

## CHINESE TRADITIONAL CREMATORIUM

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## ABSTRACT

As time goes by, the human population and mortality rates continue to increase. The population that is increasing is inversely proportional to the amount of land as a place of settlement, causing a serious problem. The same thing happens due to the increasing number of deaths every year, the lack of land that can be used as a burial place. This can be seen from the amount of land that has shifted from its function, so people often prefer practical methods such as cremation or corpses to reduce the impact of excessive land use.

**Keyword:** traditional Chines; crematorium; practical methods; excessive; land use.

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## INTRODUCTION

As the world's population increases, the death rate also increases. The increase in the death rate every year causes a fairly serious problem. Lack of land that can be used as a burial place. This can be seen from the amount of land that has shifted from its function, so it is not uncommon for people to prefer practical methods such as cremation or burning bodies.

The cremation ritual developed not only as a habit in the social aspect. On the battlefield, cremation was used to expedite the processing of the bodies of soldiers who died for the enemy, or during major outbreaks of disease that killed thousands to millions of people, such as the Black Death in the 17th century.

The traditional practice of cremation is placing the remains of the ashes in an urn or other container, and then storing them in an i columbaria (a building for proper storage of ashes). Along with the times, the practice of cremation gave birth to a new tradition. Where the family members who are left behind, move the ashes of the cremated body to be stored in the crematorium and then place or distribute the ashes to a certain location.

The aims and objectives in the title of this project are:

1. Planning an architectural design as a means of service for death in the form of a good crematorium so that it is able to provide services in accordance with existing traditions.
2. Design a comfortable crematorium so it doesn't look gloomy or scary.

The problems that arise from the Abu Binjai House project are as follows:

1. How to design an architectural design of a good funeral service in the form of a crematorium so that it is able to provide services in accordance with existing traditions?
2. How to design a comfortable Crematorium so it doesn't look gloomy or scary?

In the current condition, if there is a religious activity to cremate the body, the traffic flow in front of the crematorium will be disrupted/congested. This traffic flow affects the activities in the crematorium. So it is necessary to regulate traffic quickly and precisely so that congestion does not occur. Parking arrangements around the building are also very important (Syaiful.S, Wahid.N, 2020). It is hoped that there will not be parking on the side of the road which will result in not smooth traffic in it. So that it will affect the comfort of building occupants in carrying out their worship (Syaiful.S, Yuliantino.M, 2017; Syaiful.S.et.al, 2020; Syaiful.S, Elvira.Y, 2017).

## RESEARCH METHODS

The following is figure 1 which shows the framework of thinking in the form of a schema:

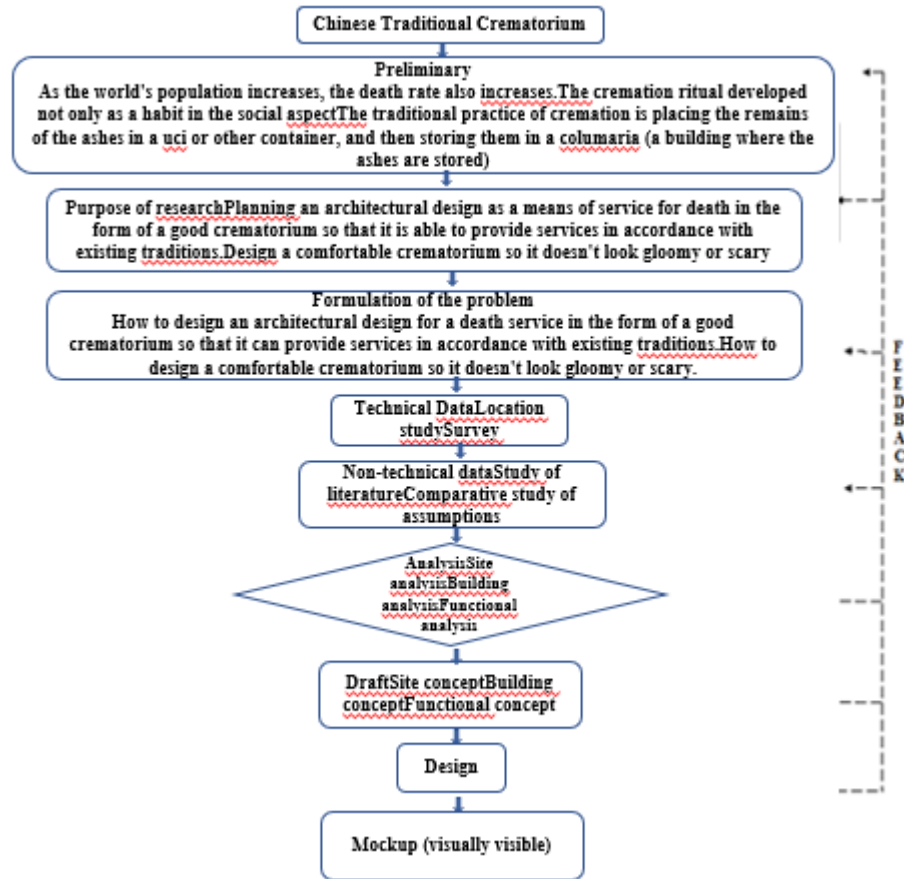


Figure 1. The Chinese Traditional Crematorium Framework. Source: Personal Analysis, 2020

## RESULTS AND DISCUSSION

### General review

#### Definition of Title

The title taken in this final project is "Crematorium Indigenous Chinese" which can be described in terms of each as follows:

1. Crematorium
  - a. According to KBBI  
a place to burn corpses to ashes; cremation.
  - b. According to Wikipedia  
cremation of the dead.
2. Custom
  - a. According to KBBI  
Rules (deeds and so on) that are commonly followed or carried out since time immemorial.
  - b. According to Wikipedia  
cultural ideas which consist of cultural values, norms, habits, institutions, and customary laws that are commonly practiced in a group.
1. Chinese,
  - a. According to Wikipedia  
The term in Indonesia for people from the Chinese tribe or nation.

So it can be concluded that the Chinese Customary Crematorium is a place for cremation so that it becomes ashes with the rules and methods according to Chinese customs.

### **Crematorium Overview**

#### **Definition of Crematorium**

A crematorium is a place to burn corpses to ashes (Language Center Compilation Team, 2007). The main activity carried out is burning corpses using wood-fired stoves or using gas cylinders. In general, cremation in Indonesia is influenced by several factors, namely:

1. Religious factors, where there are people who follow religions and beliefs who encourage their people to burn their bodies greatly affect the rate of development of crematoriums in the area.
2. Socio-cultural factors, Indonesian people also influence the development of cremation activities. Indonesian society is divided into 2 groups, namely:
  - a. Communal Society  
are traditional in nature with their lives greatly influenced by customs and support high cultural values that have been passed down from generation to generation.
  - b. Modern Society.

have a pattern of thinking that is practical, rational and easy to accept developments.

The cremation process consists of a series of sacred events ranging from bathing the corpse, performing services, the process of cremating the body and bones of the corpse to drifting the ashes of the corpse into the sea. Functionally, the crematorium is used as a means of burning corpses with supporting facilities including:

- a. Fuel storage area
- b. Cremation furnace
- c. waiting room
- d. WC
- e. The room for the last prayer / salutation (usually located dynamically in front of the funeral pyre)
- f. Cafe/dining

### **Chinese Traditional Overview**

#### **Custom**

Shah in Nurlin Ibrahim argues that customs are traditional social rules that are sacred, this means that they are ancestral provisions and are obeyed from generation to generation. It is a tradition that governs indigenous Indonesian society which is felt by its members to be very binding.

So it can be concluded that customs are habits, rules that must be obeyed by indigenous peoples which contain customs, values and other legal norms that influence each other and become a system that lives in a particular society. Thus, custom is a rule that applies to a society, so that community members can adjust their actions to the behavior they make.

#### **Chinese community**

Society is a unit of human life that interacts according to a certain system of customs that is continuous which is bound by a sense of shared identity (Koenjaraningrat, 2002:146). Some experts define society, such as Smith, Stanley, and Shores define society as "a group of individuals who are organized and think of themselves as a distinct group".

The Chinese community is one of the community groups in Indonesia. Chinese is a term for people from Chinese tribes or races. This word is used as a substitute for the word "China" which is often interpreted as having a negative connotation.

Chinese society is a society that is quite famous for its diverse culture. Such as writing or calligraphy, the art of paper cutting, medicine, martial arts, opera or theater arts, traditional music arts, to the traditions of death ceremonies and ancestor worship which are still carried out by most Chinese people.

#### **Criteria**

In a crematorium, the criteria that must be met according to the Guidelines for Designing Graveyards and Crematoriums in 2012 are as follows:

- a. Availability of fuel storage area
- b. The ash packing room before entering the Columbarium or the procession of the ashes
- c. Availability of ashes storage room or Columbarium
- d. The availability of a waiting room during the cremation process and a number of facilities such as a cafeteria and a mini market.

### **Special Overview**

#### **Definition of Theme**

**Oriental architecture, consists of two words, namely Architecture and Oriental.**

Architecture is a built environment that is made by humans and becomes a place for humans to carry out all their activities. Oriental is a historical term for the East, usually encompassing anything from the Eastern world.

#### **Oriental Architecture Theme Interpretation**

Design with Oriental Style is innate from Eastern culture that developed covering the regions of China, Japan, Korea, to Vietnam, Thailand, to Persia. Culture during the heyday of the Empire in the Chinese and Japanese courts had a strong impact and became the cultural roots of people's lives. This culture continues to grow and develop in the community in various forms including the architectural aspect of the building.

#### **Characteristics of Oriental Architecture**

Oriental architecture has several characteristics such as:

1. Have a simple look
2. Material from nature
3. Have a close relationship with feng shui
4. Impressions can be created from the game of color
5. Have unique ornaments
6. Has unique roof forms.

#### **Region Selection Criteria**

Site Selection Criteria for Chinese Traditional Crematoriums:

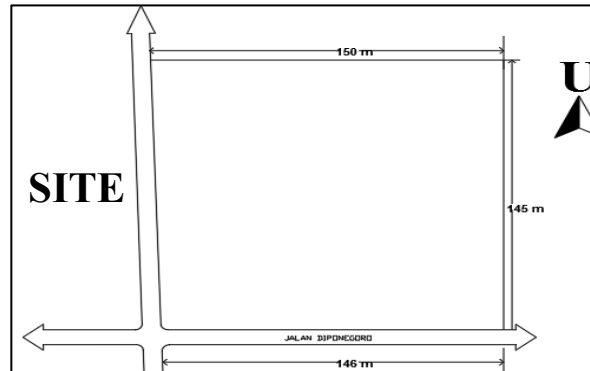
1. Accessibility to roads
2. The entrance to the site must be large
3. Flood free area
4. Extensive site
5. Far from densely populated areas
6. The view of the Indigenous Chinese crematorium is expected to have a clear view of the road to the site.
7. Tersseida Utilities networks such as PLN, PDAM, and City Riol.

According to Cemeteries, Burials, and The Water Environment, Northern Ireland Environmental Agency, the rules for establishing a crematorium are as follows:

1. The location of the crematorium must not be in a residential or commercial area
2. The recommended location for placing the crematorium is in an industrial area
3. Crematorium buildings should not be built in areas prone to flooding and landslides, and close to rivers or the sea.
4. The crematorium building should have a distance of 250 meters from the sea and at least 50 meters from the river, and at least 10 meters from the flow of the ditch.
5. Smoke from combustion should not be released directly into the air.

Based on the site selection criteria that have been described, there are 3 possible alternative locations for planning the Chinese Indigenous Crematorium project as follows:

**Alternative Area Selection**  
**Alternative land 1**

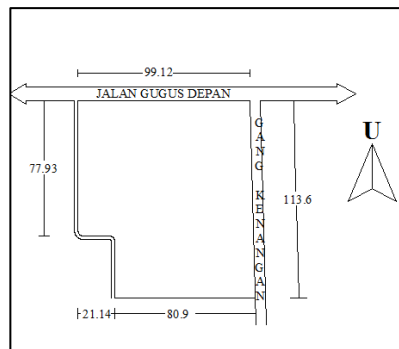


**Figure 2.** Alternative Location 1 Source: Personal Processed Data 2020

**Site State:**

1. Located on Jalan Diponegoro, East Binjai sub-district with site boundaries, namely:
  - a. North : Plantation Land
  - b. East : Plantation Land
  - c. West : A small street that has no name
  - d. South : Diponegoro Street
2. Site is: Vacant land and a house
3. Site Area : ± 2.1 Ha

**Alternative land 2**



**Figure 3.** Alternative Locations 2 Sources: Personal Processed Data 2020

**Site State:**

1. Located on the Front Gugus road, Bergang, Binjai Kota sub-district with site restrictions, namely:
  - a. North : Front Cluster Road
  - b. East : Memories Alley
  - c. West : Jalan DR. HM. RUSDI OLOAN NST
  - d. South : Plantation Land
2. Site is: Vacant land and house
3. Site area: ± 1 ha

**Land alternative 3**

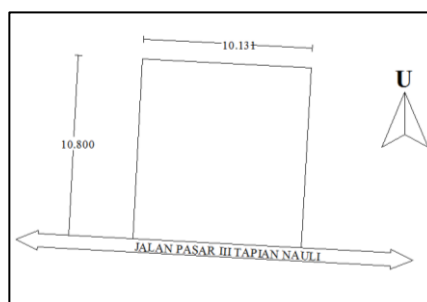


Figure 4. Alternative Locations 3 Sources: Personal Processed Data 2020

#### Site Condition:

1. Located on Pasar III Tapian Nauli street, Medan Sunggal sub-district with site boundaries, namely:
  - a. North : Vacant Land
  - b. East : Resident's House
  - c. West : Vacant Land
  - d. South : Jalan Pasar III Tapian Nauli
2. Site is : Vacant Land
3. Site area :  $\pm 1$  ha

#### Area Selection Alternative Assessment

Alternative Area Selection Assessment is the process of assessing the suitability of alternative areas with predetermined area criteria, assessed with a rating scale of 1-3. The area with the highest rating was selected as the site area for the Chinese Indigenous Crematorium project.

Table 1. Alternate assessment of area selection

	Alternative Region 1	Alternative Region 2	Alternative Region 3
Access to Road	(3) Very good because it is directly related to road access	(3) Very good because it is directly related to road access	(3) Very good because it is directly related to road access
Entrance to the Site	(2) Entrance to the site (Diponegoro Street) 8 meters	(2) Entrance to the site (Front Cluster road) 6 meters	(2) Entrance to the site (Pasar III Tapian Nauli street) 8 meters
Flood Free Area	(3) Site close to the river Binge ( $\pm 6$ km)	(1) Site close to the river Binge ( $\pm 100$ m)	(3) The site is far from the river ( $\pm 1.12$ km)
Extensive Site	(3) Site area : $\pm 2.1$ ha	(2) Site area : $\pm 1$ ha	(2) Site area : $\pm 1$ ha
Population Density	(3) Site location is in an area with low population density	(2) Site location is in an area with low population density	(1) The location of the site is in an area with a high population density
Building View	(3) The view from the road to the site is very clear	(3) The view from the road to the site is very clear	(3) The view from the road to the site is very clear
Utilities	(3) Availability of utilities	(3) Availability of utilities	(3) Availability of utilities
Smooth Road	(3) The road is only traversed by a few	(2) Road traversed by vehicles (fairly smooth)	(2) Road traversed by vehicles (fairly smooth)

	vehicles (Very Smooth)		
Score	<b>20</b>	<b>15</b>	<b>16</b>

Description: 1= not good; 2 = Not bad; 3 = Very Good

**Conclusion:**

based on the assessment value above, alternative area 1 gets the most value from other alternative areas. Therefore, the alternative area was chosen to be the area for the Chinese Traditional Crematorium

**Project Description**

Chinese traditional crematorium is a place for cremation (cremation) of corpses with the rules and procedures according to Chinese customs. The Chinese Traditional Crematorium has a storage area for cremated ashes with a building architectural style that has the characteristics of oriental architecture.

This Chinese Traditional Crematorium was opened to serve funeral services with the following deadlines:

Monday – Friday: 08:00-17.30 WIB

Saturday – Sunday: 09:00-18:00 WIB

This traditional Chinese crematorium is equipped with crematorium facilities, columbarium (columbarium), prayer room, garden, lotus pond. The following is some information about the Crematorium and Columbarium at the Chinese Traditional Crematorium:

**Crematorium**



**Figure 5.** Crematorium Source: Google 2020

The crematorium in the planning of this project will number 5. In this room the family of the corpse gathers and performs a prayer ceremony before the body is cremated. The ceremony is led by a monk / nun or saikong. The ceremony lasts about 1 hour - 2 hours. The families will be led during the prayer ceremony in such matters as: standing up, holding incense, namaskara, etc.

The price of cremation according to Regional Regulation No. 7 of 2012:

1. The price of the retribution fee: IDR 500,000
2. The price for renting a place, such as preparation for a big ceremony: IDR 300,000
3. The levy price for using a 2 cm thick coffin will be charged 1,250,000.
4. The price of retribution using a coffin with a thickness of 3 cm – 5cm is subject to a fee of 1,750,000 – 3,000,000.

**Columbarium**



Figure 6. Columbarium Source: Google 2020

According to Neufert (2000), there are 2 large ash storage racks that are usually used as standardization in the columbarium, namely the size of 300cm x 450cm and 350cm x 600cm. If there is an overdraft on the wall, the overhang of the wall where the ash urn is placed in the columbarium building is 38-40 cm wide, while the height is 50-60 cm.

In the traditional Chinese crematorium

1. Size of 1 single columbarium box: 30 cm x 30 cm
2. Size of 1 couple columbarium box: 60 cm x 60 cm

**Price of urn for cremation ashes:**

1. Jar (classic white) with a width: 7 inches and a height: 8 inches = IDR 680,000



Figure 7. White Classic Guci Source: Tokopedia 2020

2. Jar (Brown Wood) with a width: 7 inches and a height: 8 inches = Rp 880.00



Figure 8. Brown Wood Jar Source: Tokopedia 2020

3. Jar (Marbel) with a width / circumference: 5 inches and a height: 11 inches = Rp. 980,000.



Figure 9. Marbel Jars Source: Tokopedia 2020



4. Jar (Brown Jasper) natural stone jasper with a width: 7 inches and a height: 8 inches = Rp. 2.550.000



Figure 10. Gucci Brown Jasper Source: Tokopedia 2020

5. Gucci (ivory) with width / circumference: 8 inches and height: 9 inches = Rp. 4,580,000



Figure 11. Ivory Jar Source : Tokopedia 2020

6. Jar (jade stone) green with a width of 7 inches and a height of 8 inches = Rp. 8,580,000.



Figure 12. Jade Stone Jars Source: Tokopedia 2020

In planning this columbarium project, it will be divided into 2 parts:

1. Indoor parts

The indoor columbarium will also be divided into 2:

- a. Single
- b. couple

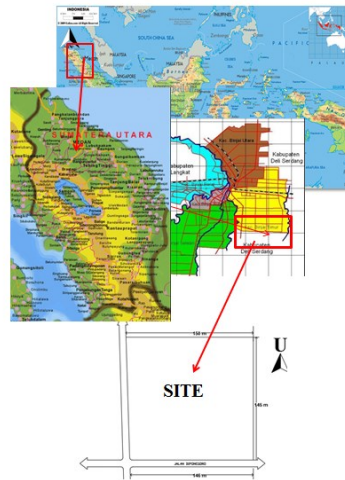
2. Outdoor semi section

The semi-outdoor section will also be divided into 2:

- a. Single
- b. couple

## RESULTS AND DISCUSSION

### Site Analysis

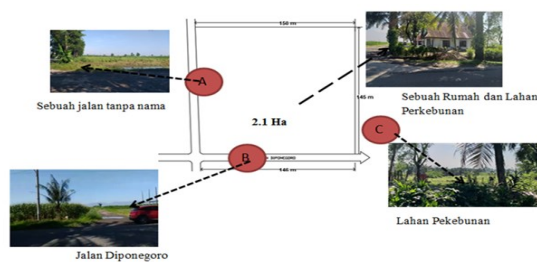


**Figure 13.** Source Site Location: Google, 2020

**General Description:**

- Project Title : Chinese Traditional Crematorium
- Project Theme : Oriental Architecture
- Project Status : Fictional
- Project Location : Diponegoro Street
- Road Width : Diponegoro Road = 8 meters (two directions)
- Small street (no name) = 8 meters (two-way)
- Site Limitation :
- East Boundary : Plantation Land
- South Boundary : Diponegoro Street
- West Boundary : A small street without a name
- Northern Boundary : Plantation Land
- GSB : Diponegoro Street
- :  $1/2(n) + 1$
- :  $8/2 + 1$
- : 5 meters
- Street (no name) :  $1/2(n) + 1$
- :  $8/2 + 1$
- : 5 meters
- Site Area :  $\pm 2.1$  Ha
- Topography : Relatively Flat (Land and a House)

**View Analysis**



**Figure 14.** View Analysis Source: Personal Processed Data, 2020

**Achievement Analysis**

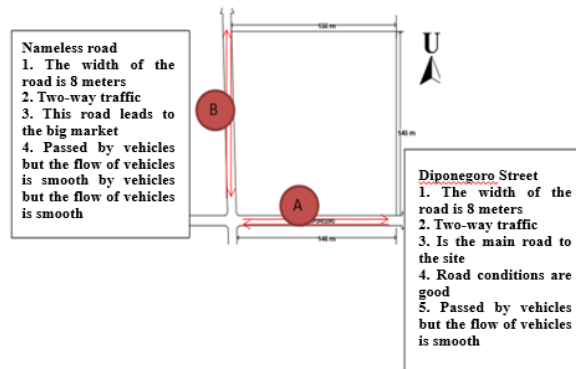


Figure 15. Analysis of Achievement Source: Personal Processed Data, 2020

Criteria for selecting access to enter and exit the site:

1. Easily accessible by vehicles, both motorbikes, buses, and other four-wheeled vehicles.
2. The entrance is located on the main road to make it easier to reach

**Conclusion :**

Access to the site can be done via Diponegoro Street (point A) and access to exit the site can be done at point B.

**Analysis of the Sun and Wind**

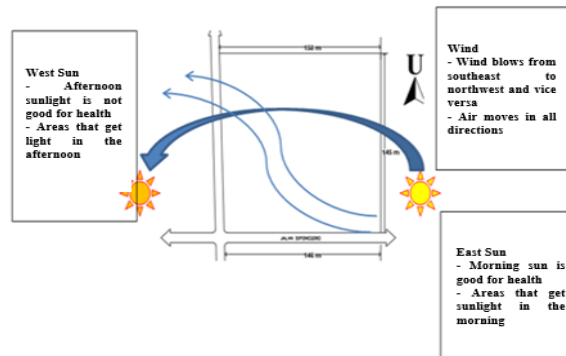


Figure 16. Analysis of the Sun and Wind Source: Personal Processed Data, 2020

**Conclusion :**

The solution to the Sunlight problem above is as follows:

1. Use of open that has a lattice
2. Use of plants
3. Use of canopies and walkways

The solution to the wind problem above is the use of vegetation as a wind filter.

**Activity Pattern Analysis**

**Visitors**

The activity patterns of visitors who come to the Chinese Traditional Crematorium are as follows:

1. Registration
  - This registration can be in the form of registration, purchase of jars and places.
  - Delivery of the coffin to the crematorium
2. Ceremony
  - The ceremony is carried out right in front of the coffin, before the coffin is inserted into the cremation furnace.
  - Cremation process
  - The cremation process takes 2 hours - 3 hours.

The length of the cremation process can be influenced by several factors:

3. Coffin thickness

**Table 2.** Cremation time by coffin thickness

No	Coffin Thickness	Average Cremation time
1	Funeral Services for wooden coffins with a thickness of 2 cm	2 hours
2	Funeral Services for wooden coffins with a thickness of 3 cm	2 hours
3	Funeral Services for wooden coffins with a thickness of 4 cm	2,5 hours
4	Funeral Services for wooden coffins with a thickness of 5 cm	2,5 hours
5	Funeral Services for wooden coffins with a thickness of 6 cm	3 hours

2. Body size

- a. Furnace cooling process after cremation
- b. The process of taking cremated ashes and bone remains in the cremation furnace
- c. This process will usually be attended by the nuclear family (children and grandchildren).
- d. The cremated ashes will be separated from the ashes of the coffin burning and will then be transferred to the top of the establishment.
- e. Grinding Bones that are still left in the furnace.
- f. The process of sorting cremated ashes
- g. In this process, the administrator will put the cremated ashes in order from the feet to the head into the urn that has been provided.
- h. Urn transfer process
- i. The process of moving the urn from the crematorium to the columbarium.
- j. Ceremony
- k. The ceremony is carried out in the columbarium where the urn is placed.
- l. Shadows of Cheng Beng (images of graves)
- m. Chinese zodiac burning (Crate)

2. Manager

The manager is the person who works to organize all activities in the Chinese Traditional Crematorium so that they can run well.

3. Service

Services are people who work to provide services to visitors and building users such as cleaning service, security, parking management, mechanical and electrical technicians and plumbing.

**Space Requirement Analysis**

Table 3. Analysis of Space Requirements

No.	Room name	Function	Nature
Parking Group			
1.	Bus Parking	Parking space for buses.	Public
2.	Coffin Drop off	Where to drop the coffin	Semi public
3.	Car park	Parking space for visitors who come by car.	Public
4.	Motorcycle Parking Only	Parking space for visitors who come by motorbike.	Public

5.	Drop Off	A place to pick up and drop off passengers.	Public
Recipient Activity Group			
1.	Main Gate	It is the front gate to welcome visitors.	Public
2.	Lobby	Meeting point room for visitors.	Public
3.	Resepsionis	Providing information to visitors	Public
4.	Male and Female Toilet	Supporting facilities.	Public
5.	Clinic Room	Room for visitors who feel unwell or injured	Public
Management Activity Group			
1.	Chairman's Room	It is a space for the chairman of the board to receive reports from the deputy management and the secretary of the board.	Private
2.	Manager's secretarial room	It is a room for the secretary of the board to assist the work of the deputy administrator	Private
3.	Management room	Is a room for members of the board in helping the work of the secretary of the board	Private
4.	Officer's room	It is a room for crematorium and columbarium officers	Private
5.	Administration room	Is a room that takes care of administration	Semi-Public
6.	Meeting room	It is a space for holding management meetings.	Semi-Private
7.	Archive Room	Is a document file storage space.	Private
8.	CCTV Room	Is a space to monitor all activities through the camera.	Private
9.	Toilet	Supporting facilities	Semi-Private
Employee Activities and Service Group			
1.	Machine room	It is a space for the generator engine.	Private
2.	Panel Room	It is an electrical control room.	Private
3.	Garbage Room	It is a place to collect and sort waste from the Chinese Traditional Crematorium.	Private
Visitor activity group			
1.	Crematorium	It is a place to cremate corpses	Semi public
2.	Fuel chamber	Room for cremation furnace fuel	Semi public
3.	Ceremony room	The room for the ceremony before the body is cremated	Semi public
4.	Milling Room (cremated remains)	To grind cremated bones	Semi public

5.	Packing room	For packing the cremated ashes into the urn	Semi public
5.	Columbarium	It is the place where the ashes are placed.	Public
6.	Prayer room	For a place of worship to the gods	Public
7.	Retail (prayer tools)	To provide the tools of prayer needs	Public
8.	Cafe	Supporting facilities	Public
9.	Park	Supporting facilities	Public

### Tread Concept Achievement Concept

The following is figure 17 which shows the concept of achievement in the project.

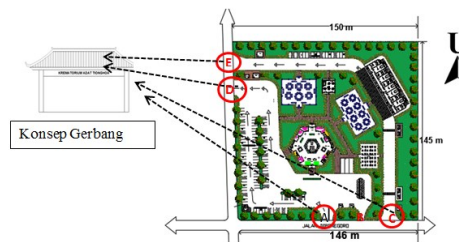


Figure 17. Concept of Achievement Source: Personal Processed Data, 2020

### Achievement concept:

Point A is the entry for cars, buses and two-wheeled vehicles, while point B is the exit for two-wheeled vehicles (motorcycles). At point C is the entrance by vehicles (cars (crematorium visitors), service cars, and coffin buses). At point D is the exit by cars and buses and at point E is the exit for vehicles (cars (crematorium visitors), service cars and coffin buses).

### Sun and Wind Concept

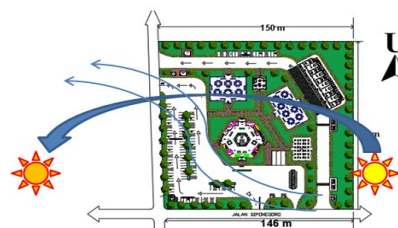


Figure 18. Sun and Wind Concepts Source: Personal Processed Data, 2020

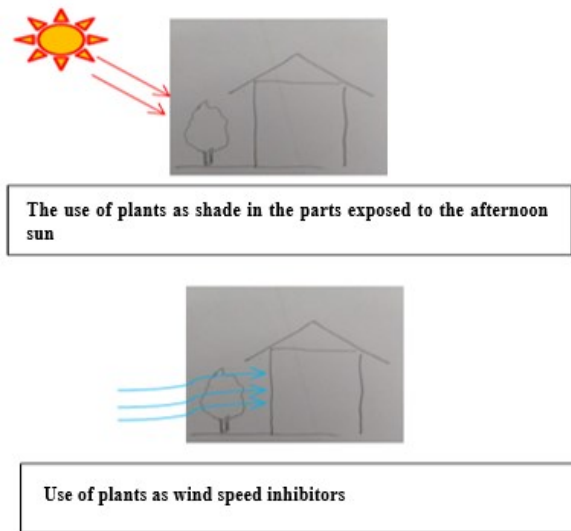


Figure 19. Sun and Wind Concepts Source: Personal Processed Data, 2020

**The Concept of Noise and Dust**

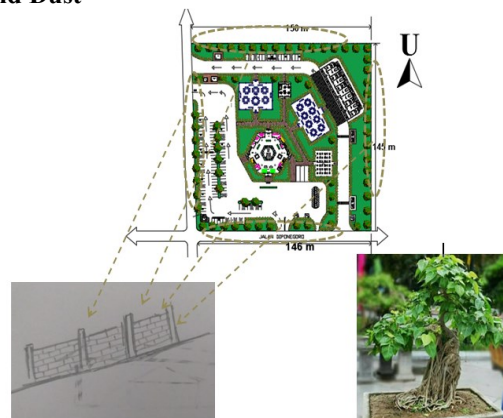


Figure 20. Noise and Dust Concepts Source: Personal Processed Data, 2020

In the Chinese Traditional Crematorium, walls and vegetation in the form of a Bodhi Tree are used as a barrier to noise and dust from outside the building.

**Vegetation Concept**



Figure 21. Concept of Vegetation Source : Google, 2020

The use of the Bodhi Tree in the Chinese Traditional Crematorium to block sunlight and filter dust from outside into the building. In addition, the Bodhi Tree is also considered sacred.



Figure 22. Concept of Vegetation Source : Google, 2020

The use of the lotus flower in the pond as a symbol of purity.

### Parking Concept

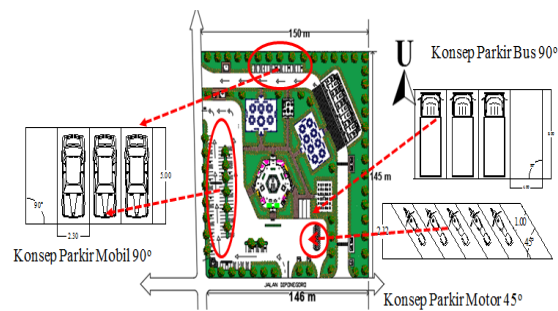


Figure 23. Parking Concept Source: Private Processing, 2020

Parking systems at the Chinese Traditional Crematorium are cars, buses, motorcycles and service cars. The car parking concept will use a 900 parking system and motorbikes will use a 450 parking system, while in the bus parking concept it will use a 900 parking system and the parking for service concept will use a 900 system.

### Functional Concept

#### Space Program Concept

Table 4. Spatial Program Concept

No	Building	Large
1.	Main Building	1.236 m <sup>2</sup>
2.	Single Columbarium (Semi Outdoor)	295 m <sup>2</sup>
3.	Columbarium Couple Block A (Semi Outdoor)	646 m <sup>2</sup>
4.	Columbarium Couple Block B (Semi Outdoor)	573 m <sup>2</sup>
5.	Crematorium	417 m <sup>2</sup>
6.	Cafe	100 m <sup>2</sup>
7.	Public toilet	41 m <sup>2</sup>
8.	Security post	27 m <sup>2</sup>
9.	Machine room	60 m <sup>2</sup>
10.	Garbage Room	20 m <sup>2</sup>
Total		3.415 m <sup>2</sup>

#### Parking Facilities:

If the assumed count of the number of visitors who come is 1,000 per day, the following is the calculation of the assumption of parking needs.



### 1. Visitors

The following is an assumption of visitor parking space requirements:

- a. Car park  
Assuming that 50% of visitors use cars and cars with a capacity of 4 people (ideally), then:  
( 50% × 940 people ) / 4 = 118 cars
- b. Motorcycle Parking Only  
Assuming 25% of visitors use motorbikes and motorbikes with a capacity of 2 people (ideally), then:  
( 25% × 120 people ) / 2 = 15 motorcycles
- c. Bus Parking  
Assuming 10% of visitors use buses and buses with a capacity of 30 people (ideally), then:  
( 10% × 900 people ) / 30 = 3 buses
- d. Assume that the remaining 15% of visitors come by using public transportation.

### 2. Managers, Employees and Staff

The following is the assumption of parking space requirements for managers, employees and staff with a total of 200 people:

- a. Car park  
Assuming 20% use a car, then:  
( 20% × 40 people ) / 4 = 2 cars
- b. Motorcycle Parking Only  
Assuming that 50% of employees and staff use motorbikes, then:  
( 50% × 20 people ) / 2 = 5 motorbikes
- c. Assume that 30% of employees and staff come by using public transportation.

## CONCLUSION

As time goes by, the human population and mortality rates continue to increase. The population that is increasing is inversely proportional to the amount of land as a place of settlement, causing a serious problem. The same thing happens due to the increasing number of deaths every year, the lack of land that can be used as a burial place. This can be seen from the amount of land that has shifted from its function, so people often prefer practical methods such as cremation or corpses to reduce the impact of excessive land use.

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