

Transit-Oriented Development (TOD)

Making Place In Malaysian Cities



Universally, optimum land use is always an important objective of land use planning, if not the most important. By 'optimum land use' we mean, *"making the most effective use of the land to achieve a certain goal or, creating the most conducive activity on the land to achieve a certain favourable outcome"*.

On this note, it is crucial to highlight that National Physical Plan-2 (NPP2, 2010), which is the highest level of physical planning policy in Peninsular Malaysia, prepared by the Federal Department of Town and Country Planning (FDTCP), states *"to optimize utilization of land and natural resources for sustainable development and biodiversity conservation"* as its second objective (out of five objectives).

Background issues

One fact about Malaysian cities that we already know is that – they are growing bigger and richer, and as they grow, vehicle ownership and use also grow, and as a result (among others) – the issues of car dependency and traffic congestion.

As urban transport is the backbone and lifeline of an urban area, it follows that any issues arising from it could affect the economic and social sustainability of a city. To tackle urban transport issues, the first thing that we must acknowledge is that, transport is a derived demand; it is indeed, a function of land use. Hence, it is no surprise that one of the main thrusts of the National Urbanisation Policy (2006) is to achieve an integrated and efficient urban transportation system.

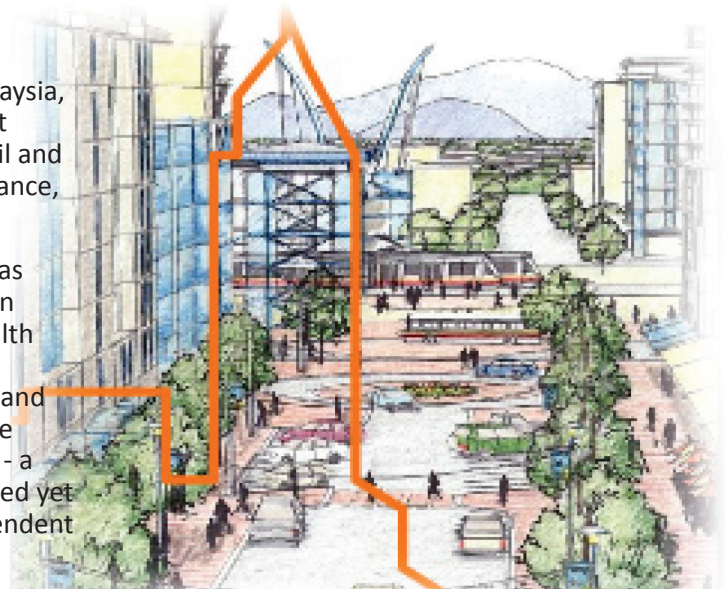
TOD Background

Transit Oriented Development (TOD) is now becoming a popular solution to optimize the use of land, and to tackle urban transport issues. TOD, is a land use solution that focuses on enhancing accessibility, by encouraging compact, high density and mixed-use development, within an easy walk of a transit station. A typical TOD neighbourhood has a diameter of a quarter to half mile (400m-800m) which represents pedestrian scale distances (5-10 minutes walk).

By 'transit' we mean, either public or private system that provides local or regional multi-occupancy-passenger vehicle service, that is open to everybody upon payment of a fixed charge, fast running (and few delays), following a defined route, having specific stations/

stops, and running according to a set schedule. In Malaysia, we already have some rail based and bus based transit systems, namely the Komuter, (Rapid KL) LRT, Monorail and Rapid KL (buses), and more are in the pipeline for instance, the MRT and BRT (Bus Rapid Transit).

TOD - apart from addressing urban transport issues, has also been proven to tackle other issues including urban sprawl, urban degradation, community liveability (health and safety) and ecological footprint, by encouraging walking, reducing air pollution emissions, energy use, and road fatality, as well as encouraging a more sustainable land use pattern and urban structure. For comparison - a walking city is more compact, a TOD city is decentralised yet concentrated around transit stations, while a car-dependent city is dispersed throughout the metropolitan.



Policy and Guideline National Physical Plan

The concept of TOD is not new in Malaysia. The National Physical Plan (Policy NPP27 in 2005, and Policy NPP32 in 2010) clearly states that “Transit Oriented Development shall be promoted as the basis for urban land use planning to ensure viability of public transport”, and subsequently, similar policy echoes in the state structure plans and local plans, for example the Selangor Structure Plan 2020, and KL City Plan 2020, as well as in regional plans, for example Iskandar Region’s Comprehensive Development Plan (CDP).

Policy and Guideline Draft Planning Guideline for Liveable Compact Development

This draft guideline that is being prepared by the FDTCP, is in line with National Physical Plan Policy NPP16 that states that “high priority shall be given to achieve energy efficient compact cities”. Here “liveable compact development” is described as, a method that places a mix of high intensity uses within 400m radius of rail or bus based transit station, and where public transport, walking and cycling are the main modes of transportation.

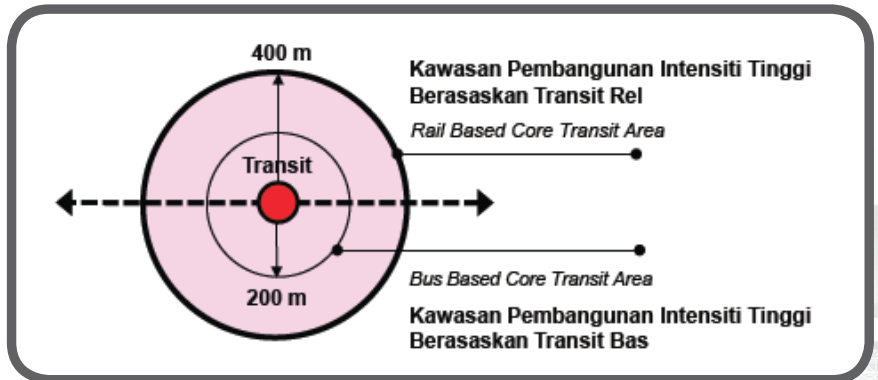
This guideline sets the planning and design guidelines for liveable compact development, which centres around TOD. At the planning stage, we first have to identify the types, characteristics and components of TOD – they would vary slightly between urban centre, urban neighbourhood, suburban centre and suburban neighbourhood; for example, the intervals during peak hours in the urban centre is <5 minutes, while in the suburban neighbourhood it could be 15-30 minutes.

The concentration of high intensity development for a rail based TOD should be within 400m radius from the transit station, while for a bus based TOD it should be within 200m radius. This guideline also suggests the allowance for 30% bonus plot ratio for commercial and residential development, within 200m and 100m respectively for a rail based and bus based TOD.



This guideline also identifies transit-friendly land uses (ie. suitable to be located around transit) as including, affordable housing, commercial spaces, shopping malls, hotels, schools and colleges, daycare centres, cultural, recreational, entertainment and sports facilities. Premises with mixed or multiple uses, and those operating around the clock, would be particularly suitable, to ensure vibrancy, safety and economic viability of the transit services.

For a more convenient, efficient and safe environment, the transit station should be designed in such a way to ensure seamless connectivity with all the modes of transport, and to optimise the utilisation of the underground space, as well as increase energy-efficiency, safety and surveillance.



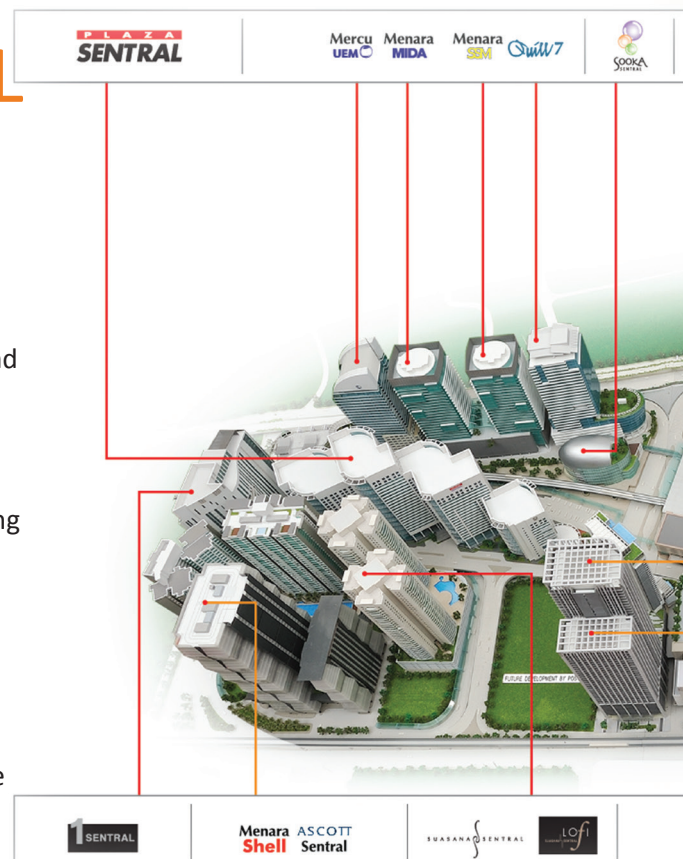
Source : Draft Planning Guideline for Liveable Compact City, FDTCP, 2015

TOD and Placemaking Principles and Elements

Placemaking is a multi-faceted approach to the planning, design and management of new or existing public spaces - it is a key ingredient of urban regeneration as it enhances the 'soul' of a place. TOD principles and placemaking elements are mostly the same thing ie. design for compact and mixed use development, create a high-quality pedestrian-oriented environment, and utilize the street grid to connect and provide access. Therefore, by having more TOD development, reinforces the effort to transform the cities through placemaking, and vice versa.

KL SENTRAL Success Story

Kuala Lumpur Sentral is an exclusive urban centre in the area of Brickfields, built around Malaysia's largest transit hub. Its TOD development consists of residence, office blocks, hotels, shopping malls, international exhibition and entertainment outlet. This 72-acre project, designed by the late Dr. Kisho Kurokawa, commenced in 1997 and was planned to be completed by 2015.





Conclusion

TOD is becoming increasingly relevant as our planet urbanises. Its philosophy promotes environmentally sustainable development, ease mobility, increase real estate value, encourage healthy activities (walking for example), improves neighbourhood through placemaking (making it more safe and vibrant for example), **and in short, makes a city worth staying in.**

However, for a TOD development to be successful, the **prerequisite is of course, an efficient and effective transit service** in the first place, which is regulated, managed and facilitated by various transport authorities. At the same time, **the success of TOD also depends on other factors** such as, our ability to reduce car ownership and car usage, as well as **our willingness to change our mindset about the status of public transport.**

