



Mall & Market Design; a Neo-Vernacular Approach

D. Lindarto¹, Reagan Solihin^{1*}

¹ Architecture Department, Faculty of Engineering, Universitas Sumatera Utara, Medan, Indonesia

Abstract. The traditional market is a trade sector with its characteristics, such as the interaction between sellers and buyers when bargaining for merchandise. Nowadays, its presence, especially in Medan, is getting replaced by the presence of modern markets such as shopping centers because the market conditions themselves are increasingly shabby and unkempt over time. Thus, people will become more shifting to the shopping center, which is cleaner, safer, and have more varied sales. Therefore, lots of efforts have been made by the government by issuing policies such as the presence of the Build Operate Transfer (BOT) system, the rebuilding of traditional markets, and the rearrangement and redevelopment of traditional markets to compete with modern markets.

With the Neo-Vernacular Architecture approach, the project will design by lifting local wisdom around the design area. Medan Tembung, Aksara, as the selected site, is quite strategic, which is the site of ex-Buana Plaza that has burned along its market, also located on one of the main routes to the highway gate of Kualanamu, and is an area with cultural values that still exist but began to disappear. Through this design, it's expected to increase the return of public interest to traditional markets and also improve the regional economy that also does not forget to raise local wisdom.

Keywords: Medan Tembung, neo-vernacular, shopping center, traditional market

1. Introduction

The traditional market is a trade sector with its characteristics, such as the interaction between sellers and buyers when bargaining for merchandise. The market is not only a place for sellers and buyers but also as a gathering place for diverse communities. In the development of traditional markets, it also acts as a medium of shopping, education, as well as increasing the income of micro traders or those who drive the people's economy [1]. At present, the traditional market has become the concern of many parties, especially after the government launched a revitalization program. According to data from the Ministry of Cooperatives and Small and Medium Enterprises in 2015, there were 13,450 traditional markets spread throughout Indonesia, and 30% of them were over 30 years old. With a total of 13,450 units, traditional markets have a large contribution to the economy of a region.

*Corresponding author at: Department of Architecture, Faculty of Engineering, Universitas Sumatera Utara, Jalan Perpustakaan Gedung J07, Medan 20155, Indonesia

E-mail address: dwilindarto@gmail.com

But the existence of traditional markets has recently been threatened. One of the causes is that more and more modern markets are emerging, which have large capital and complete facilities. These markets are starting to shift the role of traditional markets and even tend to get rid of them. But we cannot blame them as the cause of the loss of traditional markets, because other factors are the poor quality and management of the traditional market itself, which seems dirty, smells stale, stuffy and uncomfortable.

According to a survey conducted by AC Nielsen shows that modern stores have a positive growth of 31.4% per year, while traditional shops have a growth of minus 8.1% per year [2]. Therefore, the role of the central and regional governments is urgently needed to deal with the development of modern markets and empower traditional markets so that they are not less competitive, to anticipate this, the issuance of Presidential Regulation No. 112/2007 concerning the *Arrangement and Development of Traditional Markets, Shopping Centers and Modern Stores* and the emergence of a market revitalization program [2].

Aksara Market is one of the traditional markets in Medan which has established for a long time, precisely in 1965. On July 12, 2016, there was a fire in the Aksara market, which burned the entire building, and along the Buana Plaza Building (Figure 1). This market used to continue to grow from year to year with its traders. It is also very popular with the people in the Pancing, Percut, Tembung, and other districts in the Aksara Market area.

Based on the above considerations, the idea emerged to design the Aksara Market again as an effort to restore the economy that once existed, and the market context that was once there as well. The design effort is carried out with the *Build Operate Transfer (BOT)* agreement system. *BOT* agreement is a form of a cooperation agreement between holders of land rights with investors, claiming that land rights holders give investors the right to build buildings during the term of the *BOT* agreement and transfer their ownership to the landlord after the contract expires [3]. Also, because the site location is in one of the Kualanamu toll gate lines, the design function will also be more inclined to recreational facilities and also sell a variety of typical local Medan products.

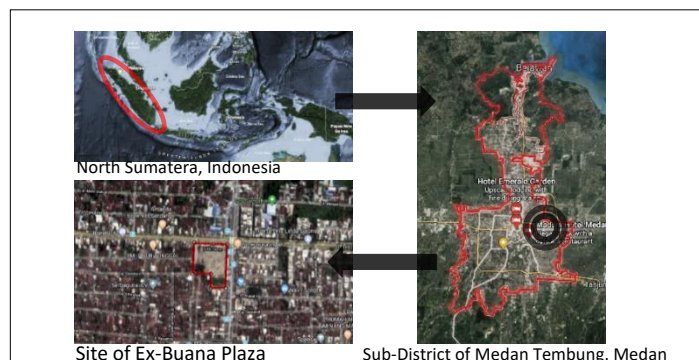


Figure 1. Site Location

with the Neo-Vernacular Architecture approach, the design will be designed by lifting local wisdom around the design area. The local wisdom in question is like taking aspects of the

majority of the population with their culture, so that they can archive their traditional home culture, then in terms of the surrounding social interactions that have an impact on the need for broader and more intense communal space, as well as the ex-market literacy merchandise to re-invited into the site with a modern accent but still with traditional principles.

2. Literature Review

The marketplace is where interactions between sellers and buyers. The market is the center feature of the exchange of bonds that unite the entire economic life. While a Traditional Market is a meeting place between sellers and buyers and is marked by the presence of direct buyer and seller transactions [4].

A Modern Market is a market that is managed with modern management, generally in urban areas, as a provider of goods and services with good quality and service to consumers (generally middle to upper-class members). As stated by Sinaga (2008) in his paper on the *National Meeting Material on Traditional Market Development*, the examples of modern markets include malls, supermarkets, department stores, shopping centers, franchises, self-service mini shops, department stores, department stores and so on [5].

According to the International Council of Shopping center, a shopping center is a group of retail sellers and other commercial entrepreneurs who plan, develop, and manage a single property [6].

Neo Vernacular Architecture

Neo Vernacular Architecture is one that develops in the Modern Post era, namely the architectural flow that emerged in the mid-1960s, Post Modern was born due to the modern era arising protests from architects against monotonous memorable patterns (box-shaped buildings-box). Therefore, new schools were born, namely Post Modern [7].

The criteria for Neo Vernacular architecture has three-points. The first one is, Forms of applying cultural elements, environment including local climate are expressed in the physical architectural form (layout plan, details, structure, and ornament). Second, Not only physical aspects are applied in a modern form, but also a non-physical, namely the culture of mindset, belief, a layout that refers to the macro cosmos and others into design concepts and criteria. And lastly, Products in buildings are not purely applying the principles of a vernacular building but new works/renewals (prioritizing their visual appearance).

Architectural styles related to neo-vernacular, such as vernacular and traditional architecture, can be distinguished based on the table below (Table 1).

Table 1. Comparison between Traditional and Vernacular Architecture

| Comparison | Traditional | Vernacular | Neo Vernacular |
|--------------------|---|---|--|
| Ideology | Formed by traditions inherited from generation to generation, depending on local culture and conditions | Formed by hereditary traditions but there are influences from both physical and non-physical, forms of development of traditional architecture | The application of existing architectural elements and then little or much experience of renewal towards a modern work |
| Principle | Covered by age changes, linked to regional culture, and has strict religious rules and norms | Develop every time to reflect the environment, culture, and history of the area where the architecture is located. The transformation from a homogeneous cultural situation to a more heterogeneous situation | Architecture that aims to preserve local elements that have been formed empirically by tradition and develop it into a modern style. Continuation of vernacular architecture |
| Design Idea | More emphasis on facade or form, ornamentation as a necessity | Ornaments are complementary, do not leave local values but able to serve community activities inside | Forms are more modern |

(Source: Sonny Susanto, Joko Triyono, Yulianto Sumalyo, accessed 19/04/15 4.26 PM from <http://arsitektur-neo-vernakular-fazil.blogspot.com/>)

3. Methodology

The selecting method for the design location is by considering the elements or suitable requirements with the design condition that have set such as; spatial plan, reviewing government regulation for urban structure, way of entering or the access, environment, land use, land ownership status, view, land size, and city utilities. After determining the proper design location, the following method is the authors do a survey on the field and collect all the necessary information and data. Then the authors link the theories along with the chosen architecture approach interpretation and data to produce essential points that can serve as guidance in designing the Market and Mall Building.

4. Result and Discussion

The preeminent basic concept of a mall and market design begins with the identification of the issues around the design site both on a small and large scale, which then raises an idea of the issues. The intended user is planned for all ages, even for people with disabilities (Figure 2).

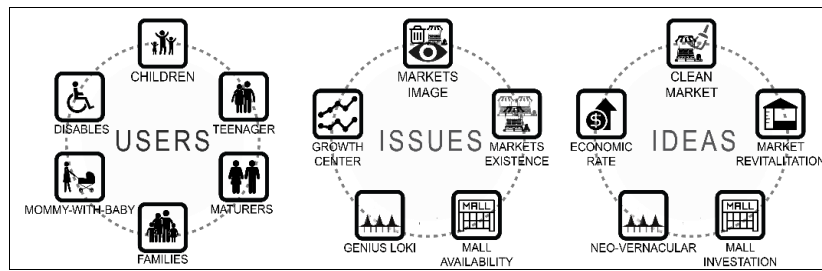


Figure 2. Users, Issues, and Ideas concept

Neo-Vernacular Approach through the design

Based on the theory and analysis of the data, the application of the neo-vernacular architectural theme in the design takes reference to the existing local wisdom, such as local culture. Its prominent elements yield from its local culture value, such as typology of traditional houses, physical elements of buildings used, as well as the philosophy of spatial structures that exist in culture. Also, the local wisdom of the place also originated in terms of the social activities of the community, as well as in terms of the building function there as well as the well-known shops, etc. (Figure 3).

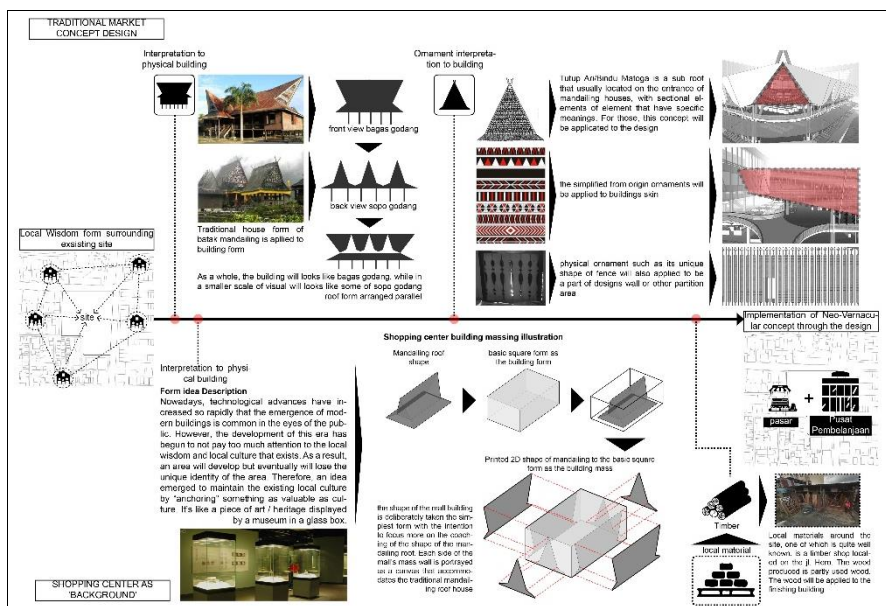


Figure 3. Neo-Vernacular Concept

Form Massing Concept

Building mass zoning is designed based on the results of analyzes such as aspects of government regulations, conditions around the site, sun orientation, air circulation, openings, etc. to create a harmonious placement and building design for the surrounding environment.

The building formed has two masses. The first mass functions as a market building will arrange at the front of the site. Whereas the second mass functions as a mall building positioned at the back of the site, behind the market building position (Figure 4).

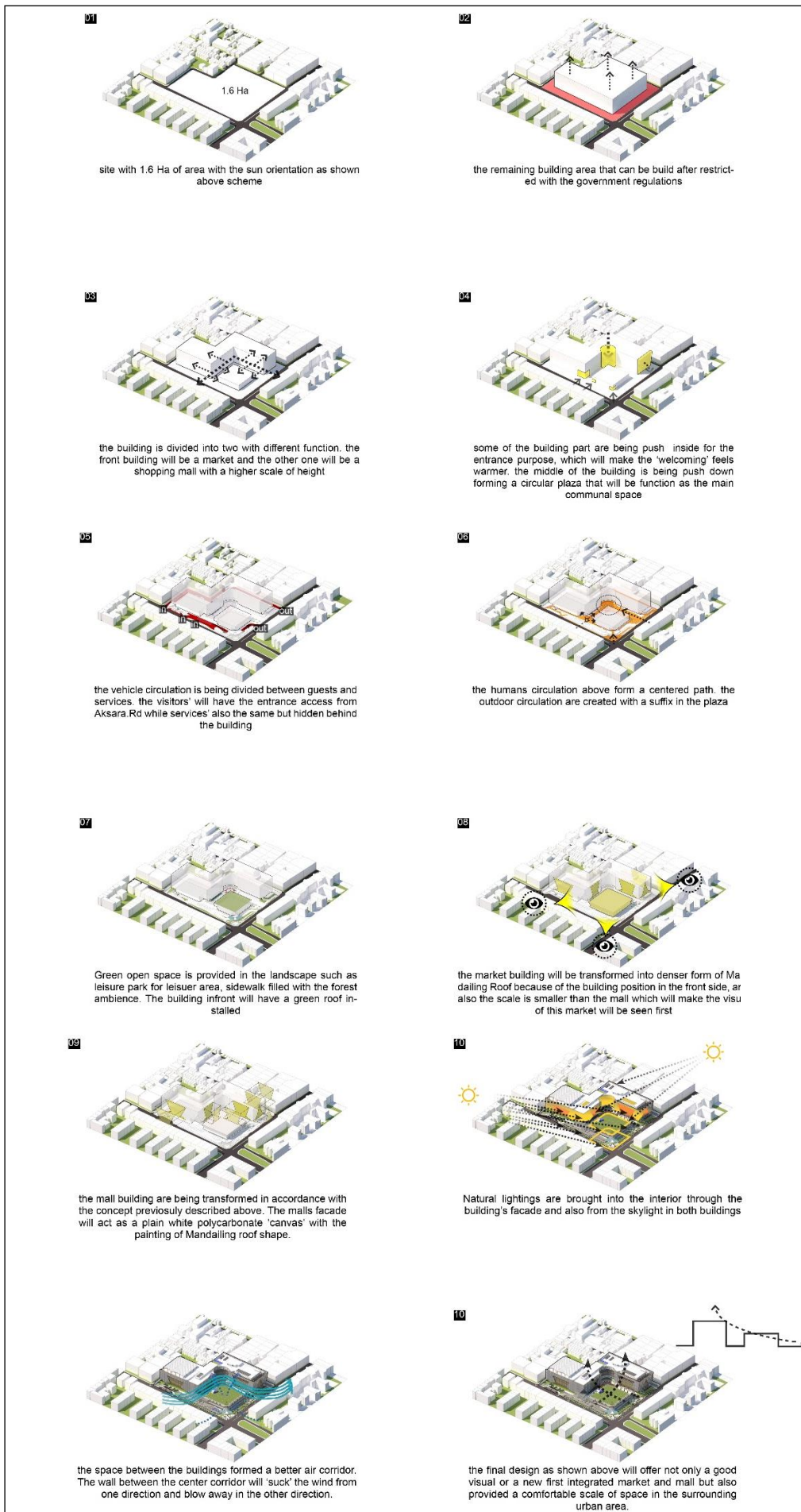


Figure 4. Concept of Building Mass

Circulation Concept

Vehicle Circulation

Vehicle circulation is shown through the image below with the red arrow (Figure 5). Overall, private vehicle service lines are separated by different lines. Private vehicle lines also include public transportation such as Taxi, Uber, etc., except public transportation (*angkot*). While the service vehicle lane is positioned behind the site, which is in the service area. Also, bus lines are also provided with the bus stop area.

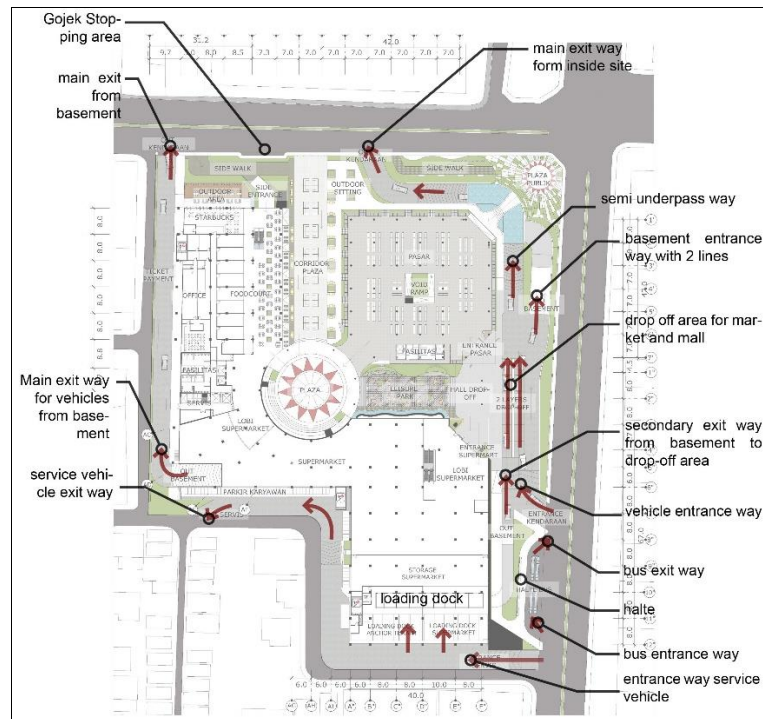


Figure 5. Vehicle Circulation Concept

Pedestrian Circulation

Pedestrian circulation is designed with an emphasis on comfort. All areas of the site facing the road have pedestrian circulation, which is provided with natural shading such as trees and other vegetation. Pedestrian access is almost anywhere while entering the corridor of the plaza. Openings in this section are opened to the maximum extent so that the atmosphere between the interior and the exterior is even more integrated into a single harmonious atmosphere. While the circulation in the garden in front of the drop-off area, the opening is only at each end, because it has a concept of a calm and relaxation area (Figure 6).

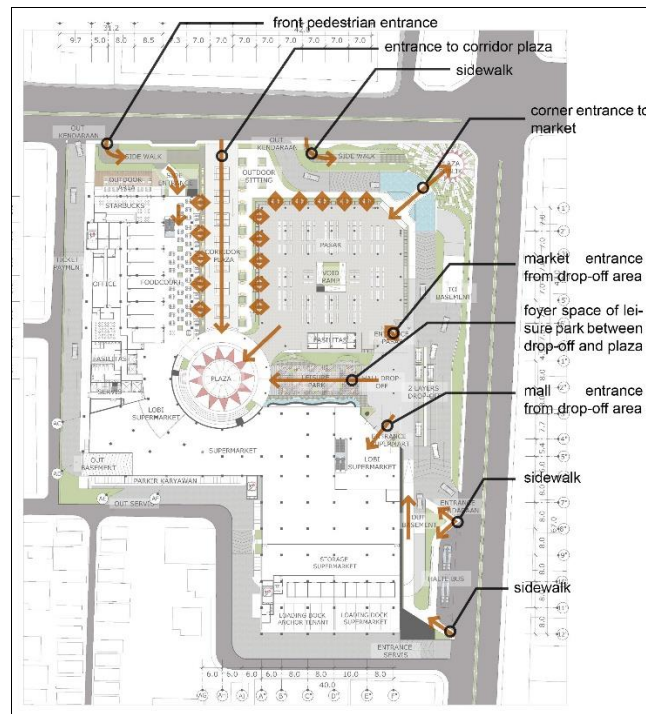


Figure 6. Pedestrian Concept

Landscape Concept

The function of the building, which is a mall and market has a high level of social interaction, presents a concept of a wider communal space, especially in the outdoor area so that the crowd is not only inside the building but also outside of it. The communal area is in the form of plazas, plaza corridors, open spaces at the intersection, etc. not just interacting areas but also conceptualized to be an area that has both active and passive attractions (Figure 7). The passive attraction in question can be in the form of an attractive atmosphere formed from public furniture arranged in such a way; the burning floor pattern forms an ornament, and artificial lighting that flashes from inside the building, which emits out perfectly diffused by transparent polycarbonate facade at night.

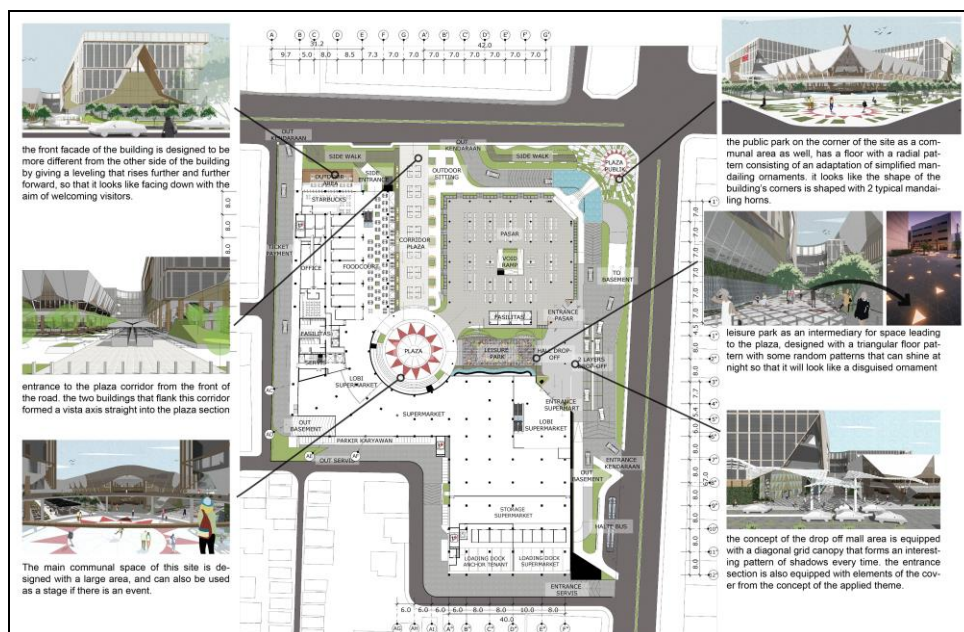


Figure 7. Secondary Skin Concept

Use of Material

In the mall buildings, the side of the wall that has a retail display will use glass material with a frameless joint so as not to interfere with the display of products from the retail. While the building facade material uses transparent polycarbonate, which can create a clean, modern, and aesthetic impression. The use of these materials can also display an attraction of light that diffuses evenly from inside the building to create a colored canvas at night (Figure 8).

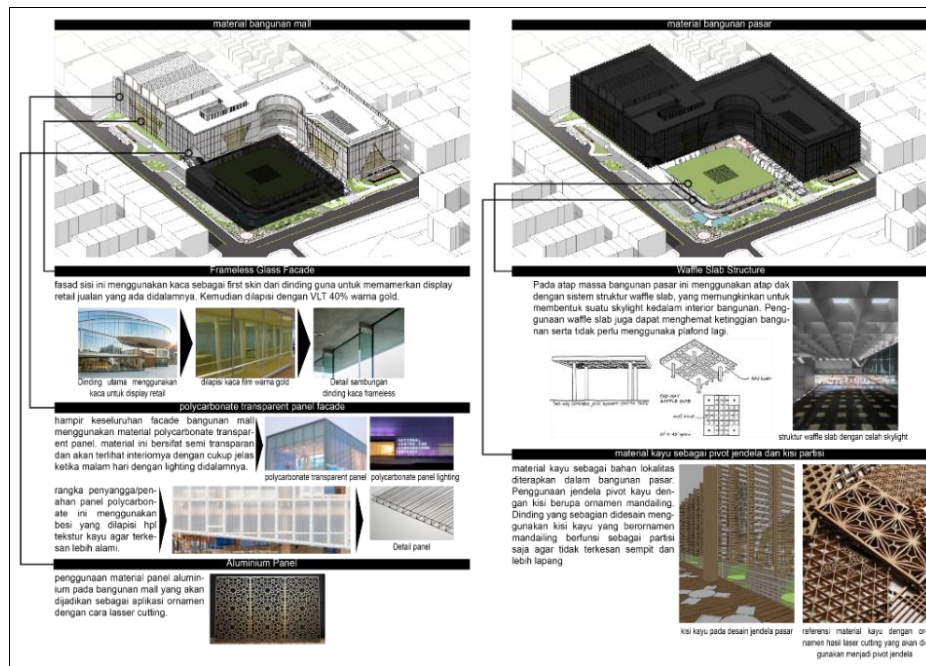


Figure 8. Ground Floor Zoning

Whereas in the market building, the used material is more dominated by local and simple materials, such as wood, exposed brick, and exposed concrete. Deliberately selected the material so that the atmosphere created in the market feels more traditional and does not impress like a modern market, but still clean and neat in terms of the space structure. The wood material used is more to the pivot window arranged in a row around the side of the building opening on the 2nd floor (Figure 8).

Structure Concept

The entire building uses a rigid structural system using a beam dilatation in the mall building. Overall, there is two times dilatation that separates market buildings, basement landscape areas, and mall buildings. Then the mall building itself also has two times dilatation on the part of the building so that it forms three parts of a structurally separated building (Figure 9).

For market, building starting from the 1st floor uses the slab waffle structure without ceiling utilization so that the building height can be minimized, and the building scale also able to maintain properly with its surrounding urban area. On the roof of the market building, which

is not concrete, it will be covered by a roof garden to minimize the room temperature in the building.

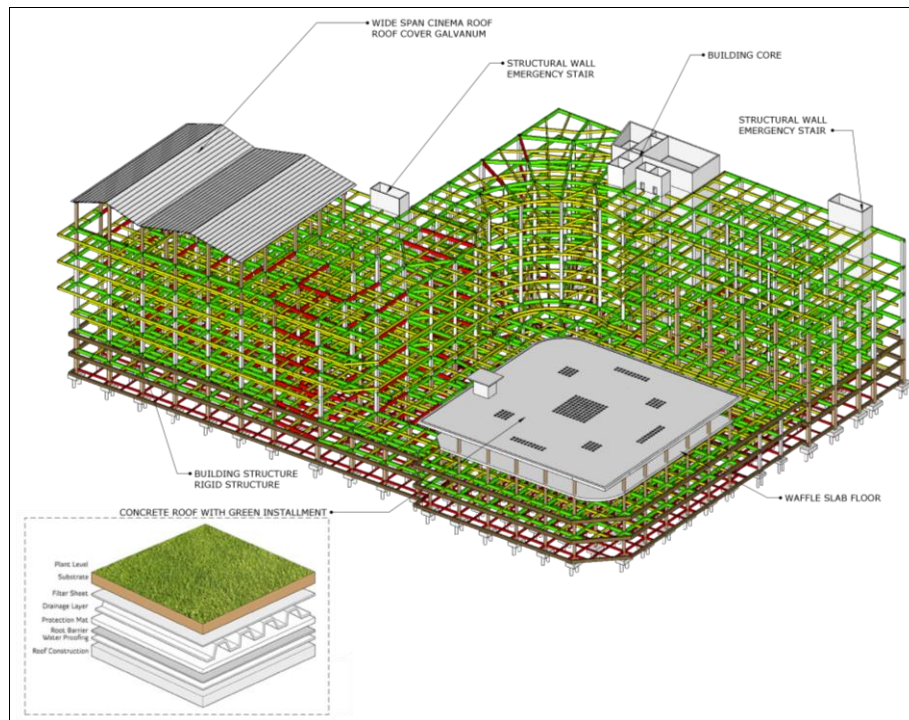


Figure 9. Elevated Building

The variation of roof elevation from the mall building has a function so that air circulation can be more free-flowing and not obstructed, and so that the lighting into the interior is maximized through the roof gaps and the skylights. The skylight is not only function as entering sunlight but also function as a wind tunnel so that the flowing air can exchange the hot air with colder air faster into the building (Figure 10).

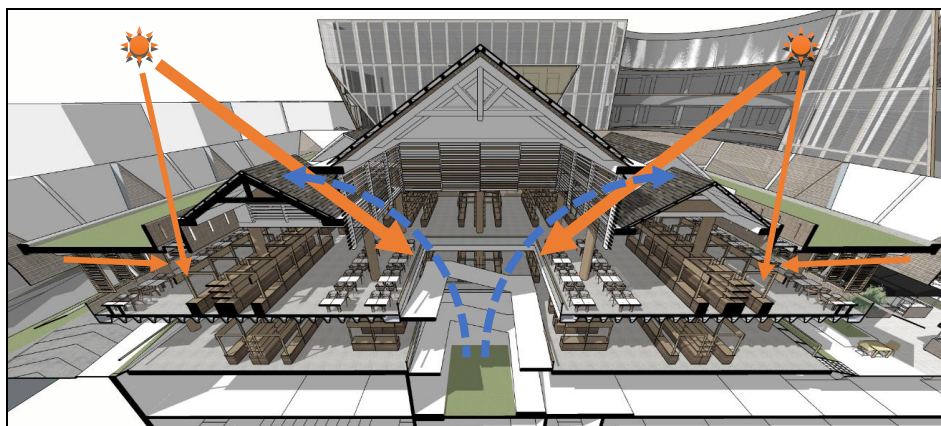


Figure 10. Elevated Building

Utilities Concept

The utility concept will design to prioritize effectiveness and efficiency. One way is to divide the building into several zones, then the placement of service and utility areas is positioned in the middle area of several zones so that the distribution and piping can be evenly distributed and not 'one-sided' (Figure 11 & 12).

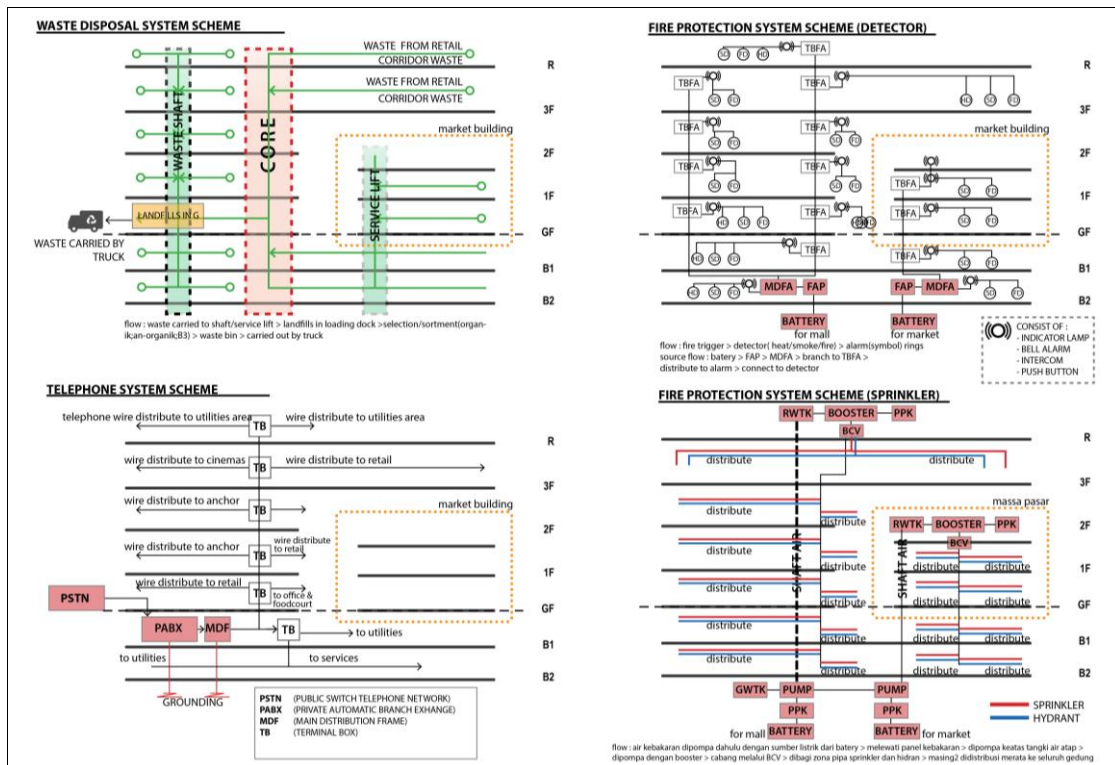


Figure 11. Utilities concept 1

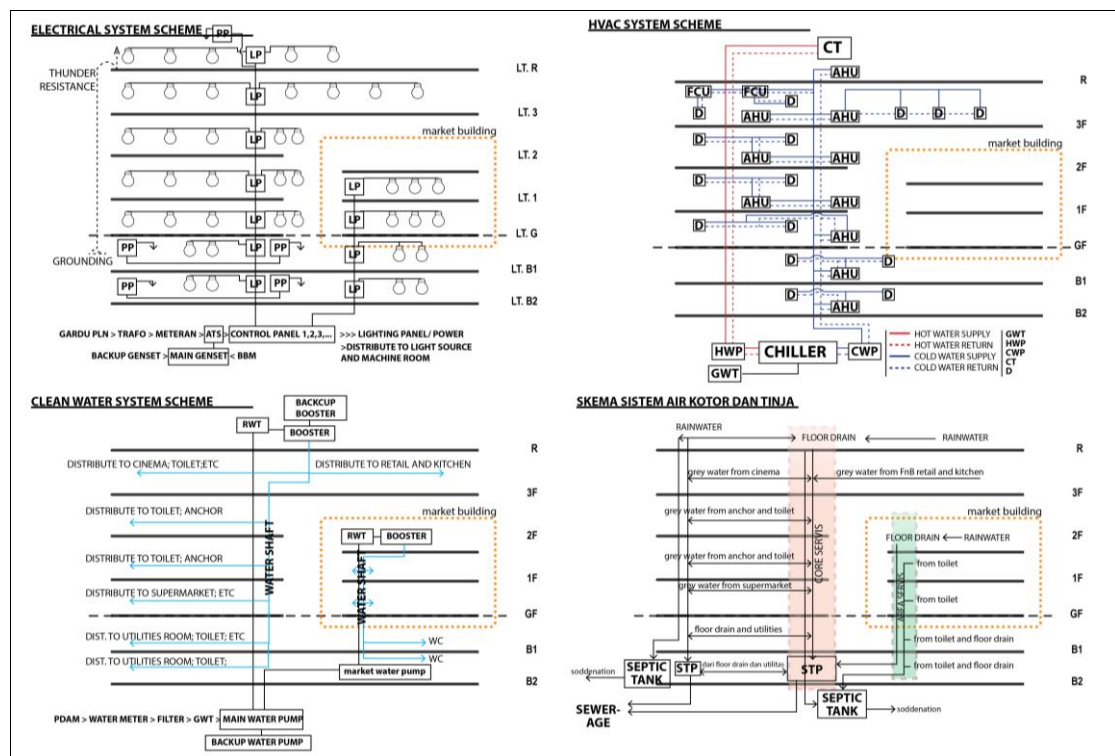


Figure 12. Utilities concept 2

5. Conclusion

The application of Neo Vernacular architecture in a design such as an emphasis on the adaptation of space principles from a local culture/customs around the site expect to be able to inform the surrounding community of the importance of preserving local culture because it is an asset or a particular regional characteristic that is always different from other regions. The

buildings that function as market and shopping center are designed according to the results of analysis such as locality needs, potential in the design area, provision of communal space facilities because of the dense location of social interaction, and other factors to create combination of a shopping center and market that isn't just a place for shopping but also as a place for recreation and social interaction.

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