



ARC 3612 | PROJECT MANAGEMENT

PROJECT 2 | DOCUMENTATION OF A MEDIUM SIZED PROJECT

NAME: HOO ZHI XIN

STUDENT ID: 0311196

SEMESTER 6

SITE: JALAN AMPANG

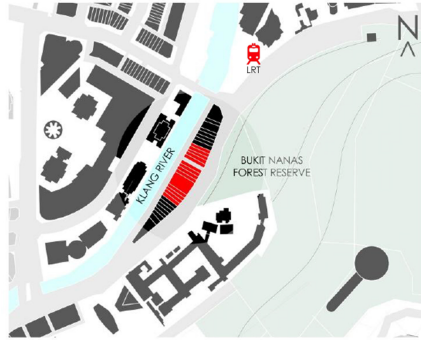
TUTOR: AR.BADRUL



JALAN AMPANG THERAPEUTIC PERFORMING ARTS CENTER

# 1.0 PROJECT DESIGN ANALYSIS

## 1.1 INTRODUCTION TO SITE



The selected site situated at the end of Jalan Ampang, within walking distance from Dang Wangi LRT station. It sits in a strategic location where sandwiched between the main road and Klang River, at the same time facing Bukit Nanas Forest Reserve.

As the government implementing river beautification planning ('River of Life') along Klang river, it allows waterfront development for the selected site and introducing new means of transportation such as water taxi to introduce more people flow to the site.

However, in current state, the existing buildings at selected site are abandon shop lots in dilapidated state. To revitalize the site, existing buildings are suggested to be demolished.

## 1.2 SWOT ANALYSIS

STRENGTH	<ul style="list-style-type: none"> <li>  Strategically located in city center (commercial district, touristic landmarks)</li> <li>  Interesting topography and surrounding context (sandwiched between river and forest reserve)</li> <li>  Easily accessible by public transport (bus, LRT)</li> <li>  Growing demographic</li> </ul>	WEAKNESS	<ul style="list-style-type: none"> <li>  Existing building are abandoned and in dilapidated state</li> <li>  Poor connectivity for vehicle to site due to one way traffic and limited parking</li> <li>  Poor maintenance of river</li> <li>  Poor connectivity for existing community (Capsquare residences and bukit nanas schools' students) to the site</li> </ul>
	OPPORTUNITY		<ul style="list-style-type: none"> <li>  Activate waterfront by revitalize use of river, creating nodes for surrounding context</li> <li>  Establish new urban identity to the site (landscape experiences)</li> <li>  Opening up green areas for recreational purpose to congregate public</li> <li>  Create bypass linkage for existing community to increase user flow</li> <li>  Collaborate with existing art bodies for mutual beneficial</li> </ul>

## 1.3 PESTLE ANALYSIS



### POLITICAL

**I. Traffic direction and connectivity:**  
Due to political policy, which is changing the highway in front of the chosen site from two way lane to one way lane has caused the mis opportunities where users might pass by the entrances of the site hence neglected the buildings.

**II. Riverfront development:**  
The implementation of 'River of life' programme aims to revitalize the river had provided development opportunities for the surrounding.



### ECONOMICAL

**I. Increased touristic value:**  
The 'River of life' programme is able to increase the economical value of the site as it has the potential to become a landmark as well as an activity node for the tourists. The water taxi stop at the embankment of river connecting to building had enhanced the connectivity to site. The amphitheatre by the river is also able to attract more users and activate water front.

**II. Side income resources:**  
Rental of performance halls and running of restaurant, retail stores (commercial facilities) in the building are side income to support the building.



### SOCIOLIGICAL

**I. Wide range of target users:**  
The chosen site is located around commercial district (Cap square and Jakel Mall) and there are high-end residences area and office buildings. There are also a few institutions and touristic landmarks nearby, therefore there will be wide range of targeted users and various activities can be provided for different approaches.

**II. Need of open spaces:**  
There are social gap between the residential area and the commercial lots. Hence, communal gathering space are in need. For example, the chosen programme, therapeutic performing arts are mostly target on residences and office workers. There are also many open spaces by the riverside which serve as recreational purpose as well as gathering venue.



### TECHNOLOGICAL

**I. Green features:**  
For sustainable approaches, green technology are encouraged to embark in building's design as response to adjacent river and Bukit Nanas forest reserve. Such as bio filtrate system for water pond, green roof and rainwater harvesting system.

**II. Acoutical features:**  
Technology support for acoustical facilities must be take into account as it is vital for performance programme's function. Choices of building materials are important to ensure audio and acoustical quality.

**III. Programme's technical support:**  
There are a few existing performing art bodies at a stone throw's distance, such as JKKN and MaTIC. Therefore, they can be the sources for technological guidance for performance programmes.



### LEGAL

**I. Authority guidelines:**  
Building setback lines and restrictions on building by the riverside have to be considered by referring the authority's guidelines and regulations.

**II. Lane reserve:**  
There are lane reserve in between the 2 portion of chosen sites, therefore buildings are not allowed to build over it. For the selected programme, lane reserve is shut down of vehicle usage and only allow pedestrians to pass through, this is to create a safer and pedestrian friendly pathway to the users.



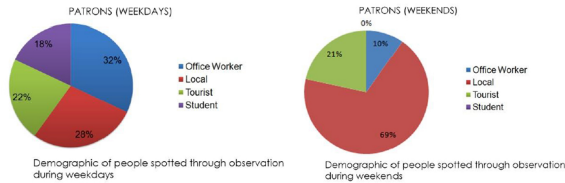
### ENVIRONMENTAL

**I. Address and appreciate topography:**  
The surrounding context of the site, which is sandwiched between Bukit Nanas forest reserve and Klang river has provided the building an approach to embrace nature, such as design responding to landscape. River front development shall not be neglected and should be maintain well to ensure cleanliness, thus encourage public surveillance and ensure the public safety.

## 2.0 PROGRAMME VIABILITY

### 2.1 INTRODUCTION TO PROGRAMME

According to demographic studies of the site shown below, the main patrons of the site included office workers, local residences, tourists and students. Therefore, the following patrons are the main targeted users for the site.



To make the programme commercially viable, it is to propose a programme that is favourable and provide the needs for patrons, that is Therapeutic performing arts center. (TPAC)

#### TPAC for office workers and residences



As cityfolks who lives a hectic daily routine, a performing arts center which emphasize on **body and mind relaxing** at the same time provide **recreational facilities** is essential for the users. It will also be an ideal **hangout place for families** and friends to appreciate art and nature.

#### TPAC for students



Through research and studies, in modern society nowadays there are increased amount of cases of **learning disabilities** such as dyslexia, attention deficit order in students. The therapeutic performing arts center provided facilities such as studios, therapeutic music chambers for **music therapy**. Besides that, there will be music library and study lounge for public and students as well.

Besides that, the performing arts center also provide **training** for groups of student from near by institutions to **encourage youth's involvement**.

#### TPAC for tourists



The performing arts center emphasizing light instrumental music and ambience music which able to enthusiast and calm people's mind. The **'New age' genre** music which emphasize soft music is **renowned globally** and is believed to establish a new node for tourists to enjoy light music by the riverside.

With the nature settings of the site, this programme utilize music therapy as approach to raise awareness of needs for peaceful mind in metropolitan, providing green spaces for recreational spot and aims to revitalize the river by collaborating with river of life planning.

### 2.2 SPACES FOR PROGRAMME



FOCUS SUPPORTING FACILITIES  
SIDE INCOME  
MAIN INCOME

The performing arts center has different spaces to house various activities and generate income:

There are spaces non-profit but are supporting programme that attract users and sustain the building, such as studio for musical training and patients, music library and music kiosk as sharing area for the public, study lounge for the students and ampitheatre by the river for busking activities and free performances.

The profit from restaurant, lounge bar and retail shop are side income to sustain the building. Besides that, membership fees from spa and music therapy treatment are supporting income as well. There will be kiosks along the lane reserve ready to be rent for commercial purpose too. Accommodation are prepared as well for artists at a reasonable rate.

The 250 seats theatre which play musical shows is the main source of income. There are temporary small theatre which turn from studio able to house 30 occupants to be rent occasionally for shows too. Both theatres are able to rent for private functions as well.

### 2.3 CLIENT AND STAKEHOLDERS

These are the potential client and stakeholders for the project:



#### I. Ministry of Tourism and Culture Malaysia

The proposed building is likely to contribute to Malaysia's tourism sector as it collaborates with river of life programme, encourage waterfront development, sharing a same vision and achieving a common objective which is revitalize river front, establish landmark and hence promote economic growth.



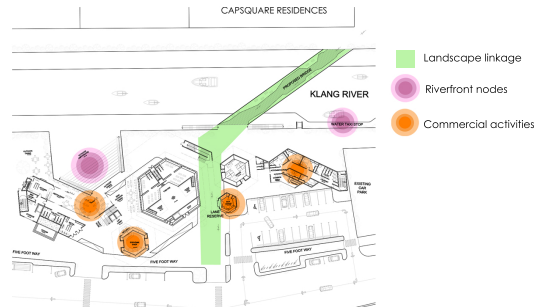
#### II. Malaysian Philharmonic Orchestra (MPO)

The proposed building can be a sub performance venue of MPO for light instrument musical shows and training venue as well. MPO is actively involved in outreach activities that focus on helping the wider community in appreciating and enjoying music, as well as providing a platform for music therapist associates.

Marketing and advertising of the programme can be promote through MPO box office as it is acknowledged by public and has fixed user groups. MPO can provide technical support for TPAC as well.

## 3.0 DESIGN SUITABILITY

### 3.1 RIVERFRONT DESIGN STRATEGY



GROUND FLOOR PLAN NTS

The therapeutic performing arts center emphasize on developing a successful riverfront to bring in the users. The following are strategies to develop a successful river promenade along Klang river at the selected site:

#### I. An active and viable riverfront

Having **large opening** or fenestration towards riverfront to ensure **maximisation of views** of the riverfront and viewing experience integrating riverfront activities. For commercial activities such as restaurant and box office, both having **double frontage**, approach riverfront and streetfront to ease of access.

#### II. Landscaping

The master plan defines the public domain through proposed **pedestrian link bridge** that connect the Capsquare residences visually and environmentally. The landscape elements temper the outdoor environment and create a series of **integrated outdoor spaces** which eventually link to the selected site. The landscape is essential for shade within the tropical environment creating an ambience for **pedestrian encouragement**.

#### III. Live, work and play place

A balanced community of both permanent and tourist population will ensure a vibrant population. The accommodation block in the building provided basic **facilities** for the tenants, coupled with the **provision of entertainment and food and beverage**, is believed to bring in more tourists to the area in the future.

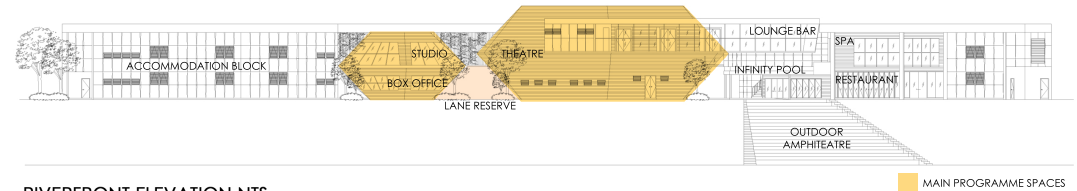
#### IV. Communal spaces and public realm

The scheme encapsulates **public open space** containing community and social activities. The performing arts center is activated by retail, restaurant and food kiosks. The space contains the provision for carnival and outdoor theatre and **entertainment** as well as being a **transport node** for water taxis and water transport.

#### V. Establish new urban identity

The riverfront promenade containing a range of **landscape** experiences, the lane reserve which containing **community focus** and the **water transport** have been designed to establish a new identity for Jalan Ampang as well as emerging nodes and **landmark** for the locals and tourists.

### 3.2 DESIGN AND SPATIAL PLANNING



RIVERFRONT ELEVATION NTS

MAIN PROGRAMME SPACES

#### COMMERCIALLY VIABLE MASSING STRATEGY

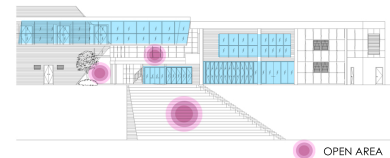
The **solid and void** effect between hexagonal facade and lane reserve has direct users walk into it. The protruding part of the facade created an impression of **entrance for lane reserve**. The void allow **visual linkage and permeability** into it. Trees are plant along the lane to enhance vista.



Users from water taxi or link bridge have opportunity to **pass through box office and theatre** while walking along lane reserve. Hence the placement of spaces is commercially viable. The lane reserve has various kiosks that sells food and beverage and allow other **commercial activities**.

#### OPEN SPACES AND MAXIMIZATION OF VIEWS

As shown in the diagram, openings towards river are made large, to allow visual linkage and to appreciate the river promenade view.



There are several open spaces in the building for communal activities. The open areas are visually and physically permeable, allow users in the building embrace the river promenade.

#### RESIDENCE BY THE PROMENADE

The accommodation block sits along the river promenade is able to enjoy the views and also activities. For privacy purpose, openings are made of operable louvers.

## 4.0 MAINTENANCE STRATEGY

The therapeutic performing art center has a lot of open public spaces and programme spaces. To deliver a quality service that ensure conducive and comfortable environment for music and nature appreciation, maintenance strategy are vital. Below are the maintenance strategies:

### I. Preventive Maintenance

Having routine check and clean on equipments to prevent problem from occurring and mitigate the consequences of the equipment failure.

### II. Corrective Maintenance

While the equipment fails, corrective maintenance has to be carry out for to identify the fault and maintenance work are to be done in order to restore the equipment's function.

Both preventive and corrective maintenance are equally important for external and internal building spaces to ensure the performing arts center operates well.

### 4.1 INTERNAL MAINTENANCE

ITEM	OBJECTIVE	RISK	MAINTENANCE	
			METHOD	FREQUENCY
<b>Electrical Services</b>				
(I) Power outlets	Ensure no electrical failure	Electrical leakage might	Check	Daily
(II) Switches	Ensure switches are functioning	jeopardize people's life	Repair	When necessary
<b>Water Services</b>				
(I) Water fixture	Ensure clean water supply	Leakage of pipe might damage	Check	Weekly
(II) Sanitary fittings	No water leakage	acoustical equipments	Clean	Weekly
(III) Plumbing & piping			Repair	When necessary
<b>Vertical Transportation</b>				
(I) Fire staircase	Ensure smooth flow of circulation	Blockage at exit route cause	Check	Daily
(II) Lift	Ensure clearance of escape route	safety problem	Repair	When necessary
<b>Fenestrations</b>				
(I) Door & window	Ensure doors & windows are functioning well (for accessibility and safety)	Might cause security & privacy problem Discomfort in human perception	Check Repair	Weekly When necessary
<b>Facilities</b>				
(I) Furniture	Ensure smooth flow of activities	Human discomfort	Check	Daily
(II) Sound equipment		Bad impression for visitors	Repair	When necessary
<b>Indoor comfort</b>				
(I) Hygiene and cleanliness	Ensure human comfort	Bad impression for visitors	Clean	Daily

### 4.2 EXTERNAL MAINTENANCE

ITEM	OBJECTIVE	RISK	MAINTENANCE	
			METHOD	FREQUENCY
<b>Greeneries and landscape</b>				
(I) Plantation	Ensure plantation grow well	Bad impression for visitors	Watering Trimming	Daily Weekly
(II) Outdoor cleanliness	Ensure clean outdoor spaces		Clean	Daily
<b>Rainwater harvesting system</b>				
(I) Collection tank	Ensure cleanliness of tank	Contamination of water due to rubbish	Check	Weekly
(II) Ducts and pipes	Ensure ducting function well		Clean Repair	Daily When necessary
<b>Shading devices</b>				
(I) Louvers (II) Façade shading devices	Prevent dusting and ensure it is operable	Bad impression for visitors Ventilation discomfort	Clean Check Repair	Weekly Monthly When necessary
<b>Exterior wall</b>				
(I) Brickwall (II) Curtain wall	Prevent dusting and growing of fungus	Bad impression for visitors Hygiene problem	Clean	Twice a year
<b>Service area</b>				
(I) Telecommunication room (II) M&E room	Ensure services are in well condition in case of emergency	Faulty services Disrupting of activities	Check Repair	Weekly Monthly

## 5.0 RISK ANALYSIS AND MITIGATION STRATEGY

### 5.1 SUCCESS CRITERIA



To achieve the project's goal, below are the criteria needed to be considered:

#### I. Quality

To fulfill customer satisfaction, quality is the most vital in success criteria. **Workmanship** during construction phase have to be maintained to ensure **aesthetic** and designed quality of the building. Every **building details** needed to be take note, example: **Outdoor facilities** such as parking facilities for car and bicycles, link bridge have to be ensured high accessibility for users.

Besides customer satisfaction, the project's quality can be graded by **GBI index** too. The design strives to get atleast 50 points to be certified. **Low embodied energy materials** are being used, **natural ventilation** are encouraged in the building by having many fenestrations to lower the energy efficiency. There are some **sustainable feature** such as rainwater harvesting system being embarked in the building too. This is to ensure **human comfort** in the building and to **lengthen the building's life span**.

#### II. Cost

The preliminary estimation of the budget is roughly 7.5 million. The therapeutic performing arts center is partially funded by **government** (Ministry of tourism and culture Malaysia) and **PETRONAS** (MPO stakeholder). The proposed budget is sufficient to complete the project by **minimizing construction errors and defects** and **avoiding wastage of building materials**. Besides that, the estimated cost can be reduce by using **IBS system on modular building components** and thus cutting on labour cost.

#### III. Time

The estimated time taken for the project to complete is about 1 year, the estimated completion time falls on June 2016. Each tasks are to be carry out strictly following Gantt chart to avoid delay.

### 5.2 RISK ANALYSIS AND MITIGATION STRATEGY

The risk analysis are done base on 3 different phase, preconstruct, construction and operational phase of the building. Mitigation strategies and contingency plan are stated to avoid or reduce the damage of failure.

RISK	LIKELIHOOD	SEVERITY	IMPACT	MITIGATION STRATEGY	CONTINGENCY PLAN
<b>PRECONSTRUCT PHASE</b>					
<b>Disapproval of design by client</b>	Medium	High	Client refuse to fund Disapproval of project	Discussion sessions with clients to achieve common target for both party	Compromise ,change proposal and request approval from client again
<b>Miscommunication between architects and consultant</b>	Low	Low	Delay of work schedule	Clearer drawing convention and details To refer minutes	Internal discussions and meetings
<b>Design is not approved by authority</b>	Low	High	Disapproval of project	Fulfil the requirement of local authority Prepare more detailed drawings	Strictly follow authority's guidelines To be submitted again for approval
<b>CONSTRUCTION PHASE</b>					
<b>Delay of workschedule due to climatic change</b>	High	Medium	Affect the work schedule of completion	Apply permit for additional work at night	Reschedule timeframe Re-establish project cost
<b>Poor storage of building materials</b>	Low	Medium	Building materials might get stolen/damage/ cause wastage	Temporary structure for material storage with weather protection	Increase budget for additional construction materials
<b>Cost increment due to inconsistent transportation fees</b>	Medium	Medium	Affect budget estimation	Plan and fix contract agreement with the dealers for the price rate until the construction work is deliverable	Increase the budget to comply with the increase of charges
<b>OPERATIONAL PHASE</b>					
<b>Lack of interest of stakeholder to invest</b>	Low	High	Center unable to sustain	Proper planning of programmes to convince stakeholders	Control financial funding and apply loan
<b>Lack of tenants for programme spaces</b>	Medium	High	Center unable to sustain	Marketing and advertising strategy to publicize the building	Introduce free programmes to attract public
<b>Disaster occur in building (Fire accident etc)</b>	Low	High	Safety issues of users Property loss	Fire prevention equipments and strategy re incorporated into the building design	Insurance to cover the losses as much as possible

