



TAYLOR'S UNIVERSITY

Wisdom • Integrity • Excellence

SCHOOL OF ARCHITECTURE, BUILDING AND DESIGN

BACHELOR OF SCIENCE IN ARCHITECTURE (HONS)

BLD 60903 BUILDING SERVICES

PROJECT 1

CASE STUDY: SUMMIT USJ

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1.0 Introduction

This report is based on our research from a case study about building services systems in Summit USJ Mall. We were to visit our chosen site and do an in-depth analysis in different areas of building services which includes mechanical ventilation, air-conditioning, fire protection system and vertical transportation system.

Building services are intricate systems installed in every building to and plays a huge part in comfortability, functionality, effectiveness and safety. In addition to that, the services also affect the overall design of the building, such as the structures, spaces and facades. To achieve a standard among all the the different buildings in Malaysia, installation of the services have to follow requirements in UBBL (Uniform Building By-Law) 1984. To prevent any inconsistency, the government constantly monitors every buildings, from the design stage, to the construction stage and continues monitoring the buildings even when they are operating. Fulfilling the UBBL while constructing the building services will ensure that a building is safe and efficient, while strengthening the life cycle of a buildings.

1.1 Acknowledgement

We are extremely grateful for the support given by the administration of Summit Mall throughout our visit, who provided us an extremely detailed tour to their building administrations services, such as mechanical transportation, mechanical ventilation, air-conditioning system and fire protection system. We are thankful as the staffs explained the systems to us, point by point, to help us better understand the service systems. It was a great opportunity as we were able to expose ourselves to the real things, rather than just pictures, which further helps us on the understanding regarding different aspects in building services systems as well as remembering the informations.

In addition to that, we would like to extend our appreciation to everybody who assisted us throughout the project.



1.2 Project Objectives

- Identify the building and all the required services components.
- Organize a visit to chosen building and study the services systems, which include:
 - mechanical ventilation
 - air-conditioning system
 - fire protection system (active and passive fire protection system)
 - mechanical transportation system
- Obtain estimated dimensions and sizes of the required for all the equipment and plant rooms.
- Provide an explanation on how the building services component function.
- Summarize the systems in diagrammatic form.

1.3 Project Outcomes

- Able to identify and understand the function of the services and their components.
- Understand the usage of UBBL in each system and its importances in building construction.
- To learn to deciding the optimum solution of protection for each service systems.

2.0 Introduction to Summit USJ

The Summit is considered as one of the biggest retail shopping centers at its starting in year 1999. It is situated inside one of the business regions of UEP Subang Jaya and one of the real townships in the Klang Valley. In spite of the fact that the number of inhabitants in the shopping center started to diminish because of other bigger shopping centers, for example, One Utama, Mid Valley Megamall and so on begun to develop adequately, the Summit is as yet a prevalent historic point of the townships, Klang Valley.

The Summit USJ is an incorporated business complex which makes out of a 13-story office tower and 17-story lodging tower, both situated on top of a 6-story retail platform. It has a retail space of 599,474 square feet which gives offices, for example, free brought together aerating and cooling, 24-hour security, CCTV, cafeterias and secured storm cellar stopping straights. The shopping center has kept a high inhabitants rate during the time since its starting. It offers different practical and unobtrusive stock, incalculable decisions of restaurant and in addition amusement outlets. In addition, it is effortlessly available to numerous famous spots by means of a few interstates, for example, North Klang Valley Expressway (NKVE), New Pantai Expressway (NPE) and LDP. There are transports, taxicabs and prepare stations found close-by too.