DEPARTMENT OF BUILDING

UNIVERSITI TEKNOLOGI MARA

(PERAK)

BRICKLAYING WALL CONSTRUCTION FOR RUMAH BERKEMBAR 2 TINGKAT(ZERO LOT) AT TAMAN NURI PHASE 3B2

Prepared by:

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DEPARTMENT OF BUILDING
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
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(PERAK)
AUGUST 2021

It is recommended that the report of this practical training provided

By

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entitled

Bricklaying Wall Construction for Rumah Berkembar 2 Tingkat(Zero Lot) at Taman Nuri Phase 3B2

be accepted in partial fulfillment of requirement has for obtaining Diploma in Building.

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(PERAK)

AUGUST 2021

STUDENT'S DECLARATION

I hereby declare that this report is my own work, except for extract and summaries for which the original references stated herein, prepared during a practical training session that I underwent at Sri Pengkalan Binaan Sdn.Bhd. for duration of 20 weeks starting from 23 August 2021 and ended on 7 January 2022. It is presented as one of the BGN310 prerequisite requirements and recognised as a partial fulfilment of the Diploma in Building requirements.

…….

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Date : August 23, 2021

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ABSTRACT

A building's walls are one of the most significant structural parts. A play is made by a wall.Several functions play a role in the performance of a house, and these functions must be properly comprehended in order to design a suitable and comfortable structure as well as provide adequate security.Privacy can also provide as a form of weather protection. The purpose of this report is to discuss bricklaying work for the building's load-bearing wall.This report was conducted for The Construction of Rumah Berkembar 2 Tingkat(Zero Lot) at Taman Nuri Phase 3B2.The purpose of this report is to examine the construction of a load-bearing wall and how it was carried out. It will concentrate on the entire bricklaying wall construction process. It also investigates the machinery and equipment in the methods of bricklaying wall construction and determining the time spent for the purpose of construction This report will also look at the issue and solution in wall construction that meets the load bearing wall criteria

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INTRODUCTION

1.1 Background of Study

A load bearing wall in a structure is intended to sustain the vertical load right above the beam.A load bearing wall is most commonly seen in light construction methods such as houses and each load bearing wall sits on a wall plate that is mated to the lowest foundation plate.(Ramiz,2020) Majority of load bearing walls above grade required reinforcement to provide the flexural strength required as these masonry walls expand and contract due to temperature changes,load imposed by strong winds, and the weight of the wall itself.(M.Levy,2010)

Load bearing wall is a wall that is constructed to support the above slab or other building elements in structure and also supports the weight of the structure.(Ramiz,2020) The structure of the building's components will safely carry and transfer the weight to the ground.The structure ensures the building's stability and performance.(Arjun,2020) By conducting its weight to a foundation structure,a load bearing wall bears the weight of the elements above the wall resting upon it. (Ramiz,2020) The main load bearing structural elements are beam,columns,walls, braces and trusses.(Arjun,2020) Meanwhile,concrete,blocks or bricks are the most often used materials to construct load bearing walls in large building. (Ramiz,2020)

Load bearing walls theoretically consist of six types of wall such as precast concrete,retaining wall,masonry/brick wall,prepanelized load bearing metal stud wall, engineering brick wall and stone wall.For precast concrete walls,it constructed by casting in a reusable wall mold or form which is then cured in a controlled environment,transported to the construction site and lifted into place. (Rahman,2020) It will speed up the construction process.In load bearing wall units resist and transfer loads from other element and cannot be removed without affecting the strength or stability of the building.(Grudette,2016)

Meanwhile,retaining walls are vertical or near-vertical structures designed to retain material on one side,preventing it from collapsing,slipping or preventing erosion. (Constro,2020)The lateral pressure could be also due to earth filling,liquid pressure,sand and other granular materials behind the retaining wall structure. (Ramiz,2020)

On the other hand,masonry wall or known ad brickwall is typically site constructed (laid) using manufacted masonry units and site mixed moretar.(Richard,2016) The masonry units are held together by means of mortar which imparts strength and stability to the whole unit. (Arjun,2010) Masonry wall also can form structural elements such as bearing walls,columns,pilasters or the finished cladding system. (Richard,2016) The function of masonry wall is to transfer the load from the roof to the foundation. (Arjun,2010)

Moreover,prepanelized load bearing wall are rarely used in construction.It was a metal stud walls that support gravity,wind and seismic loading. (Ramiz,2020) It also known for built the cladding exterior wall in construction.The metals that can be used for pre panelized load bearing metal stud walls are aluminums,stainless steel and copper.

Furthermore,in construction where strength and resistance to water and frost attack are important,engineering bricks are used in such construction and through the top to the bottom,engineering bricks have a smooth finish with perforations. (Ramiz,2020) It specifically made to improve the technical and practical point of view rather than to improve the look of a building. (O'Connor,2018)
Last but not least, stone walls are made by stone and mortar without mortar which is known as a dry stone wall and these walls are mostly used for outdoor. (Ramiz,2020) This construction technique is used for building foundation, floors, retaining wall, arches, and wall sand columns. (Arjun,2020) Stone walls also can give a natural looks in construction and it also one of the most durable and strong building materials.

Masonry or brick load bearing wall is a popular construction around the world, due its many advantages.One of the advantages of masonry/ brick wall is it can improve fire protection for the building and its occupants because it was non-combustrible. (Muresan,2019) In addition,it has great sound proofing because it block out noise more efficiently than more traditional building material such as timber. (Kathir,2018) Next,it is also durable and resistant because it can with stand large amounts of compressive weight loads. (Muresan,2019) Finally,masonry/ brick load bearing wall units increase the thermal mass of a building and also have longer lifespans than any other building types (Muresan, 2019)

Theoretically,there are numerous types of load bearing walls. However, the purpose of this report is to learn about the masonry/brickwall process in construction.

1.2 Objectives

This construction has resulted in the development of several objectives, which are as follows;

1) To identify the methods of bricklaying wall process

2) To determine the time of bricklaying wall process

3) To identify the problem and solution in wall construction

1.3 Scope of Study

The scope of study has been carried out at Taman Nuri Phase 3B2 and located at Durian Tunggal,Melaka. The project had started in 30 September 2019 and will be completed on 28 February 2022. The construction is a construction of Rumah Berkembar 2 Tingkat(Zero Lot) and cost Six Hundred and Ninety Thousand Ringgit Malaysia
(RM 690,000.00). The project is currently on going. Therefore, the study's goal is to determine how the wall construction process for load bearing walls is carried out. As a result, the study will explain not only the method of wall bricklaying process, but also the benefits of stretcher bond in construction, wall finishes, and machinery and tools. This research also includes the problems and solutions. Nonetheless, the study does not focus on the quantity of labour or manpower, the costs, or the duration. There were three methods that needed to be carried out in order to complete the data, which were observation, interviews, and document reviews. Finally, all further explanations relating to the above method are provided below.

1.4 Methods of Study

1. Observation

Observation is a method of gathering facts through observation. The observation is about the load-bearing wall construction process, commencing with the bricklaying process and ending with the wall finishes. The average time spent on this observation is about 2-3 hours, however this is simply for the bricklaying procedure, which varies depending on the length of the wall. The length of the wall determines how long it takes to finish the bricklaying procedure. The bricklaying process took three weeks in total. Meanwhile, the wall finishes required 1 to 2 days per area of the wall because they need skill and must be done carefully, particularly around openings such as windows and doors. This meant that the entire finishing process for the interior and external walls took about 3 to 4 weeks. The progress of wall construction was documented with a smartphone and some notes over the course of 20 weeks.

2. Interview

The interview is one of the methods for gathering construction data by conducting a structured or semi structured interview with a project's trusted person. They were completed while conducting observations and performing work on the site. The interview was held with the company manager, who is also the contractor in charge of managing the project on the job site. This interview was also conducted with workers who were working on brick ties at the building site. Every week at the office, semi structured interviews with the contractor in charge of the project were performed, which lasted around 10 - 15 minutes on average. Short notes were taken during the semi-structured interview.

3. Document Review

There are several document reviews that are performed to collect information about the company. Document review is used to search on the company's history, organizational chart, drawing plan, list of names and house construction documents, pictures, and so on. The drawing plan is used as a reference while did an observation about the house. Besides, the picture used as a references in observation. It is also reviews about standard operating procedures (SOP), progress of the constructions, safety and health procedures. All the document review were obtained at the office.

CHAPTER 2.0

COMPANY BACKGROUND

2.1 Introduction of Company

Desa Johan Sdn.Bhd subsidiary company of Sri Pengkalan Binaan (SPB). SPB was founded and establish on 1981 by Datuk Yap Pit Kian & Datin Loh Ngook Chan. SPB started their business as small contractor and today SPB known as one of best housing developer and contractor in Malacca. By date, SPB already complete and sold about 5000 units house worth RM1.2 bilion. And today, SPB have 81 totals of employee with divided into few departments as marketing, construction, account, human resources, engineering, and development.

Figure 2.1.1 : Sri Pengkalan Binaan Sdn Bhd Logo

With increase of staff, every department posses their own manager or head of department (HOD) to making work flow smooth.

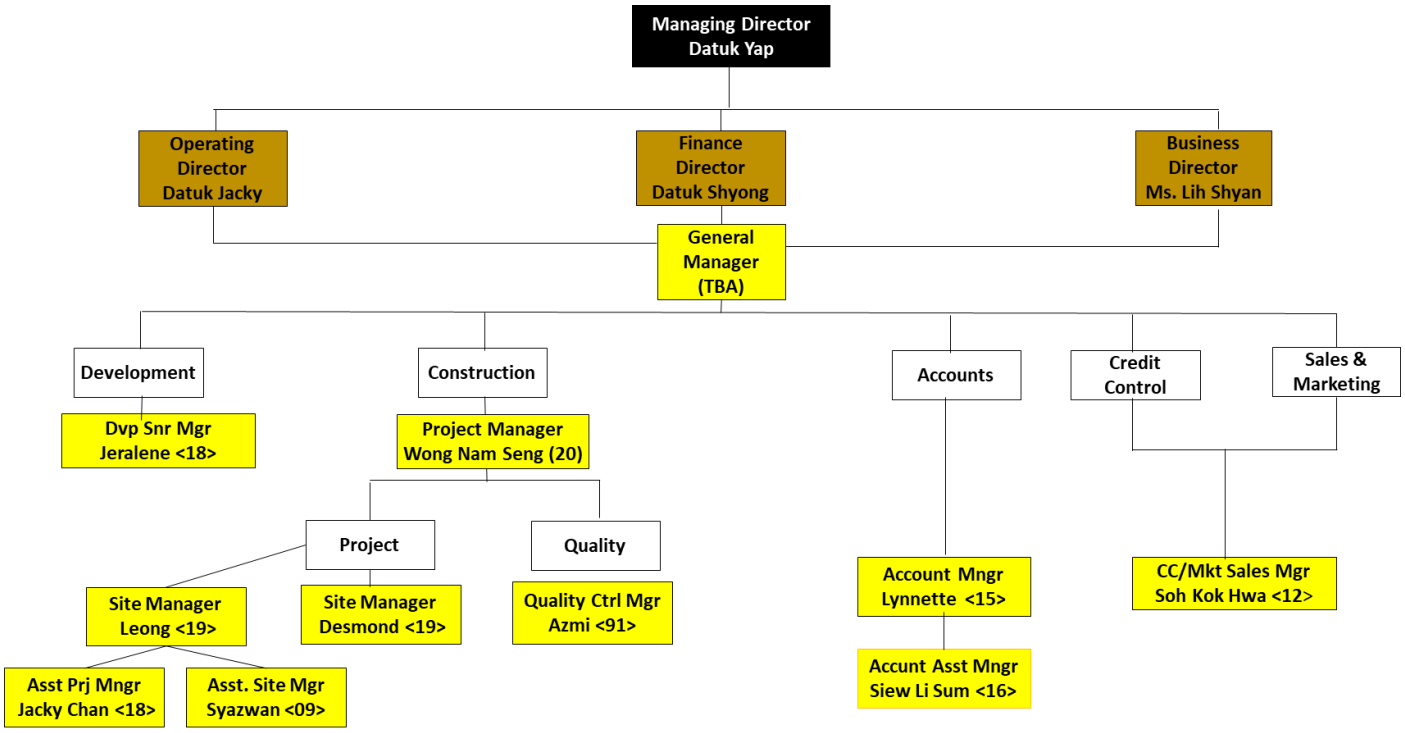
2.2 Company Profile

Desa Johan Sdn Bhd was established 31 January 1990 and subsidiary company or main contractor under Sri Pengkalan Binaan Sdn Bhd.Desa Johan Sdn Bhd. Currently active in residential housing manufacturing,renovation,government project work tenders and other related work.This company main office is located at 17A & B Plaza Seri Kubu,Jalan Tan Chay Yan,Melaka.Desa Johan Sdn Bhd is a company registered under the Malaysian Construction Industry Development Board (CIDB).This company is registered in grade G7 in category B (building construction) for specialization B04 (general building work) & B10 (installation of internal water pipes),CE (civil engineering construction) for CE10 (piling work) & CE21 (general works of civil engineering) and ME (mechanical and electrical) for M15 (various mechanical fittings) specialization under CIDB.

Desa Johan Sdn Bhd has collaborated with a number of expert panel divisions under Sri Pengkalan Binaan Sdn Bhd to meet customer needs and facilitate all building concerns. The company's crew consists of architects, surveyors, engineers, and contractors. Wiring, electrical, drainage, and construction sub-contractors all use competent professionals with expertise and skill in these areas. Desa Johan Sdn Bhd, a landed home and bungalow builder, has been entrusted with the administration, planning, and construction of a few residential houses and bungalows in Melaka. Due to the Malaysian Construction Industry Board's (CIDB) accreditation as a Bumiputera contractor, Desa Johan Sdn Bhd may now manage and carry out building construction, pipe, sewerage, and civil engineering work.

2.3 Company Organization Chart

The chart below shows the current organization chart of Sri Pengkalan Binaan Sdn Bhd.



2.4 List of Projects

2.4.1 Completed Projects

No.	Project Title	Project Value	Start Date	Completion Date	Project Duration	Client
1.	Cadangan Pembangunan Perumahan yang Terdiri daripada 146 Unit Rumah Pangsa Mampu milik 2 Tingkat dan 3 Tingkat. 1 Unit Pondok Pengawal dan 1 Unit Bilik Mesyuarat Diatas PT.9724,Mukim Durian Tunggal,Daerah Alor Gajah,Melaka	RM5,480,000	1 September 2019	31 August 2021	24 months	Tetuan Exotika Sdn Bhd
2.	Cadangan Project Pembangunan Diatas Lot PT 9753-9755,PT 9728,PT 9730,PT 9731,Sebahagian PT 7635,Lot 11, dan Lot 12,Taman Nuri,Mukim Durian Tunggal,Daerah Alor Gajah,Melaka untuk Tetuan Laman Exotika Sdn. Bhd	RM17,680,000	15 March 2018	14 September 2019	19 months	Tetuan laman Exotika Sdn Bhd

3.	Eco Kasa Height,Daerah Alor Gajah,Melaka	RM8,560,000	1 September 2015	31 August 2018	36 month	Kementerian Perumahan dan Kerajaan Tempatan (KPKT) Negeri Melaka

Table 1 : Completed Project

2.4.2 Project in Progress

No.	Project Title	Project Value	Start Date	Completion Date	Project Duration	Client
1.	Cadangan Pembangunan Diatas Lot 11, 12, 13, PT 9753, PT 9754, PT 9755, PT 9728, PT 9729, PT 9730, PT 9731 & PT 7635, Mukim Durian Tunggal,Daerah Alor Gajah,Melaka	RM25,206, 150	30 September 2019	28 February 2022	17 months	Tetuan Laman Exotika Sdn Bhd
2.	Cadangan Membina Sebuah Rumah Kediaman 2 Tingkat jenis Kekal Berseta Kolam Renang di Atas Lot 708,Di Jalan Padang Temu,Mukim Padang Temu,Melaka	RM 2,850,000	1 December 2020	31 January 2022	14 months	Tetuan Jendela Prisma Sdn Bhd

3.	Cadangan Membina 9 Unit Rumah Teres 3 Tingkat(20'X75') Di Atas Lot 3515 hingga 3523,Mukim Cheng,Daerah Melaka Tengah,Melaka	RM 3,500,000	15 June 2021	14 February 2022	9 months	Tetuan Good Rate Holdings Sdn Bhd
4.	Puncak Kasa Height,Alor Gajah,Melaka	RM 20,050,000	1 September 2017	31 March 2022	54 months	Kementerian Perumahan dan Kerajaan tempatan (KPKT) Negeri Melaka
5.	Taman Bukit Cheng, Daerah melaka Tengah,Melaka	RM 3,750,000	15 May 2020	14 February 2022	21 months	Tetuan Good Rate Holdings Sdn Bhd

Table 2 : Project In Progress

CHAPTER 3.0

CASE STUDY

3.1 Introduction to Case Study

The case study is about bricklaying wall construction . The project where has started the construction in 30 September 2019 and predictions will be completed on 28 February 2022. The cost of construction approximately six hundred and ninety thousand Ringgit Malaysia (RM 690,000.00). Currently, the project progress is still on going. Thus, the study will be explained not only regarding installation but including the machinery and tools, the time that have been carry out and the problem and solution of the construction. Nevertheless, the study do not concentrate on cost matters and manpower. The site location took place at the Taman Nuri Phase 3B2,Durian Tunggal,Melaka.

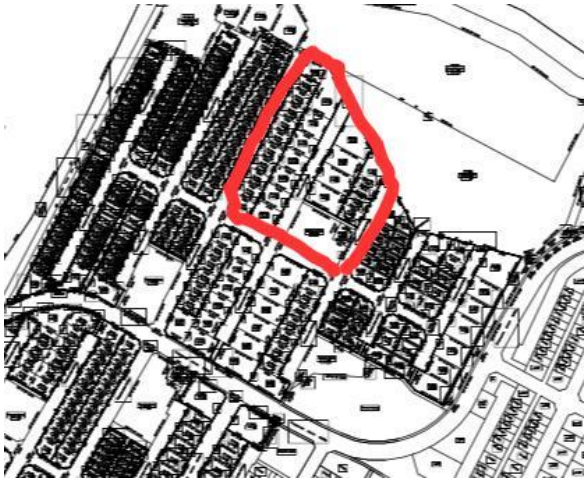


Figure 3.1.1: Site overview in drawing

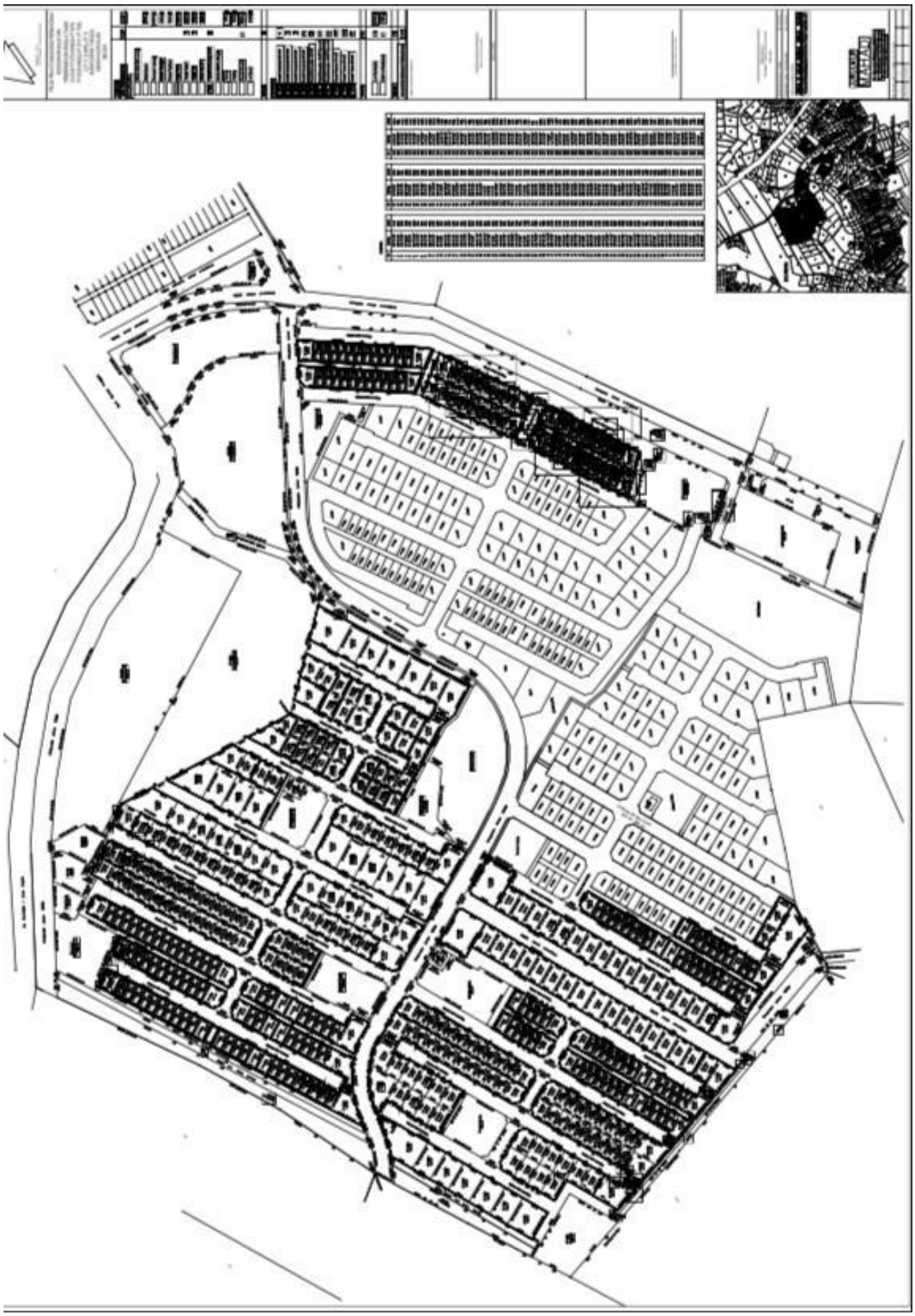


Figure 3.1.2: The location, site and key plan of the project

The project construction located at Taman Nuri Phase 3B2,Durian Tunggal district,melaka Bandaraya bersejarah,the project title is “Cadangan pembangunan perumahan di Atas Lot 11, Lot12, Lot 13, PT9753, PT9754, PT9755, PT9728, PT9729, PT9730, PT9731 & PT7635,Mukim Durian Tunggal,Daerah Alor gajah,Melaka”.This case study will be focusing on “Rumah Berkembar 2 Tingkat (Zero Lot) (RB(ZL))(45’X70’80’)Type B”.

Bricklaying is one of the tasks that has been carried out on the site. To achieve excellent wall bonding, this difficult task must be handled by professional specialists. Several unskilled workers also assist in mixing the mortar and transporting it with the bricks.to the building site in order to reduce the time spent on the bricklaying procedure The equipment and machinery are involved in this construction are wheelbarrows, trowels, hawks, scaffolding, and other instruments are used in this construction.Bucket, brick line and pins, brick hammer, spirit levels, concrete mixers, brick bolsters,shovels and a tape measure.

Hence,time is very important to a building project’s success.According to the building’s drawing plan,the building’s length is 10780mm and its breadth is 8230mm.This structure had numerous partitions,including 5 rooms with 4 bathroom,one of which was the master bedroom and guest bedroom.Aside from that,there was a living room,a corridor,a family room,a dining room,a kitchen and a utility room.The structure including columns and beam must be completed before bricklaying construction begin.The string will be pin to the columns to form a line that will be used as a guide for bricklaying.This procedure will take a long time to complete since it necessitates accuracy.Therefore, the time used for the brick laying process will be recorded started from the first process of bricklaying until the wall finishes process.

Last but not least, the problems of bricklaying process will be determines throughout the construction process. The solutions of the problems also will be state after determine the problem of the process. This chapter will be focused on the method of bricklaying, the time that have been use for bricklaying process and the problem and solution.

3.2 To Identify the Methods of Bricklaying Wall Process

PLAN OUT THE WALL

Figure 3.2.1: Clay Brick that used for the construction.

First, plan out the wall by referring to the floor plan and elevation plan for the length and height of each wall in the building on the drawing plan. The length of the building was calculated based on the value stated in the floor plan. Meanwhile, in the design plan, the height value of a wall was measured from the ground floor to the roof beam of the structure. After you've planned out and calculated the amount of brick you'll need with a calculator, go to the hardware store and buy the proper type and quantity of brick.There was a 5% waste factor included in the total. Clay bricks measuring 21cm in length, 9.5m in width, and 6.5m in height were utilised in the building.

CLEAN THE FLOOR

Figure 3.2.2: The floor of building that have been cleaned before bricklaying process.

With a wire broom, the floor was cleaned, and all extraneous things were removed from the area where the bricks would be placed. Clean floor surfaces are important in the tying brick wall procedure because they make it easier for workers to tie bricks on a flat surface.During the procedure, stay on the surface and avoid any obstacles. It was simple for workers to stack the bricks on the floor when the floor is already clean.

LIFT THE BRICK

Figure 3.2.3: The clay brick that lifted from stock pile to the construction site.

The workmen used a wheelbarrow to transport the bricks from the stock pile to the building site. After the bricks have been lifted and delivered onto the building site, the bricklaying task becomes easier. When utilising a wheelbarrow to carry bricks from a stock pile, time is saved.

MIX THE MORTAR

Figure 3.2.4: Mortar are mixed using the concrete mixer.

One of worker use a concrete mixer to mix cement mortar with a mortar ratio of 1: 3 (cement: sand). To save time, one worker will mix mortar while another person lifts the bricks. These 1: 3 mortars will be used to bind the bricks together. After mixing the mortar with the concrete mixer with a shovel, the mortar was placed inside concrete buckets and transported to the wall building site.

PIN AND LINE

Figure 3.2.5: Strings that pinned together in between column.

A string was pinned in between two columns of the structure to indicate the line for the bricklaying wall. As a guide for workers during the wall bricklaying process, strings are attached every one metre on the building's column from the floor level to the roof beam.

INSTALL DAMP PROOF COURSE (DPC)

Figure 3.2.6: Damp Proof Course under the bricks.

The damp proof course was installed according to the length of the wall, which was determined by measuring the distance between two columns with a measuring tape. To prevent groundwater from being absorbed by bricks, the damp proof course was wider than the width of clay brick. A damp proof course (DPC) is an impermeable material barrier constructed into a wall or pier to keep moisture out of the structure.

WALL BRICKLAYING PROCESS

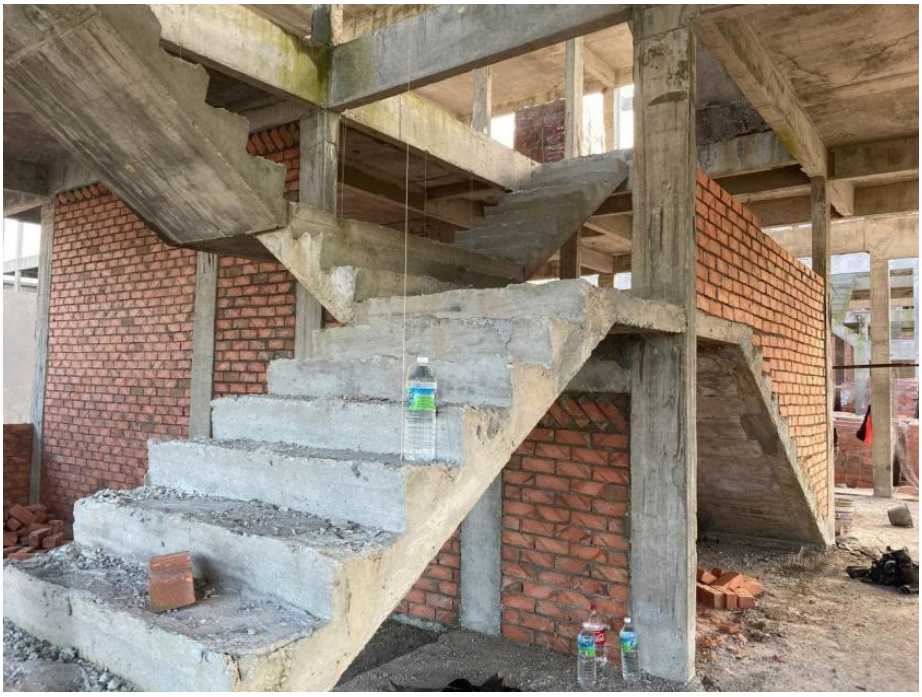


Figure 3.2.7: Bricklaying the wall process.

Using trowels and hawks, a small bed of mortar for the first brick to line on was laid over damp proof course. Then, using the trowel, a small quantity of mortar was applied to the top of the first brick, and another brick was set on top of it at a downwards angle, guided by the line from the strings fastened in between the wall's columns. After stacking, the bricks are trapped using a trowel handle to level the position of the bricks. Then, using the trowel, a slab of mortar was applied to the end of the brick and pushed against the initial lay of brick.

Figure 3.2.8: An exmet wire inside the layer of the brick wall.

After every three layers of bricks were laid, exmet wire was installed on the layer of the brick wall based on the length of the wall to absorb stress and vibration in the structure and prevent the wall from collapsing.The process was continued until the wall reached the roof beam's height.Scaffolding was utilised to aid workmen who were putting bricks at the top of the wall. To make the wall look neater, any extra mortar was scraped away using a trowel. The type of bonding used in the building of this wall is stretcher bond.

Figure 3.2.9: The window opening part of the wall.

Figure 3.2.10: The lintels that used as a load support at the top of opening parts.

After measuring the length of the opening that was indicated inside the design plan, the opening parts such as windows and doors were left unfilled for the windows and doors frame. The bricks will be placed on the foundation.Top of the lintel that attaches to the top of the opening sections to sustain the roof load

FINISHES WORK

Figure 3.2.11: Plastering the top of wall for the finishes.

Figure 3.2.12: The wall after plastering process finish.

Plastering is one of the finishing processes used in the building of walls. The wall was cleaned to remove any dust or loose mortar from the bricklaying process. To achieve greater plaster adhesion, water was sprinkled over the surface of the wall. The method began with laying the plaster and uniformly distributing it with a trowel over a certain region at the top of the wall. It was then repeated on the other side of the wall until the plaster was completely coated.

3.3 To Determine the Time of Bricklaying Wall Process

In contracts, the concept of completion time is very important. When a contract specifies a deadline for completing an obligation, fail to achieve that deadline is normally considered a "material" breach of contract, and the other party may be entitled to damages. If no time constraint is specified, the default attitude is that the allowance must be appropriate, or that time is "at large" and so irrelevant.

The work has been delayed for a variety of reasons, and it is not necessarily the contractor's responsibility. Nature, for example, may be an unwelcome guest on a building job, causing delays.

The bricklaying construction in this project was anticipated to take two weeks, however the whole wall construction took two to three weeks without plaster finishes. During the building, natural barriers such as rainy days and the Covid-19 epidemic stymie the progress of the project. These hurdles were the cause of the project's postponement.

The bricklaying process for The Construction of Rumah Berkembar 2 Tingkat(Zero Lot) at Taman Nuri Phase 3B2,Durian Tunggal,Melaka from October 20 until November 3.The duration of the bricklaying wall process was monitored by observation and photographs taken using a smartphone. Floor and elevation blueprints were utilised as references during the bricklaying process to determine the brickwall's dimensions.

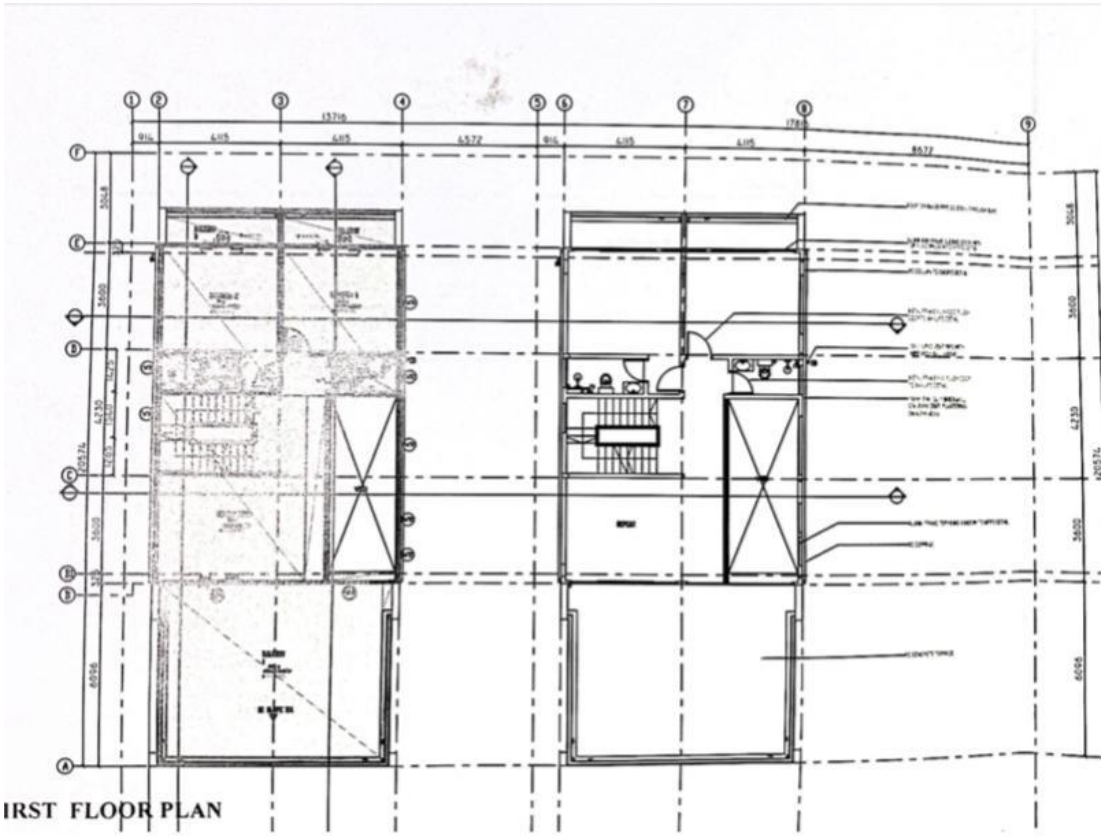


Figure 3.3.1: First Floor Plan

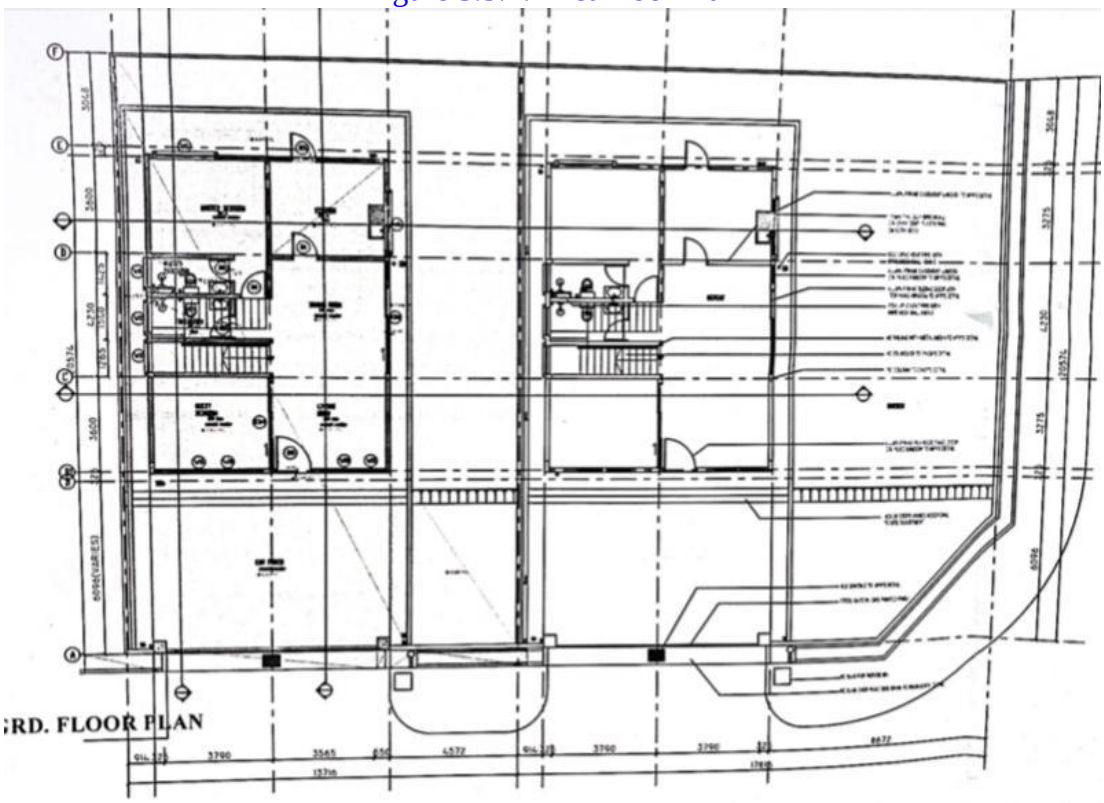


Figure 3.3.2: Ground Floor Plan

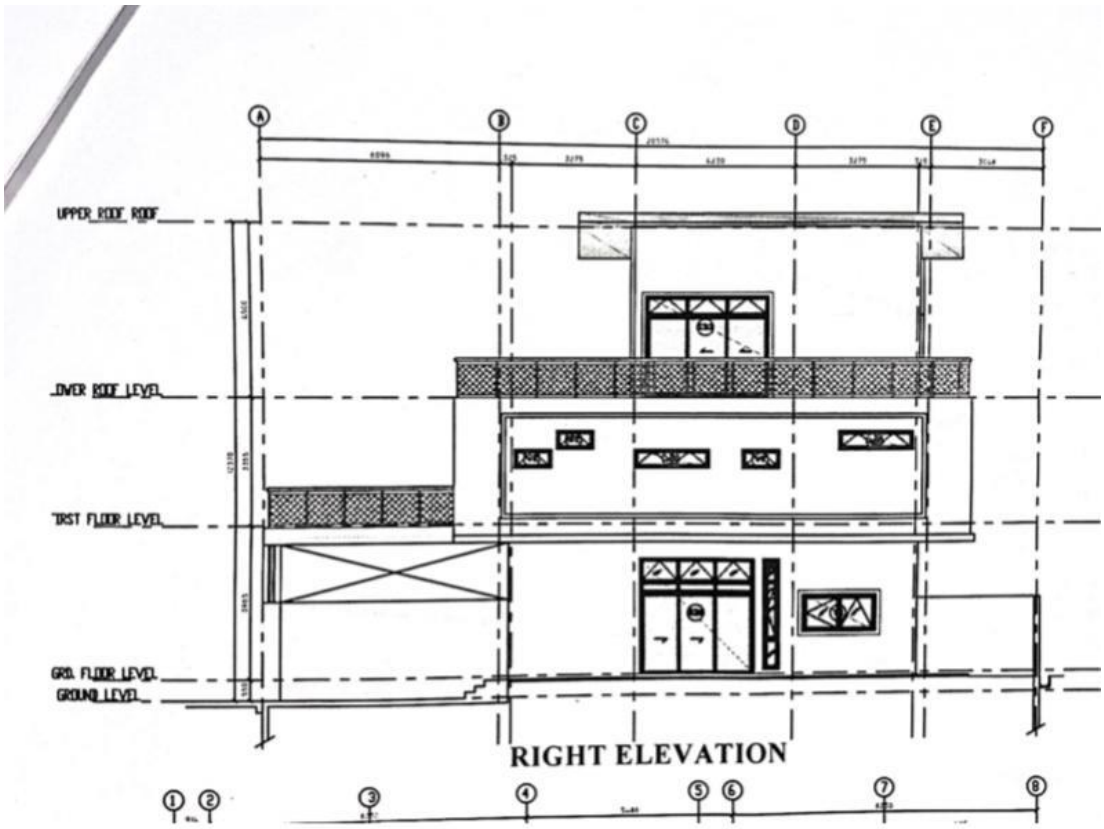


Figure 3.3.3: Right Elevation

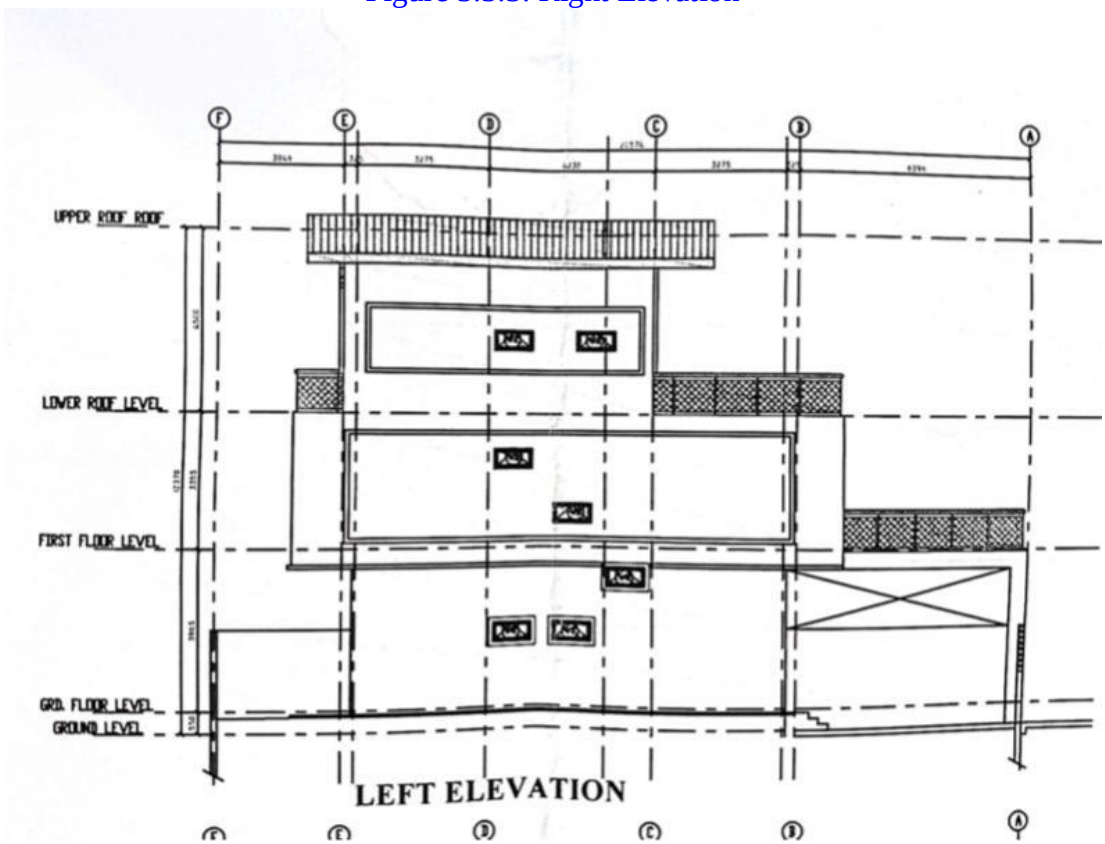


Figure 3.3.4: Left Elevation

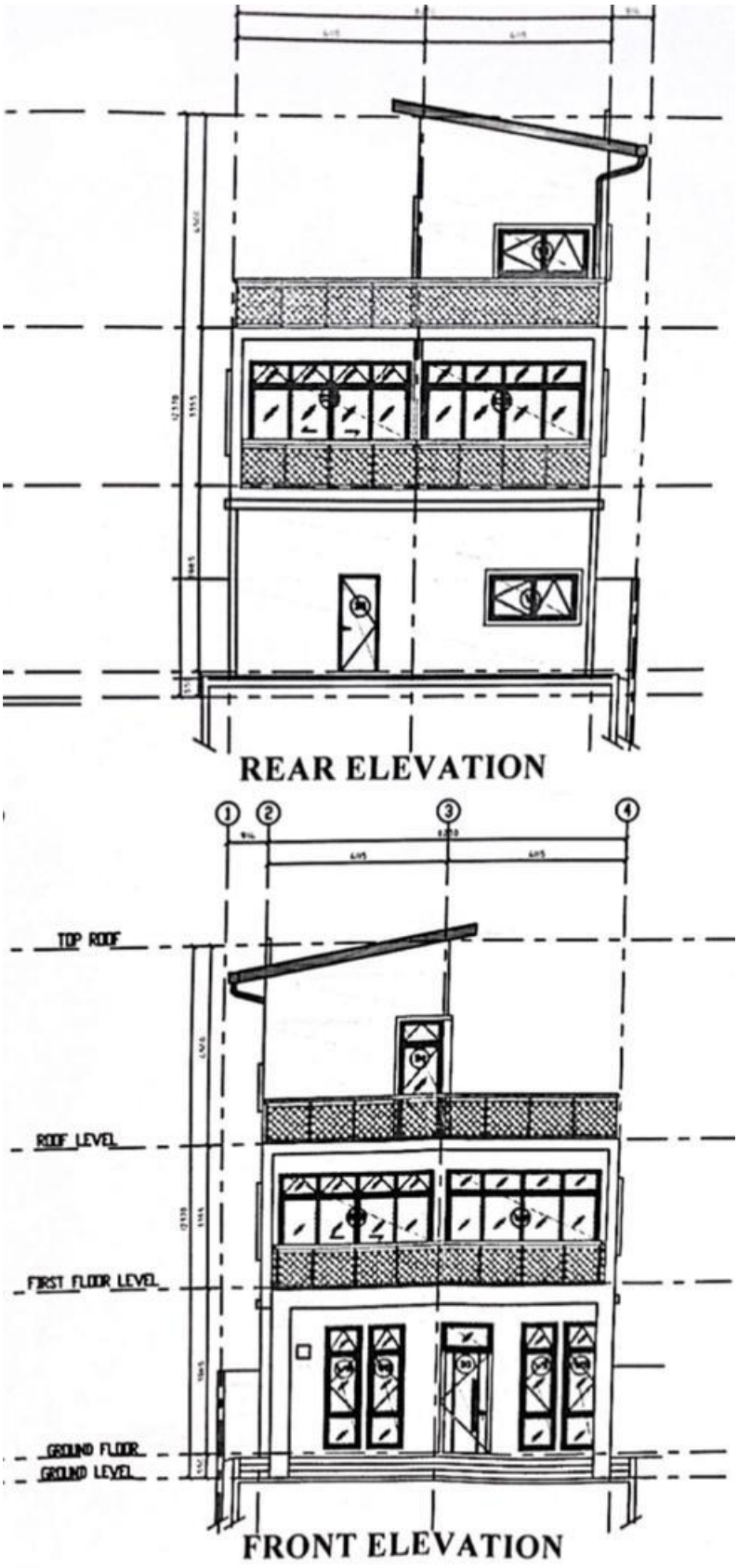


Figure 3.3.5: Rear and Front Elevation

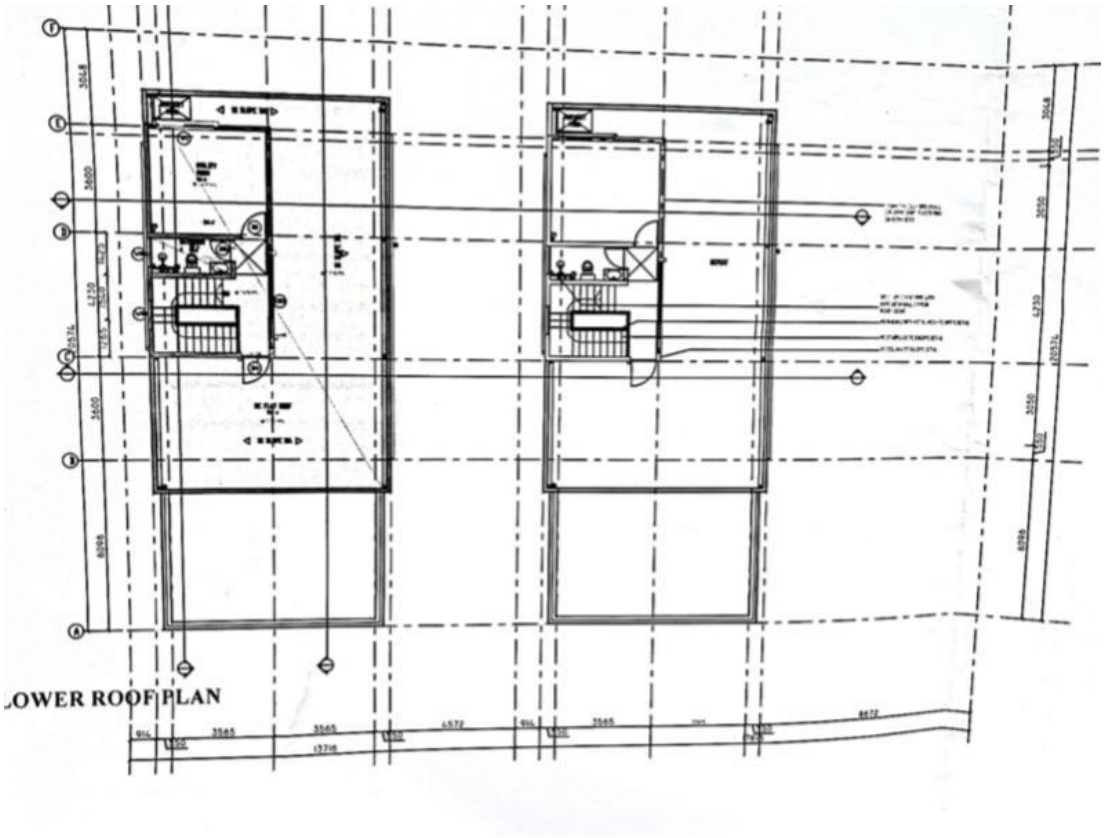


Figure 3.3.6: Lower Roof Plan

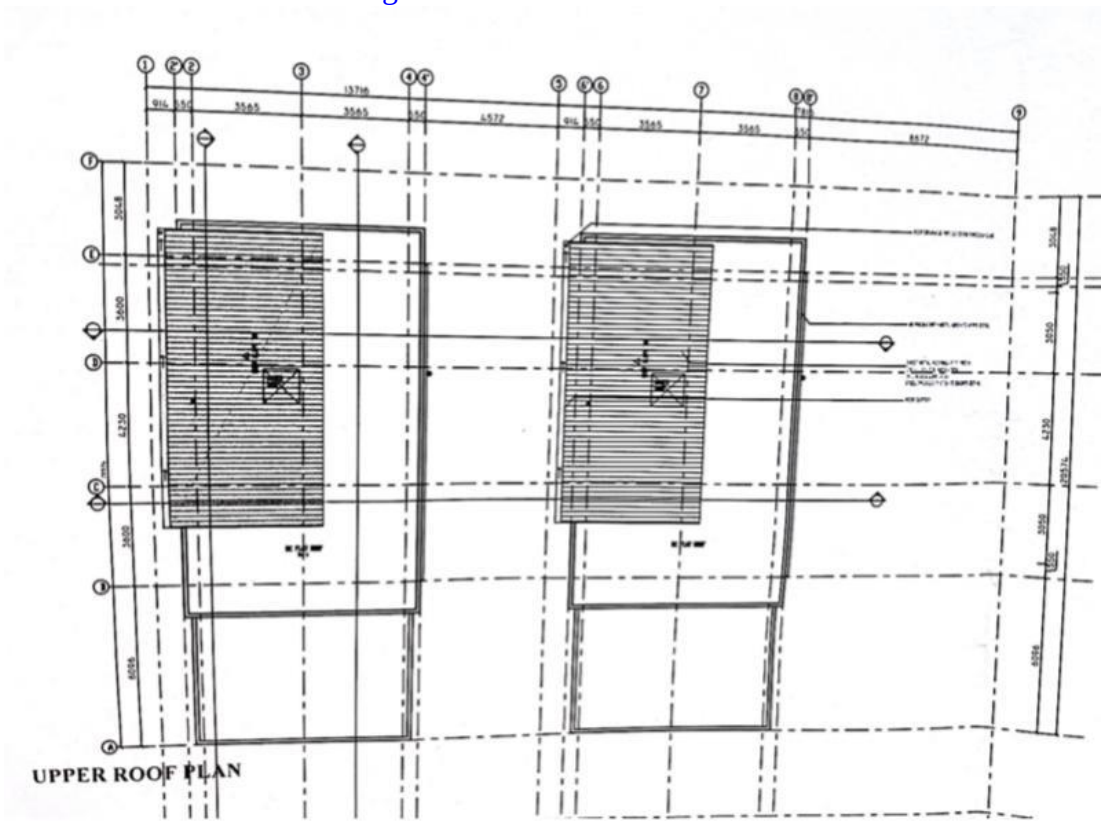


Figure 3.3.7: Upper Roof Plan

Bricklaying work started on 20 October and finish on 3 November for 1 Unit house.

SITE DIARY 20 OCTOBER 2021 - 3 NOVEMBER 2021

20 October 2021

- Living area
- Dining area

21 October 2021

- Dining area
- Stairs

22 October 2021

- Guest bedroom
- Master bedroom

23 October 2021

- Master bedroom
- Bathroom 1

25 October 2021

- Bathroom 1
- Master bathroom

26 October 2021

- Master bathroom
- Kitchen

27 October 2021

- Kitchen’s window
- Dining area’s window

28 October 2021

- Family room

29 October 2021

- Family room
- Bedroom 1

30 October 2021 (Rainy day)

- Bedroom 1

1 November 2021 (Rainy day)

- Bedroom 2

2 November 2021

- Bathroom 2
- Bathroom 3

3 November 2021

- Bathroom 3 (Roof)

3.4 To Identify the Problems and Solutions in Wall Construction

Problem: Shrinkage

The brick is a porous substance that collects water from its surroundings, causing it to inflate and then shrink when the water evaporates. As a result of the shrinking, fractures appear in the bricklayer joints. This has no effect on structural strength, however it does cause harm to wall treatments following installation.

Solution: Install Damp Proof Course

Shrinkage can be avoided by laying a moisture proof course on the floor below the bottom of the wall before starting the brickwork. Wet proof course is used to keep damp from penetrating the walls. To protect the brick from being absorbed by water, the damp proof course is constructed beyond the breadth of the brick wall.

Problem: Brick Containing Dirt, Dust or Mold

Bricks become dirty over time, and moss or mould may grow on them. This occurred as a result of exposure to pollutants and other airborne particles that were adhered to the bricks and mortar. Although it is not normally harmful to the bricks and can even be considered protective, it can detract from the overall appearance of the brick.

Solution: Clean and Cover the Wall with the Plaster

Water may be used to gently remove the debris, dust, and mould from the brick surface. The wall can also be plastered to preserve the brick surface from grime while also concealing mould. As a consequence, the wall surface will be cleaner and more appealing.

Problem: Lay Brick Unstraight

The quality of brickwork is critical in load bearing walls because low quality brickwork compromises structural integrity. When workers rely on the string line as a guide in brickwork, the level becomes crooked. It also occurs when employees do not measure the height of the mortar when laying bricks.

Solution: Used Bricklaying Laser Level and Spirit Level

The bricklaying level problem can be fixed by using the bricklaying laser level because laser is a light.A light travels in straight lines, which assists workers placing bricks in straight lines. The brickwork will be neater when using a laser level rather than string as a guide since it is adjustable and portable, saving time. To obtain better results, use a spirit level while performing the brickwork with the laser level to verify the level of the wall.

CHAPTER 4.0

CONCLUSION

The walls are crucial to the building in order to create an appropriate and pleasant environment, as well as to provide privacy and weather protection. The bricklaying wall technique began with planning the wall, cleaning the floor, lifting the brick, mixing the mortar, pin and line, installing the damp proof course, the wall bricklaying procedure, and finally plastering as the finishing job for the wall.

Without wall finishes, the procedure took around 2-3 weeks, beginning on October 20 and ending on November 3,2021. The bricklaying wall construction was delayed a few days due to weather and a movement control order issued during the pandemic Covid-19. As a result, it takes longer than planned.

The bricklaying method in building is a standard procedure that is comparable to the theory. Nothing was done differently throughout the bricklaying wall construction. Furthermore, problems such as brick containing dirt, dust, and mould, among others, are simply handled.

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