THE MARKET PLACE

Reinvigoration of Traditional Wet Market as Catalyst for Urban High-rise Building

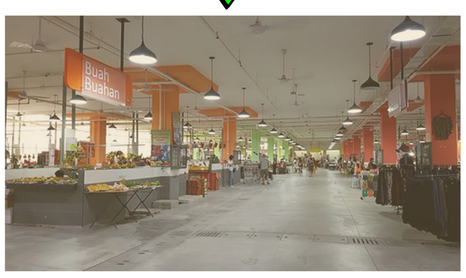
PROBLEM



Create centralise green for social interaction and improve the environment.

OBJECTIVES





Improve the condition of the existing wet market.





Create service apartment to attract high spending power group.





Create centralise green for social interaction and improve the environment.

SITE ISSUE



1) Low income group
2) Bad business
3) Condition of market



Malay Reservation Land (MRL) was intrroduced in the Malaya during the British administration. The first Malay Reservation Land Enactment was enacted in 1913. The main objective of the reservation was to protect Malay Lands from falling in the hand of non-Malay. However, because of the rapid development and urbanization, the existence of MRL located in the heart of Kuala Lumpur was left backwrd from the development. The main characteristic of these area was only a medium Malay housing area. Kampung Dato' Keramat MRL was identified by various tpyes of housing. To develop these area into a modern and urbanise housing area require involvement from many parties.

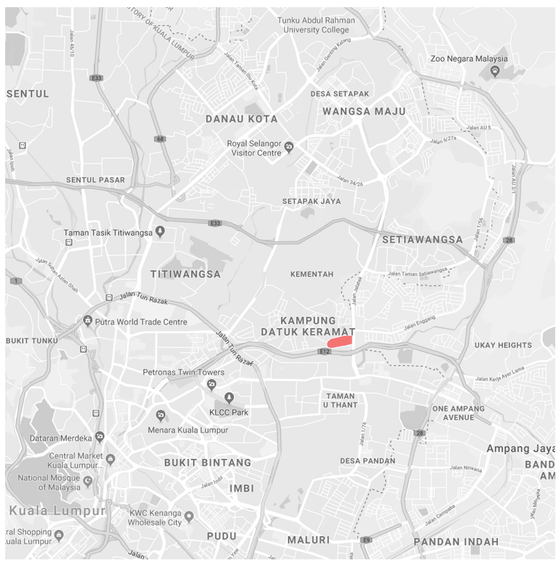
Key Plan
Scale: NTS

Location Plan
Scale: NTS

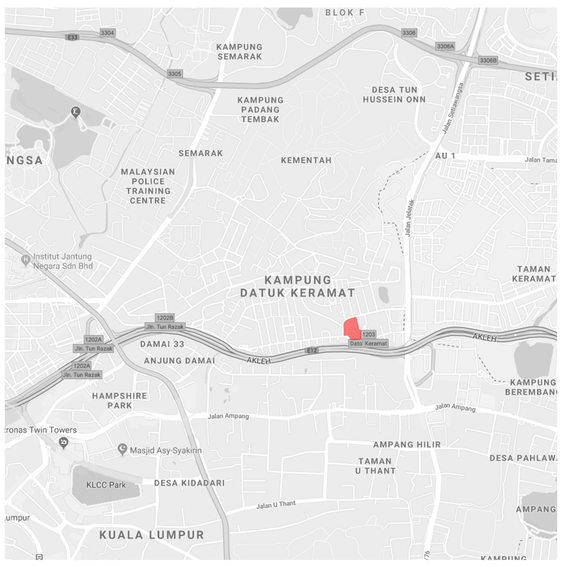
Site Plan
Scale: NTS



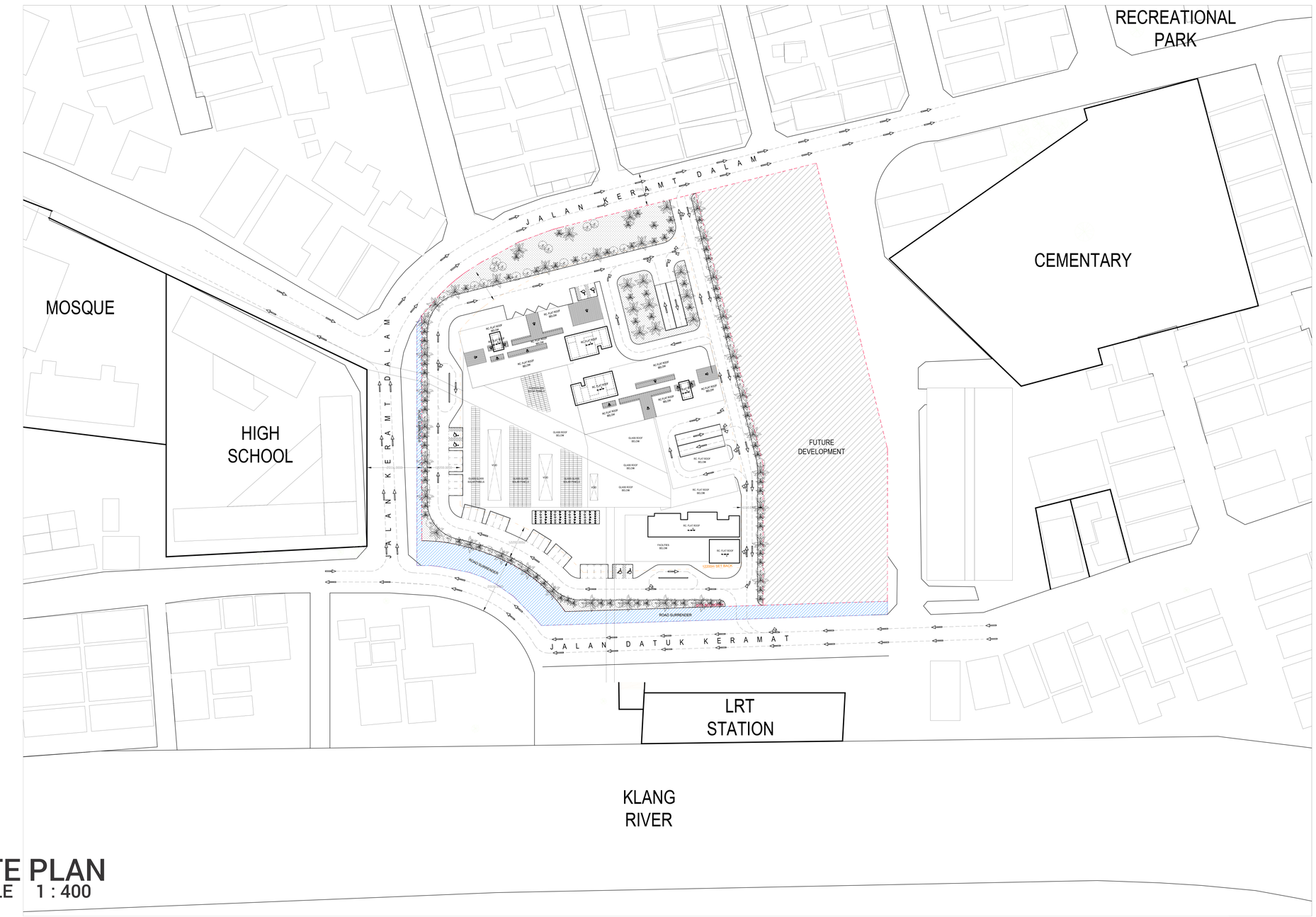
THE MARKET PLACE



KEY PLAN
SCALE N.T.S

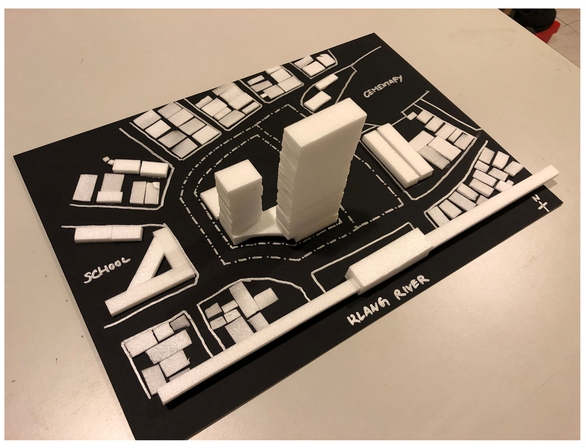


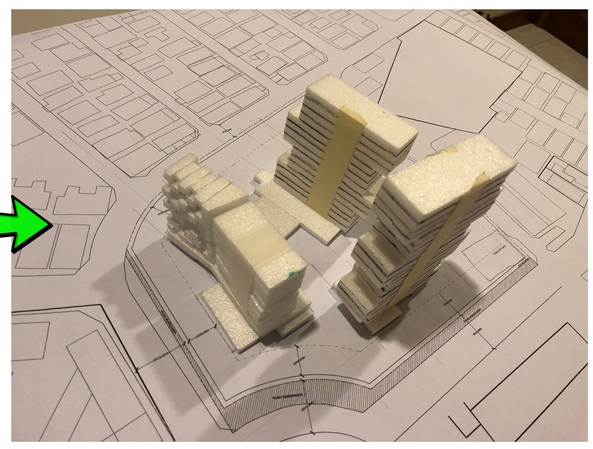
LOCATION PLAN
SCALE N.T.S

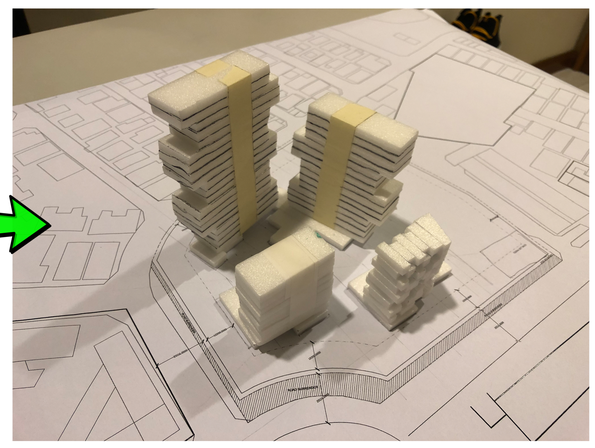


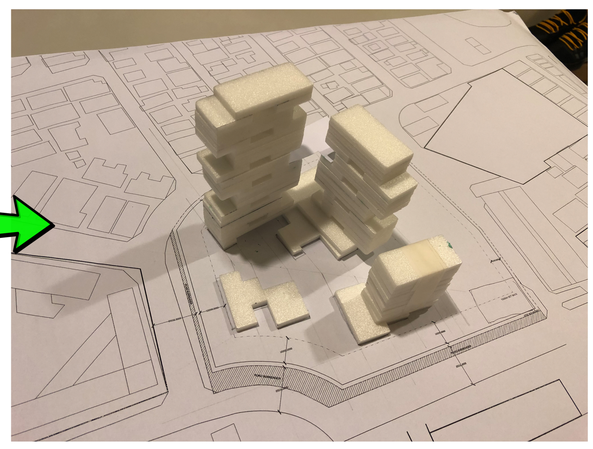
SITE PLAN
SCALE 1 : 400

DESIGN DEVELOPMENT



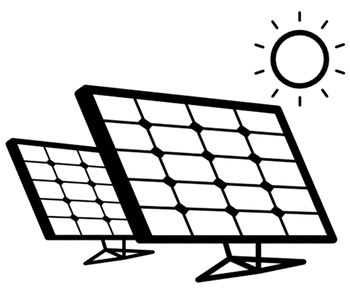




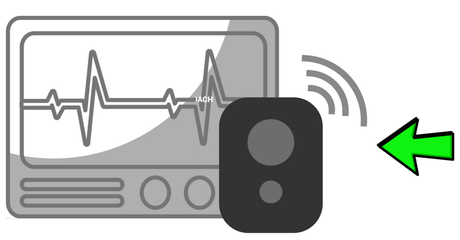


SUSTAINABILITY APPROACH

PHOTOVOLTAIC SYSTEM



Glass-glass modules to produce energy. Using glass-glass modules able to enhance the aesthetic quality and stable yields.



Energy monitor system. Intelligent control of all energy-comsuming equpiments and maximum utilisation of the PV system.



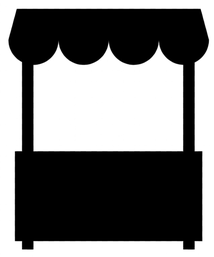
Battery storage. Provide energy in the night while no daylighting using the enegry generate by the glass-glass modules.

GLASS-GLASS MODULE : VISION 36M GLASS



This module produce 120 - 160 Wp per module. This module has 20% tranparency, using it still allow sunlight for plants, trees and crops. It generate renewable energy while allowing plants to grow.

BIOWASTE RECYCLING SYSTEM



MARKET STALL



BIOWASTE



BIOWASTE COMPOSTER

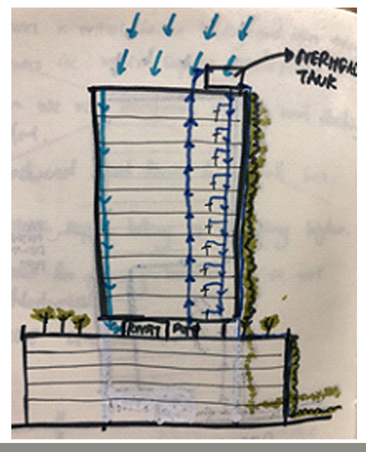


FRUIT TREES

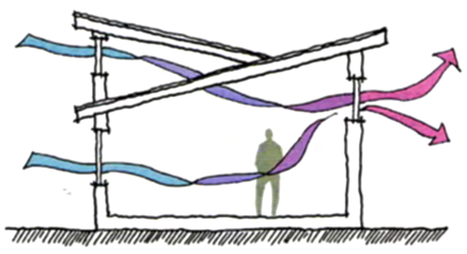


BIOWASTE FERTILISER

RAINWATER HARVETING SYSTEM



CROSS VENTILATION



THE MARKET PLACE









Looking to :
A) The Wet Market
B) Overall
C) Service Apartment Drop Off
D) Hotel Facade

Interior :
1) The Wet Market and Overhead Bridge
2) The Community Garden at Apartment





Sectional perspective to show sustainable features.

Rainwater harvesting system to reuse rainwater for irrigation, reduce potable water consumption. RWHT located at level 12.

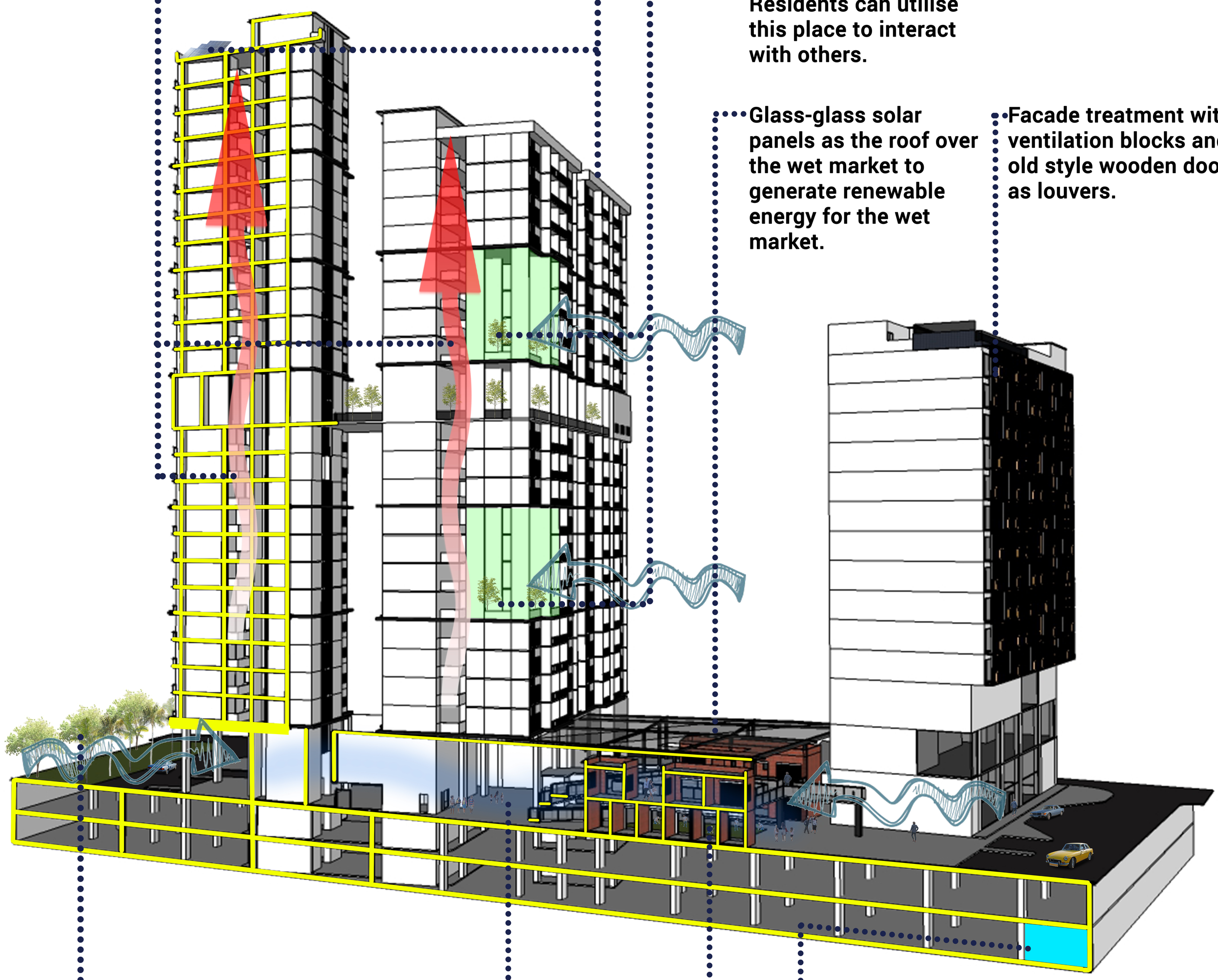
Naturally ventilated corridor and air well allow hot air rises and improve air ciculation in the building.

Photovoltaic panels on the roof to generate renewable energy for the service apartment.

Community gardens created every 4floors. Residents can utilise this place to interact with others.

Glass-glass solar panels as the roof over the wet market to generate renewable energy for the wet market.

Facade treatment with ventilation blocks and old style wooden door as louvers.



Maximise cross ventilation at the market area with 9 meters headroom.

Selected plants(Royal Palm Tree & Mahoni Tree) based on the site analysis study of vegetation around the site.

OSD tank provided to prevent too much surface water flowing into the public main drainage causing flash flood.

New typology of wet market with farming area. Making the vendor/stall partially self-sustained.

DETAIL ASSESSMENT CRITERIA
SUMMARY OF FINAL SCORE

PART	ITEM	MAXIMUM POINTS	SCORE
1	Energy Efficiency (EE)	32	25
2	Indoor Environmental Quality (EQ)	18	15
3	Sustainable Site Planning & Management (SM)	21	18
4	Material & Resources (MR)	10	9
5	Water Efficiency (WE)	11	11
6	Innovation (IN)	8	6
	TOTAL SCORE	100	84

GREEN BUILDING INDEX CLASSIFICATION:

POINTS	GBI RATING
86 to 100 points	Platinum
76 to 85 points	Gold
66 to 75 points	Silver
50 to 65 points	Certified

THE MARKET PLACE

PROJECT BRIEF :

Client : DBKL JV with Ekovest Bhd.
Location : Datuk Keramat
Land Size : 3.5 Acres
Zoning : Mix Development
Plot Ratio : 4 + 0.5(Within the 400m radius to LRT station)
Perimeter Green : 2m
Consist of : i) 2 Blocks Apartment
ii) 1 Block Hotel
iii) 1 Market

DEVELOPMENT DATA :

LAND SIZE	**14,164.00**	SQM	**152,460.02**	SQFT	**3.50**	ACRE
PLOT RATIO ALLOWED	1 : **4.5**		**686,070.10**	SQFT		
PLOT RATIO PROVIDED	1 : **3.71**		**565,156.00**	SQFT		
MAX PLINTH AREA REQUIRED	**8,498.40**	SQM	**91,476.01**	SQFT	**60.00**	%
PLINTH AREA PROVIDED	**6,451.10**	SQM	**69,439.64**	SQFT	**45.55**	%
GREEN AREA PROVIDED	**1,647.27**	SQM	**17,731.21**	SQFT	**11.63**	%

SUMMARY OF SCHEDULE OF AREA

SPACE	AREA (sqft)
Car Park Levels	306,326
Wet Market	79,018
Hotel:	
- Podium	22,107
- Hotel	81,059
- Facilities Floor	7,369
Apartment:	
- Ground Floor	9,751
- Tower A	186,599
- Tower B	154,147
- Facilities Floor	25,106



N

GROUND FLOOR PLAN
SCALE 1 : 300



N

BASEMENT 1 PLAN
SCALE 1 : 500



N

BASEMENT 2 PLAN
SCALE 1 : 500

THE MARKET PLACE

CAR PARK CALCULATION		
SERVICE APARTMENT		
CARPARK CALCULATION (REQUIREMENT : GFA -30%/ 800SF)	375,603.00	TOTAL GFA
	306	NOS CAR PARK REQUIRED
	26.00	NOS 10% OF TOTAL UNIT FOR VISITOR
	7.00	NOS 2% OKU CAR PARK REQUIRED
	339.00	GRAND TOTAL CAR PARK REQUIRED
	345.00	**TOTAL CAR PARK PROVIDED**
	24.00	**NOS 7% OF CAR PARK REQUIRED FOR LADIES C.P**
MOTOR CYCLE PARK CALCULATION		
(REQUIREMENT : GFA / 2000SF	188.00	TOTAL MOTORCYCLE PARK REQUIRED
	210.00	**TOTAL MOTORCYCLE PARK PROVIDED**

CAR PARK CALCULATION		
HOTEL & MARKET		
CARPARK CALCULATION (REQUIREMENT : GFA -30%/ 800SF)	189,553.00	TOTAL GFA
	166	NOS CAR PARK REQUIRED
	4.00	NOS 2% OKU CAR PARK REQUIRED
	170.00	GRAND TOTAL CAR PARK REQUIRED
	261.00	**TOTAL CAR PARK PROVIDED**
	12.00	**NOS 7% OF CAR PARK REQUIRED FOR LADIES C.P**
MOTOR CYCLE PARK CALCULATION		
(REQUIREMENT : GFA / 2000SF)	84.00	TOTAL MOTORCYCLE PARK REQUIRED
	106.00	**TOTAL MOTORCYCLE PARK PROVIDED**

PRELIMINARY FEASIBILITY STUDY 20/02/19
(Based on Land Cost RM350 sq ft)

Project	DATO KERAMAT MIXED DEVELOPMENT		
Developer	DBKL JV with ECOVEST BERHAD	AM 521 _ Intergrated Design 2	
No. of Units	252 Units Apartment, 150 Units Hotel	Master of Architecture, UCSI	
Land Size (ac)	3.5	152,460.00	
Plot Ratio	**4.50**	**Total GFA Allowed**	**686,070.00**
Date	09/05/2019		

A. Development Value

Type	Unit Size (sqft)	No. Of Units	Nett Area (sq ft)	Proposed Selling Price (RM/sq ft)	Unit Price (RM)	Unit Price + 1 Parking	Total Sale (RM)
Basic Kondominium		**252**	**226,800**				
A	900	252	226,800	700	630,000	645,000	158,760,000
Hotel	325	**150**	**48,750**	1500	487,500		73,125,000
							-
							-
Retail			**79,018**	600	-	-	47,410,800
						Subtotal	**279,295,800**
Parking							
Every unit 1 car park	1	306			15,000	15,000	4,590,000
					Subtotal	**Subtotal**	**4,590,000**
Total Sales							283,885,800.00
Less Bumi Discount @40% of total sales @ 15%							*16,757,748.00*
Gross Development Value (include of Car Park Sales)							**267,128,052**

B. Construction Cost

Building Works	GFA (sq ft)	Construction Cost (RM/sq ft)	Total Cost (RM)
Services Residence	226,800	110	24,948,000
Hotel	81,059	130	10,537,670
Retail	16,045	100	1,604,500
Lobby	5,823	110	640,530
Facilities	32,475	110	3,572,250
Circulation & Services	176,919	100	17,691,900
Parking	256,326	80	20,506,080
Total GFA	**795,447**	**Building Works**	**79,500,930**
		8% sheer wall	**6,360,074**
		Total Building Works	**85,861,004**
Site Clearance & Earthwork			450,000
Infrastructure Works internal			2,500,000
Infrastructure Works External			2,500,000
Lighting (general & landscape area)			1,800,000
Landscapes & Playground			2,000,000
Swimming pool			2,000,000
Gymnasium & Playrooms			1,000,000
Ancillary Buildings		Guard House, R. Chamber, TNB Sub Station, 33 KV TNB & Fencing	2,000,000
		Sub Total	**100,111,004**
Preliminary		5%	5,005,550
Contigency		5%	5,005,550
		Sub Total	**110,122,105**
GST		6%	6,607,326
GBI GOLD		10%	11,012,210
		Total Construction Cost	**127,741,642**

C. Administration Cost

Marketing Fee	1.0% of GDV	2,671,281
Office Administration	RM50,000/ month for 3 years	1,800,000
Finance Cost	**30% of construction cost @ 8% for 3 years**	9,197,398.20
	Sub total	**13,668,679**

C. Development Cost

Construction Cost		127,741,642
Administration Cost		13,668,679
Professional Fees	7.50%	9,580,623
Statutory Contribution		4,642,395
Land Survey		800,000
Serviced Apt Fee to PTG	1% of GDV	2,671,281
Land Cost	350/sq ft	53,361,000
Total Development Cost		**212,465,618**

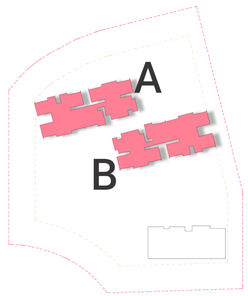
Summary	
	% On Sales
Breakeven Point on Total Construction Cost	**47.82**
Breakeven Point on Total Development Cost	**79.54**
Gross Built Up Area	**795,447 sq ft**
Gross Construction Cost	**161 RM / sq ft**
Gross Development Cost	**267 RM / sq ft**
Nett Built-up Area/ Salesable Area	**226,800 sq ft**
Nett Construction Cost	**563 RM / sq ft**
Nett Development Cost	**937 RM / sq ft**

Gross Development Cost		**212,465,618**
Profit / (Loss on Sales)		54,662,433.51
% Return on Sales	[Profit / GDV]	20.46
% Return on Cost	[Profit / Construction Cost]	25.73
Current Building Efficiency exclude car park		**63%**



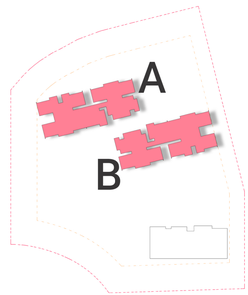
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1 FLOOR PLAN
SCALE 1 : 300



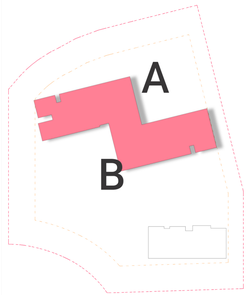
LEVELS:
BLOCK A: 1, 9, 17
BLOCK B: 1, 9, 17





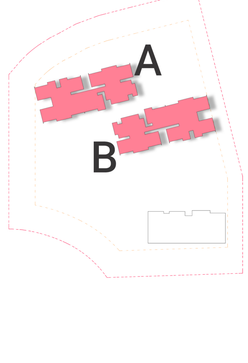
LEVELS:
BLOCK A: 2-4, 10, 11, 18-20
BLOCK B: 2-4, 10, 11, 18-20



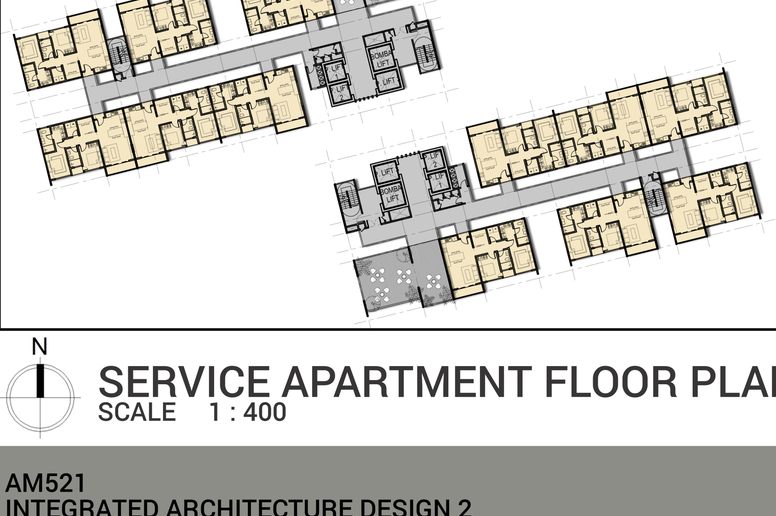


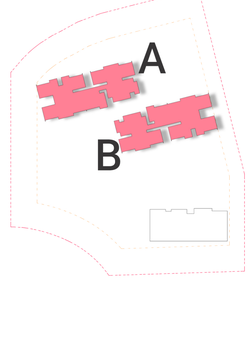
LEVELS:
FACILITIES FLOOR: 12





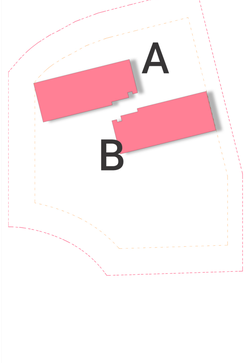
LEVELS:
BLOCK A: 5, 13, 21
BLOCK B: 5, 13



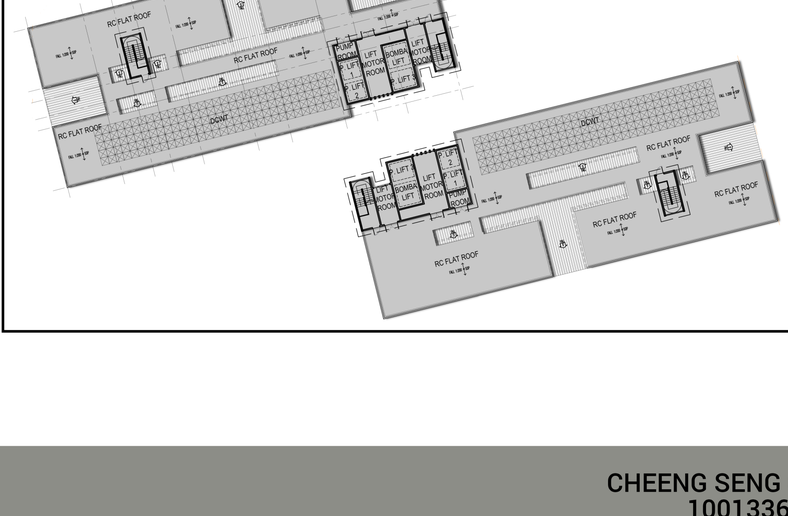


LEVELS:
BLOCK A: 6-8, 14-16, 22-24
BLOCK B: 6-8, 14-16





ROOF TERRACE LEVELS:
BLOCK A: 25
BLOCK B: 21

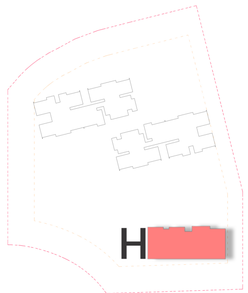


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SERVICE APARTMENT FLOOR PLANS
SCALE 1 : 400

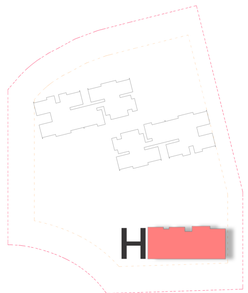
THE MARKET PLACE

LEVELS: 1



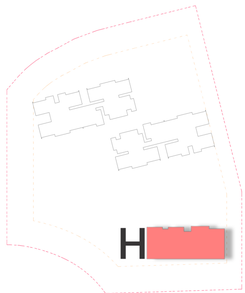


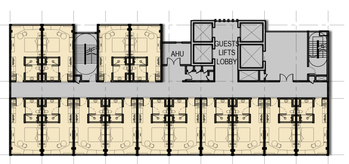
LEVELS: 2



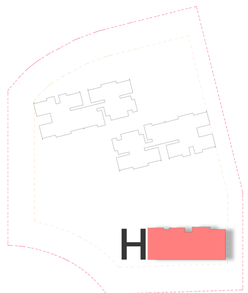


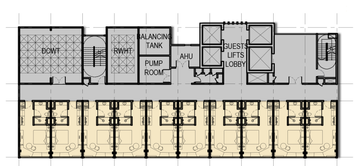
LEVELS: 3-12



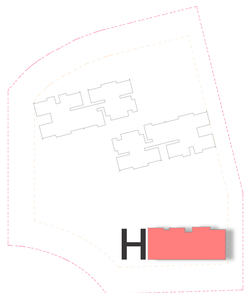


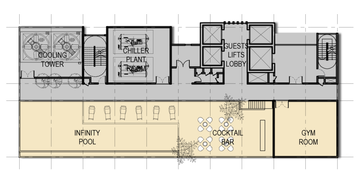
LEVELS: 13





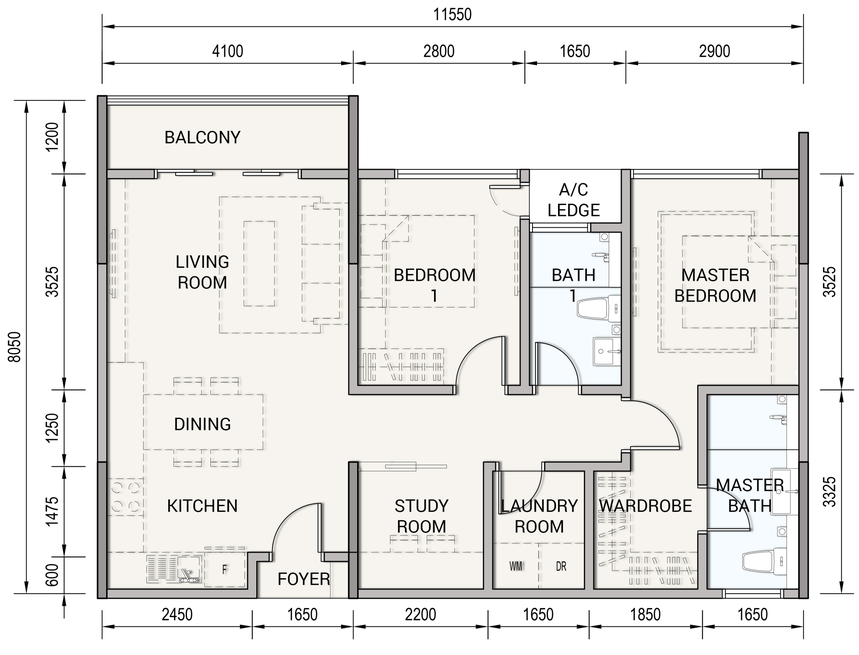
LEVELS: 14



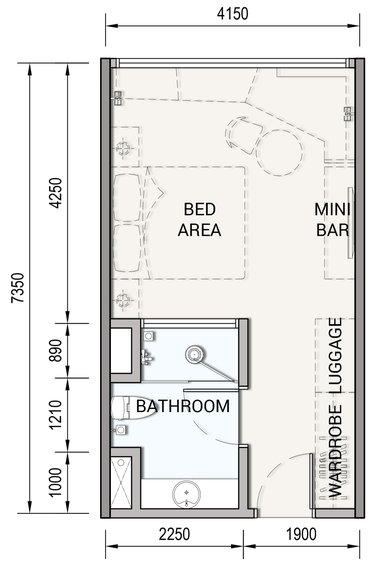


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HOTEL FLOOR PLANS
SCALE 1 : 400



APARTMENT UNIT : 900sqft
SCALE 1 : 50

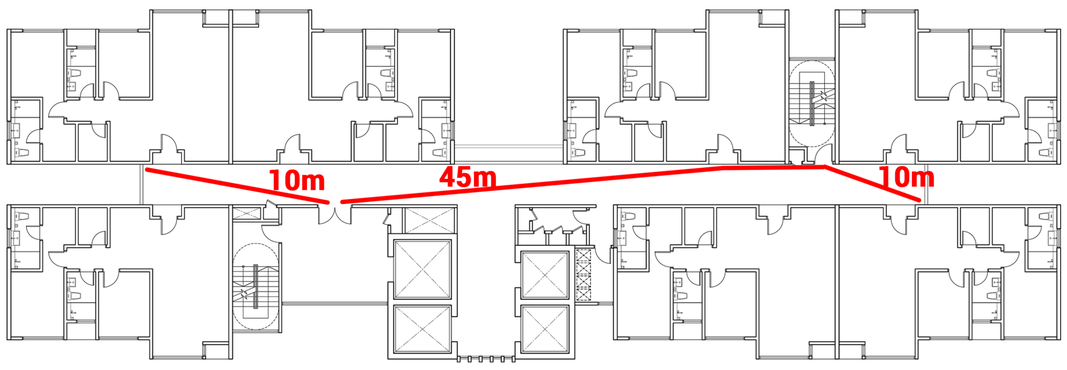


HOTEL UNIT : 325sqft
SCALE 1 : 50

Maximum Travel Distance

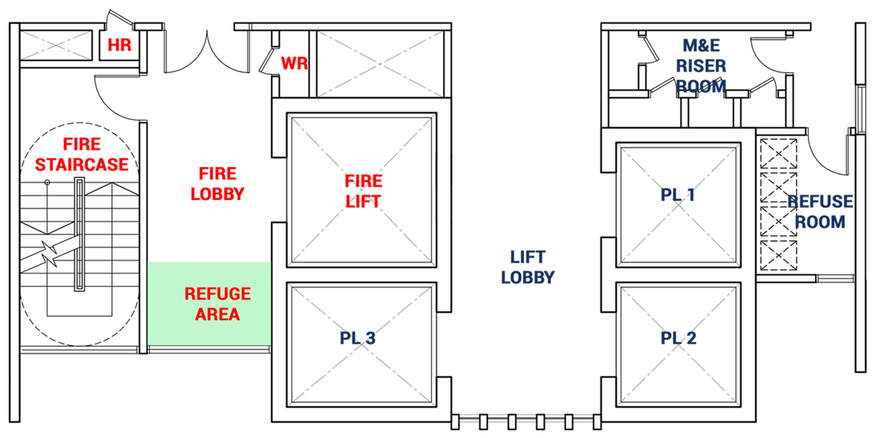
The design of travel distance should follow as listed below:

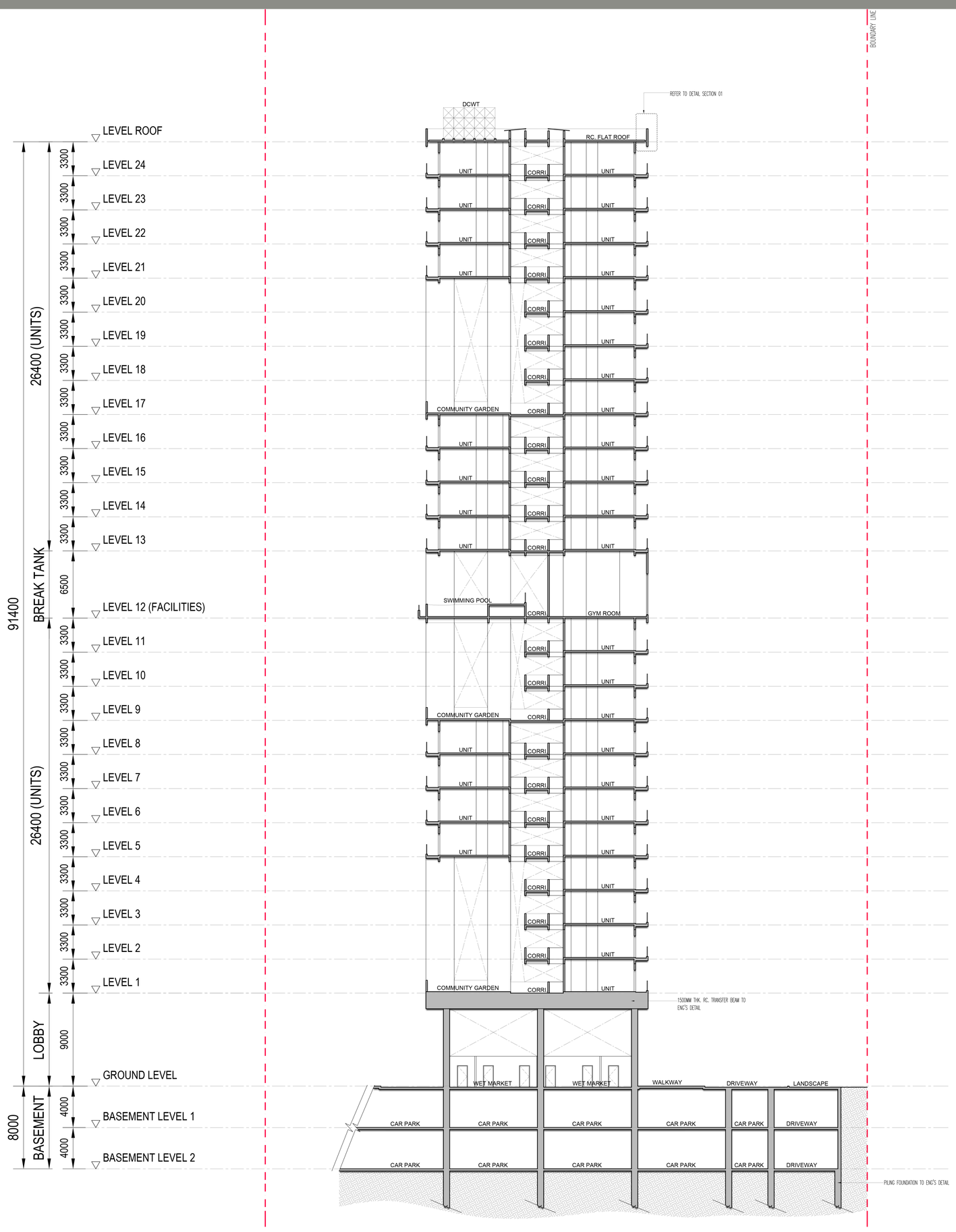
Type	Dead-End Limit (m)	Travel Distance with Sprinkler (m)
Hotel	15	45
Apartment	15	45
Commercial	Not Required	61



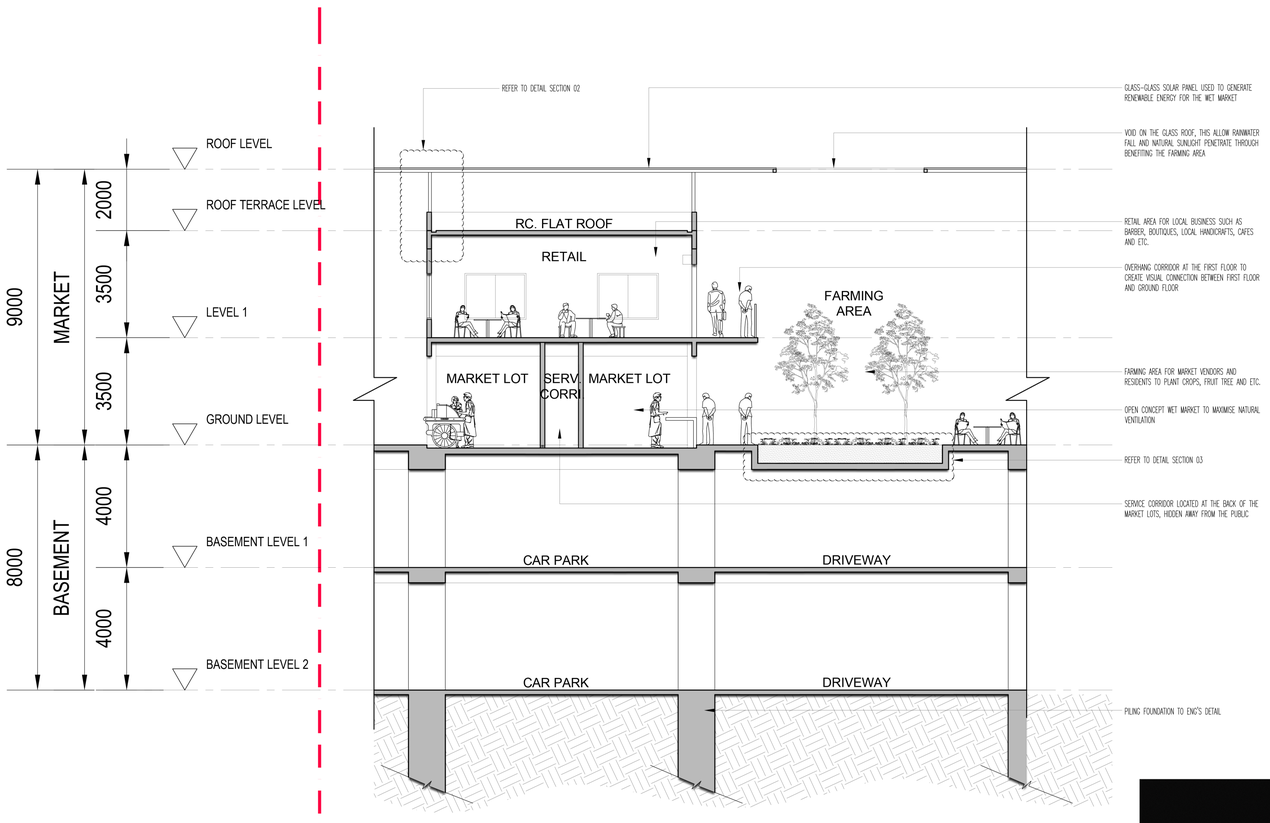
Fire Lobby

The design of fire lobby should have fire lift, wet riser, attached with storey exits (staircase), refuge for disable, fire rated door and walls at least 2hours duration.

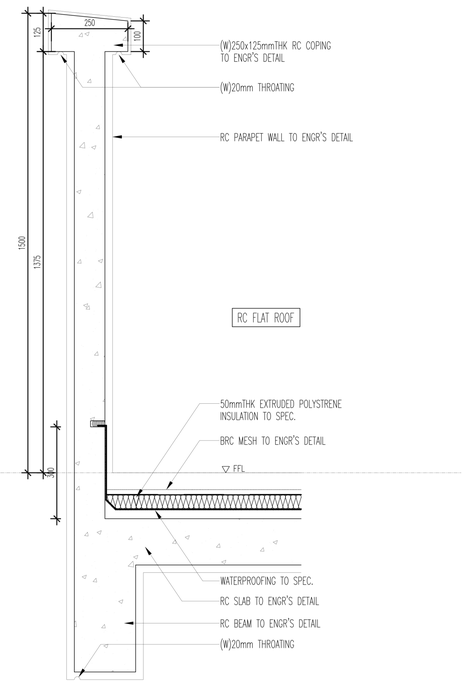




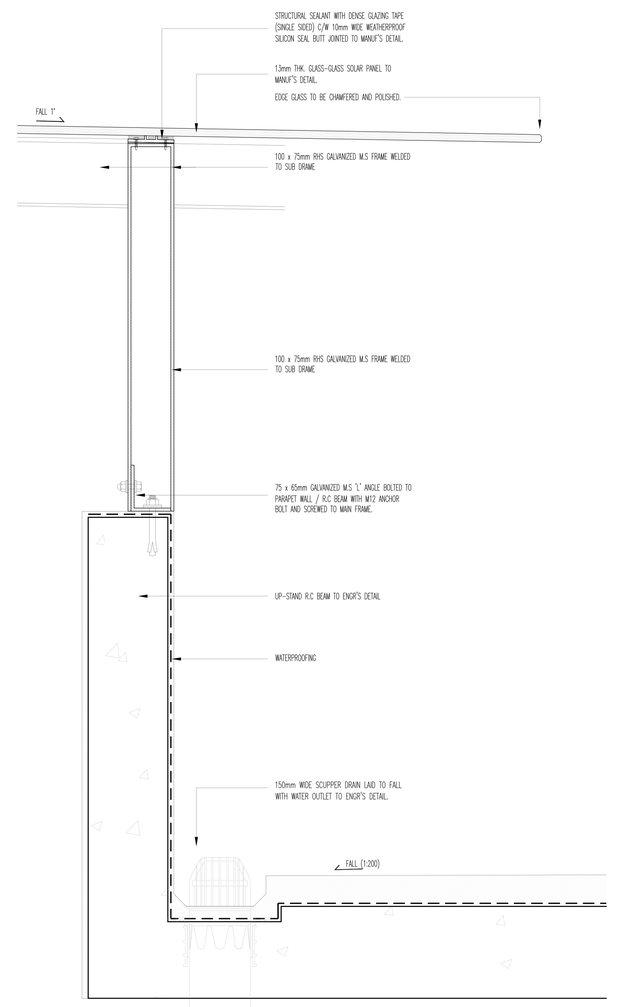
SECTION
SCALE 1 : 200



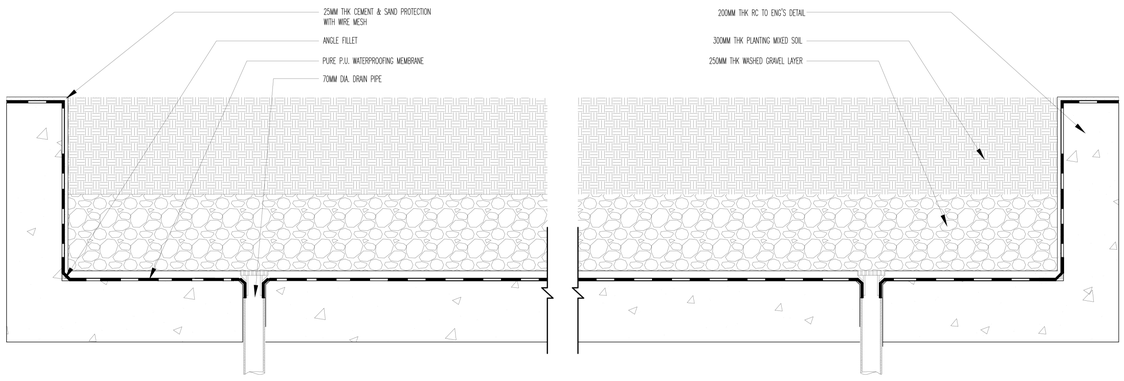
MARKET DETAIL SECTION
SCALE 1 : 100



DETAIL 01 : PARAPET WALL
SCALE 1 : 10



DETAIL 02 : TRANSPARENT ROOF
SCALE 1 : 5



DETAIL 03 : PLANTER BOX
SCALE 1 : 10



INTERIOR PERSPECTIVE: MARKET & FARMING AREA