

## SUDIRMAN SHOPPING CENTER WITH THE USE OF PUBLIC SPACE

**Heru Wibowo**

Universitas Kebangsaan Republik Indonesia

Email : [heruwibowo@ukri.ac.id](mailto:heruwibowo@ukri.ac.id)

### Article Info

Received: 01/06/2022

Revised: 12/06/2022

Accepted: 24/07/2022

Shopping centers have the meaning of a place that is innate with one or several large department stores as an attraction for small retails and malls or pedestrians which are the main elements of a shopping mall with a function as circulation and as a communal space for the implementation of interaction between visitors and merchants. Shopping centers in the modern era with antiquity are very different, modern era shopping centers are designed with retail and supporting facilities to provide comfort in buying and selling activities, while in ancient times (the market) was only designed for buying and selling activities without thinking about the comfort of the activity actors in it. The design of this Shopping center object is not only a place for buying and selling and entertainment. However, it has more important values, ranging from function, beauty, and dynamic, buildings with contemporary architecture with contemporary physical forms of materials and Dynamic Showcase can be interpreted as the attraction of shopping centers as supporting facilities / facilities

Keywords: Pusat Perbelanjaan, Public Space, Sudirman.

### 1. INTRODUCTION

Designing a shopping center that suits the needs of the people of Garut City and in accordance with the context of the Karangpawitan area. Because considering the population of Garut city, it needs a shopping center as a necessity of life and public space as a tourist attraction. From the Modular Planting and Integrated Services Service (DPMPT) Office of Garut Regency, it will now coordinate, both with autonomous and vertical agencies, following the establishment of a Public Service Shopping center (MPP) in Garut Regency, in 2022.

### 2. METHOD

The design method used in the design of this Shopping Center is to use the five-steps-plan measure method. The stages are as follows:

1. This stage includes the knowledge to be solved, called problem identification. This stage explains, the scope of the project, and the determination of the issue
2. The Preparation Stage (programming), which is the collection stage (gathering) and analysis of facts and information about shopping centers and their supporting facilities.
3. The Proposal Selling Stage, which is a proposition of a simple way of solving the results of the analysis into a design concept with a Contemporary Architecture approach.
4. Evaluation stage, stage From the results of the submission of draft concepts and the submission of alternatives designs.
5. Action, the stage of development of the draft concept poured into the design drawings and construction drawings.

### 3. RESULTS AND DISCUSSION

#### 3.1 Theme Elaboration

The theme used in the design of this Shopping Center is Dynamic Showcase. Dynamic showcase style can be interpreted as Dynamic which in it can change something unique that can replace contemporary architecture is a physical form of contemporary materials and Dynamic Showcase can be interpreted as the attraction of shopping centers as supporting facilities / facilities.



### 3.2 Design Concept

#### Zoning Tread Concept

Zoning tread consists of three major parts namely public zones, service zones and private zones. The public zone functions as a drop off area, park area, sports center and retail area, the service zone is functioned in the loading dock area. As well as private and manager zones.

#### Deep Room Zoning Concept

The concept of zoning the inner space is addressed in the image of the Site Plan of the Shopping Center. Can be seen in Figure 1



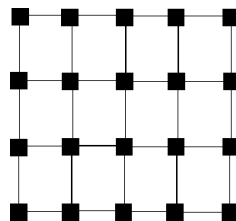
**Figure 1** Shopping Center Building Site Plan  
Source: Personal Documents, 2021, processed

The picture above shows the zoning of the space in the Shopping Center building, which consists of public zoning, and private zoning. In the area that shows private zoning with the function of the Shopping Center unit.

### 3.3 Concept structure

The planning of the structural module used for the building is 8.1m x 8.1 m hal this is based on considerations :

1. Ease of application of the material so that it will reduce the rest of the material
2. Vehicle parking space efficiency
3. Easy vertical arrangement of space



**Figure 2** Illustration of a Building Grid  
Source: Personal, 2021.

Columns are an element of the structure and the important role of a building, so that a collapse in a column is a critical location principle can lead to collapse (collapse the floor of the principle concerned and also a complete collapse of the entire structure  $N \times L1 \times L2 \times 0.12 \text{ kg/cm}^2 = b \times d \times x$

concrete quality  $3 \times 800 \times 600 \times 0.12 \text{ kg/cm}^2 = b \times d \times 90 \text{ kg/cm}^2$   
 $181,440 \text{ kg} = 90 \text{ kg/cm}^2$

### Structural System

Mini Pile foundation was chosen because the building does not have high floors

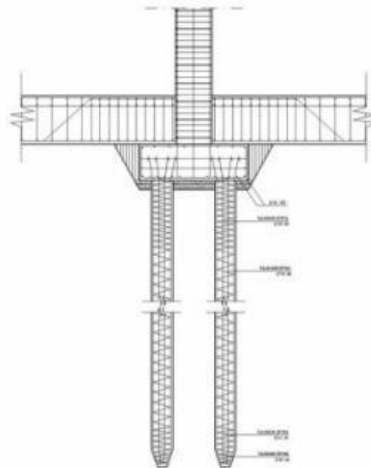


Figure 3 Illustration of a Building Grid  
 Source: Personal, 2021.

Mini pile is a rule pole used to support the foundation of buildings, bridges, docks, dolken and so on. The cross-sectional shape of the mini pile is usually square and triangular with cross-sectional variations of zero.2 x 0.2m to zero.4 x 0.4m with length variations between 3m to 9m.

Foundation Mini Pile soil carrying capacity from sondir data)  $C = 200 \text{ kg/cm}^2$

$$\begin{aligned} P &= 1 \times L1 \times L2 \times 1200 \text{ kg/m}^2 \\ &= 1 \times 800 \times 800 \times 1200 \text{ kg/10000 cm}^2 \\ &= 768,000 \\ A &= P / C \\ &= 768 \text{ kg} : 200 \text{ kg/cm}^2 \\ &= 38 \text{ cm} \end{aligned}$$

### 3.4 Utility Concepts

#### Clean Water Utility

The principle clean water distribution system used is a down feed system, this system is a clean water distribution system in buildings using the lower reservoir as a medium to accommodate the principle water discharge supplied by deep wells and PDAMs before being distributed to the upper reservoir by a hydrophoor pump which then from the upper reservoir is redistributed by the booster pump to each toilet unit in the building.

USER ASSUMPTIONS NEEDS 2000PEOPLE

1. Keb. Clean water for 2000 people/day x 45 liters /day/person = 90,000 liters Assumption of water use (effective) : 10.00 - 21.00 (11 hours )
2. Assumption of time not using water (ineffective) : 21.00 – 10.00 ( 13 hours )
3. Assumption of total water released per hour: 10 liters/minute x 60 minutes = 600 liters/hour
4. Total water released in 11 hours: 11 hours x 600 liters/hour = 6600 liters
5. Total water needed in 1 day: 90,000 liters



6. Minimum clean water tank capacity :  $90,000 - 6600 = 83,400 \text{ liters} = 83,400 \text{ dm}^3 = 8.3 \text{ m}^3$

7. Lower reservoir volume (  $p \times l \times t$  ) =  $4.5 \times 1.5 \times 1.5 = 4.5 \text{ m}^3$  Ket :

S = well

Rb = bottom reservoir

Ph = Hydrophoor Pump ( Suction Press ) Pb = Booster Pump

M = Meter

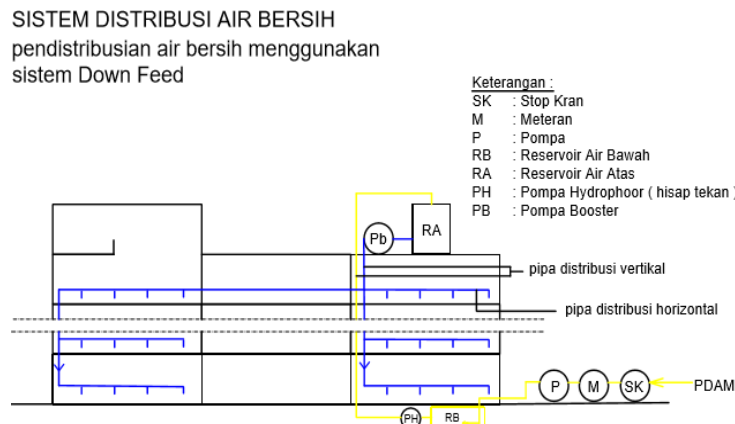


Figure 4 Clean water Utility System

Source: Personal, 2021.

### Dirty Water Utility

Septictank users with a capacity of 2000 people. The amount of mud is 40 l/org/yr. Septictank will be drained once every 2 years.

Detention time 2 days.

Quantity of wastewater 60 l/org/day O = 2000 people

L = 40 l/org/yr P = 2 yrs

T = 2 days

Q = 60 l/org/day

Va = Volume of Waterin Septictank

= Q.O.T

=  $60 \times 2000 \times 2 = 240,000 = 24 \text{ m}$

Vl = Volume of Precipitated Sludge

= O.L.P

=  $2000 \times 40 \times 2 = 160,000 = 16 \text{ m}$

Tu = Water Free Space Height

= 30 cm = 0.30 m

The use of sports rink toilets is not used every time, so the dimensions of the toilet can be minimized.

BHT - 09H = D 150 x P 550 cm = 9,500 Liters

(Septic Tank Biohitech Type Horizontal)

### 4. CONCLUSIONS

Design of a Shopping Center located on Jalan Jendral Sudirman, Garut, West Java. Having the theme dynamic showcase is a design that produces literature studies, comparative studies, site surveys as well as analysis and understanding related to the theory and characteristics of shopping centers and their facilities. The results of data processing are associated with the Dynamic Showcase theory and apply contemporary architecture to a design of the Shopping Center building. Its application is good as well as zoning, plans and facades of buildings. It is hoped that the design of this mall can provide inspiration and be useful for readers.

### REFERENCES

1. Achmad, W., & Yulianah, Y. (2022). Metode Penelitian Sosial. Cv. Rey Media Grafika.
2. Badan Meteorologi, Klimatologi, dan Geofisika



3. Badan Statistik Jawa Barat
4. Baddington, Nadine., 1982. Design For Shopping Center. London: Butterworth, Design Series.hlm 54
5. Charleson, Andrew W. 2005. Structure as Architecture. Oxford: Architectural Press.
6. Chiara, J. D. & Crosbie , M. J., 2001. Time Saver Standart For Building Types. 4th penyunt. Singapore: McGraw - Hill Book Co. hlm.119
7. <https://archdaily.com>, diakses pada 21 juli 2021
8. <https://kbbi.web.id/>, diakses pada 21 juli 2021
9. Ilhami, R., & Achmad, W. (2022). Entrepreneurship and MSMEs during the COVID-19 Health Emergency in Indonesia. *ijd-demos*, 4(2).
10. Ilhami, R., Rahmat, A., & Achmad, W. (2022). Pattern of Policy Network Structure in building synergy in Bandung City Society. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 5(2).
11. Neufert, Ernst. (2002). Data Arsitek Jilid I; Jakarta: Penerbit Erlangga.
12. Neufert, Ernst. (2002). Data Arsitek Jilid II; Jakarta: Penerbit Erlangga.
13. Northen, F. R., 1977. Shopping Center a Developer's Guide to Planning and Design. Ney York: College of Estate Management.hlm 54
14. Pataruka, M. (2018). 'NGALAB BERKAH'PADA RUANG RITUAL TRADISI DAN RELIGI MASJID AGUNG DEMAK. *Jurnal Arsitektur ZONASI*, 1(2), 87-95.
15. Rostini, D., Syam, R. Z. A., & Achmad, W. (2022). The Significance of Principal Management on Teacher Performance and Quality of Learning. *AL-ISHLAH: Jurnal Pendidikan*, 14(2), 2513-2520.
16. Sjuchro, D. W., Surachman, A. Y., & Achmad, W. (2022). Digital Governance on Broadcasting Industry. *Journal of Governance*, 7(2).

