Increase Storey Height

Example 4: The cot plan for completion of conceptual design for phase 2

Table 1.6 Example 4: The cost plan for completion of conceptual design for Phase 2 (storey height of G/F change from 3m to 5m)

(a) The C.F.A. Calculation for 1 House

Level	Area (CFA)
G/F	52 m2
1/F	52 m2
R/F	6 m2
Total	110 m2

Note:
Example 4 - Changing Storey height of G/F from 3m (phase 1) to 5m (phase 2) (where conceptual design is developed)

It is estimated by using phase 1 cost plan of conceptual design information with adjustment for change of the storey height combined with

(a) *HK$/m2 (buildup rate by elemental unit rate in Example 2 with adjustment where necessary) x C.F.A*
(b) *adjust elemental total by percentage of the height change*

(b) Elemental Cost Plan

Summary of Estimate (Preliminary Estimate)

Total Site Area: 3,620 m2
Total Gross Floor Area (GFA): 483 m2 (5,195 sq.ft.)
Total Construction Floor Area (CFA): 550 m2 =110 m2 CFA × 5 houses
CFA/GFA ratio: 1.14

	Phase 1				*Phase 2*		
	CFA	*Construction Cost*	*Unit Cost*		*Construction Cost*	*Unit Cost*	
	(m2)	*(HK$)*	*(HK$/m2 CFA)*	*(HK$/sq.ft, GFA)*	*(HK$)*	*(HK$/m2 CFA)*	*(HK$/sq.ft. GFA)*
1. Site Investigation		**600,000 ***	**1,091**	**115**	**600,000 ***	**1,091**	**115**
2. Hoarding		**2,000,000**	**3,636**	**385**	**2,000,000**	**3,636**	**385**
3. Site Formation Works		**2,200,000**	**4,000**	**423**	**3,300,000**	**6,000**	**635**
4. Foundation and Substructure (pending engineer's input, assumed raft foundation for houses)		**1,080,000**	**1,964**	**208**	**1,600,000**	**2,909**	**308**
5. Superstructure	**550**	**13,280,000**	**24,145**	**2,556**	**14,530,000**	**26,418**	**2,797**
5.1 House A – 5 nos.	550	13,280,000	24,145	2,556	14,530,000	26,418	2,797

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

(b) Elemental cost plan

Summary of Estimate (Preliminary Estimate)

Total Site Area:	3,620 m2	
Total Gross Floor Area (GFA):	483 m2	(5,195 sq.ft)
Total Construction Floor Area (CFA):	550 m2	=110 m2 CFA × 5 houses
CFA/GFA ratio:	1.14	

		Phase 1			*Phase 2*		
	CFA	*Construction Cost*	*Unit Cost*		*Construction Cost*	*Unit Cost*	
	(m2)	*(HK$)*	*(HK$/m2 CFA)*	*(HK$/sq.ft. GFA)*	*(HK$)*	*(HK$/m2 CFA)*	*(HK$/sq.ft. GFA)*
6. External Works and Landscaping		**23,550,000**	**42,818**	**4,533**	**23,550,000**	**42,818**	**4,533**
6.1 External landscaping, paving and EVA		15,820,000	28,764	3,045	15,820,000	28,764	3,045
6.2 Paving/pedestrian walkway outside site boundary		1,100,000 *	2,000	212	1,100,000 *	2,000	212
6.3 Utilities within the site		5,700,000 *	10,364	1,097	5,700,000 *	10,364	1,097
6.4 Underground drainage		600,000 *	1,091	115	600,000 *	1,091	115
6.5 Utilities connections		330,000 *	600	64	330,000 *	600	64
Sub-total	550	**42,710,000**	**77,655**	**8,221**	**45,580,000**	**82,873**	**8,774**
7. Preliminaries (15% of Item 1–6)		**6,500,000**	**11,818**	**1,251**	**6,900,000**	**12,545**	**1,328**
8. Contingencies (10% of Item 1–7)		**5,000,000**	**9,091**	**962**	**5,300,000**	**9,636**	**1,020**
9. Fluctuation		**1,455,000**	**2,645**	**280**	**1,519,000**	**2,762**	**292**
TOTAL CONSTRUCTION COST (at January 2020 Price Level)		**55,665,000**	**101,209**	**10,715**	**59,299,000**	**107,816**	**11,415**

Remark:

* The costs are allowed figures for use in the presentation of the estimating exercise only and no further breakdown should be included.

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Back-up Calculations

Descriptions	*Quantity*	*Unit*	*Rate*	*Estimated Cost*	*Remarks*
2. Hoarding			HK$	HK$	
a. Hoarding	265	m	7,500	1,987,500	
			Total	1,987,500	remain unchanged
3. Site Formation Works			Say	2,000,000	
a. Excavation; assumed 1.5m depth	5,430	m3	250	1,357,500	larger excavation volume due to thicker depth of raft footing
b. Cart away	5,430	m3	340	1,846,200	
			Total	3,203,700	
4. Foundation and Substructure			Say	3,300,000	
Total building footprint:	260 m2				
Total building footprint with raft foundation:	260 m2				
a. Raft foundation footing; assumed 1.5m thick	260	m2	6,000	1,560,000	As loading of super-structure increased, thicker raft footing is required
b. Blinding layer	260	m2	130	33,800	therefore rate $/m2 is increased
			Total	1,593,800	
5. Superstructure			Say	1,600,000	
Back-up calculations refer to next pages					
6.1 External works and landscaping					
Site Area:	3,620 m2				
Less: G/F CFA of Houses:	260 m2				
External landscaping, paving and EVA:	3,360 m2				
a. External landscaping, paving and EVA including drainage, lighting, etc.	3,360	m2	4,000	13,440,000	
b. 2.5m high fence wall along site boundary; painted finish, design to budget	260	m	8,000	2,080,000	
c. Main entrance gate					
d. Signage		sum		100,000	remain unchanged
e. Guard house	1	sum		100,000	
		No.	100,000	100,000	
			Total	15,820,000	
			Say	15,820,000	

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Elemental Breakdown for 5. Superstructure

Total Construction Floor Area (CFA): 550 m2 = 110 m2 × CFA × 5houses

Elements	*Phase 1*		*Phase 2*		
	Elemental Total	*Elemental Unit Cost*	*Cost for changing G/F height from 3m to 5m (Height of building changed from 8.425m to 10.425m high)*		
			Elemental Total	*Elemental Unit Cost*	*Remarks*
			(HK$)	(HK$/m2)	Referring to Back-up Calculation of Superstructure
1. Carcase					
1.1 Frame and slab	2,770,000	5,036	3,230,000	* 5,873	* Refer to Note 1 in back-up calculations Cost of horizontal elements: 30% Cost of vertical elements: 70%
1.2 Internal walls	610,000	1,109	700,000	* 1,273	* Refer to Note 2 in back-up calculations
1.3 Doors and shutters	450,000	818	450,000	818	
Sub-total for Item 1	**3,830,000**	**6,964**	**4,380,000**	**7,964**	
2. Facade					* Refer to Note 3 in back-up calculations
2.1 External walls	1,230,000	2,236	1,510,000	* 2,745	
2.2 External wall finishes	520,000	945	640,000	* 1,164	* Refer to Note 4 in back-up calculations
2.3 Windows	690,000	1,255	690,000	1,255	
Sub-total for Item 2	**2,440,000**	**4,436**	**2,840,000**	**5,164**	
3. Finishings					
3.1 Roof finishes	70,000	127	70,000	127	
3.2 Floor finishes	810,000	1,473	810,000	1,473	
3.3 Internal wall finishes	590,000	1,073	730,000	* 1,327	* Refer to Note 5 in back-up calculations
3.4 Ceiling finishes	270,000	491	270,000	491	
3.5 Decor, graphics and signage	730,000	1,327	730,000	1,327	
Sub-total for Item 3	**2,470,000**	**4,491**	**2,610,000**	**4,745**	
4. Furniture and Fittings					
4.1 Built-in furniture	1,060,000	1,927	1,060,000	1,927	
4.2 Metal works and sundries	60,000	109	60,000	109	
4.3 Artwork	500,000	909	500,000	909	
4.4 Equipment	450,000	818	450,000	818	
4.5 Special light fittings	10,000	18	10,000	18	
Sub-total for Item 4	**2,080,000**	**3,782**	**2,080,000**	**3,782**	

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Elemental Breakdown for 5. Superstructure

Total Construction Floor Area (CFA): 550 m2 = 110 m2 × CFA × 5houses

Elements	*Phase 1*		*Phase 2*		
	Elemental Total	*Elemental Unit Cost*	*Cost for changing G/F height from 3m to 5m (Height of building changed from 8.425m to 10.425m high)*		
			Elemental Total	*Elemental Unit Cost*	*Remarks*
			(HK$)	(HK$/m2)	Referring to Back-up Calculation of Superstructure
5. Building Services					
5.1 Sanitary fittings	200,000	364	200,000	364	
5.2 Plumbing and drainage	550,000	1,000	590,000*	1,073	
5.3 Electrical	830,000	1,509	880,000*	1,600	* Refer to Note 6 in back-up calculations
5.4 Fire services	280,000	509	300,000*	545	* Cost of vertical elements: ~ 28%
5.5 Mechanical ventilation and air conditioning	370,000	673	400,000*	727	
5.6 Gas	110,000	200	120,000*	218	
5.7 Builders work, profit and attendance (5%) of Item 5 Building Services	120,000	218	130,000	236	Adjusted accordingly
Sub-total for Item 5	**2,460,000**	**4,473**	**2,620,000**	**4,764**	
Total for Superstructure (Phase 2)	**13,280,000**	**24,145**	**14,530,000**	**26,418**	

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Back-up Calculations for 5. Superstructure

Total Construction Floor Area (CFA): 550 m2 = 110 m2 × CFA × 5houses

Descriptions	*Quantity*	*Unit*	*Rate*	*Phase 1* *Estimated Cost*	*Phase 2* *Cost for changing G/F height from 3m to 5m (Height of building changed from 8.425m to 10.425m high)* *Estimated Cost*	*Remarks*
			(HK$)	(HK$)	(HK$)	
1.1 Frame and slabs						
Horizontal elements						
a. Reinforced concrete, grade 45D; to slab and beam	133	m3	1,300.00	172,900		
b. Rebar to slab and beam (230kg/m3)	30,590	kg	12.00	367,080		
c. Formwork to slab and beam	665	m2	350.00	232,750		use amount for %
d. Allow 5% for miscellaneous				40,000		Note 1
			Total for Horizontal Elements:	812,730		Calculated cost of:-
Vertical elements						1. horizontal elements:
a. Reinforced concrete, grade 45D; to structural wall	227	m3	1,300.00	295,100		812,946 / 2,770,000 = ~30%
b. Rebar to structural wall (280kg/m3)	63,560	kg	12.00	762,720		2. vertical elements:
c. Formwork to structural wall	2,268	m2	350.00	793,800		1,951,056 / 2,770,000 = ~70%
d. Allow 5% for miscellaneous				100,000		
			Total for Vertical Elements:	1,951,620		Adjusted percentage:
						30% + 70% / 8.425 x 10.425 = 117%
			Total	2,764,350	3,234,290 *	Adjusted amount:
			say	**2,770,000**	**3,230,000**	2,764,350 x 117%

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Back-up Calculations for 5. Superstructure

Total Construction Floor Area (CFA): 550 m2 = 110 m2 × CFA × 5houses

Descriptions	*Quantity*	*Unit*	*Rate*	*Phase 1* *Estimated Cost*	*Phase 2* *Cost for changing G/F height from 3m to 5m (Height of building changed from 8.425m to 10.425m high)* *Estimated Cost*	*Remarks*
			(HK$)	(HK$)	(HK$)	
1.2 Internal walls vertical only						
a. 75mm thick concrete block wall	546	m2	700.00	382,200	473,928.00 *	Note 2
b. Glass partition for shower	45	m2	5,000.00	225,000	225,000	Adjusted percentage:
			Total	607,200	698,928	100% / 8.425 x 10.425 = 124%
			Say	**610,000**	**700,000**	Adjusted amount: 382,200 x 124%
1.3 Doors and shutters						
a. Double leaf glass doors to flat entrances	5	no.	20,000.00	100,000	100,000	
b. Single leaf to bedroom	20	no.	6,000.00	120,000	120,000	
c. Single leaf doors to bathroom	10	no.	6,000.00	60,000	60,000	
d. Single leaf doors to kitchen	10	no.	7,000	70,000	70,000	remain unchanged
e. Single leaf doors to living/dining room	10	no.	6,000	60,000	60,000	
f. Single leaf doors to roof	5	no.	7,000.00	35,000	35,000	
			Total	445,000	445,000	
			Say	**450,000**	**450,000**	
2.1 External walls vertical only						
a. 200mm thick reinforced concrete wall	1,079	m2	1,100.00	1,186,900	1,471,756 *	Note 3
b. 150mm thick reinforced concrete parapet wall	33	m2	1,100.00	36,300	36,300	Adjusted percentage:
			Total	1,223,200	1,508,056	100% / 8.425 x 10.425 = 124%
			Say	**1,230,000**	**1,510,000**	Adjusted amount: 1,186,900 x 124%

(*Continued*)

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Back-up Calculations for 5. Superstructure

Total Construction Floor Area (CFA): 550 m2 = 110 m2 × CFA × 5houses

Descriptions	*Quantity*	*Unit*	*Rate*	*Phase 1* *Estimated Cost*	*Phase 2* *Cost for changing G/F height from 3m to 5m (Height of building changed from 8.425m to 10.425m high)* *Estimated Cost*	*Remarks*
			(HK$)	(HK$)	(HK$)	
2.2 External wall finishes						
a. Ceramic tiles (P.C. HK$50/m2) to external wall	1,079	m2	450.00	485,550	602,082.00 *	Note 4
b. Ceramic tiles (P.C. HK$50/m2) to parapet wall	66	m2	450.00	29,700	29,700	Adjusted percentage:
			Total	515,250	631,782	100% / 8.425 x 10.425 = 124%
			Say	**520,000**	**640,000**	Adjusted amount: 485,550 x 124%
2.3 Windows						
a. Window to bedroom	56	m2	3,500.00	196,000	196,000	
b. Window to bathroom	6	m2	3,500.00	21,000	21,000	
c. Window to kitchen	11	m2	3,500.00	38,500	38,500	
d. Window to living/dining room	28	m2	3,500.00	98,000	98,000	remain unchanged
e. Window to internal staircase	56	m2	6,000.00	336,000	336,000	
	-		Total	689,500	689,500	
			Say	**690,000**	**690,000**	
3.1 Roof finishes						
a. Homogeneous tiles including cement sand screed,	46	m2	1,300.00	59,800	59,800	
insulation and waterproofing	6	m2	500.00	3,000	3,000	remain unchanged
b. Waterproofing and insulation only		sum		6,280	6,280	
c. Allow for skirting (10%)						
			Total	69,080	69,080	
			Say	**70,000**	**70,000**	

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Back-up Calculations for 5. Superstructure
Total Construction Floor Area (CFA): 550 m2 = 110 m2 × CFA × 5houses

Descriptions	*Quantity*	*Unit*	*Rate*	*Phase 1* *Estimated Cost*	*Phase 2* *Cost for changing G/F height from 3m to 5m (Height of building changed from 8.425m to 10.425m high)*	
					Estimated Cost	*Remarks*
			(HK$)	(HK$)	(HK$)	
3.2 Floor finishes						
a. Natural stone (P.C. HK$1,500/m2) to house entrance	33	m2	1,400.00	46,200	46,200	
b. Stone finishes (P.C. HK$600/m2) to bedroom	108	m2	1,400.00	151,200	151,200	
c. Stone finishes (P.C. HK$600/m2) to bathroom	29	m2	1,400.00	40,600	40,600	
d. Stone finishes (P.C. HK$600/m2) to kitchen	38	m2	1,400.00	53,200	53,200	
e. Stone finishes (P.C. HK$600/m2) to living/dining room	205	m2	1,400.00	287,000	287,000	remain unchanged
f. Stone finishes (P.C. HK$600/m2) to internal staircase; including nosing tiles	107	m2	1.400.00	149,800	149,800	
g. Allow for skirting (10%)		sum		72,800	72,800	
			Total	800,800	800,800	
			Say	**810,000**	**810,000**	
3.3 Internal wall finishes vertical only						
a. Plaster with emulsion paint to house entrance	147	m2	200.00	29,400		* Note 5
b. Plaster with emulsion paint to bedroom	592	m2	200.00	118,400		Adjusted percentage:
c. Glazed ceramic tiles (P.C. HK$200/m2) to bathroom	207	m2	650.00	134,550		100% / 8.425 x 10.425 = 124%
d. Glazed ceramic tiles (P.C. HK$ 150/m2) to kitchen	240	m2	500.00	120,000		Adjusted amount:
e. Plaster with emulsion paint to living/dining room	662	m2	200.00	132,400		587,950 x 124%

(*Continued*)

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Back-up Calculations for 5. Superstructure
Total Construction Floor Area (CFA): 550 m2 = 110 m2 × CFA × 5houses

Descriptions	*Quantity*	*Unit*	*Rate*	*Phase 1* *Estimated Cost*	*Phase 2* *Cost for changing G/F height from 3m to 5m (Height of building changed from 8.425m to 10.425m high)* *Estimated Cost*	*Remarks*
			(HK$)	(HK$)	(HK$)	
f. Plaster with emulsion paint to internal staircase	266	m2	200.00	53,200		
			Total	587,950	729,058 *	
			Say	**590,000**	**730,000**	
3.4 Ceiling finishes						
a. Plaster with emulsion paint to house entrance	33	m2	200.00	6,600	6,600	
b. Plaster with emulsion paint to bedroom	108	m2	200.00	21,600	21,600	
c. Gypsum board suspended ceiling to bathroom	29	m2	1,500.00	43,500	43,500	
d. Gypsum board suspended ceiling to kitchen	38	m2	1,500.00	57,000	57,000	
e. Plaster with emulsion paint to living/dining room	205	m2	200.00	41,000	41,000	remain unchanged
f. Plaster with emulsion paint to internal staircase	107	m2	200.00	21,400	21,400	
g. Allow for bulkhead	5	house	15,000.00	75,000	75,000	
			Total	266,100	266,100	
			Say	**270,000**	**270,000**	
3.5 Decor, graphics and signage						
a. Decor, graphics and signage		sum		730,000	730,000	
			Total	730,000	730,000	remain unchanged
			Say	**730,000**	**730,000**	
4.1 Built-in furniture						
a. Kitchen cabinet with worktop	10	no	90,000.00	900,000	900,000	
b. Vanity counter with marble countertop and mirror cabinet to bathroom	10	no	15,000.00	150,000	150,000	
c. Letter box	5	house	1,500.00	7,500	7,500	remain unchanged
			Total	1,057,500	1,057,500	
			Say	**1,060,000**	**1,060,000**	

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Back-up Calculations for 5. Superstructure
Total Construction Floor Area (CFA): 550 m2 = 110 m2 × CFA × 5houses

Descriptions	*Quantity*	*Unit*	*Rate*	*Phase 1* *Estimated Cost*	*Phase 2* *Cost for changing G/F height from 3m to 5m (Height of building changed from 8.425m to 10.425m high)*	
					Estimated Cost	*Remarks*
			(HK$)	(HK$)	(HK$)	
4.2 Metal works and sundries						
a. Metal works and sundries	550	m2	100.00	55,000	55,000	
			Total	55,000	55,000	remain unchanged
			Say	**60,000**	**60,000**	
4.3 Artwork						
a. Artwork at house entrance	5	no	100,000.00	500,000	500,000	
			Total	500,000	500,000	remain unchanged
			Say	**500,000**	**500,000**	
4.4 Equipment						
a. Kitchen appliances	10	house	40,000.00	400,000	400,000	
b. Electric water heater to kitchen	10	house	5,000.00	50,000	50,000	remain unchanged
			Total	450,000	450,000	
			Say	**450,000**	**450,000**	
4.5 Special light fittings						
a. Special lighting fittings for house entrance	33	m2	250.00	10,000	10,000	
			Total	10,000	10,000	remain unchanged
			Say	**10,000**	**10,000**	
5.1 Sanitary fittings						
a. Sanitary fittings to bathroom	10	no	15,000.00	150,000	150,000	
b. Allow for bathroom accessories	10	set	5,000.00	50,000	50,000	remain unchanged
			Total	200,000	200,000	
			Say	**200,000**	**200,000**	

(*Continued*)

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Back-up Calculations for 5. Superstructure
Total Construction Floor Area (CFA): 550 m2 = 110 m2 × CFA × 5houses

Descriptions	*Quantity*	*Unit*	*Rate*	*Phase 1* *Estimated Cost*	*Phase 2* *Cost for changing G/F height from 3m to 5m (Height of building changed from 8.425m to 10.425m high)* *Estimated Cost*	*Remarks*
			(HK$)	(HK$)	(HK$)	
5.2 Plumbing and drainage						E&M vertical factor from internal wall finishes / total
a. Plumbing and drainage	550	m2	1,000.00	550,000	586,558 *	* Note 6
			Total	550,000	586,558	Adjusted of vertical elements around 28%:
			Say	**550,000**	**590,000**	Int. wall finishes/Total finishings 730,000/2,610,000 = 28% Adjusted amount: 550,000 x 72% + 28%/8.425 x 10.425
5.3 Electrical						
a. Electrical	550	m2	1,500.00	825,000	879,837 *	Adjusted amount:
			Total	825,000	879,837	825,000 x 72% + 28%/8.425 x 10.425
			Say	**830,000**	**880,000**	
5.4 Fire Services						
a. Fire services	550	m2	500.00	275,000	293,279 *	Adjusted amount:
			Total	275,000	293,279	275,000 x 72% + 28%/8.425 x 10.425
			Say	**280,000**	**300,000**	
5.5 Mechanical ventilation and air conditioning						
a. Split type air conditioning to house entrance	5	no	20,000.00	100,000		
b. Thermal ventilator to bedroom	20	no	6,000.00	120,000		
c. Ventilation fans to bathroom and kitchen	20	no	6,000.00	120,000		
d. Allow for bulkhead of mechanical ventilation	5	house	6,000.00	30,000		
			Total	370,000	394,593 *	Adjusted amount:
			Say	**370,000**	**400,000**	370,000 x 72% + 28%/8.425 x 10.425

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

Back-up Calculations for 5. Superstructure
Total Construction Floor Area (CFA): 550 m2 = 110 m2 × CFA × 5houses

Descriptions	*Quantity*	*Unit*	*Rate*	*Phase 1* *Estimated Cost*	*Phase 2* *Cost for changing G/F height from 3m to 5m (Height of building changed from 8.425m to 10.425m high)*	
					Estimated Cost	*Remarks*
			(HK$)	(HK$)	(HK$)	
5.6 Gas						
a. Gas	550	m2	200.00	110,000	117,312 *	Adjusted amount:
			Total	110,000	117,312	111,000 x 72% + 28%/8.425 x 10.425
			Say	**110,000**	**120,000**	
5.7 Builders work, profit and attendance (5%) of Item 5 Building Services		sum		117,000	124,500 *	Adjusted accordingly
			Total	117,000	124,500	
			Say	**120,000**	**130,000**	
		Total of Superstructure		**13,280,000**	**14,530,000**	

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

FORECAST OF CONSTRUCTION COST FLUCTUATION
Price Level in Estimate: July 2018

* Assumed fluctuation percentage as follows:
January 2018 to December 2018: +1%
January 2019 to December 2019: +3%
January 2020 to December 2020: -1%

		Phase 2									
Works Packages	*Anticipated Contract Sum*	*Anticipated Contract Sum (Including Preliminaries and Contingencies)*	*Anticipated Cost of Inflation up to Tender Date*	*Total Construction Cost Including Inflation*	*Anticipated Tender Award Date*	*Percentage Calculation*	*Fluctuation Percentage*	*Fluctuation Period*	*Year 2018*	*Year 2019*	*Year 2020*
	(HK$)	(HK$)	(HK$)	(HK$)		Formula	(% p.a.)	(Month)	+1%	+3%	–1%
1.Site Investigation	600,000	761,000	2,000	763,000	October 2018	(1 + 1%) ^ (2/12) –1 =	0.17%	2	2	-	-
2. Hoarding	2,000,000	2,535,000	11,000	2,546,000	January 2019	(1 + 1%) ^ (5/12) –1 =	0.42%	5	5	-	-
3. Site Formation Works	3,300,000	4,183,000	18,000	4,201,000	January 2019	(1 + 1 %) ^ (5/12) –1 =	0.42%	5	5	-	-
4. Foundation and Substructure	1,600,000	2,028,000	39,000	2,067,000	July 2019	(1 + 1 %) ^ (5/12) x (1 + 3%) ^ (6/12) –1 =	1.91%	11	5	6	-
5. Main Contract Works (including Superstructure, External Works & Landscaping)	38,080,000	48,273,000	1,449,000	49,722,000	June 2020	(1 + 1%) ^ (5/12) x (1 + 3%) x (1–1%) ^ (5/12) –1 =	3.00%	22	5	12	5

(*Continued*)

Table 1.6 Example 4: The cost plan for completion of conceptual design for phase 2 (storey height of G/F change from 3m to 5m) (Cont'd)

FORECAST OF CONSTRUCTION COST FLUCTUATION
Price Level in Estimate: July 2018

* Assumed fluctuation percentage as follows:
January 2018 to December 2018: +1%
January 2019 to December 2019: +3%
January 2020 to December 2020: -1%

		Phase 2									
Works Packages	*Anticipated Contract Sum*	*Anticipated Contract Sum (Including Preliminaries and Contingencies)*	*Anticipated Cost of Inflation up to Tender Date*	*Total Construction Cost Including Inflation*	*Anticipated Tender Award Date*	*Percentage Calculation*	*Fluctuation Percentage*	*Fluctuation Period*	*Year 2018*	*Year 2019*	*Year 2020*
	(HK$)	(HK$)	(HK$)	(HK$)		Formula	(% p.a.)	(Month)	+1%	+3%	–1%
6. Preliminaries (15%)	6,900,000	Included	Included	Included							
7. Contingencies (10%)	5,300,000	Included	Included	Included							
Total	**57,780,000**	**57,780,000**	**1,519,000**	**59,299,000**			**5.92%**				