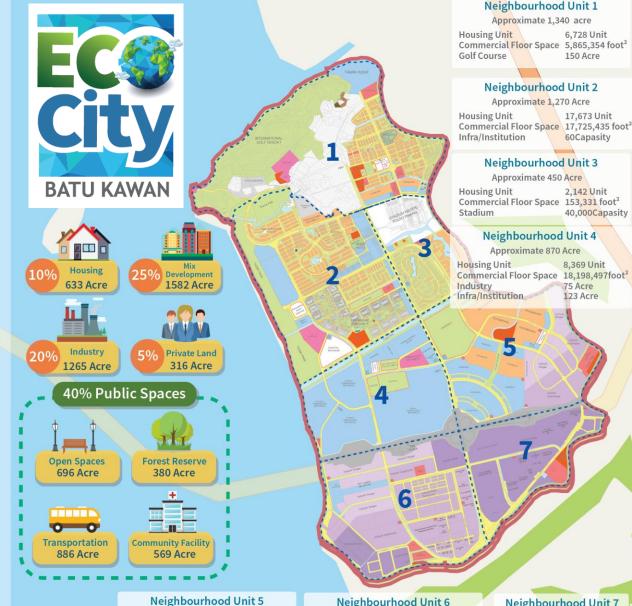


### The future of seberang perai

The Eco – City of Batu Kawan aims was to create sustainable city growth with highest social, economic and environmental quality of life residents. The development of Batu Kawan expected to be completed by 2030. The overall Eco - City of Batu Kawan will provided 200,000 residents with eco friendly development.

element kevs establishment of the Eco - City Batu Kawan concept has been implemented to made the Batu Kawan as growth centres to realise intention of state on Green - City, Eco - Friendly, green technology and low carbon emission development



Approximate 1,070 Acre

**Housing Unit** 10,493 Unit Commercial Floor Space 4,450,961 foot2 Industry 212 Acre Infra/Institution 131 Acre

#### Neighbourhood Unit 6

Approximate 1,090 Acre

Commercial Floor Space 1,054,152 foot2 Industry 753 Acre Infra/Institution 7 Acre

#### Neighbourhood Unit 7

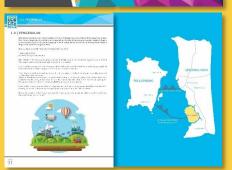
Approximate 600 Acre Industry 393 Acre

# **Guideline Preparation**

MPSP has come out a comprehensive guideline on Eco-City Batu Kawan. Various technical agencies and stakeholders were also involved in preparing this guideline even though limited knowledge and experience in eco-city framework, endure hope creating better future for Batu Kawan.







### **Fundamental** Concept







**Ecology** Preservation

Accessbility

**Safe City** 







Zero Renovation

Neighbourhood Affordable Unit

Housing



**Solid Waste** Management



Green Building



Green Neighbourhood





### **Ecology Preservation**

Preservation will be the main focus as Batu Kawan comprises ecological areas and have to be preserved and maintained to ensure development are more harmonious and dynamic



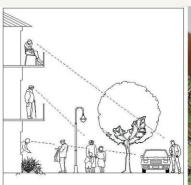
### **Accessibility**

This concept will emphasize the balance between development and the environment that may contribute to the high quality of life and safety to form networks and green routes that connect and provide more green spaces in the neighbourhood, thus creating a continuous access through the provision of walking and cycling paths



### **Safe City**

The security aspect is an important element in the planning process. Development using approach from Crime Prevention Through Environmental Design (CPTED) can greatly reduce crime in the neighbourhood. It also will encourage people to walk comfortably with a sense of security.









#### Zero - Renovation

This newly concept introduced will overlook building design to reduce the potential toward creating additional building expansion from the owners. With this concept, it will reduce environmental pollution and follow according to eco – city concept



### **Neighbourhood Unit**

The concept of this neighbourhood will emphasis on the provision and also accessibility of the facilities which can be enjoyed by all resident



### **Affordable Housing**

Providing affordable housing is one of the main outline at the state or even national level. Thus this component will play an important role for development carried out here, so it will be balanced and can be shared by every stages of residents













### **Solid Waste Management**

To determine efficiency of management and level of cleanliness of a development, method of planning on providing infrastructure facilities must:

- Reduce carbon foot print
- Avoid pollution from leachate spill
- Diminish congestion in the city
- Encourage waste segregation at source
- Decrease waste produce or zero waste
- Increase Landfill life expectancy



### **Green Building**

Building will be rates according to Green Building Index (GBI) using these 6 main criteria:

- Energy Efficiency (EE)
- Indoor Environment Quality (EQ)
- Material & Resources (MR
- Water Efficiency (WE)
- Innovation (IN)
- Sustainable Site Planning & Management (SM)



### **Green Neighbourhood**

Neighbourhood will be integrated with eco – technology, best green practices, access to natural resources and protection, with the aim of preserving the environment, improving quality of life, safety and general welfare of city residents.



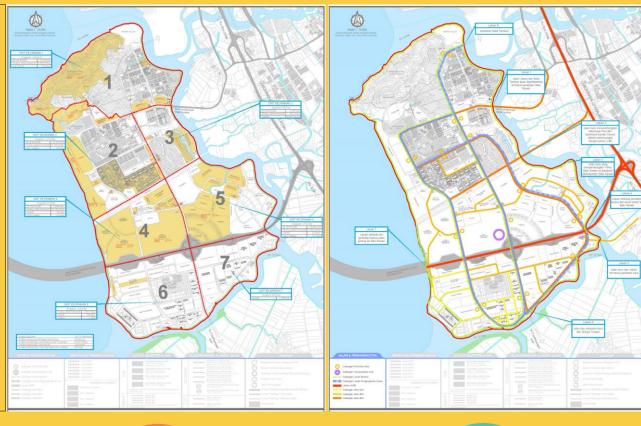






### **Eco-City Batu Kawan**

## Masterplan





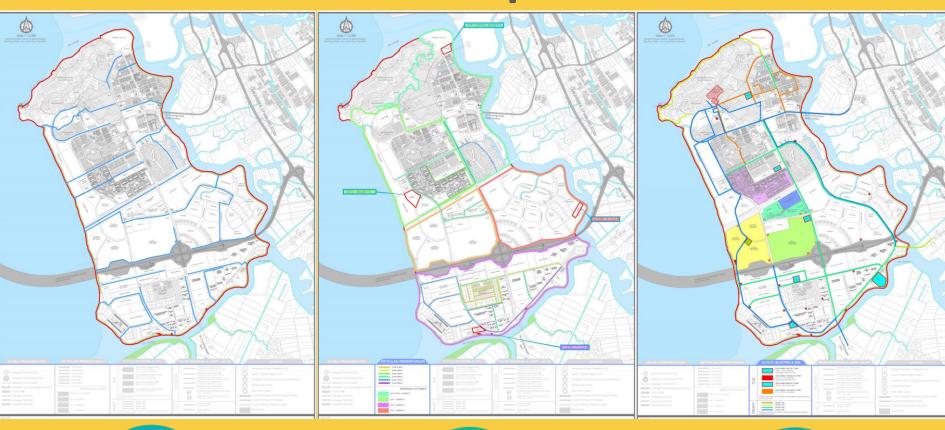


**Landuse** Master Plan (Neighbourhood Unit)



### **Eco-City Batu Kawan**

## Masterplan





**Drainage** Master Plan



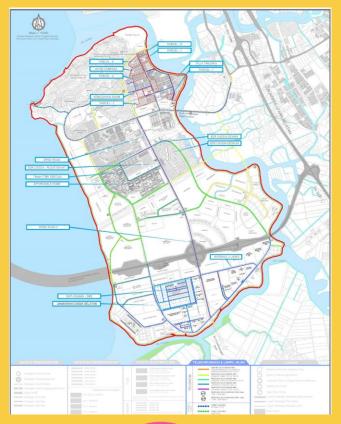
Sewerage Master Plan

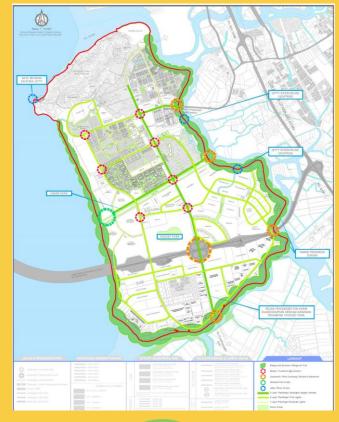


**Ultilities** Master Plan (Electricity & Water)

### **Eco-City Batu Kawan**

# Masterplan







**Ultilities** Master Plan (Telecommunication & Street Lighting)



Landscape Master Plan

# **Strategies towards** carbon reduction

### 1 Green Building Index

The Council regulate that commercial and residential required to comply with at least certified rates on GBI Standard. Industrial and other type of development are encouraged to



<b>GBI Rating</b>		Incentive
	Certified	Minimum Requirement
	Silver	20% Increase on density / plot ratio
	Gold	30% Increase on density / plot ratio
	Platinum	40% Increase on density / plot ratio

### 2 Green Neighbourhood

The use of green technology has been developed, namely:

- LED lamps for new roads built.
- Solar-powered lighting for parks and green areas
- Solar energy power system in building are encouraged.
- Encourage sky garden and vertical landscape through development.
- Encourage usage of rain water harvesting techniques on building.
- District Cooling System for areas with a high density in a commercial area.



### **3** Solid Waste Management

To reduce carbon emissions from garbage truck which make waste collection from door to door, several strategies have been established:

## 1) Pneumatic Waste Collection System

Introducing a vacuum system in the solid waste management in urban centres and high rise development. This method will reduce the waste collection vehicle distribution in this area.



## 2) Garbage Collection \_ \_ \_ \_ Centre (GCC)

To Improvise the conventional waste collection system and reducing leachate from compact truck, in line with Eco - City concept to reduce CO2 emissions, the Council has introduced GCC where every resident requires to dispose solid waste only in GCC. GCC designed as a drive-thru concept and the ratio required is 1 GCC for 250 premises.



### 4 Urban Transportation

Minimum size of road allowable in Batu Kawan is 50 feet wide, giving space for provision of pedestrian / bicycle lane and tree planting area. Public transportation masterplan has provided transportation hub, the provision of park and ride and park the truck.

### 5 Retaining of Existing Ecology

Eco-city concept has outlined several strategies for the retaining existing ecological namely:

- Protected areas along coastal conditions and river.
- Retention of mangroves by limiting the development of the recreation area only.
- Encourage the replacement of trees cut down at the rate of 1:3.

### 6 Landscape and Green Areas

This is an important element played the most important rules to reduce carbon. This is why in Eco – City Batu Kawan there have a few strategies have been created such as:

- Providing more open space different from usual requirement of 10%
- Planning a linear park along the coastal and river bank connected with urban park and neighbourhood park

### 7 Masterplan

Preparation of a comprehensive masterplan for ensuring Eco – City concept on Batu Kawan reached which consist of several







### **IKEA confirms Penang** outlet will open in 2018

Nork at its 24-acre Batu Kawan site has started



#### Design Village set to open in Nov



RM40b foreign investment target for manufacturing

### **Benefits of Eco City** guideline and masterplan

### **Economy**

- Attract more developers from incentive given thru complying Green Building Index
- Guideline impose causing an extra green area, more green environment and eco - friendly facilities
  - Growth in green product and services in accomplishing Eco-City standards

### Social

 Restrain carbon consumption by introducing eco - friendly way of living such as recycling and encouraging provide more green areas.

### **Environment**

- Enhance environmental quality by retaining and make use existing ecology
- Reduce CO2 emission by centralize facilities, lowering spaces needed for facilities thus maximise efficiency

### EPF keen to partner Eco World to develop Penang townships





### Rise of a thrilling metropolis

#### Ikano to open Penang's first Ikea outlet in 2018

12 September 2016

The Secretariat (Planning Excellence Awards), Malaysian Institute of Planners, B-1-02, Jalan SS7/13B, Plaza Kelana Jaya, 47301, Petaling Jaya.



#### PE LAND

PE Land (Penang) Sdn Bhd (1047556-H)
The Spring Centre Management Office
Lot 304, 3rd Floor, The Spring Shopping Mall
Persiaran Spring, 93300 Kuching
Sarawak, Malaysia

T +6082 238 111 F +6082 233 519

Dear Sirs,

Cadangan Skim Perniagaan (Fasa 1) Di Atas Sebahagian Lot 282, Lebuhraya Bandar Cassia, Batu Kawan, Mukim 13, Seberang Perai Selatan, Pulau Pinang

A) 147 Unit Kedai 1 Tingkat

B) 1 Blok (17 Unit) Kedai 2 Tingkat

C) 1 Blok Tempat Letak Kenderaan 7 Tingkat

Untuk Tetuan PE Land (Penang) Sdn Bhd

Penghargaan kepada MPSP kerana Berjaya Menghasilkan Satu Garis Panduan dan Pelan Induk Di Bandar Cassia, Batu Kawan, Sebagai Bandar 'Eco-City' yang Serba Moden, Canggih dan Selesa untuk Di Diami

The northern region's first premier outlet mall 'Design Village' at Bandar Cassia new township, Batu Kawan on mainland Penang, under Majlis Perbandaran Seberang Perai (MPSP), is set to open its doors in November 2016, that cater to a domestic catchment of 5.5 million and an international catchment of 4.7 million.

The Developer, PE Land (Penang) Sdn Bhd, will emerge as the first investor at Bandar Cassia to open for business, since the Penang State Government, Penang Development Corporation (PDC), and MPSP announced its plans to transform the area into a new thriving 'Eco-Citv' township.

Unlike other outlet malls, 'Design Village' features shady landscaping, thoughtful water features, covered air-cooled walkways, considerate rest areas, and the best of Penang's hawker cuisine, making it a destination that promises a comfortable, enjoyable experience in Malaysia's hot and inclement weather, in line with Eco-City guidelines, which was briefed in details to all Bandar Cassia developers on 3 July 2014, by MPSP.

These are a couple of measures already executed by PE Land (Penang) Sdn Bhd, within 'Design Village' outlet mall development to conform with Eco-City guidelines set by MPSP:-

- We merely developed approximately 400,000 sq. ft. at low plot ratio of 1:0.23 with majority single storey shops on 25 acres of development land, even though we are permitted to build on a maximum plot ratio of 1:5.
- 2) We purchase and install at about RM2 millions on locally manufactured Light-Emitting Diodes (LED) and Solid State Lighting (SSL) systems in all these public premises, as a showcase for the LED and SSL industry as well as to tremendously reduce the electricity consumption:
  - a) Multi-storey carpark building
  - b) Shop front and back corridor
  - c) Hard and soft landscape
  - d) Driveway and open carpark
  - e) Jewel box building façade
  - f) Mall management offices
- 3) We designed hard and soft landscape works, at about RM9 millions, based on a ratio of 50%: 50% with all mature trees being brought in to a nursery at construction site for acclimatization process in ensuring their survival before they were planted.

- 4) We provided a total of 12 disabled carpark bays (5 nos. on open carpark & 7 on multi-storey carpark building), even though MPSP only required 5 disabled carpark bays.
- We designed two (2) smoking rooms solely for smokers, as 'Design Village' is designated as nonsmoking zone outlet mall.
- 6) We installed two (2) Electronic Vehicle Charging Stations (chargEV stations), as vehicle charging zone, within multi-storey carpark building by GreenTech Malaysia, a government agency that promotes Green Energy for public usages.
- 7) A retail unit with full facilities being assigned, as Police Beat Base, based on the cooperation rendered by the Chief Police of Penang, since the nearby police station is situated far way.
- 8) We provided three (3) large refuse collection bins and a storage room for segregation of recyclin, construction, and wet materials.
- 9) We install a centralized grease trap under the maintenance team of the Developer to 2 Storey F&B building that housed a foodcourt and many F&B shops. Each foodcourt stall and F&B shop are also compulsory to install their own greese traps.
- 10) We designated 'Ladies' Carparking Zone' on Level 1 of multi-storey carpark building.
- 11) We adopted the reserved land for LRT/MRT from PDC for hard and soft landscape works for the benefits of the surrounding community.
- 12) We created a central spine with hard and soft landscape works to bring the guests from the retail units to F&B building and leading them directly into the proposed Linear Park.
- 13) We provided bicycle zone (alongside motorcycle parking zone) to encourage public cycling since we already designed cycling pathway beside pedestrian pathway.
- 14) We designed and installed CCTV, security tour guard, panic buttons, guard posts for surrounding security purposes.
- 15) Two LED search lights are installed on top of the roof of lift motor room, as part of the new outlet mall attraction and for security purposes.

With a joint-partnership together with MPSP, under their new Eco-City guidelines set and implemented, we strongly believe and trust that Bandar Cassia will eventually become a Eco-City New Township in a couple of years, compare to other township in Malaysia.

The top management of PE Land (Penang) Sdn Bhd clearly support MPSP under the leadership of Yang Berhormat Dato' Maimunah Mohd Sharif and her team to win this upcoming Planning Excellence Award.

Should you require any further clarification/information on the above, please do not hesitate to directly contact the undersigned.

Thank you.

Yours gratefully, PE Land (Penang) Sdn Bhd

Ernest Chuah Director of Operations

### PE Land Designer Village

Approved for Planning Permission: 18<sup>th</sup> November'15 Expected complete: End of November'16

### Phase 1 Development :

- 147 Commercial Unit 1 Floor
- 1 Commercial Block 2 Floor (17 Unit)
- 1 Unit 7 Floors Parking





### PE Land Designer Village



Glass Top Roof with Heat Insulation



Light Emitting Diodes (LED) and Solid State Lighting (SSL) system



Hard and soft Landscape Ratio of 50%: 50%



12 Disable Carpark Bays provided (Required 5 Disable Carpark Bays)



Smoking Rooms solely for smokers



2 Electronic Vehicle Charging Station (charge Station) bays

### PE Land Designer Village



Ladies "Carparking Zone" on Level 1 of Multi-storey carpark building



Control Room for Security purpose



Soft & Hard Landscape construct on LRT/MRT reserved land



Plastic rooftop designed to trap heat inside from sunlight



Access with Soft & Hard Landscape to B.Kawan Linear Park



MSMA Drainage system