



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

**BUILD AND
COMPLETE FENCES
AND RELATED
WORKS AT PEJABAT
PERTUBUHAN
PELADANG
KAWASAN C-II
KERPAN, WILAYAH
II, MADA**

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**DEPARTMENT OF
BUILDING**

FACULTY OF ARCHITECTURE, PLANNING AND

SURVEYING UNIVERSITI TEKNOLOGI MARA

(PERAK)

JANUARY 2022

It is recommended that the report of this practical
training provided

By

MUHAMMAD HAZIM

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2019298752

**BUILD AND COMPLETE
FENCES AND RELATED
WORKS AT PEJABAT
PERTUBUHAN
PELADANG KAWASAN
C-II KERPAN, WILAYAH
II, MADA**

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

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**DEPARTMENT OF
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 MADA (Muda Agriculture Development Authority) for duration 21 weeks starting from 23 Augusts and ended at 7 January 2021 . It is submitted as one of the prerequisite requirements of BGN 310 and accepted as a partial fulfillment of the requirements for obtaining the Diploma in Building.

.....

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UITM ID NO: 2019298752

DATE: 7 January 2022

ACKNOWLEDGEMENT

Alhamdulillah, praise to Allah SWT, the Most Merciful, the Most Graceful.

I would like to extend my heartfelt gratitude for the guidance, advice and help throughout the training. It's a privilege to have a magnificent 20 weeks internship with a superb company, MUDA AGRICULTURAL DEVELOPMENT AUTHORITY (MADA), REGION II (JITRA). Contributions from great persons contributed a lot when achieving this experience. Therefore, I consider myself as a very lucky individuals as I was provided with an opportunity to be a part of it. Firstand foremost, I would like to express my deepest gratitude and special thank to Ir Muhammad Fahmi Bin Zaharudin for the opportunity given, to conduct my training in his esteem company. He also who in spite of being extraordinarily busy with his duties, took time out to hear, guide and keep me on the correct path that allowing me to carry out my project at their esteemed organization and extending during the training. It is my radiant sentiment to place on record my regards, deepest sense of gratitude to the team professionals comprising of En Salleh , En Vinod A/L Baskerran and En Pauzi Bin Darani for taking part in useful decision & giving necessary advices and precious guidance which were extremely valuable for my study both theoretically and practically. It is honour for me to be given the opportunity to 'work' with you all.

Besides, I would also like to thank ALL the UiTM lectures that have taught and nurtured me during my studies. It is always a pleasure to remind the fine people in the UiTM for their sincere guidance I received to uphold my practical. To Dr Dzulkarnaen Bin Ismail, Supervising Lecturer, Pn Azizah Binti Talkis, En Muhammad Naim Bin Mahyuddin, Practical Training Coordinator and Dr Dzulkarnaean Bin Ismail, Programme Coordinator, I value the time, effort, encouragement and ideas that they have contributed towards the successful completion of my training, this report and the valuable knowledge that have been shared over the last few semesters.

Last but not least, my special thanks to my lovely parents and friends for their sacrifices over the years. I apologize to all other unnamed who helped me in various ways to have a good training.

ABSTRACT

Fences are one of the most important safety structure elements for a building. A fence plays several functions in the securities measurements and these functions need to be fully understood in order to create suitable and comfortable building as well as providing privacy also as protection from animal and other threats. This report will discuss about procedure and method to build fences. This report was conducted for Pertubuhan Peladang Kawasan C-II, Kepan that owned by MADA (Muda Agricultural Development Authority). The objective of this report is to analyze the construction of fences and the way how it carried out. It will focus on the whole process of fences construction and other relatable works. It also investigate the equipment and machinery in the methods of fences construction and to determine the time that have been used for the construction. This report will also look to at the problem and the solution in fences construction that would fulfill the criteria perfect fences that long lasting.

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CHAPTER 1.0 INTRODUCTION

1.1 BACKGROUND OF STUDY

Slab is a main element in building structure for any building construction. Slab is main element in structural work it is because slab is used to create floors, ceilings, and roof. Slab is usually several inches thick and supported by columns, beams, and walls. Concrete slab can be prefabricated and lowered into place or they can be poured at the construction site using formwork. Slabs also can pre stressed or concrete can be poured over the positioned rebar within the formwork if the reinforcement is required. They are many different types of slab such as flat slab, hollow core ribbed slab, waffle slab, solid slab raft, composite slab and the frequently used is conventional slab which is consist of two types one-way and two-way.

1.2 OBJECTIVES

The objectives of the case study as follows:

- To describe the method construction for slabs
- To analysis the cost and time for slabs construction
- To analyze and determine the problems that occurred when slab construction and to solve the problem

1.3 SCOPE OF STUDY

The case study carried out at the Pejabat Pertubuhan Peladang Kawasan C-II Kerpan, Wilayah 11 MADA, Kedah. This project focusing on construction for fence around the area and the type of slabs that used is flat slab for the kerb of the fence. The other materials such as the rebar that used is mild tensile steel R6 for the links and high tensile steel T10 for the main bar. Concrete ready mix plus hardener, iron fence posts, iron wire, barb wire.

1.4 METHOD OF STUDY

OBSERVATION—Observe the slab construct from setting out picket and levelling until dismantling the formwork. Observe started from the first week until the last week which is total took about 12 week. The observation need to be done properly and step by step so there is no mistake happen.

INTERVIEW – The interview between the site supervisor and the contractor about the project completion and collect some data from the project on how the construction have been done and also the pros and cons of the project. Besides the interview also been done with the workers on how they construct and the technique that has been used that will make the construct of the slab become smooth and subtle without the silly mistake.

DOCUMENTREVIEW – The document review such as the company profile, the project drawing and the standard operating procedures (SOP) of the company and the contractor itself has been reviewed. The progress of the project taken and collected using camera pictures taken by project supervisor. The project drawing used as the reference at the site to determined is it follow the drawing reference or there is any mistake happened.

2.2 COMPANY PROFILE

The Regional Management Division (BPW) was established after the restructuring of the MADA organizational structure effective 16 March 2007. BPW is responsible for coordinating the planning and implementation of administration for the four (4) MADA Regions located in Kangar (Region I), Jitra (Region II), Pendang (Region III) and Kota Sarang Semut (Region IV) and 27 Area Farmers Organization (PPK).

VISION

To be the implementing agent for the development of the rice industry and to be the main driver of the socio-economic development of the farming community at the Regional level.

MISSION

- Implement a modern, efficient, sustainable and competitive paddy industry transformation program at the Regional level.
- Operate an efficient and proactive water management system to farmers.
- Strive to maximize the income of farmers and entrepreneurs through the use of appropriate technology, accurate agricultural practices and through various other sources.
- Develop a farmer institution as a viable entity.

OBJECTIVE

- Implement large-scale paddy crop management to ensure the increase in farmers' income through increasing the area of business.
- Increase the percentage of compliance with the paddy planting schedule during each paddy planting season.
- Manage irrigation and drainage activities in a more integrated manner with the formation of Water Consumer Groups (KPA) in each irrigation block in stages.
- Increase the income of farming families through advisory services, guidance and involvement in various food industry and entrepreneurship activities.

- Empowering Area Farmers' Organizations to improve the socio-economic status of farmers.

MAIN FUNCTIONS OF PART

- Coordinate and implement agricultural expansion and irrigation programs to ensure technological transformation towards increasing the income of the target group.
- Operate irrigation and drainage systems for successful paddy cultivation twice a year.
- Implement all operations and maintenance of irrigation and drainage infrastructure.
- Implement a program to modernize the plantation system and increase rice yields.
- Implement projects for various economic activities to increase farmers' income and entrepreneurial development.

This division has the role of coordinating: –

- Rice Industry Development
- Irrigation And Water Drainage Operations For Paddy Cultivation Activities
- MADA Infrastructure Maintenance
- Food Industry Development And Entrepreneurship
- Farmers Institution Development

2.3 COMPANY ORGANIZATION CHART

- REGIONAL MANAGEMENT DIVISION



Figure 2.1: Regional organization chart

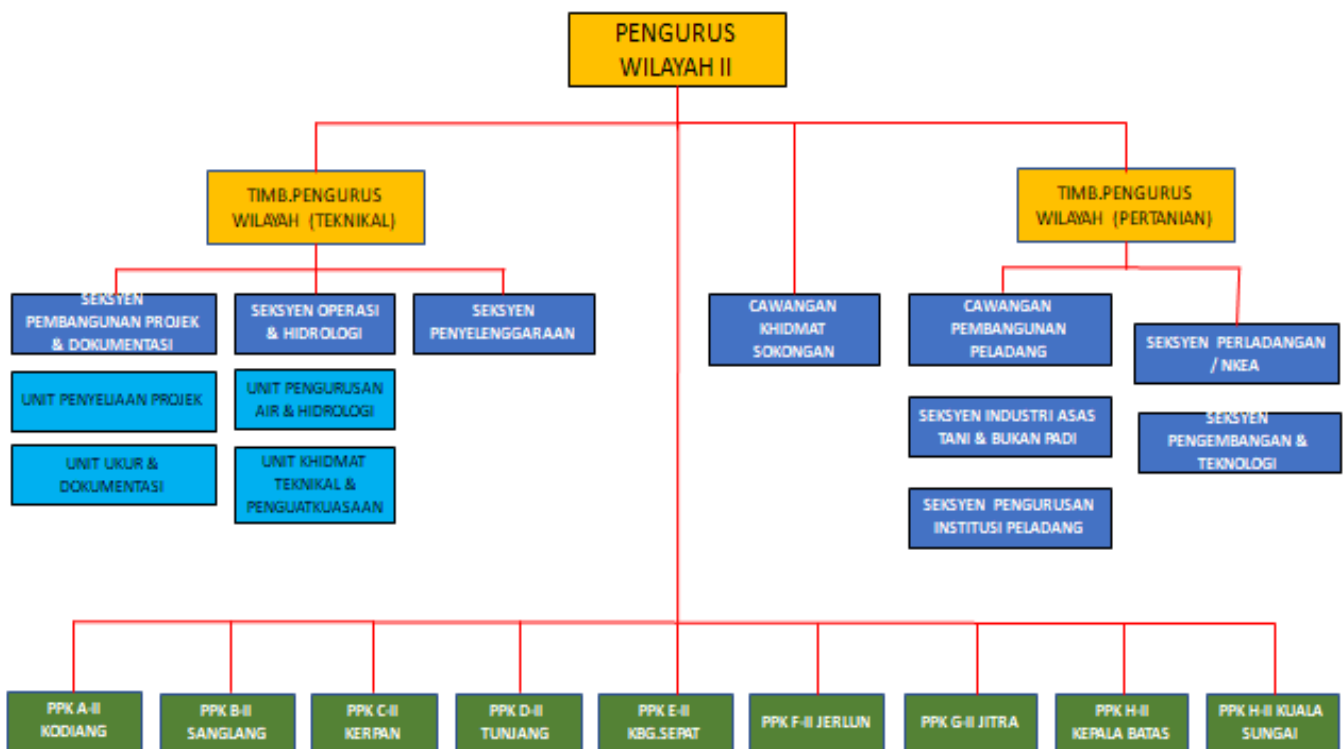


Figure 2.2: MADA Wilayah II Organization chart

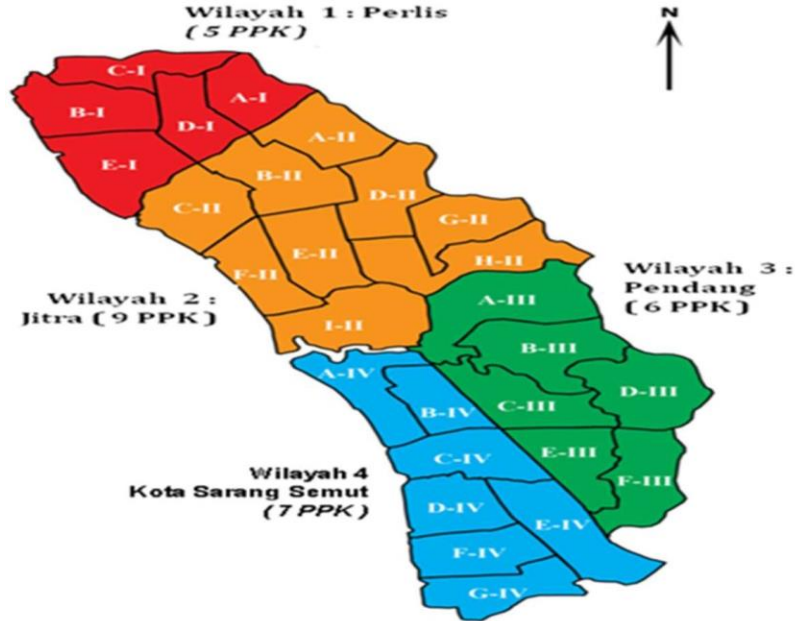


Figure 2.3: Profile map of Muda Area and division of each MADA Regional Office and Locality

COMPANY DETAILS

Official address : Ibu pejabat MADA, Ampang Jajar, 05990 Alor Setar, Kedah DarulAman

Office Address : Pejabat Pengurus Wilayah II, Lembaga Kemajuan Pertanian Muda (MADA),06000 Jitra, Kedah Darul Aman

Telephone (O): 04 - 9171280

Fax : 04 - 9176471

PROJECT ACHIEVEMENTS

MADA is committed and responsible to implement efficient and effective irrigation infrastructure and facilities for the country's rice need in order to produce double cropping in a year. In line with the mission, the duty of MADA organization includes the construction, maintenance and rehabilitation works on offtake structures, water control structure, drainage, and irrigation infrastructure such as the *Jalan Ladang*, river (clearing, deepen and elevate the river), etc

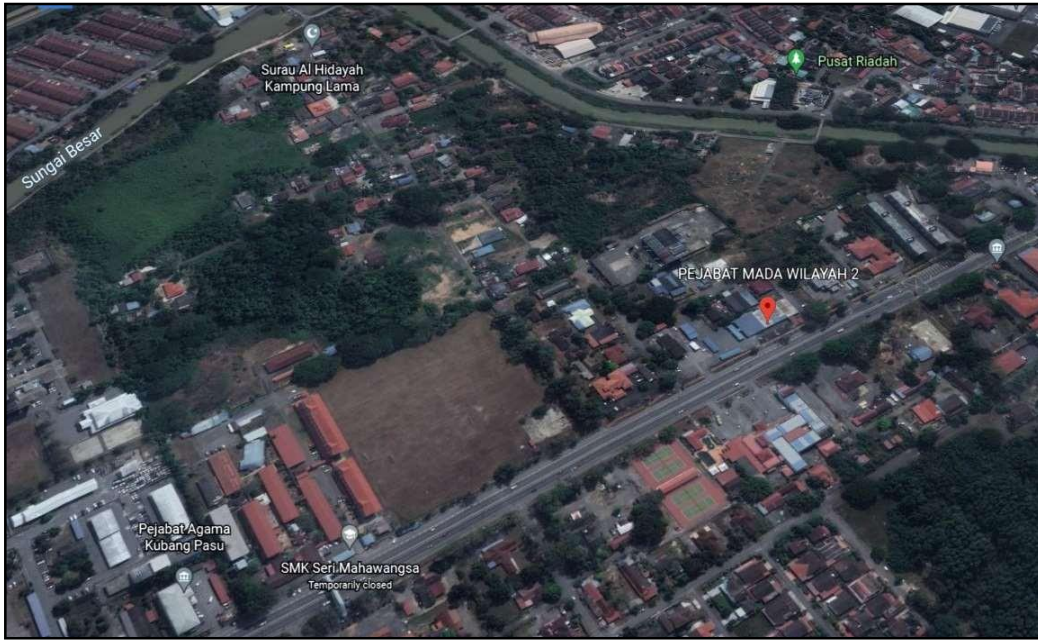


Figure 2.4: The plan view of Pejabat MADA Wilayah II, Jitra

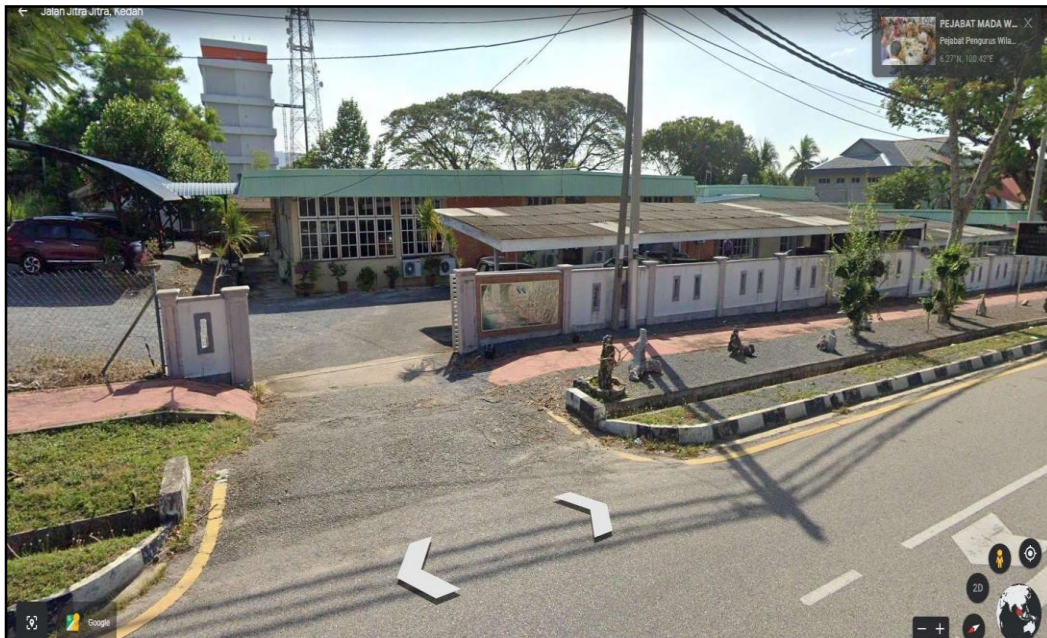


Figure 2.5: The front view of Pejabat MADA Wilayah II, Jitra

2.4 LIST OF PROJECTS

2.4.1. COMPLETED PROJECTS

No.	Project Title	Project Value	Start Date	Completion Date	Project Duration	Client
1.	Construction And Completion Of Fences And Related Works At The Office Of Farmers Organization Area C-II Kerpan, Region II, MADA	One Hundred One Thousand Six Hundred And Fifty (RM 101,650.00)	19 JULY 2021	11 OCT 2021	4 MONTHS	Muda Agricultural Development Authority (MADA)
2.	Repairing the Roof Structure and Related Works in the Office of the Regional Manager II, MADA	Two Hundred Seventy Eight Thousand And Eight Hundred (RM 278,800.00)	8 FEB 2021	25 JULY 2021	5 MONTHS	Muda Agricultural Development Authority (MADA)
3.						

2.4. 2. PROJECT IN PROGRESS

No.	Project Title	Project Value	Start Date	Completion Date	Project Duration	Client
1.	Build And Complete A Control Structure And Related Works To Replace Kuala Kerpan Tidal Gate, Region II, MADA	Four Millions Seven Hundred Eighty Thousand Eight Hundred Seventy Four And Fifty Cent (RM 4,780,874.50)	13 JULY 2021	13 OCT 2022	20 MONTHS	Muda Agricultural Development Authority (MADA)
2.	Build and Complete a flood control structure in Alor Gunong, PPK I-II Kuala Sungai, Region II, MADA	Three Hundred And Ninety Thousand Four Hundred And Fifty Seven And Cents Twenty Five Only (RM 390,457.25)	13 DEC 2021	27 JUN 2022	28 WEEKS	Muda Agricultural Development Authority (MADA)
3.	The proposal to raise the stone tires and related works start from the tidal hull of Kuala Kuar Jawa to the concrete bridge of Kampung Sungai Dua at 100m to 1,100m along 1000m. irrigation block ACLBD 9e, PPK F-II, Region II, MADA	Three Hundred And Eighty Eight Thousand Two Hundred And Ninety Three Only (RM 388,293.00)	13 DEC 2021	27 JUN 2022	28 WEEKS	Muda Agricultural Development Authority (MADA)

CHAPTER 3.0

CASE STUDY

INTRODUCTION

The case study is about Build And Complete Fences And Related Works At Pejabat Pertubuhan Peladang Kawasan C-II Kerpan, Wilayah II , MADA. The project started at 19 JULY 2021 and completed on 27 OCT 2021. The cost of this project is One Hundred One Thousand Six Hundred And Fifty (RM 101,650.00). The project is about build and completed fences started from the entrance of the Pejabat Pertubuhan Peladang Kawasan C-II until all the surrounded areas. The study will explain the method of the construction and the installation including the machineries and tools that use in this construction. Besides, the study will also explain about the problems and solution that happen at the site or outside of the site during the construction of the project.



Figure 3.1: Location of the site project base on satellite map using Google Earth



Figure 3.2: Location of the site project (General Plan)

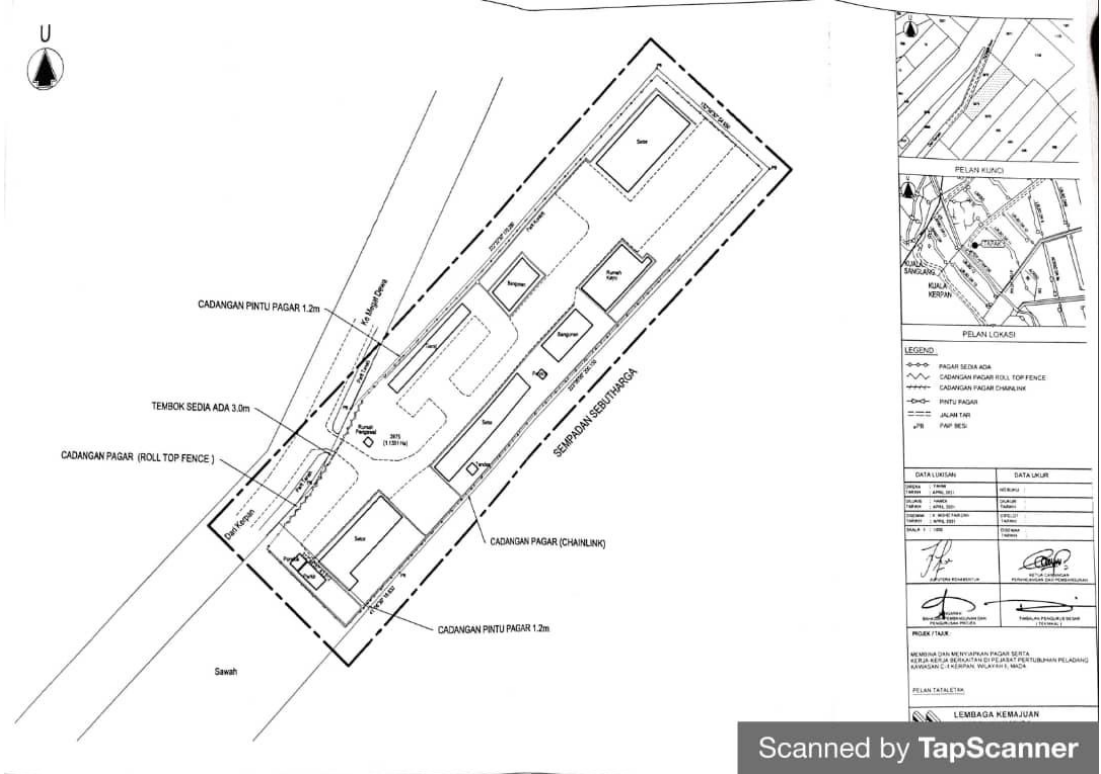


Figure 3.3: Location of the site (Layout plan)

The site location is located Pejabat Pertubuhan Peladang Kawasan C-II Kerpan, Wilayah II, MADA. The construction site is near the area of a paddy fields which is it was surrounded by water and also heavy winds. The main reason of this project is to rebuild and reconstruct the old fences and turn into the new one. The old fences was too shabby and had many cracking on the structure. For the curb wire of the old fences there were too tangled to each of the fences and also not very tense will make an opening for people or animal to jump over or bust through the fences. So there are many important element to take as a threat because all of this element will be used for the construction of the project and also the effectiveness of the fences for the future outcomes.

There are several activities had been held at the construction site using skilled workers and also the unskilled workers. For example, for the work that needs to be handle professionally such as using the machineries and also using hard equipment. All of these works need to be done by skilled workers because of their experience and also they had a certificate for it. the tools and equipment that used in this construction are wheelbarrow, trowels, hawks, scaffolding, spirit levels, concrete mixers, brick bolsters, bucket, brick line and pins, brick hammer, shovels and measurement tape This workers needs to be monitored while doing their jobs because mistakes can happen anywhere and anytime so if there something uneasy happen the person in charge or site supervisor needs to take accountability and responsibility completely.

Furthermore, time is very important for the project to be finish in time without using The Extension Of Time (EOT) which is will resulted for the cost of the project to be more expensive and cost a lot. For this project EOT has been used. It is because of the heavy rain and also strong winds at the construction area so the project had been delayed and drag for three weeks from the original dates. Besides, there are several problems related to the workers and also the suppliers that cause the EOT. Such as, not enough item and also equipment and machineries that needs to be maintained for days. Last but not least, in this chapter there is a lot more for the method of the construction and the problems and solutions for this type of project.

PRE SURVEY

Pre-construction survey are generally required for documenting the existing condition of properties located in the close vicinity to a construction site, before the construction project begins (commencement of demolition, excavation, piling, etc). This is required to minimize uncertainties and disputes that may arise in case of damages to these adjacent properties, and it would help to determine the source and origin of the deficiencies, whether they had existed before the construction project began or occurred during the construction.

Clearing and Grubbing

The contractor shall perform the clearing and grubbing (if any), of the top soil consisting mainly of loose soil, vegetative and organic matters, or rubbish by scarifying the areas to be excavated and sidewalks to a minimum depth of 300mm from the natural ground level. All materials resulting from the above operations shall be removed from the site as directed by the engineer. In addition, the existing concrete kerbs need to be removed as well and the surplus from the removal works shall be disposed correctly by the contractor.

Setting Out

Also known as staking-out or laying-out. Setting out in survey is the practice of transferring the building design onto the land itself so that the workers can follow it during construction. Key points and guide markers (peg/stake) are set out to ensure accurate building takes place. Large-scale projects like developments and high-rise buildings often require multiple setting out surveys to ensure continuous progress of project. The main reason for setting out is to ensure the construction remains within the legal boundary. For this type of construction there weren't so many setting out but still have to setting out.

Excavation

The contractor shall perform all excavation true to lines, widths, and depths shown on the drawings or to such further lines, depths or dimensions as may be directed by engineer. The trenches with depth of 300mm were excavated. Besides, a hole with dimensions area of 450mm x 450mm and depth of 500mm was excavated manually on the point marked with wooden peg.

Preparation of cement mix

The workers need to prepared the cementing materials with grade 20 according to the proportion materials of 1:2:4



Figure 3.4.1: Workers prepared the cement mix for steel post installation

Installation of Steel Post

The holes were filled and compacted with 100mm thickness of crusher run. Then, the steel post was inserted into the holes filled with compacted crusher run. The concrete mixes were filled into the hole till the depth of 150mm from the ground level. Lastly, the steel post need to be supported with the props until it is set. (props were used temporarily to support loads during construction)



Figure 3.4.2: Placing peg and dig a 3 feet holes



Figure 3.4.3: Positioned steel post after pouring a concrete

SITE INSPECTION

The purpose of site inspection is to establish a checklist of procedures and determine minimum requirements for inspection acceptance. The Contractors should understand the process of rebar inspection whether the inspection is done by their own forces or by an inspector representing the owner or building official. The goal of inspection or quality-control program is to ensure that contract documents and building codes are followed. The program also to ensure structural safety and architectural aesthetic compliance. Inspectors should be familiar with the project contract documents (especially structural and rebar placing drawings) and building code requirements, and have access to material standards and references, and codes.

Methodology:

1. Material inspection
 - ✓ In-place inspection of rebar starts with the mill test report and may be supplemented by a report from an independent testing laboratory. Reports should state grade of steel, tensile properties, chemical composition (and carbon equivalent if rebar is to be welded) and spacing and height of deformations. Compare these values with those in the applicable ASTM standard. Examination of the bar mill markings will identify the producing mill, the type and grade of steel, and the bar size.
2. Reinforcing Bar Inspection
 - ✓ Visually check bar diameter and shape (if bent); measure bar lengths, spacing, embedment, and bearing on a wall or beam. Check these figures against the approved placing drawings in conjunction with the structural drawings. Similarly, check beam longitudinal, stirrup and tie spacings.

Before workers place formwork to each fences. The rebar, link and also distance from each of the fences need to be checked and inspect as it is follow according to the drawing or regulations as designated. If not, the workers need to take off the links and rebar as should to follow the regulations as designated in the drawing. So it will take a lot of time and a lot of work to do things for twice because of that inspection need to be done before the workers placing the formwork.



Figure 3.5.1: inspection of the bar and links for the fence slab



Formwork and Rebar

Firstly, the height of formwork is not uniform for this project. There are formworks with height of 300mm and 255mm. This is done due to the condition of soils at the site. However, this is impractical as it will affect the aesthetical value of the structure due to different height of concrete kerb. Moreover, the contractor should expect that soil deformation will more likely to happen after a certain period of its service life. Different elevation of soil will cause different soil deformation and eventually it will impair the structural performance. Secondly, the reinforcement cage was placed directly on the soil without any space left to cover.

But, all of this can be solve. Firstly the height of the beam formwork shall be 300mm. Therefore, the contractor need to make alteration by adding the height of the existing formwork. In the case of the uneven soil condition, workers need excavate the soil (trenching) until depth of 300mm to ensure same elevation of soil and concrete kerb. Next, the reinforcement cage need to be raised to a certain height from the soil for provision of concrete nominal cover (concrete spacer block). Concrete cover is crucial in order to protect the reinforcing steel from corrosion caused by environmental effects. When the steel reinforcement is not properly placed or protected from the environment, it will begin to corrode due to oxidation. Oxidation of the reinforcing steel often occurs due to moisture infiltration and carbon dioxide intrusion through the concrete. When steel reinforcement corrodes, it will rust and expand to a greater volume than the steel itself. This action results in the cracking, spalling and delamination of the concrete covering steel.



Figure 3.6.1: Formwork preparation



Figure 3.6.2: Formwork cutting

CONCRETE WORK

Concrete is a composite substance made up of cement, coarse aggregate, and water, which are the three basic components. When the concrete compounds are mixed together, a fluid mass form of concrete is formed, which can then be poured into moulds to get the desired shape. With the passage of time, this fluid mass concrete hardens. Actually, cement combines chemically with other substances to bond them together to generate a hard substance called concrete.

First and foremost, the truck arrived and the worker will start to rotate the truck mixer drum. Then, the concrete will be filled into the wheelbarrow. As an engineer or the site supervisor, need to filled the concrete checking report that contains the details on the lorry number, location of concrete, slump test result, value and comment. After everything has been set up, the worker from the concrete batching plant will be in charged for demonstrating the slump test according to the right standard procedure. The ready-mix concrete will be tested for its slump test (slump test) with three (3) attempts. The ready-mix concrete will be rejected and need to be returned back to the cement batcher company if it fails in all (3) test. The concrete slump test is done because to measures the consistency of fresh concrete before its set.

Procedure Slump Test (BS EN 12350-2:2009):

- Equipment : Mould (slump cone), base plate, Tamping rod, Measuring Tape
- Procedure :
 1. Make sure the internal surface of the mould is cleaned.
 2. The mould is then placed on a base plate. The base plate should be clean, smooth, horizontal, and non-porous

3. The mould is filled with fresh concrete in three (3) equal layers. Each layer is tamped 25 times with a steel rod. The tamping should be done uniformly.
4. After filling the mould, excess concrete should be removed, and the surface should be leveled. When the mould is filled with the fresh concrete, the base of the mould is held firmly by handles.
5. Then the mould is lifted gently in the vertical direction. The unsupported concrete will slump. Immediately after removal of the mould, the slump is measured and recorded by determining the difference between the height of the mould and that of the highest point of the slumped test specimen.
6. Note that the test is only valid if it yields a true slump ($75 \pm 25\text{mm}$).



Figure 3.7.1: Slump test done by workers

However, there are some technical issues that need to encounter. For instance the slump test is a direct indication of concrete slump test is an on-the-spot test to determine the consistency as well as the workability of fresh concrete. This test plays a vital role in ensuring immediate concrete quality in a construction project. In this construction project, the first and second slump test were failed. Initially, the batcher plant company was given (3) attempts on demonstrating slump test. If they failed to yield true slump, the concrete will be rejected without any payment. This is done to ensure only high quality concrete will be used. On the third trial the slump test was succeed and the slump value is within 75 ± 25 mm. Therefore, the concrete will be accepted and can be proceed for concreting works. The failed concrete mixture will be tested for the cube test. 8 cubic moulds with dimensions of 150mm x 150mm were prepared by the worker. The concrete cubes will be tested at 7 days to determine its characteristic strength (compressive strength).



Figure 3.7.2: Slump test result

Procedure for Concrete Cube Test

- Apparatus for Concrete Cube Test: Compression testing machine
- Specimen: 6 cubes of 15 cm size Mix. M15 or above
- Procedure :
 1. Clean the moulds and apply oil.
 2. Fill the concrete in the moulds in layers approximately 5 cm thick.
 3. Compact each layer with not less than 35 strokes per layer using a tamping rod (steel bar 16mm diameter and 60cm long, bullet pointed at lower end).
 4. Level the top surface and smoothen it with a trowel.



Figure 3.7.3: Workers fill in the concrete in the cube mould

Procedure for Curing Cube Test

- The test specimens are stored in moist air for 24 hours and after this period the specimens are marked and removed from the molds and kept submerged in clear fresh water until taken out prior to test
- Precautions for Tests: The water for curing should be tested every 7 days and the temperature of water must be at $27 \pm 2^\circ\text{C}$.
- Procedure :
 1. Remove the specimen from water after specified curing time and wipe out excess water from the surface.
 2. Take the dimension of the specimen to the nearest 0.2m
 3. Clean the bearing surface of the testing machine
 4. Place the specimen in the machine in such a manner that the load shall be applied to the opposite sides of the cube cast.
 5. Align the specimen centrally on the base plate of the machine.
 6. Rotate the movable portion gently by hand so that it touches the top surface of the specimen.
 7. Apply the load gradually without shock and continuously at the rate of 140 kg/cm /minute till the specimen fails.
 8. Record the maximum load and note any unusual features in the type of failure

KOPERASI PEKEBUN KECIL KUBANG PASU BERHAD		MEMBINA DAN MENYIAPKAN PAGAR SERTA KERJA-KERJA BERKAITAN DI PEJABAT PERTUBUHAN PELADANG KAWASAN C-11 KERPAN, WILAYAH 11 MADA.					
LOCATION OF CONCRETE SAMPLE		CEMENT BRAND	CIMA				
GRADE	G20N	FINE AGGREGATE	RIVER SAND				
FIELD SAMPLING RECORD SHEET NO.		COARSE AGGREGAT	GRANITE				
MIX REF.	BEAM	ADMIXTURE	R6				
SLUMP	75+/-25	D/O NO.					
REMARKS :							
THE RESULT OF COMPRESSION TEST ON THE CONCRETE CUBES :							
CUBE MARK	DATE OF CASTING	DATE OF TESTING	AGE AT TEST (DAYS)	WEIGHT CUBE	DENSITY (KG/M)	CRUSHING FORCE (KN)	CRUSHING STRENGTH (N/MM)
1	29.09.2021	07.10.2021	8 DAYS	7.90	2341	365	16.22
2	29.09.2021	07.10.2021	8 DAYS	8.02	2376	370	16.44
3	29.09.2021	07.10.2021	8 DAYS	7.96	2359	375	16.67
							AV
							16.44
							N/MM ²

Figure 3.7.4: Result of the compression test on the concrete cube

After all is set, the construction workers taking their turn to fill the wheelbarrow with the concrete mix. Then, construction workers fill in the formwork with the concrete and also spreading the concrete equally all inside the formwork. The construction workers using the concrete vibrator right after the concrete is poured into the formworks. The purpose of concrete vibrator is to eliminate the air bubbles inside the concrete. The presence of air bubbles will cause weakness in the structural integrity. The concrete on the top need to be resurfaced and distributed evenly to look neat and nice.



Figure 3.7.5: construction workers using concrete vibrator

POST CONSTRUCTION

Post Survey

Post-construction survey is a supplementary service, which is done after a construction project ends. The purpose of this survey is to summarize the conditions prior and after the construction project in order to determine if there are any substantial changes resulting from the construction. For example, the shifting of the structure due to soil movement/ vibration/ soil erosion that is caused by construction. Furthermore, the condition of the structure after the construction project ends needs to be checked such as cracking and structure don't follow the requirements and also the structure has done at an error place.

Rectification Work

Rectification Period known as **Defect Liability Period** is a duration in which a contractor has responsibility to rectify any defects. This rectification period begins after a completion certificate is released and typically for 6-12 months, and a conditional bond such as a default bond may require litigation before any payment can be obtained.



Figure 3.8.1: Fences condition after construction works



Figure 3.8.2: Condition of the fences kerb after construction

CHAPTER 4.0

CONCLUSIONS

In the conclusions fence is type of the construction that needs to be done carefully and full of patience because fences is type of the building include safety procedure and safety spec. If the contractor build a fences without requirements or regulations there will be a problems in the future, such as the fences will not last long for the next ten years and also the fences easy to collapse and make it easy for people or animals to ambush.

For this project it takes several weeks and additional weeks to complete because there is an Extension Of Time that cause this project to delayed for couple of weeks from original dates. But, all in all there is no problem that cause this project to face huge loss because this type of project is just a minor project with experience site supervisor and experience contractor that makes this project succeeded successfully.

Maybe, we looks construction of the fences is no big thing but as a future engineer and and future site supervisor. All type of construction needs to monitored carefully because the construction will face a total loss or the structure of the construction will effect bad outcome if we take it easy as butter.

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