

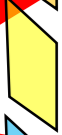

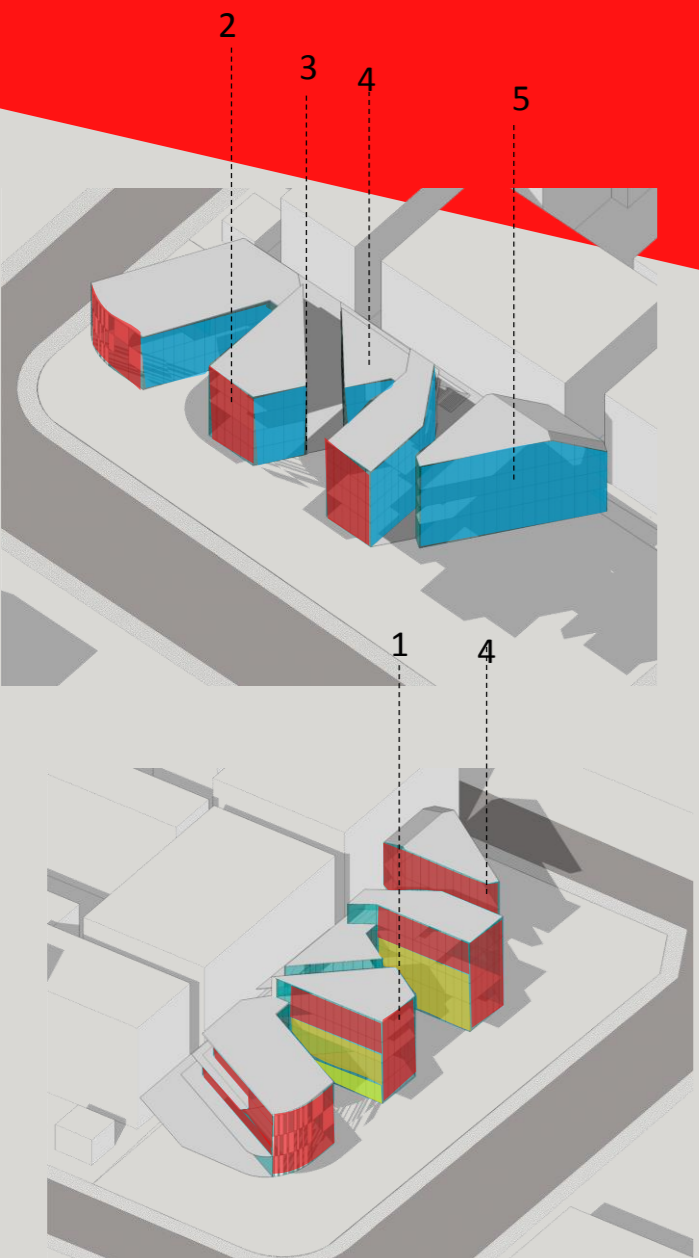
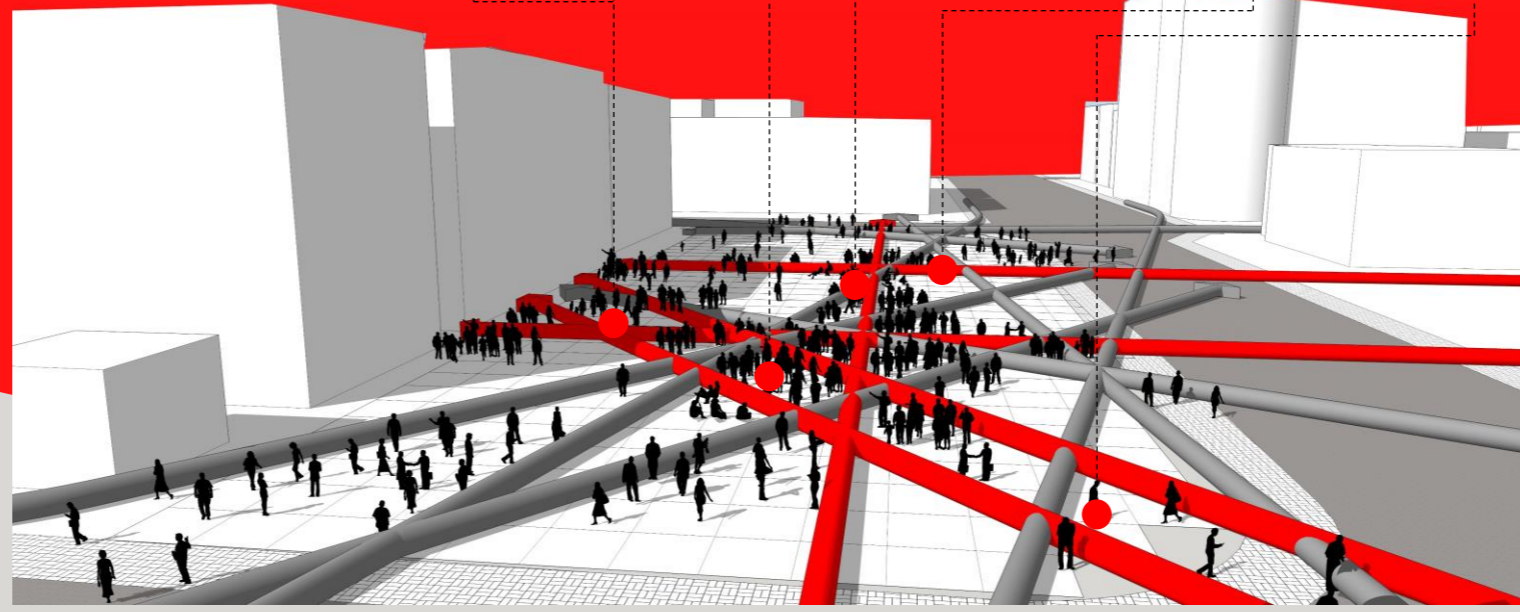
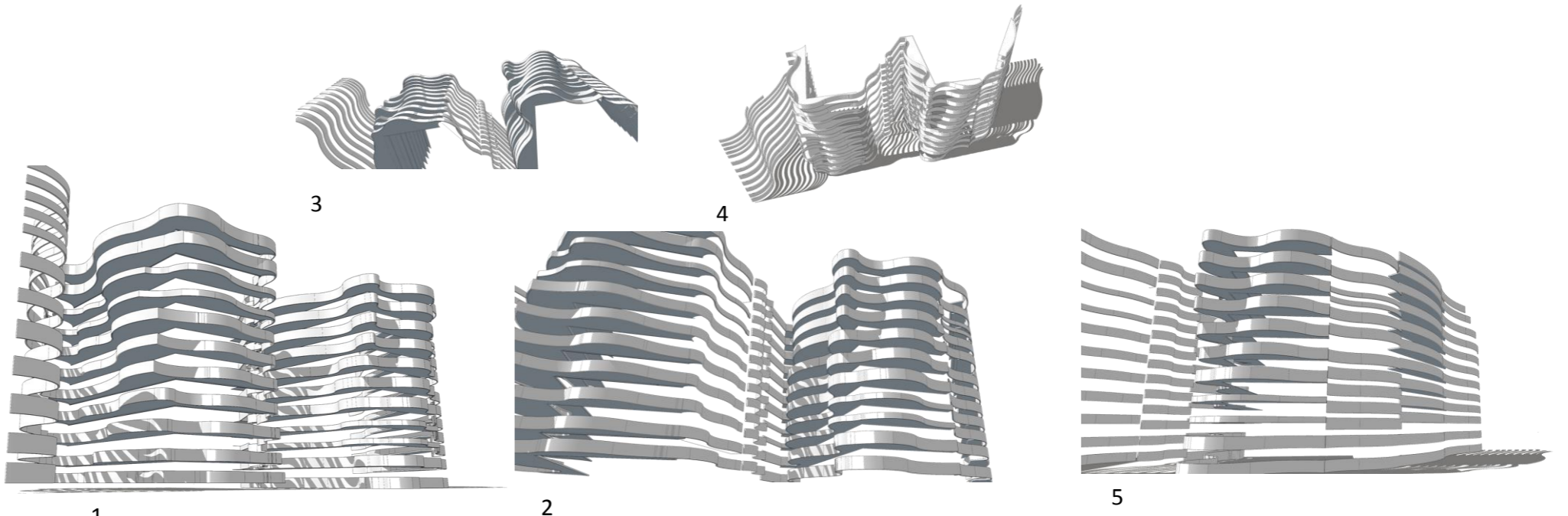





DESIGN CONCEPT

-  Panas, terpapar matahari secara langsung
-  Arah matahari memberi cahaya dan panas secara langsung namun mendapat sedikit pembayangan dari bangunan
-  Arah matahari memberi cahaya dan panas secara langsung namun mendapat pembayangan banyak dari bangunan
-  Bidang yang menghadap ke selatan dan dapat digunakan sebagai bidang bukaan

Beberapa bidang dimaksimalkan untuk menghadap selatan dan diminalkan untuk menghadap barat dan menerima panas sore hari secara langsung. Selanjutnya, treatment fasad pada bangunan untuk mengurangi panas dengan secondary skin. Secondary fasad memiliki fungsi lain yaitu memberikan penegasan analogi movement bangunan yang merespon iklim seperti movement tanaman merespon rangsangan. Hal ini tergantung pada klasifikasi disamping berdasarkan urgenitas panasnya



Final Energy Use : 59,213.74 kWh/Month
 Final Water Use : 477.09 m3/Month
 Base Case Utility Cost : 261,089.64 Thousand Rp/Month
 Utility Cost Reduction : 171,728.16 Thousand Rp/Month
 Operational CO₂ Savings : 810.75 tCO₂/Year
 Embodied Energy Savings : 2,016.03 MJ/m²
 Incremental Cost : 332,579.63 Thousand Rp
 Payback in Years : 0.16 Yrs
 Energy Savings : 1401.86 MWh/Year
 Embodied Energy in Materials Savings : 11088.17 GJ
 Water Savings : 3119.05 m³/Year
 Aggregate Floor Space Including Multiplier : 5500.00 m²

-  **66,36%**
Energy Savings
-  **43,00%**
Water Savings
-  **49,62%**
Embodied Energy

- Rainwater Harvesting System**
40% of Roof Area Used for Collection
- Rainwater Harvesting System**
65% of Secondary Skin Area Used for Collection
- Air Conditioning with Air Cooled Screw Chiller**
- Reflective Paint for External Walls –**
Solar Reflectivity (albedo) of 0.7
- Natural daylight roof**
- External Shading Devices**
- Solar Photovoltaics**
20% of Total Energy Demand
- Windows frame : Aluminium Clad**
Timber: Aluminium
Concrete Filler Slab for floor slabs
- Plasterboards on Timber Studs 60%**
Curtain Walling (Opaque Element) 40%
- Flooring Finished Concrete Floor 30%**
Flooring Ceramic tile 70%
- Steel (Zinc or Galvanised Iron) Sheets on Steel Rafters**
- Common Brick Wall with Plaster on Both Sides**

