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REVITALIZING THE CICADAS TRADITIONAL MARKET WITH A CONTEMPORARY VERNACULAR ARCHITECTURAL APPROACH

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Abstract. The market is a place or place for buying and selling a product, managers and presenters, a place for interacting or buying and selling that develops and is required to be able to follow the development of an increasingly sophisticated era. This Cicadas Traditional Market is a facility or container that is quite important to support shopping in the city of Bandung. The purpose of this design is to provide understanding and knowledge of the revitalization of the Cicadas Traditional Market with a Contemporary Vernacular Architecture Approach with the application of the theme 'Contemporary Vernacular Architecture'. Contemporary Vernacular Architecture is an architectural theme that seeks to minimize adverse effects on the natural and human environment and produce a better and healthier place to live, which is done by utilizing energy and natural resources efficiently and optimally. Application of the Contemporary Vernacular Architecture Theme in the Cicadas Traditional Market building Contemporary Vernacular Architecture, is an architectural style designed according to local needs, availability of building materials, and reflects local traditions.

Keywords: : Revitalizing, Vernacular, Contemporary.

1. INTRODUCTION

Bandung is the capital city of West Java province which is one of the big cities in Indonesia. The beautiful and cool natural conditions made Bandung get the nickname Paris Van Java by the colonials in the colonial era. Many tourists who come to Bandung, both local and foreign, do not just want to see its natural beauty, but also want to shop in the city that has been nicknamed this shopping city. Bandung offers many places, one of which is a supermarket where you can shop for basic food ingredients. Supermarket conditions are clean and comfortable to make traditional markets began to be abandoned by the people of Bandung.

The market is part of the interaction that allows for supply and demand both in physical and non-physical terms. Economically, the non-agricultural life of the market has a distinctive function, namely culture, industry and trade. because the development of a city can be related to changes in land use patterns, these changes affect the activities in it.

In the city of Bandung there is a traditional market, namely the Cicadas Traditional Market. There are still a lot of visitors who come to this market. Cicadas Traditional Market has a competitive advantage that is not directly owned by the modern market. In addition to having a very strategic location, a fairly complete variety of goods, low prices, and a bargaining system that shows intimacy between sellers and buyers are the advantages of Cicadas Traditional Market. item to be searched for.

The public facility building that will be planned and designed is the Traditional Market Building which functions where people can get a sense of comfort in shopping and selling, with the design of the Traditional Market Building and street vendors with the concept of Contemporary Vernacular Architecture, which is expected to provide comfort, security to visitors and users, which environmentally friendly and provide and produce architectural designs that are fresher and different from other markets. The Traditional Market building that will be planned and designed has moved.

location is located which started on Jl. Cikutra No.1, Cikutra, Cibeunying Kidul, Bandung City, West Java. Allocated to be on Jl. Ibrahim Adjie No.11, Babakan Surabaya, Kec. Kiaracondong, Bandung City, West Java 40281, because after obtaining data on the number of market traders and the number of street vendors in the cicadas area, the land or site is of sufficient size to accommodate all the

number of market traders and street vendors. And it is located not far from the previous site so that buyers or market visitors are not too difficult to find the location of the market or street vendors' stalls.

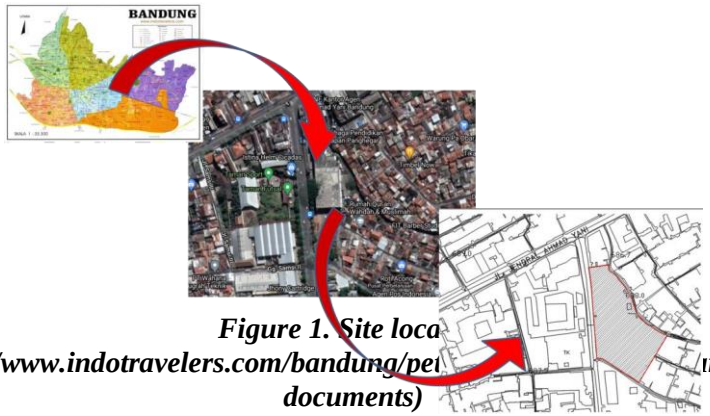


Figure 1. Site loca... ...rth & personal documents)

2. Literature Review

Definition of Theme

The theme raised is Contemporary Vernacular Architecture, an architectural style designed according to local needs, availability of building materials, and reflecting local traditions. The broad definition of vernacular architecture itself is an architectural theory that studies structures made by local people without the intervention of professional architects. Vernacular architecture relies on design skills and local building traditions.

The background for choosing the theme "Contemporary Vernacular Architecture Approach" is in order to maintain and refresh the cultural environment that may have long been lost from society so that the need for cultural values that develop today. Where according to William Lim S.W. (2002) the contemporary vernacular concept emphasizes the tradition engendered in tropical design. The important thing from this tropical view is to avoid the influence of globalization and maintain the richness of local traditions. In addition, traditions and culture are reinterpreted with Contemporary, where traditional architecture is not simply discarded, but is transformed through refreshment.

Architectural Concept

Vernacular architecture emerges with characteristics that are unique in using local materials and cultural concepts as an expression of their embodiment has taken part in the kasanah. The concept of Contemporary Architecture is a style of architectural flow in its time which is characterized by freedom of expression, the desire to display something different, and is a new flow or a combination of several architectural schools.

Market Classification

The market functions as a place for buying and selling goods, by having more than one number of traders, both often referred to as shopping centers, traditional markets, shops, malls, plazas, trading centers and other designations. (Regulation of the President of the Republic of Indonesia number 112 of 2007).

The market is defined as a place for distributing goods and services from the hands of producers to consumers. In short, the notion of the market is the place where the transaction process of goods and services occurs between producers and consumers. That's according to H. Nystrom.

Classification of Traditional Markets According to the Indonesian National Standard (SNI 8152: 2015) concerning people's markets Traditional markets state that traditional markets consist of shops, kiosks, stalls and tents that can be owned or managed by small, medium and community supermarkets or cooperatives, markets Traditionally, it can be classified into 4 types, namely:

1. People's market or traditional market type A, which is a market that has activities in daily operations with a market area of at least 5000 m2 and the number of traders at least 400 people.
2. People's market or traditional market type B, which is a market that has operational activities for at least 3 days with a market area of at least 4,000 m2 and the number of traders at least 275 people.

3. People's market or traditional market type C, which is a market that has operational activities for 2 days in 1 week with a market area of at least 3,000m2 and the number of traders at least 200 people.
4. People's market or type D traditional market, which is a market that has 1 day operational activities in 1 week with a large market area of 1,000 m2 with 100 traders.

Definition of Traditional Market

Traditional markets are markets that have their place of business in the form of kiosks, tents, shops and stalls whose ownership and management is carried out by small traders, medium traders, or cooperatives and non-governmental organizations. the process of selling and buying is carried out by a bargaining process (Presidential Regulation No. 112 of 2007)

The traditional market is an open place and there is a process of buying and selling transactions by way of bargaining, in traditional markets the visitors are not always a buyer because he can also be a seller. Traditional markets can be grouped into three forms, namely special markets, periodic markets and daily markets (Sadilah et al: 2011).

History of Traditional Market

It has existed since ancient times, the city will never be separated from the center of commercial activity called the market. The history of the market begins in prehistoric times, where in meeting human needs a barter system is a system that is applied between two individuals by exchanging one item for another, the barter system continuously develops along with the process of development of the times. The process of exchanging these goods causes problems for the place where the place itself is related to the distance and time taken. The closer the exchange distance, the easier it is to move goods, so that an exchange of goods is formed not far from their neighborhood. Or money as a medium of exchange which is the basis of calculation for the entire process of exchanging goods, then the process is called the buying and selling process. By increasing the development of the population, social life, economy as well as technological advances, especially in the field of trade, a new group of individuals emerged who were engaged in the trade sector. It was these merchants who created more permanent places to trade.

Traditional markets usually operate within certain time limits, such as the morning market, afternoon market, weekend market and so on. Traditional markets are usually managed by the government or the private sector, the available facilities are usually kiosks, tables, warehouses, toilets, prayer rooms and management centers. Traditional market buying and selling process occurs humanely and communication with high family values.

The Role of Traditional Markets

The role of the market as the center of economic activity can be seen in the changes that occur in production, consumption, and distribution. Meanwhile, as a cultural center, it can be seen from socio-cultural changes as a result of assimilation, renewal and recreation (Syarifuddin, 1990).

Architectural Studies and Design Theory

The word retail comes from English which means retail seller. In its development, retail itself means the seller of goods. Retail has various types, from department stores, to retails that sell specific items, such as retail that sells apparel, sports equipment retail, automotive equipment retail, jewelry, and household goods.

A store should have a classification including:
1. With regard to the sale of an exclusive.
2. It is a branch of various groups.
3. A free selling place.
4. Specially sells special types of goods.
5. Especially for certain age groups.

Type A . Traditional Market Facilities

By knowing the land area contained in the current site location which has a land area of approximately 13,000 m2, therefore this Cicadas traditional market is included in type A due to the classification that fits the land. because the definition of traditional market type A itself is a market that has daily operational activities with a market area of at least 5000 m2 and the number of traders at least 400 people.

Method

Design methodology is the process of designing a building which includes several things, namely data collection, analysis, concept synthesis, drawing. In the design of data architecture and facts are things that will be the basis or source of ideas in the design. Based on the sources obtained are divided into two, namely primary data and secondary data. Primary data is data obtained or collected by researchers directly from the data source. While secondary data is data obtained or obtained and collected by researchers from various sources that already exist. As for the understanding according to Danang Sunyoto (2013:21), primary data is original data collected by the researcher himself to answer his research problems specifically and secondary data is data sourced from existing records in the company and from other sources.

3. RESULTS AND DISCUSSION

Observations are made to find out the real or genuine problems of the Cicadas Traditional Market, both physical and non-physical, as a way to get accurate and valid data sources that can be used as sources for design. The results obtained from these observations and what can be achieved are as follows:

a. The physical condition of the existing site includes: site size, site boundaries, site potential, supporting facilities, site accessibility, market zone and market space program.

b. Physical condition of the environment around the site, which includes: public facilities around the Cicadas Traditional Market, accessibility to the site, transportation facilities, physical condition of the road to the site.

A. Architectural Design

Zoning In Site

Zoning within the site is divided into four zones, namely public space, semi-public space, private space and utility space. Public space consists of groups of service activities to visitors. Semi-public space is a group of activities related to certain user groups, namely groups of spending and supporting activities. Private space is a group of spaces that serve user groups that are limited to interests with the function of that space, namely the management room.

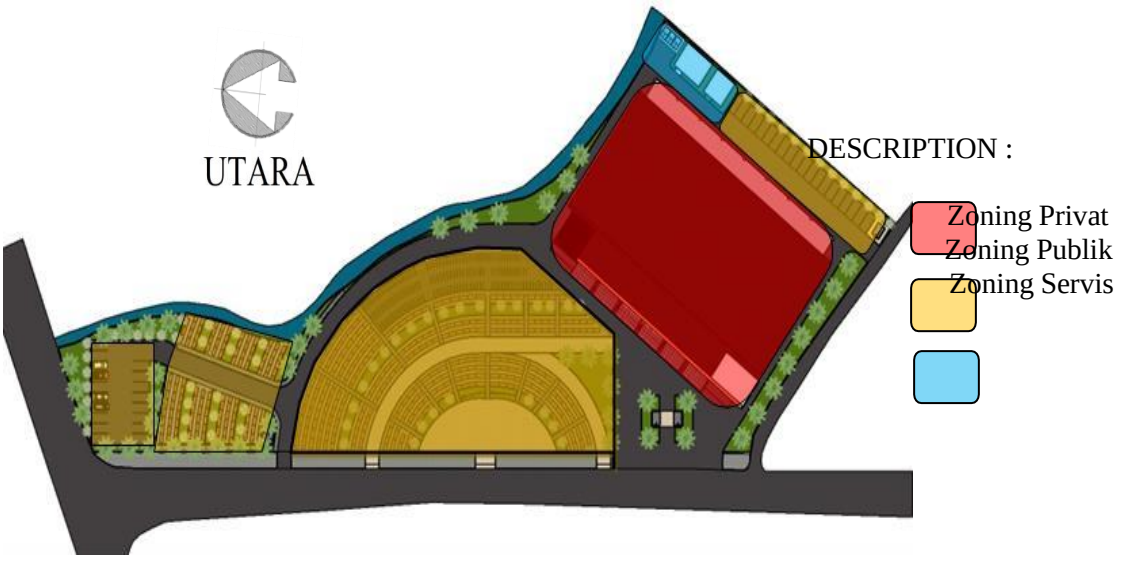
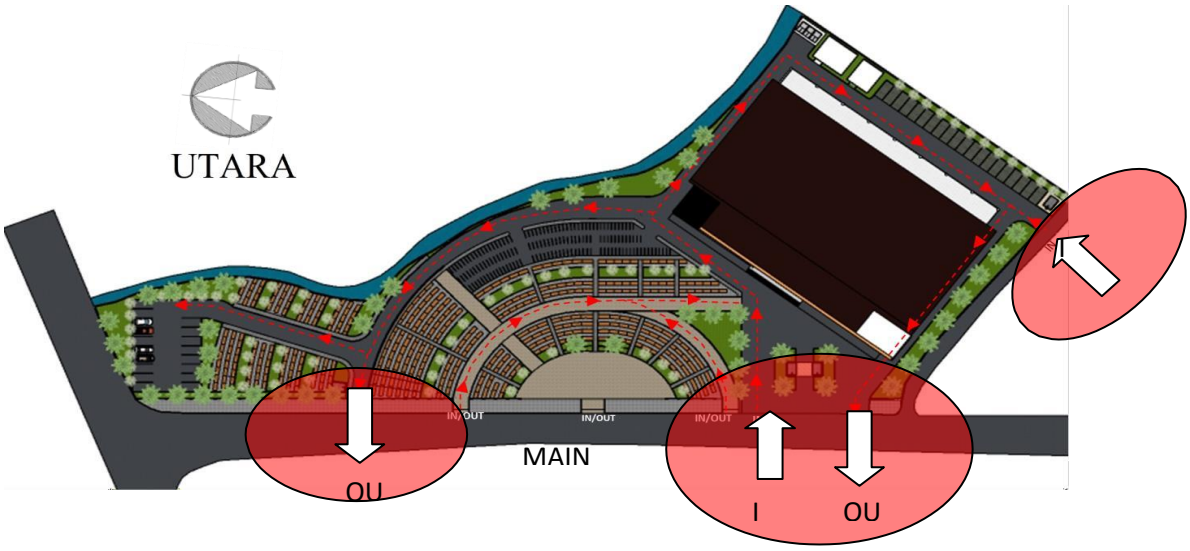


Figure 2 Zoning Grouping on Site (source: Personal Data 2021)

Circulation Pattern In Tread

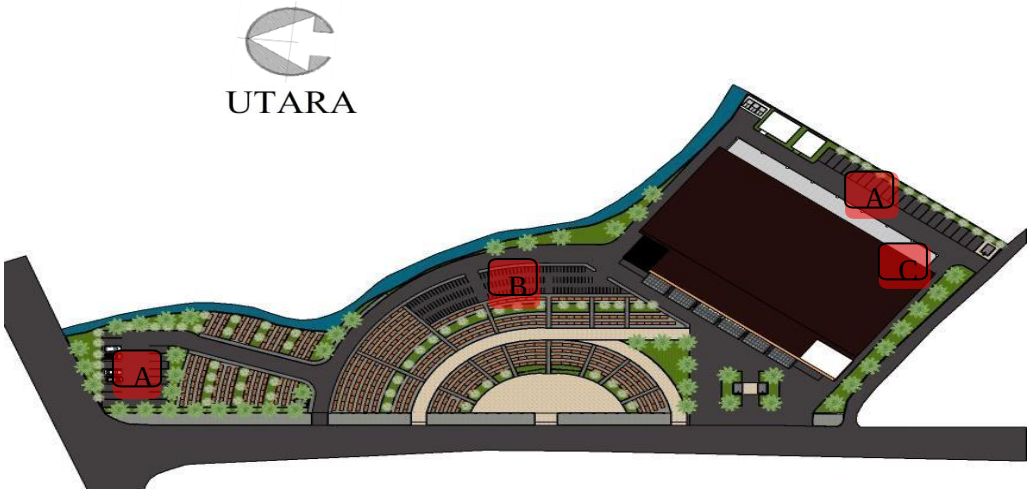
There are two accesses to this Traditional Market Building, the first is the main entrance for 4-wheeled and 2-wheeled vehicles, namely through the main entrance which is on the west side of the site. Access in and out is right in front of the main road Ibrahim Adjie. The second access is the exit for the service line, its position is on the east side of the site.



The circulation pattern within the site is made linear and one way, this maximizes circulation within the site so that there is no crowding. All vehicles entering from the main entrance are required to surround the main building, namely the Traditional Market building before exiting the site.
Figure 3 Site Circulation Pattern (source: Personal Data 2021)

Parking Area Zoning

The parking area is divided into several areas within the site, including:
a. The eastern parking area is intended for parking for four-wheeled vehicles and loading docks
b. The northern parking area is intended for parking for two-wheeled vehicle visitors.



DESCRIPTION :
a. CAR PARKING AREA
b. MOTORCYCLE PARKING AREA
c. LOADINGDOCK

Figure 4 Parking Pattern (source: Personal Data 2021)

Green Arrangement

Based on its function in landscapes in general, Hakim (1991) suggests that plants can function as:
a. Scene controller (Visual Control)
b. Physical Barriers (Physical Barriers)
c. Climate Control (Climate Control)
d. Protection from erosion (Erotion Control)
e. Provide aesthetic values (Aesthetics Values)

Vegetation around the site is taken into account, apart from being a shade as well as a damper or buffer for noise and dirty air.

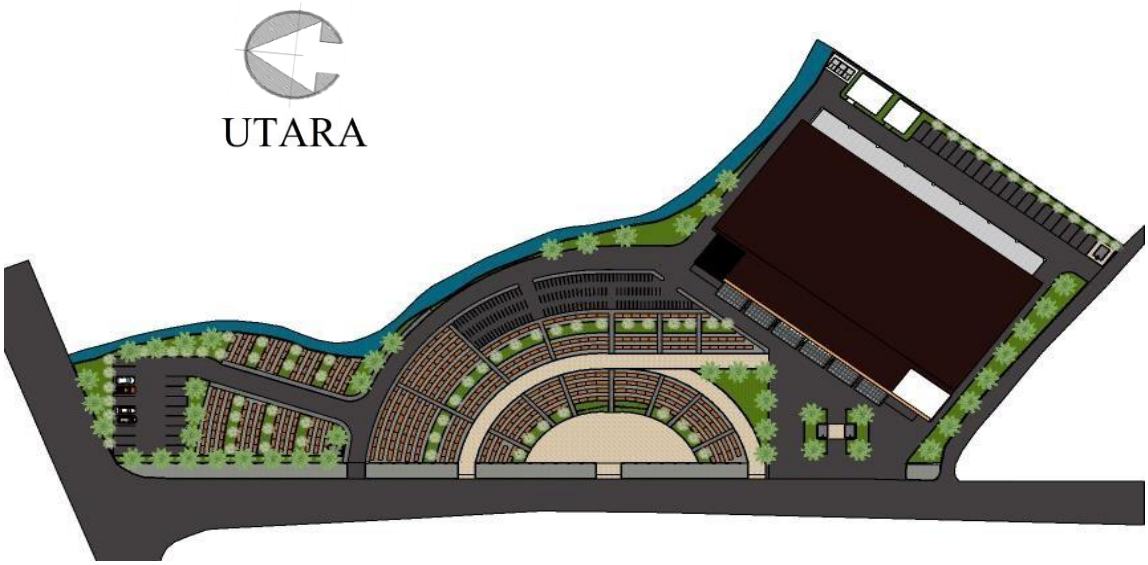


Figure 5 Green Governance Pattern (source: Personal Data 2021)

Building Facade

Facade of the Building Precisely facing west with the concept of architectural style in this Traditional Market building is the Contemporary Vernacular architectural style. Where in general, the characteristics of Contemporary Vernacular architecture can be seen from its shape which is different from other buildings. In addition, natural shading and ventilation of the building are shaded, the facade of the building is open and dominated by bamboo. The building uses natural ventilation with shade at every corner of the building that protects the building from rising sun temperatures. Combination of Local and Contemporary iMateria A combination of local materials, namely wood, with contemporary materials such as steel, glass and concrete. The building is designed to express a local and traditional impression that is updated. Archipelago Roof Design The roof design adapts the combined and modified arches of the archipelago.

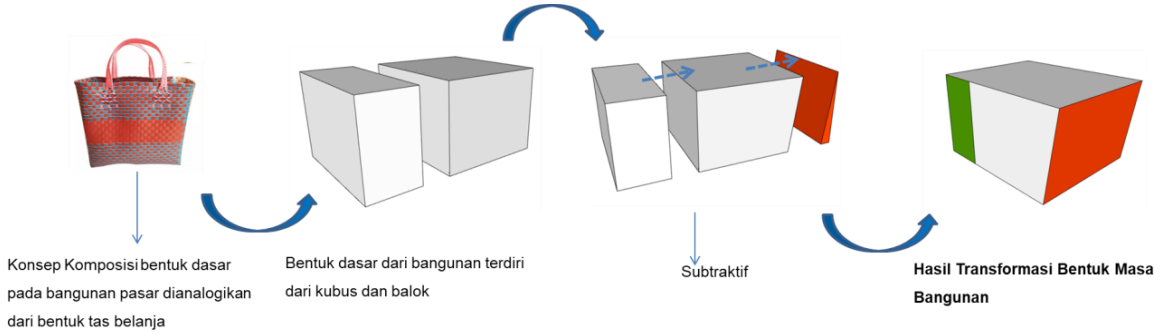


Figure 6 Concept of Building Form (source: Personal Data 2021)

Here is the perspective of the concept of the traditional market form

Figure 7 Building Facade (source: Personal Data 2021)

Building Interior

As the function of the general market, the function of this traditional market is as a place for people to look for clothing, food and shelter needs. With the application of the concept of contemporary vernacular architecture, the interior of this building is minimally used to combine local materials such as wood with contemporary materials such as iron, concrete and glass.

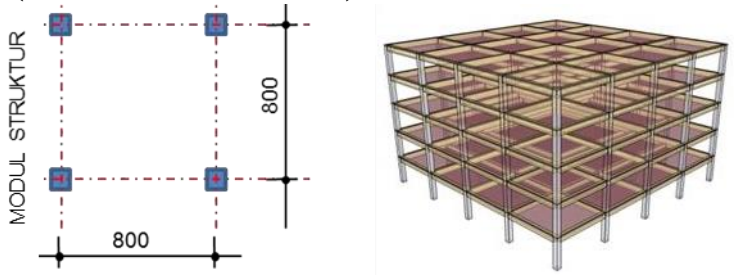
Figure 8 Market Building Interior (source: Personal Data 2021)

Figure 9 Market Building Interior (source: Personal Data 2021)

Figure 10 Market Building Interior (source: Personal Data 2021)

A. STRUCTURAL DESIGN

Figure 11 Structural Design (source: Personal Data 2021)



The structural system used in this building is the Frame Structure. The frame structure of the building has a function to transmit vertical loads or horizontal loads, either in the form of fixed loads, live loads or temporary loads (eg earthquakes and winds) to the ground. This frame structure, for multi-storey buildings consists of a floor system (plates and beams) supported by columns, which will then be forwarded to the foundation. The material to be used is reinforced concrete. Due to its very vital role for the establishment of a building, the frame structure must be planned properly and carefully following the rules of engineering mechanics by taking into account safety factors in addition to economic factors.

Preparatory work

The scope of preparatory work is land clearing. the executor is required to remove/remove shrubs, grass that is above the surface of the area to be worked on/arranged, including removing the remains of plant roots that have been removed/cut down and stones/debris left over as a result of demolition work and dumped outside. work location by vehicle.

Sub-Structure Work

The sub-structure is the part of the building whose position is below the ground. The main function of the sub-structure of the building is to transfer the load from the superstructure to the ground

beneath it. This is why the substructure rests exactly on the ground that supports it. Therefore, it is very important for engineers to ensure that all structural components such as beams, columns and foundations are properly integrated to ensure that there is no structural failure in the substructure.

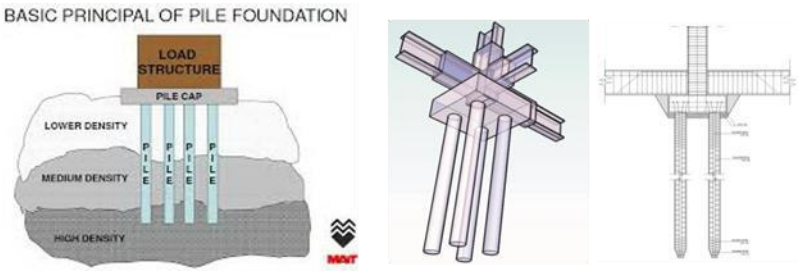


Figure 12 Pile Foundation (source: https://civildigital.com/pile-foundation-classification 2021)

The foundation used is a pile foundation because it is very suitable for the soil conditions. The considerations include:

Foundation quality inspection is very strict according to factory standards. Piling is faster, easier and more practical. Implementation is not affected by groundwater. The bearing capacity can be estimated based on the pile formula. It is suitable for maintaining vertical bearing capacity. For the core foundation using a raft foundation, because the structure supports it to withstand continuous dynamic loads. while the generator foundation must be separated from the main building to avoid interference from vibration or cracks.

Job Up – Structure

The superstructure of a building is the entire structure that is above ground level (SNI 2002).

Components of the upper structure of the building:

a. Column
b. Plate
c. Beam
d. Sliding wall
e. Ladder

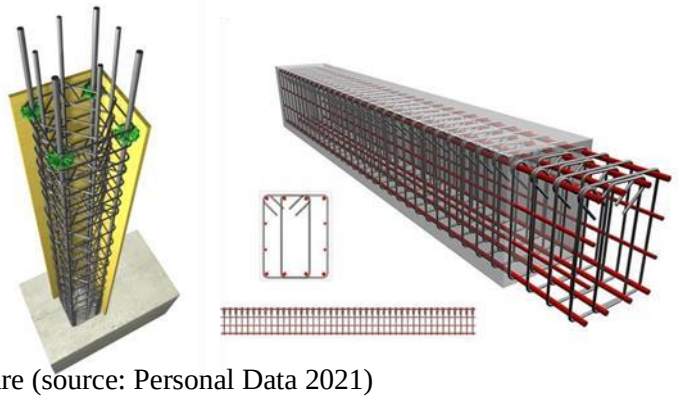


Figure 13 Order Up Structure (source: Personal Data 2021)

The structural material used in this building is Reinforced Concrete Frame. The use of reinforced concrete in building construction is common. There are several advantages in using reinforced concrete materials, including: strength to withstand very high loads, very easy to shape according to needs, durability, and resistance to fire which is said to be better than steel structures (because there is a concrete blanket that protects the reinforced steel reinforcement). inside it). Usually in the technical specifications of a building to be implemented, it is required to test the quality of the concrete so that the compressive strength of the concrete is as planned.

Wall and Ceiling Works

This masonry work includes all wall plastering work on the inside and outside of the building, and all the details mentioned / shown in the working drawings.

a. Pair of bricks/red stones, using a mixture of 1 PC : 5 pairs of sand.

b. For all outer wall areas, all ground floor walls can start from the sloof surface to a height of 30 cm above the ground floor surface, walls in wet areas as high as 160 cm from the floor surface, as well as all walls that are depicted using the symbol stir trasraam/watertight are used mix the water with a mixture of 1 pc: 3 pairs of sand.

c. Before use the bricks must be soaked in a water bath or drum until saturated.

d. After the brick is installed by stirring, the grout/siar-siar must be scraped to a depth of 1 cm and cleaned with a broom stick and then watered with water.

e. The masonry walls before being plastered must be moistened with water first and the siars have been scraped and cleaned.

f. Installation of brick walls is carried out in stages, each stage consisting of a maximum of 24 layers per day, followed by practical column casting.

g. A 1/2 brick wall with an area greater than 12 m2 plus columns and reinforcing beams (practical columns) with a size of 12 x 12 cm, with 4 main reinforcement.

h. Making holes in pairs for scaffolding/steiger is absolutely not permitted.

i. It is not allowed to install red bricks that are broken in half more than 5%. Bricks that are broken more than 2 should not be used.

j. Pairs of bricks for a 1 stone & 1/2 stone wall must produce a finish wall of 20 cm thick and for a 1 stone wall the finish is 40 cm. The implementation of the pair must be careful, neat and absolutely perpendicular.

Electrical Mechanical Works

a. Clean water

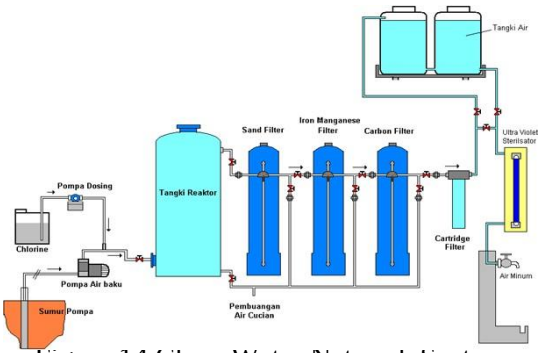


Figure 14 Clean Water Network System

The source of clean water is from Deep well / Pam. From the ground tank, clean water with a transfer pump is filtered and accommodated in the roof tank on the roof floor. From the top floor clean water is distributed to the market area and other room functions.

b. Dirty water

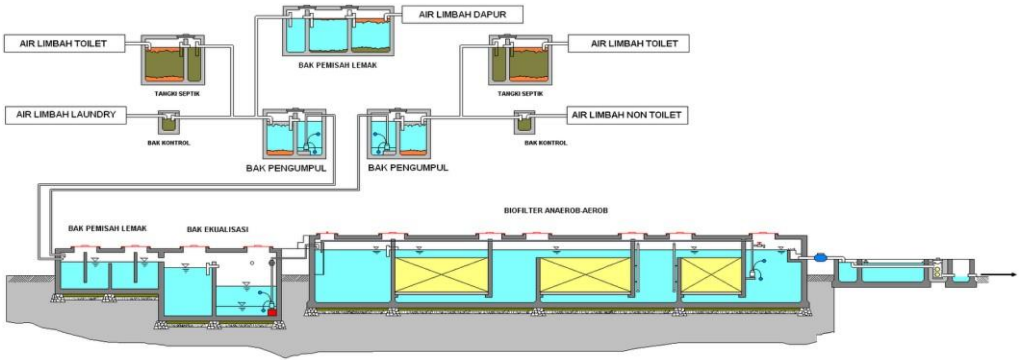


Figure 15 Dirty Water Network Installation

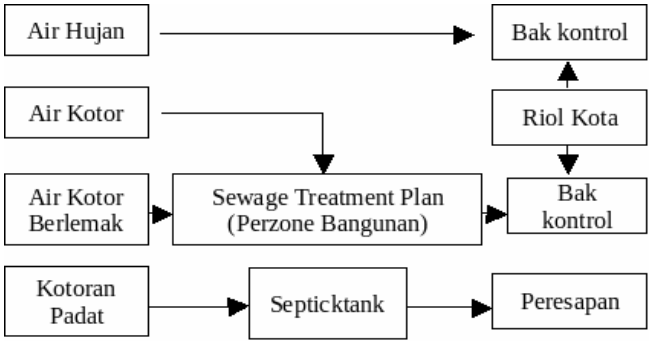


Figure 16 Dirty Water network system (source: Personal Data 2021)

Disposal of dirty water originating from solid disposal is channeled to a septic tank and forwarded to an infiltration tank, while the liquid disposal waste is forwarded to a control tank and forwarded to a large sewer which is then forwarded to the municipal real estate. Rainwater discharge is channeled into a large sewer and then forwarded to the city sewer.

c. Electricity

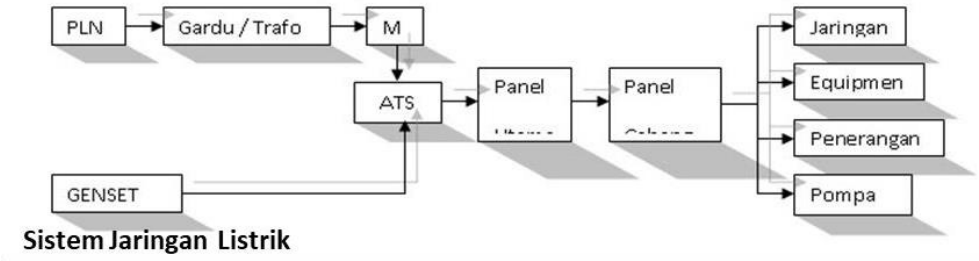


Figure 17 Electric Network System (source: Personal Data 2021)

For the provision of electricity to buildings, the needs for activities, comfort and security must be considered. With these considerations, the electricity supply used is to use city facilities with PLN services as the main power source for the need for lighting office electrical equipment, elevators, water

pumps and so on. If at any time there is a power outage, backup power is used in the form of a generator by utilizing sub-panels on units that require separate panels and are connected by using a transitional work system with Automatic Transfer Switch (ATS).

d. Fire Protection System

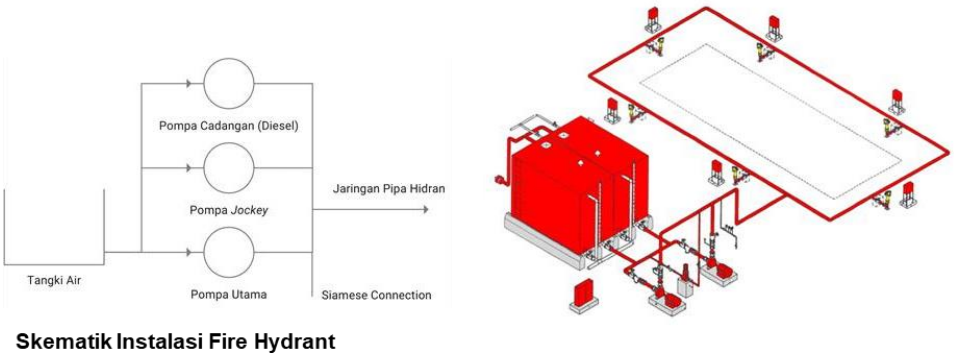


Figure 18 Schematic of Fire Hydrant Installation (source: https://firehydrant.id/instalasi-hydrant-kebakaran/2021)

The water distribution system for fire fighting comes from the groundtank / reservoir using a Fire Main Pump, Diesel Fire Pump and Jocky Pump. This fire pipe installation system can be separated from the main pump hydrant and main pump sprinkler or can be combined through the main fire pump header pipe, diesel fire pump and jocky pump and this installation is connected to a pressure tank, on the pressure tank a pressure switch is installed which is used to operate pump automatically and is set according to the standard pressure of the building pipe installation then the header pipe is divided into two pipe installations, namely the red hydrant pipe and the orange sprinkler pipe.

e. Indoor Transportation System

There are 2 types of in-building transportation systems used in this building, namely:

a. ramp
b. ladder

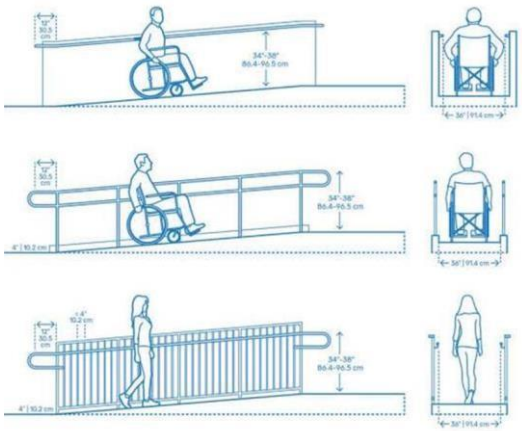


Figure 19 The means of transportation for building a ramp (source: https://www.arsitur.com/2017/12/perancangan-ramp-pada-building.html 2021)

Based on its usefulness, the type of ramp to be used is the Low Ramps type, which has a slope of up to 5% slope (00-50).

Ramp with this type of low or sloping, does not require the use of anti-slip, for the floor surface

layer. This ramp is very suitable for use in a fairly large design area, very suitable for jogging tracks, for trolley tracking or wheelchair paths because it will not cause the users of the ramp to feel tired through this ramp. Ramp is a circulation path or movement of people or objects that have a field with a certain slope. The use of the Ramp can be passed by wheels, either by wheelchairs, vehicles or goods trolleys.

Building Finishing Works

With the Contemporary Vernacular Concept, the market building has an open concept, so for the use of materials or materials to surround the building using a fence measuring 1 meter, while the materials for the rooms themselves use wall pairs, while the materials used for the facade of the building use contemporary materials such as ACP, GRC printing and the use of glass is used, while for the floor itself using hardener and epoxy finishing on the floor of the market area, the use of 60/60 ceramics for the office and toilet area, finishing the walls of laburan walls made of cement mortar and paint for industry standards, exposed ceiling using materials plywood and HPL, the roof uses Alderon material made from PVC and can reduce heat into the room.

Conclusions and Recommendations

This traditional market in the city of Bandung is a traditional market in which there are several facilities that can be used by the local community. In the form of indoor facilities and outdoor facilities that can pamper visitors or users.

This traditional market is located on Jalan Ibrahim Adjie. This area is a very strategic area, because it is located on a secondary road, which is the main road for traffic. In addition, the environment and surrounding buildings have several other public supporting facilities, such as shops, malls, mosques and settlements.

This Traditional Market Planning was made with a city-scale capacity in the hope of accommodating the needs of the community in meeting the needs of the people in the city of Bandung.

It should be realized that today's traditional markets must be able to become a place or place for buying and selling interactions and keeping up with the times. Seeing today's developments that there are more and more modern markets, with the presence of Traditional Markets and Street Vendor Areas that are designed as well as possible, at this time it is very appropriate, where people can feel the convenience of shopping should be like in a modern market. then the development of "Cicadas Traditional Market" is needed to answer these needs.

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