Acclimatizing Universal Design for Aging Community

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Introduction

Designing for community is considered as an architect s social responsibility to satisfy their professional duty. Therefore, the essence of designing for humanity needs to be nurtured since their early architecture educational program. In the midst of the community project, center for aging community was chosen for the first semester 3rd Year 2014 project due to current aging population issues. The projection of aging population for the next few years is the catalyst for the proposed active environment for aging society, which is called the 'Retirement Center'.

The increase in aging population is an indicator of improved health and low mortality. The old (75 years and over) represents 18.7% of the total elderly population and the young old (60-75) represents 81.3% of the total elderly population and is projected to be 82.15% in 2020 (Elsawahli et.al, 2012).

The new National Policy for Older Persons acknowledges the older persons as citizens with varied background and experiences, have the rights to enjoy a comfortable and respected life and contribute to the development of the nation. This policy is the government's commitment to create a conducive environment for older persons who are independent, with dignity, high sense of self-worth and respected by optimising their self-potential through a healthy, positive, active, productive and supportive ageing to lead a well-being life (Zawawi. R, 2013.).

Site Analysis

With hindsight in practice and involvement of development in Kuala Lumpur City Hall, Taman Tun Dr Ismail (TTDI) was selected as the most strategic location for this project due to its location within an established housing area in KL City Plan 2020. Kuala Lumpur is the city with the highest elderly population in Federal Territory, Kuala Lumpur (127,400) and Taman Tun Dr Ismail (TTDI) in Kuala Lumpur is the neighbourhood with the highest elderly population (2,768.8) (Elsawahli et.al, 2012).

The idea of proposing the Retirement Center in TTDI was based on the expected end-users that are residing within the vicinity. However, the issue that needs to be addressed in the design solutions is the site accessibility since the public transportation hubs are not within the walking distance. The location plan indicates that the public transport line including monorail, LRT, ERL, and commuter located more than 1 km radius away. Nonetheless, some opportunities should be enhanced since the site is surrounded by residential and adjoining to Public Park (Figure 1).

Figure 1: Location Plan

Case Study
The students were given with series of lectures that showed case study of elderly centers in Malaysia and obstacles that are commonly faced by them. In order to acclimatize the Universal Design (UD) for aging community center, several UD issues for elderly were highlighted in the case studies. According to Doris et.al (2008), in Malaysia, the government-owned Aging Community Centers are listed as below;

1. Rumah Seri Kenangan: Care for elderly
2. Rumah Ehsan: Care for bedridden elderly.
3. Desa Bina Diri: Protection and rehabilitation of destitute.
4. Rumah Orang Tua Islam Tidak Berwaris: Care for elderly without heirs.
5. Pusat Jagaan Harian Warga Emas: Care for elderly (daily basis).

Apart from the government-owned elderly centers, none of them were intentionally dedicated for Active Aging community. The brief of the "Retirement Center" has been geared for a paradigm shift from conventional elderly centers towards inter-dependence and inter-generational environments to create an independent aging center.

Issue And Design Approach
The proposed "Retirement Center" should intensely consider the special needs for the aging community. According to the revision of the National Policy, there are needs to provide comfortable and respected life for older persons. Thus, the most pertinent design aspect that should be considered in the project planning and design development is "trans-generational" design. The design approach for the aging community could be stigmatizing due to the emphasis on just disabilities of the aging population.

However, the UD principles that are consistent with "trans-generational" design supports the idea of creating spaces and features for wider range of human capability. The aging community is commonly associated with disabilities or limited mobility, hence along the design process, the designer needs to emphasize those issues. Whilst acclimatizing the UD principal, the code of standards, and related by-laws should be deliberated to provide integrated design solutions.

Persons with disabilities are those who have physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (Convention on the Rights of Persons with Disabilities, 2006). People with disabilities, including older people, are at an increased risk in emergency and disaster situations (World Disaster Report, 2007).

Design Process / Methodology
Initially, the project brief was interpreted to enlighten the students about the project requirements and design elements that are essential for this nature of project. Whereas, feasibility studies and site analysis were conducted to analyze and synthesize the site's pertinence. Through data analysis and observation, the site was deemed appropriate given the existing neighborhood will be a catalyst towards active aging community in TTDI.

Individual and group studies were conducted to identify the areas of concern and design approaches on the identified aging community centers. Thru the analytical studies, among the areas that need to be emphasized for aging community is the UD. The students conducted several audit access for different types of building around Klang Valley to get hands-on experience of UD and to enable them to acclimatize the UD principles into their design solutions. (Figure 2)

Figure 2 : Audit asses by students

Universal Design Principles Application As Design Solution

More than "accessibility", the built environment has also been proposed to negatively impact older adults by creating barriers to maintain a continued engagement with life. In consequence, social bonds and community connections can be severed due to an environment that hinders the functioning of this population (Carr et.al, 2012).

Thus, the Universal Design principles which consist of: (1) Equitable use; (2) Flexibility use; (3) Simple and intuitive use; (4) Perceptible information; (5) Tolerance for error; (6) Low physical effort and; (7) Size/space for approach/use, have been deliberated on through "accessibility statements" in the students' schemes.

Wong Kail Li conceived the flexibility principles into the retirement center by providing three distinctive accesses via main road, residential area, and Public Park. The accessible entrance from different angle creates social bond between the younger and older community and stirs the interests of the passers-by. Hence, the mobility within the building was organized by allocating different vertical and horizontal circulation for each zone including for sports, recreational, administration, living, and social activities. Accessible vertical circulation designated for each zone is via lifts and ramps. (Figure 3, 4, 5)

Figure 3 : Accessibility Statement

Figure 4 : Accessibility Statement

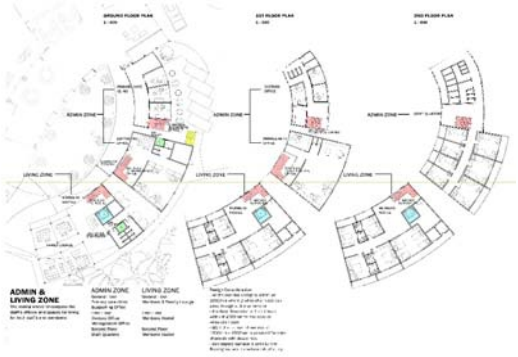

Figure 5: Vertical Circulation

While in Norhasyida's scheme, accessible parking spaces are connecting the travel paths into the building. The convenient corridors size create aisle to support people with mobility devices to easily move from one space to another. Simple spatial arrangement in her scheme is consistent with the universal design principles, which are to allow people to recognize spaces easily (Figure 6).

Despite of passive design element, active design elements of equitable principal such as ramps, stretcher lifts, railings, and doors specified in MS:1183 and MS:1184 are adapted for people with diverse abilities (Figure 7,8,9).

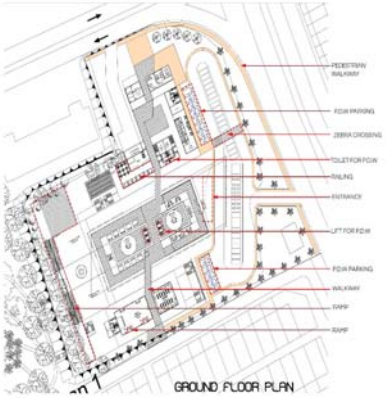

Figure 6: Accessibility Statement

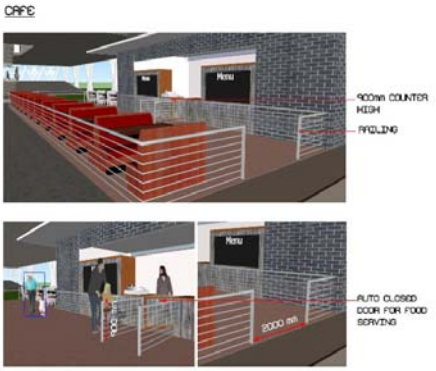

Figure 7: Railing

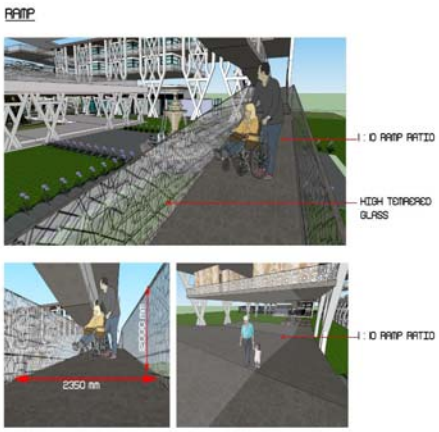

Figure 8: Ramp

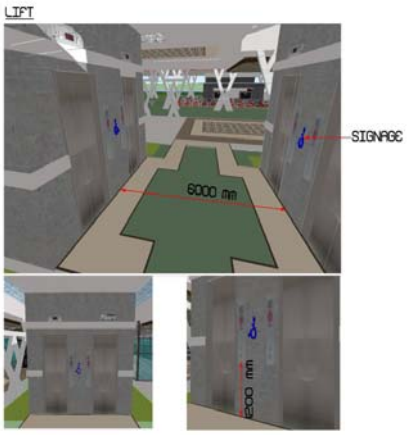

Figure 9: Lift

Conclusion

In spite of many advocacy campaigns in Kuala Lumpur to promote livable communities, in the context of aging community, the aspiration could only be achieved by providing accessible and responsive environment to them.

Successful aging has been defined to include; (1) a low probability of disease and disease-related disability; (2) a high level of physical and cognitive functioning; and (3) an active engagement in life. The built environment can create opportunities or constraints for seniors to participate in social and productive activities. Universally designed spaces are more easily accessed and used by a spectrum of people without specialized adaptations (Ioannis. T, 2012)

In accordance with the design requirement to create a retirement center that are connected to TTDI neighborhood, supportive environments are essential to accommodate their varying abilities. Thus, acclimatizing of UD principals during critic and design development processes are significant in order to create engagement with the built environment through ergonomic and anthropometric design approaches. The ability of creating functional spaces and eliminating barriers will provide better well-being and resilient aging community.

References

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