



Section B Planning and Implementation

Part 3 Physical Planning Initiatives

CHAPTER 10

South Johor Urbanisation

10.1 Introduction

The urbanisation rate in Johor in 2005 was 66.5%¹, which is the sixth highest in the country. Johor Bahru is the focal point within the state and it is fast expanding within the South Johor conurbation. Urbanisation needs to be managed and controlled to ensure the region continues to be liveable. Hence planned communities and employment zones need to be well defined and distributed evenly within the region so as to create balanced development.

10.2 Urbanisation Goal

URBANISATION GOAL

By 2025, the urbanisation rate for SJER will be 100%

This goal can be achieved through the establishment of three major development focus areas identified by the CDP. These are the primary urban promotion areas², secondary urban promotion areas and the agriculture and tourism promotion areas. Centering growth on these development focus areas indirectly controls the extent of urban areas and promotes development by increasing density within the identified urban areas.

To achieve the goal of 100% urbanisation by 2025, urbanisation is to focus only within the Primary and Secondary Urban Promotion Areas. The defined Agriculture and Tourism Promotion Areas will determine the urban limits for SJER. These areas will enjoy similar benefit of the standard of living and quality of life gained by the Urban Promotion Areas. However, these areas will continue to be protected from the risk of encroachment into their existing environment.

¹ Ninth Malaysia Plan

² Chapter 9 Physical Development Plan, SJER CDP 2025

This has been elaborated upon in Chapter 9 of this report and SJER will ensure the needs of its population shall be met by provision of efficient infrastructure, comfortable homes, employment opportunities, recreational spaces and social amenities, a clean and safe environment, as well as good public transportation system. Sustainable development of the region is fundamental in creating a liveable urbanised area that meets the changing needs and lifestyle of its population.

10.3 Planning For Population Growth

The population of SJER as of 2005 was 1.35 million³ or 43% of the total Johor population of 3.17 million. SJER ranks second in size after Kuala Lumpur, which has a population of 1.62 million (2005)⁴ and Penang with 678,500 (2005)⁵.

By 2025, the population of SJER is expected to reach 3.0 million, both from natural growth as well as migration. It is anticipated that with the new economic initiatives that will drive the development of SJER, its population will surpass that of Kuala Lumpur city by the year 2020⁶.

Table 10.1: Population of SJER 2005-2025

| City | 2005 | 2010 | 2015 | 2020 | 2025 |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| SJER ⁷ | 1,353,200 | 1,538,900 | 1,912,600 | 2,396,200 | 3,000,000 |
| KL ⁸ | 1,620,000 | 1,972,000 | 2,085,200 | 2,198,400 | n/a |

Source : SJER CDP 2025 and EPU

³ SJER Population Projections

⁴ Economic Planning Unit and Department of Statistics, Malaysia.

⁵ Penang Local Plan Studies, MPPP

⁶ Note : National Conurbation – Kuala Lumpur-Klang Valley-Seremban has a projected population of 8.5 million by the year 2020. Singapore 5.4 M by 2025

⁷ SJER, CDP 2025, Population projections

⁸ KL Local Plan Study, 2006, Population Projections Findings Report

SJER currently has a young population, where the mean age is only 25 years old and the productive population (working-age - 15 to 64 years old) make up 67% of the total population⁹. Hence, the demographic profile suggest that there will be sufficient supply of talent to meet the demand for employment provided the economic prospects in the region are enhanced.

SJER also has a multi-ethnic society, with Malays forming the largest component at 48% with the Chinese and Indians at 36% and 9.4% respectively, followed closely by foreign population whose share is estimated to be 6.6%.

The Special Economic Corridor (SEC), where development will be initially focused, currently has a population of 501,925 and this is expected to grow to 1,129,090 by 2025.

While the share of SEC is expected to be 37.6% of the total population in 2025, SEC only covers an area of 44,900 hectares. Thus the density of people for SEC is 25 persons per acre, compared to the areas outside SEC, which has only 12 persons per hectare. The distribution of population is in line with the objective of promoting development and growth within the SEC for the planned period of the CDP.

Table 10.2: Population Distribution In SEC and SJER

| Area | Population 2025 | Land Area (hectare) | Density Persons/Hec |
|----------------------|--------------------|------------------------|------------------------|
| SEC | 1,129,090 | 44,900 | 25 |
| Areas outside SEC | 1,870,910 | 160,458.70 | 12 |
| SJER | 3,000,000 | 205,358.70** | 15 |

Source : SJER CDP 2025

Note : ** Total SJER area is 221,634.10 hectares including areas within the Straits of Johor. Landed area is only 205,358.70 hectares.

KEY DIRECTION :

U 1: Support population growth in SJER by meeting their needs for Quality Urban Environment, Employment Opportunities, Clean Environment, Infrastructure, Social Amenities as well as good public Transportation System

10.4 Housing the People

KEY DIRECTION :

U 2: Ensure sufficient homes to meet demand of all income groups

Residential land makes up the second largest component of land in the CDP Proposal Map. A total of 54,758.94 hectares of land has been allocated, where 22,359.32 hectares are already established (i.e. built and approved for development). This means that the new land allocated for future residential demand shall be 32,399.62 hectares.

Based on the 2000 Population and Housing Census, Malaysia, there were 306,485 residential units in SJER area, out of which more than 36,227 were unplanned units (new villages, traditional villages, 'Orang Asli' settlements, Felda and squatters). These existing residential units are found over 9,724.85 hectares of land, making the current residential developments to be of high density, found along major roads and highways within the Johor Bahru City Centre and its immediate peripheral areas.

However, it is noted that some 12,634.47 hectares of additional land have been committed for residential development and will be used for the construction of 748,703 units of houses. If developed, this will be more than sufficient to cater for the additional population of SJER.

However, these committed residential development areas are located all over SJER and not focused within the SEC area. Hence, in focusing development within the SEC and in support of a transit-oriented development, the CDP has identified the need to develop residential areas within the SEC (see chapter 16 – Transit-oriented Development).

⁹ Macroeconomics Report SJER, RMA, 2006

Table 10.3: Breakdown of Residential Uses in SJER, 2025

| Land Use | Hectare | % |
|---------------------------------|-----------|-------|
| Established Housing | 22,359.32 | 40.8 |
| High Density Residential | 513.02 | 0.95 |
| Medium High Density Residential | 1612.49 | 2.94 |
| Medium Density Residential | 12,826.49 | 23.43 |
| Low Density Residential | 16,063.59 | 29.34 |
| Villages | 1384.03 | 2.54 |
| Total | 54,758.94 | 100% |

Source : SJER CDP 2025

Current Definition and Proposed New Classification

KEY DIRECTION :

U 3: Revise the housing classification by cost to reflect the actual market prices

Johor imposes a condition on housing developers that low and medium cost homes should make up a minimum of 40% of total residential units.

Table 10.4: Current Policies of Affordable Housing in Johor

| Area | Requirements | Price Range | |
|------|-------------------|--|--|
| 1 | Within MBBJ areas | 20% low cost 8% medium low cost 8% medium cost 4% medium low cost shops | RM 25,000.00 RM 50,000.00 RM 80,000.00 RM150,000.00 |
| 2 | State Wide | 12% low cost 12% medium low cost 12% medium cost 4% medium low cost shops | RM 42,001 – RM 60,000 |

Source: Draft Johor Bahru Local Plan, 2020

However, it is strongly felt that with rising incomes in the city as well as the rising cost of land, the price range used for the classification is not a reflection of the market prices. It is therefore proposed that the following be used as the new price classification for the different types of housing.

Table 10.5: Preliminary Proposal for New Definition of Housing Classification by Costs

| Classification | Examples of housing | Price Range | |
|----------------|---------------------|---|-------------------------|
| 1 | Non-Market Housing | Low cost flats Low cost (under PPRT) Cluster low cost Terraces low cost | ≤RM 42,000 |
| 2 | Affordable Housing | Flats and other various types of accommodation | RM 42,001 – RM 80,000 |
| 3 | Medium Cost | Medium cost flats, apartments and institutional quarters | RM 80,001 – RM 150,000 |
| 4 | Medium High Cost | Multiple family dwelling units condominiums, service apartments, semi-detached, bungalows, terraces and town houses | RM 150,001 – RM 250,000 |
| 4 | High Cost | Multiple family dwelling units condominiums, service apartments, semi-detached, bungalows, terraces and town houses | ≥RM 250,001 |

Source : SJER CDP 2025

Note : Non-Market Housing:- provides mainly for those who cannot afford the affordable housing provided by the private sector. The local planning authority must manage this. Affordable Housing - annual housing cost (payment of mortgage, interest rates, down payments and taxes) does not exceed 30% of the annual household income.

10.5 Providing For Community Facilities

Community facilities form an essential part of the urban environment, without which living spaces would not be complete.

Space for Community Facilities

KEY DIRECTION

U 4: Community Facilities shall be the focus for interaction within the neighbourhoods, integrating residential developments with workplaces, shopping and recreational areas. Community services shall be encouraged to provide for community cohesiveness.

The range of community facilities include educational facilities, health, security and emergency services, postal, religious houses, cemeteries or burial grounds, social welfare, public facilities such as community or public halls, public markets, libraries and sports and recreational facilities. Tables 10.6 and 10.7 highlight the existing available community facilities within SJER. These facilities are shown according to the Mukim areas.

Table 10.6: Existing Community Facilities 2002

| NO | MUKIM | COMMUNITY FACILITIES | | | | | |
|-------|-------------|----------------------|---------|--------------------|--------|----------|--------|
| | | Education | | Religious Reserves | | Security | |
| | | Unit | Ha | Unit | Ha | Unit | Ha |
| 1. | Sedenak | 10 | 37.53 | 14 | 7.41 | 6 | 5.44 |
| 2. | Senai-Kulai | 194 | 1396.30 | 128 | 33.87 | 19 | 19.54 |
| 3. | Pulai | 340 | 656.94 | 124 | 46.61 | 16 | 15.01 |
| 4. | Jelutong | 6 | 12.85 | 4 | 1.64 | - | - |
| 5. | Tebrau | 273 | 498.10 | 133 | 50.64 | 17 | 15.33 |
| 6. | Sg. Tiram | 7 | 9.74 | 2 | 2.87 | - | - |
| 7. | Tg. Kupang | 5 | 9.23 | - | - | 1 | 54.20 |
| 8. | Jeram Batu | 19 | 34.91 | 20 | 17.05 | 4 | 6.65 |
| 9. | Plentong | 471 | 721.05 | 228 | 107.10 | 23 | 42.29 |
| 10. | Bandar | 15 | 17.95 | 11 | 3.69 | 15 | 19.44 |
| 11. | Sg. Karang | 4 | 9.25 | 3 | 6.47 | - | - |
| 12. | Serkat | 10 | 14.48 | 14 | 4.73 | 6 | 0.77 |
| TOTAL | | 1354 | 3418.33 | 681 | 282.08 | 107 | 178.67 |

Source: SJER CDP 2025

Table 10.7: Existing Community Facilities, 2002

| NO | MUKIM | COMMUNITY FACILITIES | | | |
|-------|-------------|----------------------|--------|--------|--------|
| | | Health Care | | Others | |
| | | Unit | Ha | Unit | Ha |
| 1. | Sedenak | 5 | 28.14 | 4 | 12.46 |
| 2. | Senai-Kulai | 9 | 12.12 | 70 | 23.47 |
| 3. | Pulai | 18 | 13.13 | 85 | 21.18 |
| 4. | Jelutong | 1 | 1.21 | 1 | 0.81 |
| 5. | Tebrau | 18 | 260.64 | 99 | 45.39 |
| 6. | Sg. Tiram | 2 | 3.15 | 1 | 0.19 |
| 7. | Tg. Kupang | 1 | 0.05 | 2 | 0.88 |
| 8. | Jeram Batu | 2 | 3.21 | 6 | 1.05 |
| 9. | Plentong | 20 | 56.66 | 103 | 70.41 |
| 10. | Bandar | - | - | - | - |
| 11. | Sg. Karang | 1 | 0.18 | - | - |
| 12. | Serkat | 5 | 2.54 | 4 | 0.73 |
| TOTAL | | 82 | 381.03 | 375 | 176.57 |

Source: SJER CDP 2025

Based on the projected population of 3.0 million in 2025, the demand for community facilities will increase in tandem. Based on the current standards used for provision of these facilities, Tables 10.8 and 10.9 indicate the projected demand for community facilities.

Many of these community facilities listed above will require land. In an area with high land prices, developers may well be reluctant to put aside land for such use. However, to attract people to live in the city centre, community facilities must be provided. Innovative methods of doing so must be found, for instance, by integrating facilities within other buildings, such as shopping malls and public buildings.

Table 10.8: Demand For Community Facilities 2025

| NO | MUKIM | COMMUNITY FACILITIES | | | |
|-------|-------------|----------------------|---------|--------------------|--------|
| | | Education | | Religious Reserves | |
| | | Unit | Ha | Unit | Ha |
| 1. | Sedenak | 74 | 92.41 | 141 | 32.74 |
| 2. | Senai-Kulai | 320 | 405.07 | 618 | 33.87 |
| 3. | Pulai | 145 | 442.89 | 699 | 162.28 |
| 4. | Jelutong | 125 | 157.64 | 241 | 55.85 |
| 5. | Tebrau | 321 | 407.08 | 621 | 144.23 |
| 6. | Sg. Tiram | 17 | 21.85 | 33 | 7.74 |
| 7. | Tg. Kupang | 172 | 218.94 | 334 | 77.57 |
| 8. | Jeram Batu | 134 | 168.72 | 257 | 59.77 |
| 9. | Plentong | 340 | 430.01 | 656 | 152.35 |
| 10. | Bandar | 6 | 8.08 | 12 | 2.39 |
| 11. | Sg. Karang | - | - | - | - |
| 12. | Serkat | - | - | 1 | 0.29 |
| TOTAL | | 1654 | 2352.69 | 3613 | 729.08 |

Source: SJER CDP 2025

Table 10.9: Demand For Community Facilities 2025

| NO | MUKIM | COMMUNITY FACILITIES | | | |
|-------|-------------|----------------------|-------|--------|-------|
| | | Health Care | | Others | |
| | | Unit | Ha | Unit | Ha |
| 1. | Sedenak | - | - | 22 | 0.87 |
| 2. | Senai-Kulai | 1 | 15.51 | 96 | 3.83 |
| 3. | Pulai | 1 | 17.54 | 108 | 4.33 |
| 4. | Jelutong | 1 | 6.04 | 37 | 1.49 |
| 5. | Tebrau | 1 | 15.59 | 96 | 3.85 |
| 6. | Sg. Tiram | - | - | 5 | 0.21 |
| 7. | Tg. Kupang | 1 | 8.39 | 52 | 2.07 |
| 8. | Jeram Batu | 1 | 6.46 | 40 | 1.59 |
| 9. | Plentong | 1 | 16.47 | 102 | 4.06 |
| 10. | Bandar | - | - | 2 | 0.08 |
| 11. | Sg. Karang | - | - | - | - |
| 12. | Serkat | - | - | - | - |
| TOTAL | | 7 | 86.00 | 560 | 22.38 |

Source: SJER CDP 2025

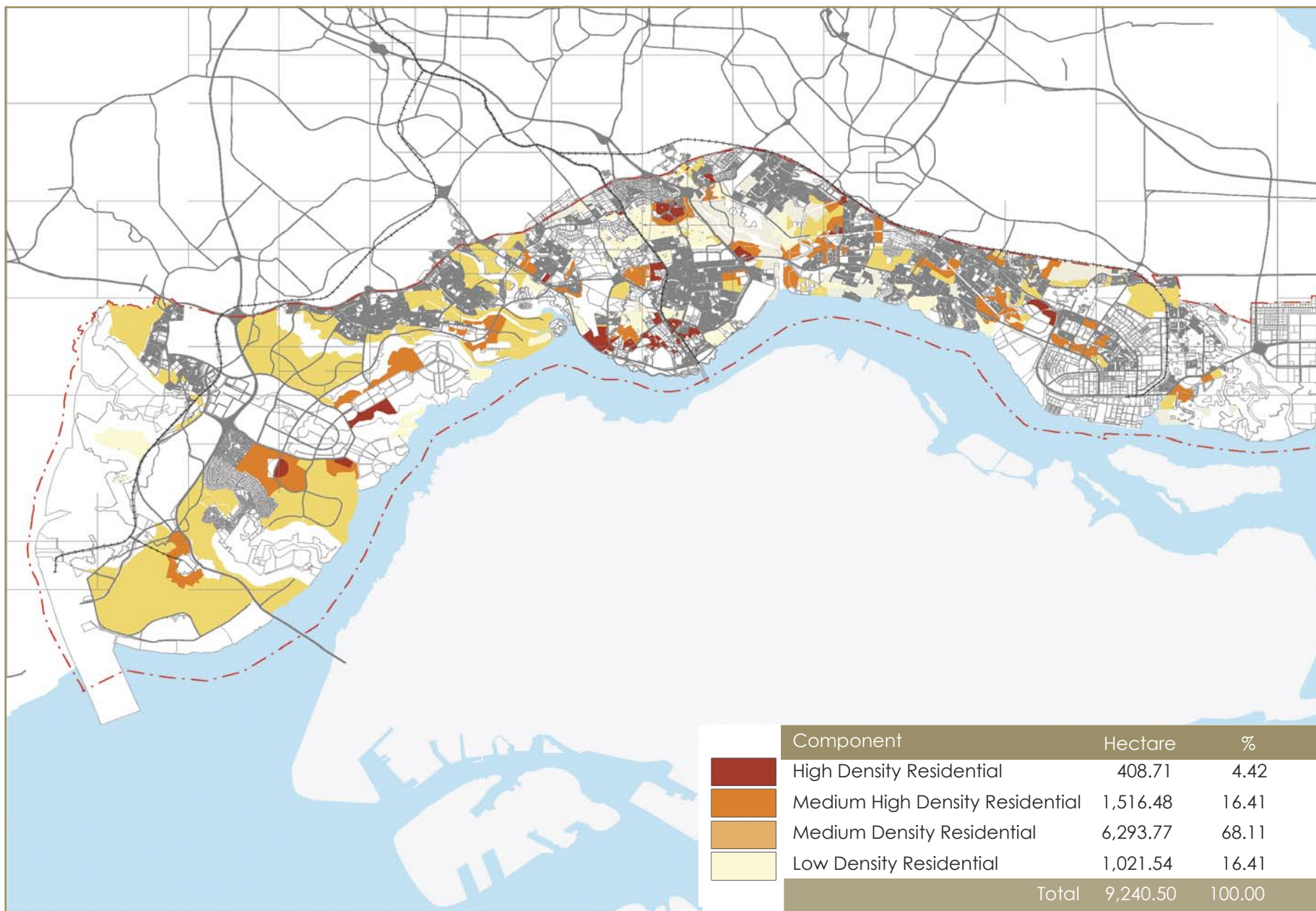
KEY DIRECTION

U 5: Community Facilities shall be integrated within commercial and public buildings to save on land requirement; innovative and safe designs must be formulated to allow this while providing a comprehensive range of facilities for community use.

The following is recommended:

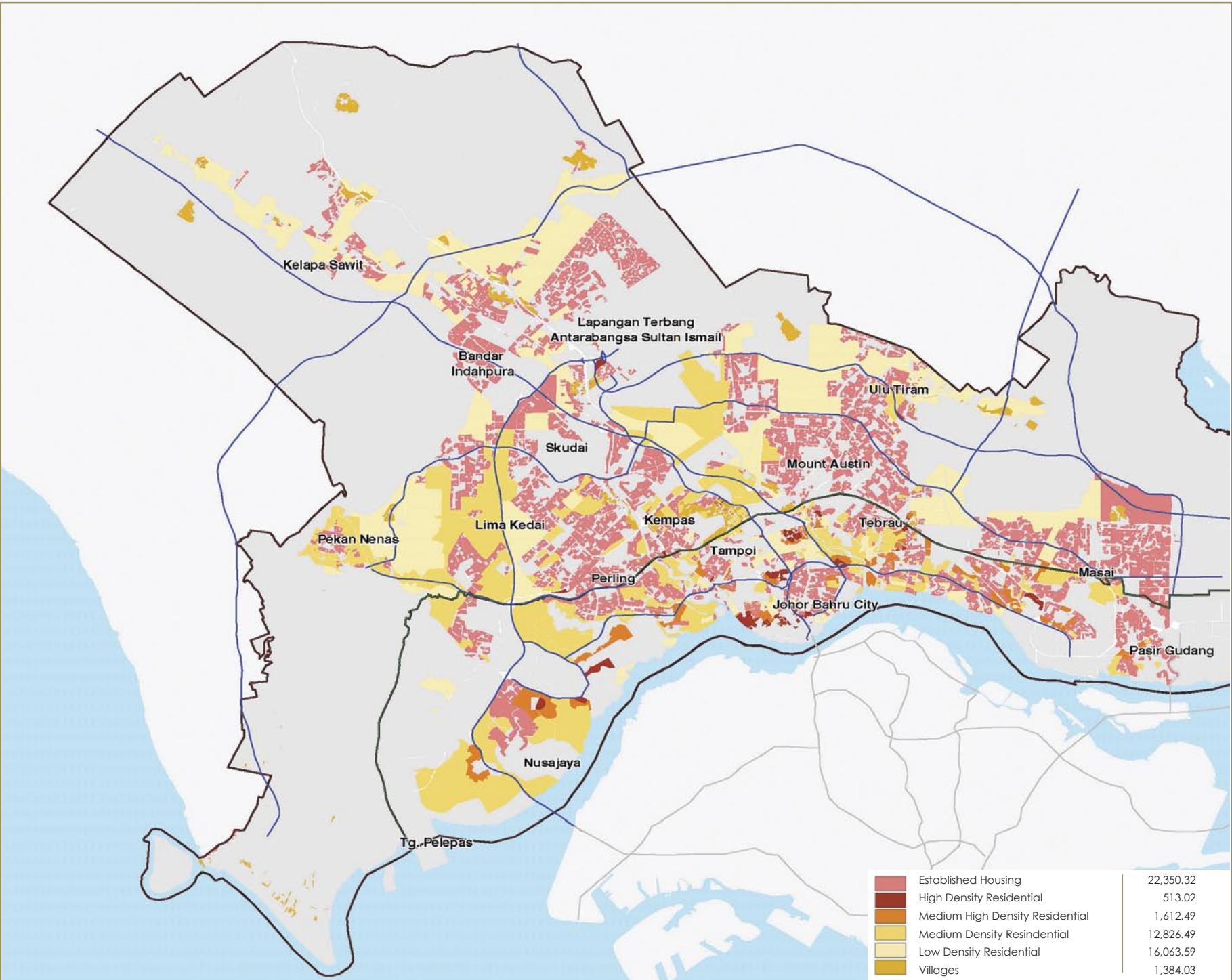
- Facilities such as libraries, police stations, community halls, market, kindergarten, crèches, government clinics, and neighbourhood watch centres must be centrally located within shopping centres or complexes and within transportation nodes or hubs.
- Burial grounds for Johor Bahru city centre can be shared on a regional/metropolitan basis with adjacent or peripheral local authorities;
- A policy change must be made to allow the public/community to use school recreational grounds such as football pitches or fields within certain restricted hours and conditions

Figure 10.1: Residential Land Use Distribution in SEC



Source : SJER CDP 2025

Figure 10.2: Residential Land Use Distribution in SJER



Source: SJER CDP 2025

10.6 Urban Nucleus and Employment Zones

The location of large industrial clusters, institutions, ports, airport and the State administration centre have changed the urbanisation structure of South Johor. These urban centres have become important concentrations of business and key employment centres.

Urban Hierarchies

The CDP has identified three levels of urban hierarchies that will provide the different level of services. These urban hierarchies has been minimised to avoid overlapping in functions and in context of the National Physical Plan, SJER as a whole is the Southern Region Conurbation growth area. The following table illustrates the urban centres and the defined hierarchies.

Table 10.10: Urban Hierarchies In SJER

| Urban Hierarchies | Main Area/City/Town |
|--|--|
| Southern Regional Growth Conurbation (NPP) | South Johor Economic Region |
| City Centre | Johor Bahru Central Planning Area Nusajaya Central Planning Area |
| District Centre | Senai-Skudai Pasir Gudang |
| Local Centre | Permas Jaya, Rinting, Kota Masai, Tg Langsat, Mount Austin, Ulu Tiram, Taman Setia Indah, Bandar Indahpura, Ayer Bemban, Pekan Nenas, Tanjung Pelepas, Gelang Patah, Perling, Tampoi, Danga Bay, Nusajaya Creative Centre. |

Source: SJER CDP 2025

It is important to maintain the concentrations of local businesses and trade as this is more sustainable. Local businesses have been established for many years. Any encroachment by new uses or activities which may displace existing business activities has to be controlled.

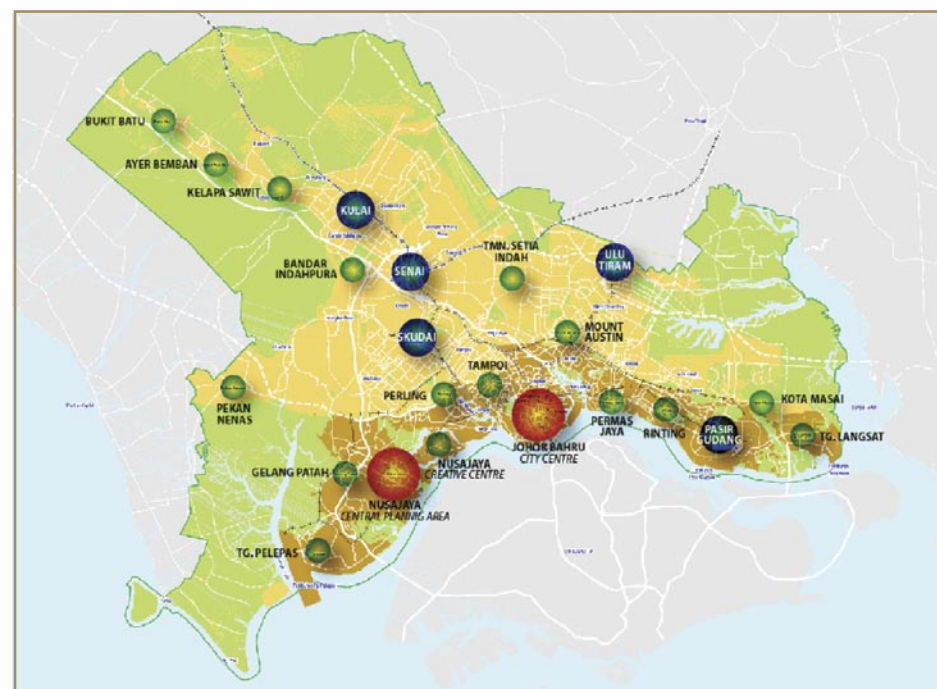
Hypermarkets and the 'big box' stores are examples of such potential encroachment. As such, they should be located in new and green field sites so as not to overpower existing traders.

Urban centres need to maintain the diversity of the local economy and the range of employment opportunities to maintain sustainable development. A dominant presence of one use/activity in an urban centre might result in economies of scale but may not be sustainable if the demand catchment is insufficient to sustain it. A diverse economic base helps to ensure sufficient demand by increasing the size of the potential market.

The sustainability of urban centres is important, hence its scale and form must not be too large with too many built up commercial spaces.

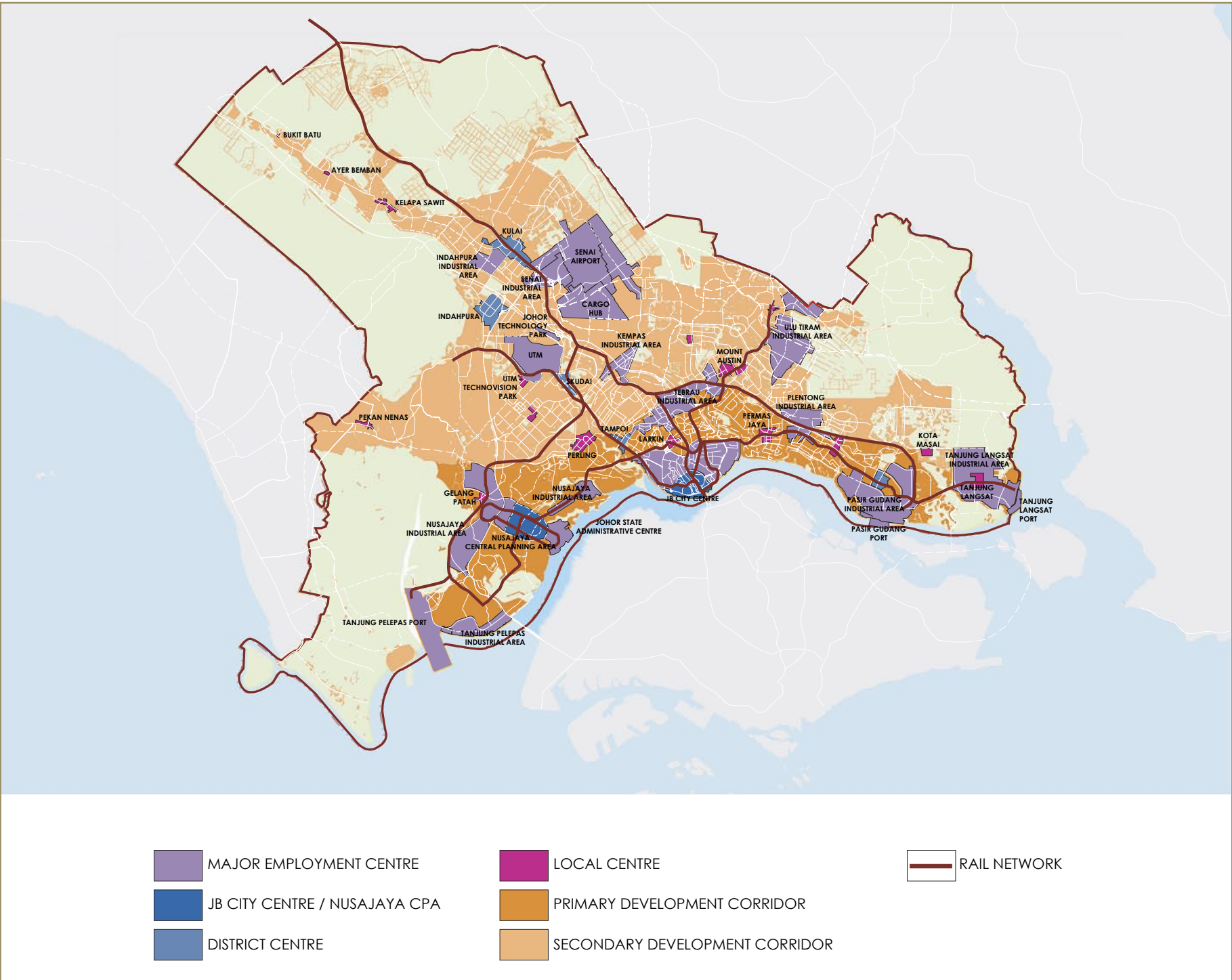
Mixed Use is highly recommended for city centres and district centres especially when these centres are within the Transit Planning Zones. The CDP has identified various benefits and business for centres located within transit zones for instance higher densities and plot ratios as well as discounted car park provisions.

Figure 10.3: Urban Hierarchy Plan



Source: SJER CDP 2025

Figure 10.4: Employment Zones Plan



Source: SJER CDP 2025

10.7 Industrial Development

The industrial sector in SJER is important and must take a leading role in transforming the city's economic base towards a knowledge base economy in tandem with its strategy of internationalisation. New types of industries which are clean, require high skilled labour and employ new technologies will be the main focus. SJER also needs to revitalise its existing industrial base and ensure that it is integrated with the new developments that are taking place.

The two main sectors in SJER are the manufacturing and services sector. There are currently more than 4,266 manufacturing establishments located in SJER, out of which 60% are to be found in the SEC. These are primarily in the Electrical and Electronics Industries (E&E), Chemical and Chemical Products Industries, Rubber and Plastics Products Industries, and the Food and Beverages Industries.

A total of 3,649.2 hectares of industrial land is currently available and are located all over SJER, particularly in Pasir Gudang, Plentong, Mount Austin, Desa Cemerlang and Ulu Tiram as well as areas within Johor Bahru city.

A. Strengthen existing industrial component through cluster strategies

Existing economic activities can be strengthened by clustering inter-related industries. This can increase productivity and promote supporting activities.

KEY DIRECTION :

U 6: Adopt an integrated, inter-industry cluster strategy to assist in the transition of manufacturing activities to the k-economy

Table 10.11: Major Economic Clusters and Cluster Nodes In SJER

| Types of Industry | Economic Sector | Main Economic Cluster |
|-----------------------|------------------------|--|
| Johor Bahru City | Manufacturing Services | E&E, Plastics, Food Processing Commerce & Finance Arts & Culture Hospitality and Entertainment MICE Retail Trade |
| Pasir Gudang | Manufacturing Services | E&E, Chemical, Oleo-Chemical, Food, Bio-chemical fuel, Engineering base industries, Port related Services, Freight, Packaging and Transportation |
| Tanjung Langsat | Manufacturing | Petrochemical, Oleo-Chemical, Plastics, R&D, Bio-fuel and new fuel, Engineering based industries |
| Senai-Kulai-Indahpura | Manufacturing Services | E&E, Food, Agro-processing, Aviation and Engineering based industries, Airport related services, Education |
| Tanjung Pelepas | Manufacturing Services | E&E, Engineering, Port and Marine industries, Logistics, Distribution, Procurement Centre and International Services |

Source : Economic Report, SJER, RMA, 2006

The enhancement of existing clusters will see in-fill development allowed for industrial use near the vicinity of existing industries. These are seen in Desa Cemerlang, Ulu Tiram, Tanjung Langsat, Kempas and most existing industrial areas. By allowing these uses to in-fill land available to existing established industrial areas, they can capitalise on the existing resources and support services available.

B. Propose New Industries to Meet New Demand

The CDP has proposed the allocation of an additional 8,000 hectares of land to support expansion of existing industries as well as the introduction of new industries to support the cluster strategy. These new industrial areas are in Nusajaya, Senai and PTP area.

KEY DIRECTION :

U 7: New Industrial Areas Must Be identified to Meet New Demands for Economic Growth of SJER

Table 10.12: Proposed New Industrial Areas with New Economies

| Industry Areas | Main Clusters | Cluster Nodes |
|-------------------------------------|--|---|
| Nusajaya | Hi-Technology Industrial Park, Bio- technology etc | High Tech manufacturing R&D base activities – bio- medical, engineering technology MSC, MICE, Medical Tourism, Educational etc |
| Nusajaya | Nusajaya Creative Park | Asiacade –Convention Centre Smart Venture Labs Electronics/ICT Centre Animation Theme Park SME Creative Park |
| Senai | Aviation Logistic Hub Airport related Engineering related Logistics Multi-Modal Terminal | |
| Port of Tanjung Pelepas/Nusajaya | Free Access Zone | Warehousing International Services Entrepot etc. |

Source : SJER CDP 2025

C. Encourage Green Industrial Activities

It is also proposed that Tanjung Langsat be upgraded to an area that accommodates cleaner manufacturing activities where new technologies can be applied to encourage manufacturers to adopt greener standards and eco-friendly technologies.

KEY DIRECTION :

U 8: Promote Green Industry Standards in SJER

New industrial areas (Nusajaya Technology Park, PTP and all other new industrial areas) should also adopt green industry standards.

D. Encourage the growth of compatible manufacturing enterprises in the City

One of the major issues highlighted in the Johor Bahru Local Plan studies is the presence of a large number of incompatible industries, which are located in unplanned industrial sites; including those in residential zones, commercial precincts and on government land. There are also a number of industrial establishments which are polluting, hazardous and unlicensed. In order to revitalise the city's manufacturing sector and bring about an industrial renaissance, it would be necessary to encourage the growth of only clean, modern and compatible industries in planned areas. It would also be necessary to eradicate illegal and polluting industries and encourage these incompatible industries to comply with current regulations. To promote the growth of compatible industries, the initiatives to be taken are as follow:

KEY DIRECTION :

U 9: Encourage the relocation of all incompatible industries into planned industrial areas.

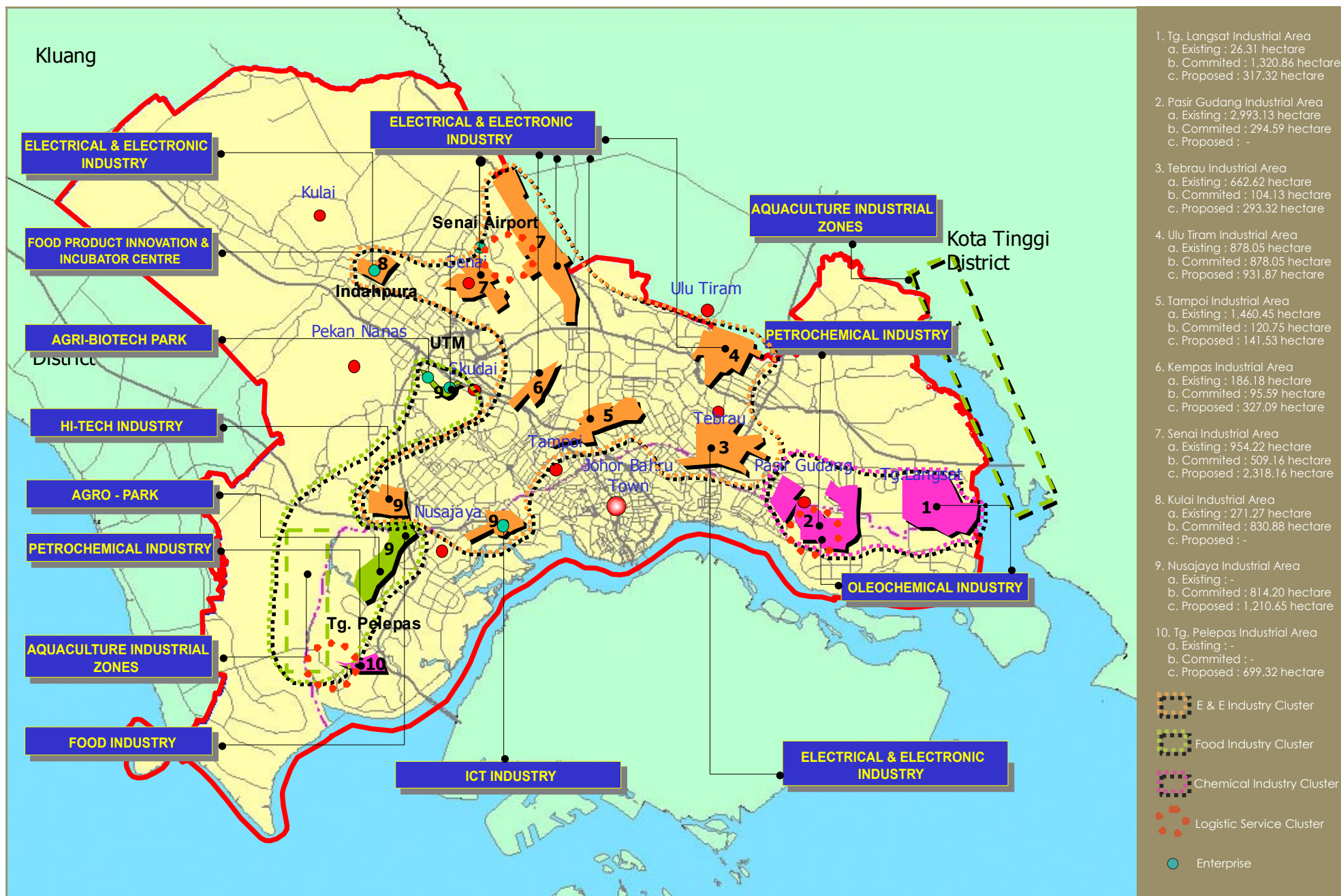
Proposed Programs:

1. Identify and relocate polluting and hazardous industries to alternative sites outside SEC.
2. Identify suitable locations for the city's junkyards and waste recycling plants (for example in existing planned industrial areas not targeted for redevelopment into Industrial/Business Parks).

3. Develop an efficient enforcement program to ensure that all industries are operating legally and in compatible locations including the elimination of industrial squatters on government land.
4. Review the Use Class Rule to ensure that incompatible industrial activities are not permitted in commercial areas.

5. A Feasibility Industrial Relocation Program will be required, covering all industrial establishments located in housing, commercial and outside planned industrial areas to ascertain their scope and ability to move to more suitable locations such as those proposed for redevelopment into Industrial/Business Parks.

Figure 10.5: Distribution of Major Planned Industrial Areas 2025



Source: SJER CDP 2025

10.8 Cyber Cities and Cyber Centre

Malaysia aims to have a knowledge-based economy and society as encapsulated in Vision 2020. The challenge for SJER would be its readiness to achieve this objective by 2020.

KEY DIRECTION :

- U 10: Encourage the growth of Cyber cities and Cyber centres.
- U 11: Expand the availability of world class ICT infrastructure and info structure in the city.
- U 12: Enhance the ICT Clusters in SJER

A. Cyber cities and Cyber centres in SJER

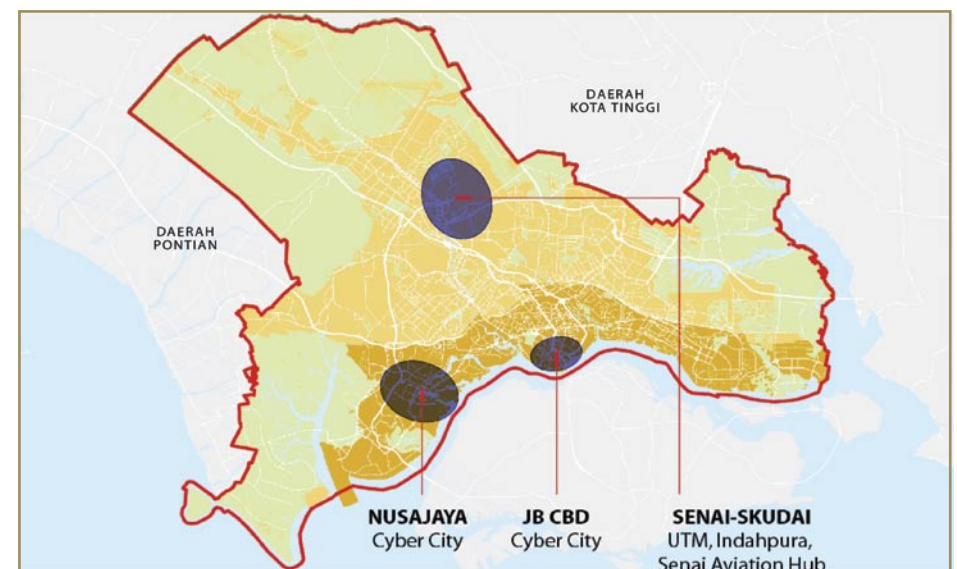
SJER can play a leading role in establishing itself as one of the major Cyber cities in the country. A Cyber city is defined as a self-contained intelligent city offering world-class business and living environment and incentives under the Bill of Guarantees (BoGs). The Multimedia Super Corridor (MSC), established in 1996, was envisaged to spearhead this, comprising a competitive cluster of local ICT companies and a sustainable ICT industry.

Three Cyber cities will also be proposed in SJER as part of the MSC Phase 2 (2004-2010) namely Nusajaya, Johor Bahru Central Planning Area and the University Teknologi Malaysia Skudai - Indahpura area. In this second roll-out the MSC Cyber city/Cyber centre status goes beyond the original designated areas in order to spread the MSC benefits nationwide and to enhance national and regional growth and competitiveness and to bridge all forms of digital divide in the country.

B. ICT Infrastructure and Info Structure in the City

The need to enhance the ICT infrastructure such as intelligent buildings, broadband facilities, wireless technologies and WIFI within SJER is important. This is especially important for the SEC area in order to attract investors and large corporations.

Figure 10.6: SJER Cyber Cities



Source: SJER CDP 2025

Within the SEC, Cyber centres, defined as buildings or complexes with basic enabling environments (with high-tech telecommunications infrastructure and a multimedia lab) that offers partial Bill of Guarantees, are encouraged. Such Cyber centres will not compete but instead are meant to complement the Cyber cities. Menara MSC Cyberport in Johor Bahru is the first cyber centre building in SJER.

C. Cluster Based Strategies

In an increasingly globalised and technologically advanced world, businesses are increasingly gathering together to generate competitive advantage. This phenomenon – clustering – can be seen around the world. Clusters, which are groups of inter-related industries, have two key elements. Firstly, firms within the cluster must be linked. Secondly, these groups of inter-linked companies must be located in close proximity to one other. A cluster-based strategy has been adopted by many cities in other parts of the world to build competitiveness in the K-economy.

ICT clusters comprise the following activities:

- IT as an industry: manufacturing IT-related hardware and component parts, and software development; and
- IT as an enabling technology: this comprises activities such as Outsourcing and Shared Services (OSS), Systems integration, Consulting and Retail and distribution of ICT products.

ICT clusters which would provide new sources of growth for SJER would be as follows:

- Software development; and
- OSS where Malaysia has been identified to have an edge in higher valued-added services and call centres. Under initiatives which are part of the Ninth Malaysian Plan, emphasis is being given to attract global players in the field as well as encouraging the participation of the local players. Towards this end, international promotion and marketing will be intensified; focusing on attracting investments from energy, finance, logistics, manufacturing and healthcare sectors.

D. Benchmarking Cyber cities

Cyber cities differ from other property development projects. They provide the driving force for improving performance culture and changing the mindset of both, public and private sectors, to improve the quality of service. Key to this effort is the enforcement of MSC Cyber city Standards. Such standards, encompassing utilities, telecommunications and municipal services, are continuously benchmarked against leading science parks and intelligent cities globally by the Malaysia Development Corporation (MDC). Service quality for telecommunications and utilities in the MSC Cyber cities is ensured through the implementation of MSC Performance Guarantees with Financial Penalties (PGFPs). Some key details on MSC Cyber cities are reproduced below.

Table 10.13: MSC Cyber cities: Key Information

| | | CFZ | TPM | KLCC | UPM- MTDC | PCCI | KHTP |
|------------------|---|-----|-----|------|--------------|------|------|
| Customer Service | One-Stop Centre by Cybercity Management | Y | Y | X | X | Y | Y |
| | 24 hour hotline number | | | | | | |
| | • Cybercity management | Y | Y | Y | X | Y | Y |
| | • Telecoms companies | Y | Y | Y | Y | Y | Y |
| | • Utility companies | | | | | | |

| | | CFZ | TPM | KLCC | UPM- MTDC | PCCI | KHTP |
|------------------------|--|-----|-----|------|--------------|------|-------|
| Transportation | • Bus | Y | X | Y | Y | Y | Y |
| | • Taxi | Y | Y | Y | Y | Y | Y |
| | • Rail | Y | Y | Y | X | X | X |
| | • Airport in 30 min | Y | Y | Y | Y | Y | Y |
| Facilities & Amenities | • Housing | Y | Y | Y | Y | Y | Y |
| | • Shopping Complex | Y | Y | Y | Y | Y | Y |
| | • Hospital and Clinic | Y | Y | Y | Y | Y | Y |
| | • Hotel, Service Apartments | Y | Y | Y | Y | Y | Y |
| | • Sports Complex, Play Fields, Gymnasium | Y | Y | Y | Y | Y | Y |
| | • Incubator | Y | Y | Y | Y | Y | Y |
| | • Data Centre | Y | Y | Y | Y | Y | Y |
| | • Schools & Institution of Higher Learning | Y | Y | Y | Y | Y | Y |
| | • MSC PGTP | Y | Y | Y | Y | Y | Y (1) |
| | • MSC Tariff | Y | Y | Y | Y | Y | Y (1) |
| Available Services | • DLL | Y | Y | Y | Y | Y | Y |
| | • ISDN IDE | Y | Y | Y | Y | Y | Y |
| | • Domestic Free Phone | Y | Y | Y | Y | Y | Y |
| | • Domestic Original Leased Line | Y | Y | Y | Y | Y | Y |
| | • International Private Leased Line | Y | Y | Y | Y | Y | Y |
| | • Domestic Frame Relay | Y | Y | Y | Y | Y | Y |

| | | CFZ | TPM | KLCC | UPM- MTDC | PCCI | KHTP |
|-------------------------------|---------------------------------------|-----|-----|------|--------------|------|-------------|
| Available Services (con't) | • Domestic ATM relay | Y | Y | Y | Y | Y | Y |
| | • Leased Line Internet Access | Y | Y | Y | Y | Y | Y |
| | • XDSL | Y | Y | Y | Y | Y | Y |
| | • Multiple backbone Service Providers | Y | Y | Y | Y | Y | Y |
| | • Multiple Internet Service Providers | Y | Y | Y | Y | Y | Y |
| Electricity | • 100% Backup with Prompt Restoration | Y | Y | Y | X | X | In progress |
| | • 99.9% Reliability | Y | Y | Y | X | X | Y |
| Water | • Uninterrupted Supply | Y | Y | Y | X | Y | Y |
| | • WHO Quality | Y | Y | Y | Y | Y | Y |

Source: MDC, Cyberjaya, 2005; (1) Tariff adoption is currently in negotiation stage

