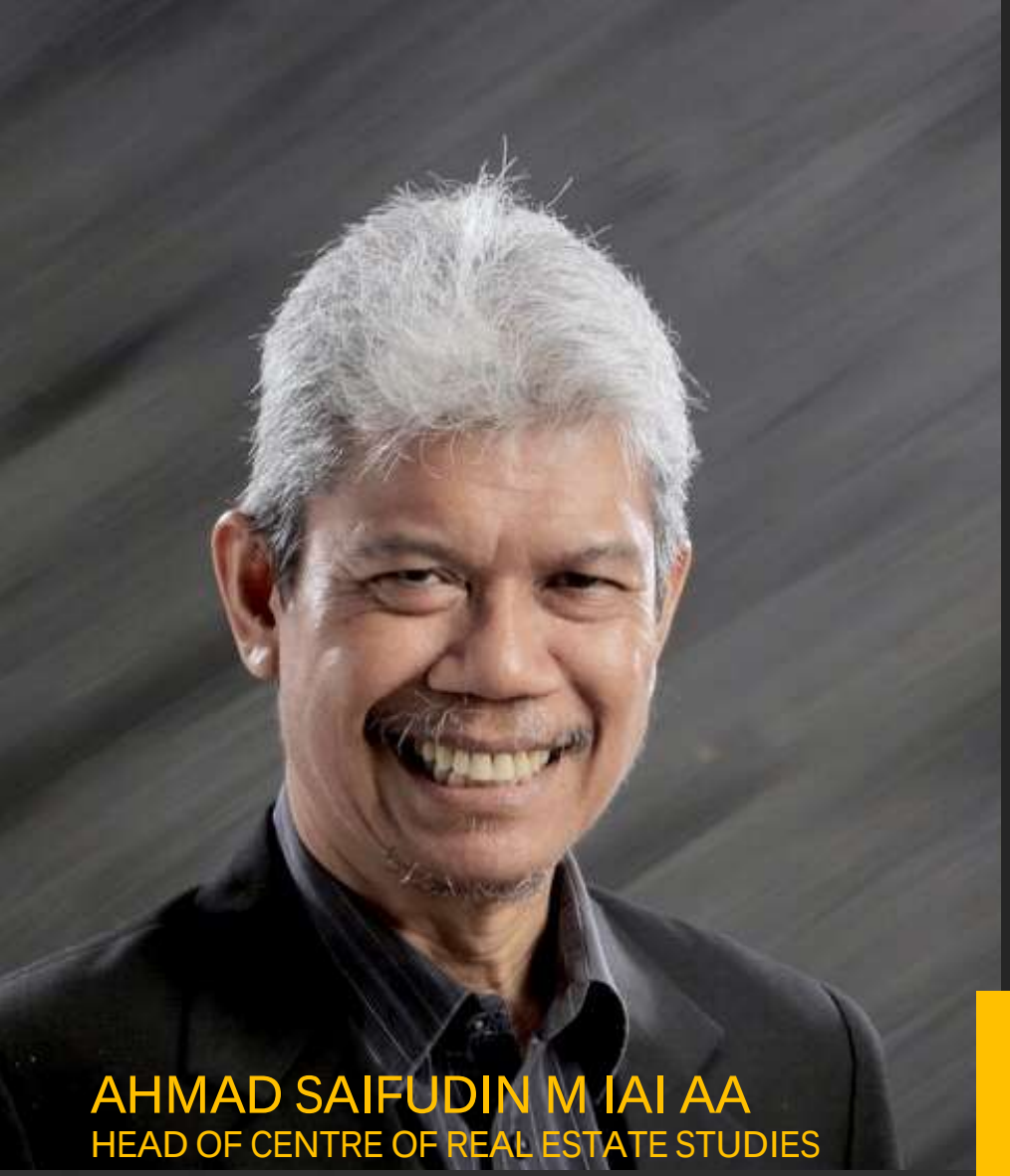

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DEPARTMENT of ARCHITECTURE

OPEN COURSE

REAL ESTATE DEVELOPMENT

FINANCIAL ASPECT
MASTER BUDGET ANALYSIS

Tuesday, June 9, 2020 | 13.00 WIB
ZOOM Meeting ID: 474 424 5505

What Is Real Estate?

Real Estate is an approach to the **development of the built environment** that is planned by considering aspects of the **product, market, legal** and **financial** comprehensively.

The Real Estate element is the **property, land, buildings,** air rights above the land and underground rights below the land.

The kind of RE's product is **residential, commercial** and **industrial**.

How is the development of Real Estate?

FINANCIAL ASPECT

1. MASTER BUDGET (Development Project)

   A comprehensive financial plan for a property development project as a whole that consists of several elements, including: land, infrastructure, construction, and operational and marketing management.

2. FINANCIAL SOURCES (Investment Project)

   Financial resources consist of equity capital, recognition of proceeds from sales and third party loans from financial or non-bank institutions for bridging finance.

3. FEASIBILITY ANALYSIS

   Feasibility can be indicated by the percentage rate of return on equity capital.

MASTER BUDGET

1. LAND
   land volume & characteristic, length of acquisition, price per m2, ripening costs, licensing permit fees & taxes
2. INFRASTRUCTURE
   types of infrastructure to be built, the cost of each, long time built
3. FACILITIES (GENERAL & SOCIAL)
   specify the type, which is charged to the Cost of Production, the cost of each type and when it will be built
4. BUILDING (CONSTRUCTION)
   type of property, construction costs, number of property units, product price assumptions

COST OF LAND

1. Land Acquisition
   - Type of Land Ownership (Private /SHM; Institution/HGB; Government; Traditional; Public)
   - Strategic Value of Location
   - Size of Land Area
2. Land Development
   - Type of Land Physical Characteristic (contour and soil bearing capacity)
   - Site planning characteristics

LAND ACQUISITION AND PERMITTED

NO	ITEMS	VOLUME	UNIT PRICE	SUB AMOUNT
A	SELECTION OF LAND			
1	Cost of Land Acquisition	m2	IDR	IDR
2	Social Cost	ls	IDR	IDR
3	Cost of Land Right (BPHTB)	%	IDR	IDR
4	Notary Public / PPAT Fee	%	IDR	IDR
5	Cost of Merger Certificates (HBG Induk)	ls/opt	IDR	IDR
	Sub Amount A	∑m2		∑IDR
B	PERMITTED			
1	Conformity of Land Use	ls/opt	IDR	IDR
2	Site Planning Permit	ls	IDR	IDR
3	Building Construction Permit	ls	IDR	IDR
	Sub Amount B			∑IDR
	Cost of Land Acquisition & Permitted (A+B)			$\sum_{A+B}$ IDR
	CLAP Unit Price IDR/m2	$\sum_{A+B}$ IDR / ∑m2		

LAND DEVELOPMENT

1. Land Cleaning

   Land clearing includes the work of cleaning up all kinds of plants that grow on it that have been agreed upon by the transaction value of the original land owner.

2. Land Maturation

   Land maturation involves excavation work using excavator heavy equipment to obtain land clearing that meets the estimated height of site planning.

3. Land Compacting

   Land compaction includes the work of cutting, moving, filling basins, filling up to a certain soil density according to site planning.

4. Land Plotting (Site Planning)

   Conduct land plots based on site plans by marking and measuring the planned layout of commercial areas, infrastructure and utilities and public facilities.

LAND DEVELOPMENT

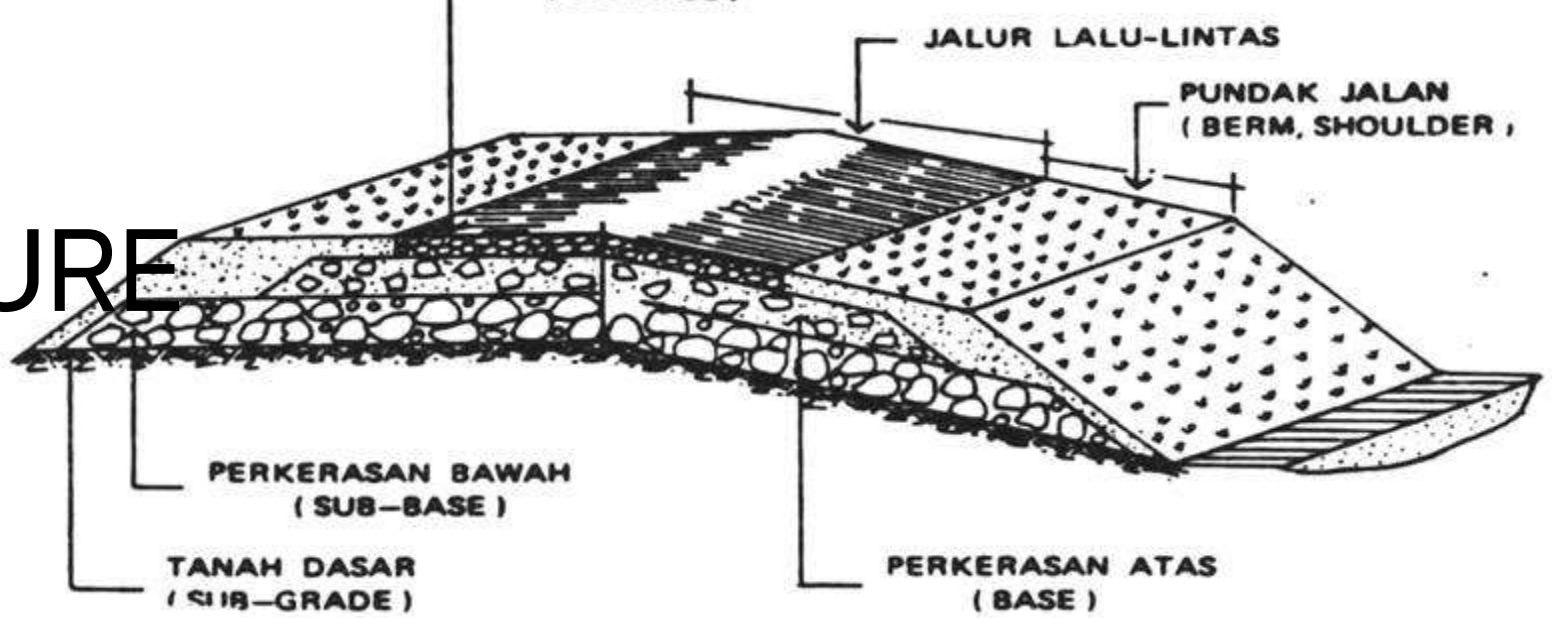
Land cleaning, maturation, compacting and plotting

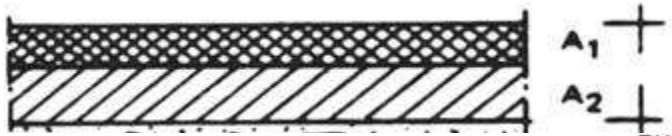
COST OF INFRASTRUCTURE

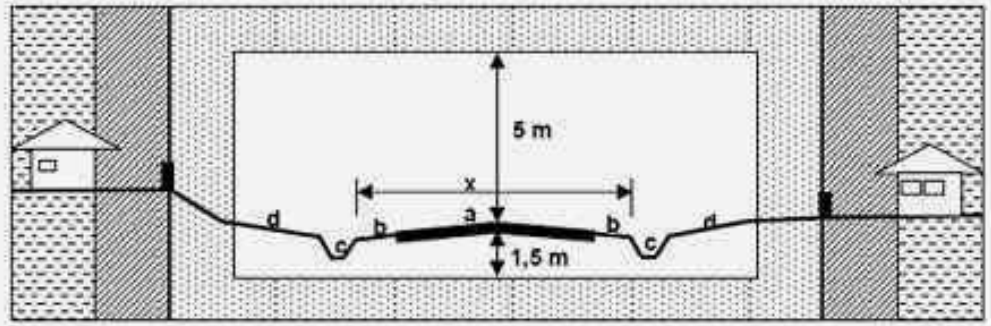
1. Road and Pedestrian
   - Neighboring road infrastructure (boulevard; ring road; connecting alley; pedestrian)
   - Road construction type (asphalt; pavement and combination of both)
2. Drainage

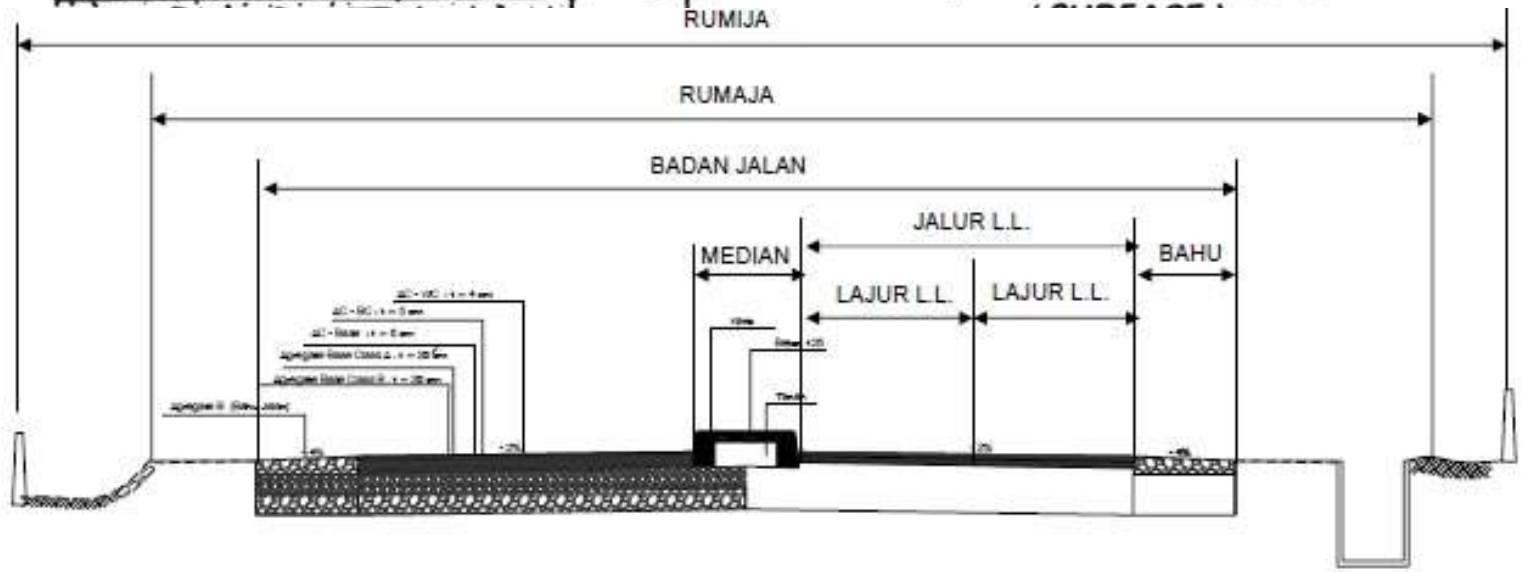
   Type of Drainage Construction (underground and open system)
3. Utility Network
   - Electricity Network (hanging cable and underground system)
   - Telephone Communication Network (hanging cable; underground and wireless transmitter system)
   - Clean water and Drinking water Network

COST OF INFRASTRUCTURE









COST OF INFRASTRUCTURE

Cendrawasih Boulevard Ciputat


Rivera Regency


Bintaro Estate

COST OF INFRASTRUCTURE

COST OF INFRASTRUCTURE

LAND DEVELOPMENT

NO	ITEMS	VOLUME	UNIT PRICE	SUB AMOUNT
C	LAND DEVELOPMENT			
1	Cutting - Filling - Grading	m3	IDR	IDR
2	Excavating & Compacting	m3	IDR	IDR
3	Land Plot (Site Planning)	m2	IDR	IDR
	Sub Amount C			ΣIDR
D	CONSTRUCTION OF INFRASTRUCTURE			
1	Road System	m2	IDR	IDR
2	Pedestrian / Sidewalks	m2	IDR	IDR
3	Drainage Network	m1	IDR	IDR
	Sub Amount D			ΣIDR
E	CONSTRUCTION OF UTILITIES NETWORK			
1	Electricity Network	unit	IDR	IDR
2	Telephone Communication Network	unit	IDR	IDR
3	Clean water and Drinking water Network	unit	IDR	IDR
	Sub Amount E			ΣIDR
	Plot Ready to Build Unit Price IDR/m2	Σ_{C+B+D} IDR / m2 (effective plot)		

COST OF PUBLIC FACILITIES

1. Social Public Facility
   Public facilities that are social in nature include, among others, a Worship House, a non-commercial multipurpose building, a security service post, a waste collection service post and others.
2. Commercial Public Facility
   Commercial public facilities are commodity property products that can be transacted, for example: Shop Houses, Health Clinics, Fitness Centers, Beauty Salons.

Prasarana, Sarana & Utilitas Umum | PP No.14 Th.2016

1) Pembangunan Prasarana, Sarana, dan Utilitas Umum Perumahan yang dilakukan oleh Pemerintah, Pemerintah Daerah, dan/atau setiap orang wajib dilakukan sesuai dengan rencana, rancangan dan perizinan.
2) Pembangunan Prasarana, Sarana, dan Utilitas Umum Perumahan harus memenuhi persyaratan: < SNI 03-1733-2004
   a. kesesuaian antara kapasitas pelayanan dan jumlah Rumah;
   b. keterpaduan antara Prasarana, Sarana, dan Utilitas Umum dan Lingkungan Hunian; dan
   c. ketentuan teknis pembangunan Prasarana, Sarana, dan Utilitas Umum.
3) Prasarana, Sarana, dan Utilitas Umum yang telah selesai dibangun oleh setiap orang harus diserahkan kepada Pemerintah kabupaten/kota sesuai dengan ketentuan peraturan perundang-undangan.

Kebutuhan lahan bagi sarana | SNI 03-1733-2004

Kebutuhan lahan bagi sarana pada unit RW (2.500 jiwa penduduk)

a. balai pertemuan warga min. 300 m2
b. pos hansip min. 12 m2
c. gardu listrik min. 30 m2
d. telepon umum, bis surat, bak sampah kecil min. 30 m2
e. parkir umum min. 100 m2

1 Keluarga = 2 dewasa 3 anak

Kebutuhan lahan bagi sarana pada unit Kelurahan (30.000 jiwa penduduk)

a. kantor kelurahan min. 1.000 m2
b. pos kamtib min. 200 m2
c. pos pemadam kebakaran min. 200 m2
d. agen pelayanan pos min. 72 m2
e. loket pembayaran air bersih min. 60 m2
f. loket pembayaran listrik min. 60 m2
g. telepon umum, bis surat, bak sampah besar min. 60 m2
h. parkir umum min. 500 m2

PUBLIC FACILITY (SOCIAL & COMMERCIAL)

NO	ITEMS	VOLUME	UNIT PRICE	SUB AMOUNT
F	SOCIAL PUBLIC FACILITY			
1	Worship Place	m2	IDR	IDR
2	Multipurpose Hall	m2	IDR	IDR
3	Security System Post	m2	IDR	IDR
4	Gate / Fence / Common Ground	m2	IDR	IDR
	Sub Amount F	∑m2		∑IDR
G	COMMERCIAL PUBLIC FACILITY			
1	Shop Houses	m2	IDR	IDR
2	Health Clinics	m2	IDR	IDR
3	Fitness Centers, Spa, Salons	m2	IDR	IDR
4	Play Group or Kindergarten (opt)	m2	IDR	IDR
	Sub Amount G			∑IDR
	KASIBA Unit Price IDR/m2	$\sum_{A+B+C+D+E+F}$ IDR / ∑ m2 (effective plot)		

COST OF PROPERTY CONSTRUCTION

1. Property Product (residential development based)

   Type of Property Product: Landed House, Couple House, Row House, Block House, Low Rise House & Vertical House (strata title based)

2. Construction Management (project based)

   The seven main categories of responsibilities of a construction manager, namely project management planning, price management, time management, quality management, contract administration, safety management and professional practice.

3. Marketing Management (agencies based)

   Property marketing management includes formulating marketing strategies, marketing mix, scheduling, managing marketing agents and effective promotional tactics.

4. Cost of Transaction

Property Product Construction

NO	ITEMS	VOLUME	UNIT PRICE	SUB AMOUNT
H	SIMPLE BUILDING			
1	Civil work (foundation-structure-roof)	m2	IDR	IDR
2	Architecture finishing work	m2	IDR	IDR
3	Electrical – wiring - installment	dot	IDR	IDR
4	Plumbing – piping - sanitary	dot	IDR	IDR
5	Landscape (outdoor)	m2	IDR	IDR
6	PLN Electricity subscription fees	900 VA	IDR	IDR
7	PDAM drinking water subscription fees	unit	IDR	IDR
8	TELKOM telephone subscription fees	unit	IDR	IDR
9	Test and Commissioning	ls	IDR	IDR
	Sub Amount G			∑IDR
	Property Product Unit Price IDR/m2	$\sum_{H\,1\text{-}9}$ IDR / ∑ m2 (volume)		

Property Product Construction

NO	ITEMS	VOLUME	UNIT PRICE	SUB AMOUNT
I	CONSTRUCTION MANAGEMENT			
1	Planning & Designing	%	IDR	IDR
2	Building Construction	m2	IDR	IDR
3	Time, Quality and Cost Monitoring	%	IDR	IDR
	Sub Amount I			IDR
J	MARKETING MANAGEMENT			
1	Marketing Strategy & Mix (4P)	ls	IDR	IDR
2	Scheduling	ls	IDR	IDR
3	Marketing Agencies	ls	IDR	IDR
	Sub Amount J			IDR
K	COST OF TRANSACTION (opt)			
	Sub Amount K			IDR
	Property Management UP IDR/m2	$\sum_{I+J+k}$ IDR / $\sum$ (plot m2 + prop m2)		

ANALYSIS OF COST OF PRODUCTION

1. COST OF PERMITTED LAND

   Unit price for acquisition of licensed land is the cost spent to acquire land (clear and clean) divided by the total land area (IDR/m2).

2. COST OF PARCEL READY TO BUILD

   Unit price for acquisition of licensed land is the cost spent to acquire land (clear and clean) divided by the total land area (IDR/m2)

3. COST OF BUILDING CONSTRUCTION

   Unit price for acquisition of licensed land is the cost spent to acquire land (clear and clean) divided by the total land area (IDR/m2)

4. COST OF PROPERTY MANAGEMENT

   The price of a property management unit is the costs incurred to manage a construction project and the building is sold divided by the total effective building area plus the effective parcel area sold (IDR/m2)

ANALYSIS OF COST OF PRODUCTION

4. COST OF PERMITTED LAND IDR/m2

1. COST OF BUILDING CONSTRUCTION IDR/m2

2. COST OF PARCEL READY TO BUILD IDR/m2

3. COST OF PROPERTY MANAGEMENT IDR/m2

DRAFT ANGGARAN BIAYA INVESTASI (15 hektar)

KAWASAN PERUMAHAN PNS JOGJAKARTA

NO	PEKERJAAN								JUMLAH BIAYA
A	**AKUISISI LAHAN & LEGALITAS TANAH**							86,200.00	**12,930,000,000.00**
1	Pembayaran Pemilik Tanah (individu)					100.00%	150,000	80,000.00	12,000,000,000.00
2	Pajak BPHTB (Kantor Pajak)					5.00%		12,000,000,000.00	600,000,000.00
3	Notaris (PPAT)					1.50%		12,000,000,000.00	180,000,000.00
4	Palagara & rapat2 Panitia A (Lurah)					0.50%		12,000,000,000.00	60,000,000.00
5	Biaya Legal Sertifikat Induk (BPN)					0.75%		12,000,000,000.00	90,000,000.00
B	**PERIJINAN & PEMBANGUNAN**							3,457.83	**518,673,750.00**
1	Ijin Penggunaan Pemanfaatan Tanah (BP2D)					1.00%		12,000,000,000.00	120,000,000.00
2	Ijin Lokasi (Badan Pengendalian Pertanahan Daerah)					1.00%		12,000,000,000.00	120,000,000.00
3	Ijin Rencana Tapak / Site Plan (Bupati)					0.10%		111,469,500,000.00	111,469,500.00
4	Ijin Membangun Bangunan (Kimpraswil)					0.15%		111,469,500,000.00	167,204,250.00
C	**PEMATANGAN LAHAN**							30,000.00	**4,500,000,000.00**
1	Memotong; Mengurug; Meratakan						150,000	25,000.00	3,750,000,000.00
2	Membuat Kavling2 dan Ruang Terbuka Hijau						150,000	5,000.00	750,000,000.00
D	**KONSTRUKSI INFRASTRUKTUR**							419,392.41	**4,969,800,000.00**
1	Jalan Penghubung ke jalan eksisting utama						1,050	300,000.00	315,000,000.00
2	Jalan Lingkungan Permukiman						10,800	275,000.00	2,970,000,000.00
3	Saluran Air Hujan (terbuka 50cm luar)						21,600	75,000.00	1,620,000,000.00
4	Sumur Resapan Lingkungan						432	150,000.00	64,800,000.00
E	**KONSTRUKSI FASILITAS**								**572,000,000.00**
1	Fasilitas Umum Komersial					0	72	2,000,000.00	-
2	Fasilitas Sosial non-Komersial					2	200	1,200,000.00	520,000,000.00
3	Fasilitas Keamanan Lingkungan					10	4	1,300,000.00	52,000,000.00
F	**INSTALASI JARINGAN UTILITAS**							1,225,000.00	**1,617,000,000.00**
1	Jaringan Listrik Kawasan						1,320	500,000.00	660,000,000.00
2	Jaringan Air Bersih						1,320	475,000.00	627,000,000.00
3	Jaringan Telepon						1,320	250,000.00	330,000,000.00
G	**KONSTRUKSI RUMAH KOMERSIAL**		105,000	104,840	47,520		1,320	2,345,738.64	**111,469,500,000.00**
1	Tipe Rumah A (standard 36/72)	72	36	69,840	34,920		970	72,000,000.00	69,840,000,000.00
2	Tipe Rumah B (kualitas meningkat 36/100)	100	36	35,000	12,600		350	77,400,000.00	27,090,000,000.00
3	Manajemen Proyek Terpadu					10%		96,930,000,000	9,693,000,000.00
4	Jasa Arsitek dan Insinyur					5%		96,930,000,000	4,846,500,000.00
I	**MANAJEMEN PEMASARAN**								**19,732,427,820.00**
1	Pajak Penjualan					10.00%		177,769,620,000	17,776,962,000.00
2	Pajak BPHTB (Kantor Pajak)					0.00%		177,769,620,000	-
3	Jasa Agen Pemasaran (individual)					0.30%		177,769,620,000	533,308,860.00
4	Jasa Manajemen Pemasaran (perusahaan)					0.80%		177,769,620,000	1,422,156,960.00
									151,809,401,570.00
PERKIRAAN PENDAPATAN PENJUALAN							RUMAH	RP/UNIT	**205,401,818,511.44**
1	Tipe Rumah A (standard 36/72)						970	150,528,570.94	146,012,713,809.53
2	Tipe Rumah B (kualitas meningkat 36/100)						350	169,683,156.29	59,389,104,701.91
SURPLUS / DEFISIT									**53,592,416,941.44**

4. COST OF PERMITTED LAND IDR/m2

2. COST OF PARCEL READY TO BUILD IDR/m2

1. COST OF BUILDING CONSTRUCTION IDR/m2

3. COST OF PROPERTY MANAGEMENT IDR/m2

COST ANALYSIS

BUILDING AREA = 45 m2
PARCEL AREA = 66 m2
PROPERTY PRICE = IDR 306.000,-

ITEMS	COST ANALYSIS
GROSS PROFIT PROJECTION	40% X IDR 306.000,- = IDR 122.400.000,-
BUILDING COST	36 m2 X IDR 2.000.000,- = IDR 72.000.000,-
KASIBA COST	66 m2 X IDR 1.600.000,- = IDR 105.600.000,-
PROPERTY MANAGEMENT	(36+66)m2 X IDR 60.600,- = IDR 6.000.000,-
COST OF LAND & PERMITTED	IDR 1.600.000,- / 5 (ass) = IDR 320.000,- / m2

This calculation is used for academic studies

CONCLUSION

MASTER BUDGET ANALYSIS

Elements	%
Land & Permitted	9%
Land Development	6%
Building Construction	72%
Property Management	13%

Cost proportion of Cost of Production

PRICE LIST ANALYSIS

Element	%
Building Cost	39,3%
KASIBA Cost	57,3%
Property Management	0,4%
Gross Profit	40,0%

Cost Effect on Cost of Production

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Thank you hopefully useful for
the development of science and practice

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