
TG 03 02 Standard Format Cost Plan - Sample

The attached SAMPLE is in the standard format for all Cost Plans and Cost Estimates to be issued by Currie & Brown (China).

The standard format is to be used in conjunction with Technical Guideline TG 03 01 – Cost Planning and Cost Estimating.

The standard format is to be used in conjunction with the Cost Plans and Project Estimates Check List (Form TP 03[1]) and the Cost Analysis Check List (Form TP 03[2]) of the QA Manual.

Monetary amounts and other information are fictitious and are included for formatting only and are not to be used for estimating or any other purpose.

TG 03 02 STANDARD FORMAT COST PLAN - SAMPLE

COST PLAN NO. 3

FOR

PROPOSED INDUSTRIAL DEVELOPMENT

AT

ANY TOWN

OCTOBER 2008

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A EXECUTIVE SUMMARY

Use this format for single buildings

(Note: The headings used in the following model are examples of the key issues to address in the Executive Summary. Each project will vary as to the Client's or Client's consultants' needs and/or emphasis placed on particular requirements. Whilst addressing the significant cost and professional aspects which Currie & Brown (China) must do, a sensitive interaction and consultation with the Client and consultants will achieve a more acceptable result.

Make sure the text is relevant and appropriate for your project which will have it's own unique requirements.)

Executive Summary

1. Introduction

This report forms Cost Plan No 1 for **Proposed xxxxxxxx Development**.

The Cost of the Works Total of HK\$1.1 Billion is inclusive of inflation up to date of tender and assumes competitive lump sum fixed price contracts will be awarded for the works.

The design team drawings and information on which the Cost Plan is based (scheduled in detail in the report) are works in progress and will need to be reviewed as the drawings develop throughout the design period with additional Cost Plans being issued.

2. General Summary

Ref	Element	HK\$ Estimate	HK\$/m2CFA
A.	Site Formation	\$120,650,000	\$3,060/m2
B.	Foundations	\$49,200,000	\$1,060/m2
C.	Podium	\$312,460,690	\$5,002/m2
D.	Residential Tower	\$483,562,234	\$7,450/m2
E.	Contingencies	\$98,032,060	\$2,800/m2
F.	Suggested Inflation Allowance	\$48,350,080	\$1,020/m2
	Cost of Works Total at 20 th April 2008	\$1,112,225,064	\$20,392/m2

Additional detailed summaries are attached.

A full list of inclusions and exclusions are included in Section C

3. Comparators

The overall cost of \$20,300/m2, when adjusted for site specific elements such as the deep rock head and sloping site and for index adjusted for inflation is broadly consistent with other projects of the same type.

4. Sensitivities

The estimate is sensitive to the following issues:

- a. The standard of finishes is still under consideration. Meantime the standard allowed is similar to those adopted in Clarence Towers (Ref: Section D, Item).
- b. The extent of geotechnical work required to the slope at Tong Fuk Road is still under consideration and depending on the solution adopted this may significantly affect the total figure. (Ref: Section D, Item).
- c. The cost of steel is rising rapidly and our current allowance for inflation (based on historical trends) may not be sufficient to cover the expected increases. We will continue to monitor steel costs.
- d. The cost of the large area of granite cladding at the podium is sensitive to the type of granite to be selected.

5. Inflation Allowance

Inflation (or deflation) between the date of the estimate and the date of the tender returns is not included in the body of the estimate. Therefore a figure based on the most recent published figures for construction inflation has been noted in the Summary as a suggested allowance to cover this. Details of the calculation are shown at Section C.

6. Recommendations

We recommend:

- a. That the project team reviews the area of granite cladding and type of granite to be adopted with a view to reducing cost.
- b. That the project team considers issuing the Building Services tenders as Nominated Sub-contracts with a view to reducing cost and time and increasing accuracy.

TECHNICAL GUIDELINES
GUIDELINE TG 03 02
STANDARD FORMAT COST PLAN - SAMPLE

PROPOSED COMPOSITE BUILDING
Cost plan No.3
ELEMENTAL SUMMARY - Residential

Items	\$	\$/m2 CFA
A Pre-construction works Totals	2,821,000	380
Ground investigation works (No.96-102 Java Road)	211,000	28
Demolition works (No.96-102 Java Road)	1,466,000	198
Ground investigation works (No.104-106 Java Road)	122,000	16
Demolition works (No.104-106 Java Road)	763,000	103
Misc. items	259,000	35
B Substructure Totals	18,137,000	2,446
Piling, pile cap & ELS works	18,137,000	2,446
C Superstructure Totals	84,632,000	11,416
Structure		
Concretor, Formwork & Reinforcement	26,483,000	3,572
External Walls		
Precast façade (incl. ext. wall tiles)	5,134,000	693
Aluminium window installation (incl. glazing)	1,784,000	241
External finishes		
External wall Finishes	1,241,000	167
Balcony & Utility Platform	1,095,000	148
Waterproofing (Roof)	150,000	20
Internal Walls		
Internal walls & finishes for others location (excluding item C5(a) to (e))	3,492,000	471
Doors & ironmongery	3,561,000	480
Steel & metal workers (incl. metal doors)	926,000	125
Internal finishes		
Lift lobby finishes	2,916,000	393
Bathroom	4,969,000	670
Kitchen	1,615,000	218
Living room/dining room/ bedroom	4,049,000	546
Carpark	0	
Waterproofing (internal)	767,000	103
Fittings and Fixtures		
Fittings & fixtures	300,000	41
Kitchen cabinet installation	1,620,000	219
Home Appliance installation	2,420,000	326
Equipment provided in Clubhouse	0	
E&M Services		
Plumbing & drainage installation	3,475,000	469
Sanitary fittings	2,432,000	328
Electrical installation (excl. decorative lighting)	6,611,000	892
MVAC installaiton (G/F lift lobby, carpark, clubhouse)	55,000	7
Split-typed Air conditioning installation (domestic unit)	3,800,000	513
Towngas system installation	1,600,000	216
Fire service installation	1,526,000	206
Lift installation - passenger lifts	2,038,000	275
Lift installation - car lift	0	
Security system (Incl. in item D17(b))	0	
BWIC Services	573,000	77
D Others	3,150,000	425
External paving reinstatement	150,000	20
Soft landscape	600,000	81
Connection cost for Public Utilities	200,000	27
Mock ups	2,200,000	297
Interior fitting-out to Clubhouse	0	
Sub-total:	108,740,000	14,667
E Preliminaries	13,168,000	1,776
F Contingencies (10%)	12,190,800	1,644
WORKS TOTAL (Insert Date)	134,098,800	18,087

B. AUDIT TRAIL

PROPOSED INDUSTRIAL DEVELOPMENT AT ANY TOWN

AUDIT TRAIL

This audit trail provides the progression of costs from Cost Plan No. 1 and Cost Plan No. 3

Amount
HK\$ (Millions)

Cost Plan No. 1 – Works Total: **\$453.38**

(estimated cost at June year)

1.1	Revise site Formation works	(\$2.08)
1.2	Add 1 no. cargo lift	\$4.00
1.3	Replace external finishes from paint on render to mosaic tiles on screed	\$3.59
1.4	Revise structural layout to carpark	(\$2.30)

Cost Plan No. 2 – Works Total: **\$456.59**

(estimated cost at June year)

2.1	Raise Car Park from 1 Level below ground to complete above ground construction	(\$16.6)
2.2	Revise foundations from H piles to bored piles	(\$9.37)
2.3	Include latest contract sum for Site Investigation	(\$0.49)
2.4	Reduce floor areas and reduction in quality of internal finishes to Tower	(\$21.76)
2.5	Revise layout, floor areas and reduction in quality of internal finishes to Car Park	(\$10.20)
2.6	Sundries (e.g. revise percentage allowance for MC's profit & attendance on M&E installation and Preliminaries)	(\$0.34)

Cost Plan No. 3 – Works Total: **\$397.83**

(estimated cost at June year)

C. SCOPE OF ESTIMATE

C. SCOPE OF ESTIMATE

1. BASIS OF ESTIMATE

This estimate is for the development of an industrial building at Any Town. The project comprises the demolition of an existing building and construction of a 29-storey industrial building.

1.1 Drawings

The estimate has been based on the following drawings :

1.1.1 Architectural

<u>Drawing</u>	<u>Drawing No.</u>	<u>Date Received</u>
General Notes Schedule Block Plan	A/01/01	Insert date
Ground Floor Plan	A/01/02	Insert date
First Floor Plan	A/01/03	Insert date
Second Floor Plan	A/01/04	Insert date
3rd-12th Floor Plan	A/01/05	Insert date
13th Floor Plan	A/01/06	Insert date
14th-28th Floor Plan	A/01/07	Insert date
Roof & Upper Roof Plan	A/01/08	Insert date
Section A-A & Section B-B	A/01/09	Insert date
North Elevation	A/01/10	Insert date
South Elevation	A/01/11	Insert date
Calculation	A/01/12	Insert date

1.1.2 Structural

<u>Drawing</u>	<u>Drawing No.</u>	<u>Date Received</u>
Ground Floor General Arrangement	1138/3003	Insert date
1st Floor General Arrangement	1138/3004	Insert date
2nd Floor General Arrangement	1138/3005	Insert date
3rd Floor General Arrangement	1138/3006	Insert date
Beam and Slab Scheme For Typical Floor	1138/SCH1	Insert date

Reinforcement ratio has been provided by the Structural Engineer.

1.1.3 Mechanical and Electrical Services

Mechanical and Electrical drawings have not been produced at this stage.

2. QUANTITIES AND UNIT PRICES

The following methods have been adopted in preparation of the Cost Plan:

2.1 Method

2.1.1 Approximate Quantities

Approximate quantities have been measured where sufficient information is available and current unit rates from similar projects have been applied to these quantities.

2.1.2 Budgetary Allowance

Where the design is not advanced sufficiently to allow the measurement of approximate quantities an allowance has been made based on a cost/m² derived from other similar projects.

2.1.3 Percentage Allowance

A percentage allowance has been made to cover the following :

- Preliminaries 10%
- Contingency 10%

3. PRICE BASIS

3.1 Current costs and inflation to time of tenders

The estimate is based upon current costs in Hong Kong at October 2008. A provision has been allowed for fluctuations in tender prices from the time of preparing this estimate to the time of tender return *(Insert here calculation of fluctuation value to time of tender)*.

3.2 Contract Procurement Method

Pricing is based on the assumption that all Contracts will be tendered on a competitive basis to pre-qualified contractors using Bills of Quantities to obtain Lump Sum Fixed Price tenders.

C. SCOPE OF ESTIMATE (CONT'D)

4. INCLUSIONS AND EXCLUSIONS

4.1 Inclusions

The estimate is for all works normally contained in the building contract and includes :

1. Site investigation and survey
2. Demolition
3. Site works including site clearance, reinstatement and site formation works, etc.
4. Substructure and foundations
5. Superstructure construction and general finishes
6. Plumbing and drainage installation
7. Fire services installation
8. Electrical installation
9. MVAC installation
10. Lift installation

4.2 Exclusions

The estimate excludes :

1. Finance and legal expenses
2. Value of land
3. Works outside site boundary
4. Loose furniture & equipment
5. Artwork
6. Professional Fees
7. Treatment to contaminated soils

The estimate is based on the Architect's and Engineer's preliminary drawings and information and should be regarded as an early indication of costs and subject to further review and checking as the planning and the design progress.

4.3 Contracts Already Awarded

(a) Topographical Survey	\$33,400.00
(b) Site Investigation	\$487,860.00
(c) Asbestos Survey	\$9,500.00

The above contract sums have been included in the Cost Plan.

5. PROJECT PARTICULARS

1. Total construction floor area (CFA) :-

<u>CFA</u>	
Carpark G/F - 2/F	6,650 m ²
Tower 3/F - UR/F	<u>38,250 m²</u>
TOTAL :	<u>44,900 m²</u>

(For Details refer to CONSTRUCTION FLOOR AREA schedule below)

2. External facade area (Carpark) =	700m ²
External facade area (Tower) =	<u>30,850m²</u>
TOTAL :	<u>31,550m²</u>

External Facade : CFA ratio (Carpark) = 1:9.50

External Facade : CFA ratio (Tower) = 1:1.24

External facade measurement includes windows and glazing but excludes voids.

3. Internal Wall Area (Carpark) =	1000m ²
Internal Wall Area (Tower) =	<u>92,550m²</u>
TOTAL	93,550m ²
Internal Wall: CFA Ratio (Carpark) =	1:6.65
Internal Wall: CFA Ratio (Tower) =	1:0.41

Internal Wall area measurement includes doors.

4. Reinforcement Ratio :	Columns	350kg/m ³
	Beams	270kg/m ³
	Slabs	90kg/m ³
	Walls	160kg/m ³
	Non-structural walls	100kg/m ³

5. Contract period is assumed to be 25 months inclusive of demolition, foundations and main contract.

6. It is envisaged that tenders will be issued in three stages.

- (a) Demolition Contract
- (b) Site Preparation and Foundation Contract
- (c) Main Contract for Building and Services

Pricing is based on the assumption that all Contracts will be tendered on a competitive basis to pre-qualified contractor using Bills of Quantities to obtain Lump Sum Fixed Price tenders.

CONSTRUCTION FLOOR AREA (CFA) SCHEDULE

LEVEL	CFA PER FLOOR	NO. OF FLOOR	TOTAL AREA (CFA)
	m2		m2
G/F	2190	1	2,190
1/F	2250	1	2,250
2/F	2210	1	2,210
3/F-12/F (7.5 KPa)	1432	10	14,320
13/F (7.5 KPa)	1380	1	1,380
14/F-28/F (15 KPa)	1380	15	20,710
ROOF	1380	1	1,380
UPPER ROOF	460	1	460
TOTAL:			44,900

NOTES:

Total Construction Floor Area is calculated as the area of all floor levels measured to the outside face of the external walls/external perimeter and includes lift shafts, stairwells, balconies, plant rooms, and the like but excludes major voids in floors.

Note: Also include Schedule of GFA if available and/or required by Client or his representative.

D. OUTLINE SPECIFICATION

D. OUTLINE SPECIFICATION

1. Site Preparation

Contracts awarded for topographical survey, asbestos survey and site investigation have been included in this Cost Plan.

Demolition of existing bus depot based upon second lowest tender for the works received on day month year.

The structural design has been provided by the Structural Engineer.

H-pile foundations of size 305 x 305 x 180 kg/m average 12m deep. It is assumed that no rock will be encountered during driving except for the final socket. 2.5m thick pile cap reinforced at 200 kg/m³ of concrete. An allowance for testing and production of reports for the H-pile is included.

Reinforced concrete slabs and beams structure with concrete grade 40D/20. Reinforced concrete grade 60D/20 to structural walls and columns.

Steel reinforcement ratio of structural elements as provided by the Structural Engineer is as follows :-

Columns	4.5%	Slabs	1.1%	Corewalls	2 %	Beams	3.5%
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3. External Walls

125 mm thick in-situ reinforced concrete wall with Duranar exotic coated aluminium window in solarscreen reflective glass.

4. External Finishes

Concrete roof tiling on screed with waterproof membrane and insulation on rock asphalt to all concrete roof.

Aluminium spandrel and grill and mosaic tiles on screed to R.C. external wall.

5. Internal Walls

100 mm thick R.C. wall to lift shaft and stair wall.

Internal partitions to be 100 mm thick concrete block wall.

Timber doors including ironmongery.

D. OUTLINE SPECIFICATION (CONT'D)

6. Internal Finishes

	<u>Floor</u>	<u>Wall</u>	<u>Ceiling</u>
Ramp, driveway, loading and unloading area, carpark	Towelled concrete	Acrylic paint on plaster	Washable distemper on concrete
Workshop (tenant spaces)	Ditto	Emulsion paint on plaster	Washable distemper on skim coat plaster
Lavatory (G/F)	Homogenous tile with matt surfaces (P.C. \$150/m ² supply) on waterproof screed	Ditto and ceramic tile (P.C. \$120/m ² supply) on waterproof screed to dado	Ditto
Ditto (3/F - 28/F)	Ceramic tiles (P.C. \$120/m ² supply) on waterproof screed	Ceramic tiles (P.C. \$120/m ² supply) on waterproof screed	Aluminium suspended ceiling
Passenger lift lobby (G/F - 1/F)	Marble tile (P.C. \$1,200/m ² supply) on screed	Marble tile (P.C. \$1,200/m ² supply) on screed	Aluminium strip suspended ceiling
Ditto (2/F - 28/F)	Ditto	Homogenous tile with matt surfaces (P.C. \$150/m ² supply) on screed and marble tile (P.C. \$1,200/m ²)	Ditto
Cargo/fireman's lift lobby (2/F - 28/F), corridor (3/F - 28/F)	Homogenous tile with matt surfaces (P.C. \$150/m ² supply) on screed	Spray paint on plaster and homogenous tiles with matt surfaces (P.C. \$150/m ² supply) on screed to dado	Open grid aluminium suspended ceiling
Staircase	Cement sand render with nosing tiles	Washable distemper on plaster	Washable distemper on skim coat plaster
Caretaker's room, guard, plant rooms (G/F - 28/F)	Cement sand render	Snowcem paint on plaster	Snowcem paint on concrete
Plantrooms (roof)	Ditto	Snowcem paint on concrete	Ditto
Water tanks	Waterproof cement sand plaster	Waterproof cement sand plaster	-
Cold water tank	Glazed ceramic tiles (P.C. \$90/m ² supply) on waterproof screed	Ditto	-

D. OUTLINE SPECIFICATION (CONT'D)

7. Fittings and Sundries

Allowance for signage, reception counter and counters to guard rooms.

Stainless steel railings and tank covers.

8. M/E Services Installation

Mechanical, Ventilation and Air-Conditioning System (MVAC)

- Mechanical ventilation to toilets, loading/unloading area and carpark at G/F - 3/F and E/M plant rooms. All other areas to have air conditioning. Fan coil units to workshop/godown/office areas

Plumbing, Drainage and Gas Installation

- water supply and disposal systems
- underground drains and manholes
- sanitary fittings to be Roca or other similar

Electrical Installation

- security system
- power, telephone and lighting
- CCTV system
- PA system
- CABD & SMATV system

Fire Services Installation

Lifts Installation

- 6 nos. cargo lift
- 7 nos. passenger lift
- 1 nos. fireman's lift

Specialist Installations

- window cleaning system
- carpark barrier system

9. External Works

Precast concrete paving block to pavement.

Allowance for soft and hard landscape works.

Utility connections.

E. DETAILED ESTIMATE

Attach here if required the detailed Elemental Cost Plan or Estimate