DEPARTMENT OF BUILDING SURVEYING

FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING

UNIVERSITI TEKNOLOGI MARA

TITLE

(SITE MANAGEMENT AT PULAU BAYAS, TASIK KENYIR)

AHMAD MUZAMMIL BIN ZULKEFLEE

(2010435174)

DIPLOMA IN BUILDING SURVEYING

PRACTICAL TRAINING REPORT

JUNE 2013 – OCTOBER 2013

ACKNOWLEDGEMENT

In the course of practical training for four months, many of those who supported me for the success of the report. First of all, I would like to ANJ Ventures Sdn Bhd for giving me the opportunity to do practical training in companies.

In addition, I would like to thank the site supervisor , En Zulkifli bin Ismail because give more information and guidance to me about construction. He also gave full faith and an opportunity of doing any work.

Not forgetting my parents a lot of help in financial terms in the success of this practice. They also often provide support and encouragement to me to complete the practical training report.

I would also like to thank my supervisor, Sr. Dzulkarnaen bin Sudirman because she has helped and assisted in completing the practical training report. Additionally, not forgetting my fellow friend because gave support and cooperation in making my final project.

Finally, I am satisfied with all the work I do and it's a lot of positive impact on me. I hope the University of Technology Mara (UiTM) will continue to cost and practical training such as this to the coming generation.

ABSTRACT

Practical training is a course that should be completed by all students who took the final semester of Diploma in Building Surveying. Students can choose where company or palace to conduct the practical training.

I have select the privacy departments of the ANJ Ventures Sdn Bhd as a place for the practical training. I have placed at site office Kenyir Lake Shopping Complex. The site supervisor as a leader in this site had been appointed to be my supervisor during the training.

During the practical training, I learned about the use of piling in construction of apartments. For example, knowing that each type of piling, know the installation of piling to the construction site.

Practical training will be end after four months the students complete the training. Finally, students will then prepare a report according to the topics that relevant to the work during the practical training that had been done.

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CHAPTER 1:

INTRODUCTION AND BACKGROUND OF THE ORGANIZATION

1.1 Introduction

Industrial training is a compulsory part of the course to be taken by all students of Universiti Teknologi Mara (UiTM), each student is required to undergo industrial training for one semester before being awarded a diploma. The training is done for four months at firm or organizations that have been hand-selected by student or specified. The real aim of this industrial training is to prepare graduates who are ready and able to face either a career in academic or non-academic in spirit and appearance of professionalism.

In addition, students are exposed to real-world job situations besides helping improve the social skills of students. Students have to undergo industrial training in ANJ Ventures Sdn Bhd. During the training period, students are exposed to a variety of activities in the field of work, although the job is not done entirely by students for the purpose of security, regular students were briefed and clear guidance and useful enough as a general knowledge, in addition, students can learn the pattern of administration and management, as well as exposed to the real working environment and can learn social skills such as communication and social interaction.

At the end of the industrial training, the students hope to achieve objectives and take advantage of what he learned to face challenges in today's world of increasingly challenging.

1.2 The objective of Industrial Training

Each student will undergo industrial training in government firms or private for a period of one semester to qualify for a diploma student who has been taken by the student at the university. The objective of the program is as follows:

1. Individual personalities can build teamwork, trust, confidence, and responsibility.

2. Provide opportunities for students to gain experience in the related field work with their studies.

3. Able to communicate effectively and mature student thinking.

4. Practice of ethics and rules of good work.

5. Understanding culture (corporate culture) in preparation for the working world.

6. Master skills courses by linking theories learned in the Universiti Teknologi Mara (UiTM).

7. Build character, attitude and skills to communicate or communicate human sesame.

8. Stimulate students to improve academic achievement after going through his own work experience.

9. Produce industrial training report.

1.2.1 Objectives of Industrial Training Report

Each student is provided with practical training related daily report book their practical training, for students who have completed their industrial training, students are required to prepare a special report for industrial training, this report is based on work done during industrial training for one semester. Among the objectives of industrial training report is as follows:

1. Give the impression to the reader of motion activities and student work that is done the next role or firm department.

2. As a guidelines to gather all the information and data obtained during the industrial training,

3. Describing the work done by the student daily report book.

4. As an initial overview and reference for students who will undergo industrial training.

5. In reference to the management of the company for improvements to the company in the coming time.

6. Meet the requirements for the award diploma Universiti Teknologi Mara (UiTM).

1.3 Importance of Industrial Training Students

Every student who is pursuing studies at Universiti Teknologi Mara (UiTM), was required to undergo industrial training for one semester, to students taking diploma will undergo industrial training during semester to six, industrial training is compulsory for all students before they qualify for a reward Diploma. Importance of industrial training to students is to expose students to the real working environment, before they step into the real working world, early exposure as industrial training can enhance student self-esteem, but also be able to encourage students to continue their studies until the end and obtain certificate or diploma. After undergoing industrial training, the students will be more confident and aware of the real working environment, this can help the students to practice what they have learned in the classroom or in workshops in real life. In this way will be able to gain knowledge and experience of the students.

1.4 Company profile

Figure 1.1: ANJ office

ANJ Ventures Sdn. Bhd. is the company construction CIDB Grade G7. Located at Lot PT 32598 Tingkat 1, Rumah Kedai Tepoh Jalan Kelantan 21060 Kuala Terengganu, Terengganu Darul Iman . The firm has been incorporated since Mac 3, 2002. 100% Bumiputera owned and registered with the Contractor Service Centre (PKK) and the Construction Industry Board (CIDB). At its inception, ANJ only involved with the work of the developer before actively involved in the work of civil engineering and mechanical engineering.

Based on the experience and determination to move forward, ANJ has been registered with the Contractor Service Centre and the Construction Industry Development Board Malaysia (CIDB) to be the main contractor. ANJ has been qualified by the PKK in Class 'A' class natives on 22. August 2002 and CIDB Class G7 on 23th. August 2002 and received recognition from the ISO 9001:2008 Certification Body (No.Sijil: Q902088).

i. Location plan for office

ii. Location plan for site

1.5 Corporate Information

COMPANY NAME	:	ANJ VENTURES SDN. BHD.
NO OF COMPANY	:	572621-A
DATE OF ESTABLISHED	:	03 MAC 2002
ADDRESS	:	LOT PT 32598, TINGKAT 1, RUMAH KEDAI TEPOH JALAN KELANTAN 21060 KUALA TERENGGANU TERENGGANU DARUL IMAN
NO. TEL	:	09-662 5088
FAX	:	09-662 3089
EMAIL	:	anj.ventures@yahoo.com
REGISTRATION	:	i. PKK CLASS A (TARAF BUMIPUTERA) ii. CIDB KELAS G7
MODAL DIBENAR	:	RM 2,000,000.00
MODAL DIBAYAR	:	RM 2,000,000.00
COMPANY SECRETARY	:	IMAN PARTNERS CONSULT 111 – C , TINGKAT 1, JALAN BATAS BARU, 20300 KUALA TERENGGANU

NO. TEL	:	09-624 4616
NO. FAX	:	09-624 5616
COMPANY AUDITOR	:	ADIB AZHAR & CO. CHARTERED ACCOUNTANTS 111C-1, 1ST FLOOR, JALAN BATAS BARU, 20300 KUALA TERENGGANU TERENGGANU DARUL IMAN
ACCOUNT BANK	:	HONG LEONG ISLAMIC BANK BHD NO. 31, JALAN SULTAN ISMAIL 20200 KUALA TERENGGANU TERENGGANU DARUL IMAN.
AKAUN NO	:	35901004117

1.6 Company Logo

Figure 1.2: ANJ Logo

1.7 Company Policy

(572621 A)

ANJ VENTURES SDN.BHD.

HEALTH AND SAFETY POLICY

As a responsible company, we have a fundamental responsibility and commitment to ensure that all of our employees work in a safe and healthy environment.

We believe this policy will contribute positively to the quality of life for our employees, our operating standards, public safety and care for the environment. We will work towards and increase gradually our processes to meet and exceed OHSAS 9001: 2008 and any other legal and other requirements related to safety and health.

We will work towards the following objectives: -

- Achieving Zero Injury and Occupational Disease
- Constructing the Effective Emergency Response System and efficiently
- Improving Machinery and Machine Management System
- Improve Site Safety and Health Management.

The success of this implementation can only be achieved by a total commitment to this policy by all parties.

SAFETY PAYS TO ALL

ALIAS BIN ALI

Managing Director

(572621 A)

ANJ VENTURES SDN.BHD.

ENVIRONMENTAL POLICY

ANJ VENTURES SDN.BHD. believes in the protection of human health, natural environment, prosperous economy and spiritual harmony. To comply with Legislative Requirements and Environmental Quality Act, **ANJ VENTURES SDN.BHD.** will apply technically proven and economically feasible measures for the Protection of the Environment : -

- Establish policies, programs and practices for conducting business in an environmentally sound manner.

- Monitor Environmental Program and ensure compliance with Legislative and Company's requirements.

- Review and improve Environmental Performance based on the latest and economical technology.

- Require Sub-Contractors and Suppliers to meet Environmental Requirement and Performance.

- Ensure all employees understand and are able to full fill their Environmental Responsibilities though training and awareness programs.

- Makes available our Environmental Policy to the Public.

We value the efforts of all members of the **ANJ VENTURES SDN.BHD.** to make above a reality.

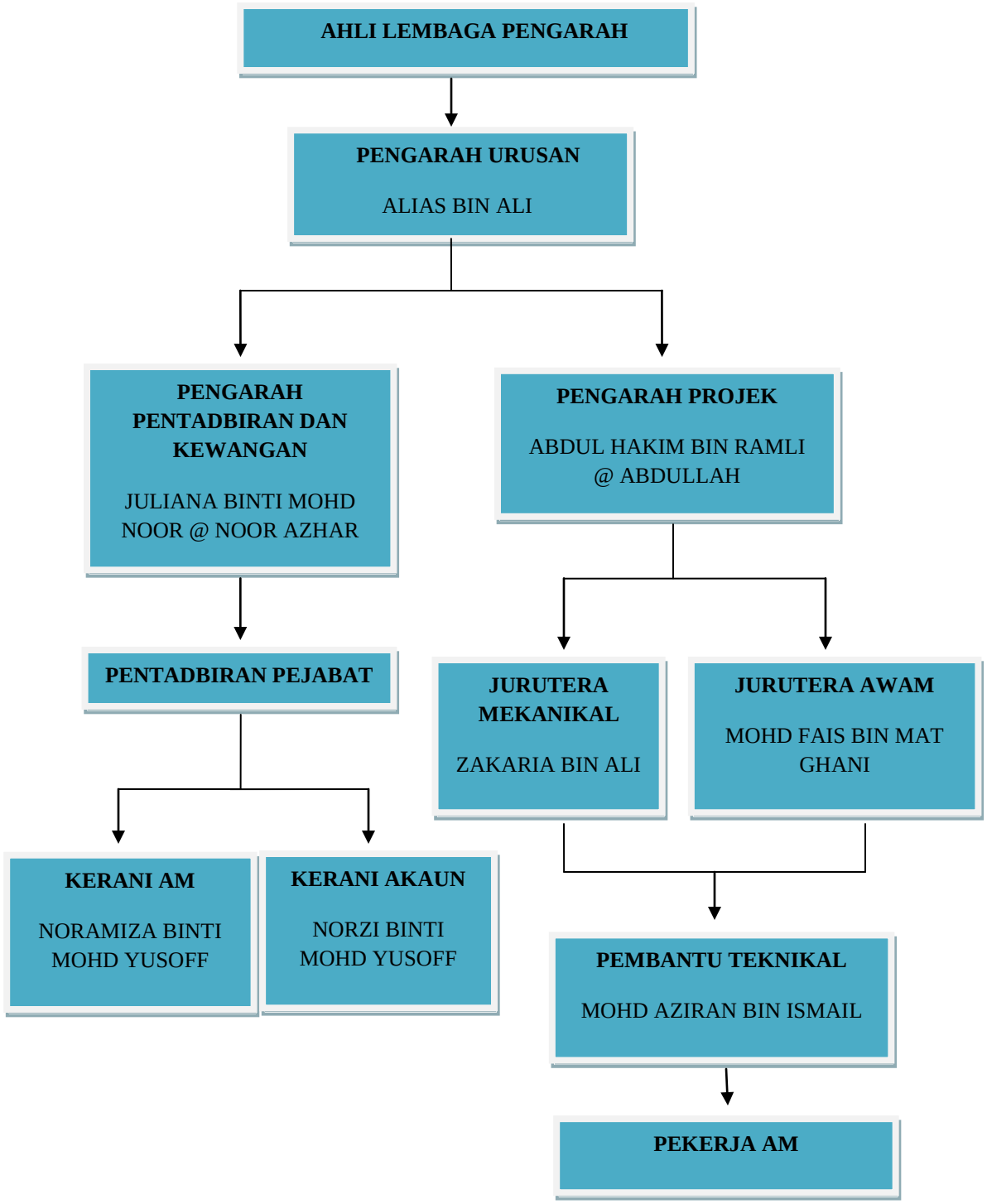
Signed by

ALIAS BIN ALI

Managing Director

Date : 27. Disember. 2007

1.8 Organization Chart



BIODATA PENGARAH URUSAN

Name	:	En. Alias Bin Ali
IC No	:	6785830 (L)
		620710-11-5281(B)
Date Of Birth	:	10.07.1962
Race	:	Malay
Address	:	No.42, Kuala Terengganu Golf Resort
		Tok Jembal, 21300 Kuala Terengganu,
		Terengganu Darul Iman.

ACADEMIC BACKGROUND AND ACADEMIC

He holds a Bachelor of Economics degree from the Universiti Kebangsaan Malaysia in 1987. He has extensive experience in business and got involved since 1990.

BIODATA JURUTERA MEKANIKAL

Name	:	En. Zakaria Bin Ali
IC No	:	A 0080179 (L)
		650511-11-5139 (B)
Date Of Birth	:	11.05.1965
Race	:	Malay
Address	:	447, Kampung Teluk Menara Manir, 21200 Kuala Terengganu, Terengganu Darul Iman

ACADEMIC BACKGROUND AND ACADEMIC

He had graduated from Universiti Teknologi Malaysia in 1988 and obtained a Bachelor of Engineering Machinery. After graduation he worked as a Quality Control Engineer at Malaysia Shipyard and Engineering Sdn. Ltd. in March 1989 to Dec. , 1990.

Next he entered the service in the Hyundai Engineering and Construction Co.. Ltd. and was involved with the PGU project stage II (Gas Processing Plant Project) on Dec 1990 to Sept. 1991 and the same year also served at Stone and Webster Engineering Coorporation-Zainal Sdn Bhd as a Mechanical Engineer and most recently he held the position of Mechanical Engineer Company MTBE / Polypropylene Malaysia Sdn.

BIODATA PENGARAH PROJEK

Name	:	En. Abdul Hakim Bin Ramli @ Abdullah
IC No	:	A 2279199 (L)
		720817-11-2001(B)
Date of Birth	:	17.08.1972
Race	:	Malay
Address	:	1064-U,Kg Gong Tok Nasek
		21100 Kuala Terengganu,
		Terengganu.

ACADEMIC BACKGROUND AND ACADEMIC

He holds a Bachelor of Civil Engineering from UTM, Skudai, Johor. He had graduated in 1995. He also worked as a Project Engineer in 2001.

BIODATA JURUTERA AWAM

Name	:	En. Mohd Fais Bin Mat Ghani
IC No	:	851007-11-5077
Date Of Birth	:	07.10.1985
Race	:	Malay
Address	:	No. A7 Jalan Merang
		Rumah Murah Mengabang Lekor
		21020 Kuala Terengganu
		Terengganu Darul Iman.

ACADEMIC BACKGROUND AND ACADEMIC

He holds a Diploma in Civil Engineering from UiTM, Shah Alam, Selangor before continuing their studies to degree level in Civil Engineering at the same university and completed in May 2009.

BIODATA PEMBANTU TEKNIKAL

Name	:	En. Mohd Aziran Bin Ismail
IC No	:	771005-03-5751
Date Of Birth	:	05.10.1977
Race	:	Melayu
Address	:	Kampung Pak Ma'yong
		Cherung Ruku
		16700 Pasir Putih
		Kelantan.

ACADEMIC BACKGROUND AND ACADEMIC

He holds a Diploma in Quantity Surveying from Universiti Teknologi Malaysia (UTM). He also worked at Sincere Image Sdn. Ltd. as a Quantity Surveyor from August 2002 to November 2007.

1.9 Company Experienced

No	Keterangan Kontrak	Nilai Kontrak (RM)	Nama Majikan	Tarikh Mula	Tarikh Siap
1.	Cadangan Membina Dan Menyiapkan Jalan Ke Kubur Serta Kerja Yang Berkaitan Di Felda Kerteh 4, Bandar Ketengan Jaya, Dungun, Terengganu	373,577.00	GPQ SDN. BHD.	11/07/92	11/12/92
2.	Kerja-Kerja Menaikkan Taraf Jalan Darat Olong Kampong Binjai, Kemaman, Terengganu	433,592.00	JKR	28/09/92	22/02/93
3.	Kerja-Kerja Membekal, Membina Serta Menyiapkan Jalan Tar Ikatan Separuh Dan Lain-Lain Kerja Yang Berkaitan Di Jalan Perkampungan Pakoh Jaya, Tepoh, Terengganu	137,426.00	JKR	27/11/93	17/12/93
4.	Menaiktaraf Jalan Di Kawasan Perindustrian Sri Medang, peringkat IV	413,603.70	GPQ SDN. BHD.	02/07/94	01/09/94

6.	Kerja Jalan Masuk Dan Kerja-Kerja Berkaitan Untuk Kawasan Industri Bari, Setiu, Terengganu	2,462,120.00	GPQ SDN. BHD	13/04/97	12/11/97
7.	Membina Dan Menyiapkan Jalan Kampung Gong Terap Ke Bukit Tok Hat & Bukit Mak Som, Setiu, Terengganu.	1,528,235.00	JKR	05/05/97	11/07/98
8.	Membekal, Membina & menyiapkan Kerja-Kerja Tanah, kerja Infrastruktur Serta Kerja-Kerja Berkaitan Di Kawasan Perindustrian Sri Langkap, Setiu, Trg. Sungai bari Peringkat IV	414,490.00	GPQ SDN. BHD.	12/05/98	11/07/98
9.	Membekalkan, Membina Dan Menyiapkan Kerja-Kerja Infrastruktur Luar Termasuk Pembinaan Jalan Berturap, Pembentong Serta Kerja-Kerja Berkaitan Ke Kawasan	686,384.70	GPQ SDN. BHD.	12/05/98	11/09/98

	Perindustrian Sungai Bari, Setiu, Terengganu, Peringkat III				
10.	Membina Dan Menaiktaraf System Perparitan jejari sekitar kolam renang Hospital Kuala Terengganu	1,033,360.00	MPKT	05/11/98	08/05/99
11.	Contract For The Civil Works Package 1 For Kuantan – Kerteh Railway Project Subcontractor For Construction And Completion of Roadworks	3,368,074.80	PERCON - BABENA (J/V)	10/08/00	30/09/01
12.	Pembinaan Dua (2) Blok Kuarters Guru Kelas 'F' Dua (2) Tingkat (TERES) Di Sek. Men. Kerteh (8 Unit) Kemaman, Terengganu	787,912.80	JKR TERNGGANU	17/08/98	02/01/00
13.	Memasang Dan Menguji Paip 488.6mm O.D.M.S Dari Bukit Catak Ke Kertas Pulas Dan Kerja-Kerja Lain	941,388.50	JBA TERENGGANU	15/12/98	20/12/99

	Berkaitan di Dungun, Terengganu				
14.	Membina Dan Menyiapkan Kerja-Kerja Ubahsuai Bangunan Masjid, tempat Wuduk, menara Dan Lain-Lain Kerja Berkaitan Di Kampung Padang Jambu, Dungun, Terengganu	1,122,200.00	JKR TERENGGANU	24/04/00	18/11/01
15.	Mill & AC Overlay And Full Reconstruction For " Cadangan Membaikpulih Jalan Di Laluan FT 03 Sek. 652-654 & 659-630.4 Daerah Besut - Subcont. Dari Genggam Mercu Sdn. Bhd.	1,000,000.00	ROADCARE (M) SDN. BHD.	09/07/01	30/09/01
18.	Membina Dan Menyiapkan Sekolah (Tambahan) Dan Lain-Lain Kerja-Kerja Berkaitan Dengannya di Sekolah Kebangsaan Pusat , Jerteh,	2,089,830.20	JKR	08/04/01	15/12/01

19.	Cadangan Membaikpulih Jalan Persekutuan Di Laluan 132, Seksyen 25-27 Daerah Dungun, Terengganu	596,137.00	ROADCARE (M) SDN. BHD.	30/03/02	29/05/02
20.	Pembinaan Bangunan Tambahan Di Sek. Keb. Kubu, Marang, Terengganu	6,276,562.00	JKR TERENGGANU	30/04/02	21/04/03
21.	Pavement For Periodic Maintenance Works 2003 At Route FT 523-525, Daerah Marang, Terengganu	204,842.00	ROADCARE (M) SDN. BHD.	22/03/03	05/04/03
22.	Projek Naiktaraf Dan Ubahsuai Sekolah Kebangsaan Seri Geliga, Kemaman, Terengganu	1,627,000.00	KEMENTERIAN PELAJARAN MALAYSIA (KPM)	07/10/02	24/03/03
23.	Reconstruction, Regulating And Ac Overlay Works For Periodic Maintenance Works 2003 At Route 003,	535,080.07	ROADCARE (M) SDN. BHD.	15/01/03	26/02/03

	Section 539-541 Daerah K. Trg				

24.	Merekabentuk, Membina, Menyiap, Menguji Dan Pentauliahan Kerja-Kerja Bangunan Untuk Sekolah Agama Rakyat Falahiah, Besut, Terengganu	1,733,379.00	KEMENTERIAN PELAJARAN MALAYSIA (KPM)	04/08/02	30/03/03
25.	Membina Dua (2) Blok Bangunan Asrama 4 Tingkat dan Sebuah (1) Dewan Makan Di Sek. Men. Telemong, Hulu Terengganu, Terengganu	6,945,000.00	JKR TERENGGANU	22/04/02	30/04/03
26.	Projek Pemasangan Tukun Tiruan Di Persisiran Pantai Dan pulau Negeri Terengganu Di Bawah Peruntukan Dana Khas Kerajaan Persekutuan Bagi Negeri Terengganu	5,000,000.00	LEMBAGA KEMAJUAN IKAN MALAYSIA (LKIM)	04/08/03	03/11/04

27.	To Design, Supply, Erect And Deliver To Site 100ft Monopole Aesthetic Tree C/W Infra Works For Common Telecommunication Tower Project	420,000.00	ASIASPACE	04/09/04	10/11/04
28.	Cadangan Bangunan Tambahan Dua (2) Blok Asrama Dan Satu (1) Blok Dewan Makan Di SMK Lembah Bidung, Setiu, Terengganu Darul Iman	6,990,948.00	JKR TERENGGANU	06/04/05	05/10/06
29.	Cadangan Pembangunan Bercampur Yang Mengandungi 14 Unit Rumah Kedai 2 Tingkat, 16 Unit Rumah Berkembar 1 Tingkat, 59 Unit Rumah Kos Sederhana 1 Tingkat, 36 Unit Runah Teres Kos Sederhana Rendah 1 Tingkat Di Atas Lot 19 & 20 Di Sungai Bajar, Mukim Kuala Berang, Hulu Terengganu, Terengganu Darul Iman	15,000,000.00	MAJLIS AGAMA ISLAM DAN ADAT MELAYU TERENGGANU (MAIDAM)	15/11/06	30/03/10

30.	Merekabentuk, Membina Dan Menyiapkan 254 Unit Rumah Teres Dan Kerja-Kerja Berkaitan Dengannya Bagi Projek Rumah Kos Rendah (RKR) Di Kampung Padang Luas, Besut, Terengganu	26,500,000.00	PERKESO	16/03/07	15/09/09
31.	Cadangan Merekabentuk, Membina Dan Menyiapkan Projek Rumah Pansga Mampu Milik, Di Kampung Batin, Seberang Takir, Kuala Terengganu	14,933,761.00	KERAJAAN NEGERI TERENGGANU	01/08/08	22/07/10

CHAPTER 2:

LITERATURE

REVIEW

2.1 Definition of Construction Site Management

Construction management or construction project management (CPM) is the overall planning, coordination, and control of a project from beginning to completion. CPM is aimed at meeting a client's requirement in order to produce a functionally and financially viable project. CPM is project management that applies to the construction sector. The construction industry is composed of five sectors: residential, commercial, heavy civil, industrial, and environmental. A construction manager holds the same responsibilities and completes the same processes in each sector. All that separates a construction manager in one sector from one in another is the knowledge of the construction site. This may include different types of equipment, materials, subcontractors, and possibly locations. A contractor is assigned to a construction project once the design has been completed by the architect or is still in progress. This is done by going through a bidding process with different contractors. The contractor is selected by using one of the three selection methods: low-bid selection, best-value selection, or qualifications-based selection. A construction manager should have the ability to handle site safety, time management, decision making, mathematics, and human resources.

Construction management is also about overseeing everything involved in a construction project, whether it's residential, commercial or industrial. You may be responsible for managing an entire project or just parts of it, including coordinating and scheduling all phases, plus managing subcontractors like plumbers, electricians and more.

2.2 Definition of Material Management

According Stukhart (1995), the material is defined as "things that used in the production of goods for services, including raw materials, components, processes, supplies and equipment ". Materials management very important so as not to affect the smooth running of a project. Materials management objectives are:

- Ensure supply is available when needed
- Obtain the necessary materials at the best price
- Movement of materials at the construction site near the minimum and storage.

Planning of construction materials such time and date for an order

and when required at the construction site shall be made in detail because the

Beside the problem of waste building materials, construction materials shortage

market and at construction sites often occur. Among the vulnerability factors

materials management are:

- The person responsible is not given adequate training

  on how to manage the materials.

- The authorities do not give special attention to the cost of

  a construction project.

Figure 2.1 : Examples of material at site

2.3 Definition of Machinery Management

Machinery ownership is divided into three types of self-owned, rental and leasing. Also the construction machinery ownership not an easy task because it requires a set-up that can provide 7 services such as maintenance, rent, allowance etc. costs. Thus, the task management is to ensure that supply and establish policies for children The company aims to extend the service to the construction of unit operations. If the machine will not burden the parent company. Resource management machinery This should also be taken to ensure it does not pose a problem in any future construction projects to be accomplished. according to Muhd Zaimi (1998), the factors to be considered if the management or employers want to have the machine productivity is a machinery, economic life and market orientation.

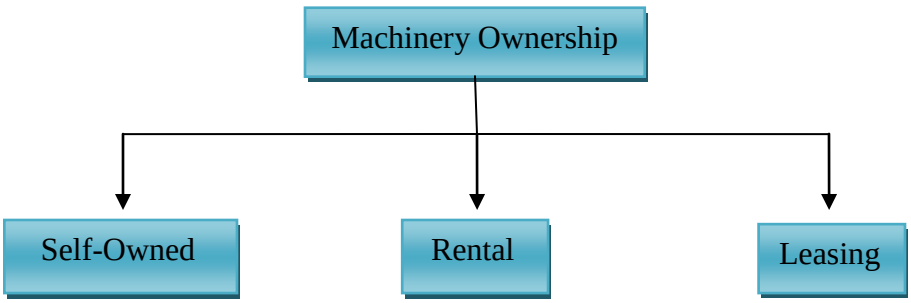


Diagram 2.1 : Types of Machinery Ownership

Figure 2.2 : Examples of Machinery at site

2.4 Definition of Labour Management

Good planning reduces the emergence of problems at site and ensure thatresources are utilized. resource management human systems will contribute to the effectiveness of the project in addition to increase productivity. Good management requires planning careful. Planning is chosen and set in motion the future organization, targets to be achieved in a short period of time and length and actions taken to achieve these goals (Anderson, 1984). The aim is to produce skilled manpower and can produce quality work and be able to use manpower including current and planned effective employee selection, development workers and others. Another purpose is to provide equal employment opportunity and fair to all individuals within the organization as employees will get job positions based on qualifications. Changes to the system office old should be done in accordance with the modernization and provide opportunities other workers enjoy the promotion. In addition, the plan can provide preparation for the change. Therefore, it can determine the size of workers to be recruited, the number of permanent workers and discontinued line human resource needs. With this, the management of human resources in construction must be systematically according to the situation now.

2.4.1 Labor System Used

Labor at construction sites are locals and foreigners earned by agencies with different backgrounds. therefore, labor management system is quite complex. There is a system for the management of their own labor and commonly used. Here are the most common systems used in all construction sites:

- Sistem Sub-Kontraktor Dinamakan

  Nominated Sub-Contractor is appointed sub-contractors in the implementation of the work requires specific expertise. It is usually appointed by the consultant with the consent of the developer. This is a sub-contractor under the supervision of the developer and all questions should be directed to the consulting engineer or architect. Between ordinary work performed are :

  1. Installation lift
  2. Installation fire fighting system
  3. Installation power lines

- Sistem Kepala

  Most of the Malaysian construction system using the system in which certain works submitted ‘kepala-kepala’ who have experienced their own employees. 'Kepala-kepala; are monitored and coordinated by the site manager to launch and completed in the required time frame. Specialized work of 'kepala-kepala' is:

1. Binding bricks
2. Installation drainage system
3. Carpentry
4. Installation of steel reinforcement

- Sistem Kongsi-kong

‘Kongsi-kong' is the lowest class of labor in which it daily wage and under the tutelage of the site manager. Its use is not overly broad than a 'sistem kepala'. General work normally done is :

1. Transporting building materials from trucks.
2. Clearing of building sites.
3. Lifting stones or iron reinforcement to where they were needed and other.

Figure 2.3 : Examples of Labor skill at site

CHAPTER 3:

CASE STUDY

3.1 Introduction

Tasik Kenyir is located in the upper reaches of the River Kenyir, Terengganu is the largest lake ever built by humans to generate electric power in Southeast Asia. This lake of 2,600 square miles and contains 340 small islands. Since the existence of the dam here, especially surrounding highway was first known by the public both from within and outside the country. This lake is a popular tourist spot in the state since its existence. It was completed in 1988. Tasik Kenyir has drowned several villages and forests. Many wild animals have been rescued during the construction of this dam. Construction of the dam has created economic return to the majority of the population are farmers. Indirectly, the people here can raise their social status. Tourist arrivals here are famous for sweet corn raised highway city name in the eyes of outsiders, previously known as the 'city of the dead'. Various efforts at enhanced in order to introduce Tasik Kenyir in a higher level.

South East Asia's largest man-made lake is undeniably a haven for adventurers and nature lovers. The future sees the enhancement of Kenyir Lake into a Free Trade Zone to make it not only a prime getaway for eco-tourism but a shopping paradise as well. Officially declared a Free Trade Zone by the Menteri Besar of Terengganu, when fully operational, its aim is to open its doors to visitors and investors to a unique and contemporary eco-tourism experience. The heart of the Free Trade Zone is the Kenyir Trade Centre, which will be home to a duty free shopping haven, a business centre, the Bayas Square, and a 3-star hotel. To make the centre accessible to more visitors, an iconic bridge will be erected to link the jetty to the Kenyir Trade Centre. Terengganu's heritage and cultural design will be adopted into its architecture. The development plan sees Lake Kenyir further supplemented by a 40-seater "Shotover" jet boat, the construction of a cable car line, the development of a theme park, and a second jetty for visitors coming from the west. Importantly, the infrastructure and transportation

system leading to the lake and specifically to the islands will be upgraded to accommodate the increase in the influx of tourists.

Pulau Bayas as a duty free zone is precisely because the island was the focus of visitors at Tasik Kenyir. Pulau Bayas surrounded by various tourist attractions like Lake Kenyir water theme park on the Pulau Besar as well as a variety of ecotourism park and visitors will stop at Pulau Bayas to relax. Island with an area of 1,000 hectares, is one of 340 islands in Tasik Kenyir, the largest man-made lake in Southeast Asia.

Figure 3.1 shows the site at Pulau Bayas, Tasik Kenyir

Figure 3.2 shows the perspective view of Kenyir Free Trade Centre

3.2 Material management

1. PILING

i. Company will order items pile with Concrete Engineering Products Berhad (CEPCO). Here is information about suppliers :

The Company was established in 1983 under the name of Concrete Engineering Products Sdn. Bhd. with the objective of producing high quality concrete engineering products to meet the needs of the rapidly developing Malaysia and other ASEAN countries.

In May 1991, the Company assumed the name of Concrete Engineering Products Berhad when it was converted into a public listed company. In January 1992, the Company was listed on the Kuala Lumpur Stock Exchange.

The Company currently operates five factories, strategically located in Penisular Malaysia, fully certified with both requirements of SIRIM QAS International MS ISO 9001: 2000 (Quality Management Systems for the Manufacture of Pretensioned Spun Concrete Piles and Poles), and the IKRAM QA Services MS 1314 : Part 4 : 2004 (Product Certification for Class A, B and C of Precast Pretensioned Spun Concrete Piles from 250mm to 1000mm diameters).

CEPCO CONCRETE ENGINEERING PRODUCTS BERHAD (Co. No 88143-P)

Figure 3.3 shows the CEPCO company logo

ii. Delivery orders

Deliveries will be made on a monthly basis at the beginning of the month or the end of the month. Materials will be sent by truck to the construction site based in Lawit jetty. After the receipt will be provided as evidence that the goods have been delivered.

Figure 3.4 shows the delivery order on site

iii. **Move the pile into the ground**

After the truck arrived at the site, the pile will be transferred to the ground by using escavator. It was done a total of 5 sub-contractor employees. Pile of 34 stalks normally be transferred.

Figure 3.5 shows the transfer piling works on the ground

iv. Transfer piling into ‘ kapal tokang’

Pile will be moved into the ‘tokang’ with cranes. This work is usually done transferring pile of 5 where a is the crane driver and the rest is labor workers. Piling work transfer usually takes 2-3 hours.

Figure 3.6 shows the transfer piling work into ‘kapal tokang’

v. Piling will be delivered to site.

After transferring work piling into ‘tokang’. ‘Tokang’ will be brought to the site by boat. It will take about 4 hours to get near the site. If the transfer work was later done piling, piling shipping will be done the next day because it will take time until late at night.

Figure 3.7 shows the boat carrying pile

vi. Move the pile to the site

After arriving on site pill will be removed from tokang into the ground with a crane. This work is usually done up to 4 people. It takes 1-2 hours.

Figure 3.8 shows the works moving pile on site

2. OTHER MATERIALS (SAND,GRANITES)

i. Make an order and delivery order

This material usually ordered if required on site. site supervisor will notify the main office to make a reservation. In 4-5 days the truck will be sent sand and aggregates near the jetty.

Figure 3.9 show the delivery order

ii. Packing the materials

The next step will be working the packing materials in sacks to be included in the next ‘tokang’ and delivered to the site. These materials will be sent with the pile because only have one ‘tokang’. It will be taken 4 hour to arrive at site.

Figure 3.10 show the materials packing and ‘tokang’

iii. Transfer the materials to site

Materials will be transferred to the site with cranes and assisted by two employees.

Figure 3.11 show the materials at site.

3.3 Labour management

Management methods are very different to the way employees work on-site management of construction for the building is located in an island surrounded by lakes and forests only. It also very different means of transport for the workers will take a boat to go to the construction site. It will take about thirty minutes to get to the construction site. Usual working hours for weekdays is at 8.30 am to 4.30 pm from the month of Ramadan, which is very short working hours from 8.00 am to 3.30 pm. Working day is starting Saturday to Thursday. On-site, employees will be provided accommodation to facilitate the work. Boat itinerary for repatriation only day Monday and Thursday only as to avoid wasting time at work.

Workers traveling to the site are as follows:

i. Workers will be gathered in advance

Workers will wait for all of the employees working on site including boat driver to be present at the jetty near the site office. Exactly 8.30 am boat will leave to go the construction site.

Figure 3.12 show the assembly place

ii. Employees will be taken by boat to go to site

After the workers arrived at the jetty, the employee will take the boat to reach the construction site. Workers will be provided life jackets while on a boat. Boat trip takes about 30 minutes to reach the site. The distance between the jetty to the construction site is approximately 15 km.

Figure 3.13 show the employees will be taken by boat

iii. Arrived at the site

After nearly 30-minute boat ride to arrive at the construction site, workers will leave the boat and will do their job until the break at 1.00 pm and will continue back at 2.00 pm until 4.30 pm.

Figure 3.14 show the employees arrived at site

iv. Back to the jetty

At 4.30pm accurate employee will return to the jetty to go home but still ad-workers also live in the ‘rumah kongsi’ for the night at the site.

figure 3.15 show the employees leaved the site

3.3.1 Facilities that provided at site

i. 'Rumah Kongsi'

Employees will be provided with housing partners to stay. Migrant workers usually omitted here due to lack of transport to go back, but still have locals peoples who live here except Thursday, Friday and Monday because the company has determined that the employee can return home. It can accommodate 2-3 people in a room. Walls and doors made of plywood only.

Figure 3.16 show the 'Rumah Kongsi'

ii. Kitchen

Management is providing the kitchen to cook for breakfast employees, lunch, and dinner. RM500 expenditure provided only for a week. So far, dedicated chef is not there just ripe employees. Breakfast hours are 7:30 to 8:30 o'clock in the morning alone, while eating lunch at 1:00 to 2:00 pm and dinner from 8.00 pm to 10.00 pm.

Figure 3.17 show the kitchen at site

iiii. Toilet and Bathroom

Toilets and bathrooms are also available for daily use. Water in the shower water channeled from the lake. It is also used for ‘wuduk’.

Figure 3.18 show the bathroom and toilet

iv. Generator set

Generator set is also available on-site to generate electricity sources such as lighting lamps. Generator set will be used for cooking. This generator will be switched on at 1.00pm for cooking and switched off at 2.00 pm. In the evening after working hours the generator set will be turned on until tomorrow morning until 9:00 am.

Figure 3.20 show the Generator Set.

v. Telephone and Wireless Network

For emergency management is providing wireless phones to communicate and as a network for mobile phones can not be traced. Average billing for telephone use between RM800 - RM1200. Mostly a lot of international calls to Indonesia and Bangladesh contacted.

Figure 3.21 show the Wireless Network and Telephone

3.4 Machinery Management

For launching the construction of smooth management has rented some equipment machinery with SAFA VENTURES SDN.BHD, but the management still has its own tools and machinery. Result of the payment of money for the maintenance of the machinery used in case of any damage to the machine.

- OWNER

No	Types of Machine	Monthly (RM)
1	Tokang 	owner

Table 3.1 show the Owner Machinery

- RENTAL

No	Types of Machine	Monthly (RM)
1.	Crane 	RM 20000
2.	Excavator 	RM 8500
3.	Bulldozer 	RM 800

4.	Piling Machine 	RM 45000
5.	Boat 	RM 500

Table 3.2 show the Rental Machinery

PROBLEM

AND

RECOMMENDATION

4. 1 Problems and Recommendation

Based on the research has been done in building Kenyir Trade center in Bayas Island, Lake Kenyir, Hulu Terengganu, Terengganu to study the work of peeling makers. From the inspection, the problem is to work on the transmission shaft to the site of piling Bayas Island. This case because the site area in the middle of Lake Kenyir. By the long time to send the trunk peeling takes a long time. Due to piling up to the site to use tokang and boats. Long time to get to the site between 3-4 hours.

Based on the research has been done in building Kenyir Trade center in Bayas Island, Lake Kenyir, Hulu Terengganu, Terengganu to study the work of peeling makers. From the inspection was done, the proposal needs to be done to address the problem of delivery and peeling from the jetty to the site of Bayas Island. The company must add tokang and boats to ensure the delivery of work can be done more quickly than by using a tokang and boat only for delivery and piling work.

CONCLUSION

5.1 Conclusion

In addition, in conclusion I can say is that matters relating to the management of a particular material. Taken into account if the boat trip takes about 4 hours employees can do a lot of work in the next 4 hours. Therefore, the management should act more efficiently and efficiently.

In conclusion, the method of how to manage or how they are managed is very important in a construction project. Many aspects that should be considered in connection with the management of such workers, building materials, tools and machinery. If the systematic management of the course work at the site will be up and running.

APPENDIX