

PERANCANGAN DAN KAWALAN KOS



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CKUB, JKR

KITARAN HAYAT KAWALAN



BORANG KAWALAN KOS

3

PRELIMINARY
DETAIL
ABSTRACT

01

02

AS TENDERED
DETAIL
ABSTRACT

03

AS COMPLETED
DETAIL
ABSTRACT



PRELIMINARY DETAIL ABSTRACT



PRELIMINARY DETAIL ABSTRACT



Anggaran awalan projek



Mengenalpasti semua kos pembangunan



Menyemak kecukupan peruntukan



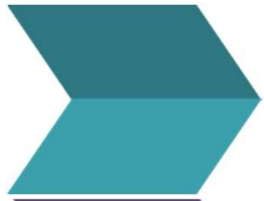
Menjadi kayuukur batasan rekabentuk



Dimuktamadkan setelah rekabentuk awal dipersetujui



AS TENDERED DETAIL ABSTRACT



**Menunjukkan pecahan kos
projek yang bakal diawad**



**Mengenalpasti semua kos
pembangunan**



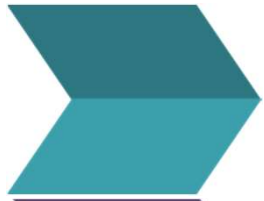
**Mengesahkan kecukupan
peruntukan**



**Mesti diluluskan sebelum
awad**



AS COMPLETED DETAIL ABSTRACT



**Menunjukkan pecahan kos
sebenar projek**



**Disediakan selepas Perakuan
Muktamad dikeluarkan**



**Menjadi panduan kos untuk
projek akan datang**

	ASAS	KANDUNGAN
PDA	Data kos lampau dan harga terkini	i) Anggaran pembinaan ii) Anggaran kos lain – Iklan, SI, TNB, IWK etc iii) Anggaran bayaran perunding
ATDA	Harga tender yang bakal diawad dan data kos lampau serta harga terkini item lain	i) Harga yang ditender ii) Anggaran atau harga sebenar (jika ada) kos lain
ACDA	Harga Muktamad Kontrak dan harga muktamad kos berkaitan	i) Harga sebenar pembinaan ii) Harga sebenar kos lain

HEAD	SUBHEAD	YEAR	TOTAL PROVISION	RM
			PROVISION FOR CONSTRUCTION	

BRIEF DESCRIPTION OF BUILDINGS								
	BUILDING	Frame	Wall	Roof	Floor	Ceiling	Window	IBS
BREAKDOWN OF PRELIMINARY COST ESTIMATE							COST (RM)	
1	PRELIMINARIES							
2	PILING/SPECIAL FOUNDATION Type and Size							
a								
b								
c								
3	BUILDING	Drawing No.		Floor Area m2		Cost/m2		
a								
b								
c								
d								
e								
f								
g								
h								
i								
k								
4	SERVICES							
a	Plumbing Installation							
b	Electrical Installation							
c	Fire Protection Installation							
d	Air Conditioning Installation							
e	Lift & Conveyor Installation							
f	Communication Installation							
g								
h								
i								
k								
SUBTOTAL carried forward								

BREAKDOWN OF PRELIMINARY COST ESTIMATE (CONT'D)		COST (RM)
SUBTOTAL brought forward		
5 EXTERNAL WORKS		
a	i) Site Preparation	
	ii) Earthwork	
b	Roads, Hardstanding	
	Footpaths & Paving	
c	Fencing & Gates	
d	Turfing & Landscaping	
e	Surface Drainage	
f	Sewerage	
g	Water Reticulation	
h	Rain Water Harvesting	
i	Ancillary Building (eg: Refuse Chamber, Security Post, TNB Sub Station, Pump House)	
6 PROVISIONAL SUM		
a	Internal & External Signages	
b	Built In & Loose Furniture	
c	Interior Design Work	
7 TOTAL COST (1 to 6)		
8 GOODS AND SERVICES TAX (GST)		
9 TOTAL COST INCLUSIVE GST		
10 CONTRIBUTION FEE TO LOCAL & UTILITY AUTHORITY		
a	Tenaga Nasional Berhad (TNB)	
b		
c		
d		
e		
11 MISCELLANEOUS (inclusive of GST)		
a	Advertisement	
b	Documentation	
c	Soil Investigation	
d	Utility Mapping	
e	Items Supplied/Procured by Client	
ALL IN UNIT RATES (of Total Items 9 to 11)		TOTAL (Items 9 to 11)
Total Floor Area m2 :		Cost/m2 :
11 SUPERVISION		
12 PROFESSIONAL FEES (inclusive of GST)		
a	Architect	
b	Civil & Structural Engineer	
c	Mechanical Engineer	
d	Electrical Engineer	
e	Quantity Surveyor	
f		
TOTAL COST OF PROJECT		
Quantity Surveyor		State Director of Works*
		Portfolio Branch Director of Works
Date:		Date:

* Only necessary if PDA is prepared at JKR State level

NOTES ON FILLING OF PRELIMINARY DETAILED ABSTRACT FORM (PDA)

1.0 GENERAL INFORMATION

- 1.1 The information given on this Detailed Abstract is for Government use only.
- 1.2 No portion of the form is to be left blank. Items not applicable in any particular case shall have a dash inserted against them. If any item is included under BUILDING this shall be stated in the 'COST' column.

2.0 TOTAL PROVISION

- 2.1 Total Provision shall be the amount approved by the Client Department for the project and shall be stated in the project brief. If this information is not available it shall be left blank.

3.0 PROVISION FOR CONSTRUCTION

- 3.1 Provision for Construction shall be the Total Cost of Project as shown. For revised PDA, Provision for Construction shall be the Total Cost of project in previously approved PDA.

4.0 BRIEF DESCRIPTION OF BUILDINGS

- 4.1 The following abbreviations shall be used in completing the 'Brief description of buildings':

Al - Aluminium	CCR - Coloured Cement Rendering	MT - Mosaic Tiles	T - Timber
AB - Acoustic Board	CHB - Concrete Hollow Bricks	MFB - Metal Fibre Board	Tyn - Tyndean
AC - Asbestos Cement	FI - Faience	MFW - Metal Framed Screen Wall	Tp - Insitu Terrazo
BE - Common Brick	FGB - Fairface Green Wall	OGB - Ordinary Gypsum Board	TB - Timber Beaming
BRF - Built-up Roofing Felt	FCB - Fibre Cement Board	PF - Plastered Finish	TS - Timber Strip
CBK - Cement Sand Brick	GMB - Galvanneal Metal Decking	PCM - Precast Concrete Members	TT - Terrazo Tiles
CR - Cement Rendering	GWL - Glass Wool Board	Pd - Plaster	TGW - Timber Framed Screen Wall
CSMT - Cassiment	GWT - Glazed Wall Tiles	QT - Quarry Tiles	VT - Vinyl Tiles
CT - Cement Tiles	HP - Hydris Plaster	RC - Reinforced Concrete	WCB - Wood Cement Board
Con - Concrete	LV - Limestone	RGB - Reinforced Gypsum Board	WCR - Waterproof Cement Rendering
Co.T - Concrete Tiles	MS - Mosaic Tiles	St - Steel	

Both the base material and the finish shall be given in the case of floors, walls and flat roofs, thus:

Con/VT RCWCR

Both the base material or the type of suspension/framing and the finish shall be given in the case of ceiling, thus:

TWCB ALUMFB

5.0 SPECIAL FOUNDATION

- 5.1 Each type and size of Piling/Special Foundation and its cost shall be stated separately.

6.0 BUILDING

- 6.1 The cost for the building shall be exclusive of all services.
- 6.2 The buildings to be listed under item 3 shall refer to the same buildings as listed under 'Brief Description of buildings'.
- 6.3 The Floor Area shall mean the Gross Floor Area of all enclosed spaces fulfilling the functional requirements of the building measured flat on plan to the internal face of the enclosing walls.
- 6.4 The Drawing Numbers to be stated shall only be those of the Architectural floor plans, sections and elevations. Structural and other detailed drawing numbers need not be stated.

7.0 INTERNAL SERVICES

- 7.1 The cost for the internal services shall be inclusive of First and Allowance and all builders work in connection therewith where applicable.

8.0 GOODS AND SERVICES TAX (GST)

- 8.1 The amount to be allowed for GST shall be 6 percent of the total items of 1 to 6.

9.0 PROFESSIONAL FEES

- 9.1 The amount of Professional fees for each Consultant shall be inserted in the 'Cost' column.

10.0 CONTRIBUTION FEE TO LOCAL AND UTILITY AUTHORITY

- 10.1 Where the contribution fee payment is made by the Contributor in the name of the Contributor or the Consultant, the fee amount claimed by the Contributor or Consultant from the Government is subject to GST. Where the contribution fee payment is made in the name of the Government, the fee amount claimed by the paying party is not subject to GST.

JABATAN KERJA RAYA

AS TENDERED DETAILED ABSTRACT FOR					Total Amount of Tender		: RM	
					Contract Sum		: RM	
					Contractor for Main Works		Class	
Head	Subhead	Year	Total Prov.	RM	-	Closing Date of Tender	Tender Valid Until	
			Prov. for Const.	RM	-			
Contract Period:					COMPETITIVE TENDER LIST			
					Tender No.	Tender Sum	Tender No.	Tender Sum
Type of Contract:								
Form of Contract:								
Basis of Tender:								
No. of Tenders Received:								
BRIEF DESCRIPTION OF BUILDINGS								
	BUILDING	Frame	Wall	Roof	Floor	Ceiling	Window	IBS
a								
b								
c								
d								
e								
f								
PRIME COST AND PROVISIONAL SUMS								
	ITEM	ALLOWED RM		ACTUAL RM				
a								
b								
c								
d								
e								
BREAKDOWN OF COST		COST RM						
1	PRELIMINARIES			Being % of Remainder of Main Tender				
2	PILING/SPECIAL FOUNDATION Type and Size			Unit	Quantity	Unit Cost		
a				M				
b				M				
c								
3	BUILDING			Drawing No.	Floor Area m ²	Cost/m ²	Vol/m ³ *	Cost/m ³ *
a								
b								
c								
d								
e								
f								
g								
h								
i								
j								
k								
SUBTOTAL carried forward								

*Refer to Note B.2 (b)

NOTES ON FILLING OF AS TENDERED DETAILED ABSTRACT FORM (ATAF)

1.0 GENERAL INFORMATION

- 1.1 The information given on this Detailed Abstract is for Government use only.
- 1.2 No portion of the form is to be left blank. Items not applicable in any particular case shall have a dash inserted against them. If any item is included under "BUILDING" this shall be stated in the "COST" column.

2.0 TOTAL PROVISION

- 2.1 Total Provision shall be the Total Provision as stated in the latest approved PDA or the least amount approved for the project by the Client Department at the time of preparing this form.

3.0 PROVISION FOR CONSTRUCTION

- 3.1 Provision for Construction shall be the Total Cost of Project as stated in the latest approved PDA or previously approved ATOA.

4.0 INFORMATION ON CONTRACT

- 4.1 The Contract Period shall be inserted in weeks or months stating whether it is "Fixed" or "Fixed" in brackets.
- 4.2 Type of Contract shall mean Conventional, Design & Build, Cost Plus, etc. including whether tendered Internationally (I) or Locally (L).
- 4.3 Form of Contract shall mean PWD 203, 203A, PDIC, etc.
- 4.4 Basis of Tender shall mean Open, Open (B/P), Selected, Negotiated, International, etc.
- 4.5 Competitive tender list shall mean the list of tender received, or the lowest eight (8) and the highest two (2) tenders received in ascending order of value.

5.0 BRIEF DESCRIPTION OF BUILDINGS

- 5.1 The following abbreviations shall be used in completing the "Brief Description of Buildings":

Al - Aluminium	CCR - Coloured Cement Rendering	MT - Mosaic Tiles	T - Timber
AB - Acoustic Board	CHB - Concrete Hollow Brick	MPB - Mineral Fibre Board	Tye - Typhoon
AD - Asbestos Cement Pl - Fairface	MPW - Metal Framed Screen Wall	Tx - Insula Tension	
BK - Concrete Brick	FEM - Fibre Mesh Screen Wall	ODS - Ordinary Gypsum Base TS - Timber Framing	
BWP - Built-up Roofing	FCB - Fibre Cement Board	PF - Plastered Finish	TS - Timber Strip
CR - Cement Sand Br (SMD) - Galvanneal Metal Decking	PCM - Precast Concrete Members	TT - Terrazzo Tiles	
CR - Cement Render/GWL - Glass Wool Board	Pq - Parquet	TSW - Timber Framed Screen Wall	
CSM - Cement Mortar	GWT - Glass Wall Tiles	QT - Quarry Tiles	VT - Vinyl Tiles
CT - Ceramic Tiles	HP - Hyrb Plaster	RC - Reinforced Concrete	WCB - Wood Cement Board
Con - Concrete	LV - Limestone	RDB - Reinforced Gypsum B.WOR	Wap (prod) Cement Rendering
Ce T - Concrete Tiles	MS - Mosaic Slab	Sl - Slab	MD - Metal Decking

Both the base material and the finish shall be given in the case of floors, walls and flat roofs, thus:

Gan/VT RCWOR HP - Heterogeneous Tiles PH - Floor Hardware GPR - Gypsum Plaster Board

Both the base material or the type of suspension/finishing and the finish shall be given in the case of ceiling, thus:

TWCE ACMPB

6.0 PRIME COST AND PROVISIONAL SUM

- 6.1 All Prime Cost and Provisional Sum shall be filled in the space provided or on an attached sheet, and the sums as allowed and as actually expended shall be stated.

7.0 PILING/SPECIAL FOUNDATION

- 7.1 Each type and size of Piling/Special Foundation and its quantity and unit cost shall be stated separately.
- 7.2 The unit for piling shall be in linear metres and quantity for piling shall be the length x driven length. The Unit for special foundation shall be in square metres and the quantity shall be the Floor Area of the building concerned.

8.0 BUILDING

- 8.1 The cost for the building shall be exclusive of all services.
- 8.2 (a) The Floor Area shall mean the Gross Floor Area of all enclosed spaces fulfilling the functional requirements of the building measured flat on plan to the internal face of the enclosing walls.
- (b) The Volume and Cost/m³ shall be stated only for buildings for which functional requirements is determined by volume such as Storerooms, Godowns, Warehouses, Lecture Theatres, Auditoriums and the like.
- 8.3 The Drawing Numbers to be stated shall only be those of the Architectural floor plans, sections and elevations. Structural and other detailed drawing numbers need not be stated.

9.0 INTERNAL SERVICES

- 9.1 The cost for the internal services shall be inclusive of Profit and Attendance and all builders work in connection therewith where applicable.
- 9.2 (a) Reference for building served shall be the same as the reference in Item 3 eg 2(a), 2(b) etc. The total cost of each internal service, its Cost/m² of the Floor Area served by the respective services shall be inserted in this Form.
- (b) The spaces provided in the column marked with an asterisk shall be inserted with the letter T for items included in the Main Tender, D for items which have been or will be done Departmentally, and X for other items not included in the Main Tender.

10.0 EXTERNAL WORKS

- 10.1 The total cost of each of the External Work listed and its Appropriate Units, Quantity and Unit Cost shall be inserted in this Form.
- 10.2 The spaces provided in the column marked with an asterisk shall be inserted with the letter T for items included in the Main Tender, D for items which have been or will be done Departmentally, and X for other items not included in the Main Tender.
- 10.3 The relevant service authority to whose system the works are connected shall be consulted before the costs of Capital Contribution Fees are inserted in this Form.

11.0 GOODS AND SERVICES TAX (GST)

- 11.1 The amount to be allowed for GST shall be 5 percent of the Tender Sum.

12.0 PROFESSIONAL FEES

- 12.1 The amount of Professional fees for each Consultant shall be inserted in the 'Cost' column.

JABATAN KERJA RAYA

AS COMPLETED DETAILED ABSTRACT FOR		Total Amount of Main Tender :						
		Contractor for Main Works Class						
		Date of Possession of Site	Actual Date of Completion					
		Original Contract Period						
		Extension of Time (if any)						
Head Sub/Head Year	Total Prov. RM Prov. for Const. RM	Amount of L&A Damages (if any)						
BRIEF DESCRIPTION OF BUILDINGS								
	BUILDING	Frame	Wall	Roof	Floor	Ceiling	Window	IBS
a								
b								
c								
d								
e								
f								
PRIME COST AND PROVISIONAL SUMS								
	ITEM	ALLOWED RM	ACTUAL RM					
a								
b								
c								
d								
e								
BREAKDOWN OF COST		COST RM						
1 PRELIMINARIES		Being % of Remainder of Main Tender						
2 PILING/SPECIAL FOUNDATION Type and Size		Unit	Quantity					
a								
b								
c								
3 BUILDING		Drawing No.	Floor Area m2					
a								
b								
c								
d								
e								
f								
g								
h								
i								
k								
SUBTOTAL carried forward		*						

*Refer to Note 6.2 (b)

BREAKDOWN OF COST (CONT'D)			COST RM			
SUBTOTAL brought forward						
4	INTERNAL SERVICES	*	Building Served		Cost m2 RM	% of Bldg. Cost
			Ref. No.	Floor Area Served		
a	Planting Installation					
b	Electrical Works					
c	Mechanical Works					
d	Communication Installation					
5	EXTERNAL WORKS		Appropriate Unit		Quantity	Unit Cost
a	i) Site Preparation		g) Hectares			
	ii) Earthwork (S.I. = %)		h) Cu. m moved (m3)			
b	Roads, Hardstanding, Footpaths & Paving		Surface Area (m2)			
c	Fencing & Gates		Perimeter (m)			
d	Turfing & Soft Landscaping (S.I. = %)		Turfed Area (m2)			
e	Surface Drainage		Tot. length of dm. & pipes (m)			
f	Sewerage		No. of occupants served			
g	Water Retention					
h	Rain Water Harvesting					
i	Accessory Building (eg. Refuse Chamber, Security Post, Mail Box Station, Pump House)					
6	PROVISIONAL SUM					
7	TOTAL COST (Total Items 1 to 6)					
8	GOODS AND SERVICES TAX (GST)					
9	TOTAL COST INCLUSIVE GST					
10	CONTRIBUTION FEE TO LOCAL AND UTILITY AUTHORITY		ALL IN UNIT RATE (of Total Items 8 to 11)			
	a) THB & JBA		Total Floor Area m2		Cost/m2	
	b) Telekoms		Quantity Surveyor			
			Superintending Officer's Representative			
11	MISCELLANEOUS (exclusive GST)					
	a) Advertisement					
	b) Documentation					
	c) Soil Investigation					
	d) Utility Mapping					
	e) Items Supplied/Procured by Client					
12	TOTAL (Items 1 to 10)		Superintending Officer/ State Director of Works			
13	SUPERVISION					
14	PROFESSIONAL FEES (exclusive GST)					
	a) Architect					
	b) Civil & Structural Engineer					
	c) Mechanical Engineer					
	d) Electrical Engineer					
	e) Quantity Surveyor					
	TOTAL COST OF PROJECT	*				

* Refer to Note 7.1 (b) & 8.2

NOTES ON FILING OF AS COMPLETED DETAILED ABSTRACT FORM (DSAF)

1.0 GENERAL INFORMATION

- 1.1 The information given on this Detailed Abstract is for Government use only.
- 1.2 No portion of the form is to be left blank. Items not applicable in any particular case shall have a dash inserted against them. If any item is included under THIS/DRAFT this shall be stated in the 'COOT' column.

2.0 TOTAL PROVISION

- 2.1 Total Provision shall be the Total Provision as stated in the latest approved ATSA

3.0 PROVISION FOR THE CONSTRUCTION

- 3.1 Provision with Construction shall be the Total Cost of Project as stated in the latest approved ATSA

BRIEF DESCRIPTION OF BUILDINGS

The following Abbreviations shall be used in completing the 'Brief description of Buildings':

AC - Aluminium	CCR - Coloured Cement Rendering	MT - Mason Tiles	T - Tiles
AB - Acoustic Board	CHB - Concrete Hollow Blocks	MFB - Metal Fibre Sheet	Tar - Tynolux
AC - Adhesive Cement	FF - Fastflow	MFW - Metal Framed Screen Wall	Ts - Insitu Tarps
BR - Cement BRQ	FBR - Fastflow Bricks	CRB - Cracking Gypsum Board	TS - Timber Siding
BRF - Built-Up Roofing Felt	FCB - Fibre Cement Board	PF - Plastered Brick	TS - Timber Siding
CB - Cement Sand Brick	DMO - Galvanized Metal Siding	PCM - Plaster Concrete Mortar	TT - Tensar Tiles
CR - Cement Rendering	GWL - Glass Wool Board	PP - Plaster	TSK - Timber Framed Screen Wall
CSB - Cement	SWT - Slotted Wall Tiles	QT - Quarry Tiles	VT - Vinyl Tiles
CT - Concrete Tiles	MP - Myle Plaster	RC - Reinforced Concrete	WCB - Wood Cement Board
CS - Concrete	LV - Luvex	RCS - Reinforced Gypsum Board	WCR - Waterproof Cement Rendering
CS-T - Concrete Tiles	MS - Mason Tiles	SL - Steel	

Below the term material and the finish shall be given in the case of floor, walls and flat roofs, that:

CON/NT

CON/CR

Below the term material or the type of suspension/finishing and the finish shall be given in the case of ceiling, that:

TWCO

AL/MTQ

4.0 PRIME COST AND PROVISIONAL SUM

- 4.1 All Prime Cost and Provisional Sums shall be listed in the spaces provided or on an attached sheet. The sum allowed and an actually expended (including variation of work) shall be shown.

5.0 PILING/SPECIAL FOUNDATION

- 5.1 Each type and size of Piling/Special Foundation and its unit quantity and unit cost shall be stated separately.
- 5.2 The unit for piling shall be in linear metres and quantity for piling shall be the borehole driven length. The unit for special foundation shall be in square metres and quantity shall be the Floor Area of the building concerned.

6.0 BUILDING

- 6.1 The cost for the building shall be exclusive of all services.
- 6.2 (a) The Floor Area shall mean the Gross Floor Area of all enclosed spaces fulfil the functional requirements of the building measured flat on top to the internal face of the enclosing walls.
(b) The volume and Carport shall be stated only for buildings for functional requirement such as Storage, Godowns, Warehouses, Lockup, Trainers, Auditoriums and the like.
- 6.3 The Drawing Numbers to be stated shall only be those of the Architectural Draw plans, sections and elevations. Structural and other detailed drawing numbers need not be stated.

7.0 INTERNAL SERVICES

- 7.1 The cost for the internal services shall be inclusive of Profit and Allowance and all labour work in connection therewith where applicable.
- 7.2 (a) Reference for building served shall be the same as the reference in item 2-4g, 5a, 5b, 5c) etc.
The total cost of each internal service, for Cost/Unit of Floor Area served and its cost in relation to the cost of the building served by the respective service shall be included in this Form.
(b) The spaces provided in the column marked with an asterisk shall be inserted with the letter 'I' for the item included in the Main Tender. If for items which have been or will be done Departmentally and 'X' for other items not included in Main Tender.

8.8 EXTERNAL WORKS

8.8.1 The total cost of each of the External Work listed and its appropriate Unit, Quantity and Unit Cost shall be inserted in this Form.

8.8.2 The spaces provided in the volume marked with an asterisk shall be inserted with the letter 'Y' for the items included in the Main Tender, 'Y' for items which have been or will be done Separately and 'X' for other items not included in Main Tender.

8.8.3 The relevant service authority to which systems are connected shall be consulted before costs of Capital Contribution Fees are inserted in the Decibel Schedule.

8.9 GOODS AND SERVICES TAX (GST)

8.9.1 The amount of GST shall be included in accordance with the final certificate value of the total GST.

10.0 SAVINGS

10.0.1 Savings shall be the difference between Provision for Construction and the Total Cost of Project.

11.0 PROFESSIONAL FEES

11.1 The amount of Professional fees for each Consultant shall be inserted in the 'Cost' volume.

Penyediaan Anggaran Awalan

Faktor-faktor yang mempengaruhi ketepatan

20

Skop projek



Keperluan luas lantai

Keadaan tapak



Jenis Kontrak

Rekabentuk
Piawai/Bukan
Piawai



Lokasi

Tempoh
Pembinaan



Tarikh tender

Kaedah Anggaran Awalan

21



**Penilaian
Unit.**

**Pengiraan
Keluasan
Lantai
Kasar**



Kaedah Anggaran Awalan

Penilaian Unit

Unit biasa bangunan (Kelas/Katil/ Jemaah)

Meliputi kos:-

- i) Kos bangunan
- ii) Kerja pakar
- iii) Kerja luar (saliran permukaan dan saluran najis ke lurang pertama)
- iv) Kerja Permulaan

Kaedah Anggaran Awalan

Penilaian Unit

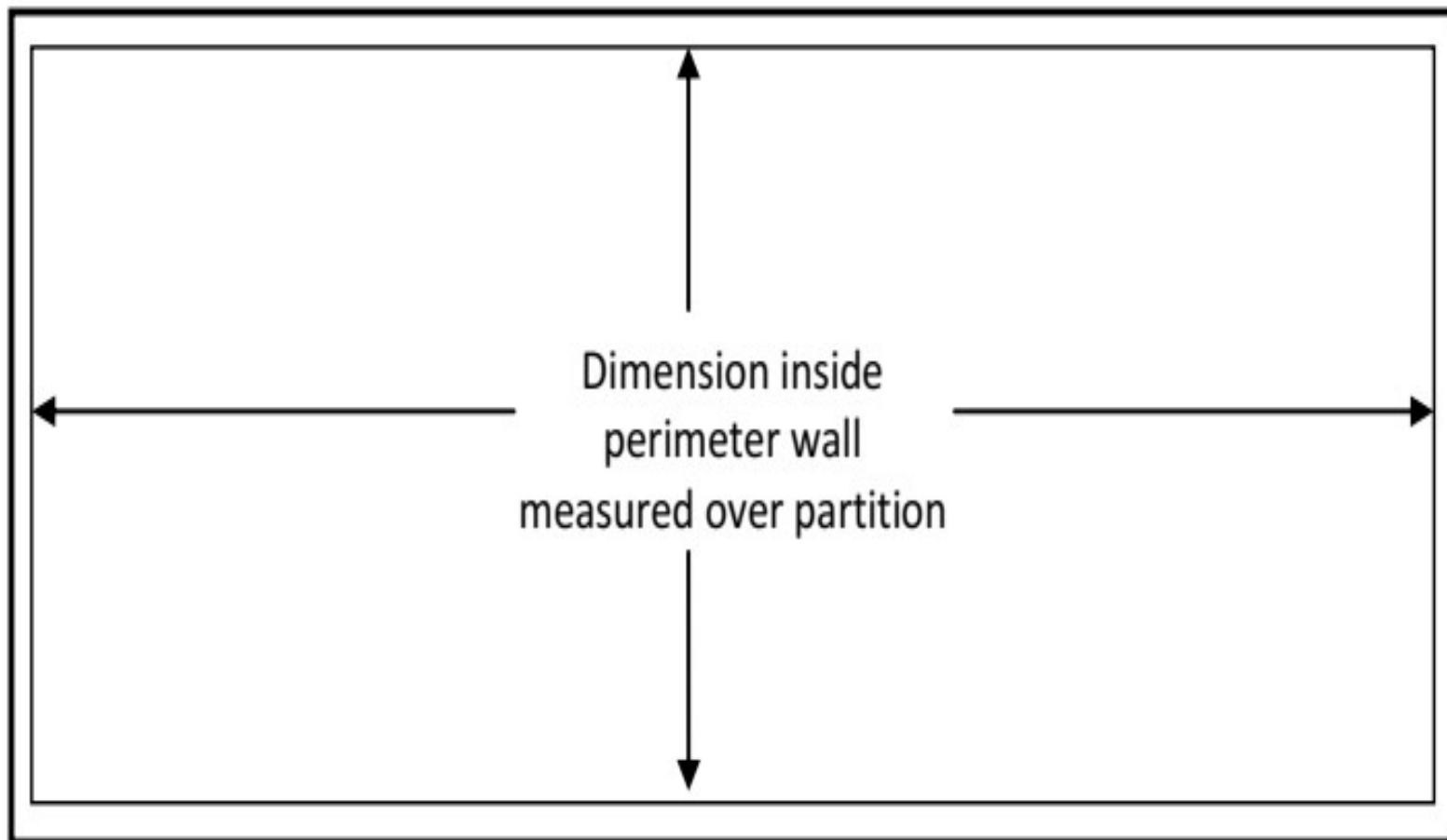
Kos lain perlu ditambah :-

- i) Cerucuk
- ii) Kerja luar lain
- iii) Yuran Iktisas
- iv) Kos luar jangka

Kaedah Anggaran Awalan

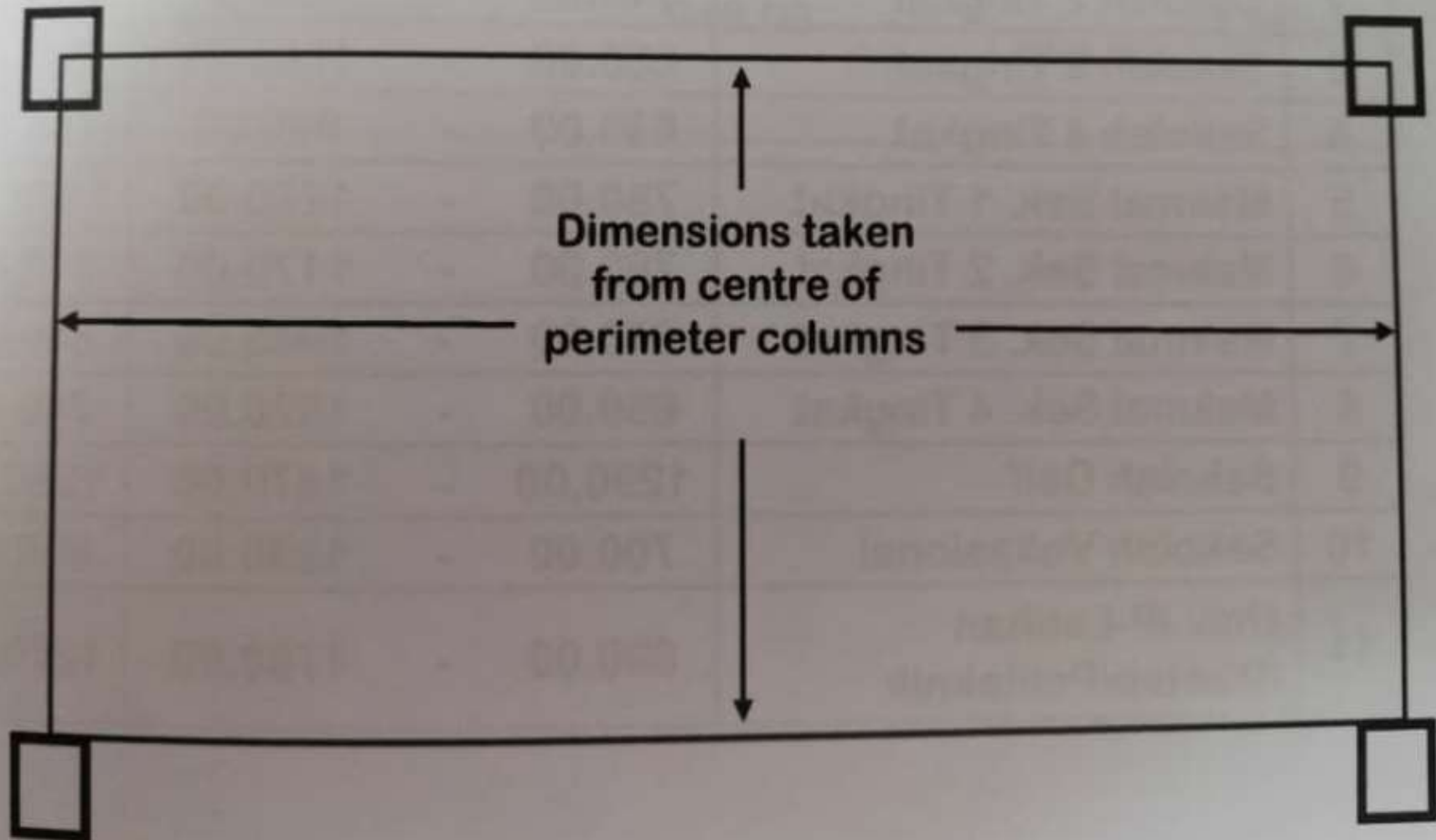
Kaedah Pengiraan Keluasan Lantai Kasar

- a. Keluasan lantai kasar dikira dengan mengukur antara permukaan dalaman dinding luar di setiap tingkat tanpa membuat pelarasan untuk dinding dalam atau sesekat



Kaedah Anggaran Awalan

- b) Sekiranya bangunan berkenaan tidak mempunyai dinding luar, contohnya bangsal kenderaan, dimensi diukur antara tengah-tengah tiang-tiang luar.



Kaedah Anggaran Awalan

Purata kerja bangunan utama
terdiri daripada:-

- i) Asas pad
- ii) Struktur bangunan
- iii) Dinding
- iv) Pintu dan Tingkap
- v) Kemasan
- vi) Kelengkapan kebersihan

$GFA \times \text{Kos Semeter Persegi}$

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JILID

74

**KOS PURATA
SEMETER PERSEGI
(BANGUNAN)**

Julai - Disember 2018

JABATAN KERJA RAYA MALAYSIA



Bahagian Utama

```
graph TD; A[Bahagian Utama] --- B[Angkatunjuk Harga Tender & Lokaliti]; A --- C[Peratusan Kerja Awalan]; A --- D[Kos Purata Semeter Persegi Bangunan]; A --- E[Purata % Kerja Pakar]; A --- F[Purata % Kerja Luar Bangunan];
```

Angkatunjuk
Harga
Tender &
Lokaliti

Peratusan
Kerja
Awalan

Kos Purata
Semeter
Persegi
Bangunan

Purata %
Kerja Pakar

Purata %
Kerja Luar
Bangunan

PROJEK :	KLINIK KESIHATAN JENIS 3			RUJUKAN:	KLINIK KESIHATAN JENIS 3		
LOKASI :	ALOR GAJAH, MELAKA			LOKASI :	IPOH, PERAK		
KAWASAN :	C	1.0000		KAWASAN:	B	1.1374	
KELUASAN:	2,300	M2		KOS/M2 :		RM2,300.00	
JANGKA TENDER :		2020		TAHUN TENDER:		2017	
A	KOS BANGUNAN :	$\frac{1.0000}{1.1374}$	X	RM2,300.00	=		RM2,022.16
B	KERJA PAKAR						
	i) Elektrik	16%	X	RM2,022.16	=		RM323.54
	ii) Pencegahan Kebakaran	4%	X	RM2,022.16	=		RM80.89
	iii) Pemasangan Hawa Dingin	11%	X	RM2,022.16	=		RM222.44
	iv) Pelbagai	14%	X	RM2,022.16	=		RM283.10
C	KERJA LUAR BANGUNAN	11%	X	RM2,022.16	=		RM222.44
D	KERJA PERMULAAN	5%	X	RM3,154.56	=		RM157.73
				(A + B + C)			
	JUMLAH				=		RM3,312.29
E	KOS LUAR JANGKA DAN LAIN-LAIN	5%		A+B+C+D	=		RM165.61
	JUMLAH KOS/M2						RM3,477.91
ANGGARAN KOS SEMASA =	2,300	M2	X	RM3,477.91	=		7,999,183.22
ANGGARAN KENAIKAN TAHUN 2020	2.85%		X	3 TAHUN	=		683,930.17
ANGGARAN KOS TAHUN 2020					=		8,683,113.39

THANK YOU

