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UNIVERSITI
TEKNOLOGI
MARA

ECS 358

CIVIL ENGINEERING DESIGN PROJECT

REINFORCED CONCRETE BUILDING DESIGN PROJECT

&

PROJECT BASED LEARNING

(CASE STUDY)

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ACKNOWLEDGMENTS

Praise be to Allah SWT the Almighty and the All Merciful, who has given us, the powerless creature, His guidance so that we can smoothly finish our final year project of double storey terrace house as the requirement for the diploma civil engineering.

First, our gratitude sincerely goes to family who always give us support and dreams to be the excellent students. Our second gratitude belongs to our ad-visor Sir Mohammad Hazizi bin Jamal who has patiently trained and taught us to be the real researcher along this 14 weeks.

In addition, we would like to thank to our other lecturers that taught us and all of statistics student who have contribute and sharing the knowledge with us. We realize truly that this final year project needs the constructive criticism to be remarkable research findings.

1.1 Introduction

This chapter gives a brief overview about the project that have been conducted. In this chapter, the subtopic will be the requirement Building by Law and Fire Resistance Regulation that need to be follow and understand by the engineer before construct a building. After that, followed by the architecture drawing and some of simple background of the project. Then the design parameters and weights of materials used in the building also will be include in this chapter.

1.1.1 Project Background

In this assignment, we were assigned to do a complete design and report about double storey house by using architectural drawing of a project already built. This assignment was for individual task and must complete within 14 weeks with the guidance of a lecturer. For this project, I decided to choose a project managed by Daiman Development Berhad. This project was located at PTD 3700, Taman Daiman Jaya, Mukim Kota Tinggi, Johor Darul Takzim that proposed 117 double storey terrace houses. This project was proposed in July 2015. We must do manual calculation and use esteem software.

- **Compony history**

At Daiman Development Berhad (Daiman), they have seen more than four decades of purposeful, creative and caring property development through to the present with affordable homes for Malaysians and other nationalities. Listed on the Main Market of Bursa Malaysia on 29th September 1992, Daiman continues to chart its growth story.

- i. **1972**

Daiman was founded by the late Dato' Sri Tay Kia Hong, who came to this country as a young teenager from Swatow, China as it was known then. The late Dato' Sri Tay ventured in property development in early 1972 with the incorporation of Daiman Development Sdn Bhd, the predecessor firm of Daiman, and undertook its first project known as Taman Sri Tebrau over an area of 170 acres and comprising 1,720 units of residential houses and shops.

This was quickly followed by several other property development projects such as Taman Sri Skudai comprising 2,700 units of residential houses and Taman Sentosa comprising 2,600 units of residential houses throughout the 1970s with the acquisitions of significant land banks in the Johor Bahru area and in Kota Tinggi.

ii. 1983

In 1983, Daiman launched its largest project, Taman Johor Jaya – strategically located about 12 km from the Johor Bahru City at the junction between the Johor Bahru-Kota Tinggi and Johor Baru-Pasir Gudang highways. The project site, which covers 1,388 acres of freehold land, opened a new township with more than 17,000 residential, commercial and industrial units in 9 phases over a 15-year period.

iii. 1992

One of the main features of the Taman Johor Jaya township development is the Daiman Johor Jaya Sports Complex, spanning approximately 9.21 acres in the heart of the township and the first of its kind. It was completed in July 1992 and it still remains as the most comprehensive sports complex ever undertaken by a private developer in Johor Bahru. It is managed by Daiman's wholly owned subsidiary, Daiman Johor Jaya Sports Complex Berhad. It houses an Olympic-size swimming pool, 21 badminton courts, a multi-purpose hall, a gym, a coffee house and a club house. An 18-hole public golf course, known as Daiman 18, and managed by Daiman Golf Berhad, was also added to the development.

iv. 2001

In June 2001, a competition class bowling centre, managed by Daiman Bowl Sdn. Bhd. was added to Taman Johor Jaya township to provide the local and neighbouring communities with more sports and recreational activities.

v. 2011

In November 2011, another sports complex was completed at Taman Sri Skudai with 18 badminton courts and four futsal courts to cater for the sports and recreation needs of the residents at Taman Sri Skudai and the neighbouring developments. Named as Daiman Sri Skudai Sports Complex, it is managed by Daiman Johor Jaya Sports Complex Berhad.

In November 1993, Daiman acquired the entire equity of Atlantic Dynamics Sdn. Bhd. which owns a 447-acres piece of freehold agricultural land located diagonally opposite Taman Johor Jaya. The said property has since been turned into a vibrant residential community known as Taman Gaya.

In November 2011, Daiman Properties Sdn Bhd and Daiman Landmark Hotel Sdn Bhd both wholly owned by Daiman, completed the acquisition an office tower, a car park and a retail podium and an uncompleted hotel tower respectively, in downtown Johor Bahru. The entire building, known as Menara Landmark is being transformed into an iconic real estate and a prominent landmark in Johor Bahru.

vi. 2012

On May 28, 2012, Daiman Landmark Hotel Sdn Bhd signed a management agreement with Hilton LLC to provide development services and to operate the hotel for Daiman. The 336 bedrooms hotel under the brand name 'DoubleTree by Hilton', a four-star establishment, will receive its guests in mid-2014.

vii. 2013

On August 16, 2013, Daiman signed a joint venture agreement with Rainbow Crest Sdn Bhd and Everest Esplanade Sdn Bhd to form a 50:50 joint venture between Daiman and Rainbow Crest to develop a 12.3-acre land belonging to Daiman situated along Jalan Masai Baru. This venture is Daiman's first large scale integrated high rise cum commercial development.

- **Microsoft Project**

Microsoft Project is the world's most popular project management software developed and sold by Microsoft.

The application is designed to assist project managers in developing plans, assigning resources to tasks, tracking progress, managing budgets and analysing workloads.

Microsoft Project creates critical path schedules, although a critical chain third-party add-on is available from ProChain and Spherical Angle. Schedules can be resource levelled. The chain is visualised in a Gantt chart.

Resource definitions (people, equipment and materials) can be shared between projects using a shared resource pool. Each resource can have its own calendar which defines what days and shifts a resource is available. Resource rates are used to calculate resource assignment costs which are rolled up and summarised the resource level.

Each resource can be assigned to multiple tasks in multiple plans and each task can be assigned multiple resources. Microsoft Project schedules task work based on the resource availability as defined in the resource calendars. All resources can be defined in an enterprise resource pool.

Microsoft Project creates budgets based on assignment work and resource rates. As resources are assigned to tasks and assignment work estimated, Microsoft Project calculates the cost equals the work times the rate. This rolls up to the task level, then to any summary tasks and finally to the project level.

Microsoft recognises different classes of users. These different classes of users can have differing access levels to projects, views and other data.

Custom objects such as calendars, views, tables, filters and fields are stored in an enterprise global database, which is shared by all users.