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DESIGN PROPOSAL FOR THE ENHANCEMENT OF THE RECTORY BUILDING GRAND STAIRCASE ARCHWAY AND THE SULTAN HAJI AHMAD SHAH MASJID UPPER COURTYARD, GOMBAK CAMPUS, INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

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ABSTRACT

This research studies the current IIUM Rectory Building's Grand Staircase Archway and the Sultan Haji Ahmad Shah (SHAS) masjid's upper courtyard as a development project. The development project objective is to propose a design that will make IIUM's main staircase the primary access and circulation to the rectory building and the SHAS masjid's upper courtyard. The research commences by identifying pertinent design issues of the two (2) areas and eventually proceeds with the proposed design to enhance the function and features of the areas. The concept and philosophy of the design are based on the mission and vision of IIUM to reflect the institution's seven (7) values. The architectural aspects of this project are infused in the design that manifests the SDG goals' aspirations appropriate to the physical environment of the IIUM campus. The design proposal as the research outcome exhibits a welcoming and people-friendly design that reflects the multicultural value of IIUM.

Keywords: Design, Rectory Building, SHAS Masjid, Archway, Courtyard, IIUM Vision and Mission, SDGs
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RESEARCH / PROJECT INTRODUCTION

The nature of the research project is to study the existing IIUM Rectory Building and transform the Rectory main staircase grand archway and the Sultan Haji Ahmad Shah (SHAS) masjid's upper courtyard as the ideal initial introduction to the IIUM campus with a celebrated entrance to the rectory building leading to the SHAS' Masjid. The idealisation of the idea and concept requires design intervention of the current layout of the two areas to create a direct linear axis connecting the spaces and allow people to enter and experience a unique and memorable environment. Currently, the linkage of these two areas is not celebrated and is simply in "Entry and Exit" mode. The entrance is unfriendly and not frequently used by the IIUM community and visitors due to the nature of the Rectory building, which is formal and forbidding rather than a public space.

The IIUM grand staircase of the Rectory Building as viewed in figure 3 is commonly used as an instagramable picture frame point by the IIUM community and visitors visiting the IIUM Gombak campus. However, it is observed that most people will divert to other pathways to reach the SHAS Masjid instead of going through the archway entrance of the Rectory Building.

The SHAS Masjid's courtyard is the central courtyard on the campus, considering its centralised location, size and design features compared with other campus courtyards. Re-designing these areas is vital as a means to re-assess and enhance the function of the place as the designated main path to the SHAS Masjid. The design aims to transform the grand archway to be more celebrated and welcoming. The design provides visitors with a better experience in their journey to the upper courtyard at SHAS Masjid. Direct access and direct line of view of the SHAS Masjid from the grand archway thus displays the Masjid as the focal point of the campus. The concept thus underlines the characters and values imbued with notions aspired by the seven (7) missions and visions of IIUM.

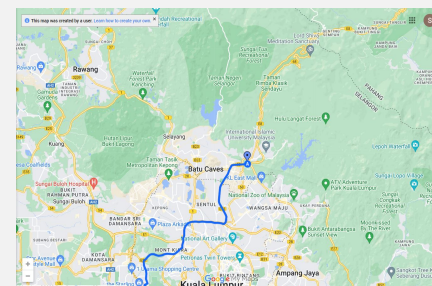


Figure 1: Key Plan Showing IIUM Campus in Gombak, Selangor
NOT TO SCALE
Source: Google Maps



Figure 2: Location of IIUM Rectory Building and Sultan Haji Ahmad Shah Masjid in IIUM Gombak Campus.
<https://www.alamy.com/stock-photo/iium-gombak-campus.html?sortBy=relevant>



Figure 3: The Rectory Building Grand Staircase and Archway in axis to the IIUM water fountain as the entrance gateway to IIUM Campus.

The method used in this project is qualitative comprises of literature search and review and site inventory and observation work.. analysis and studies as literature reviews on staircase, archway, courtyard and mosque. The primary data is analyzed in form of site analysis and supported by the secondary data from the literature search and case studies in its synthesis.. The outcome is translated and presented in forms of report, 3D model and drawings and diagrams presentation.

CONCEPTUAL PROCESS, PROCEDURE AND SCHEMATIC

The focal point of the IIUM Gombak campus is Sultan Haji Ahmad Shah Masjid. The Masjid serves as the campus's heart and the IIUM community's spiritual core. Therefore, it is imperative and became the objective of the task to transform the site (the Rectory Building Staircase and Grand Archway as well as the Upper SHAS Masjid Courtyard) to be directly accessible to the public as public spaces of the campus. In the context of the IIUM multicultural community, the proposed design is a robust platform to promote and encourage social interactions among different groups of people that will strengthen their friendship and lead towards creating a better and greater *Ummah* of IIUM.

DESIGN CONCEPT

'Pertala' is the concept of the proposed design. "Pertala" in Malay's classic definition means layers, i.e. in referring to the nature of the culture, which consists of several layers representing nature and the 'ilm or knowledge of the IIUM community. The abstraction of the layers as mentioned shall be referred to figure 4 that demonstrates the sequence of layers based on its importance. The concept was derived from the issue based on findings made through observations that the campus needs a good gathering area for the IIUM community to have social interaction among its multicultural community. Therefore, the proposition of a platform or space to promote multicultural interaction and integration is deemed important towards strengthening the Islamic and culturally sustainable identity of the IIUM campus.

The nature of culture can be further distinguished into three layers:

- I. Outer layer represents the visual reality of people
- II. Middle layer refers to the norms and values of a community.
- III. Inner layer is the level of complete cultural knowledge implicit in understanding the core of the culture.

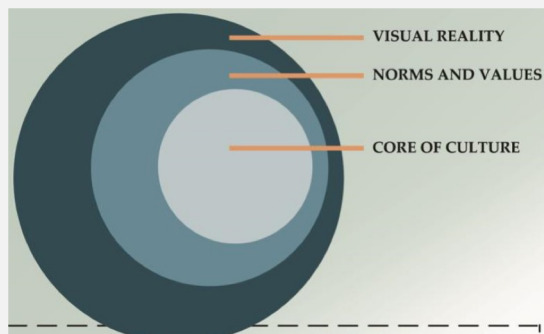


Figure 4: Diagram showing the meaning of layers in Pertala Concept

DESIGN STRATEGIES

The "Pertala" concept contains three layers of design strategies, i.e. Adapt, Evolve and Sustain.

Table 1: The Pertala concept

ADAPT (community enhancement)	<ul style="list-style-type: none">• Building adapt to the local culture• Able to adjust to meet different needs
SUSTAIN (islamisation)	<ul style="list-style-type: none">• Encourage interaction between living organisms and environment
EVOLVE (sustainable Environment)	<ul style="list-style-type: none">• Building serves as energy consumer to energy producer

In addition to that, the built environment needs to consider and allow flexibility for all, including people with disabilities, to adapt based on their needs and differences. In that respect, the proposed design of this project strived to fulfil the needs of the IIUM community and enhance their experience on campus. The proposed design of the Grand Archway and Masjid Upper Courtyard shall adopt the universal design approach of inclusivity to allow full access to these places by all on the campus. All these are design strategies as summarized in figure 5 and are embedded in the design concept of “Pertala” for a results that will improve people’s experience at IIUM.

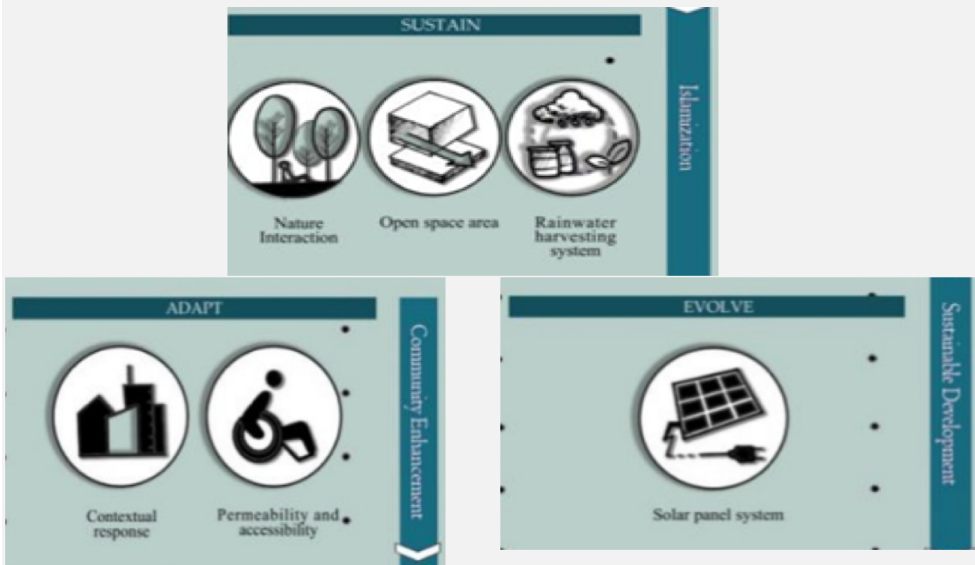


Figure 5: The design strategies of Pertala

CASE STUDIES

WAYFARERS GLASS CHAPEL IN PALOS VERDES BY FRANK LLOYD WRIGHT

Wayfarers Glass Chapel, Palos is also named 'The Glass Church' in Rancho Palos Verdes, California. The site is on the Pacific Ocean cliffs, commonly known for its organic architecture. The place functions as a religious institute with a modern style of architecture. The Chapel features a geometric design that embodies the essence of the natural features of the surrounding. The design features integrate internal spaces and external natural surroundings by opening and creating green spaces inside. The floor's diamond shape layout is seen as a reflected plan of the patterns on the glass ceiling, creating a 'live chamber' atmosphere.



Figure 6: Wayfarers Glass Chapel, Palos
<https://www.atlasobscura.com/places/wayfarers-chapel>

TAJ MAHAL, INDIA

This immense 'tomb' of white marble is the jewel of Mughal architecture in India. The place is a globally visited site and one of the world's heritage masterpieces. It features Indo-Islamic architecture beautified by solid and void spaces, concaves and convex forms, and light shadows with arches and domes complementing the design aesthetically. The design emphasises the bilateral symmetry along the central axis on which the main features are placed.



Figure 7, Taj Mahal, India
<https://whc.unesco.org/en/list/252/>

CENTRAL PARK, NEW YORK CITY

This public park is located in Manhattan Island, New York. The idea for this public park is to create an environment that captivates the urban side of the city and make the city life better for all. The park is filled with vast variety of landscape gardens in forms of creative articulated layout to provides unique spatial and visual experience when navigating.



Figure 8 Central Park, New York
<https://www.architecturaldigest.com/story/architect-new-yorks-central-park-incredibly-unexpected-legacy>

RESEARCH / PROJECT FINDINGS

1. Fountain and plaza

- To lower the height of the water fountain to create an unobstructed view towards the archway at the Rectory building.
- To install a series of lamp posts along the plaza to create a tunnel-like mood and direct people to the rectory building.

2. Archway and Rectory building

- To make an extension of the archway to create a welcoming mood and sense of tunnel for its user
- To Replace the tower facade with glass to allow maximum daylight penetration into the tower staircase
- To Remove the bridge on the second floor of the rectory building to create a clear visual line of the SHAS Masjid.

3. Courtyard

- To transform the ground floor into double volume space and allow direct visualisation of the upper floors.
- To add an additional staircase connecting the ground floor and first-floor lobby
- To add a new staircase directly connecting the ground floor level with the external courtyard.

RESEARCH / PROJECT FINDINGS

PROPOSED DESIGN

SPACE PLANNING

The space planning is comprises of three main space which are at the archway, the office lobby and the courtyard. These spaces have their own zoning. The staircase to the archway and courtyard is public spaces for everyone to access while at the office is private where only the IIUM staff can access.

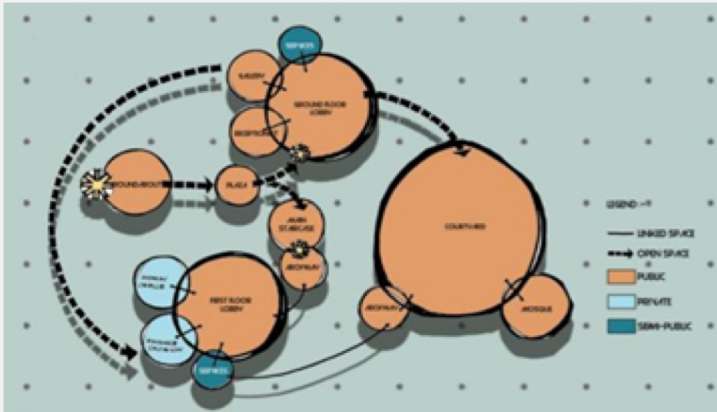


Figure 7 Bubble Diagram

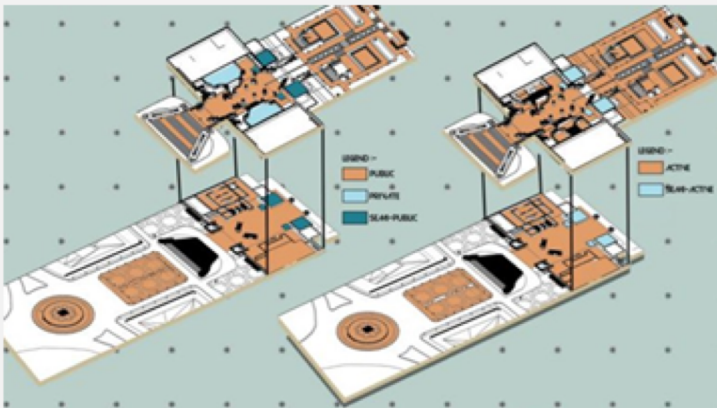


Figure 8 Zoning

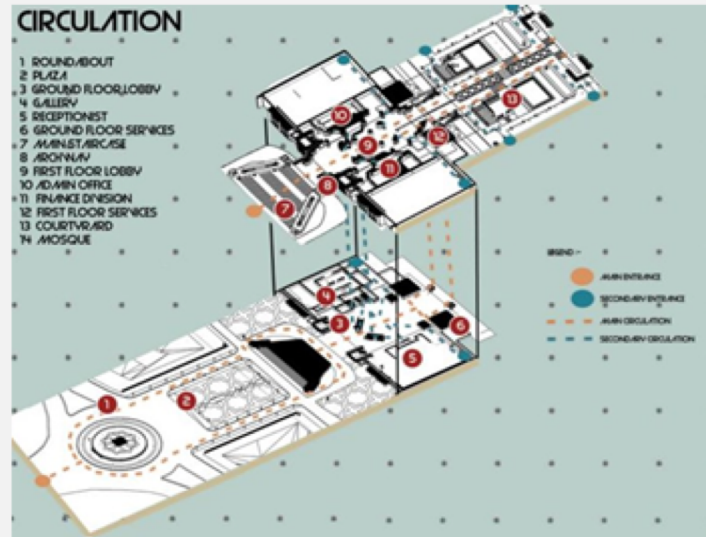


Figure 9 Circulation

MASTERPLAN

Six major spaces that are shown in the masterplan. 1) Roundabout, 2) Plaza, 3) Main staircase, 4) Archway, 5) Courtyard, and 6) Mosque. the site surrounded by buildings which are IRKHS, celpad building, and the mosque itself. right now, at the first came the water fountain is blocking view to the grand staircase and rectory. also the existing plaza was not function as it should be. the plantation have small canopy so it is not functional as shading device. and the other hand the water after rain cannot be absorbed by the greenery there.

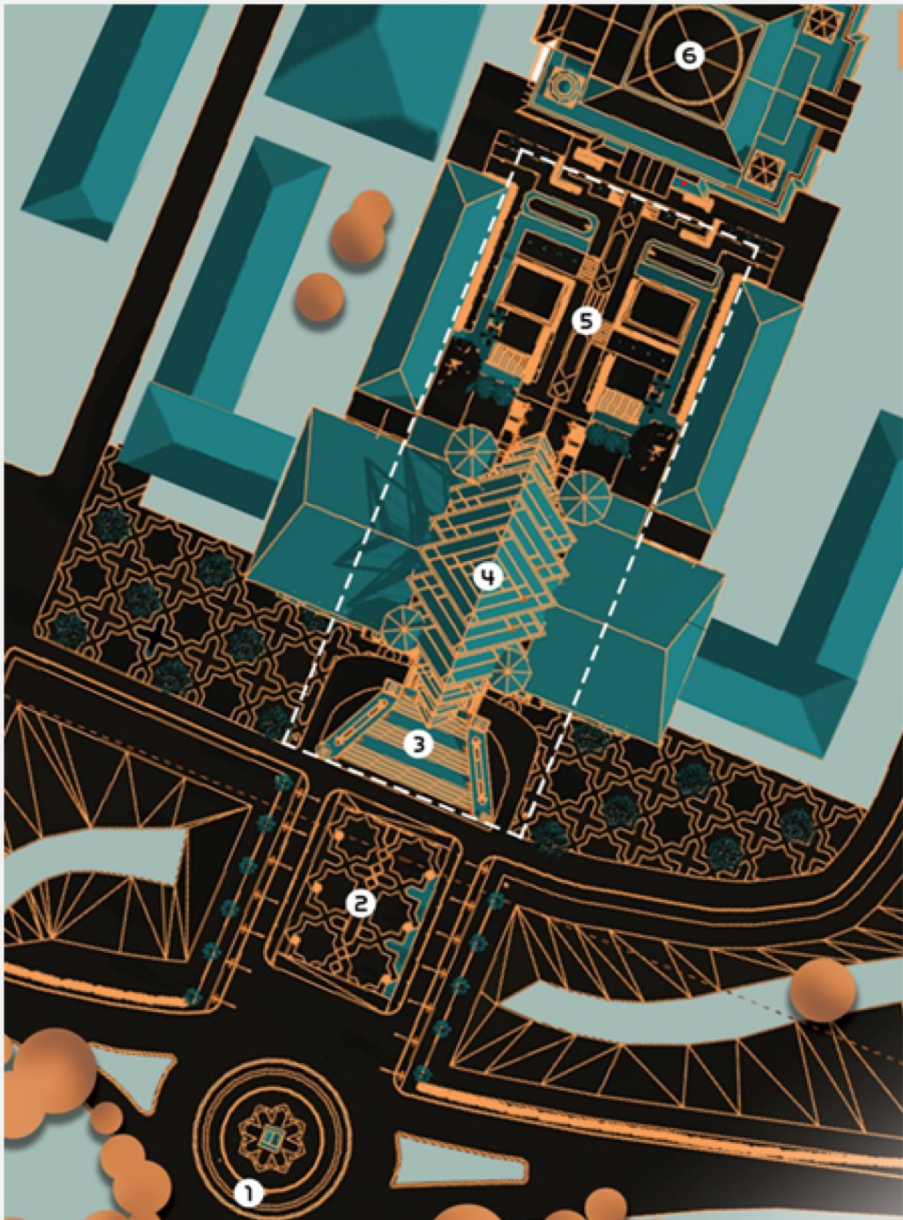


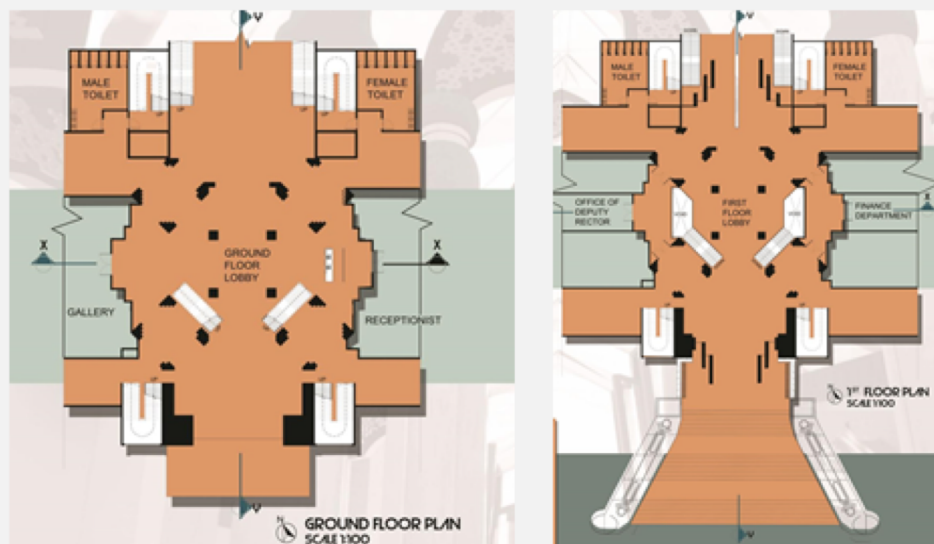
Figure 10 Master plan

DETAIL DEVELOPMENT

The office building that is located in the rectory building consists of 4 floor. The ground floor connected to the plaza and gallery. The fourth and fifth floor is connected by the bridge to make the access for the disable person without using lift.

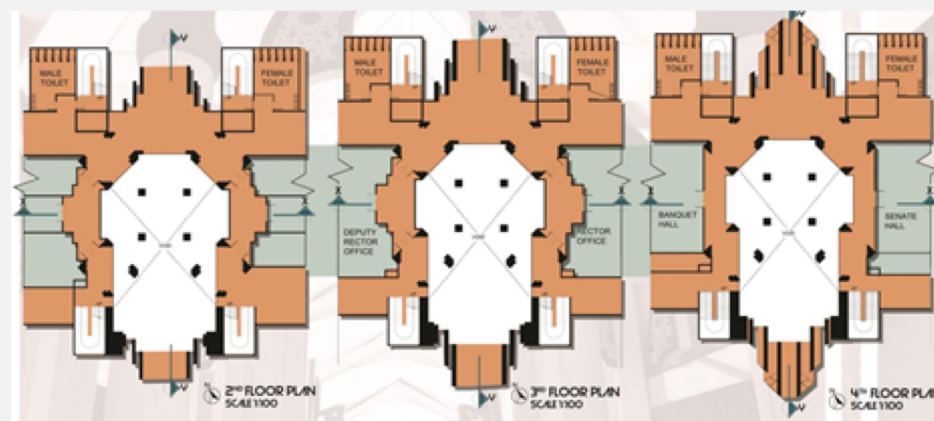
The lobby area is connected to the main staircase and upper courtyard of SHAHs Mosque. Therefore, it is needed to expose the middle area and replace the water fountain so that the circulation is not disturbed. The dynamic shape shows harmony in every corner of the area and maximizes the function.

Moreover, the lobby area previously did not function optimally because of there are reflective glass that borders the grand staircase area with the upper courtyard of SHAHs Mosque. This design gives an impression that expands modern while still blending with other IUM buildings so that it can be harmonize.



Ground floor plan

1st Floor plan



2nd Floor plan

3rd Floor plan

4th Floor plan

Figure 11 Master plan

PLANTING CONCEPT

Garden Luminate

Concept developed by a rich and abundant planting design scheme. It provide the backdrop for a mix of hardy softscape, evergreen shrub and ground cover. Plant can give more than one function and can create harmony towards the site.



Figure 12 Planting plan in front of grand staircase



Figure 13 Planting plan at the courtyard

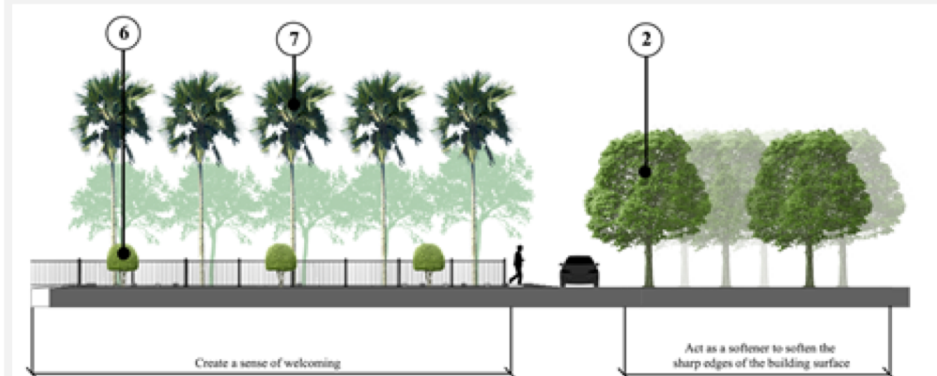


Figure 14 shows section of courtyard showing royal palm as a sense of welcoming and act as softer to the building surface

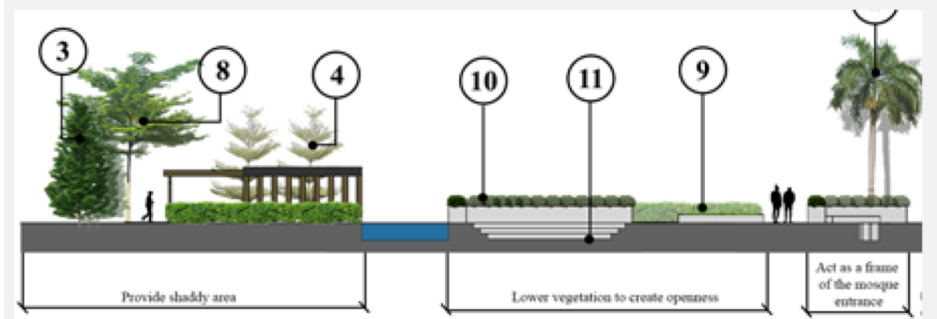


Figure 15 shows section of courtyard the trees as shady area and lower vegetation act as opener and frame to the mosque entrance

Figure 10 Master plan

DETAIL DESIGN

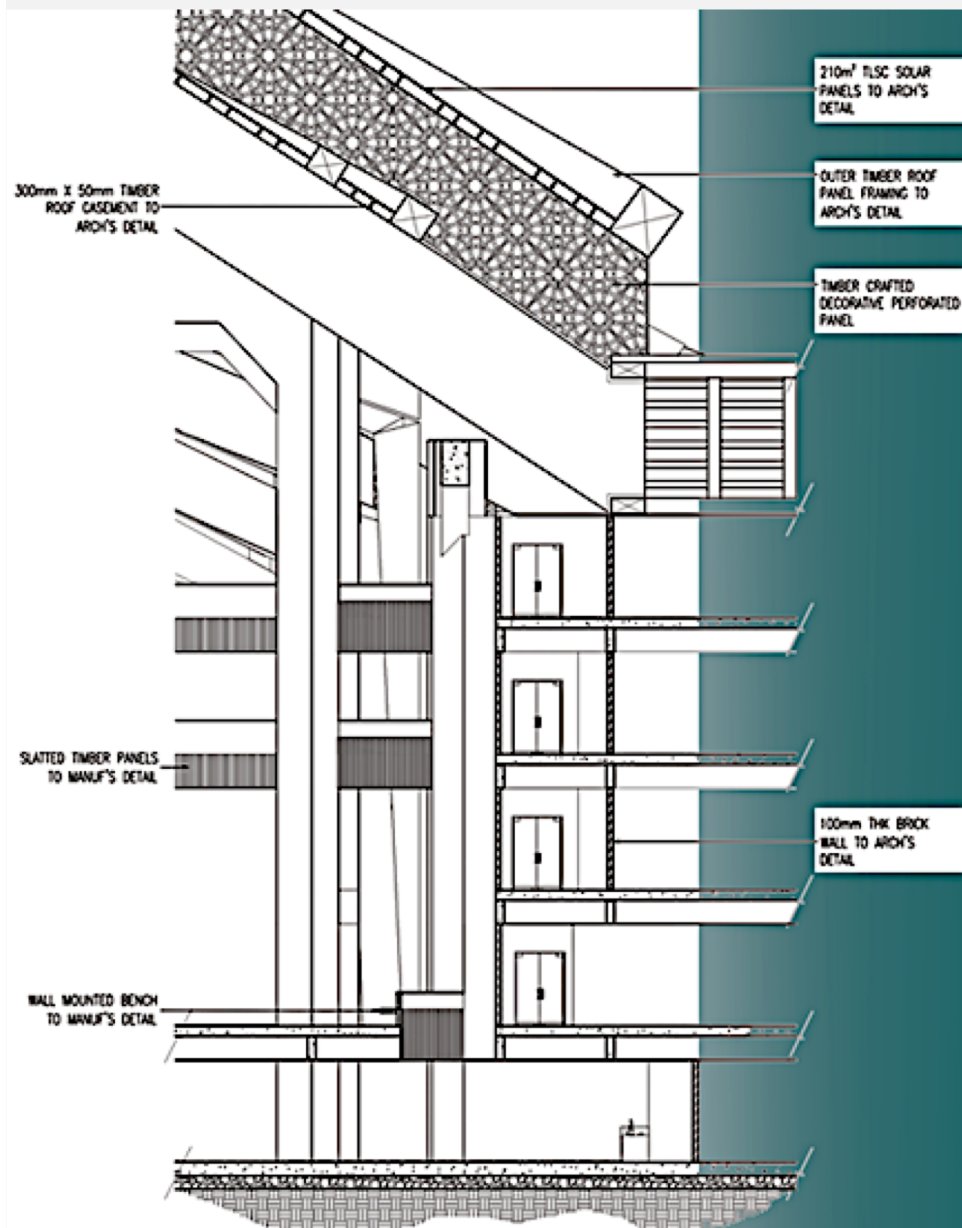


Figure 16: Details of the new roof Construction

The roof structure as shown in figure 16 is constructed using several different materials, each serving a functional purpose. Composition of all components formed and enhanced the aesthetic aspect of the design. Transparent solar glass panels are used as top roof layers to utilise and harness the natural source of solar radiation and convert it into electrical energy. Since the roof is lightweight, the load is transferred to the beams and columns of the existing structure.

CONCLUSION

SHAS Masjid is both the social and spiritual heart of IIUM. Therefore, based on the concept "Petala", which has resulted in a design that provides a direct view towards the majestic appearance of the Masjid from the entry point of IIUM in general and the Grand Archway at the Rectory Building in particular, conveys the strength, identity and vision of the campus as stipulated in its seven missions doctrine and the acronym triple I'Ce visions representing Integration; Islamisation; Internationalisation; and Comprehensive Excellence.

In addition to that, the new design and refurbishment of the masjid courtyard shall enhance the place's function. The new welcoming and friendly layout and implementation of new sustainable architectural and landscape features of the place may increase its sense of appeal and attractions among the IIUM community leading towards more active cultural interaction and activities conducted at the place from time to time.

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