



**DEPARTMENT OF BUILDING
UNIVERSITI TEKNOLOGI MARA
(PERAK)**

THE CONSTRUCTION OF UPPER FLOOR SLAB

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(PERAK)**

APRIL 2014

It is recommended that the report of this practical training provided

By

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entitled

The Construction of Upper floor Slab

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

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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 Kimawari Engineering Sdn Bhd for duration of 5 months starting from 4 November 2013 and ended 25 March 2014. It is submitted as one of the prerequisite requirements of DBN307 and accepted as a partial fulfillment of the requirements for obtaining the Diploma in Building.

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Thank you very much

ABSTRACT

The construction industry is essential to the development of country as well as the rise of a city. Every aspect in this industry is important to be known by building students. As one of the industry that support a country economic, qualities and efficiency of construction is vital. This report in a nutshell explains about the steps and materials that involve in the construction of 1st floor slab. In the study of this report that being held in Bandar Nilai Impian, Nilai, the project is to build a two-storey bungalow with the area of 8,072 ft². In a period of 5 months of training, students has experienced with the actual situation on site and also in the office. Kimawari Engineering Sdn. Bhd. Is the company responsible in this project. Located in Seksyen 15, Bangi, this company is owned by Mr. Abdul Rahman Bin Paweh. The result of this topic is, the 1st floor slab is a typical part of every building especially with the frame structure design. As a conclusion, every part of a building has its own method to build it depends on the design and also cost.

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LIST OF ABBREVIATIONS

UBBL	Uniform Building By-Law
UiTM	Universiti Teknologi MARA
CIDB	Construction Industry Development Board
BRC	Bar Reinforcement Concrete
Y	Yield
R	Round

CHAPTER 1

PREFACE

1.1 Introduction

Construction is a leading industry in the world. Construction affects the economic flow throughout the continent. Building construction is an ancient human activity. It began with the purely functional need for a controlled environment to moderate the effects of climate. Constructed shelters were one means by which human beings were able to adapt themselves to a wide variety of climates and become a global species. (www.bconstructive.co.uk, 2012)

Different country with different tradition and culture has its own styles in construction. With a different climate in these seven continents possess a huge level of temperature. Thus, every design of construction must cater with the environment. For example, with the extreme temperature, people in the north poles lives in igloos, while in asia, the typical houses is chosen. One of the most important parts in a building is its structure. There are two typical types of structure, a frame structure and load bearing wall structure. Frame structure is the most common structure used in Malaysia. It is the easiest, low cost and high in strength structure. Frame structures are the structure having the combination of foundation, column, beam and slab. In this report, writers will explain in details the process of constructing a 1st floor slab. (www.bconstructive.co.uk, 2012)

1.2 Objective

The objective of this practical report is to find out in detail about the following;

- i. To study the steps and method to build the Upper floor slab in a typical frame structure.
- ii. To identify the materials used in construction of Upper floor slab.

1.3 Scope of Study

The scope of study has been made by the student starts with a two-storey bungalow that are already 20% in progress. The review is from the making of the ground floor slab, until the concreting work on the 1st floor slab. All the process throughout the construction period has been monitored in detail by the student. Starting from how to handle the workers on site to the steps to arrange the process of calculating the amount of concrete required. Plus, based on drawing given, piping work and sewerage have to be located according to drawing.

1.4 Method of Study

This practical report is completed through the process of:

i. Primer data

Primer data defines as the information that derivable from a direct source such as human and the matter itself. This type of getting information is the easiest yet the fastest method and it has less exaggeration or additional story (www.ecs.org, 2004)

a) Observation

Observation is the most effective way of learning. All the progress that happens on site can be understand easily. The main strength of observation is that it provides direct access to the social phenomena under consideration (www.ecs.org, 2004). Instead of relying on some kind of self-report, such as asking people what they would do in a certain situation, you actually observe and record their behavior in that situation. Observation is the most helpful way of learning in construction especially on site.

b) Interview

Interview is a method of gaining info from asking a question with a person who has the experience in their field work. Interviewing can be flexible because it'll explore highly complex or abstract topics easier (www.ecs.org, 2004). It can be easier when it is ask directly as they can also adding some tips. Interviewing can be helpful on the site when it is ask the steps to any workers or supervisors.

Throughout 5 month of practice, a lot of questions have been asked to Mr. Abdul Rahman regarding the construction.

ii. Secondary data

Secondary data means, the data that can be obtained from books, article and also internet. These method of research is actually more promising as the author or writer has the approval towards what they were wrote (www.ecs.org, 2004). By researching through this media, many information that may cannot be obtain through primer data could be available here. Some of book about construction and also structure is reviewed to get a promising information. Many websites about construction had been studied to enhance the knowledge to make this report.

CHAPTER 2

COMPANY BACKGROUND

2.1 Introduction

Kimawari Engineering Sdn. Bhd. is a private company owned by Mr. Abdul Rahman Bin Paweh. It is a G1 graded company started in August 2009. Throughout years of business, Kimawari Engineering has completed many projects consist of private bungalow, renovation and repairing.

This company has a specialty in aluminum work such as windows, doors and any process that related with aluminum and glass. Plus, this company also has done many project involving waterproofing and a construction of swimming pool. Plus, works involving gypsum partition is done as well.

2.2 Company Profile

Company name : KIMAWARI ENGINEERING SDN BHD

Registration number : 867799-M

Date of registration : 10/08/2009

Company address : 13-3B, Jln 15/1C
Seksyen 15,
43650 Bandar Baru Bangi
Selangor Darul Ehsan

No. Tel :

No. Fax : 03 - 8925 2885

Scope of business : Kontraktor Am & Renovation
Aluminium and Gypsum Partition

Business status : Sendirian Berhad

Owner : Abdul Rahman Bin Paweh

Bank : CIMB Bank
Cawangan Unikeb UKM Bandar Baru Bangi
(No Akaun: 12150000491101)

**2.2.1 CONSTRUCTION INDUSTRY DEVELOPMENT BOARD MALAYSIA
(CIDB) formally known as PKK**

- Registration SSPK/CIDB 0120120718-WP144198
Validity : 18/7/2012 to 06/06/2015

GI - B – B04, B13, B14, B28, B24

GI – CE – CE21, CE01, CE02, CE03, CE13, CE34, CE34, CE36, M15

2.3 Organization chart

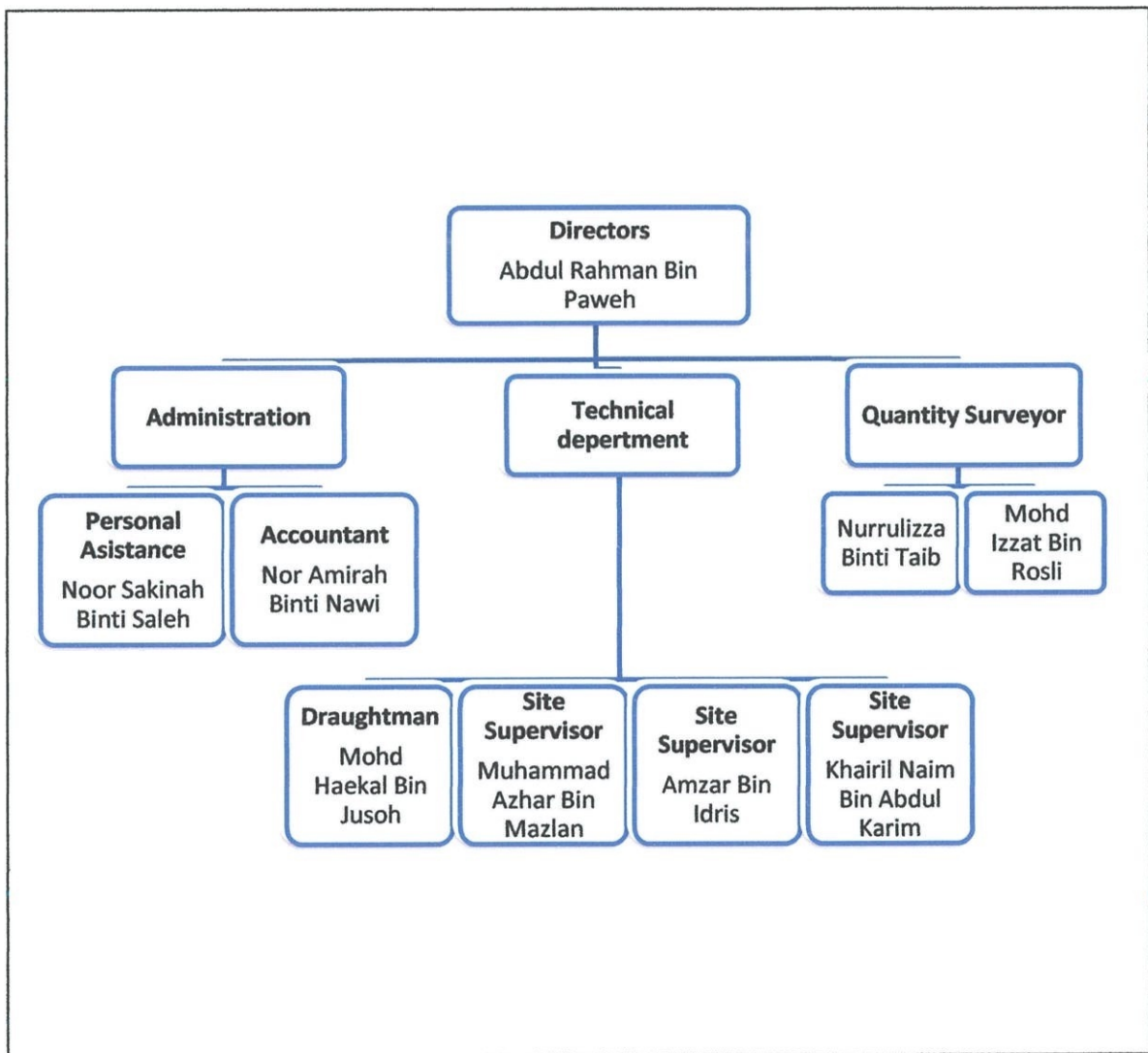


Figure 2.1 The Organization Chart of Kimawari Engineering Sdn. Bhd.


Source: Kimawari Engineering Sdn. Bhd.



2.4 List of Project



2.4.1 Completed project


These are the example of completed project done by Kimawari Engineering Sdn. Bhd. Most of the project completed is through a several sub contractor. Regarding that Kimawari did not have a certain specialist. Plus, for a small project such as renovation or building maintenance, the company will use their own workers.

Table 2.1 The list of Completed Project of Kimawari Engineering Sdn. Bhd.

No.	Project	Duration	Price (RM)
1	<p>Proposed to built one unit of 2 storey bungalow at Lot No. PT. 41711 at No.85 Jalan Desa 2, Taman Universiti, Kajang, Mukim pecan Kampung Sungai Tangkas, Selangor.</p>  <p>Client: Khairul Anuar Bin Mohd Ali</p>	11 months	RM 765,000.00

<p>2</p>	<p>Proposed an extention and renovation work for 2 storey bungalow at No.16 Persiaran Ara, Bukit Bandaraya, Bangsar, Kuala Lumpur.</p>  <p>Client: Mr. Asim Qureshi</p>	<p>7 months</p>	<p>RM 502,000.00</p>
<p>3</p>	<p>Proposed to built a 2 storey bungalow at No. 77 Jalan Desa 2, Taman Universiti Kajang, Mukin Pekan Kampung Sungai Tangkas, Daerah Langat, Selangor Darul Ehsan.</p>  <p>Client : Mohd Halizu Bin Abdul Halim</p>	<p>12 months</p>	<p>RM 1,180,000.00</p>


No.	Project	Duration	Price (RM)
4	<p>Proposed to built 2 storey bungalow at No.41, lot No. 63J Jalan SHB 7, Taman Subang Height, Mukim Damansara, daerah petaling, Selangor Darul Ehsan.</p>  <p>Client : Hj. Romli Husin & Hjh. Nazidah</p>	12 months	RM 866,000.00
5	<p>Built and completing a swimming pool at No. 7, Lorong Jarak Kanan, Damansara Height, 50490 Kuala Lumpur.</p>  <p>Client: En Mirza Bin Kelana</p>	56 days	RM 49,000.00



No.	Project	Duration	Price (RM)
6	<p>Proposed one unit of bungalow 2 storey at Geran 184890 Lot 41717 Pekan Kampung Sungai Tangkas Daerah Hulu Langat Selangor Darul Ehsan.</p>  <p>Client: Dr. Kamal Roslan Bin Mohamed</p>	12 months	RM 790,000.00



2.4.2 Project in Progress


These are the list of project of Kimawari Engineering that are still in progress. Many of these project are actually in the same area as the completed project. In this industry, the flow of money affect the progress of construction.

Table 2.2 The list of Project in Progress of Kimawari Engineering Sdn. Bhd.

No.	Project	Progress	Price (RM)
1	<p>Proposed to built and completing a 2 storey bungalow at Lot No. 47450, Kg. Teras Jernang, Mukim Dengkil, Daerah Sepang, Selangor Darul Ehsan.</p>  <p>Client: Yusof Bin Abdullah</p>	85%	RM 690,000.00

No.	Project	Progress	Price (RM)
2	<p>Proposed to built 1 unit of 2 storey bungalow with 1 unit guard house at No. 151 and 152, Lorong Akasia 2/1, Laman Akasia, Nilai Impian, Nilai, Negeri Sembilan.</p>  <p>Client: Tuan Haji Maulud Bin A. Wahid</p>	48%	RM 1,702,801.00
3	<p>Proposed to built a 2 storey bungalow at No. 13 Jalan putra 2, Taman Sri Putra, Bandar Putra Mahkota, Selangor Darul Ehsan.</p>  <p>Client : Hj Yaakob Bin Musa</p>	21%	RM 789,000.00

No.	Project	Progress	Price (RM)
4	<p>Proposed to built 1 storey bungalow at No.25, Jalan Pekaka 7, Seksyen 8, Kota Damansara Kuala Lumpur.</p>  <p>Client : Mr. Najeh Bin Zulkifli</p>	71%	RM 1,198,000.00
5	<p>Repairing work for collapsed slope in front of Block Pusanika, University Kebangsaan Malaysia, Bangi Selangor.</p>  <p>Client: UKM</p>	49 days	RM 120,000.00

No.	Project	Progress	Price (RM)
6	<p data-bbox="288 416 863 555">Proposed to built a 2 storey bungalow at Lot Pt 42129, Sungai Merah Sepang, Selangor Darul Ehsan.</p>  <p data-bbox="288 1039 719 1077">Client : Dr Qairul Iqbal Bin Amin</p>	20%	RM 890,000.00

CHAPTER 3

THE CONSTRUCTION OF UPPER FLOOR SLAB

3.1 Introduction

For introduction, slab is an important element in a building. Other than column, beam and foundation, slab is however the element that never missed in every construction in the planet. Basically, slab is a thick, solid flat piece of material that is usually made by concrete. In the making of slab, there is many materials involve and steps to build it. Without a solid concrete slab, the entire building would be unstable. In addition, slab also acted as a floor to the building.

Different design is seen in a different building, it is because of its uses or requirement of the building, the thickness of the slab represent the dead load of the building. Thus, the thicker the slab, the heavier the structure and it will require a bigger foundation.

Concrete slabs are used to support everything from patio furniture, to foot traffic, to semi-trailer trucks. With such a wide range of purposes and support requirements, concrete slabs present many construction variables that must be considered before concrete placement begins (www.concretenetwork.com, 2011). This was mean that, regarding the purposes of any building, the slab can be design and construct to withstand any load.

Slab is a crucial part in a buildings, any mistake could be fatal to human. The right proportion and mixing ratio of concrete is important. Any admixtures may need depends on the environment or load on to the slab required. Determining the right concrete mix design and reinforcement requirements for the anticipated slab exposure and traffic conditions is essential as well. The calculation of the proper water-cement ratio and air-entrainment requirements for the concrete mix to ensure that the slab will perform as intended. Proper positioning and support of wire reinforcement is also important to control and minimize cracking (www.concretenetwork.com, 2011).

3.2 Project Background



Figure 3.1 Hj. Maulud's Bungalow, Nilai Impian, Nilai

Name of the project: PROPOSED TO BUILT 1 UNIT 2 STOREY BUNGALOW WITH 1 UNIT GUARD HOUSE AT NO. 151 AND NO.152, LORONG AKASIA 2/1, LAMAN AKASIA, NILAI IMPIAN, NILAI, NEGERI SEMBILAN.

Owner: Tuan Haji Maulud Bin A. Wahid

Cost: RM 1,702,801.00

Duration: 15 month

Site location: No. 151 & No 152, Lorong Akasia 2/1, Laman Akasia,
Nilai Impian, Nilai, Negeri Sembilan.

Architect: AR.ABU BAKAR ALI
DRM- Architech
No. 21 Tingkat 2, Jalan Tengku Ampuan Zabedah
9/F, Seksyen 9,
40100 Shah Alam.

Contractor: NILAM SEMESTA SDN. BHD.
13-2B, Jalan 15/C,
Seksyen 15,
43650 Bandar Baru Bangi,
Selangor Darul Ehsan.

Civil & Structural: IR. Ariffin Bin Osman

No. 23 Jalan Nuri 7/13,

Kota Damansara,

47810, Petaling Jaya,

Selangor Darul Ehsan.

3.3 Case Study

The case study is about the construction of 1st floor slab. This study takes place in Hj. Maulud's bungalow in Nilai impian, Nilai. The bungalows that cost RM 1.7 million have an area of 8000 square feet. Plus, this house takes two lot of land. This project started in early September 2013. Kimawari Engineering have appoint a sub contractor to built this bungalow.

The construction of the 1st floor slab started in early January 2014 after the completion of ground floor column.

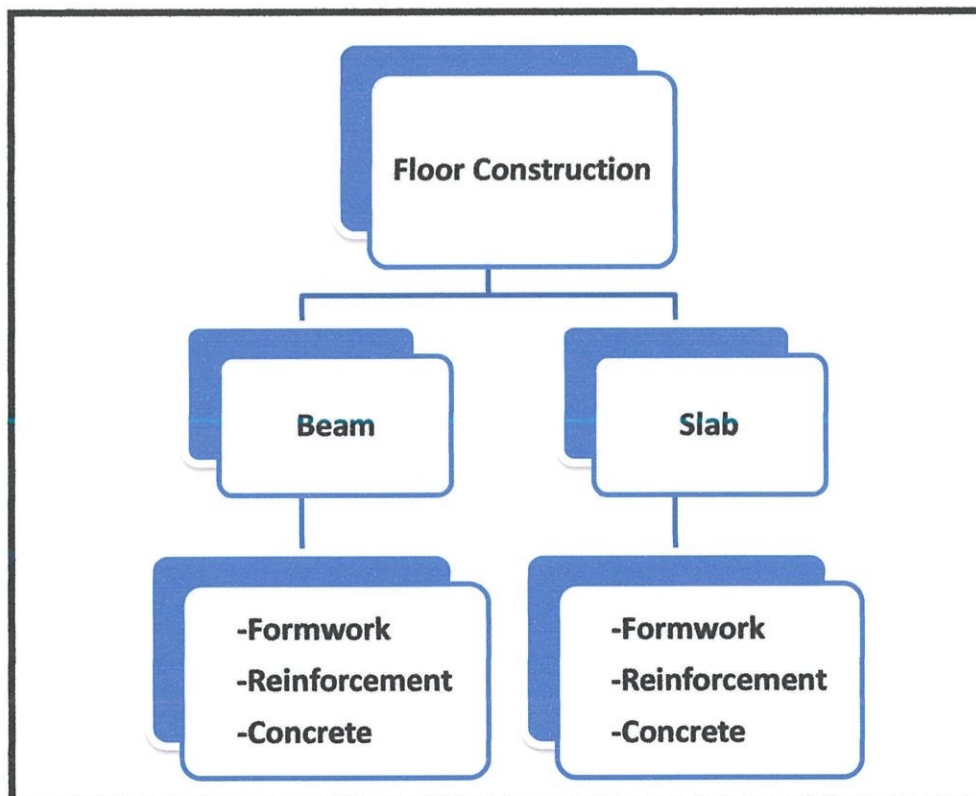


Figure 3.2 The sequence of the construction of 1st floor slab

The sequence of process to construct the upper floor slab seems easy to be built, but there are certain method that has to be explain in detail. Upper floor beam is a suspended beam, while ground beam is non-suspended.

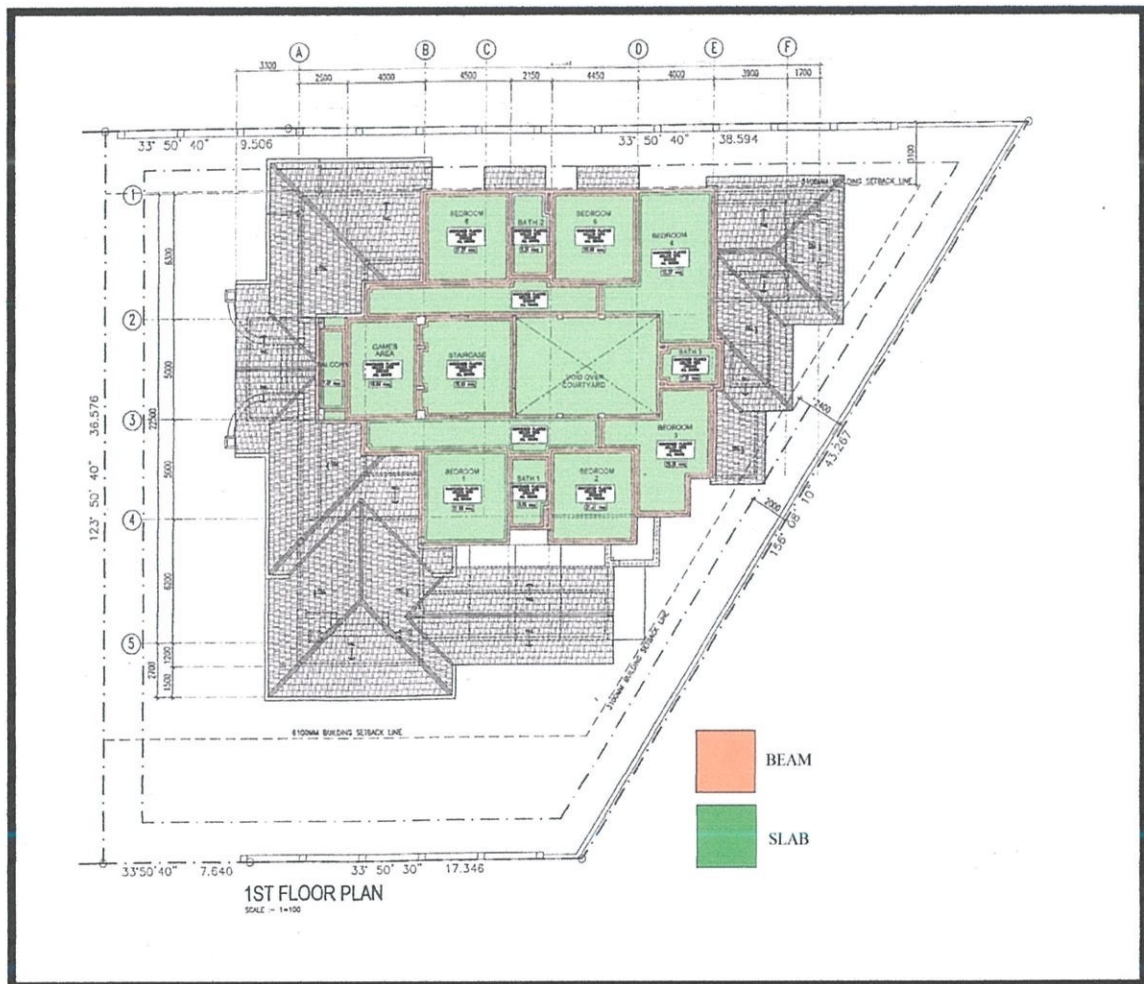


Figure 3.3 1st Floor Plan of the Hj. Maulud's bungalow Construction

The figure explained on where is the slab, and the beam located on the plan. The plan has two different colors represent the beam and slab.

3.3.1 The construction of upper floor Slab

a) Beams

Beam is a structural member which is normally placed horizontally. It provides resistance to bending when loads are applied on it. Various types of materials such as wood, steel, aluminum, etc are used for making RCC beam. Most commonly used material is RCC (Reinforced Cement Concrete). RCC beam can be various types depending on different criteria. Such as depending on shape, beam can be rectangular, T-beam, etc. Depending on reinforcement placement, beam can be double reinforced beam, single reinforced beam, etc. (Biswas, 2013).

The sequences of construction of the upper floor beam are such as following;

- i. The first step to built beam is to install the formwork



Photo 3.1 The installation of formwork for 1st floor beam

In an exact sequence of constructing the upper floor beam, the ground floor column must be complete to receive the formwork.



Photo 3.2 The complete formwork for 1st floor beam

Formwork are made from plywood. It's being tied by 1"x2" timber. By an ordinary nails, it is tied around the plywood according to dimension. Beneath the formwork, scaffolding is placed to support the load of the formwork and also the incoming concrete.

The amount scaffolding that need to support the formwork must have enough strength to support the concrete.

- ii. The second step is to install the reinforcement into formwork

Reinforcement is a steel bars that exist to combine with concrete to enhance its strength. Steel reinforcement has an excellent tensile strength. Despite, with the strength it has, it has a poor compression strength.



Photo 3.3 The process of tying the reinforcement bar

The photo 3.3 shows that the reinforcement for 1st floor beam is already installed. It is placed vertically inside the formwork. The reinforcement consists of long steel bars and tied with another bars called stirrups.

The reinforcement used to built this bungalows consist of reinforcement with sizes of:

- i. Y16
- ii. Y12

Stirrups:

- i. R8
- ii. R6



Photo 3.4 The reinforcement installation for beam is completed

Every interception of the reinforcement must be tied to another to form one big skeleton-like structure. The purpose of that is to strengthen the structure because any structure is stronger when it is form into one.

b) Slab

Slab is a flat surface acted as a floor in a structure of a building. Slabs are used to furnish a flat and useful surface in reinforced concrete construction. It is broad, flat plate, usually horizontal, with top and bottom surfaces parallel or nearly so. It may be supported by reinforced concrete beams, by masonry or reinforced concrete walls, by structural steel members, by directly by columns or continuously by the ground.

The sequences of the slab construction are such as following;

i. The installation of slab's formwork



Photo 3.5 The result of slab's formwork after being installed

The formwork of the slab will cover up the whole upper floor according to the design propose, the purpose of the beam is to support the slab. Plus, the slab is surrounded by the beam on its side.



Photo 3.6 The slab's formwork supported from below

From below, the formwork must be supported. It's intended to support the incoming tons of concrete. The tool that is used to support it is the scaffolding. Scaffolding is a steel temporary structure made for construction, and it can be remove after using it. It is install by holding the floor joist on the formwork.



Photo 3.7 The situation on site from below after formwork installation

One thing about formwork installation, the tied from timber bars have to be strong. As I was saying, the amount of timber used must be reasonable because, it must be a disaster when formwork breaks when concrete is pour.

ii. The installation of slab's reinforcement

Slab's reinforcement consist of the same material used in beam. It is steel reinforcement bars. However, for slab, the reinforcement is already come in a form of square shape. It is called BRC or Bar Reinforcement Concrete.



Photo 3.8 Finished result of slab reinforcement installation

The BRC was installed by laying it layer by layer on the surface of the beam. On every interception, BRC must be tied to each other. It is intended to give strength of the structure. Sometimes, based on certain design, there is two layer of BRC that have to be install, it's upper and lower layer.



Photo 3.9 The cube between BRC and formwork called spacer

Spacer is made by cement and sand only. Its function is to provide space between reinforcement and the formwork. Spacer is tied under the BRC with wire. In the construction site spacer is usually call as 'tauhu'. The method of installing BRC is, it must be layered overlapping $\frac{1}{3}$ of the size of the BRC. On every interception, it must be tied by wire.

iii. The concreting work

The concreting work is the last process in the making of the structure of the house. On the upper floor, it is a usual process to run a concreting work for the beam and slab at one time. The concrete in this site is a ready mixed concrete that obtained from the nearest concrete plant. Before concreting work, engineer will calculate the amount of concrete need in the process based on the drawing and for this project, a grade 25 of concrete is used.



Photo 3.10 Concreting work for the beam

Concreting work for the beam could be complicated because the beam is narrow and it's a bit hard to pour concrete in a narrow beam.

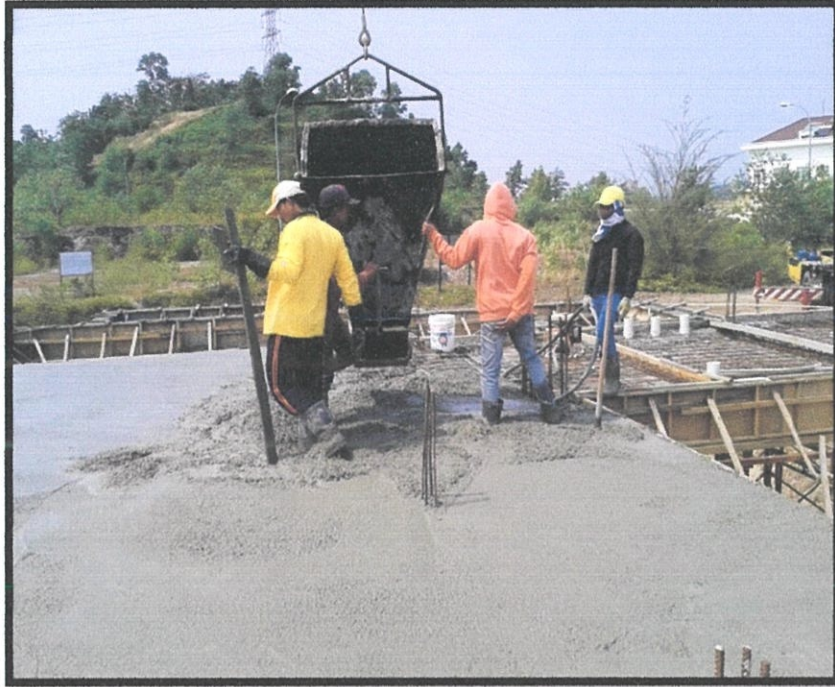


Photo 3.11 Concreting work for slab

Concreting work for slab is easier. Workers just pour the concrete out from the bucket throughout the slab area. Crane is used to transfer the concrete to the slab. At least four workers needed in this process because, the concrete can be easily hardened and it has to be smoothen fast.



Photo 3.12 Poker Vibrator

Poker vibrator is one vital machine to be use in concreting process. It helps to spreading the concrete in every angle inside the formwork. It removes the air bubbles inside the concrete. Air bubbles can be harmful, the concrete with air bubbles inside it when completely hard is weak.



Photo 3.13 Slump test and cube test

These two test is vital to perform in every delivery of concrete to assure its strength. The test is usually runs in concrete plant.

3.3.2 Material used in the construction of upper floor Slab

Every materials used in this process is different. Each process using a different materials. Some of the same process used a same material but with different characteristics.

i. Plywood



Photo 3.14 Plywood used to make formwork

Plywood is many thin sheets of wood glued together. When layers like this are put together it produces a very sturdy and durable wood. It is important the type of glue used to put the layers together, when a professional adhesive is used the plywood becomes resist to cracks, shrinking, twists and warps, making it a better wood than many other plain woods on the market. (www.gunnersens.com.au, 2014)

In construction industry, plywood is the most popular material for making formwork, it has different thickness based on its uses.

ii. Reinforcement

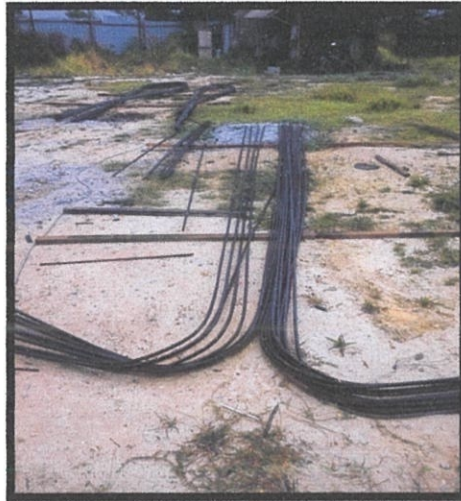


Photo 3.15 Reinforcement bar

Reinforcement bar is a mild steel rod use to make reinforcement in concrete. This steel bar comes with varieties of sizes depends on the load in the building. Steel rod is the best materials to withstand tensile force, that is why it is design to combine with concrete to make in stronger.



Photo 3.16 The reinforcement bar that has been bend into shape

iii. BRC (Bar Reinforcement Concrete)

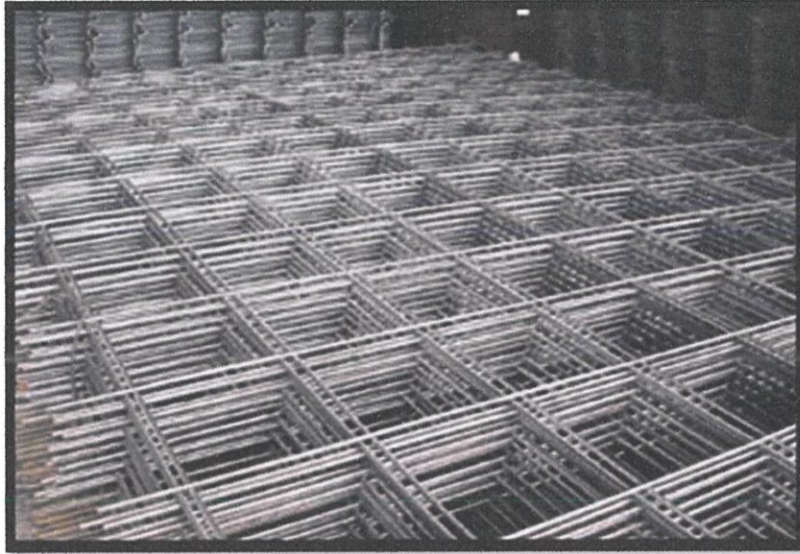


Photo 3.17 Bar Reinforcement Concrete BRC

BRC also known as Bar Reinforcement Concrete is a reinforcement skeletons used for slab. It is the same as reinforcement steel bar but BRC has been shaped into square shape. BRC is usually 2.4m x 4.8m in dimension.



Photo 3.18 BRC that has been installed to formwork

iv. Concrete



Photo 3.19 Concrete that has been poured on the slab

Concrete is a mixture of sand, gravel and/or other aggregates (the matrix), bound together by a water-based binder, cement. Admixtures (modifying agents) and additives (fine mineral powders) are sometimes introduced to improve the characteristics of the fresh concrete, of the mixing process and/or of the final hardened material. (www.bibm.eu, 2014).

Concrete that is usually used for concreting slab is in the grade of 25. Calculation for concrete is in m^3 with a ratio of (1:2:4). Plus, every concrete plant is taking order with that amount.

CHAPTER 4

CONCLUSION AND RECOMMENDATION

In the industry of construction, there are many aspect the must be taken seriously. Quality, money, time and disciplines are an example of matter that affects construction activity. The culture in works is vital in every industries, it teaches people on how to manage their work. The difference of working culture between in the office and construction sites must be familiarized. Working in the construction sites always been a challenge to a supervisor. Managing the progress through the schedule is a must.

In a small construction such as bungalow project, it's a big challenge to keep the flowing of money from the client. So, it's an obstacle for project manager to manage the material with any work in progress. Direct deals with sub-contractor need a better communication. Most of sub-contractor are not from this country, that's why it's a bit difficult to communicate with them.

In the conclusion, the steps and calculation of concreting work is vital for every site supervisor to know. The method of works must be right. Every detail must be recorded in the method statement. As a matter of fact, the construction of slab is somehow complicated to build. From the installation of scaffolding until the concreting work, the steps must be recorded. From the very beginning of this process, it is easy to understand on how 1st floor slab is made.

As a recommendation, safety and discipline on site can be helpful to get smoother flow of work. Always follow the rules, alert on every harmful matter throughout every process.

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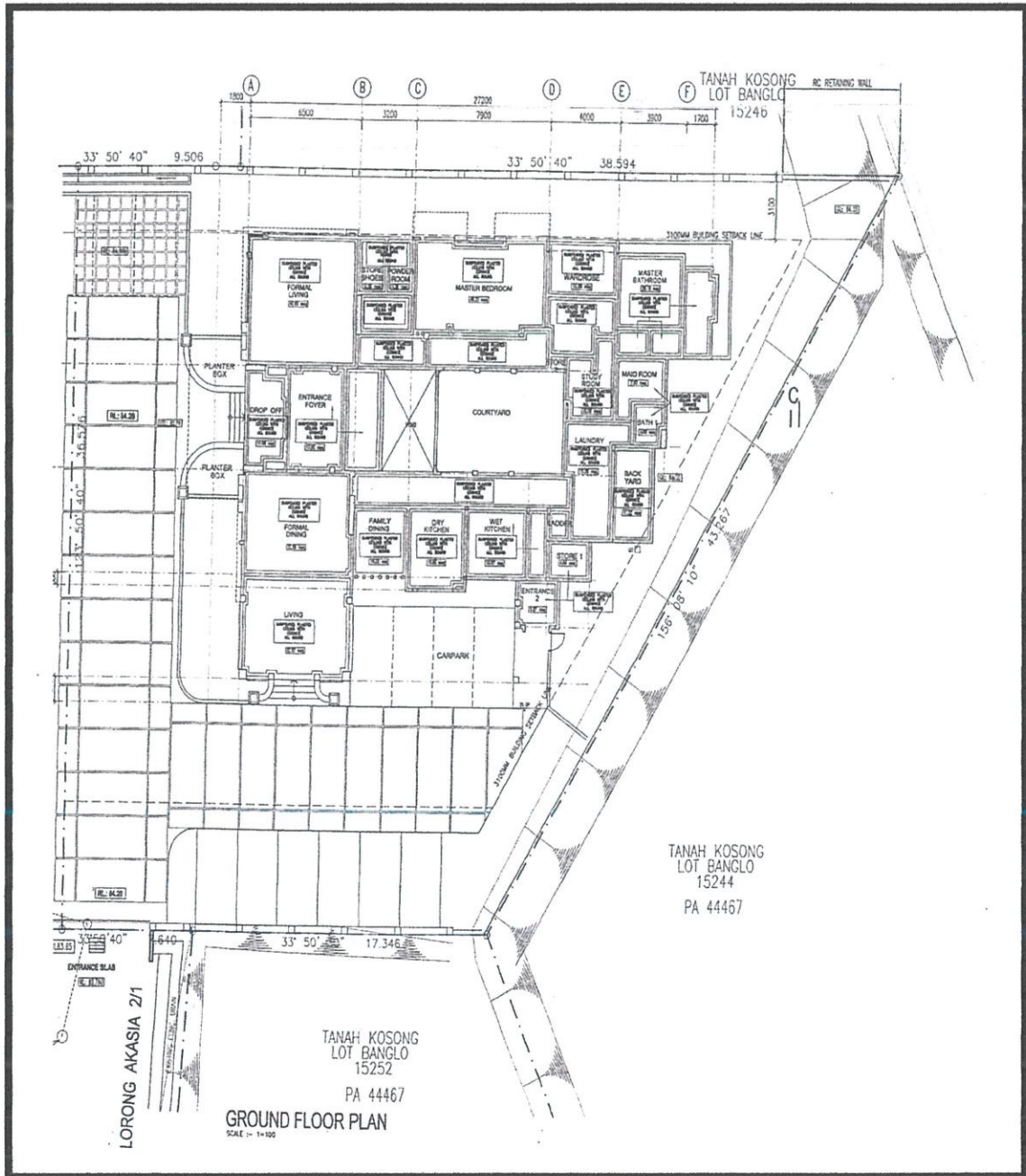
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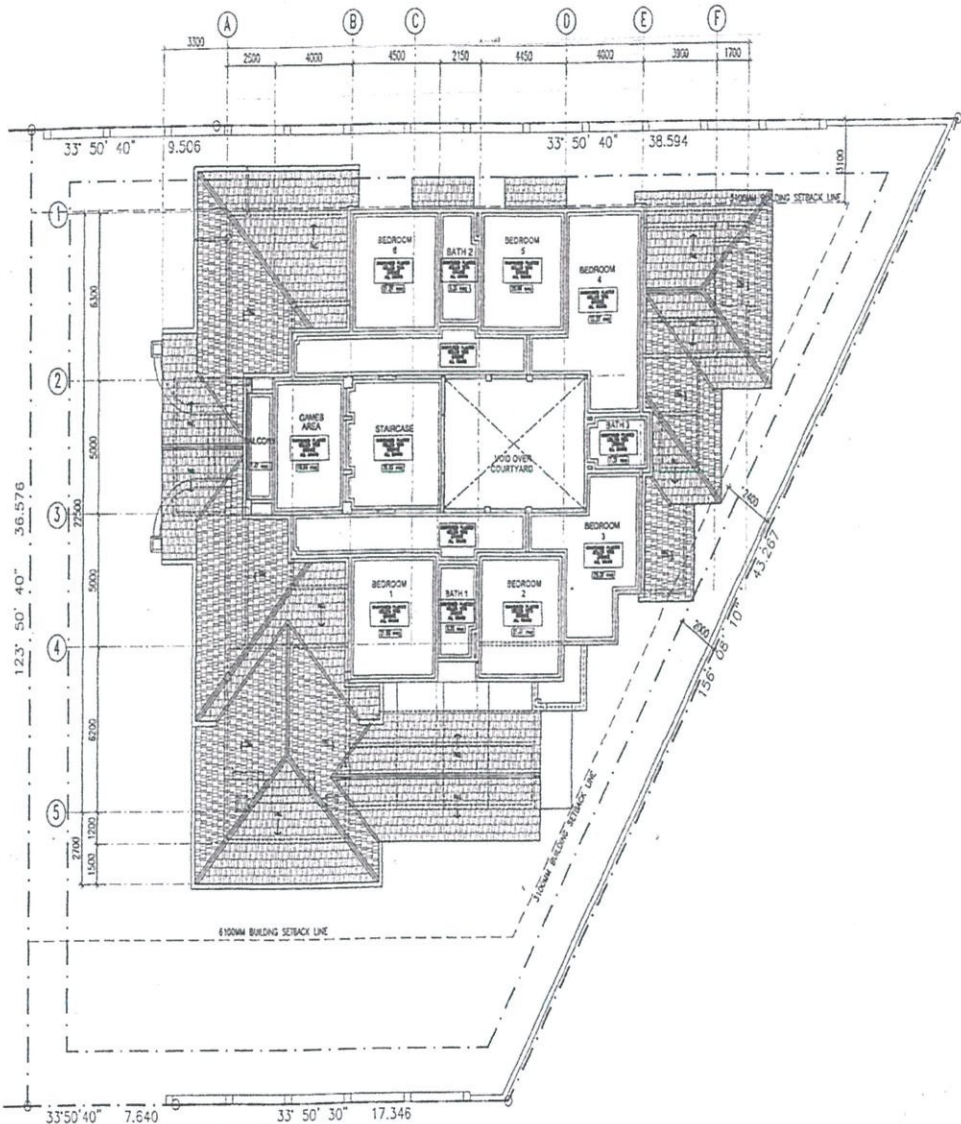
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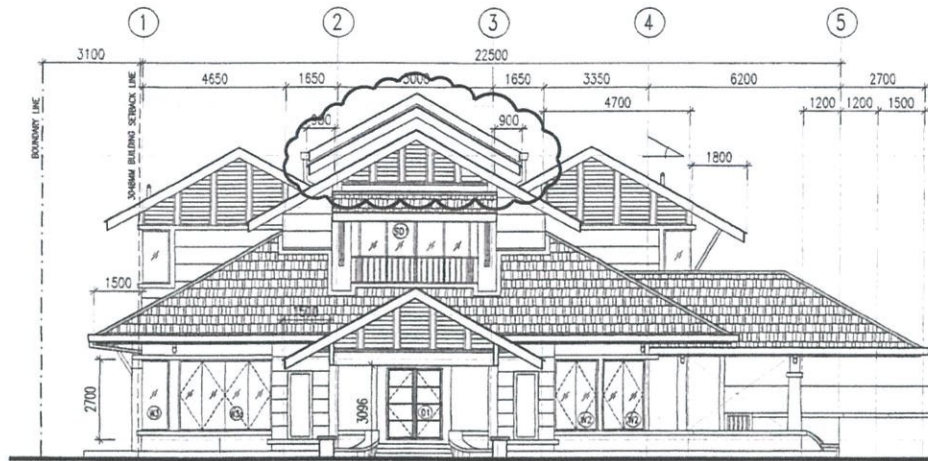
<http://www.bibm.eu/precast-concrete/what-is-concrete-what-is-a-precast-concrete-product?id=1057>

Appendix A: Project Layout Plan



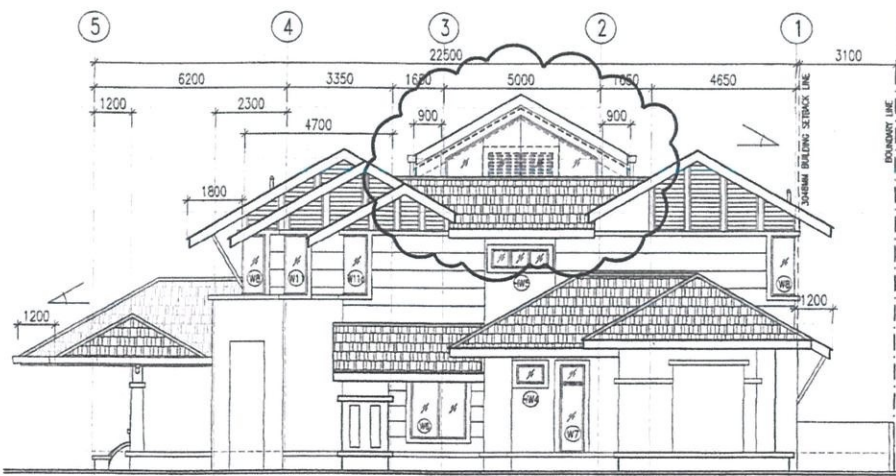


1ST FLOOR PLAN
SCALE -- 1/4"=1'-0"



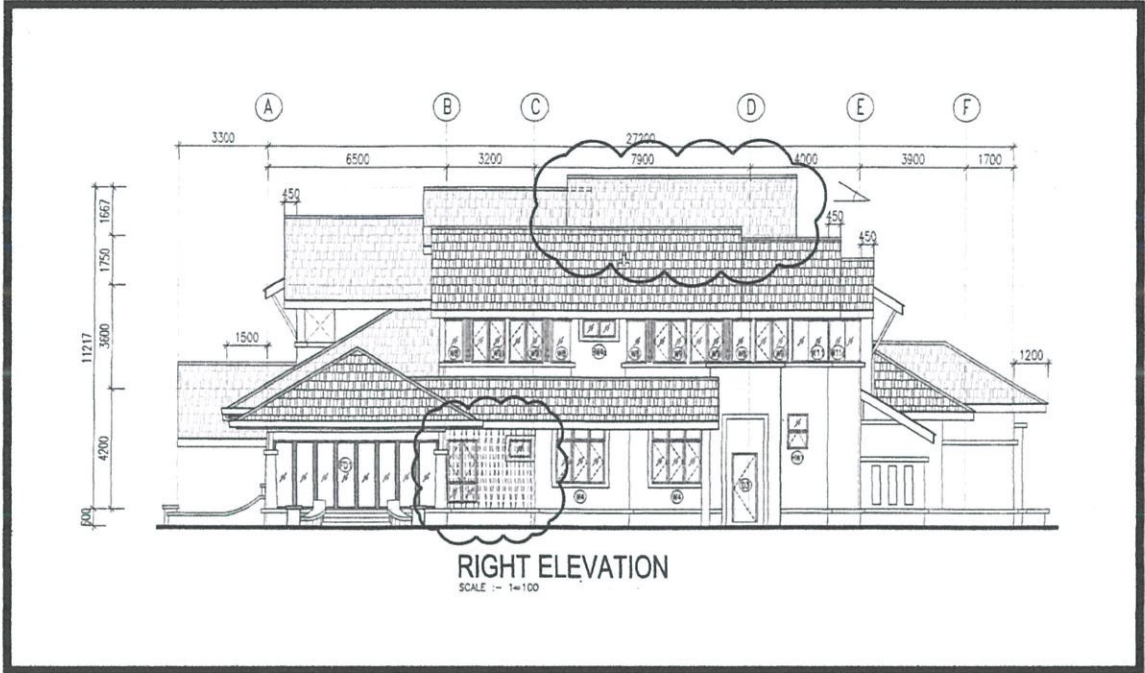
FRONT ELEVATION

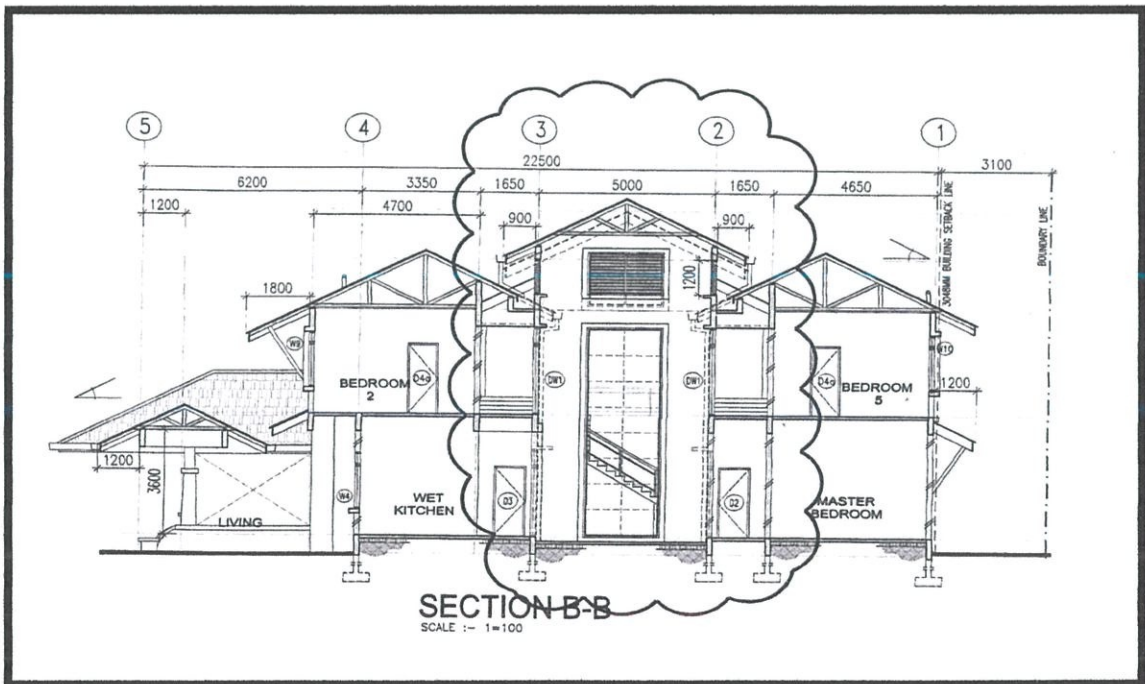
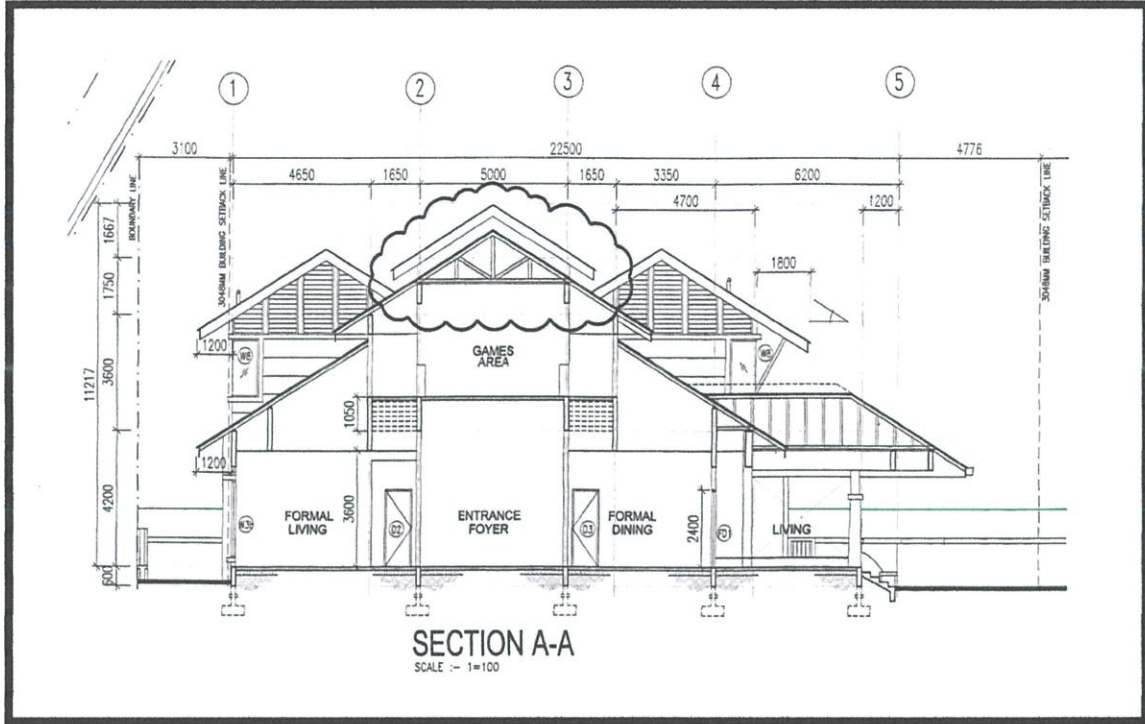
SCALE :- 1=100

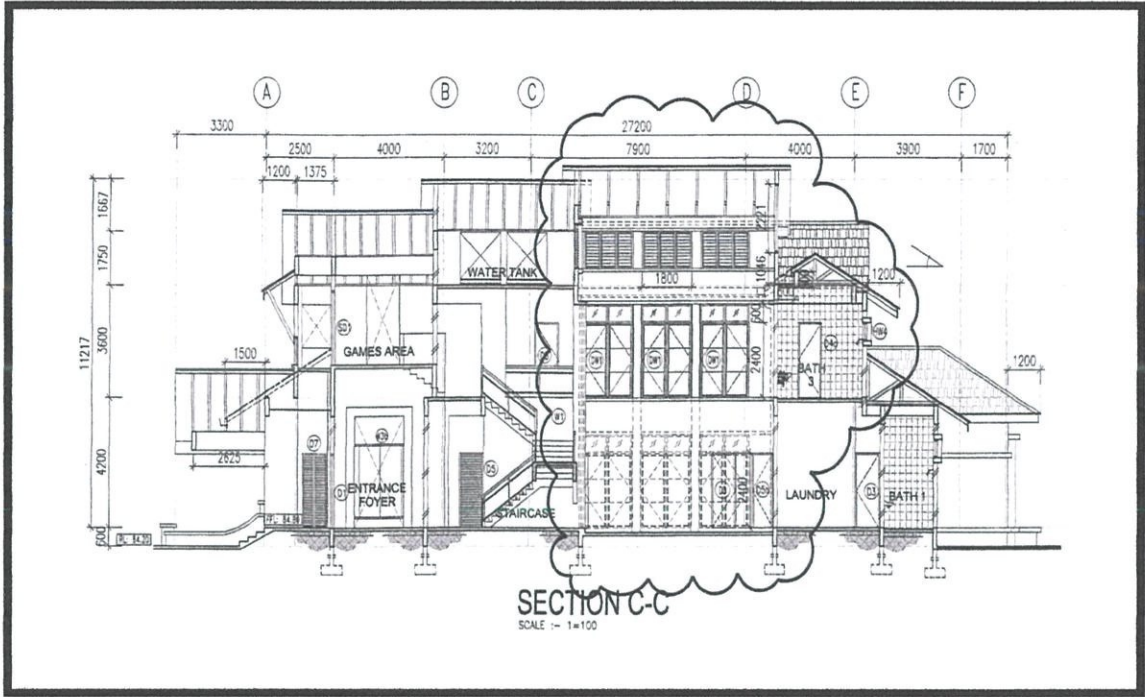


REAR ELEVATION


SCALE :- 1=100







Appendix B: Certificate of company

		No. Siri TB 141090
PUSAT KHIDMAT KONTRAKTOR KEMENTERIAN KERJA RAYA MALAYSIA		
SIJIL KONTRAKTOR KERJA TARAF BUMIPUTERA		
Adalah dengan ini syarikat tuan seperti tercatat di dalam Sijil ini diiktiraf sebagai kontraktor kerja bertaraf Bumiputera. Pemberian pengiktirafan ini adalah tertakluk kepada syarat - syarat termaktub di belakang sijil.		
NO. SIJIL PENDAFTARAN 0120120718-WP144198	GRED PENDAFTARAN G1 (Bumiputera)/Kelas F	TEMPOH SAH LAKU DARI : 15/10/2012 HINGGA : 06/06/2015
NAMA DAN ALAMAT BERDAFTAR KIMAWARI ENGINEERING SDN. BHD 13-2B JALAN 15/1C SEKSYEN 15 43650 BANDAR BARU BANGI SELANGOR		
PEGAWAI SYARIKAT YANG DITAUHIAHKAN ABDUL RAHMAN BIN PAWEH CELIANA MIYOH ABDULLAH *****	NO K/P *****	JAWATAN PENGARAH PENOLONG PENGARAH *****
(MOHD SUKOR BIN HUSIN) PENGARAH W. PERSEKUTUAN Pusat Khidmat Kontraktor Kementerian Kerja Raya Malaysia Tarikh Cetak: 12/10/2012		



KEMENTERIAN KEWANGAN MALAYSIA

SIJIL AKUAN PENDAFTARAN SYARIKAT

NO SIJIL : K22109555261050366
NO RUJUKAN PENDAFTARAN : 357-02189286
TEMPOH SAH LAKU : 27/07/2012 - 26/07/2015

Bahawa dengan ini diperakui syarikat :

KIMAWARI ENGINEERING SDN.BHD. (867799-M)
13-2B JALAN 15 C
SEKSYEN 15
HULU LANGAT
43650 BANDAR BARU BANGI
SELANGOR, MALAYSIA

Telah berdaftar dengan Kementerian Kewangan Malaysia dalam bidang bekalan/perkhidmatan di bawah sektor, bidang dan sub-bidang seperti di Lampiran A. Kelulusan ini adalah tertakluk kepada syarat-syarat seperti yang dinyatakan di Lampiran B. Individu yang diberi kuasa oleh syarikat bagi urusan perolehan Kerajaan adalah seperti berikut :

ABDUL RAHMAN PAWEH
CELLANA MIYOH ABDULLAH

PENGURUS
PENGARAH URUSAN

t.t

DATO' FAUZIAH YAACOB
Bahagian Perolehan Kerajaan
b.p Ketua Setiausaha Perbendaharaan
Kementerian Kewangan Malaysia

Tarikh Berdaftar Dengan Kementerian Kewangan Malaysia : 27/07/2012

(Sijil ini adalah cetakan komputer dan tidak memerlukan tandatangan)

PERAKUAN PENDAFTARAN

Adalah dengan ini diperakui bahawa kontraktor yang dinyatakan di bawah ini telah berdaftar dengan Lembaga mengikut Bahagian VI Akta Lembaga Pembangunan Industri Pembinaan Malaysia 1994. Pendaftaran ini adalah tertakluk kepada syarat-syarat yang telah ditetapkan di belakang Perakuan ini

No Pendaftaran: 0120120718-WP144198

Nama Kontraktor: KIMAWARI ENGINEERING SDN. BHD

Alamat Berdaftar: 13-2B
JALAN 15/1C
SEKSYEN 15
43650 BANDAR BARU BANGI
SELANGOR

Gred, kategori dan pengkhususan berdaftar

G1 B B04 B13 B14 B28 B24
G1 CE CE21 CE01 CE02 CE03 CE13 CE34 CE36 M15

Tarikh Mula Berkuatkuasa: 18 JUL 2012

Tarikh Habis Tempoh Perakuan: 06 JUN 2015*

**Perakuan ini hendaklah diperbaharui selewat-lewatnya 60 hari sebelum tarikh habis tempoh.*

STATUS : BARU - Kontra:tor yang baru berdaftar semasa perakuan pendaftaran ini dikeluarkan.

(
b.p. Ketua Eksekutif)



A002153



Sijil Perolehan Kerja Kerajaan

NO. SIJIL PENDAFTARAN
0120120718-WP144198

Adalah disahkan Syarikat/Firma seperti butir-butir berdaftar dengan Lembaga Pembangunan Industri Pembinaan Malaysia dan tertakluk kepada syarat-syarat termaktub di belakang sijil.

Tarikh Mula Berdaftar Dengan CIDB : 18/07/2012

NAMA DAN ALAMAT BERDAFTAR

KIMAWARI ENGINEERING SDN. BHD
13-2B
JALAN 15/1C
SEKSYEN 15
43650 BANDAR BARU BANGI
SELANGOR

TEMPOH SAH LAKU :

DARI : 06/08/2012
HINGGA: 06/06/2015

GRED

G1
G1

KATEGORI

B (Pembinaan Bangunan)
CE (Pembinaan Kejuruteraan Awam)

PEGAWAI SYARIKAT YANG DITAUHIAHKAN

ABDUL RAHMAN BIN PAWEH
CELIANI MIYOH ABDULLAH

NO. K/P

Jawatan

PENGARAH
PENOLONG PENGARAH



()

LAMPIRAN A

NO SIJIL : K22109555261050366
NO RUJUKAN PENDAFTARAN : 357-02189286
TEMPOH SAH LAKU : 27/07/2012 - 26/07/2015

BIL	TARIKH DAFTAR BIDANG	KOD BIDANG	KETERANGAN	STATUS
1	27/07/2012	020101	PERABOT,PERABOT MAKMAL DAN KELENGKAPAN BERASASKAN KAYU, ROTAN/FABRIK LOGAM PLASTIK	Aktif
2	27/07/2012	060501	PERALATAN MAKMAL SERTA AKSESORI	Aktif
3	27/07/2012	090101	BAHAN BINAAN	Aktif
4	27/07/2012	090201	PERALATAN KESELAMATAN JALAN RAYA/PERABOT JALAN RAYA	Aktif
5	27/07/2012	221001	PEMBERSIHAN BANGUNAN DAN PEJABAT	Aktif
6	27/07/2012	221002	MEMBERSIH KAWASAN	Aktif
7	27/07/2012	221003	MENGANGKAT SAMPAH	Aktif
8	27/07/2012	221005	MENCUCI KOLAM RENANG	Aktif
9	27/07/2012	221104	TENAGA BURUH	Aktif
10	27/07/2012	221402	HIASAN JALAN KAWASAN	Aktif

Tarikh Berdaftar Dengan Kementerian Kewangan Malaysia : 27/07/2012

Mukasurat 1 dari 1