

## Landscape Design for Housing Areas: A Review

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**Abstract:** This study presents the theoretical review of the importance of landscape design for housing areas. Landscape design has become a significant effect for humans as well as all living things in order to provide a conducive living environment. Innovative landscapes that incorporate ecologically ideas and strategic design may help to prevent from extensive building heat gain, reduce the energy and water consumption as well as produce the natural and healthy ambience to the surrounding. The study framework covers four main aspects which are issues related to the housing landscape design, landscape design perceived the value of housing, the current needs and demands of landscape design and policies related to the importance of landscape design in housing development. The aim of the study is to highlight the demand for the proper landscape design that should be provided in any housing development. It is hoped that the study will contribute to further enrich the landscape design innovation as part of green and sustainable housing planning and development.

**Key words:** Landscape design, housing areas, conducive living environment, green and sustainable, strategic design

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### INTRODUCTION

Theoretically, landscape design is an art and science of organizing and enriching outdoor space through the placement of plants and structure in agreeable and useful relationships with the natural environment (Winslow and Tilt, 2006). Landscape design is very necessary to housing development since it can create genius loci to the residential area. It is very important also to consider the site context before embarking on the housing development. This will determine the level of comfort for the residents and the housing areas. Good design should contribute positively to making places better for people. This means ensuring that places function well and add to the overall character and quality of the area.

The landscape that adopts in housing areas has a potential to create a significant value in creating a sustainable lifestyle and lead to the quality of life for people (Mohd *et al.*, 2014). As such, Rodie and Ellen (Hussain *et al.*, 2014) recognize the quality of life can be examined in various perspective includes in the context of landscape design in housing areas. Apart from that Ezeanya (2004) identified that housing development in Malaysia has become a priority for the Malaysian Government in order to improve the demand and the quality of life for society.

### Issues related to the housing landscape design:

According to Na and Mam (2011), housing has become an essential part of human and its can be defined as a basic requirement which is more important to people's lives than food and drink. The evolution of function and design is able to make houses become measurements for good quality of life of an individual and become investments for the owners of the house. Thus, good criteria of housing areas such as enough facilities provided and the beautiful surroundings can influence people comfort and create a significance values to it (Na and Mam, 2011). This shows that aspect related to the human needs and desires are importance in creating values, especially to support people's activities and make the housing areas more functional and alive with social activities. Therefore, in the context of this study, landscape design can be seen as part of the facilities that make the housing environment feel comfortable and alive.

Housing landscape plays important roles in enhancing people's quality of life (Mohd *et al.*, 2014) (Hussain *et al.*, 2014). This is because people's preferences when they buying/rental the residence and conducting their daily activities are closely related to the quality of life. According to Franco *et al.* (2007), landscape design in housing areas can be used as a tool to make a community more sustainable and contribute to a balance living environment. Natural and constructed

landscape design can turn the housing community into a better living environment and also increase the value of the house property. As landscape is very important in housing development, the relationship between landscape design and housing is embodied through the availability of open space within the area. However, there are some issues related to the housing landscape design that can hinder people from enjoying the facilities provided in residential areas. Mohit and Elsawahli (2010) stated that safety becomes the major issues that influence people's decision. This is because crimes in residential area become common issues that happen nowadays. These have increased the fear within the community. Apart from that Hashim (2003) states that resident satisfaction is important since it can affect the social integration. Among the reasons are house compound in terms of physical structures, lack of maintenance on public facilities and poor social and physical environment which adversely affect the achievement of greater social integration. He also states that resident satisfaction can promote the process of socializing among people.

## **MATERIALS AND METHODS**

### **Landscape design perceived the value of housing areas:**

Landscape design ideally is part of the wider design process, allowing interaction between the building orientation, building design, site conditions and proposed landscape development (Mohd *et al.*, 2014). There are many factors of landscape design that can influence house value and price (Berger 2007). The overall planning of location, socio-economy and type of neighborhood can add value for the house. Previous research has noted that the physical attribute of the structure, demographic changes and local economy can affect the value of houses (Shukur *et al.*, 2016). Hong (2011) also added that the other relevant factors that also influence house value are location and neighborhood factor. They classified the factors of location has always been an important in determining the property value. Shukur *et al.* (2016) added the value of the house can be positively and negatively affected by its location that near to the facilities and amenities but also related to the quality of accessibility to the parks and green area with good recreational services.

The effectiveness of landscape design will perceive the value of the living environment, especially in housing areas. People in housing area, mostly agree that they want a well-designed living environment that fulfills their needs of livable environments (Ye, 2009). A housing area is the basis for community development in maintaining the high quality of life. They share common needs with each other and provide balance for everyone. Thus, the consideration for essential landscape is not only for

individual needs but also the community's. Henry (1999) states that there are three ways landscape can affect the values of houses which are landscaped in the neighborhood, on lot adjacent to the house and on the lot itself. This means that the consideration of landscape design includes public, semi-public and private spaces in housing areas. Besides that according to Ismail (2010) there are three types of housing scheme involved in landscape design planning. The needs and demands of landscape design are different, based on the types of housing schemes which cover all aspects of macro and micro scales of landscape design.

For example, selected types of plants can be strategically positioned to protect the building from the sun ray and heat which reduce glare and temperature and give comfort both inside and outside the house (Mohd *et al.*, 2014). Further, Niemiera (2009) states that plant size is the factor that adds most to a home's value (40.2%) and design sophistication is a close second (36.5%). Data from a study conducted from 1996-97 in Greenville, South Carolina, show that home price premiums increased 6-7% for home landscapes that were upgraded from good to excellence and 4-5% for an upgrade from average to good (Niemiera, 2009). Moreover, the value of a home can be increased by as much as 6-15% as a result of good landscape (Williams and Tilt, 2006). Therefore, the value of a housing area has increases with a conducive landscape design.

### **Current needs and demands of landscape design for housing areas:**

Now a days, home buyers are demand to a better quality of the house and more selective in choosing their houses. Therefore, the developers who have noticed the demand tend to improve the quality of housing by introducing various landscape designs in order to add a value to the property. People demand for the landscape and willing to pay for whatever changes in housing their house attribute in order to have a comfortable environment. According to National Urbanization Policy (2006), diversify the type of houses and the quality designs at suitable locations become a current need of the user for housing selection. Ye (2009), a community involves the sense of belonging that reflects the culture and heritage therefore, the designer should take the initiative to provide timely assistance and support. Therefore, consultations and designs should reflect the range of functions and amenities required as well as the sense of place for each scheme.

In large scale of a neighborhood, the factors that related to the public preferences need to take into consideration. According to Sreetheran *et al.* (2006), the enhancement of the overall characteristic of the

neighborhood comprised of neighborhood parks, parking spaces, children's playgrounds, road divider and green buffer zones. It is also supported by Lovell and Johnston (2009) that among the landscape design that can be applied in order to improve the quality of lifestyle for housing are vegetative buffer, edible garden, storm water infiltration system, residential yards, public green space and transportation infrastructure. Thus, it will contribute to more sustainable housing planning in the earlier stage of development.

Every housing area has a recreational area in order to support residents' need. Recreational areas usually reflect the recreational behavior of people. For example, playground equipment is needed in order to develop children's skills and also their social skills while an open space can be considered as a multi-purpose space that can be used for all type of users. Therefore, the location and the facilities of the recreation area need to be strategic and accessible for all types of users. The next landscape design which is important is to have in the housing area is a well-defined arrangement and selections of street plantings. This is because a row of plants can create a vertical plane to the visual character. Therefore, it gives an enclosure view for people. Apart from that, most plant selections for street planting has aesthetical values in terms of shapes, colors and characters itself. Basically, plants for street planting should have tap root system in order to grab the soil and avoid damage for pedestrian walkways and drainages. The use of proper plant is also need in order to create a safe environment for pedestrians.

Other than that, pedestrian walkways can become an important element that can build connectivity and accessibility in residential areas. The plantings usually used along pedestrian walkways act as shaded elements for the pedestrians. Spreading trees and big canopy types of trees are examples of the type of species suitable to be used in pedestrian walkways. In terms of transportation infrastructure, Lovell and Johnston (2009) include the infrastructure as roads, pathways, parking lots and other features that support vehicular and pedestrian movement. The public transportation infrastructure is important since it help residents' in connectivity and accessibility within the housing area. These landscape features impact on residential value depends on the area covered materials used and their arrangement on the landscape. According to Lovell and Johnston (2009), the innovative and creative landscape design such as a bike path along the pedestrian route, use of permeable pavements on roads, pathways and parking lots can reduce a negative impact on environment quality in the urban area. It is also can increase a value of the housing area.

Apart from that, it is important to have a buffer, security services and back lane in creating a safety and privacy environment of the housing area. A buffer zone area is significant for residential areas since it acts as environment filter for air, noise and pollution. Based on the guideline stated in the if the housing area were located at an industrial area or main road, the buffer zone must be at least 20 m from the area. In terms of urban areas, Lovell and Johnston (2009) state that the buffer may take the form of linear parks, planted areas along, median of roads, or greenways which can be used as a form of hedgerows, live fences and riparian strips located in areas that connect one patch to another or create a network of connectivity. As for security services, most housing areas recently attached with a security post as a welcoming entrance in order to increase the level of security in the housing area. The Malaysian government has also outlined the concept of Crime Prevention Through Environmental Design (CPTED) in order to support the first strategy in creating a safe city through environmental design initiatives. Therefore, most of the developer used this concept of gated and guarded community to promote a safety environment as well as act as selling a point of properties.

## RESULTS AND DISCUSSION

**Policies related to the importance of landscape design in housing areas:** A comprehensive national landscape policy supported by relevant regulations is formulated to spearhead the policies related to the importance of landscape design in housing areas. In this regard, the Jabatan Landskap Negara, Malaysia (JLN-National Landscape Department) will ensure that the planning of new public parks is based on standards for open space and recreational facilities in line with the respective landscape master plans at the state levels. Public parks and landscaped areas were designed to ensure easy maintenance and to make them sustainable, attractive and accessible to the public including the aged and the disabled. In addition, Research and Development (R&D) on landscape and planning of parks is intensified to enhance landscape development. Local authorities will continue to undertake measures to forge smart partnerships with private sector and Non-Governmental Organizations (NGOs) to upgrade and maintain public parks. This includes the provision of equipment for playgrounds, construction of fitness circuits and gazebos as well as maintaining sidewalks. It is stated in the Ninth Malaysia Plan in 2006-2010.

**Landscaping and recreational programmed:** In line with the national aspiration to implement a garden city concept in urban centers, various landscaping and recreational projects were implemented by local authorities with the support and assistance from the National Landscape Department. In this regard, the Department provided assistance to local authorities and state governments in planning for green lungs, designing recreational and public parks as well as greening and landscaping of rivers, roads and amenities. A total of 30 landscape master plans were developed which provided guidelines for the proper development of landscape focusing on a clean, beautiful and safe environment while ensuring balance between physical development and the conservation of natural resources. To meet the increasing demand for better recreational areas and open spaces, 17 new public parks were built and 256 existing parks have been upgraded. In addition, the national tree planting campaign continued to be implemented during the plan period aimed at promoting awareness among the public on the importance of trees in our living environment.

In line with the national aspiration of making Malaysia a developed, clean and attractive garden nation, efforts will continue to be undertaken towards the development of quality landscape.

Besides that, it is also to achieve the National Landscape Policy (2011) action plans which require at least 30% of urban development areas to be green areas to transform Malaysia into "The Beautiful Garden Nation" by year 2020. As stated in Page 3, the strategies of the National Landscape Policy, it shows the importance of landscape design is to ensure a holistic and sustainable development through effective landscape planning, development and management.

## CONCLUSION

This study has explored the overall view of the importance of landscape design for housing development. With the understanding of landscape design in terms of issues related to the housing landscape, landscape perceived the value of residential, the current needs and demands of residential landscape and the policies related to the needs of landscape in the residential, it is hoped that these theoretical review will give a beneficial impact toward a sustainability environment of the landscape industry for housing in our country. The combination of hardscape and softscape elements of landscape design is important in creating a pleasantly built environment for housing properties. Furthermore, the factor that influenced landscape design become benchmarks in order to understand the basic need of landscape design in the

housing area. Thus, the roles of landscape architects are very important to introduce and promote the landscape design in the housing areas.

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