium structure providing 2,742 flats;
- (b) 4-storey podium comprises --
  - one no. Large Neighbourhood Commercial Centre (Type C) providing 6,853 m<sup>2</sup> internal floor area (IFA) including a market of 850 m<sup>2</sup> IFA;
  - four levels of carparking providing spaces for 420 private cars, 69 shoppers' cars, 112 light goods vehicles and 49 motorcycles;
  - one no. Public Transport Interchange (PTI);
  - one no. covered footbridge linking Phases 3 & 7;
  - one no. ARCS Central Plant;

- EMO and Ancillary Facilities for rental portion of the whole estate;
- (c) Road Improvement Works including realignment of Sheung Kok Street, road junction improvement works and the public access road to schools; and
- (d) Associated External works.

7. **Phase 4** comprises -

- (a) Two nos. 41-storey New Harmony 1 (Option 6) and one no. 36-storey New Harmony Annex 5 (Option 1) all above a 2-storey podium structure providing 1,983 flats;
- (b) 2-storey podium comprises -  
(with same levels and joined with the two upper floors of the Phase 3 podium)
  - one level of car parking providing spaces for 255 private cars and 26 motorcycles;
  - two nos. 7-classroom kindergarten;
  - one 100-place Day Nursery;
  - one 122-places RCHE; and
- (c) Associated External Works.

8. The domestic portion of Phases 3 & 4 will provide 2,742 and 1,983 rental flats by 7/04 and 3/04 respectively. Breakdown of the flat production and flat mix is as follows --

Flat production/mix			
Type	IFA (m2)	Phase 3 Nos.	Phase 4 Nos.
1P/2P	17.09	437	318
1P/2P (Annex)	17.487	385	385
2P/3P	21.693	640	640
1-B	30.06	760	320
2-B	38.83	480	320
3-B	47.280	40	-
	<b>Total</b>	<b>2,742</b>	<b>1,983</b>

9. The changes in the design parameters/client brief of Phases 3 & 4 are shown in *italic* at **Annex 2** and highlighted below for easy reference –

**(a) Phase 3's changes**

	<b>Approved client Brief for Phases 3 &amp; 4 ( paper no. BC 156/99)</b>	<b>Proposed revisions</b>
Commercial centre	IFA for shops =7358m <sup>2</sup> (including IFA for markets = 823m <sup>2</sup> )	IFA for shops = 6853m <sup>2</sup> (including IFA for markets = 850m <sup>2</sup> )
Car parking provisions	Private carpark = 639  Shoppers car parks = 69  Light goods vehicle = 114  Motor cycle = 61	Private carpark = 420  Shoppers car parks = 69  Light goods vehicle =112  Motor cycle = 49
RCHE	2 nos. of 16-seater van to be allowed in Phase 4	2 nos. of 16-seater van to be allowed in Phase 3

**(b) Phase 4's changes**

	<b>Approved client Brief for Phases 3 &amp; 4 (paper no. BC 156/99)</b>	<b>Proposed revisions</b>
Flats no.	Flat no. = 1921	Flat no.=1983
Design population	Design population=4,328	Design population=4,453
Domestic GFA	Domestic GFA=78,735m <sup>2</sup>	Domestic GFA=81,146.9m <sup>2</sup>
Non-domestic GFA	Non-domestic GFA=4,969 m <sup>2</sup>	Non-domestic GFA=5,342.9m <sup>2</sup>
Plot ratio	Plot ratio=6.22 (domestic) 6.61(non-domestic + domestic)	Plot ratio=6.54 (domestic), 6.98 (non-domestic + domestic)
Car parking provisions	Private car park =469  Motor cycle = 50	Private car park =255  Motor cycle = 26
RCHE	100-bed to be provided at the lowest two floors of Block 10.	122-bed to be provided at podium level 2 of Phase 4
Day Nursery	150-place day nursery	100-place day nursery



## PROJECT DEVELOPMENT BUDGETS

10. The proposed Project Development Budgets for Phases 3 & 4 are revised from \$2,089.093M and \$1,054.266M (approved vide Paper no. BC 156/99) to **\$1,694.084M** and **\$799.597M** respectively. The breakdown of the revised Project Development Budgets are given in **Annex 3** and the key elements are as follows --

		Revised Development Budget	
		Phase 3(\$M)	Phase 4 (\$M)
(a) Site Development Cost	1. Site Formation		-
	2. Demolition	4.973	5.584
	Sub-total	<b>4.973</b>	<b>5.584</b>
(b) Construction Cost	3. Foundation	152.960	66.664
	4. Building	1,320.459	626.137
	5. Soft Landscape & others	4.525	1.542
	Sub-total	<b>1,477.944</b>	<b>694.343</b>
(c) Other Project Cost (a + b) x 2%	6. Ancillary Project Expenses	29.658	13.999
	7. Miscellaneous cost		
	Sub-total	<b>29.658</b>	<b>13.999</b>
(d) Project Management Cost (a + b + c) x 12%	8. Professional services & overhead		
	9. Consultant's fee	181.509	85.671
	10. Consultant site staff		
	Sub-total	<b>181.509</b>	<b>85.671</b>
Total Project Development Cost (a) + (b) + (c) + (d)		<b>1,694.084</b>	<b>799.597</b>

## PROJECT DEVELOPMENT COSTS

11. The Project Development Cost Ceilings (PDCC) has been updated to June 2000 Cost Yardstick as per presumption Paper no. SPC62/2000 approved on 19 October 2000. The revised Project Development Costs of Phases 3 & 4 calculated using the revised Project Development Budget taking into account of the adjustment of the commonly shared items within the Project and divided by the construction floor area of the respective cost portions and the Overall Unit Costs of Construction compared with June 2000 Cost yardstick are as follows with details shown in **Annex 3**.

	(a)		(b)		(c)		(d)	
	Revised Project Development Costs		SPC's Approved Project Development Cost Ceiling (SPC Paper No. 62 /2000) adjusted to same Tender-in date (6/01 for Phase 3, 3/01 for Phase 4)		Overall Unit Costs of Construction Including in (a) (Excluding external works and others)		June 2000 Cost Yardstick adjusted to Tender-In- Date	
	(\$/m <sup>2</sup> CFA)		(\$/m <sup>2</sup> CFA)		(\$/m <sup>2</sup> CFA)		(\$/m <sup>2</sup> CFA)	
	Phase 3	Phase 4	Phase 3	Phase 4	Phase 3	Phase 4	Phase 3	Phase 4
Domestic	8,149	8,308	8,180	8,680	6,580	6,738	6,185	6,302
Commercial	18,629	---	19,367	---	17,193	---	16,862	---
Carpark	7,945	8,704	8,493	8,705	6,509	7,267	6,061	5,911

12. Estimated construction cost of the Government Non-reimbursable (GNR) items for the PTI and District Open Space in Phase 3 is revised from \$40.499M and \$17.497M to \$47.689M and \$29.550M respectively. Approval on expenditure for GNR items to be charged under Housing Authority fund will be sought separately. Estimated construction cost of the RCHE in Phase 4 is revised from \$26.5M to \$29.949M and to be charged under Lotteries Fund.

13. The difference between the Overall Unit Cost of Construction (excluding external works and others) and the Cost Yardsticks adjusted to Tender-in-Date is mainly attributable to the additional podium floors and transfer structure.

14. The revised Project Development Cost for the Domestic (PRH) cost portion can be further broken down into cost per block as follows –

	(a)		(b)		(c)	
	<b>Revised Project Development Cost Per block</b>		<b>Overall Construction Cost per block included in (a) (Excluding external works and others)</b>		<b>June 2000 Cost Yardstick Adjusted to Tender-In-date</b>	
	(\$M)		(\$M)		(\$M)	
	<b>Phase 3</b>	<b>Phase 4</b>	<b>Phase 3</b>	<b>Phase 4</b>	<b>Phase 3</b>	<b>Phase 4</b>
New Harmony 1 (option 6) 41-storey	263.357	307.436	242.641	249.359	222.188	221.946
New Harmony 1 (option 1) 41-storey	269.088	-	245.059	-	222.306	-
New Harmony Annex 5 (option 1) 36-storey	107.562	111.499	102.931	90.436	100.047	99.946

15. The difference between the Overall Cost of Construction per block (excluding external works and others) and the Cost Yardsticks adjusted to Tender-in-Date is mainly attributable to the additional floors of podium and transfer structure.

## AVAILABILITY OF FUNDS

16. The estimated yearly expenditure for Phases 3 & 4 based on the Site Development and Construction Cost portion of the proposed Project Development Budget are shown below and would be included in the next capital budget of the Authority –

<b>Estimated Expenditure (\$M)</b>					
		1999/2000	2000/2001	Post 31.3.2001	Total
<b>Estimate</b>	Phase 3	4.973	50.309	1,427.635	1,482.917
<b>Allowed in FC 2/2000</b>		9.620	212.564	1,636.035	1,858.219
<b>Estimate</b>	Phase 4	5.584	19.999	674.344	699.927
<b>Allowed in FC 2/2000</b>		5.376	119.859	808.334	933.569

17. Provision for Phases 3 and 4 in the Housing Authority's Capital Budget for the year 2000/01 is \$212.564M and \$119.859M respectively and is adequate to meet the estimated expenditure of \$50.309M (Phase 3) and \$19.999 M (Phase 4). Funding for the subsequent years will be adjusted in the next Capital Budget review.



## DEVELOPMENT PROGRAMME

18. Details of the development programme (at Annex 4) are as follows –

		Phase 3	Phase 4
(a) Master Layout and Project Development Budget	Endorsement by PDRC	08/99	08/99
(b) Project Development Cost Ceiling	Approval by SPC	09/99	09/99
	Approved by SPC by presumption paper on the updated cost ceiling	09/00	09/00
(c) Master Layout and Project Development Budget	Approval by BC	09/99	09/99
(d) Detailed Design	Approval by DDRP	3/00 (stage 1) 8/00(stage 2) 10/00(stage 3)	3/00 (stage 1) 8/00(stage 2) 10/00(stage 3)
(e) Demolition	Commencement	04/99	06/99
	Completion	9/99	11/99
(f) Piling	Commencement	08/00	08/00
	Completion	10/01	07/01(section 1) 11/01(section 2)
	(i) Road work (stage 1) (stage 2)	05/01 01/02	
(g) Building	Commencement	10/01	07/01
	Completion	09/04	02/04
	(i) PTI	05/03	
	(ii) Commercial Centre/Market	09/03	
	(iii) Carpark	09/03	09/03

19. The completion of PTI by May 2003 coincides with the completion of other Phases of Redevelopment.

## RECOMMENDATION

20. The proposed revised Master Layout Plan, Project Development Budget of **\$1,694.084M** and **\$799.597M** for Redevelopment of Kwai Chung Estate Phases 3 & 4 respectively as described above and in the **Annexes** to this paper be approved.

## PRESUMPTION

21. It is not thought that Members will object to the recommendation at paragraph 20 above. If no objection or request for discussion is received **by noon on 30 January 2001**, Members' approval will be presumed and appropriate action taken.

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Miss Ivy LEONG  
Secretary, Building Committee  
Tel. No. : 2761 5033  
Fax No. : 2761 0019

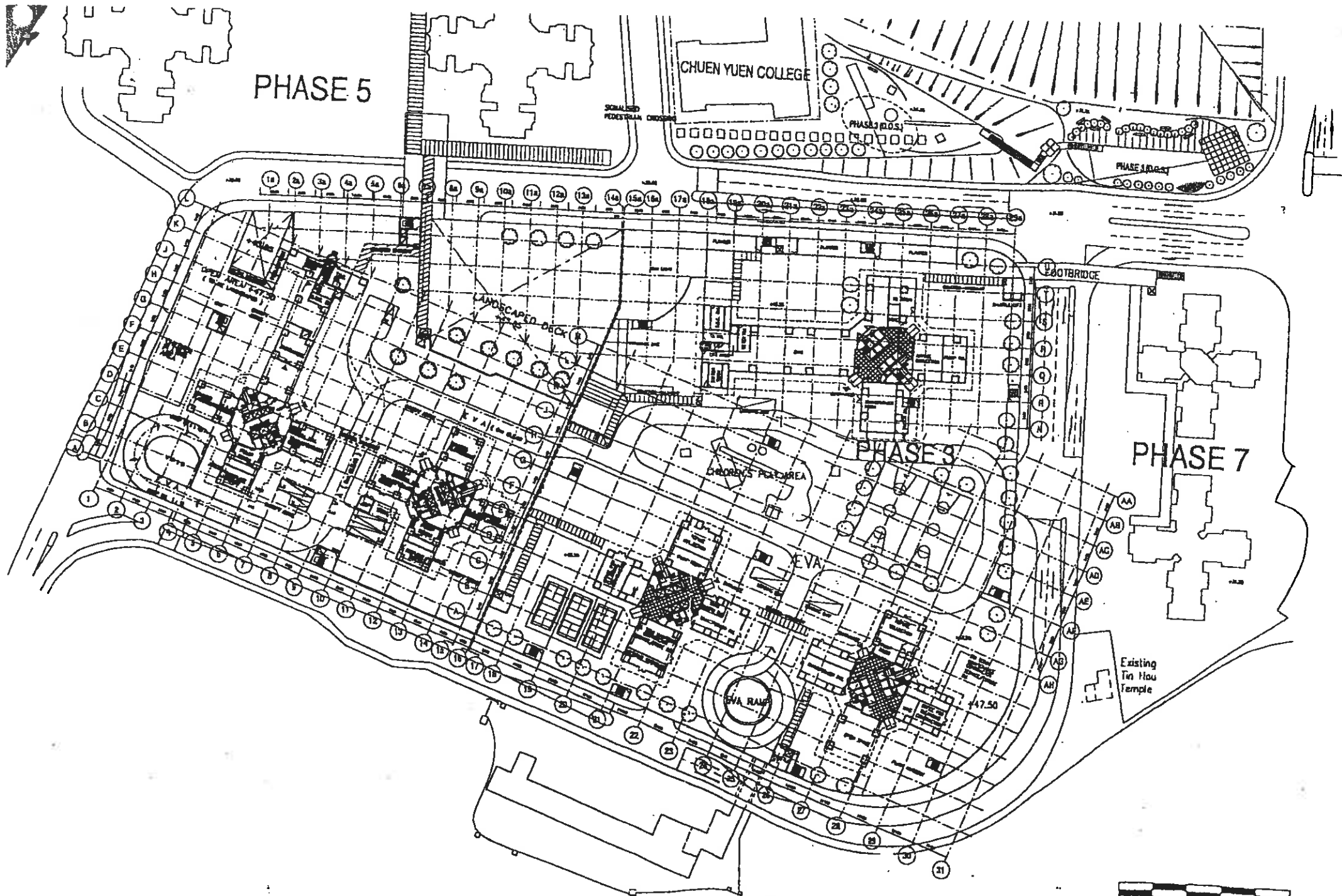
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Date : 16 January 2001

**PART I**

**Approved master layout plans in BC paper no. BC156/99**

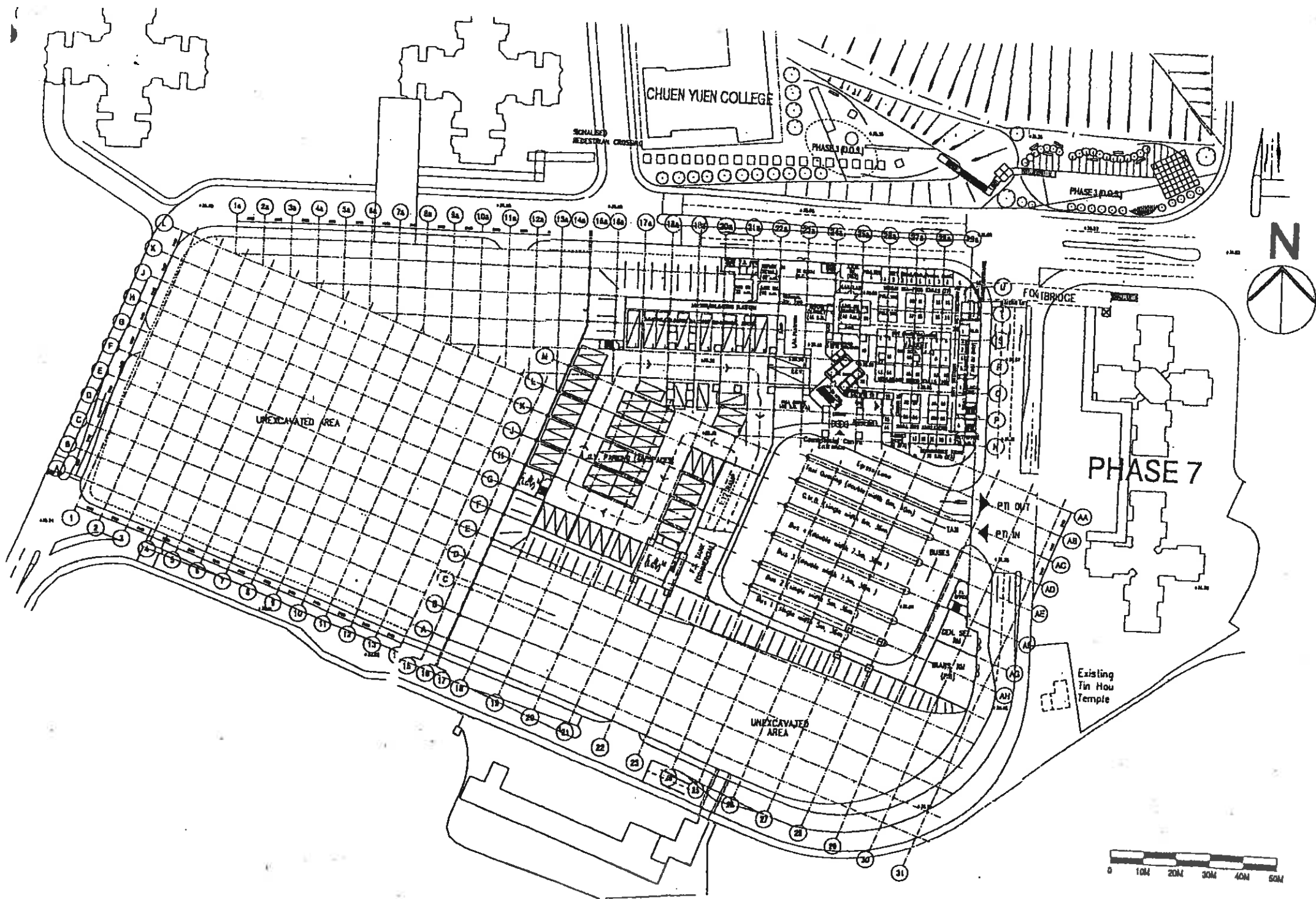
<u>Title</u>	<u>Drawing nos.</u>
Ground Floor Plan	PDR2-01
Podium Level 1	PDR2-02
Podium Level 2	PDR2-03
Podium Level 3	PDR2-04
Podium roof plan	PDR2-05

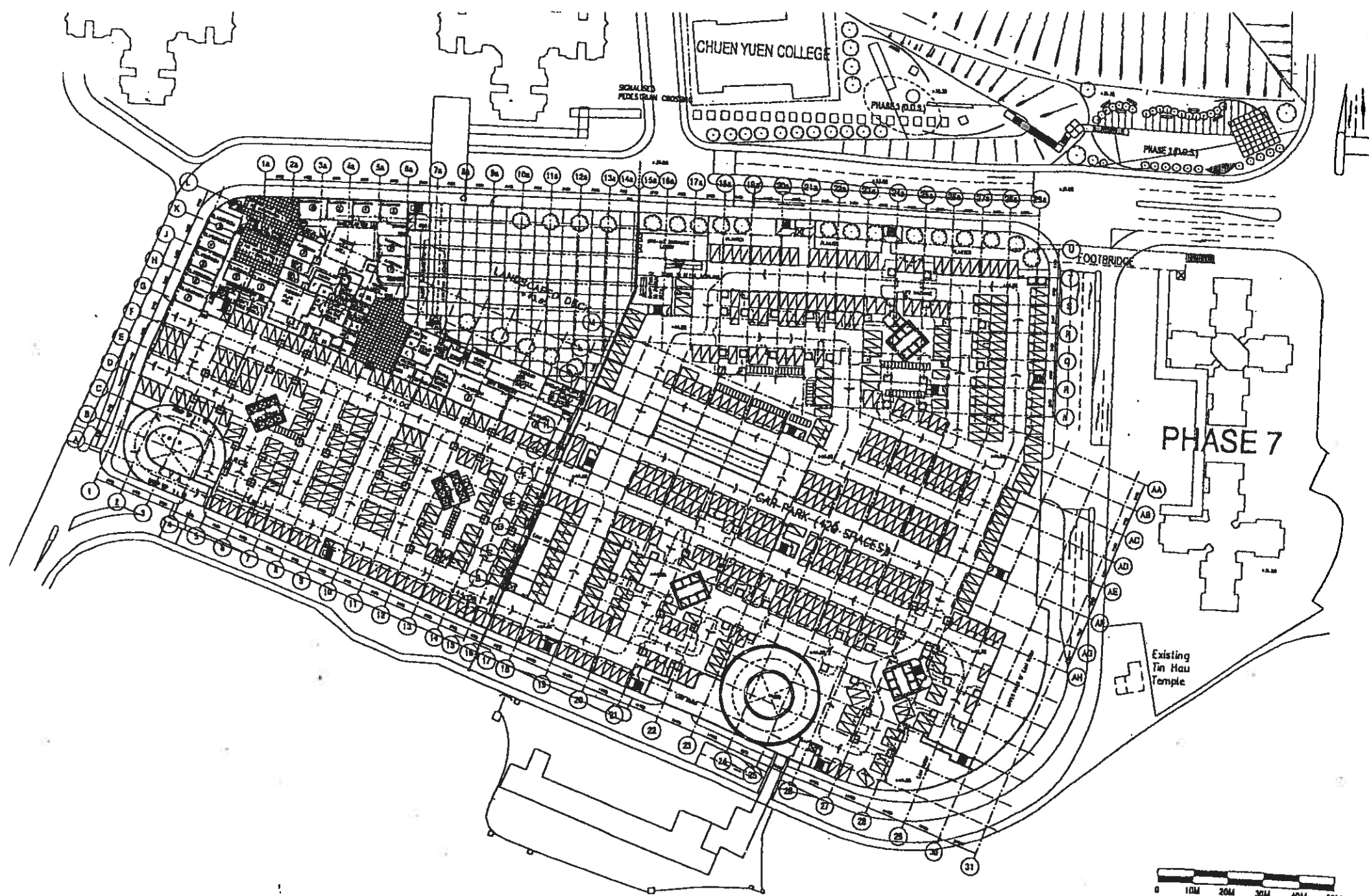






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**MA LEUNG  
& ASSOCIATES**  
ARCHITECTS & ENGINEERS (INCORPORATED)  
REGISTERED PROFESSION

**REDEVELOPMENT OF KWAI CHUNG ESTATE (PHASE 3)**  
PODIUM LEVEL 3



1:200 MAP



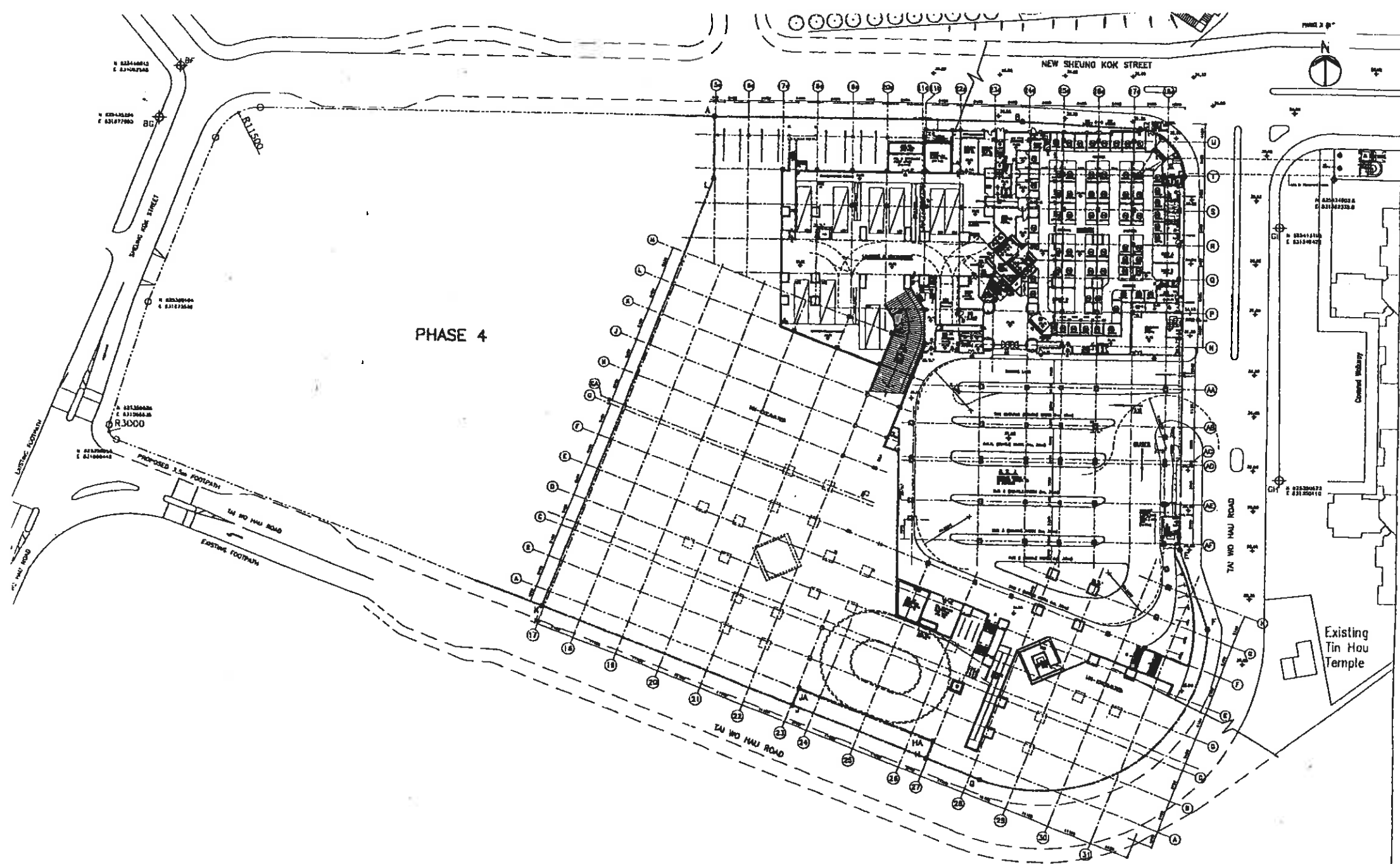


## PART II

**Revised master layout plans**

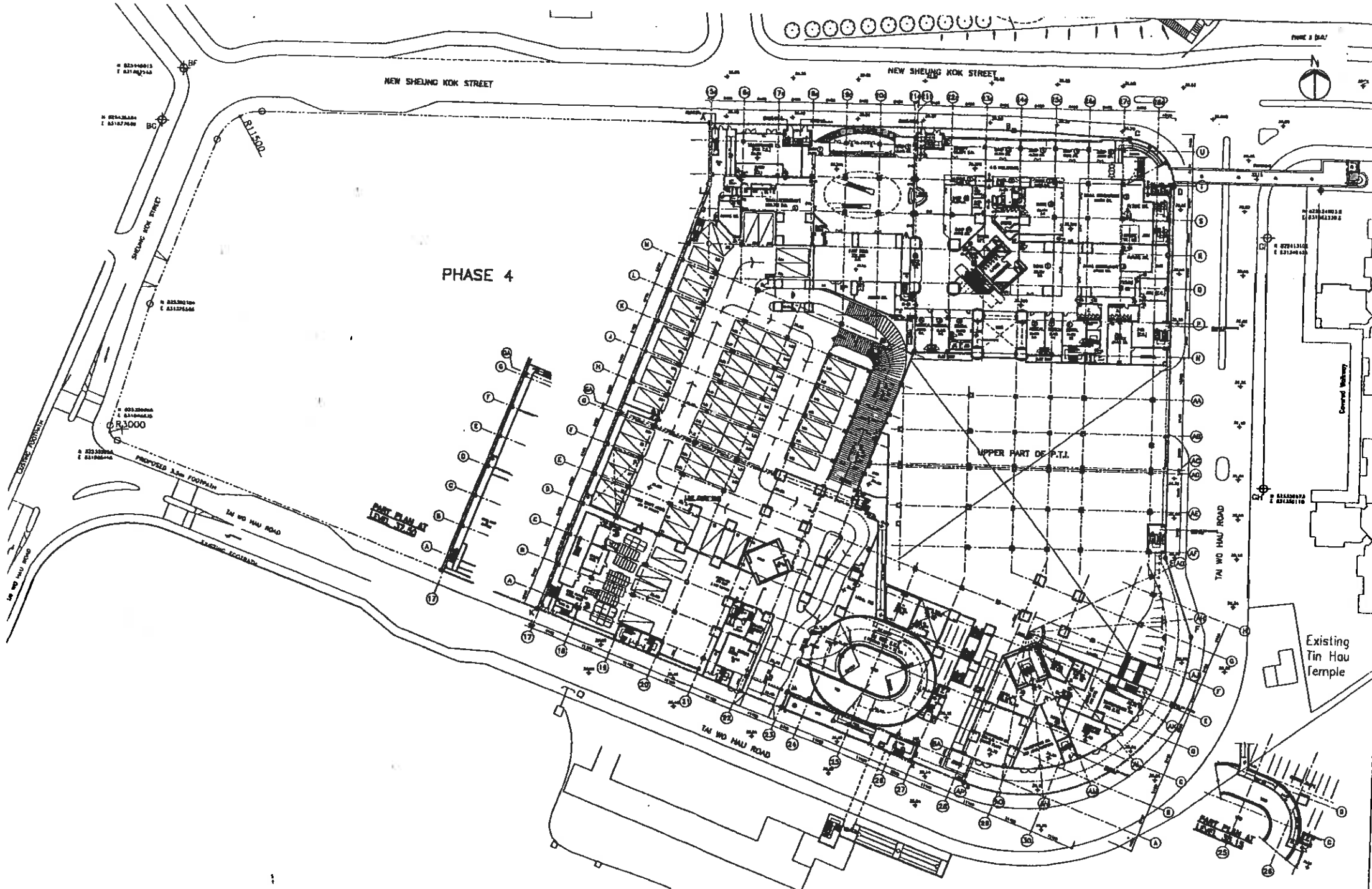
<u>Title</u>	<u>Drawing nos.</u>
G/F Layout Plan, PTI, Market	TW(3/4)CC/A/PR-01
Podium Level 1 Plan	TW(3/4)CC/A/PR-02
Podium Level 2 Plan	TW(3/4)CC/A/PR-03
Podium Level 3 Plan	TW(3/4)CC/A/PR-04
Podium Level 4 (Roof) plan	TW(3/4)CC/A/PR-05



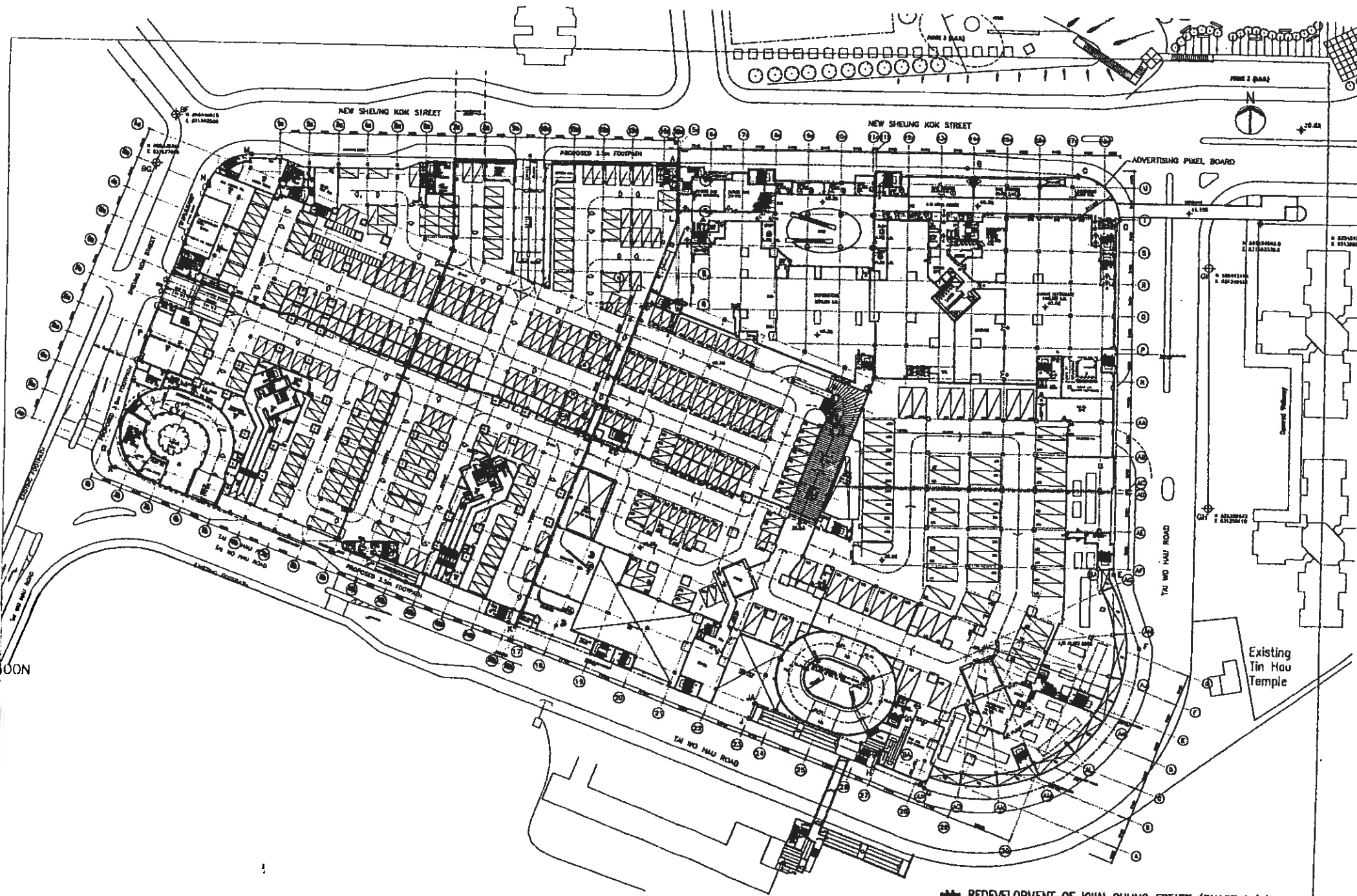



REDEVELOPMENT OF KWAI CHUNG ESTATE (PHASE 3/4)  
 G/F LAYOUT PLAN, PTI, MARKET  
**WONG & TAI ASSOCIATES LTD**  
 MA LEUNG & ASSOCIATES  
 1/10/2015-A

SCALE	DATE	REVISION	BY	DATE
1:500	10/10/15			
1:500	10/10/15			
1:500	10/10/15			
1:500	10/10/15			

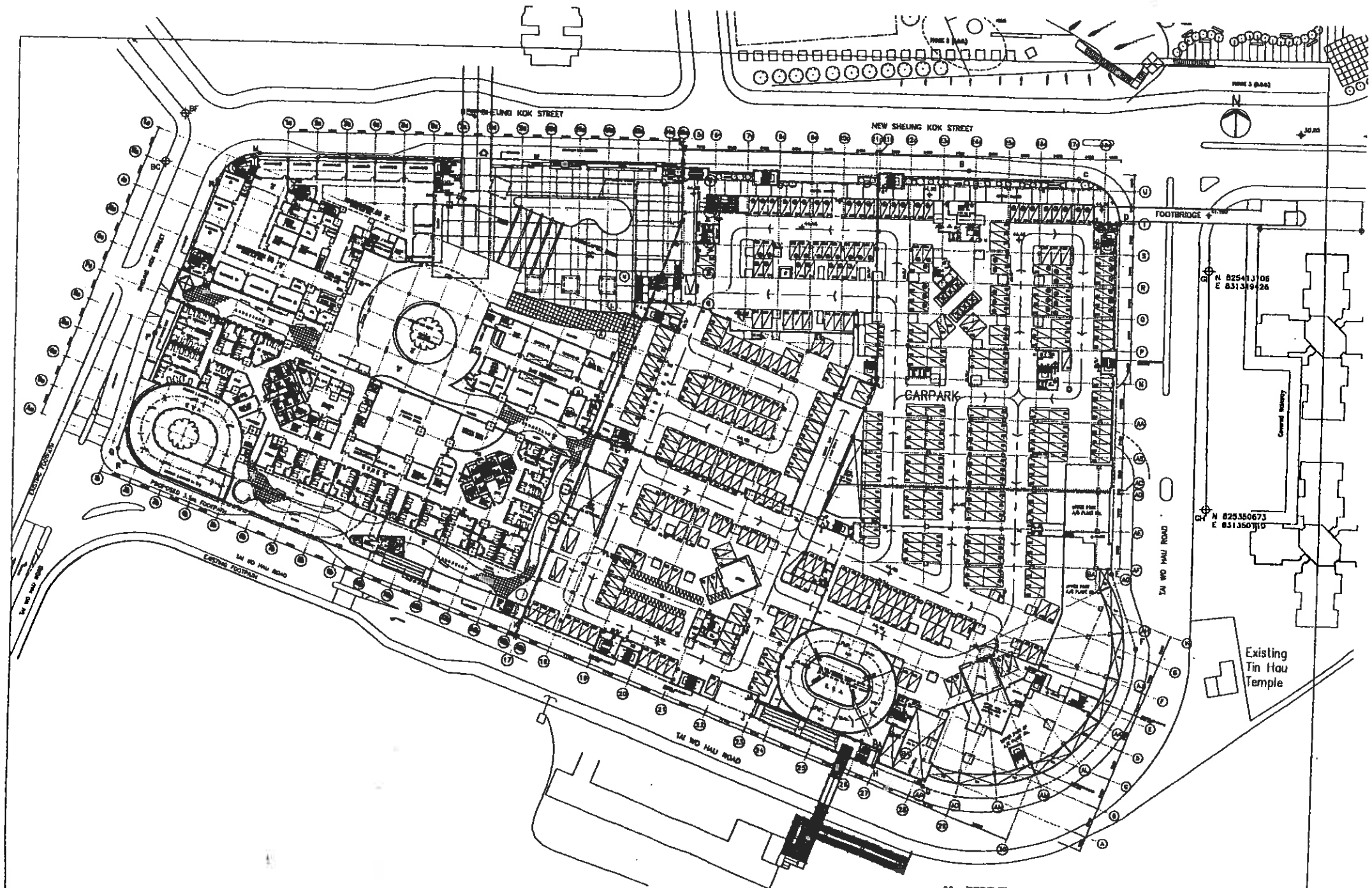







**REDEVELOPMENT OF KWAI CHUNG ESTATE (PHASE 3/4)**  
 PODIUM LEVEL 2 PLAN  
**WONG & TAI ASSOCIATES LTD**  
 MA LEUNG  
 & ASSOCIATES

SCALE 1:1000  
 10000 MM  
 10000 CM  
 10000 M  
 10000 KM



## **ANNEX 2**

### **Revised Development parameters for Redevelopment of Kwai Chung Estate Phases 3 & 4 as compared with BC paper no. BC 156/99**

## PART I EVALUATION OF MASTER LAYOUT

### A. *Introduction*

#### A.1 Background

- (1) Kwai Chung Estate was constructed in the early sixties and is ear marked for redevelopment in the Comprehensive Redevelopment Programme.
- (2) Planning Brief for the whole redevelopment was approved by the Committee on Planning, Land and Development (CPLD) (the then Development Progress Committee) on 12 November 1992. Amendment to the approved Planning Brief was approved by Tsuen Wan, Kwai Tsing & Sham Shui Po District Planning Conference on 23 December 1998.
- (3) Client Brief and Concept Plan were endorsed by the Department's Project Design Review Committee (PDRC) on 28 January 1993. Client Brief and Concept Plan (for Phases 1 to 6) and Project Estimate (for Phases 1 and 2) were subsequently approved by the Building Committee (BC) on 18 February 1993.
- (4) Revised Development Parameters, Conceptual Layout, and Project Estimate (for Phases 3, 4 and 5) were endorsed by PDRC on 20 August 1999.
- (5) Proposed Master Layout, Project Development Budget and Project Development Costs (for Phase 3) were endorsed by PDRC on 20 August 1999.

#### A.2 Objective

- (1) To develop the Master Layout for Phase 3 to meet the endorsed Development Parameters and detailed client's requirement on the provisions of Commercial Centre, Market, PTI and Carpark in Phase 3.



## PART I EVALUATION OF MASTER LAYOUT

Approved Planning Brief (DipCon Paper No. 7/98)	Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<b>B. Site Analysis and Evaluation</b>		
<b>B.1 Site Particulars</b>		
(1) <u>Location</u> Kwai Chung Estate is located in Upper Kwai Chung, between the MTR station of Tai Wo Hau and Kwai Hing. It is located up on the hill and is within walking distance of Tai Wo Hau and Kwai Hing Estates. Kwai Chung Estate is bounded by Castle Peak Road in the north and is segregated by Tai Wo Hau Road and Sheung Kok Street.	As per Development Parameters and Client Brief .	
(2) <u>Site Area</u>		
(a) Gross Site Area: 12.58 ha	Gross Site Area	Gross Site Aera
(b) Net Site Area: 10.49 ha	Net Estate Area	Net Estate Area
(c) Net Estate Area: 8.69 ha	for DR	For DR
	for PR	for DR
	(ha)	(ha)
	(ha)	(ha)
	(ha)	(ha)
	Phase 3 3.2423	Phase 3 3.2423
	Phase 4 1.2657	<b>Phase 4 1.2391</b>
		<b>1.2391</b>
		<b>1.2391</b>
(3) <u>Site Topography</u>	No specific requirement.	
No specific requirement.		

## PART I EVALUATION OF MASTER LAYOUT

Approved Planning Brief (DipCon Paper No. 7/98)	Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<p>(4) <u>Site Access</u></p> <p>No specific requirement.</p> <p><b>B.2 <u>Infrastructure</u></b></p> <p>(1) <u>Water Supply</u></p> <p>Watermain diversion / reprovision scheme is anticipated and is required to submit for WSD's consideration in the detailed design stage.</p> <p>(2) <u>Drainage and Sewage</u></p> <p>Both DSD and EPD advised no adverse impact from the redevelopment on drainage and sewage system.</p>	<p>The public transport vehicular access is via Tai Wo Hau Road. The emergency vehicular access is elevated by means of internal ramp up to podium deck at +47.50 mPD through the goods delivery entrance located at Tai Wo Hau Road. Normal vehicular access is through the Sheung Kok Street ingress / egress provided in Phase 3.No specific requirement.</p> <p>WSD advised that the existing fresh water and salt water supply system would not be adequate to meet the service demands generated by the proposed redevelopment. Main laying works along Tai Wo Hau Road are required before water supply can be provided to those phases scheduled to be completed in November 2003 and after. WSD agreed to carry out the required extension of the existing water supply system. WSD had been further requested to complete the required works timely to suit the whole redevelopment programme.No specific requirement.</p> <p>DSD confirmed that storm water and sewers are available for the drainage connections in the vicinity of Kwai Chung Estate. EPD confirmed that the trunk sewage system has adequate capacity to serve the captioned redevelopment.</p>	

## PART I EVALUATION OF MASTER LAYOUT

Approved Planning Brief (DipCon Paper No. 7/98)	Approved BC Paper 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<p>(3) <u>Electricity, Telephone &amp; Gas</u></p> <p>No adverse comment received from utility companies.</p> <p>(4) <u>Traffic Improvement</u></p> <p>Traffic Impact Assessment (TIA) has been carried out and circulated to concerned departments. Appropriate Traffic improvement measures will be identified with TD.</p> <p><b>B.3 <u>Environmental Mitigation</u></b></p> <p>Environmental Assessment Study (EAS) has been carried out and circulated to concerned departments. EPD will be consulted on appropriate noise mitigation measures.</p>	<p>No adverse comments are received from utility companies for the redevelopment. As per Planning Brief.</p> <p>The realigned Sheung Kok Street will form a new road through the 'centre' of the redevelopment for providing vehicular access to domestic blocks of Phase 3, 4 and Phase 5.</p> <p>No additional noise mitigation is required due to adequate screening by podium deck.</p> <p>(For details refer to the report 'Traffic Noise Impact Assessment for the Proposed Redevelopment of Kwai Chung Estate Phase 3; issue no. 1 dated July 1999 prepared by environmental sub-consultant, Allied Environmental Consultants Ltd)</p> <p>A minimum of 10m set back from the kerb line of Tai Wo Hau Road has been allowed in accordance with HKPSG with respect to air quality requirement.</p>	

## PART I EVALUATION OF MASTER LAYOUT

Approved Planning Brief (DipCon Paper No. 7/98)	Approved BC Paper 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<p><b>B.4 <u>Land Matters</u></b></p> <p>(1) <u>Zoning</u></p> <p>The existing zoning is "Residential (group A)" ('R(A)').</p> <p>(2) <u>Land Status</u></p> <p>The existing land status in Public Rental Estate.</p> <p><b>B.5 <u>Site Constraints</u></b></p> <p>(1) <u>MTR Alignment</u></p> <p>The estate is affected by an MTR alignment linking Tai Wo Hau and Kwai Hing Stations. Part of the estate falls within the MTR protection boundary and designated non-building area and any construction work to be undertaken within this protection area will have to be endorsed by MTRC.</p>	<p>As per Development Parameters and Client Brief.</p> <p>Liaison is being made with DLO/Kwai Tsing to include additional works area outside existing vesting order boundary into the redevelopment boundary : -</p> <p>(a) the 2 existing car parks along Tai Wo Hau Road. (b) the Sheung Kok Road</p> <p>As per Development Parameters and Client Brief.</p>	

## PART I EVALUATION OF MASTER LAYOUT

Approved Planning Brief (DipCon Paper No. 7/98)	Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<p><b>B.5 <u>Site Constraints</u></b></p> <p><b>(2) <u>Geotechnical Constraints</u></b></p> <p>The existing site is affected by a number of cut and fill slopes. A total of 6 cut and fill slopes have been categorized by the Geotechnical Engineering Office. All existing fill / cut slopes will have to be investigated in details and stabilized during site formation.</p>	<p>Large diameter bored pile system is recommended in this site. According to the latest site investigation, high level of rock profile is anticipated in some of the area particularly the south-western corner of the site where the circular ramp is located. In the remaining area, the rock head anticipated is ranging from 4.0 meters to 20 meters. As the rock profile is very steep, special consideration has to be made to ensure the founding level of the pile would not affect the capacity of the adjoining pile. In this connection, such foundation may have to be constructed deep into the rock if necessary. As per Planning Brief.</p> <p>Percussive driving piling is not recommended due to the fact that it is impossible to install the pile effectively to the required length after taking into consideration of the minimum embedded length to overcome overturning and stability requirement. Cost of installation of such piling system by predrilling method is considered to be too high.</p>	

## PART I EVALUATION OF MASTER LAYOUT

Approved Planning Brief (DipCon Paper No. 7/98)	Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<p><b>B.5 <u>Site Constraints</u></b></p> <p>(2) <u>Geotechnical Constraints</u></p>	<p>Simple footings on rock are considered feasible under the circular ramp area due to the high level of rock profile at 1.5 metres. To eliminate the potential differential settlement between two different foundation systems, expansion joint may have to be installed.</p> <p><u>Structural Consideration</u></p> <p>The structural system adopted for the commercial and carpark floors will be columns and beams based on an 8.1m grid. Due to the unique layout of the PTI however a modified grid pattern will be used to maximize its efficiency. Transfer structures will be adopted between ground and first floor levels at each of the domestic blocks. The domestic blocks will be constructed with cross walls and use pre-cast facades along with optional pre-cast floor slabs.</p>	



# **PART I      EVALUATION OF MASTER LAYOUT**

Approved Planning Brief (DipCon Paper No. 7/98)	Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<p><b>B.5    <u>Site Constraints</u></b></p> <p><b>(2)    <u>Geotechnical Constraints</u></b></p>	<p>Loading Provision for Flat Roof and Podium Deck</p> <p>Commercial and Carpark Podium shall be designed to the Buildings Regulation according to the proposed usage. Provision of soil load (500mm thick) shall be provided at the landscaped and podium deck at level +47.50 mPD respectively.</p> <p>Main Towers for Block 6, 7 and 8.</p> <p>New Harmony 1 (Option 6) shall be provided at Blocks 6 and 7 while New Harmony 1 (Option 1) plus Annex 5 (Option 1) shall be provided at Block 8. To facilitate the car park arrangement the towers will be transferred into simple columns above podium floor level (level +47.50 mPD) through a 2.7 metre thick transfer plate. Special design shall be carried out, as standard transfer plate issued by HKHA cannot be adopted. Minimum of 4 columns at each wing shall be provided while the central core shall be arranged down to the foundation level. Minimum dimension for the transfer columns shall be 2.4 m x 2.4 m following the 8.1 m c/c Grid at car park levels. A modified column grid varying from 8.1 m to 11.1 m is adopted in the PTI and goods delivery areas to accommodate the larger vehicles at levels +30.00 and +31.00. These columns are carried up to the podium deck to avoid additional structural transfer costs.</p>	

# **PART I EVALUATION OF MASTER LAYOUT**

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<p><b>C. Accommodation and Facilities</b></p> <p><b>C.1 Type of Public Housing</b></p> <p>Phase 1 Rental (Completed)            Phase 2 - in accordance with the Development Parameters and Client Brief and as follows :-</p> <p>Phase 3 Rental/Commercial/PTI            Phase 4 Rental            Phase 5 Rental &amp; School            Phase 6 HOS            Phase 7 HOS            Phase 8 Rental</p> <p><b>C.2 Flat Production and Design Population</b></p> <p>(1) The total flat production is 11,203 (6,923 Rental &amp; 4,280 HOS) and the total design population is 35,800.</p> <p>Final flat number may deviate up to <math>\pm 10\%</math> subject to pro-rata adjustments to ancillary facilities in accordance with HKPSG.</p> <p>The Rental/HOS mix will be reviewed with flexibility to cater for changes in the supply and demand of rental and HOS flats. The split will be at the discretion of Housing Department subject to pro-rata adjustments to ancillary facilities in accordance with HKPSG.</p>	<p>Types of public housing to be provided are</p> <p>Phase 3 Rental            Phase 7 HOS            Phase 4 Rental            Phase 5 HOS</p>	<p>Types of public housing to be provided are</p> <p>Phase 3 Rental            Phase 7 HOS            Phase 4 Rental  <i>Phase 5 Rental + BRO</i></p>

# **PART I EVALUATION OF MASTER LAYOUT**

Approved Planning Brief (DipCon Paper No. 7/98)	Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper																																												
<p>(2) The flat population for each phase are as follows :-</p> <table><thead><tr><th></th><th><u>Flat Nos.</u></th></tr></thead><tbody><tr><td>Phase 1</td><td>2,276</td></tr><tr><td>Phase 2</td><td>-</td></tr><tr><td>Phase 3</td><td>1,926</td></tr><tr><td>Phase 4</td><td>1,598</td></tr><tr><td>Phase 5</td><td>799</td></tr><tr><td>Phase 6</td><td>3,480</td></tr><tr><td>Phase 7</td><td>800</td></tr><tr><td>Phase 8</td><td>324</td></tr><tr><td>Total</td><td>11,203</td></tr></tbody></table> <p><b>C.3 <u>Gross Floor Area</u></b></p> <p>The total gross floor area is 659,626 m<sup>2</sup> subject to detailed design.</p> <p><b>C.4 <u>Gross Floor Space</u></b></p> <p>The total gross floor area is 699,259 m<sup>2</sup> subject to detailed design.</p> <p><b>C.5 <u>Development Ratio</u></b></p> <p>The overall development ratio is 8.</p> <p><b>C.6 <u>Plot Ratio</u></b></p> <p>The domestic plot ratio area as follows:-</p> <table><tbody><tr><td>(a)</td><td>Phase 6 (HOS)</td><td>5</td></tr><tr><td>(b)</td><td>Phase 7 (HOS)</td><td>7.9</td></tr></tbody></table>		<u>Flat Nos.</u>	Phase 1	2,276	Phase 2	-	Phase 3	1,926	Phase 4	1,598	Phase 5	799	Phase 6	3,480	Phase 7	800	Phase 8	324	Total	11,203	(a)	Phase 6 (HOS)	5	(b)	Phase 7 (HOS)	7.9	<p>The flat production and design population are as follows and in accordance with the Development Parameters and Client Brief :</p> <table><thead><tr><th></th><th><u>Flat Nos.</u></th><th><u>Design Population</u></th></tr></thead><tbody><tr><td>Phase 3</td><td>2,742</td><td>6,876</td></tr><tr><td>Phase 4</td><td>1,921</td><td>4,328</td></tr></tbody></table> <p>For Phase 3 Dom: 118,598m<sup>2</sup> Non Dom: 15,200 m<sup>2</sup>.</p> <p>For Phase 4 Dom: 78,735 m<sup>2</sup> Non Dom: 4,969 m<sup>2</sup></p> <p>For Phase 3 141,613 m<sup>2</sup> For Phase 4 106,069 m<sup>2</sup></p> <p>For Phase 3 7.28 For Phase 4 8.38</p> <p>(For domestic) 6.09 (phase 3) 6.22 (Phase 4) (For domestic &amp; non-domestic) 6.88 (phase 3) 6.61 (Phase 4)</p>		<u>Flat Nos.</u>	<u>Design Population</u>	Phase 3	2,742	6,876	Phase 4	1,921	4,328	<p>The proposed flat production and design population are as follows and in accordance with the Development Parameters and Client Brief :</p> <table><thead><tr><th></th><th><u>Flat Nos.</u></th><th><u>Design Population</u></th></tr></thead><tbody><tr><td>Phase 3</td><td>2,742</td><td>6,876</td></tr><tr><td><b>Phase 4</b></td><td><b>1,983</b></td><td><b>4,453</b></td></tr></tbody></table> <p>For Phase 3 Dom: 118,598 m<sup>2</sup> Non Dom: 13,800 m<sup>2</sup></p> <p><b>For Phase 4 Dom: 81,146.9 m<sup>2</sup></b> <b>Non Dom: 3,154.6 m<sup>2</sup> (RCHE)</b> <b>2,069 m<sup>2</sup> (Kindergarten)</b> <b>771.8 m<sup>2</sup> (Day Nursery)</b></p> <p>For Phase 3 141,613 m<sup>2</sup> <b>For Phase 4 105,582 m<sup>2</sup></b></p> <p>For Phase 3 7.28 <b>For Phase 4 8.521</b></p> <p><b>For Phase 4 6.35 (For domestic)</b> <b>7.03 (For domestic &amp; non-domestic)</b></p>		<u>Flat Nos.</u>	<u>Design Population</u>	Phase 3	2,742	6,876	<b>Phase 4</b>	<b>1,983</b>	<b>4,453</b>
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**PART I EVALUATION OF MASTER LAYOUT**

Approved Planning Brief (DipCon Paper No. 7/98)				Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<b>C.7 Open Space and Recreational Facilities</b>	<b>HKPSG Standard</b>	<b>Theoretical Provision</b>	<b>Proposed / Actual Provision</b>		
Local Open Space	1 ha/10,000 persons	3.58 ha	3.6 ha	As per Development Parameters and Client Brief.	
Badminton Court	1/8,000 persons	5	5	3 nos. to be provided in Phase 3.	
Basketball Court	1/10,000 persons	4	4	2 nos. to be provided in Phase 3.	
Volleyball Court	1/20,000 persons (not required for public housing estates)	-	-	As per Development Parameters and Client Brief.	
Table Tennis Table	2/15,000 persons	6	6	As per Development Parameters and Client Brief.	
Tennis Court	2/30,000 persons (not required for public housing estates)	-	-	As per Planning Brief.	
5-a-side or 7-a-side Soccer	1/30,000 persons (not required for public housing estates)	-	-	As per Planning Brief.	
Jogging Track	500 m - 1,000 m /30,000 (not required for public housing estates)	-	-	As per Planning Brief. As per Planning Brief.	
Children's Playground	400 m <sup>2</sup> /5,000 persons	2,864 m <sup>2</sup>	2,870 m <sup>2</sup>	The proposed area of Children's Play Area is 550 m <sup>2</sup> . (@400 m <sup>2</sup> per 5000 persons).	

# **PART I EVALUATION OF MASTER LAYOUT**

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<p><b>C.8 Commercial Facilities</b></p> <p>(1) <u>Accommodation</u></p> <p>The total IFA of commercial facilities (to be provided in Phase 3) is 9,990 m<sup>2</sup> subject to final detailed design.</p>	<p>The total IFA of commercial facilities (to be provided in Phase 3) exceeds development parameters (6860 m<sup>2</sup> by 10%, subject to final detailed design.</p> <p style="text-align: center;"><u>Internal Floor Area (IFA)</u></p> <p><u>Market Stalls</u> <span style="float: right;">823 m<sup>2</sup></span>  Single Operator Market : 823 m<sup>2</sup>  (with a few market shops &amp; 66 stalls)</p> <p><u>Restaurants /</u> <span style="float: right;">2,860 m<sup>2</sup></span>  <u>Fast Food Shops</u>  Chinese Restaurant : 1 x 1600 m<sup>2</sup>  Fast Food Shop : 1 x 300 m<sup>2</sup>  Small Restaurant : 2 x 250m<sup>2</sup>  : 1 x 200m<sup>2</sup></p> <p><u>Shops</u> <span style="float: right;">3,197 m<sup>2</sup></span>  Superstore : 1 x 2,00 m<sup>2</sup>  Convenience Store : 1 x 99 m<sup>2</sup>  (170 m<sup>2</sup> in Phase 1)  Bakery : 1 x 90 m<sup>2</sup>  Hairdresser : 2 x 80 m<sup>2</sup>  Laundromat : 1 x 60 m<sup>2</sup>  Bank : 2 x 120 m<sup>2</sup>  General Shops : 397 m<sup>2</sup>  Medical Clinic : 4 x 40 m<sup>2</sup>  Dental Clinic : 2 x 40 m<sup>2</sup></p> <p>Total <span style="float: right;">6860m<sup>2</sup></span>  Actual (7,358 m<sup>2</sup>)</p>	<p style="text-align: right;"><i>Total: 61 stalls + 2 market shops (Total IFA 850 m<sup>2</sup>)</i></p> <p>Chinese Restaurant <span style="float: right;">1415 m<sup>2</sup></span></p> <p>Fast Food <span style="float: right;">337 m<sup>2</sup></span></p> <p>Small / Specialty Restaurant <span style="float: right;">241 m<sup>2</sup> 262 m<sup>2</sup> 242m<sup>2</sup></span></p> <p>Superstore <span style="float: right;">1857 m<sup>2</sup></span></p> <p>Convenience Store <span style="float: right;">98m<sup>2</sup></span></p> <p>Bakery <span style="float: right;">67 m<sup>2</sup></span></p> <p>Bank <span style="float: right;">133 m<sup>2</sup> 113 m<sup>2</sup></span></p> <p>Laundromat <span style="float: right;">67 m<sup>2</sup></span></p> <p>Hairdresser <span style="float: right;">85 m<sup>2</sup> 85 m<sup>2</sup></span></p> <p>General Shops s/t <span style="float: right;">587 m<sup>2</sup></span></p> <p>Medical <span style="float: right;">46m<sup>2</sup>, 43 m<sup>2</sup>, 37 m<sup>2</sup> &amp; 44 m<sup>2</sup></span></p> <p>Dental <span style="float: right;">57 m<sup>2</sup> &amp; 56 m<sup>2</sup></span></p> <p style="text-align: right;"><u>6853 m<sup>2</sup></u></p>

Approved Planning Brief	Approved BC 156/99 Paper	Proposed Amendments
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# **PART I EVALUATION OF MASTER LAYOUT**

(DipCon Paper No. 7/98)				to BC 156/99 Paper	
<b>C.8 Commercial Facilities</b>					
				Efficiency ratio of proposed Master Layout for the shopping centre is	
				$\frac{A}{GFA-B}$	
				$\frac{7358 \text{ m}^2}{14620 - 2820 \text{ m}^2}$	
				= 62.4 %	
<b>C.9 Education Facilities</b>					
<b>Facilities</b>	<b>HKPSG Standard</b>	<b>Theoretical Provision</b>	<b>Proposed / Actual Provision</b>		
Kinder-garten	1 bi-session classroom per 67 persons aged 3-5	-	20 class-rooms (one with 6 classroom & two with 7 classrooms)	As per Development Parameters and Client Brief .	
Primary School	1 whole day classroom per 32.5 persons aged 6-11	-	30 classroom	As per Development Parameters and Client Brief .	



**PART I EVALUATION OF MASTER LAYOUT**

Approved Planning Brief (DipCon Paper No. 7/98)				Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<b>C.9 <u>Education Facilities</u></b>					
Facilities	HKPSG Standard	Theoretical Provision	Proposed / Actual Provision		
Secondary School	1 whole day classroom per 45 persons aged 12-18	-	(to be considered on a territorial wide basis)	As per Development Parameters and Client Brief .	
<b>C.10 <u>Social Welfare and Community Facilities</u></b>					
Facilities	HKPSG Standard	Theoretical Provision	Proposed / Actual Provision		
Community Hall	No set standard	-	-	As per Development Parameters and Client Brief .	
Nursery	100 places / 20,000 persons	179 places	150	150-place to be provided in Phase 4 .	<i>100-place to be provided in Phase 4</i>
Day Care	-	-	-	As per Development Parameters and Client Brief .	
Children / Youth Centre with study / reading room	1/20,000 - 30,000 persons	1	1	As per Development Parameters and Client Brief .	

**PART I EVALUATION OF MASTER LAYOUT**

Approved Planning Brief (DipCon Paper No. 7/98)				Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<b>C.10 Social Welfare and Community Facilities</b>					
Social centre for the Elderly	1/2,000 elder person aged 65 & above	1-2	1	As per Development Parameters and Client Brief .	<i>One 122-bed to be provided in level 1 of podium level in Phase 4</i>
Medical Clinic	No set standard		4	As per Development Parameters and Client Brief .	
Dental Clinic	No set standard		2	As per Development Parameters and Client Brief .	
Post Office	1/30,000 persons or more	1	1	As per Development Parameters and Client Brief .	
Residential Care Home for the Elderly	No set standard		1 (to be provided in Phase 8)	One 100-bed to be provided at the lowest 2 domestic levels of Block 10 in Phase 4 .	
Sheltered Housing for the Elderly	No set standard		1	As per Development Parameters and Client Brief . As per Development Parameters and Client Brief . As per Development Parameters and Client Brief .	

**PART I      EVALUATION OF MASTER LAYOUT**

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<p><b>C.11   <u>Management Accommodation</u></b></p> <p>No specific requirement.</p>	<p>As per Development Parameters and Client Brief .</p> <p>1 no. of MAC office to be provided at each G/F of Blocks 6, 7 and 8; at IFA of 20 m<sup>2</sup> each.</p> <p>46.5 m<sup>2</sup> office to be provided at G/F of Block 7.</p> <p>40 m<sup>2</sup> workshop to be provided at G/F of Block 7.</p> <p>100 m<sup>2</sup> depot to be provided at G/F of Block 6.</p> <p>100 m<sup>2</sup> depot to be provided at G/F of Block 7.</p> <p>200 m<sup>2</sup> to be provided on podium roof.</p> <p>As per Development Parameters and Client Brief .</p>	

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<p><b>C.12    <u>Other Facilities</u></b></p> <p>No specific requirement.</p>	<p>Routings for the chutes and duct system will be allowed to link up Blocks 6, 7 and 8 of podium to the ARCS plant at Level 1, +35.50 mPD Connection of ducts from Phases 4, 5 and 7 will also be provided.</p> <p><b>As per Development Parameters and Client Brief.</b></p> <p>Independent access will be allowed for Junk Point and Temporary Refuse Storage Area at podium roof via the drum ramp.</p>	

# **PART I EVALUATION OF MASTER LAYOUT**

Approved Planning Brief (DipCon Paper No. 7/98)				Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<b>C.13 Car Parking Provisions</b>					
<b>(1) Private Cars</b>					
	HKPSG Standard	Theoretical Provision	Proposed / Actual Provision	As per Development Parameters and Client Brief .	
Rental	1/13 - 16 flats	417 - 514	385 - 474	639 private spaces (rental/BRO/HOS) to be provided in Phase 3 carpark including 69 shoppers carpark	<i>489 private spaces (rental/BRO/HOS) to be provided in Phase 3 carpark including 69 shoppers carpark</i>
HOS	1/5 - 8	535 - 856	535 - 856	469 private spaces (rental/BRO/HOS) to be provided in Phase 4 carpark	<i>255 private spaces (rental/BRO/HOS) to be provided in Phase 4 carpark</i>
Shoppers	1/200 - 300 m <sup>2</sup> Commercial GFA (HD's practice: 1/150 m <sup>2</sup> GFA retail)	95	95	As per Development Parameters and Client Brief .	
<b>(2) Motorcycles</b>					
	HKPSG Standard	Theoretical Provision	Proposed / Actual Provision	61 spaces are provided in Phase 3 car park.	<i>42 spaces are provided in Phase 3 car park.</i>
Rental	-	-	39 - 48	50 spaces are provided in Phase 3 car park	<i>25 spaces are provided in Phase 4 car park</i>
HOS	-	-	54 - 86		
(10% of total private car parking provisions)					

# **PART I EVALUATION OF MASTER LAYOUT**

Approved Planning Brief (DipCon Paper No. 7/98)				Approved BC 156/99 Paper	Proposed Amendments to BC 156/99 Paper
<b>C.13 Car Parking Provisions</b>					
<b>(3) Light Goods Vehicles</b>					
	HKPSG Standard	Theoretical Provision	Proposed / Actual Provision	114 LGV spaces (rental) provided in Phase 3.	
Rental	1/80 flats	77	77		
HOS	1/200 flats	22	22	4 LGV spaces for Phase 7 (HOS) provided in Phase 3.	<i>112 LGV spaces (rental / BRO / HOS) to be provided in Phase 3 car park</i>
(in mixed rental / HOS estate)					
<b>(4) Residential Loading / Unloading</b>					
	HKPSG Standard	Theoretical Provision	Proposed / Actual Provision		
	1 bay at each block		As per HKPSG	1 no. each for Blocks 6, 7, 8,9 and 10. As per Development Parameters and Client Brief .	
<b>(5) Commercial Loading / Unloading</b>					
	HKPSG Standard	Theoretical Provision	Proposed / Actual Provision		
	1/1,200 m <sup>2</sup> GFA retail	12	12	As per Development Parameters and Client Brief .	
<b>(6) Parking provision for Residential Care Home for the Elderly (at Phase 8)</b>					
No specific requirement.				As per Development Parameters and Client Brief .	



# **PART I      EVALUATION OF MASTER LAYOUT**

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<b>C.14   <u>Public Transport Facilities</u></b>				As per Development Parameters and Client Brief .	
	HKPSG Standard	Theoretical Provision	Proposed / Actual Provision		
Bus Terminus	No set Standard	-	1		
Taxi Stand	No set Standard	-	1		
GMB Stand	No set standard	-	1		
<b>C.15   <u>Pedestrian Circulation</u></b>					
Strong pedestrian links are recommended within the estate and adjoining areas.				Covered walkways within Phase 3 site are to be provided to facilitate access between the domestic blocks of Phase 4 and 7.	
To provide a good pedestrian linkage system, footbridge across Tai Wo Hau Road and Sheung Kok Street, at grade signalized crossing at Wo Tong Tsui Street and escalator links between the central bus terminus and the commercial centre are recommended.				Footbridges across Tai Wo Hau Road and Sheung Kok Street provided good linkage from Phases 1, 7 and Tai Wo Hau Small Household Block to Phases 3, 4 and 5.	

**PART I EVALUATION OF MASTER LAYOUT**

Approved Planning Brief (DipCon Paper No. 7/98)	Approved BC 156/99 Paper	
<p><b>D. Design Consideration</b></p> <p><b>D.1 <u>Block Type, Disposition &amp; Orientation</u></b></p> <p>No specific requirement.</p> <p><b>D.2 <u>Design for the Disabled</u></b></p> <p>No specific requirement.</p>	<p>As per Development Parameters and Client Brief</p> <p>All buildings, open spaces and pedestrian circulation will be designed in accordance with Design Manual of barrier access to cater for the needs of the disabled.</p>	

## **ANNEX 3**

### **REVISED PROJECT DEVELOPMENT BUDGET & COST**

PROJECT : REDEVELOPMENT OF KWAI CHUNG ESTATE

PHPD CODE :

Summary of Cost Apportionment of Commonly Shared Elements in Site Development and Construction Cost Budgets

	Phase 2	Phase 3	Phase 4	Phase 5	Phase 7	Phase 8	Total
Total CFA excluding PTI and CIR (m2)	-	175,068	102,943	236,294	53,332		567,637
Total CFA excluding PWP items (m2)	-	175,068	99,788	236,294	53,332		564,482
CFA of buildings/portions served by ARCS (m2)	-	126,637	87,439	235,331	53,113		502,520

COST ELEMENTS	Estimated Cost in \$,000 (including provisions for fluctuations & contingencies)						Total (\$,000)
	Phase 2	Phase 3	Phase 4	Phase 5	Phase 7	Phase 8	
<b>A. Cost Items (incl. tender price inflation) expended under different phases before Cost Apportionment</b>							
1 Demolition	-	4,973	5,584	15,563	6,106		32,226
2 Site Formation	-	-	-	-	-		-
3 Transfer Structures	-	41,718	28,625	-	-		70,343
4 External Works	-	151,690	59,423	360,631	23,264		595,008
5 Automated Refuse Collection System	-	34,720	4,597	16,612	2,310		58,239
6 Other Separate Contracts (incl. Softlandscape)	-	3,729	1,542	5,360	5,754		16,385
7 Miscellaneous (Common Circulation Area)	-	-	-	-	-		-
<b>Total :-</b>	-	236,830	99,771	398,166	37,434		772,201

<b>B. Construction Cost Budget (incl. tender price inflation) to respective Tender-in dates</b>							
1 Foundation (incl. caps)	-	100,567	68,772	178,434	16,965		364,738
2 Building (excl. building services)	-	849,323	461,829	1,134,068	212,834		2,658,054
3 Building Services	-	218,958	91,803	258,513	44,972		614,246
4 Public Transport Interchange	-	47,689	-	-	-		47,689
5 District Open Space	-	29,550	-	-	-		29,550
6 Temporary Open Space Carpark & Market Stall	15,211	-	-	-	-		15,211
7 External Works for Specific Businesses	-	-	-	-	-		-
<b>Construction Cost Budget :- (excl. commonly shared elements)</b>	15,211	1,246,087	622,404	1,571,016	274,771		3,729,489
<b>C. Adjustment for Costs of Common Elements Apportioned to each Phases within the Whole Development Site (see Note 1 and 2))</b>							
1 Demolition	-	9,939	5,844	13,415	3,028		32,226
2 Site Formation	-	-	-	-	-		-
3 Transfer Structures	-	21,695	12,757	29,282	6,609		70,343
4 External Works for Commonly shared elements	-	188,563	110,878	254,509	57,443		611,393
5 Automated Refuse Collection System	-	14,677	10,134	27,274	6,155		58,240
6 Miscellaneous (Common Circulation Area)	-	-	-	-	-		-
<b>Total of Common Apportioned Elements :- (Phase split in %)</b>	0.00%	234,874 30.42%	139,613 18.08%	324,480 42.02%	73,235 9.48%		772,202 100.00%
<b>D. Total Cost Budget (incl. common elements apportioned across all phases within the Whole Development Site) (Item D = Item B + Item C)</b>							
1 Demolition	-	9,939	5,844	13,415	3,028		32,226
2 Site Formation	-	-	-	-	-		-
3 Foundation (incl. caps)	-	100,567	68,772	178,434	16,965		364,738
4 Building (excl. building services)	-	849,323	461,829	1,134,068	212,834		2,658,054
5 Building Services	-	218,958	91,803	258,513	44,972		614,246
6 Transfer Structures	-	21,695	12,757	29,282	6,609		70,343
7 Public Transport Interchange	-	47,689	-	-	-		47,689
8 District Open Space	-	29,550	-	-	-		29,550
9 External Works	-	188,563	110,878	254,509	57,443		611,393
10 Automated Refuse Collection System	-	14,677	10,134	27,274	6,155		58,240
11 Temporary Open Space Carpark & Market Stall	15,211	-	-	-	-		15,211
12 Miscellaneous (Common Circulation Area)	-	-	-	-	-		-
<b>Total Cost Budget for Financial Viability :- (incl. Provisions for Fluctuations &amp; Contingencies)</b>	15,211	1,480,961	762,017	1,895,495	348,006		4,501,690

**Notes :**

- The costs of commonly shared items expended under each phase are identified from the Cost Budget of respective phases and the total cost apportioned across all phases of the same Development Site (in Item C above) pro-rata on CFA basis. (The figures in the 'Total' column of Item A should be transferred to the 'Total' column of Item C and then apportioned to each Phase on a pro-rata CFA basis)
- The total cost of ARCS is shared among the domestic portions on a pro-rata CFA basis

**ANALYSIS OF SITE DEVELOPMENT &  
CONSTRUCTION COST BUDGETS (EXCLUDING OTHER PROJECT COSTS)**  
(For Financial Viability Assessment Purpose)

PHASE 1 = 1 & 2

PROJECT : REDEVELOPMENT OF KWAI CHUNG ESTATE

PRPD CODE :

Budget Costs (incl. common elements) appertaining to the whole within the Whole Development Site		COST PORTIONS												Total
		PRH	BOB	CC	CP	WEL	FTI	GN	UN	SWD	D of B	W&C	CP(Excl)AMS	
<b>A. Phase 1 (Budget no. 1)</b>		m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>
CFA of Cost Portions (m <sup>2</sup> )		-	-	-	-	-	-	-	-	-	-	-	-	-
<b>1.0 Site Development Costs</b>		Cost in (\$'000)												-
1.1 Demolition		-	-	-	-	-	-	-	-	-	-	-	-	-
1.2 Site Formation		-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2.0 Construction Costs</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
2.1 Foundation (incl. sept)		-	-	-	-	-	-	-	-	-	-	-	-	-
2.2 Building (incl. building services)		-	-	-	-	-	-	-	-	-	-	-	-	-
2.3 Transfer Structures		-	-	-	-	-	-	-	-	-	-	-	-	-
2.4 External Works		-	-	-	-	-	-	-	-	-	-	-	-	-
2.5 Automated Refuse Collection System		-	-	-	-	-	-	-	-	-	-	-	-	-
2.6 Temp. Open Space Carpark & Market Stall		-	-	-	-	-	-	-	-	-	-	-	-	-
2.7 Miscellaneous (CIR)		-	-	-	-	-	-	-	-	-	-	-	15,211	15,211
<b>Budget of Phase 1 (Budget no. 1)</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
Projected to Date of Tenders		-	-	-	-	-	-	-	-	-	-	-	-	-
(Unit Cost in terms of Sited CFA) :-		-	-	-	-	-	-	-	-	-	-	-	15,211	15,211
(Final Split % pro-rata on cost values) :-		-	-	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-	-
<b>B. Phase 2 (Budget no. 16)</b>		m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	100.00%	100.00%
CFA of Cost Portions (m <sup>2</sup> )		126,437	-	16,920	30,738	-	-	-	1,103	-	-	90	-	-
<b>1.0 Site Development Costs</b>		Cost in (\$'000)												175,068
1.1 Demolition		7,189	-	982	1,720	-	-	-	63	-	-	5	-	-
1.2 Site Formation		-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2.0 Construction Costs</b>		-	-	-	-	-	-	-	-	-	-	-	-	9,739
2.1 Foundation (incl. sept)		72,745	-	9,737	17,399	-	-	-	634	-	-	32	-	-
2.2 Building (incl. building services)		656,660	-	245,356	151,161	-	-	-	10,551	-	-	553	-	-
2.3 Transfer Structures		13,693	-	2,100	3,753	-	-	-	137	-	-	11	-	-
2.4 External Works		136,399	-	18,257	32,623	-	47,689	29,530	1,188	-	-	97	-	-
2.5 Automated Refuse Collection System		14,677	-	-	-	-	-	-	-	-	-	-	-	-
2.6 Miscellaneous (CIR)		-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Budget of Phase 2 (Budget no. 16)</b>		-	-	-	-	-	-	-	-	-	-	-	-	0
Projected to Date of Tenders		903,363	-	276,412	210,656	0	47,689	29,530	12,573	-	-	718	-	-
(Unit Cost in terms of Sited CFA) :-		7,131	-	16,307	6,955	-	9,282	-	11,399	-	-	7,918	-	-
(Final Split % pro-rata on cost values) :-		61.00%	-	18.60%	14.22%	-	1.22%	2.00%	0.83%	-	-	0.03%	-	-
<b>C. Phase 3 (Budget no. 15)</b>		m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	-	-
CFA of Cost Portions (m <sup>2</sup> )		87,439	-	-	9,657	2,632	-	-	-	3,155	-	60	-	-
<b>1.0 Site Development Costs</b>		Cost in (\$'000)												102,943
1.1 Demolition		4,964	-	-	548	149	-	-	-	179	-	1	-	-
1.2 Site Formation		-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2.0 Construction Costs</b>		-	-	-	-	-	-	-	-	-	-	-	-	5,841
2.1 Foundation (incl. sept)		38,415	-	-	4,451	1,738	-	-	-	2,108	-	48	-	-
2.2 Building (incl. building services)		417,301	-	-	54,975	20,453	-	-	-	20,140	-	363	-	-
2.3 Transfer Structures		10,835	-	-	1,197	326	-	-	-	391	-	7	-	-
2.4 External Works		96,179	-	-	10,401	2,833	-	-	-	3,390	-	65	-	-
2.5 Automated Refuse Collection System		10,134	-	-	-	-	-	-	-	-	-	-	-	-
2.6 Miscellaneous (CIR)		-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Budget of Phase 3 (Budget no. 15)</b>		-	-	-	-	-	-	-	-	-	-	-	-	0
Projected to Date of Tenders		635,828	0	-	73,572	23,921	-	-	-	26,216	-	478	-	-
(Unit Cost in terms of Sited CFA) :-		7,272	-	-	7,619	9,848	-	-	-	8,309	-	7,967	-	-
(Final Split % pro-rata on cost values) :-		83.44%	-	-	9.67%	1.40%	-	-	-	3.44%	-	0.05%	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	100.00%

**ANALYSIS OF SITE DEVELOPMENT &  
CONSTRUCTION COST BUDGETS (EXCLUDING OTHER PROJECT COSTS) (cont'd)**  
(For Financial Viability Assessment Purpose)

PROJECT : REDEVELOPMENT OF KWAI CHUNG ESTATE

PHED CODE :

Budget Costs (incl. element elements) appertained across all phases within the Works Development Site)	COST PORTIONS												Total
	PRH	ROS	CC	CF	WEL	PTI	GN	UN	SWD	D of H	WAC	CP(Excl)M&M	
<b>D. Phase 5 (Budget no. 4)</b>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>
CFA of Cost Portions (m2)	235,331	-	-	-	-	-	-	848	-	-	115	-	236,294
<b>1.0 Site Development Costs</b>													
1.1 Demolition	13,360	-	-	-	-	-	-	-	-	-	-	-	13,415
1.2 Site Preparation	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2.0 Construction Costs</b>													
2.1 Foundation (incl. caps)	177,838	-	-	-	-	-	-	906	-	-	90	-	178,834
2.2 Building (incl. building services)	1,385,316	-	-	-	-	-	-	6,436	-	-	829	-	1,392,581
2.3 Transfer Structures	29,163	-	-	-	-	-	-	105	-	-	14	-	29,282
2.4 External Works	253,472	-	-	-	-	-	-	913	-	-	124	-	254,509
2.5 Automated Refuse Collection System	27,274	-	-	-	-	-	-	-	-	-	-	-	27,274
2.6 Miscellaneous (CIR)	-	-	-	-	-	-	-	-	-	-	-	-	0
<b>Budget of Phase 5 (Budget no. 4)</b>													
Projected to Date of Tender	(D)	1,846,423	0	-	-	-	-	1,008	-	-	1,064	-	1,848,495
Unit Cost in terms of S&M2 CFA :-		8.616	-	-	-	-	-	3.444	-	-	9.230	-	8.022
Fund Split % pro-rata on cost values :-		99.52%	-	-	-	-	-	0.42%	-	-	0.06%	-	100.00%
<b>E. Phase 7 (BCT 45/2000)</b>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>	m <sup>2</sup>
CFA of Cost Portions (m2)	-	53,113	-	-	-	-	-	219	-	-	-	-	53,332
<b>1.0 Site Development Costs</b>													
1.1 Demolition	-	3,015	-	-	-	-	-	12	-	-	-	-	3,027
1.2 Site Preparation	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2.0 Construction Costs</b>													
2.1 Foundation (incl. caps)	-	16,896	-	-	-	-	-	69	-	-	-	-	16,965
2.2 Building (incl. building services)	-	256,114	-	-	-	-	-	1,692	-	-	-	-	257,806
2.3 Transfer Structures	-	6,382	-	-	-	-	-	27	-	-	-	-	6,409
2.4 External Works	-	57,207	-	-	-	-	-	236	-	-	-	-	57,443
2.5 Automated Refuse Collection System	-	6,155	-	-	-	-	-	-	-	-	-	-	6,155
2.6 Miscellaneous (CIR)	-	-	-	-	-	-	-	-	-	-	-	-	0
<b>Budget of Phase 7 (BCT 45/2000)</b>													
Projected to Date of Tender	(E)	-	345,969	-	-	-	-	2,036	-	-	-	-	348,005
Unit Cost in terms of S&M2 CFA :-		-	6.514	-	-	-	-	9.297	-	-	-	-	6.323
Fund Split % pro-rata on cost values :-		-	99.41%	-	-	-	-	0.59%	-	-	-	-	100.00%
<b>GRAND TOTAL - (A) to (E)</b>		3,425,614	345,969	276,312	284,328	28,931	47,689	29,558	32,617	16,216	-	2,360	4,081,688
Overall Unit Cost in terms of S&M2 CFA :-		7.623	6.514	16,207	7,115	9,848	9,283	-	18,423	8,889	-	8,528	7,931
Fund Split % pro-rata on cost values :-		76.18%	7.69%	6.14%	6.31%	6.58%	1.86%	0.66%	8.58%	8.32%	-	8.83%	100.00%

## Legend for Cost Portions :

PRH - Public Rental Housing	PTI - Public Transport Interchange	WAC - Welfare & Community
ROS - Home Ownership Scheme	GN - Government Non-rentalizable	CP(Excl)M&M - Temporary Open Space Carpark & Motor Mail
C - Commercial (Shopping) Centre	UN - Unfurnished	
P - Carpark	SWD - Social Welfare Department (RCHS)	
EL - Welfare Facilities	D of H - Department of Health	

## Notes :

- Unless otherwise stated, all prices are at June 2000 price level and adjusted for tender price inflation to tender in dates of contracts based on 0% per annum from June 2000 to December 2000 and 6.00% per annum from January 2001 onwards.
- Special External Works cost comprises both foundation and building costs of those items classified as special external works included in building contract.
- Appportionment of the Site Development and Construction Costs are in accordance with the existing cost apportionment guidelines set out in relevant DCMBL.
- For Phases 3 & 4, contingencies are set at 2% for all standard blocks superstructure and 5% for all non-standard works/elements. For Phase 5, 10% contingencies has been included (approved by BC before).

## Exclusions :

- Other separate contracts include model making, presentation drawings and its printing, TV survey to complete underground drainage works, laboratory tests and soil landscape works.

## Inclusions :

- Project Management Costs, e.g. professional services & overheads, consultant fees, etc. and other Project Costs, e.g. ancillary project expenses, financing and legal costs/expenses, etc.
- Costs of site investigation and geotechnical works, testing of construction materials arranged by HA.

## assumptions :

- 
- Use of the Estimate :  
for Summary Sheet of each Phase

prepared by : Dr. W. Y. Kung

Q9/C3

date : 6-Nov-00

Page 2 of 2



**SUMMARY OF SITE DEVELOPMENT & CONSTRUCTION COST BUDGET NO. 16**

PROJECT : Redevelopment of Kwai Chung Estate PHASE : 1 PHDP Code : TW20RR03

	COST HEADS	WORK ELEMENTS	BUDGET COST (\$M)
(a)	Site Development Cost	Site Formation Demolition  Sub-total :	 4.973 4.973
(b)	Construction Cost	Foundation Building Other separate contracts  Sub-total :	 152.960 1,320.459 4.525 1,477.944
(c)	Other Project Cost (2% on (a) & (b))	Civil engineering and geotechnical studies, site investigation, material testing and the like	29.658
(d)	Total Site Development and Construction Cost (a)+(b)+(c) :		1,512.575

**Notes:**

- (1) All prices are at June 2001 price level and adjusted for tender price inflation to tender in dates of contracts based on 0 % for June to December 2000 and 6 % for January to June 2001.
- (2) Apportionment of the Construction Costs are in accordance with the existing cost apportionment guidelines set out in relevant DCMB1.
- (3) Reasons for Cost Difference from Standard Cost Yardstick shall be highlighted.
- (4) The costs for softlandscaping works, utilities connections, diversion works by Government Departments or Utility Companies, and minor works carried out specifically for the project, eg. roadworks or slopeworks outside site boundaries under separate contracts but charged to the project shall be grouped under Other Separate Contracts.
- (5) The fluctuation provisions shall be worked out based on the formula as shown on the Guidance Notes for Standard Cost Yardsticks.
- (6) Development contingencies of \$ 12.171 M for the standard block superstructure and \$ 31.701 M for non-standard blocks/buildings and non-standard elements such as civil engineering works (site formation, slope protection, etc.), demolition, foundation, external works and underground drainage, etc. are included in the Site Development and Construction Cost.

**Exclusions:**

- (1) Project Management Costs, e.g. professional services & overheads, consultant fees, etc. and other Project Costs, e.g. ancillary project expenses, financing and legal costs/expenses, etc.
- (2) Costs of site investigation and geotechnical works, testing of construction materials arranged by HA.

**Remarks:**

- (1) Cost Yardsticks have been used in the calculation of the following portion with non-standard adjustments:  
Domestic and Welfare

Prepared by :

WTP (HK) Ltd.

Date :

October 2008

**SUMMARY OF SITE DEVELOPMENT & CONSTRUCTION COST (EXCLUDING OTHER PROJECT COSTS) BUDGET NO.14**

PROJECT: Redevelopment of Kwai Chung Estate PHASE: 3 PHDP Code: TW20RR03

COST PORTIONS															Common Items			Total							
CFA of Cost Portions (m2)															TS	EW	DEM	(incl. fluctuation)							
															120,637	-	30,288	16,950	90	5,138	1,103	-	-	-	180,106
COST ITEMS															Estimated Cost in \$,000										
A. Cost Budget At June 2000 (Excludes Other Project Costs & Tender Price Inflation)																				\$,000					
1.0 Site Development Costs																									
1.1 Demolition Contract																									
1.2 Site Formation Contract																									
2.0 Construction Costs																				4,973					
2.1 Foundation Contract																									
2.2 Building Contract															72,743										
2.21 Building (incl. building services)																				17,399					
2.22 Building Services															538,523					9,737					
2.23 Transfer Structures															99,011					32					
2.24 Public Transport Interchange																				2,952					
2.25 External Works for commonly shared elements																				634					
2.26 External Works for Specific Businesses																				49,441					
2.27 Automated Refuse Collection System																									
2.3 Other Separate Contracts (incl. Softlandscape)																									
Cost Budget At June 2000 Price Level															(A)					710,379					
B. Cost Budget Projected To Proposed Dates of Tenders (Cost in Item (A) plus Cost x (v) / (w) / (y) or (z))																									
1.0 Site Development Costs																									
1.1 Demolition Contract																									
1.2 Site Formation Contract																									
2.0 Construction Costs																									
2.1 Foundation Contract																									
2.2 Building Contract																									
2.21 Building (incl. building services)																									
2.22 Building Services																									
2.23 Transfer Structures																									
2.24 Public Transport Interchange																									
2.25 External Works for commonly shared elements																									
2.26 External Works for Specific Businesses																									
2.27 Automated Refuse Collection System																									
2.3 Other Separate Contracts (incl. Softlandscape)																									
Cost Budget Projected															(B)					729,403					
To Proposed Dates Of Tenders																									
Types of Contracts																									
Demolition																									
Tender in Dates																									
Adjustment for month of June																									

**Types of Contract**

Demolition

Site Formation

Foundation

Building (for inflation adjustment, "Other Separate Contracts")

Tender-In Dates to be taken the same as "Building")

**Tender-In Dates**

**Adjustment for months after June 2000**

June 2001

-	Months x 8 % / 12 +	-	Months x 8 % / 12 =	(v)
-	Months x 8 % / 12 +	-	Months x 8 % / 12 =	(w)
-	Months x 8 % / 12 +	-	Months x 8 % / 12 =	(y)
6	Months x 0 % / 12 +	6	Months x 6 % / 12 =	3%

**Legend for Cost Portions:**

PRH - Public Rental Housing  
HO - Home Ownership Scheme  
CC - Commercial (Shopping) Centre

CP  
WEL  
GN

- Carpark  
- Welfare & Community Facilities  
- Government Non-reimbursable

UN  
TS  
EW

- Unallocable  
- Transfer Structure  
- External Works

For the basis, exclusions and notes of this Cost Budget, please refer to information shown on Page 1.

**SUMMARY OF CONSTRUCTION COST BUDGET NO. 16 (cont'd)**

**PROJECT : Redevelopment of Kwai Chung Estate PHASE : 3 PHDP Code : TW20RR03**

**Notes :**

- (1) All prices are at June 2001 price level and adjusted for tender price inflation to tender in dates of contracts based on 0 % for June to December 2000 and 6 % for January to June 2001.
- (2) Apportionment of the Construction Costs are in accordance with the existing cost apportionment guidelines set out in relevant DCMB1.
- (3) Reasons for Cost Difference from Standard Cost Yardsticks shall be highlighted.
- (4) The costs for softlandscaping works, utilities connections, diversion works by Government Departments or Utility Companies, and minor works carried out specifically for the project, eg. roadworks or slopeworks outside site boundaries under separate contracts but charged to the project shall be grouped under Other Separate Contracts.
- (5) The fluctuation provisions shall be worked out based on the formula as shown on the Guidance Notes for Standard Cost Yardsticks.
- (6) Development contingencies of \$ 12.171 M for the standard block superstructure and \$ 31.701 M for non-standard blocks/buildings and non-standard elements such as civil engineering works (site formation, slope protection, etc.), demolition, foundation, external works and underground drainage, etc. are included in the Site Development and Construction Cost.

**Exclusions :**

- (1) Project Management Costs, e.g. professional services & overheads, consultant fees, etc. and other Project Costs, e.g. ancillary project expenses, financing and legal costs/expenses, etc.
- (2) Costs of site investigation and geotechnical works, testing of construction materials arranged by HA.

**Remarks**

- (1) Cost Yardsticks have been used in the calculation of the following portion with non-standard adjustments:  
Domestic and Welfare

**Prepared by :**

WTP (HK) Ltd.

**Date :**

October 2000

Construction Cost Budget No. 16 (Domestic Blocks: Public Rental Housing Portion)

Project: Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June 2000 Price Level	No. of Flats	Cost per Flat		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 Standard Blocks</b>				
(a) Harmony Block (Type <u>1</u> Option <u>1</u> , Block No. <u>8</u> , <u>41</u> Storeys)				
- 1 B Flat	440	23,180	219,180	242,360
- 2 B Flat	160	30,510	288,600	319,110
- 3 B Flat	40	37,370	353,350	390,720
- 1 P/ 2 P Flat	119	14,310	135,390	149,700
	759			
Cost per Flat x Flat No. = Sub-Total (A) (Total CFA = <u>39.431</u> m2)		\$'000		
		18,278	172,861	191,139 (\$ 4847 /m2 CFA) (\$251830 per flat)
<b>2.0 Adjustments to Item 1.0 Above</b>				
(a) Adjust for foundation to Blk. No. <u>8</u> based on apportioned foundation contract sum		\$'000		
		4,317	0	4,317
(b) Adjust for Building Services Cost		0	3,279	3,279
(c) Ddt. basic carcass of ancillary/welfare facilities in domestic block (530 m2)		(249)	(1,500)	(1,749)
(d) Add for domestic portion in carpark podium (829m2)		476	5,034	5,510
(e) Add for DCMBI P01/00		0	1,860	1,860
(f) Add for DCMBI P14/00, D20/00 & D24/00		0	775	775
Sub-Total (B)		4,544	9,448	13,992 (\$ 360 /m2 CFA) (\$ 18435 per flat) 7.32 % above that calculated based on Standard Yardsticks
<b>3.0 Non-standard Blocks</b>				
(a) <u>      </u> Block (Type <u>      </u> , Block No. <u>      </u> , <u>      </u> Storeys)		\$'000		
- <u>      </u> Flat/Unit (## m2 CFA per Flat/Unit)				
- <u>      </u> Flat/Unit (## m2 CFA per Flat/Unit)				
Cost per Flat x Flat No. = Sub-Total (C) (Total CFA = <u>      </u> m2)		(\$ <u>      </u> /m2 CFA) (\$ <u>      </u> per flat)		
<b>4.0 Development Contingency</b>				
(a) All standard blocks superstructure only		\$'000		
		0	3,546	3,546
(b) All non-standard blocks and all standard block elements other than superstructure		0	252	252
Sub-Total (D)		0	3,797	3,797 (\$ 98 /m2 CFA) (\$5003 per flat)
Total Cost of Domestic Block - Public Rental Housing Portion at June 2000 Price Level = (A) + (B) + (C) + (D) (including Provisions for Contract Fluctuations)		\$'000		
		22,822	186,107	208,929 (\$ 5371 /m2 CFA) (\$275268 per flat)

**Note**

- For Welfare/Unallocable Portions in the domestic blocks, e.g. Sheltered Housing, use separate calculation sheets and ensure that NO DOUBLE COUNTING in flat numbers has been made. Check with the Project Manager if there is any doubt.

Construction Cost Budget No. 16 ( Domestic Blocks: Public Rental Housing Portion)

Project : Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June 2000 Price Level	No. of Flats	Cost per Flat		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 Standard Blocks</b>				
(a) Harmony Block (Type <u>1</u> Option <u>6</u> , Block No. <u>6 &amp; 7</u> , <u>41</u> Storeys)				
- 1 B Flat	320	23,850	242,960	266,810
- 2 B Flat	320	31,810	324,170	355,980
- 1 P/ 2 P flat	318	14,850	151,310	166,160
- 2 P/ 3 P flat	640	18,140	184,820	202,960
	1,598			
Cost per Flat x Flat No. = Sub-Total (A) (Total CFA = <u>73,091</u> m2)		34,143	347,883	382,026 (\$ 5227 /m2 CFA) (\$239065 per flat)
<b>2.0 Adjustments to Item 1.0 Above</b>				
(a) Adjust for foundation to Blk. No. <u>6 &amp; 7</u> based on apportioned foundation contract sum		7,797	0	7,797
(b) Adjust for Building Services Cost		0	2,534	2,534
(c) Ddt. basic carcass of ancillary/welfare facilities in domestic block (443 m2)		(208)	(1,254)	(1,462)
(d) Add for domestic portion in carpark podium (1548m2)		889	9,401	10,290
(e) Add for DCMBI P01/00		0	3,475	3,475
(f) Add for DCMBI P14/00, D20/00 & D24/00		0	1,449	1,449
Sub-Total (B)		8,478	15,605	24,083 (\$ 332 /m2 CFA) (\$ 15071 per flat) 6.3 % above that calculated based on Standard Yardsticks
<b>3.0 Non-standard Blocks</b>				
(a) _____ Block (Type _____, Block No. _____, _____ Storeys)				
- _____ Flat/Unit	(## m2 CFA per Flat/Unit)			
- _____ Flat/Unit	(## m2 CFA per Flat/Unit)			
Cost per Flat x Flat No. = Sub-Total (C) (Total CFA = _____ m2)				(\$ _____ /m2 CFA) (\$ _____ per flat)
<b>4.0 Development Contingency</b>				
(a) All standard blocks superstructure only		0	7,082	7,082
(b) All non-standard blocks and all standard block elements other than superstructure		0	470	470
Sub-Total (D)		0	7,552	7,552 (\$ 104 /m2 CFA) (\$4726 per flat)
Total Cost of Domestic Block - EOS Portion at June 2000 Price Level = (A) + (B) + (C) + (D) (including Provisions for Contract Fluctuations)		42,621	371,040	413,661 (\$ 3694 /m2 CFA) (\$258862 per flat)

**Note**

- For Welfare/Unallocable Portions in the domestic blocks, e.g. Sheltered Housing, use separate calculation sheets and ensure that NO DOUBLE COUNTING in flat numbers has been made. Check with the Project Manager if there is any doubt.

Construction Cost Budget No. 16 ( Domestic Blocks: Public Rental Housing Portion)

Project : Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June 2000 Price Level	No. of Flats	Cost per Flat		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 Standard Blocks</b>				
(a) Harmony Block (Annex <u>5</u> Option <u>1</u> , Block No. <u>8A</u> - <u>36</u> Storeys)				
- 1P/ 2P flat	385	17,430	205,920	223,350
	385			
Cost per Flat x Flat No. = Sub-Total (A) (Total CFA = <u>12,667</u> m2)		6,711	79,279	85,990 (\$ 6789 /m2 CFA) (\$223351 per flat)
<b>2.0 Adjustments to Item 1.0 Above</b>				
(a) Adjust for foundation to Blk. No. <u>8A</u> based on apportioned foundation contract sum		542	0	542
(b) Adjust for Building Services Cost		0	(2,679)	(2,679)
(c) Dkt. basic carcass of ancillary/welfare facilities in domestic block (220 m2)		(103)	(623)	(726)
(d) Add for domestic portion in carpark podium (264m2)		152	1,610	1,762
(e) Add for DCMBI P01/00		0	595	595
(f) Add for DCMBI P14/00, D18/00, D20/00 & D24/00		0	581	581
Sub-Total (B)		591	(516)	75 (\$ 6 /m2 CFA) (\$ 195 per flat) 0.09 % above that calculated based on Standard Yardsticks
<b>3.0 Non-standard Blocks</b>				
(a) <u>      </u> Block (Type <u>      </u> , Block No. <u>      </u> , <u>      </u> Storeys)				
- <u>      </u> Flat/Unit (## m2 CFA per Flat/Unit)				
- <u>      </u> Flat/Unit (## m2 CFA per Flat/Unit)				
Cost per Flat x Flat No. = Sub-Total (C) (Total CFA = <u>      </u> m2)				(\$ <u>      </u> /m2 CFA) (\$ <u>      </u> per flat)
<b>4.0 Development Contingency</b>				
(a) All standard blocks superstructure only		0	1,543	1,543
(b) All non-standard blocks and all standard block elements other than superstructure		0	81	81
Sub-Total (D)		0	1,624	1,624 (\$ 130 /m2 CFA) (\$4217 per flat)
Total Cost of Domestic Block - HOS Portion at June 2000 Price Level = (A) + (B) + (C) + (D) (including Provisions for Contract Fluctuations)		7,302	80,387	87,689 (\$ 7045 /m2 CFA) (\$227765 per flat)

**Note**

- For Welfare/Unallocable Portions in the domestic blocks, e.g. Sheltered Housing, use separate calculation sheets and ensure that NO DOUBLE COUNTING in flat numbers has been made. Check with the Project Manager if there is any doubt.

# Construction Cost Budget No. 16 (Carpark Portion)

Project : Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June 2000 Price Level	Space (No.)	Estimated Cost		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 Carpark (Integrated Comm./Carpark Building) based on Actual Design</b>		← \$'000 →		
(a) Carpark Portion				
- Private (39 m2 CFA per space)	489			
- Lorry - Light (97m2 CFA per space)	112			
- motorcycle (7 m2 CFA per space)	49			
	650	17,399	110,165	127,564
(b) Building Services		0	31,640	31,640
(c) Add for DCMBI P01/00		0	1,419	1,419
(d) Add for DCMBI P14/00		0	244	244
<b>Sub-total (A) :-</b>		17,399	143,468	160,867
(Total CFA based on Actual Design = 30,288 m2 & Average CFA per carparking space = 47 m2)				(\$ 5311 /m2 CFA) (\$247488 per space)
		5.72% above that calculated based on Standard Yardsticks		
<b>2.0 Development Contingency</b>		← \$'000 →		
		0	7,173	7,173
<b>Total Cost of Carpark Portion at June 2000 Price Level = Total of Item 1.0 to 2.0 (including Provisions for Contract Fluctuations)</b>		17,399	150,641	168,040
				(\$ 5548 /m2 CFA) (\$258524 per space)

3.0 Difference between Actual Design (Item 1.0 above) and Cost Yardsticks/Cost Ceiling/Budget due to the following :-	Foundation (Incl Caps)	Building (Excl Caps)	TOTAL
	← \$'000 →		
(a) Add for adjustment to efficiency ratio of car space	(243)	(1,421)	(1,664)
(b) Adjust for Cost of foundation based on apportioned foundation contract sum	2,700	0	2,700
(c) Adjust for Cost of building based on actual design	0	(4,638)	(4,638)
(d) Adjust for Cost of BS installations based on PBSE's advice	0	10,342	10,342

## Notes

- 1 Cost per Space in the Total Column represents the average cost per space including private and lorry spaces.
- 2 Noted that the Cost per Space in the Total Column represents the average cost per space including private and lorry spaces.

**Construction Cost Budget No. 16 (Commercial Centre Portion)**

**Project :** Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June 2000 Price Level	CFA (m2)	Estimated Cost		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
← \$'000 →				
<b>1.0 <u>Commercial Centre (Integrated with Carpark Building) based on Actual Design</u></b>				
(a) Shopping Centre Portion (Type <u>C</u> ) IFA = <u>6,793</u> m2 ; CFA = <u>16,950</u> m2 ( IFA / CFA = <u>40</u> % as that stated in CCDG / confirmed by <u>      </u> *)	16,950	9,737	152,706	162,443
(b) Building Services		0	37,840	37,840
(c) Add A/C Provision to Shopping Centre (excl. Market) @\$ <u>3,385</u> per m2 A/C area (Total A/C Area = <u>8,003</u> m2)		0	27,090	27,090
(d) Add A/C Provision to Market area only @\$ <u>4,434</u> per m2 A/C area (Total A/C Area = <u>1,872</u> m2)		0	8,300	8,300
(e) Add for DCMBI P01/00		0	794	794
(f) Add for DCMBI P14/00		0	136	136
<b>2.0 <u>Development Contingency</u></b>		0	11,343	11,343
<b>Total Cos Sub-total (A) :- Price Level = Total of Items in 1.0 to 3.0 (including Provisions for Contract Fluctuations)</b>		9,737	238,209	247,946 (\$ 14628 /m2 CFA) 0.63 % above that calculated based on Standard Yardsticks

<b><u>Difference between Actual Design (item 1.0 above) and Cost Yardsticks/Cost Ceiling/Budget due to the following :-</u></b>	Foundation (Incl Caps)	Building (Excl Caps)	TOTAL
← \$'000 →			
(a) Deduction for adjustment on Cost of Foundations based on apportioned foundation contract sum	(6,094)	0	(6,094)
(b) Addition for adjustment on Cost of BS installations based on PBSE's advice	0	1,838	1,838
(c) Addition for adjustment on Cost of air-conditioning based on PBSE's advice	0	12,085	12,085
(d) Deduction for adjustment for building cost based on actual design	0	(10,254)	(10,254)
(e) Addition for loading / unloading area (2376 m2)	1,365	8,299	9,664



**Construction Cost Budget No. 16 (Mutual Aids Community)**

**Project :** Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June <u>2000</u> Price Level	CFA (m2)	Estimated Cost		TOTAL
		Foundation (Including Caps)	Building ( Excluding Caps)	
		←-----\$'000-----→		
<b>1.0 <u>Mutual Aids Community (MAC) in Domestic Blocks (G/F)</u></b>				
(a) Ancillary/Welfare facilities (no fitting out included)	90	41	230	271
(b) Fitting Out for Ancillary/Welfare Facilities (Total area to be fitted out = 90 m2 CFA)	90	0	247	247
(c) Building Services Cost		0	30	30
<b>2.0 <u>Other Adjustments for Item 1.0 Above</u></b>				
(a) Adjust for Foundation to Ancillary/Welfare facilities based on preliminary design by PSE		11	0	11
(b) Add for DCMBI P01/00		0	4	4
<b>3.0 <u>Development Contingency</u></b>		0	26	26
<b>Total Cost of MAC at June <u>2000</u> Price Level = Total of Items in 1.0 to 3.0 (including Provisions for Contract Fluctuations)</b>		52	537	589  (\$ 6489 /m2 CFA)

Construction Cost Budget No. 16 ( Public Transport Interchange Portion )

Project : Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June 2000 Price Level	Estimated Cost		TOTAL
	Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 Public Transport Interchange based on Actual Design</b> (Covered Area = <u>5138</u> m2)	\$,000.00		
(a) Bus Terminus and Taxi/GMB Stand	4,793	28,525	33,318
(b) Adjust for foundation cost based on preliminary design by PSE	(1,841)	0	(1,841)
(c ) Building Services Cost	0	12,600	12,600
(d) Add for DCMBI P01/00	0	241	241
<b>Sub-Total (A)</b>	2,952	41,366	44,318
<b>2.0 Development Contingency</b>	\$,000.00		
	0	2,068	2,068
<b>Sub-Total (B)</b>	0	2,068	2,068
<b>Total Cost of PTI Portion at June 2000</b> <b>Price Level = (A) + (B)</b> <b>(including Provisions for Contract Fluctuations)</b>	\$,000.00		
	2,952	43,434	46,386 (\$ 9028/m2) Covered Area)

# Construction Cost Budget No. 16 (Unallocable Portion)

Project : Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June <u>2000</u> Price Level	CFA (m2)	Estimated Cost		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
		<div>← S'000 →</div>		
<b>1.0 <u>Ancillary/Welfare Facilities</u> <u>in Domestic Block</u> <u>(G/F)</u></b>				
(a) Ancillary/Welfare facilities (no fitting out included)	1,103	496	4,480	4,976
(b) Fitting Out for Ancillary/Welfare Facilities (Total area to be fitted out = <u>1,103</u> m2 GFA)	1,103	0	1,963	1,963
(c) Building Services Cost		0	3,260	3,260
<b>2.0 <u>Other Adjustments for Item 1.0 Above</u></b>				
(a) Adjust for Foundation based on preliminary design		138	0	138
(b) Add for DCMBI P01/00		0	52	52
<b>3.0 <u>Development Contingency</u></b>		0	488	488
<b>Total Cost of Unallocable Portion at June <u>2000</u> Price Level = Total of Items in 1.0 to 3.0 (including Provisions for Contract Fluctuations)</b>		634	10,243	10,877  (S9861/m2 CFA)

## Note

- For fitting out for Welfare Facilities, refer to Guidance Notes on Cost Split for items to be chargeable to Welfare portion

## Remarks

- Unallocable Portion includes the following :

Estate Management Office	720 m2 CFA
Artisan Workshop	60 m2 CFA
BW/BS Maintenance Contractor's Office/Workshop	255 m2 CFA
Office for Cleansing Contractor	68 m2 CFA
Total	1,103 m2 CFA

Site Development Cost Budget No. 16 ( Government Non-reimbursable)

Project : Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June 2000 Price Level	Estimated Cost		TOTAL
	Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 Estimated Cost for Government Non-reimbursable</b>		\$,000.00	
(a) External Works to District Open Space (DOS)	0	25,617	25,617
(b) Soft Landscape to DOS	0	736	736
(c) Building Services Cost	0	970	970
<b>2.0 Development Contingency</b>	0	1,366	1,366
<b>Total Cost of Government Non-reimbursable at June 2000 Price Level = Total of Items in 1.0 to 2.0 (Including Provision for Contract Fluctuation)</b>	0	28,689	28,689

Project : Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June 2000 Price Level	Estimated Cost		TOTAL
	Building	Others	
<b>1.0 Transfer Plate based on Actual Design</b>	\$,000.00		
(a) Transfer Structures Portion	38,574	0	38,574
<b>Sub-Total (A)</b>	38,574	0	38,574
<b>2.0 Development Contingency</b>	\$,000.00		
	1,929	0	1,929
<b>Sub-Total (B)</b>	1,929	0	1,929
<b>Total Cost of Commonly Shared Transfer Structures at June 2000 Price Level = (A) + (B) (including Provisions for Contract Fluctuations)</b>	\$,000.00		
	40,503	0	40,503

Construction Cost Budget No. 16 ( External Works - Commonly Shared Across Phases of the Development and Amongst Various HA Businesses)

Project : Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Total GEA = 29,459 m2; Total CFA = 188,206 m2; Total LAA = 25,992 m2

Cost at June 2000 Price Level	Estimated Cost		TOTAL
	Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 External Works based on Actual Design (incl. Contract Price Fluctuation)</b>	5,000.00		
(a) Hard Landscape Works (Amenities)	6,788	37,991	44,779
(b) Underground Drainage	0	21,632	21,632
(c) Add for Contract Fluctuation	0	5,815	5,815
<b>Sub-Total (A)</b>	6,788	65,458	72,246 (S 401 /m2 CFA) (S 2452 /m2 GEA)
<b>2.0 Special External Works based on Actual Design (incl. Contract Price Fluctuation)</b>	5,000.00		
(a) Footbridge and lift tower to Phase 7	643	4,878	5,521
(b) Slope stabilization	1,038	0	1,038
(c) Retaining walls and sheet piling	23,832	0	23,832
(d) BS-Escalators and lifts	0	6,100	6,100
(e) Construction of new Sheung Kok Street abutting Phase 3 & 4, road improvement works, underground utilities diversion and etc.	15,681	0	15,681
(f) Spiral ramp at Carpark to Podium EVA	1,459	8,806	10,265
(g) Sky-Lit Entrance Lobby Canopy	0	6,259	6,259
(h) Modification to road laid between Phase 3 & 7	0	1,000	1,000
(i) Add for Contract Fluctuation	0	2,042	2,042
<b>Sub-Total (B)</b>	42,653	29,086	71,739 (S 396 /m2 CFA) (S 2433 /m2 GEA)
<b>3.0 Development Contingency</b>	5,000.00		
	0	4,727	4,727
<b>Sub-Total (C)</b>	0	4,727	4,727 (S 16 /m2 CFA) (S 148 /m2 GEA)
<b>Total Cost of Commonly Shared External Works at June 2000 Price Level = (A) + (B) + (C) (including Provisions for Contract Fluctuations)</b>	49,441	99,271	148,712 (S 823 /m2 CFA) (S 5648 /m2 GEA)
<b>4.0 Cost of Automated Refuse Collection System at June 2000 Price Level</b>	5,000.00		
	0	32,104	32,104
<b>5.0 Development Contingency</b>	0	1,605	1,605
<b>Total Cost of Automated Refuse Collection System at June 2000 Price Level = Total of Items 4.0 to 5.0 (including Provisions for Contract Fluctuations)</b>	0	33,709	33,709 (S 187 /m2 CFA) (S 1144 /m2 GEA)

Cost at June 2000 Price Level	Estimated Cost		TOTAL
	Soft Landscape	Others	
<b>6.0 Cost of Other Separate Contracts (incl. Softlandscaping Work) at June 2000 Price Level</b>	1,915	1,532	3,447
<b>7.0 Development Contingency</b>	96	77	173
<b>Total Cost of Other Separate Contracts (incl. Softlandscaping Work) at June 2000 Price Level Price Level = Total of Items 6.0 to 7.0 (including Provisions for Contract Fluctuations)</b>	2,011	1,609	3,620 (S 20 /m2 CFA) (S 123 /m2 GEA)

Site Development Cost Budget No. 16 (Demolition)

Project : Redevelopment of Kwai Chung Estate Phase 3 (PHDP Code: TW20RR03)

Cost at June 2000 Price Level	Estimated Cost		TOTAL
	Demolition	Others	
1.0 <u>Estimated Cost for Demolition</u>	\$,000.00		
(a) Demolition of existing buildings (approx. 50,165 m2 CFA x cost/m2 CFA)	4,973	0	4,973
Sub-Total (A)	4,973	0	4,973
2.0 <u>Development Contingency</u>	\$,000.00		
	0	0	0
Sub-Total (B)	0	0	0
Total Cost of Demolition at June 2000 Price Level = (A) + (B) (including Provisions for Contract Fluctuations)	4,973	0	4,973

## EXTERNAL WORKS - COST ESTIMATE

### Building Contract - Contract Particulars

Contract Title	:	Redevelopment of Kwai Chung Estate Phase 3
Description of Works (No. of blocks and storeys shall be stated)	:	One no. 41 storeys New Harmony 1 Block (Option 1), two nos. 41 storeys New Harmony 1 Blocks (Option 6), one no. 36 storeys New Harmony Annex 5 Block (Option 1), one no. 4 storeys integrated comm./carpark building and associated external works
Project QS	:	WTP (Hong Kong) Ltd
Cost Information Available	:	Estimate

### Schedule of Area

(a) Gross Site Area (GSA) (Excludes any borrowed site areas which are to be handed over)	=	32,423	m2
(b) Plan Area of Peripheral Slopes	=	2,964	m2
(c) Plan Area within the boundary of Secondary & Special Schools (NOT Primary Schools)	=	0	m2
(d) Gross Estate Area (GEA) { item (a) - (b) - (c) }	=	29,459	m2
(e) Footprint of all Buildings within GEA (See Remark (1))			
(i) Integrated commercial / carpark building	m2	19,365	..... = 19,365 m2
(f) Roof Area of buildings within GEA for open landscaping			
(i) Integrated commercial / carpark building	m2	15,498	..... = 15,498 m2
(g) Landscape Area (LAA) { item (d) - (e) + (f) }	=	25,592	m2
(h) Area of Estate Roads within GEA (measured up to back of road curbs and exclude open carparking spaces on Estate Roads)	=	4,850	m2
(i) Area of Carparking spaces on Estate Roads within GEA	=	0	m2
(j) Area of Paving (include emergency access & safety surfacing) within GEA	=	17,631	m2
(k) Area of Plant Beds within GEA (PBA)	=	3,111	m2
(l) Total CFA of all buildings within GEA			
(i) Block 6, 7, 8 and 8Annex (include ancillary facilities attached to domestic blocks)		125,189	m2
(ii) Carpark		32,368	m2
(iii) Commercial Centre		17,511	m2
(iii) PTI		5,138	m2
	=	180,206	m2

### Remark

(1) Domestic blocks sits on podium of Integrated Commercial / Carpark Building.



# EXTERNAL WORKS - COST ESTIMATE

\* Elemental cost estimate at June 2000 tender prices.

\* Standard Construction Cost Yardsticks at June 2000 Price Levels are shown in brackets ( ) for comparison.

Project Title : REDEVELOPMENT OF KWAI CHUNG ESTATE PHASE 3

Project Code (PHDP) : TW20RR

Phase Code (PHDP) : 03

Gross Site Area (GSA) :	32,423 m2	Ratio GSA : GEA	= 1 : 0.91	(1:0.90)
Gross Estate Area (GEA) :	29,459 m2	Ratio GEA : LAA	= 1 : 0.87	(1:0.75)
Landscape Area (LAA) :	25,592 m2	Ratio GEA : CFA	= 1 : 6.12	(1:6.00)
Plant Bed Area (PBA) :	3,914 m2	Ratio GSA : PBA	= 1 : 0.12	(1:0.17)
CFA of All Buildings Within GEA :	180,206 m2	Ratio LAA : PBA	= 1 : 0.15	(1:0.22)

ELEMENT	Total Cost		Unit Costs/m2					
			Gross Estate Area		CFA of All Buildings		Landscape Area	
	\$,000.00		\$/m2		\$/m2		\$/m2	
<b>Hard Landscape Works</b>								
1.1 Site works (levelling/clearance)	(1,974)	500	(67)	17	(11)	3	(89)	20
1.2 Walls (screen / toe / planter)	(3,682)	7,430	(125)	252	(21)	41	(167)	289
1.3 Estate Roads	(2,003)	0	(68)	0	(11)	0	(91)	0
1.4 Open carparking spaces on estate roads	(118)	0	(4)	0	(1)	0	(5)	0
1.5 Paving (incl. emergency access & safety mat)	(9,073)	7,887	(308)	268	(51)	45	(411)	308
1.6 Pavilions / pergolas / shelters	(1,473)	3,015	(50)	102	(8)	17	(67)	118
1.7 Water feature/ pond	(177)	0	(6)	0	(1)	0	(8)	0
1.8 Covered walkways (pavings incl. in item 1.5)	(7,217)	6,100	(245)	207	(41)	34	(327)	238
1.9 Play equipment	(1,090)	1,000	(37)	34	(6)	6	(49)	39
1.10 Fencing/railing/guard house/drop gate	(1,414)	516	(48)	18	(8)	3	(64)	20
1.11 Estate amenities (ball courts, seating, etc.)	(2,386)	2,000	(81)	68	(14)	11	(108)	78
1.12 Amphitheatre / estate entertainment	(471)	0	(16)	0	(3)	0	(21)	0
1.13 Refuse collection area / junk points	(1,296)	0	(44)	0	(7)	0	(59)	0
1.14 BS installations								
(a) External lighting	(2,386)	1,500	(81)	51	(14)	8	(108)	59
(b) Water pump (for water feature/pond)	(88)	0	(3)	0	(1)	0	(4)	0
(c) Others	(236)	236	(8)	8	(1)	1	(11)	9
1.15 Sundries	(1,473)	1,473	(50)	50	(8)	8	(67)	58
<b>Sub-total</b>	(36,557)	31,657	(1,241)	1,075	(207)	177	(1,656)	1,236
<b>Soft Landscape</b>	(1,915)	1,915	(65)	65	(11)	11	(87)	75
<b>Other External Works</b>								
3.1 Mains / sub-mains etc.	(3,329)	3,329	(113)	113	(19)	18	(151)	130
3.2 Irrigation	(265)	265	(9)	9	(2)	1	(12)	10
3.3 Builder's work in connection with BS installation / services	(2,740)	2,740	(93)	93	(16)	15	(124)	107
3.4 Connection works by Government Depts/Utility Co.	(1,532)	1,532	(52)	52	(9)	9	(69)	60
<b>Sub-total</b>	(7,866)	7,866	(267)	267	(46)	44	(356)	307
<b>Total 1, 2 &amp; 3</b>	(46,338)	41,438	(1,573)	1,407	(264)	232	(2,099)	1,618

# EXTERNAL WORKS - COST ESTIMATE (CONTD)

Project Code (PHDP) : TW20RR

Phase Code (PHDP) : 03

ELEMENT	Total Cost		Unit Costs/m2					
			Gross Estate Area		CFA of All Buildings		Landscape Area	
	\$,000.00		\$/m2		\$/m2		\$/m2	
4 <b>Underground Drainage</b> (inc. all U/G soil and surface water drainage and channels and gullies)	(21,652)	21,652	(735)	735	(123)	120		846
<b>Total 1, 2, 3 &amp; 4</b>	(67,990)	63,090	(2,308)	2,142	(387)	352		2,463
5 <b>Special External Works</b>								
5.1 Footbridge and lift tower to Phase 7		5,521		187		31		216
5.2 Covered bus terminus		0		0		0		0
5.3 Staircases/ Ramps		0		0		0		0
5.4 Elevated deck		0		0		0		0
5.5 Slope stabilization		1,038		35		6		41
5.6 Retaining walls and sheet piling		23,832		809		132		931
5.7 Noise barrier		0		0		0		0
5.8 Works outside site boundary		0		0		0		0
5.9 BS-Escalators and lifts		6,100		207		34		238
5.10 Construction of new Sheung Kok Street abutting Phase 3 & 4, road improvement works, underground utilities diversion and etc.		15,681		532		87		613
5.11 Spiral ramp at Carpark to Podium EVA		10,265		348		57		401
5.12 Sky-Lit Entrance Lobby Canopy		6,259		212		35		245
5.13 Modification to road laid between Phase 3 & 7		1,000		34		6		39
5.14 Automated refuse collection system		32,104		1,090		178		1254
<b>Sub-total</b>		101,800		3,456		565		3,978
<b>TOTAL 1,2,3,4 &amp; 5</b>	(67,990)	164,890	(2,308)	5,598	(387)	917		6,441

- Inclusions**
- (a) All elemental costs are inclusive of contingencies (For Cost Estimate - 5%) and preliminaries (For Cost Estimate - 15%).
  - (b) Roof landscape areas and costs.

- Exclusions**
- (a) Demolition / site formation not in building contract
  - (b) Fluctuations in labour and materials.
  - (c) Fees & on costs.

Prepared by : WTP (HK) LTD. Date : October 2000

for PDRC Meeting (October 2000)

PROJECT : Redevelopment of Kwai Chung Estate PHASE : 4 PHDP Code : \_\_\_\_\_

	COST HEADS	WORK ELEMENTS	BUDGET COST (\$M)
(a)	Site Development Cost	Site Formation Demolition Sub-total :	- 5.58 5.58
(b)	Construction Cost	Foundation Building Other separate contract Sub-total :	66.66 626.14 1.54 694.34
(c)	Other Project Costs (2% on (a) & (b))	Civil engineering and geotechnical studies, site investigation, material testing and the like	14.00
(d)	Total Site Development and Construction Costs (a)+(b)+(c) :		713.92

Notes :

- (1) All prices are at June 2000 price level and adjusted for tender price inflation to tender in dates of contracts based on 6.0 % per annum.
- (2) Apportionment of the Construction Costs are in accordance with the existing cost apportionment guidelines set out in relevant DCMBL.
- (3) Reasons for Cost Difference from Standard Cost Yardsticks have been highlighted.
- (4) The costs for softlandscaping works, utilities connections, diversion works by Government Departments or Utility Companies, and minor works carried out specifically for the project, eg. roadworks or slopeworks outside site boundaries under separate contracts but charged to the project shall be grouped under Other Separate Contracts.
- (5) The fluctuation provisions shall be worked out based on the formula as shown on the Guidance Notes for Standard Cost Yardsticks.
- (6) Development contingencies of \$8.705 M for the standard block superstructure and \$8.750 M for non-standard blocks/buildings and elements are included in the Site Development and Construction Costs.
- (7) As informed by APM/A88 on 16.9.2000 that the costs for RCHE are to be wholly charged to Lotteries Fund.

Exclusions :

- (1) Project Management Costs, e.g. professional services & overheads, consultant fees and Consultant Site Staff.
- (2) Costs of RCHE which are funded by Lotteries Fund.

Assumptions :

- (1) Nil.

Basis of the Budget :

- (1) Transmittal from Ma Leung to APM/A88 ref. 9821/HKHA.368 dated 11 July 2000.
- (2) Transmittal from Ma Leung to APM/A88 ref. 9821/HKHA.372 dated 14 July 2000.
- (3) Transmittal from Ma Leung to APM/A88 ref. 9821/HKHA.379 dated 20 July 2000.
- (4) Transmittal from Ma Leung to APM/A88 ref. 9821/HKHA.394 dated 1 August 2000.
- (5) Fax from Lu & Associates to Ma Leung ref. ML/KCE4/98.12(F98) dated 26 September 2000.
- (6) Transmittal from Ma Leung to APM/A88 ref. 9821/HKHA.406 dated 14 August 2000.
- (7) Fax from Siu Yin Wai to Ma Leung ref. J349CLT00-055/YWS/b/vk/pw dated 14 August 2000.
- (8) Fax from Lu & Associates to Ma Leung ref. ML/KCE4/98.12(F112) dated 2 November 2000.

Prepared by : Dido W.Y. Kong (QS/C3)Date : 3 November 2000

PROJECT: Redevelopment of Kwai Chung Estate PHASE: 4 PHDP Code: \_\_\_\_\_

	COST PORTIONS						Common Items		Total (incl. Fluctuation)
	PRH	HOS	CC	CP(PC)	WEL	Wel & Com.	TS	EW	
CFA of Cost Portions (m2)	87,439	-	-	9,657	2,632	60	-	-	99,788
COST ITEMS									
Estimated Cost in \$,000									
<b>A. Site Development &amp; Construction Cost Budget At June 2000 (Excluding Tender Price Inflation)</b>									
<b>1.0 Site Development Costs</b>									
1.1 Demolition Contract (Based on tender return on Jan 1999.)	-	-	-	-	-	-	-	-	5,584
1.2 Site Formation Contract	-	-	-	-	-	-	-	-	-
<b>2.0 Construction Costs</b>									
2.1 Foundation Contract (Based on tender return on June 2000.)	58,415	-	-	6,451	1,758	40	-	-	66,664
2.2 Building Contract	-	-	-	-	-	-	-	-	-
2.21 Building (excl. building services)	381,873	-	-	43,458	14,182	336	-	-	439,849
2.22 Building Services	68,670	-	-	10,704	6,363	22	-	-	85,759
2.23 Transfer Structures	-	-	-	-	-	-	28,202	-	28,202
2.24 Public Transport Interchange	-	-	-	-	-	-	-	-	-
2.25 External Works for commonly shared elements	-	-	-	-	-	-	-	58,545	58,545
2.26 External Works for Specific Businesses	-	-	-	-	-	-	-	-	-
2.27 Automated Refuse Collection System	-	-	-	-	-	-	-	4,529	4,529
2.3 Other Separate Contracts (incl. Softlandscape)	-	-	-	-	-	-	-	1,519	1,519
Cost Budget At June 2000 Price Level (A)	508,958	-	-	60,613	22,303	398	28,202	64,593	690,651
<b>B. Site Development &amp; Construction Cost Budget At June 2000 (Incl. Tender Price Inflation) (Cost in Item (A) plus Cost x (v), (w), (y) or (z))</b>									
<b>1.0 Site Development Costs</b>									
1.1 Demolition Contract	\$ 5.58	-	-	-	-	-	-	-	5,584
1.2 Site Formation Contract	-	-	-	-	-	-	-	-	-
<b>2.0 Construction Costs</b>									
2.1 Foundation Contract	\$ 66.66	58,415	-	6,451	1,758	40	-	-	66,664
2.2 Building Contract	\$ 626.14	-	-	-	-	-	-	-	-
2.21 Building (excl. building services)	-	387,601	-	44,110	14,395	341	-	-	446,447
2.22 Building Services	-	69,700	-	10,865	6,458	22	-	-	87,045
2.23 Transfer Structures	-	-	-	-	-	-	28,625	-	28,625
2.24 Public Transport Interchange	-	-	-	-	-	-	-	-	-
2.25 External Works for commonly shared elements	-	-	-	-	-	-	-	59,423	59,423
2.26 External Works for Specific Businesses	-	-	-	-	-	-	-	-	-
2.27 Automated Refuse Collection System	-	-	-	-	-	-	-	4,597	4,597
2.3 Other Separate Contracts (incl. Softlandscape)	\$ 1.54	-	-	-	-	-	-	1,542	1,542
Cost Budget To Proposed Dates Of Tenders	\$ 699.92 (B)	515,716	-	61,426	22,611	403	28,625	65,562	699,927

**Types of Contract**

Demolition

Site Formation

Foundation

Building (for inflation adjustment, "External Works", "Others", etc.,

Tender-In Dates to be taken the same as "Building")

**Tender In Dates**

01/99

06/00

03/01

**Adjustment for months after June 2000**

Months x # % / 12 =

Months x # % / 12 =

Months x # % / 12 =

3 Months x 6 % / 12 =

-

-

-

1.50%

(v)

(w)

(y)

(z)

**Legend for Cost Portions:**

PRH - Public Rental Housing

HOS - Home Ownership Scheme

CC - Commercial (Shopping) Centre

CP

Wel &amp; Com

WEL

Private Car Carpark

Welfare &amp; Community Facilities

Welfare Facilities

TS

Transfer Structure

EW

External Works

PROJECT : Redevelopment of Kwai Chung Estate PHASE : 4 PHDP Code : \_\_\_\_\_Notes :

- (1) All prices are at June 2000 price level and adjusted for tender price inflation to tender in dates of contracts based on 6.0 % per annum.
- (2) Apportionment of the Construction Costs are in accordance with the existing cost apportionment guidelines set out in relevant DCMBI.
- (3) Reasons for Cost Difference from Standard Cost Yardsticks have been highlighted.
- (4) The costs for softlandscaping works, utilities connections, diversion works by Government Departments or Utility Companies, and minor works carried out specifically for the project, eg. roadworks or slopeworks outside site boundaries under separate contracts but charged to the project shall be grouped under Other Separate Contracts.
- (5) The fluctuation provisions shall be worked out based on the formula as shown on the Guidance Notes for Standard Cost Yardsticks.
- (6) Development contingencies of \$8.705 M for the standard block superstructure and \$8.750 M for non-standard blocks/buildings and elements are included in the Site Development and Construction Costs.
- (7) As informed by APM/A88 on 16.9.2000 that the costs for RCHE are to be wholly charged to Lotteries Fund.

Exclusions :

- (1) Project Management Costs, e.g. professional services & overheads, consultant fees and Consultant Site Staff.
- (2) Costs of RCHE which are funded by Lotteries Fund.

Assumptions :

- (1) Nil.

Basis of the Budget :

- (1) Transmittal from Ma Leung to APM/A88 ref. 9821/HKHA.368 dated 11 July 2000.
- (2) Transmittal from Ma Leung to APM/A88 ref. 9821/HKHA.372 dated 14 July 2000.
- (3) Transmittal from Ma Leung to APM/A88 ref. 9821/HKHA.379 dated 20 July 2000.
- (4) Transmittal from Ma Leung to APM/A88 ref. 9821/HKHA.394 dated 1 August 2000.
- (5) Fax from Lu & Associates to Ma Leung ref. ML/KCE4/98.12(F98) dated 26 September 2000.
- (6) Transmittal from Ma Leung to APM/A88 ref. 9821/HKHA.406 dated 14 August 2000.
- (7) Fax from Siu Yin Wai to Ma Leung ref. J349CLT00-055/YWS/bl/kk/pw dated 14 August 2000.
- (8) Fax from Lu & Associates to Ma Leung ref. ML/KCE4/98.12(F112) dated 2 November 2000.

Prepared by :

Didjo W.Y. KongQS/C3

Date :

3 November 2000

# Construction Cost Budget No. 15 ( Domestic Blocks: Public Rental Housing Portion)

Project : Redevelopment of Kwai Chung Estate Phase 4 (PHDP Code:       )

Cost at June 2000 Price Level	No. of Flats	Cost per Flat		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 Standard Blocks</b>				
(a) New Harmony Block (Type <u>1</u> Option <u>6</u> , Block No. <u>10</u> & <u>11</u> , <u>41</u> Storeys)				
- 1 B Flat	320	23,850	243,865	267,715
- 2 B Flat	320	31,810	325,380	357,190
- 1 P/2 P Flat	318	14,850	151,878	166,728
- 2 P/3P Flat	640	18,140	185,509	203,649
	1,598			
Cost per Flat x Flat No. = Sub-Total (A) (Total CFA = <u>73,280</u> m2)		34,143	349,181	383,324 (\$5,231/m2 CFA) (\$239,877per flat)
<b>2.0 Adjustments to Item 1.0 Above</b>				
(a) Adjust for foundation to Blks No. 10 & 11 based on apportioned piling contract sum		14,812	-	14,812
(b) Ddt. basic carcass of ancillary/welfare facilities in domestic block = <u>60</u> m2		(40)	(170)	(210)
(c) Add for domestic portion in carpark podium (797 m2)		533	4,036	4,569
(d) Add for DCMBI No. P14/00 & D20/00		-	762	762
(e) Add for DCMBI No. P01/00		-	4,399	4,399
Sub-Total (B) (Total CFA = <u>74,017</u> m2)		15,305	9,027	24,332 (\$329/m2 CFA) (\$15,227per flat) 6.35 % over that calculated based on Standard Yardsticks
<b>3.0 Non-standard Blocks</b>				
(a) _____ Block (Type _____, Block No. _____, _____ Storeys)		-	-	-
Cost per Flat x Flat No. = Sub-Total (C) (Total CFA = _____ m2)		-	-	-\$ _____/m2 CFA) (\$ _____per flat)
<b>4.0 Development Contingency</b>				
(a) All standard blocks superstructure only		-	6,984	6,984
(b) All non-standard blocks and all standard block elements other than superstructure		-	451	451
Sub-Total (D)		-	7,435	7,435 (\$100/m2 CFA) (\$4,653per flat)
Total Cost of Domestic Block - Public Rental Housing Portion at June 2000 Price Level = (A) + (B) + (C) + (D) (including Provisions for Contract Fluctuations)		49,448	365,643	415,091 (\$5,608/m2 CFA) (\$259,757per flat)

## Note

- The CFA for New Harmony 1 Option 6 in this budget is derived from the CFA per unit type stated in June 2000 Yardsticks times the no. of flats per unit type.

Construction Cost Budget No. 15 ( Domestic Blocks: Public Rental Housing Portion)

Project : Redevelopment of Kwai Chung Estate Phase 4 (PHDP Code:       )

Cost at June <u>2000</u> Price Level	No. of Flats	Cost per Flat		TOTAL
		Foundation (Incl Caps)	Building ( Excl Caps)	
<b>Standard Blocks</b>				
New Harmony Annex Block (Type <u>5</u> , Option <u>1</u> , Block No. <u>12</u> , <u>36</u> Storeys)				
1P/2P Flat	385	17,430	206,710	224,140
Cost per Flat x Flat No. = Sub-Total (A) (Total CFA = <u>13,013</u> m2)		6,711	79,583	86,294  ((\$6,631/m2 CFA) (\$224,140per flat)
<b>Adjustments to Item 1.0 Above</b> Adjust for foundation to Blks No. 12 based on apportioned piling contract sum Add for domestic portion in carpark podium (409 m2) Add for DCMBI No. P14/00, D18/00 & D20/00 Add for DCMBI No. P01/00		1,983 273 - -	- 2,071 461 1,016	1,983 2,344 461 1,016
Sub-Total (B)  (Total CFA = <u>13,422</u> m2)		2,256	3,548	5,804 ((\$432/m2 CFA) (\$15,075per flat) 6.73 % over that calculated based on Standard Yardsticks
<b>Non-standard Blocks</b>  Block (Type , Block No. Storeys)		-	-	-
Cost per Flat x Flat No. = Sub-Total (C) (Total CFA = _____ m2)		-	-	- ( \$ _____/m2 CFA) ( \$ _____ per flat)
<b>Development Contingency</b> All standard blocks superstructure only All non-standard blocks and all standard block elements other than superstructure		- -	1,592 177	1,592 177
Sub-Total (D)		-	1,769	1,769 ((\$132/m2 CFA) (\$4,595per flat)
Total Cost of Domestic Block - Public Rental Housing Portion at June 2000 Price Level = (A) + (B) + (C) + (D) (including Provisions for Contract Fluctuations)		8,967	84,900	93,867 ((\$6,994/m2 CFA) (\$243,810per flat)

ie

The CFA for New Harmony Annex 5 Option 1 in this budget is derived from the CFA per unit type stated in June 2000 Yardsticks times the no. of flats per unit type.

# Construction Cost Budget No. 15 (Carpark Portion)

Project : Redevelopment of Kwai Chung Estate Phase 4 (PHDP Code:       )

Cost at June 2000 Price Level	Space (No.)	Estimated Cost		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 Carpark (Integrated Comm./Carpark) based on Actual Design</b>		← \$'000 →		
(a) Carpark Portion				
Private (37 m2 CFA per space)	256			
Motor Cycle (7 m2 CFA per space)	26			
	282	6,451	40,803	47,254
(b) Building Services		-	10,194	10,194
(c) Add for DCMBI No. P01/00		-	586	586
<b>Sub-total (A) :-</b>		6,451	51,583	58,034
(Total CFA based on Actual Design = 9,657 m2 & Average CFA per carparking space = <u>34.24</u> m2)				(\$6,010/m2 CFA) (\$205,794/ space) 5.73 % over that calculated based on Standard Yardsticks
<b>2.0 Development Contingency</b>		← \$'000 →		
		-	2,579	2,579
<b>Total Cost of Carpark Portion at June 2000 Price Level = (A) + Item 2.0 (including Provisions for Contract Fluctuations)</b>		6,451	54,162	60,613 (\$6,277/m2 CFA) (\$214,940/ space)

<b>3.0 Difference between Actual Design (Item 1.0 above) and Cost Yardsticks/Cost Ceiling/Budget due to the following :-</b> (The price levels of item 1.0 and the June Cost Yardstick should be the same)	Foundation (Incl Caps)	Building (Excl Caps)	TOTAL
	← \$'000 →		
(a) Add for adjustment on Cost of foundation based on apportioned piling contract sum	1,719	-	1,719
(b) Add for adjustment based on actual design	-	8,360	8,360
(c) Ddt. for adjustment to efficiency ratio of carparking space	(751)	(6,769)	(7,520)
(d) Add for DCMBI No. P01/00		586	586



# Construction Cost Budget No. 15 ( Social Welfare Portion - RCHE )

Project : Redevelopment of Kwai Chung Estate Phase 4 (PHDP Code:       )

Cost at June <u>2000</u> Price Level	CFA (m2)	Estimated Cost		TOTAL
		Foundation (Incl Caps)	Building ( Excl Caps)	
<div>←-----S'000-----&gt;</div>				
<b>0 <u>Residential Care Home for Elderly (RCHE)</u></b>				
) Ancillary/Welfare facilities (no fitting out included)	3,155	2,108	9,794	11,902
) Basic fitting Out for RCHE (Total area to be fitted out = <u>3,155</u> m2 CFA)	3,155	-	4,135	4,135
) Building services for RCHE	3,155	-	4,465	4,465
<b>0 <u>Other Adjustments for Item 1.0 Above</u></b>				
) Add for DCMBI No. P01/00		-	504	504
<b>0 <u>Development Contingency</u></b>		-	945	945
<b>Total Cost of Welfare Portion at June 2000 Price Level = Total of Items in 1.0 to 3.0 (including Provisions for Contract Fluctuations)</b>		2,108	19,843	21,951 (\$6,958/m2 CFA)

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As advised by APM/A88 on 16.9.2000 that the costs for RCHE are to be wholly charged to Lotteries Fund.

## marks

Welfare Portion includes the following :

RCHE 3,155 m2 CFA

# Construction Cost Budget No.15 ( Welfare Portion - Kindergarten & Nursery )

Project : Redevelopment of Kwai Chung Estate Phase 4 (PHDP Code:       )

Cost at June <u>2000</u> Price Level	CFA (m2)	Estimated Cost		TOTAL
		Foundation (Incl Caps)	Building ( Excl Caps)	
<b>1.0 Ancillary/Welfare Facilities in Integrated Domestic / Carpark Building</b>		←————— S'000 —————→		
(a) Ancillary/Welfare facilities (no fitting out included)	2,632	1,758	8,171	9,929
(b) Fitting Out for Kindergarten (Total area to be fitted out = <u>1,946</u> m2 CFA)	1,946	-	3,617	3,617
(c) Building services for Kindergarten	1,946	-	3,972	3,972
(d) Fitting Out for Nursery (Total area to be fitted out = <u>686</u> m2 CFA)	686	-	1,368	1,368
(e) Building services for Nursery	686	-	2,088	2,088
<b>2.0 Other Adjustments for Item 1.0 Above</b>				
(a) Add for DCMBI No. P01/00		-	351	351
<b>3.0 Development Contingency</b>		-	978	978
<b>Total Cost of Welfare Portion at June 2000 Price Level = Total of Items in 1.0 to 3.0 (including Provisions for Contract Fluctuations)</b>		1,758	20,545	22,303  (\$8,474/m2 CFA)

## Note

- As advised by APM/A88 on 16.9.2000 that the costs for Kindergarten and the Nursery are to be wholly funded by HA .

## Remarks

- Welfare Portion includes the following :
 

Kindergarten	1,946	m2 CFA
Nursery	686	m2 CFA
Others	-	m2 CFA
Total	2,632	m2 CFA

Instruction Cost Budget No. 15 (Welfare & Community - Mutual Aids Community)

Project: Redevelopment of Kwai Chung Estate Phase 4 (PHDP Code:       )

Cost at June <u>2000</u> Price Level	CFA (m2)	Estimated Cost		TOTAL
		Foundation (Incl Caps)	Building (Excl Caps)	
<b><u>Mutual Aids Community (MAC)</u></b>		← \$,000.00 →		
Ancillary/Welfare facilities (no fitting out included)	60	40	170	210
Fitting Out for Ancillary/Welfare Facilities (Total area to be fitted out = <u>60</u> m2 CFA)	60	-	167	167
<b><u>Other Adjustments for Item 1.0 Above</u></b>				
Add for DCMBI No. P01/00			4	4
<b><u>Development Contingency</u></b>		-	17	17
<b>Total Cost of Mutual Aids Community at June 2000 Price Level = Total of Items in 1.0 to 3.0 (including Provisions for Contract Fluctuations)</b>		40	358	398  (\$6,633/m2 CFA)

Project : Redevelopment of Kwai Chung Estate Phase 4 (PHDP Code:       )

Cost at June <u>2000</u> Price Level	Estimated Cost		TOTAL
	Building	Others	
<b>1.0 <u>Transfer Plate based on Actual Design</u></b>	\$ ,000.00		
(a) Transfer structure below Domestic Blocks (As per the detail design for last DDRP submission)	26,859	-	26,859
Sub-total (A)	26,859	-	26,859
<b>2.0 <u>Development Contingency</u></b>	1,343	-	1,343
Sub-total (B)	1,343	-	1,343
<b>Total Cost of Commonly Shared Transfer Structures at June <u>2000</u> Price Level = (A) + (B) (including Provisions for Contract Fluctuations)</b>	28,202	-	28,202

Notes

te Development Cost Budget No. 15

( Demolition Works)

oject : Redevelopment of Kwai Chung Estate Phase 4 (PHDP Code:     )

Cost at June <u>2000</u> Price Level	Estimated Cost		TOTAL
	Demolition	Others	
<u>Estimated Cost for Demolition</u>	\$,000.00		
Demolition of existing buildings ( approx. <u>34,624</u> m2 CFA x cost/m2 CFA )	5,584		5,584
<b>Sub-total (A)</b>	5,584		5,584
<u>Development Contingency</u>	\$,000.00		
	-	-	-
<b>Sub-total (B)</b>	-	-	-
<b>Total Cost of Demolition at June <u>2000</u> Price Level = (A) + (B) (including Provisions for Contract Fluctuaions)</b>	5,584	-	5,584

marks :

The Demolition works is under a separate contract and the cost is to be apportioned between Phases 3, 4 and 6 respectively.

The demolition cost of \$5,584,000 is based on the actual Contract Sum for Demolition of Kwai Chung Estate Phases 4 & 8 with the tender return date at Jan 99.

**Construction Cost Budget No. 15 ( External Works - Commonly Shared Across Phases of the Development and Amongst Various HA Businesses)**

Project : Redevelopment of Kwai Chung Estate Phase 4 (PHDP Code:       )

Total GEA = 12,368 m<sup>2</sup>; Total CFA = 102,943 m<sup>2</sup>; Total LAA = 12,197 m<sup>2</sup>

Cost at June 2000 Price Level	Estimated Cost		TOTAL
	Foundation (Incl Caps)	Building (Excl Caps)	
<b>1.0 External Works based on Actual Design (Incl. Contract Price Fluctuation)</b>	\$,000.00		
(a) Hard Landscape Works (Amenities)	-	23,391	23,391
(b) Underground Drainage	-	9,147	9,147
(c) Others (excluding utility connection)	-	2,917	2,917
<b>Sub-total (A)</b>	-	35,455	35,455 (S344/m <sup>2</sup> CFA) (S2,867/m <sup>2</sup> GEA)
<b>2.0 Special External Works based on Actual Design (Incl. Contract Price Fluctuation)</b>	\$,000.00		
(a) EVA at carpark podium	-	10,748	10,748
(b) Lift Tower	-	8,121	8,121
(c) Footbridges/staircases	-	366	366
(d) Noise barrier	-	1,067	1,067
<b>Sub-total (B)</b>	0	20,302	20,302 (S197/m <sup>2</sup> CFA) (S1,642/m <sup>2</sup> GEA)
<b>3.0 Development Contingency</b>	-	2,788	2,788
<b>Sub-total (C)</b>	-	2,788	2,788 (S27/m <sup>2</sup> CFA) (S225/m <sup>2</sup> GEA)
<b>Total Cost of Commonly Shared External Works at June 2000 Price Level = (A) + (B) + (C) (including Provisions for Contract Fluctuations)</b>	0	58,545	58,545 (S569/m <sup>2</sup> CFA) (S4,735/m <sup>2</sup> GEA)
<b>4.0 Cost of Automated Refuse Collection System at June 2000 Price Level</b>	-	4,313	4,313
<b>5.0 Development Contingency</b>	-	216	216
<b>Total Cost of Automated Refuse Collection System at June 2000 Price Level = Total of Items 4.0 to 5.0 (including Provisions for Contract Fluctuations)</b>	-	4,529	4,529 (S44/m <sup>2</sup> CFA) (S366/m <sup>2</sup> GEA)
Cost at June 2000 Price Level	Estimated Cost		TOTAL
	Soft Landscape	Fees & Others	
<b>6.0 Cost of Other Separate Contracts (Incl. Softlandscaping Work) at June 2000 Price Level</b>	804	643	1,447
<b>7.0 Development Contingency</b>	40	32	72
<b>Total Cost of Other Separate Contracts (Incl. Softlandscaping Work) at June 2000 Price Level Price Level = Total of Items 6.0 to 7.0 (including Provisions for Contracts Fluctuations)</b>	844	675	1,519 (S15/m <sup>2</sup> CFA) (S123/m <sup>2</sup> GEA)

**Remarks**

- The cost for earthworks and the relevant temporary works are as per Ma Leung's advice.
- The cost for ARCS related ductwork and chutes are as per Ma Leung's advice.

**Site Development & Construction Cost Budget No. 15 (For PDRC(2) Submission)**  
**Redevelopment of Kwai Chung Estate Phase 4**

**Estimated Annual Expenditure**

-	Estimate	99/00	00/01	01/02	02/03	03/04	Remainder	Total
	← (\$,000) →							
<b>Demolition</b>	5,584	5,584						5,584
<b>Piling</b>	66,664		19,999	44,665	2,000			66,664
<b>Building</b>	626,137			62,614	244,193	212,887	106,443	626,137
<b>Other Separate Contracts ( Incl. Soft Landscape)</b>	1,542					1,542		1,542
<b>Total</b>	699,927	5,584	19,999	107,279	246,193	214,429	106,443	699,927