

BAY CITY APARTMENT

Bay City, Metro Manila, Philippines

Disclaimer:

Dalam presentasi ini saya akan (*berusaha*) berlaku (*sebaik mungkin*) sebagai “sales”. contoh pemaparan desain pertama dalam presentasi ini adalah desain dengan data fiktif (yang saya sendiri buat dari hasil presentasi sebelumnya). Presentasi ini menggunakan scenario pemaparan desain kepada klien dengan pendekatan green.
Skenario ini bersifat (*mayoritas*) fiktif.

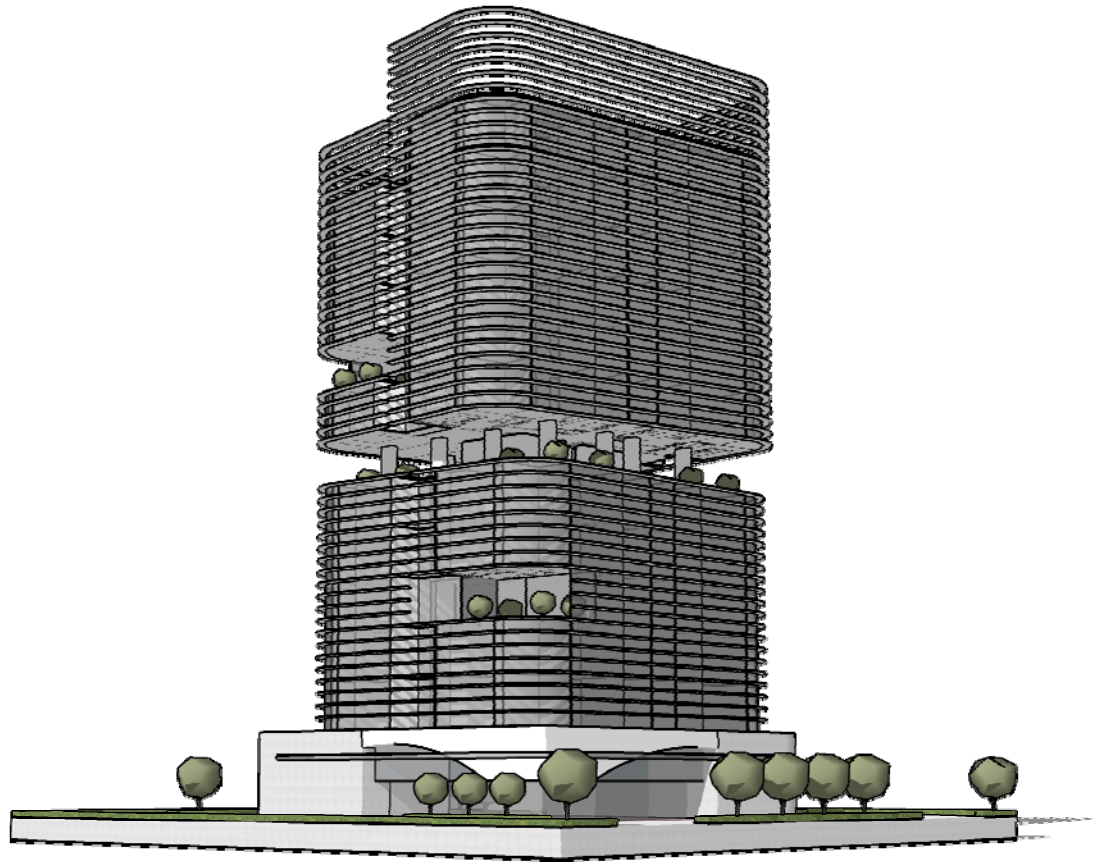


BAY CITY, MANILA

Area Bay City di Manila merupakan **area menengah keatas** yang memiliki fasilitas yang lengkap. Akan tetapi **belum banyak fasilitas hunian** yang ada di area tersebut. Oleh karena itu, lokasi tapak di Bay City ini cocok untuk memberikan pilihan kepada eksekutif dan masyarakat setempat untuk memilih tempat tinggal yang sudah dikelilingi berbagai fasilitas umum.

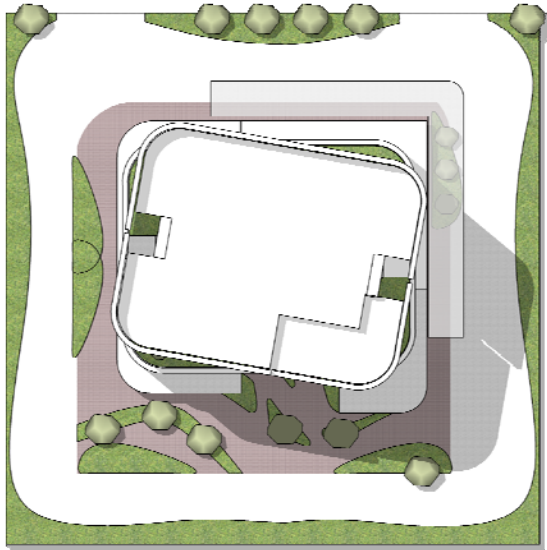


**“Modern Architectural themed
residentials are in high demand now” –
Lamudi, Philippines No 1 Real Estate
Partner**

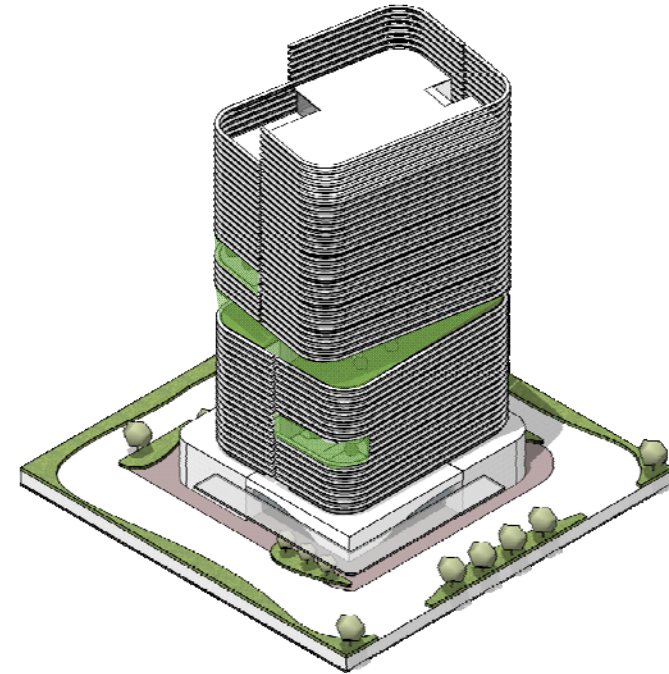


BUILDING DATA

Site	: 3600m ²
Building Area	: 5000m ²
Units	: 50
Occupancy	: 4 people/unit
Function	: Apartment
Floor	: 13 floor (podium included) +
basement	



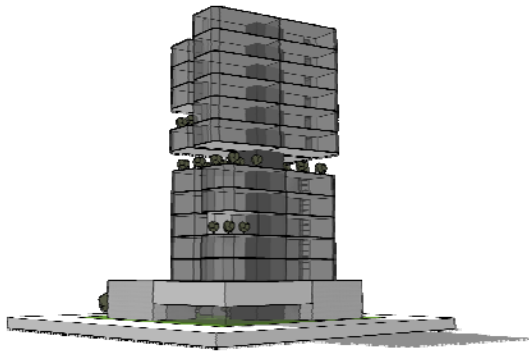
North (and South area) as façade has the **widest area**, minimizing the surface area on the warmer/hotter west (and east) side.



Giving void on building mass to give **green open space as public facility**

DESIGN CONCEPT Massing and facade

Clear as Water
Visibility | Reflective



Using a reflective double glass to reflect the surrounding environment

Flow like water
Fluid | Organic



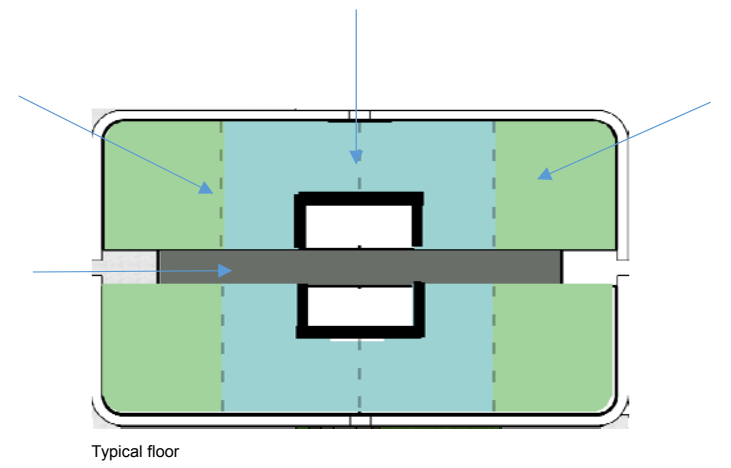
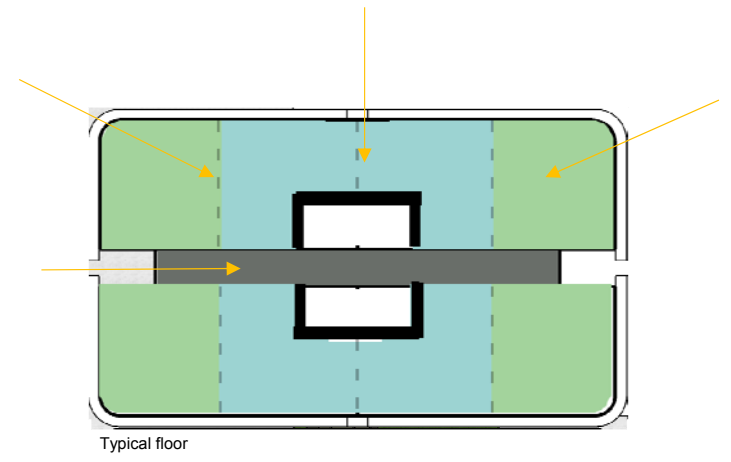
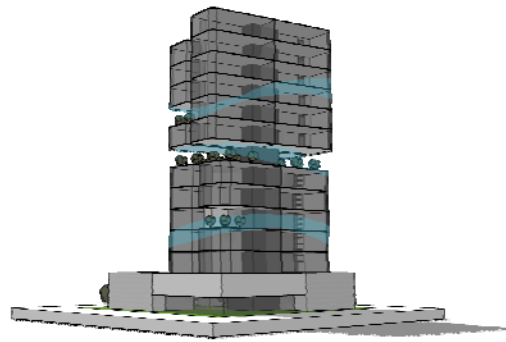
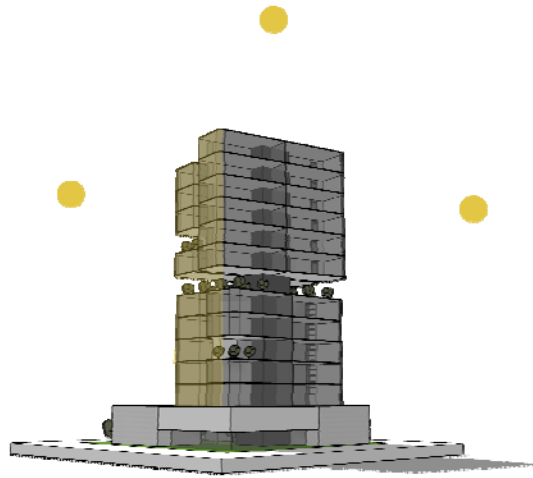
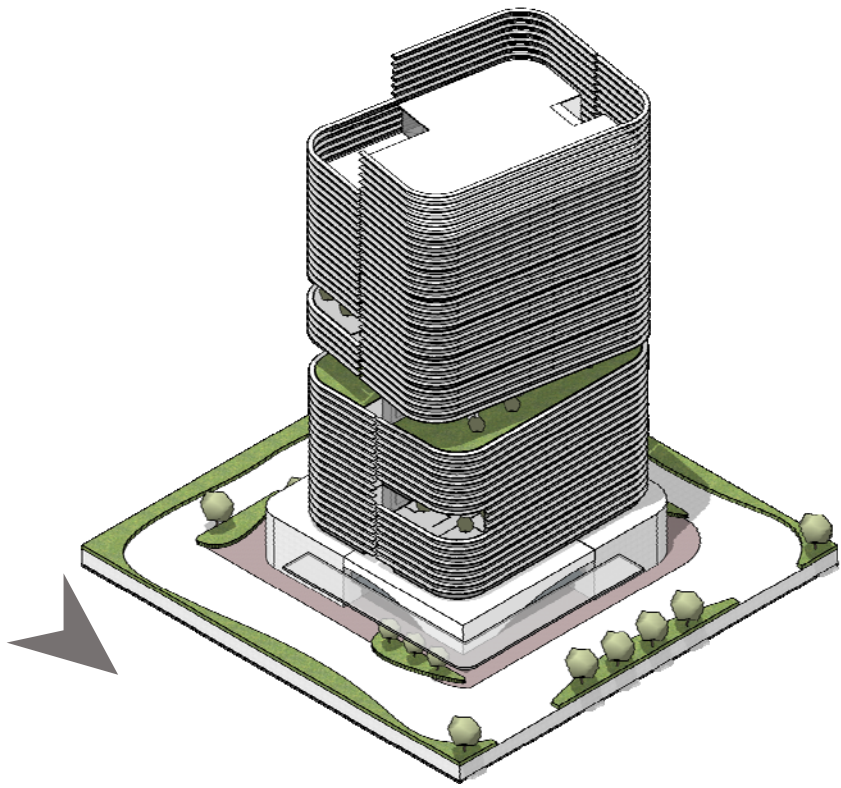
Horizontal shading as double façade giving fluid / organic impression to buildings design



Double façade as horizontal shading to the apartment / unit room

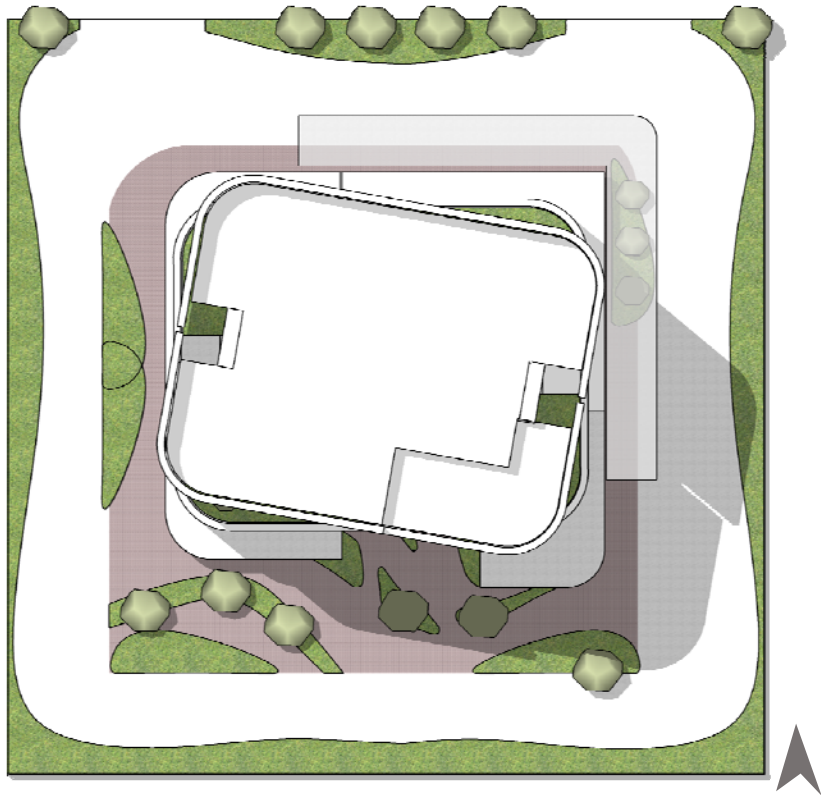
**DESIGN
CONCEPT**

Massing and facade

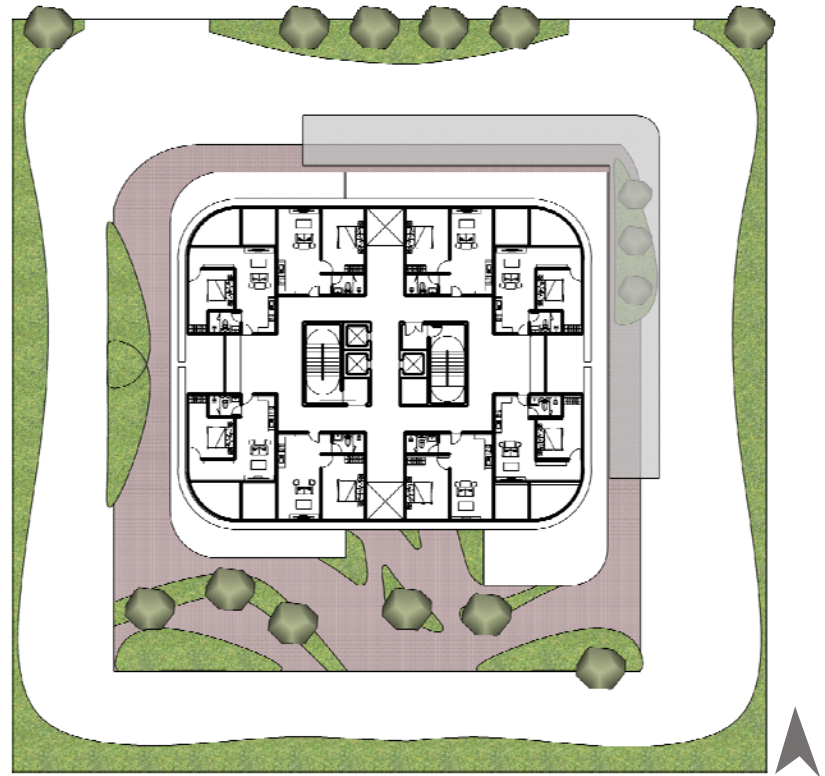


**TYPICAL
FLOOR**

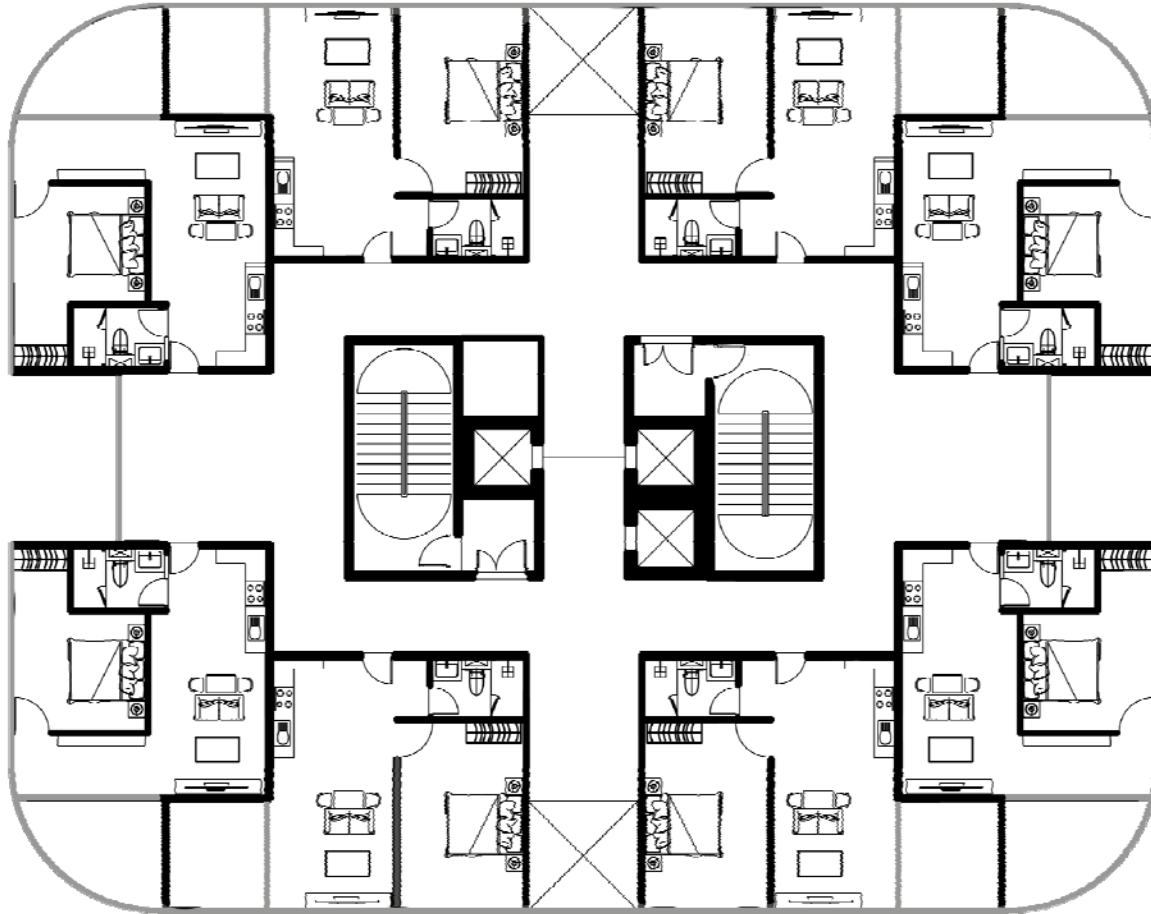
Daylight and Natural Ventilation



Situation Plan Drawing



Siteplan Plan Drawing



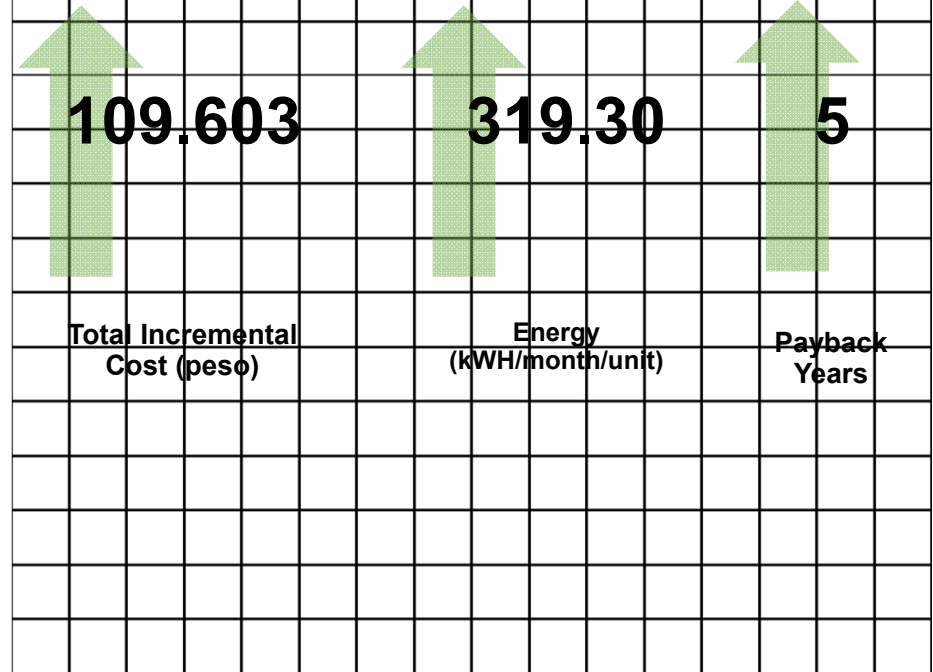
**TYPICAL
FLOOR**

Plan Drawing





Bay City Apartment





Design without green concept



Effects on
environment



Buildings cost



Not sustainable



“Sustainable and eco-friendly real estate properties are the latest trend in Manila”
– Lamudi, Philippines No 1 Real Estate Partner

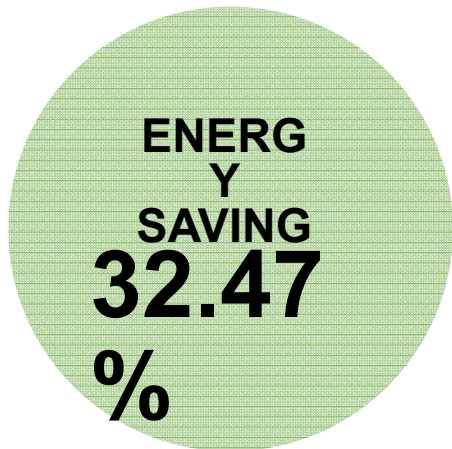
BAY CITY APARTMENT

Bay City, Metro Manila, Philippines

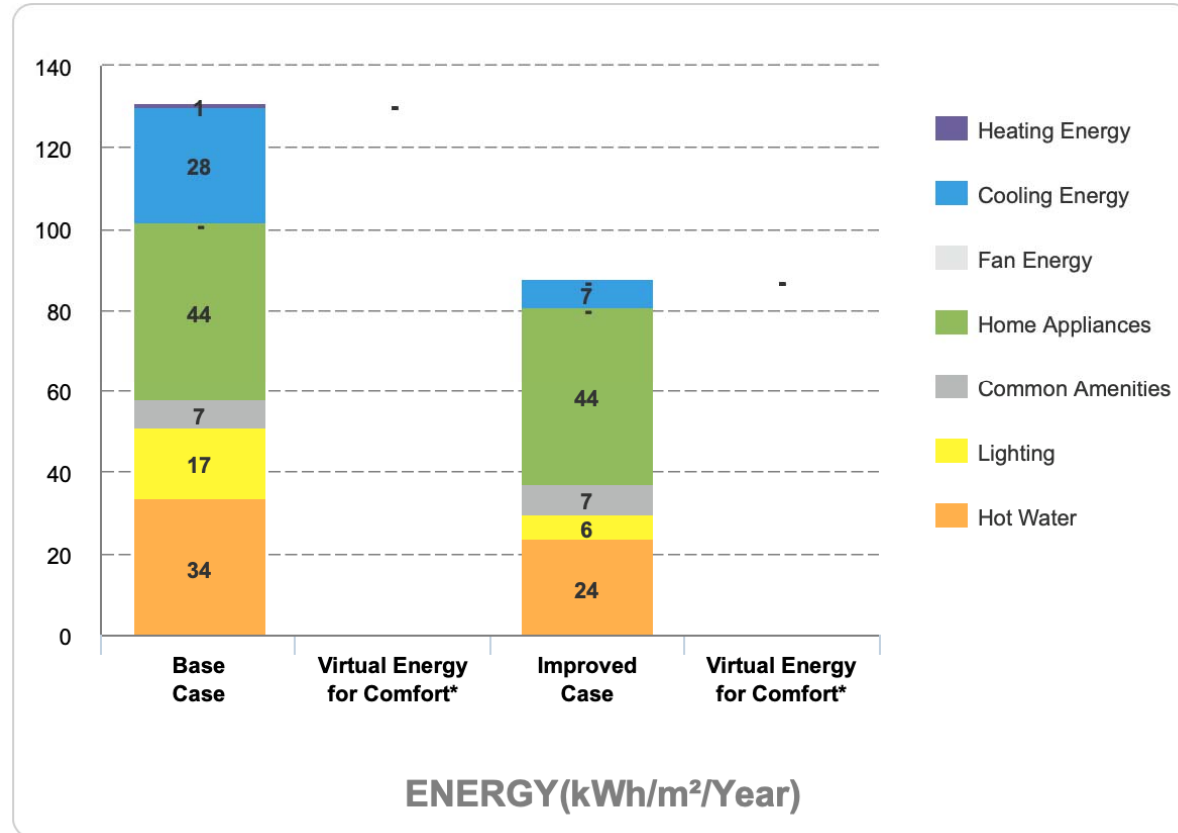
UPGRADE

Energy

- WWR
- External Shading devices
- Low-E Coated Glass
- Natural Ventilation
- Air Conditioning System
- Energy Saving Light Bulb – Internal and External
- Lighting controls for common areas and outdoors



32.47% Meets EDGE Energy Standard



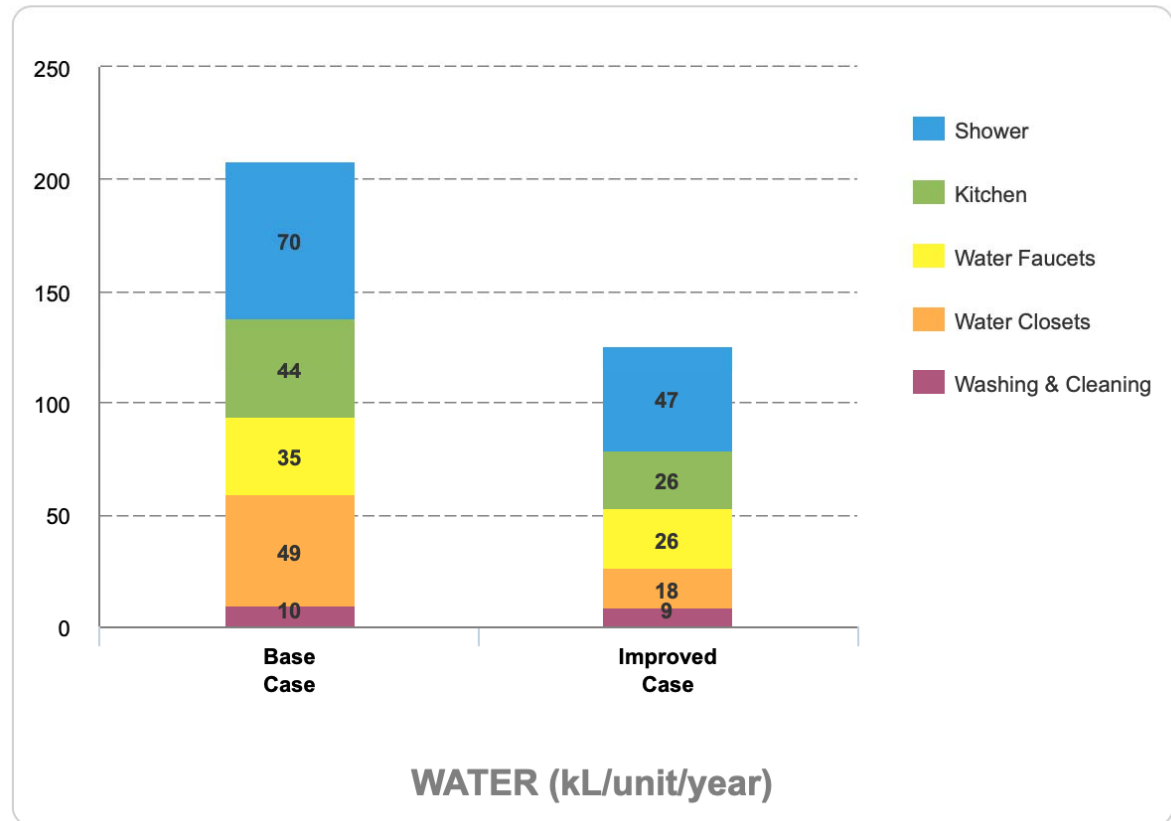
Final selected edge criteria

**WATER
SAVIN^G
39.34%**

Water

- Low-Flow Showerhead
- Low-Flow Faucets for Kitchen Sinks
- Low-Flow Faucets in All Bathroom
- Dual flush for water closets in All Bathroom
- Rainwater harvesting system

39.34% Meets EDGE Water Standard



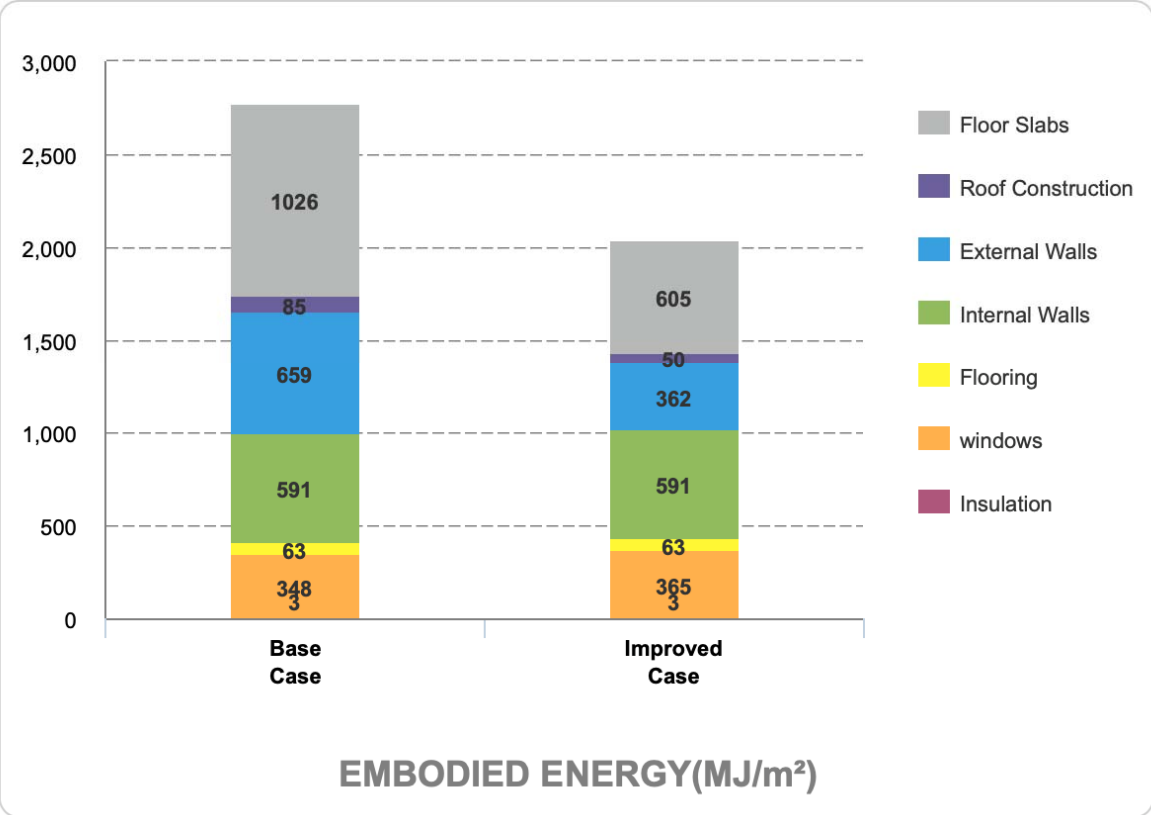
Final selected edge criteria

MATERIAL SAVING
26.50%

Materials

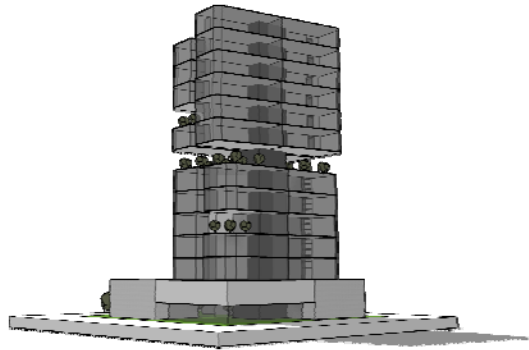
- In situ concrete with >30% FPA for Floor slabs and roof
- Precast concrete panel for external walls
- Common brick wall with plaster on both sides
- Ceramic tile for floor
- Alumunium for windows frame

26.50% Meets EDGE Materials Standard



Final selected edge criteria

WWR
Window Wall Ratio



31.4% window wall ratio to achieve the most efficient and cheaper cost without bothering the design experiences.

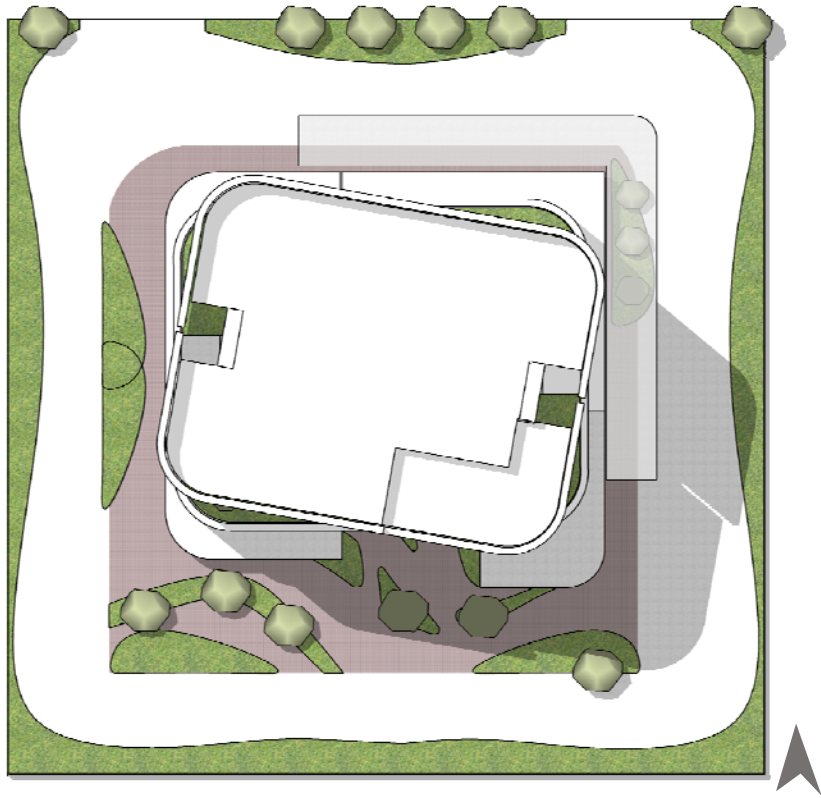
Natural Ventilation



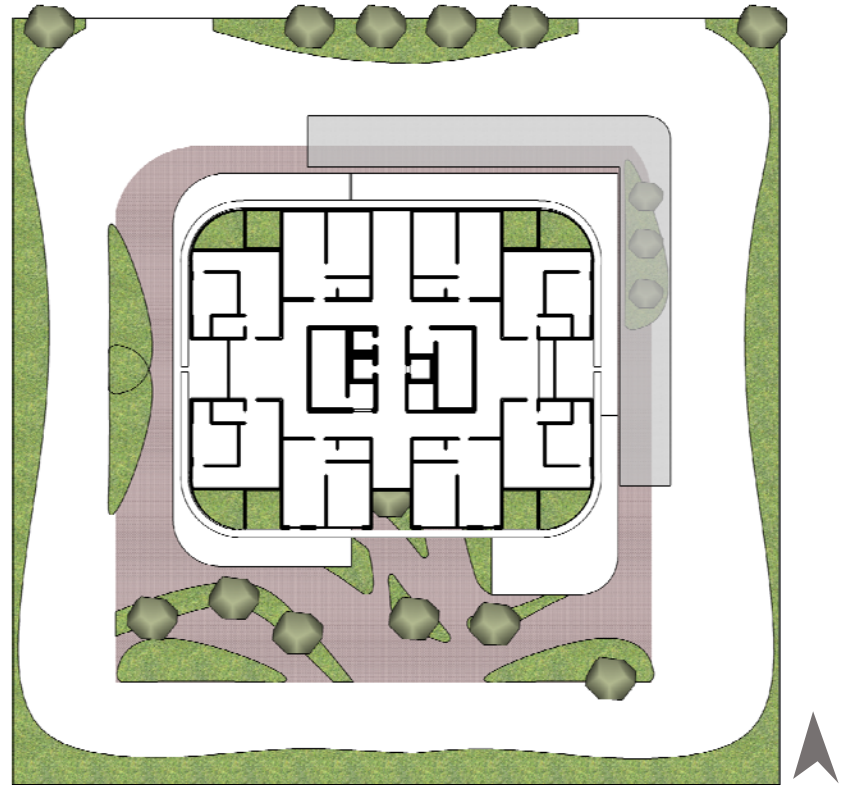
Giving natural ventilation with custom ventilation's design in unit apartment. Giving user fresh air.

**DESIGN
CHANGES**

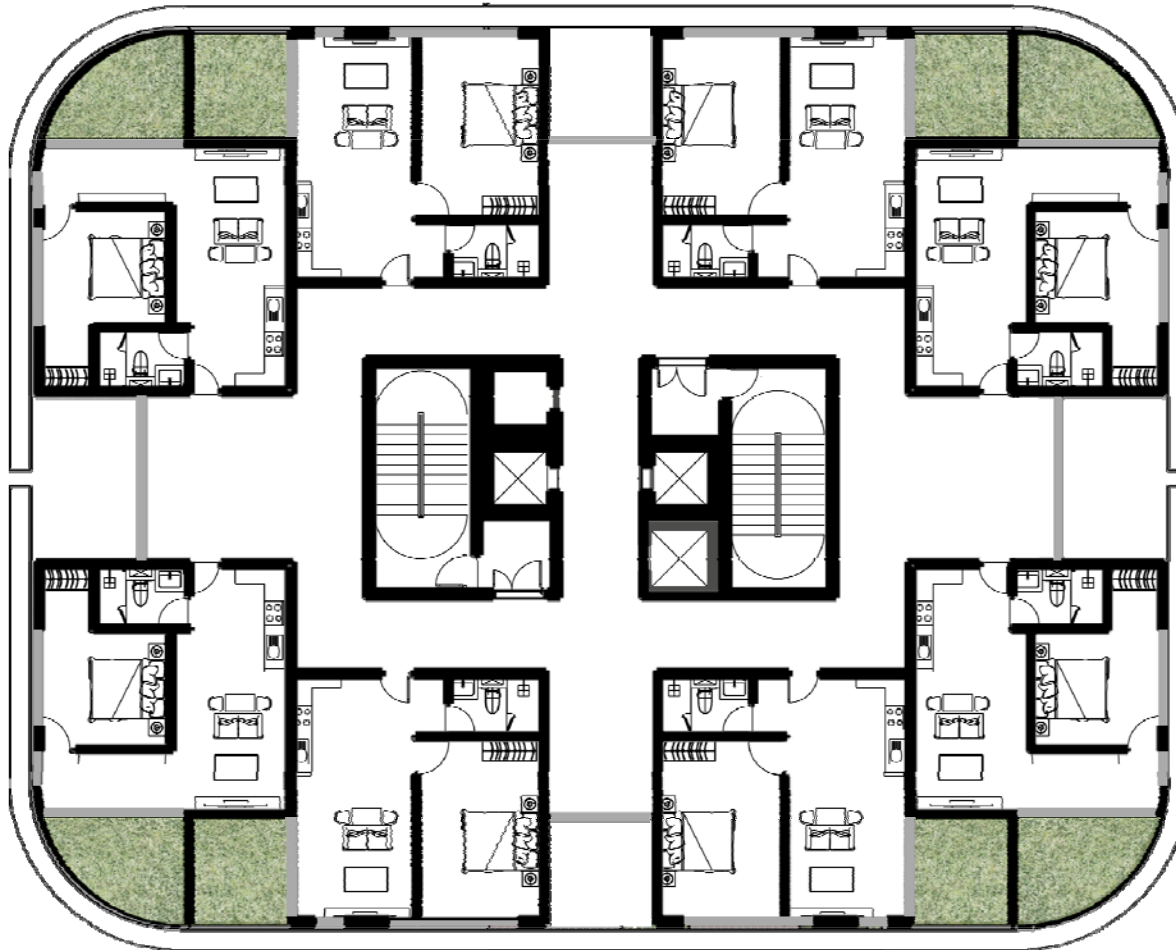
Façade and
Interior



Situation Plan Drawing



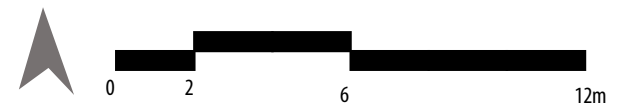
Siteplan Plan Drawing



Typical Floor Plan Drawing

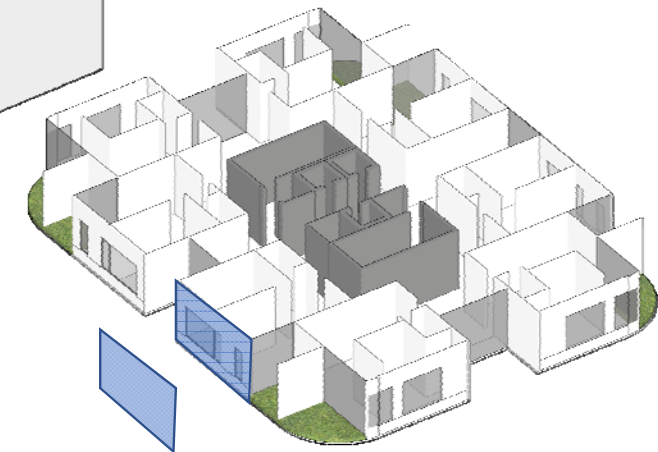
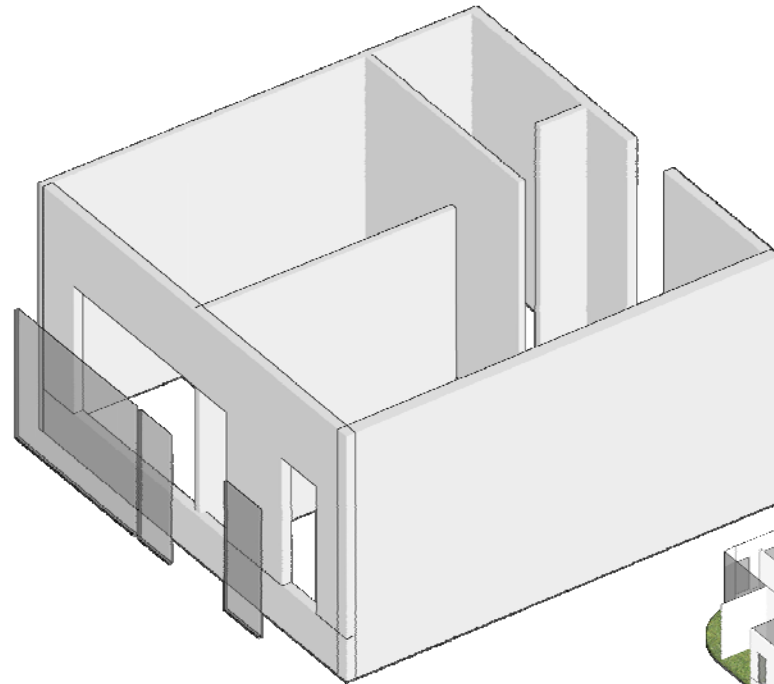
TYPICAL FLOOR

Plan Drawing

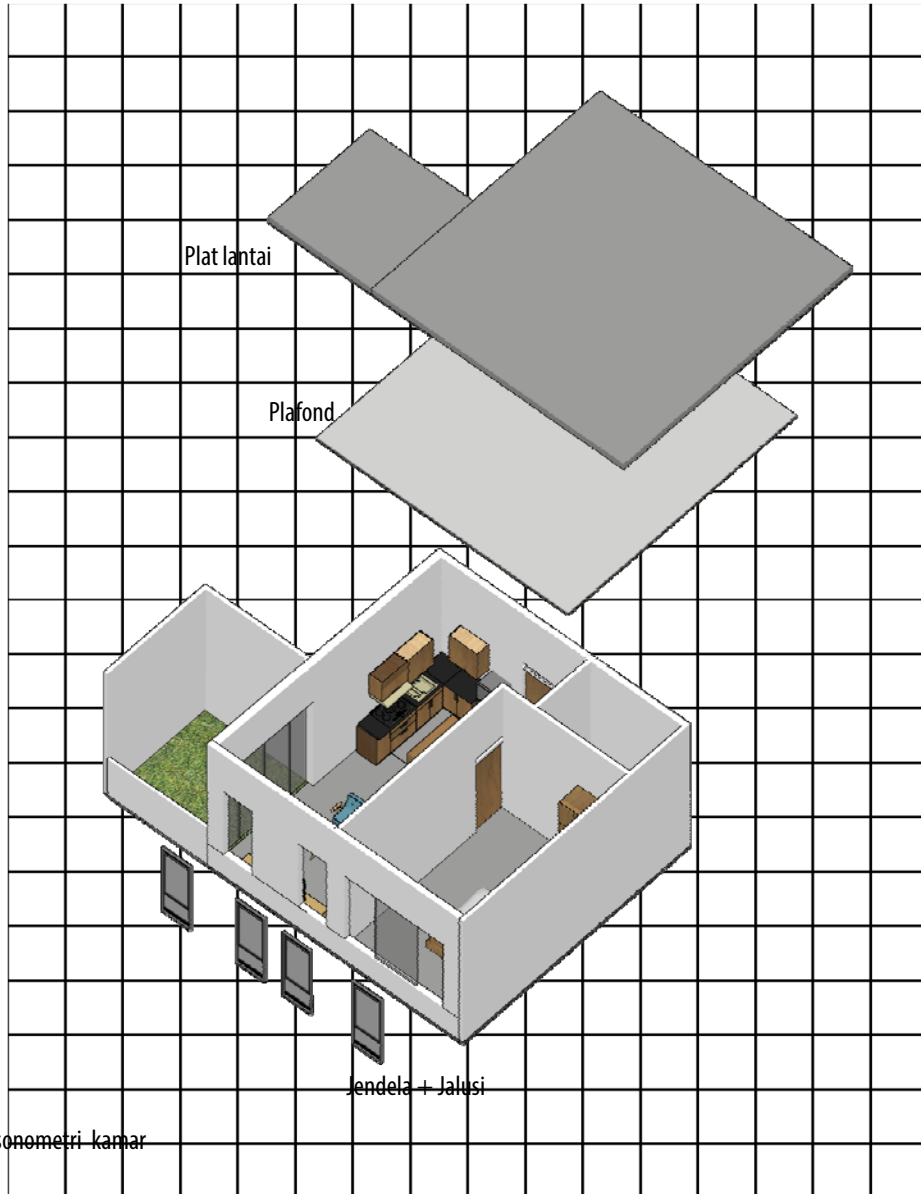


Energy

- **WWR**
- External Shading devices
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- Lighting controls for common areas and outdoors



WWR
31.40%



Even though the window ratio to the wall become smaller, user can still got a big window to see the scenery and get the fresh air

Energy

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AGC Group

PT ASAHIMAS FLAT GLASS Tbk

Sinergy

Sigma Euro Gray 6mm

U Value : 4.4

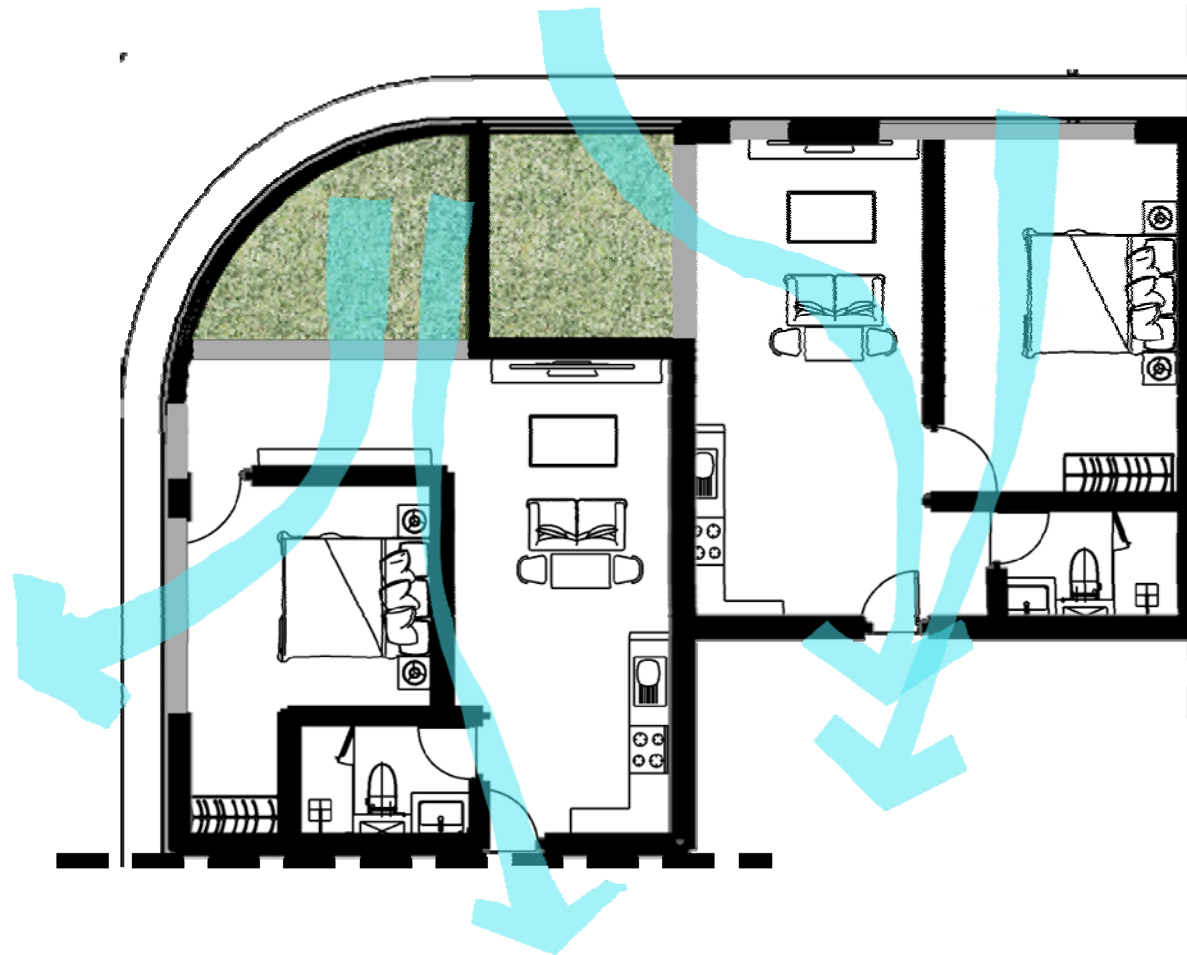
SGHC : 0.41

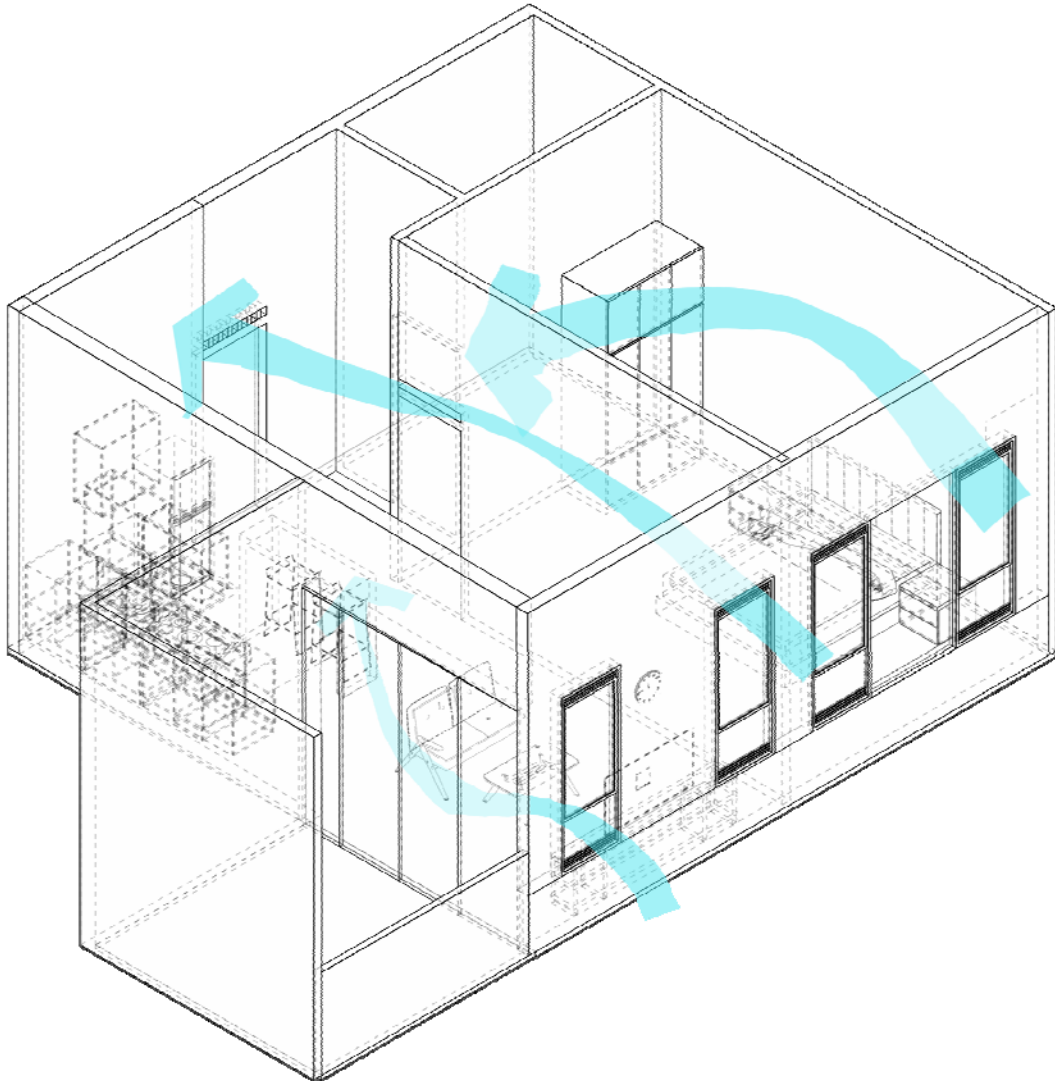


Sigma Euro Grey (SNSGE)	6	#2	25	8	27	22	7	71	36	0.41	4.4
	8	#2	21	7	26	18	7	75	33	0.38	4.3

Energy

- WWR
- External Shading devices
- Low-E Coated Glass
- **Natural Ventilation**
- Air Conditioning System
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There are ventilation boxes above the door and ventilation boxes on the window so the natural air can circulate

Energy

- WWR
- External Shading devices
- Low-E Coated Glass
- Natural Ventilation
- **Air Conditioning System**
- Energy Saving Light Bulb – Internal and External
- Lighting controls for common areas and outdoors



LG

COP: 5.69

VRF Multi V5

Water

- Low-Flow Showerhead
- Low-Flow Faucets for Kitchen Sinks
- Low-Flow Faucets in All Bathroom
- **Dual flush for water closets in All Bathroom**
- Rainwater harvesting system



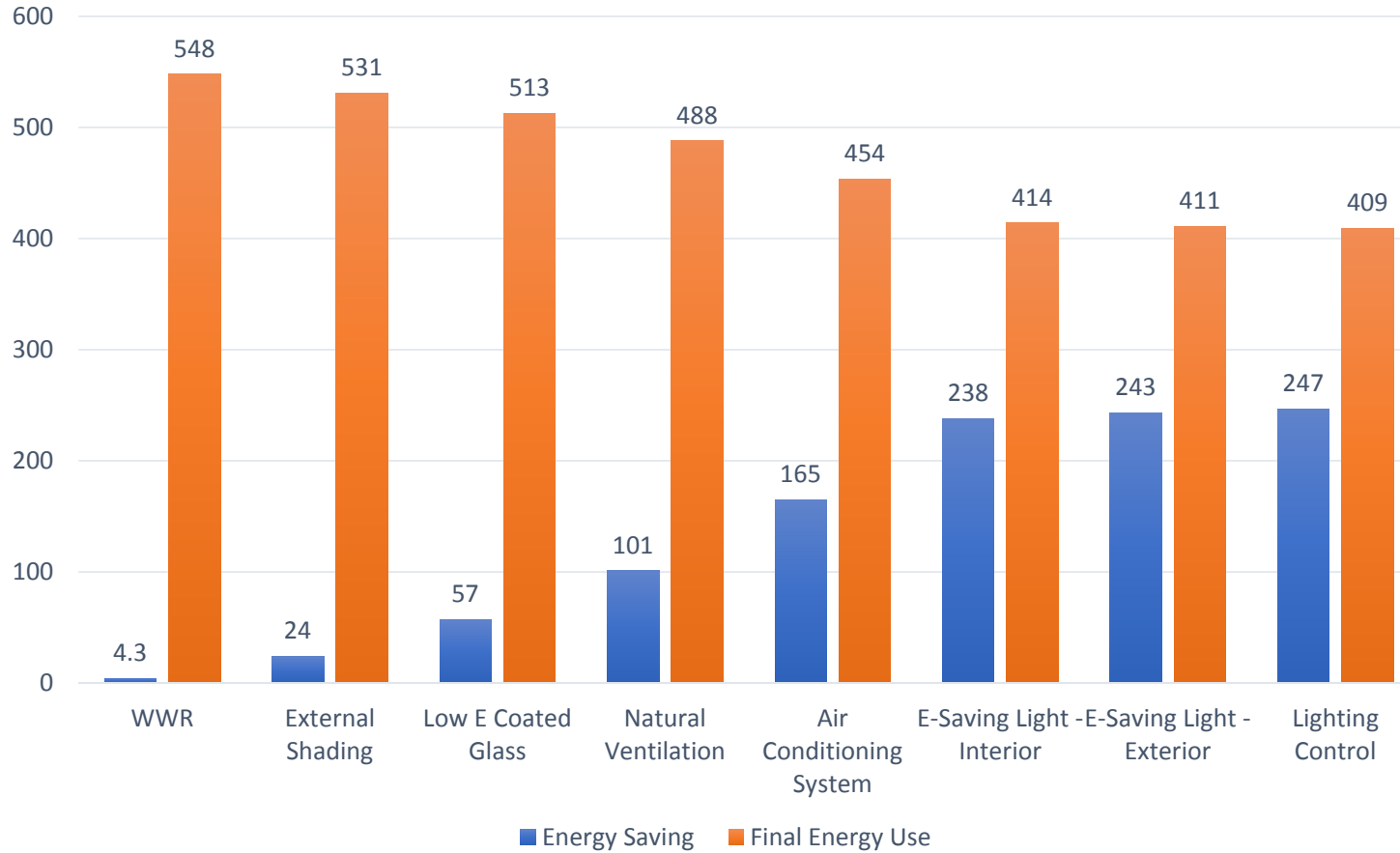
CW635PJ/SW635JP1 (P-Trap)

4.5 / 3 L Dual Flush

Solid Duroplast Seat & Cover

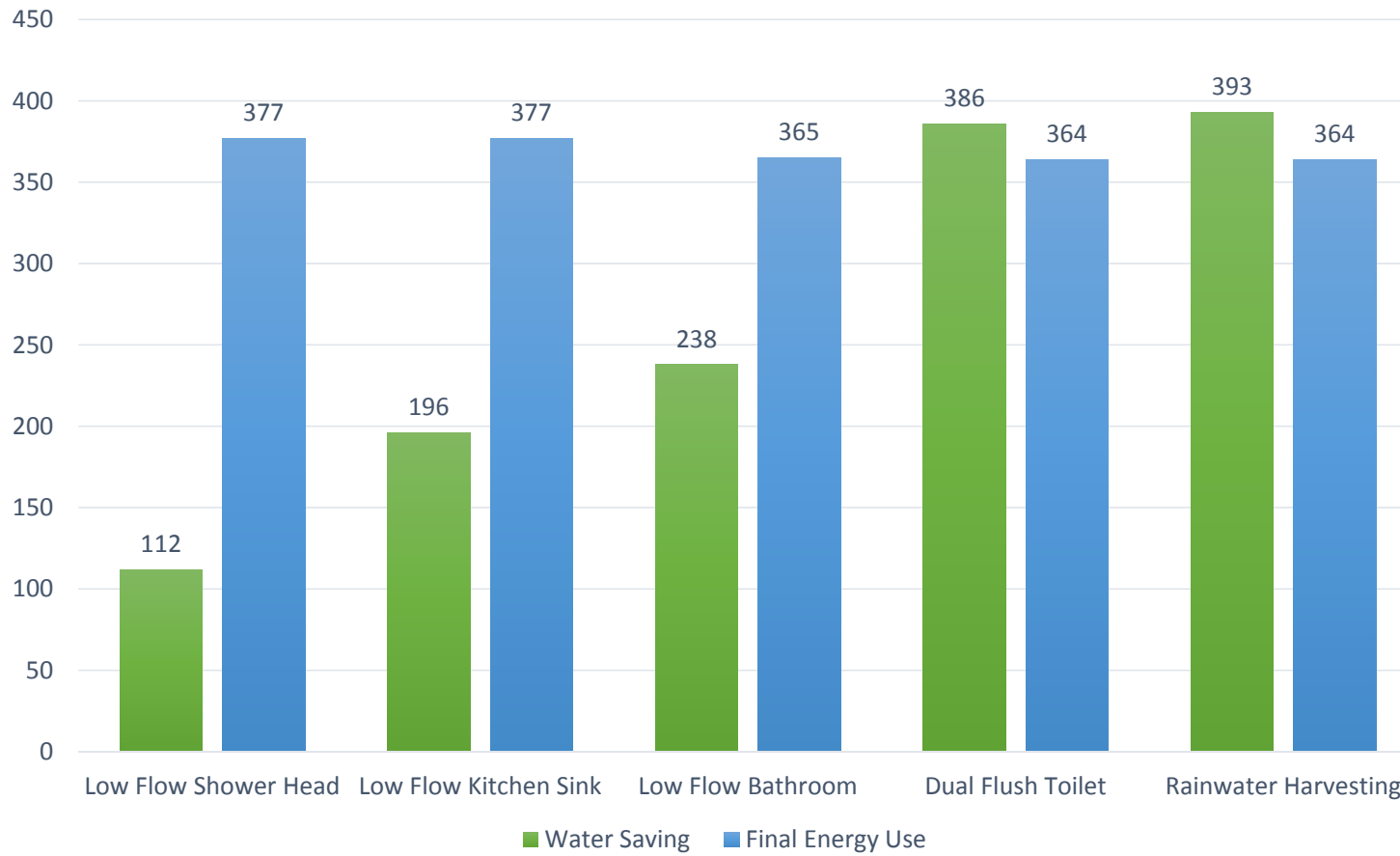
Bowl Shape: European Std.

Energy Saving



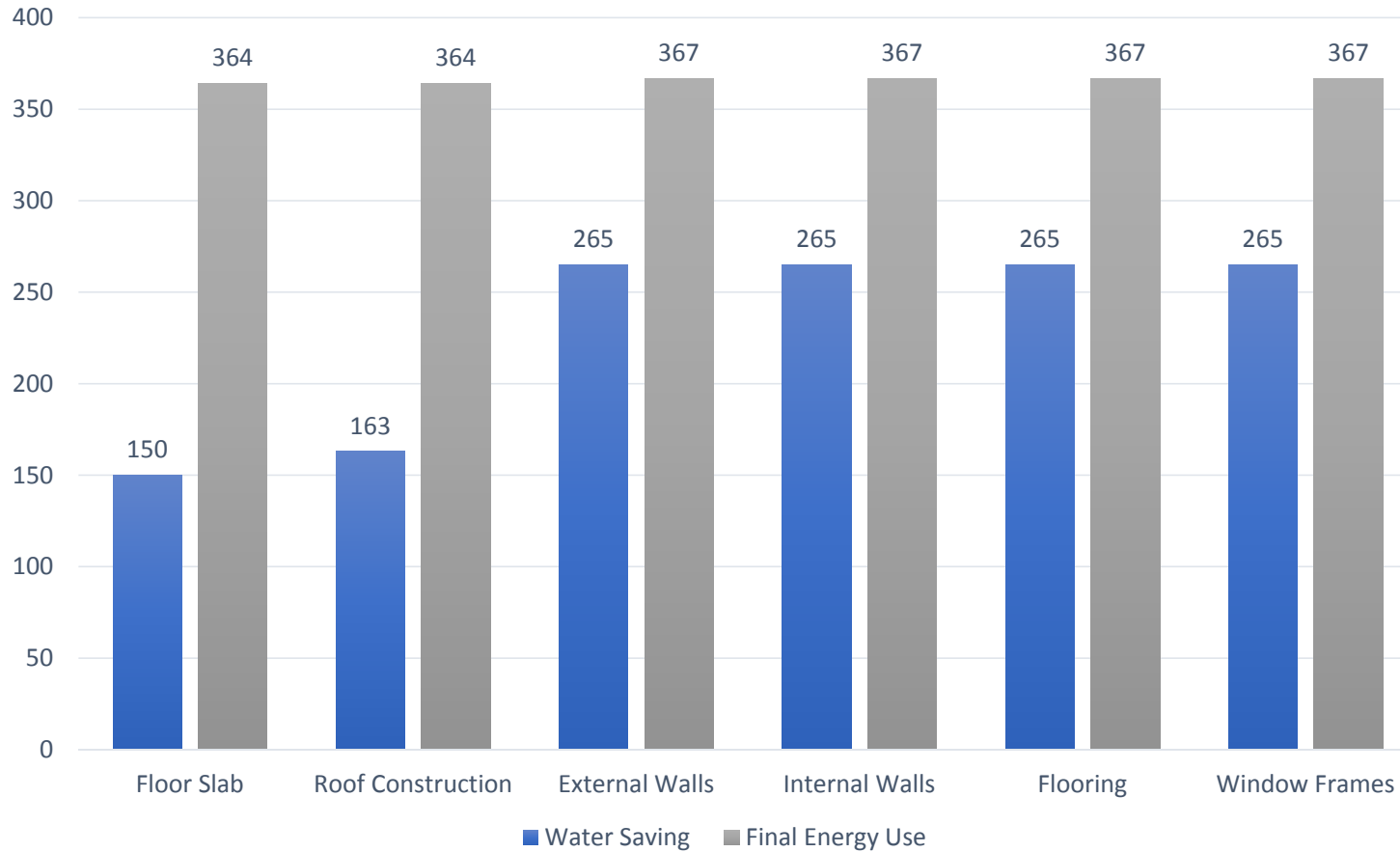
Incremental Progress

Water Saving



Incremental Progress

Material Saving



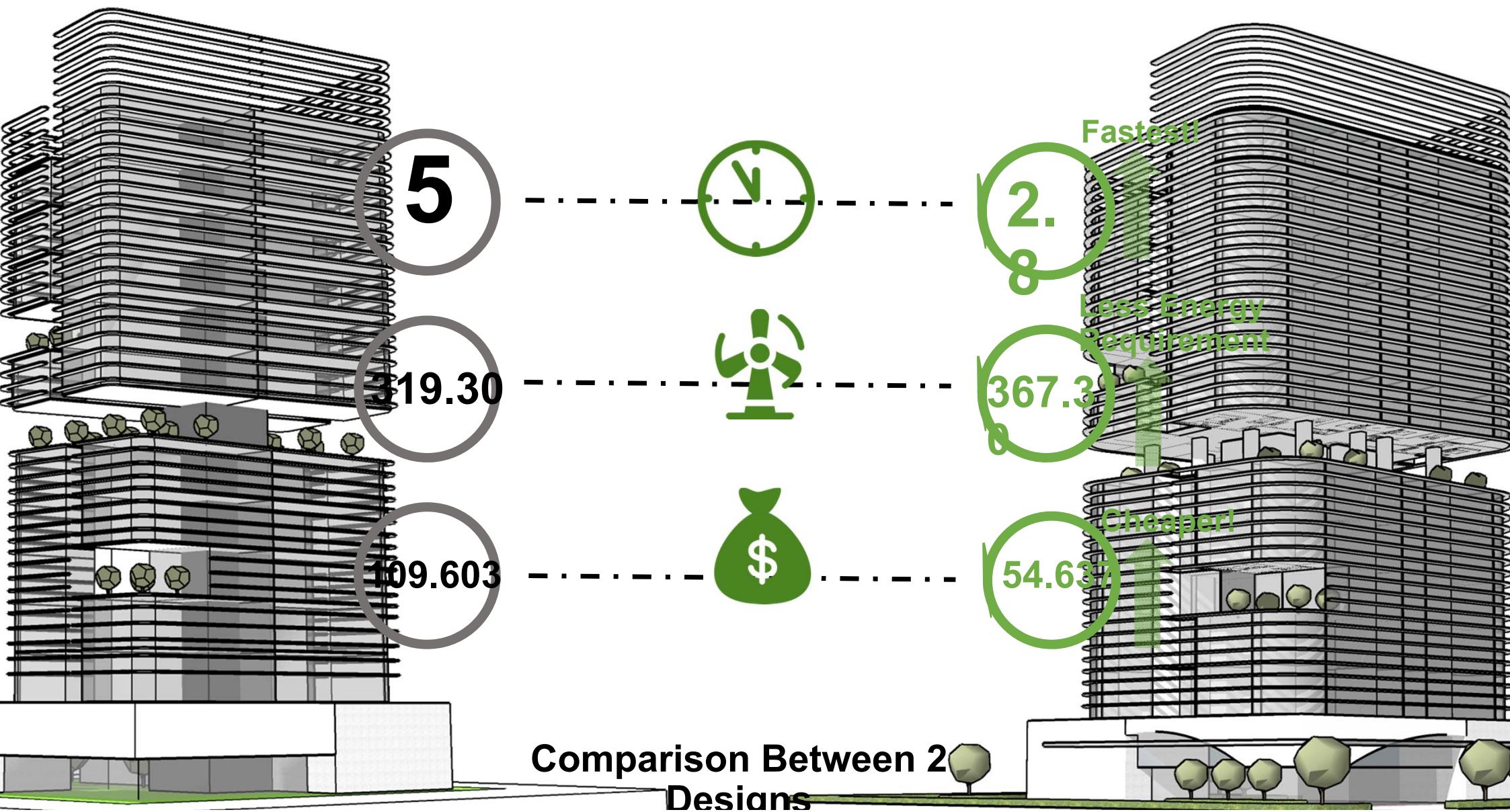
Incremental Progress

Quantities final from edge

Final Energy Use kWh/Month/Unit	Final Water Use kL/Month/Unit	Total Incremental Cost (peso)*	Payback Period (years)	Total CO ₂ saved (tCO ₂)	Total Embodied Energy of Materials Saved
367.63	10.52	54,637.69	2.82	1.26	37,341.30

Final Energy Use	367.63 kWh/Month/Unit	Operational CO ₂ Savings	1.26 tCO ₂ /Year...	Base Case Utility Cost	4818.45 PhP/Month/...	Incremental Cost	54,637.69 PhP/...
Final Water Use	10.52 kL/Month/Unit	Embodied Energy Savings	37341.30 MJ/Unit	Utility Cost Reduction	1,616.78 PhP/Month/...	Payback In Years	2.82 Yrs.

*54,637.69 peso = IDR 14,943,061.17 jt



Comparison Between 2 Designs

**Have you
decided yet?**



**Muhammad Nu'man Muttaqi
48116**

