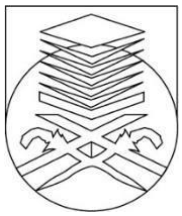

PROGRAMME IN BUILDING SURVEYING

DEPARTMENT OF BUILT ENVIRONMENT STUDIES AND TECNOLOGY

FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING

UNIVERSITI TEKNOLOGI MARA

PERAK BRANCH

SERI ISKANDAR CAMPUS

PROJECT MANAGEMENT; MONITORING AND CONTROLLING SETBACK AT CONSTRUCTION SITE NIZAHA, TAIPING

NUR ATHIRAH FATIN BINTI MOHAYIDIN

(2019452122)

BACHELOR OF BUILDING SURVEYING (HONS.)

PRACTICAL TRAINING REPORT

FEBRUARY 2022

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This practical training report is fulfillment of the practical training course.

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CHAPTER 1: INTRODUCTION

1.0 Background of Company

Bersatu Eramaju Sdn Bhd is Construction Company based in Pengkalan Hulu Perak. Other than at Pengkalan Hulu they have another 2 branches at Seri Kembangan, Selangor and Ipoh, Perak. Was established on 23 September 2003 with 628901-P company number and has been approved by Company Act 1965. The company also consist has more experience and professional employees in their own speciality such as architects, engineers, surveyors and interior designer.

Bersatu Eramaju Sdn Bhd is one of the companies that active in housing construction project especially at Perak as their main areas. With the cooperation of professional business partner, the company also provides a variety of unique and comfortable construction house design to the local community. Therefore, with the presence of competent and responsible members it gives the company more confidence to carry out more projects in the future.

The office in Ipoh Perak is located at Vivo Square, No 6A First Floor, Lang Jaya 1, Jalan Kuala Kangsar, Ipoh. Vivo square is a completed to construct in 2015 as commercial development building situated in Jalan Kuala Kangsar, Ipoh with a total of 25 units of 2 and 2.5 retail units and ample parking bays. It design with an open, nature-oriented concept, having up to 29 feet wide dual frontages, internal al-fresco shaded boulevards and a courtyard garden at the centrepiece of the Vivo Square which can also double as a performance stage.

It is a strategic location that has potential to become a hotspot for retail, recreation and entertainment. It just takes about 5 minutes to reach North-South Expressway (NSE) and next to it are Petron and Petronas petrol station and the developments of Lang Valley and Taipan Meru Jaya. The Vivo Square also surrounded by various neighbourhood like Taman Ipoh Selatan and Bercham, Taman Wing Onn, Taman Foo Onn and Taman Groove which will likely contribute to the flow of the visitors and clients to the business here.

Figure 1.1: The entrance door of the company

Figure 1.2: The commercial development area 'Vivo Square'

Figure 1.3: The main entrance of Vivo Square

1.1 Location

The Bersatu Eramaju Sdn Bhd office is located at Vivo Square, No 6A (First Floor), Lang Jaya 1, Jalan Kuala Kangsar, 30010 Ipoh Perak.

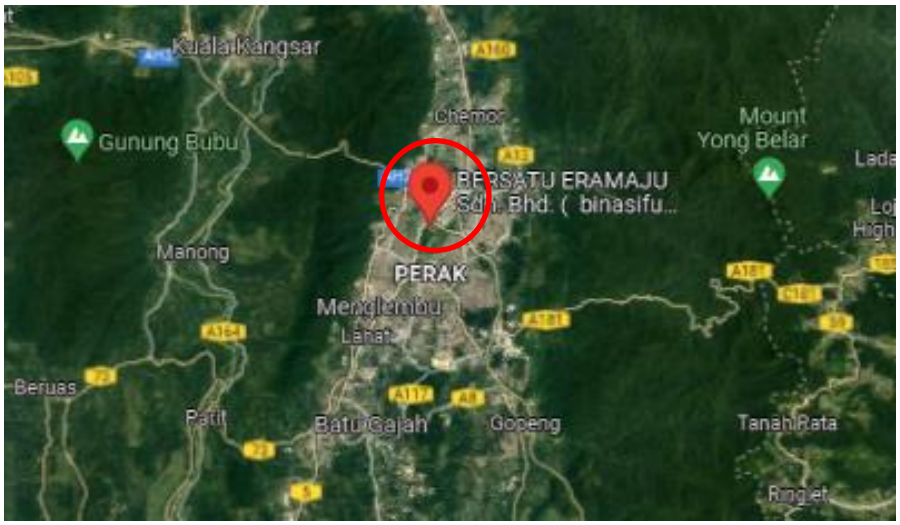

Figure 1.4: Key plan of Bersatu Eramaju Sdn Bhd

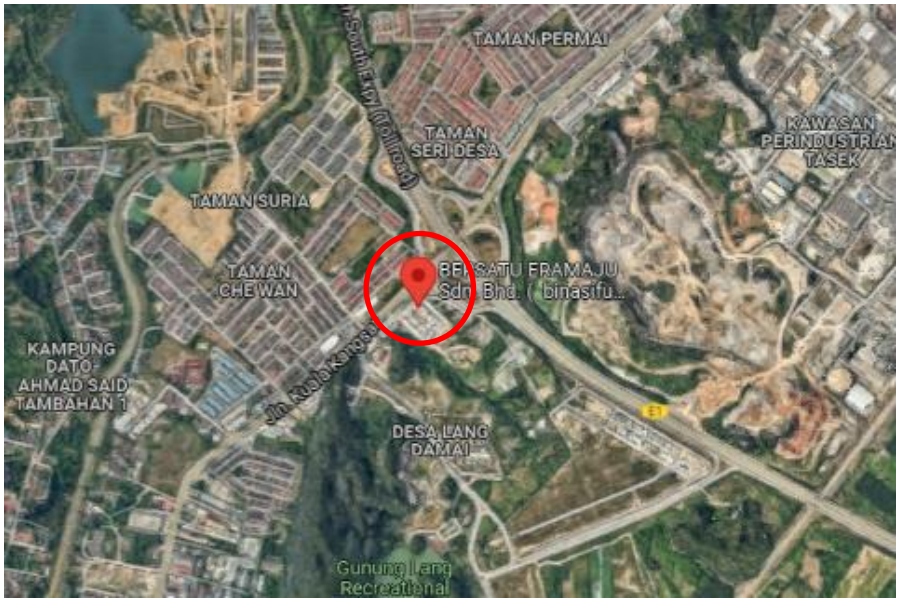

Figure 1.5: Location plan of Bersatu Eramaju Sdn Bhd

Figure 1.6: Site plan of Bersatu Eramaju Sdn Bhd

1.1.1 Amenities and Facilities

The location of the company is slightly strategic since there are many of facilities and amenities at the area. The strategic location somehow can be the main reason to increase the profit of the company. Below is the list and description of amenities and facilities:

No.	Item	Description
1	Pump Station  *Figure 1.7: Petronas Gunung Lang Jalan Kuala Kangsar*  *Figure 1.8: Petron Gunung Lang Jalan Kuala Kangsar*	There are 2 petrol pump station near to the company which is Petronas Gunung Lang and Petron Gunung Lang. Petronas is located next to Petron.
2	North-South Expressway  *Figure 1.9: Jalan Kuala Kangsar, Ipoh*	Opposite of the office is the main road to access the north-south expressway.

3	Hotel  *Figure 1.10: Gergasi Inn Hotel*	Gergasi Inn hotel is the nearest hotel which is located in the same commercial building, Vivo Square.
4	Restaurant  *Figure 1.11: Oldtown White Coffee*  *Figure 1.12: Tok Mat Nasi Lemak and Western*	There are few nearest restaurants which is Old White Coffee, Tok Mat Nasi Lemak and Western and also fast food restaurant such McDonald.
5	Grab Center  *Figure 1.13: Grab Center, Ipoh*	There is also Grab Driver Center at the same commercial building. This is the main HQ for Grab and it is located adjacent to the office building.

Table 1.1: Amenities and facilities at surrounding area of the company

1.2 Vision and Mission

The mission and vision of the company is:

i. Vision – Bersatu Eramaju Sdn Bhd provides current technology to make sure quality of construction and a good supervise system for a house construction with premium quality to the client

ii. Mission – Our Company has succeeded in Government Project in construction sector as our company has CIDB class G4 with Bumiputera standard. The government project also been recognised from Department of Finance from the view of our performance as well as our capability in completing the project within the right time.

1.3 Objective of Bersatu Eramaju Sdn Bhd

The objective of the company is to:

i. Provides affordable housing for the local community
ii. Uses good quality of material while keeping the affordable pricing for the community
iii. To always provide a unique, modern and comfortable housing design for the local community

1.4 Organization Chart

There are many staffs that stated in the company organization chart which is the permanent employees. A few staff that is not included in the organization chart is contract staff that will upgrade their position after a year working in the company.

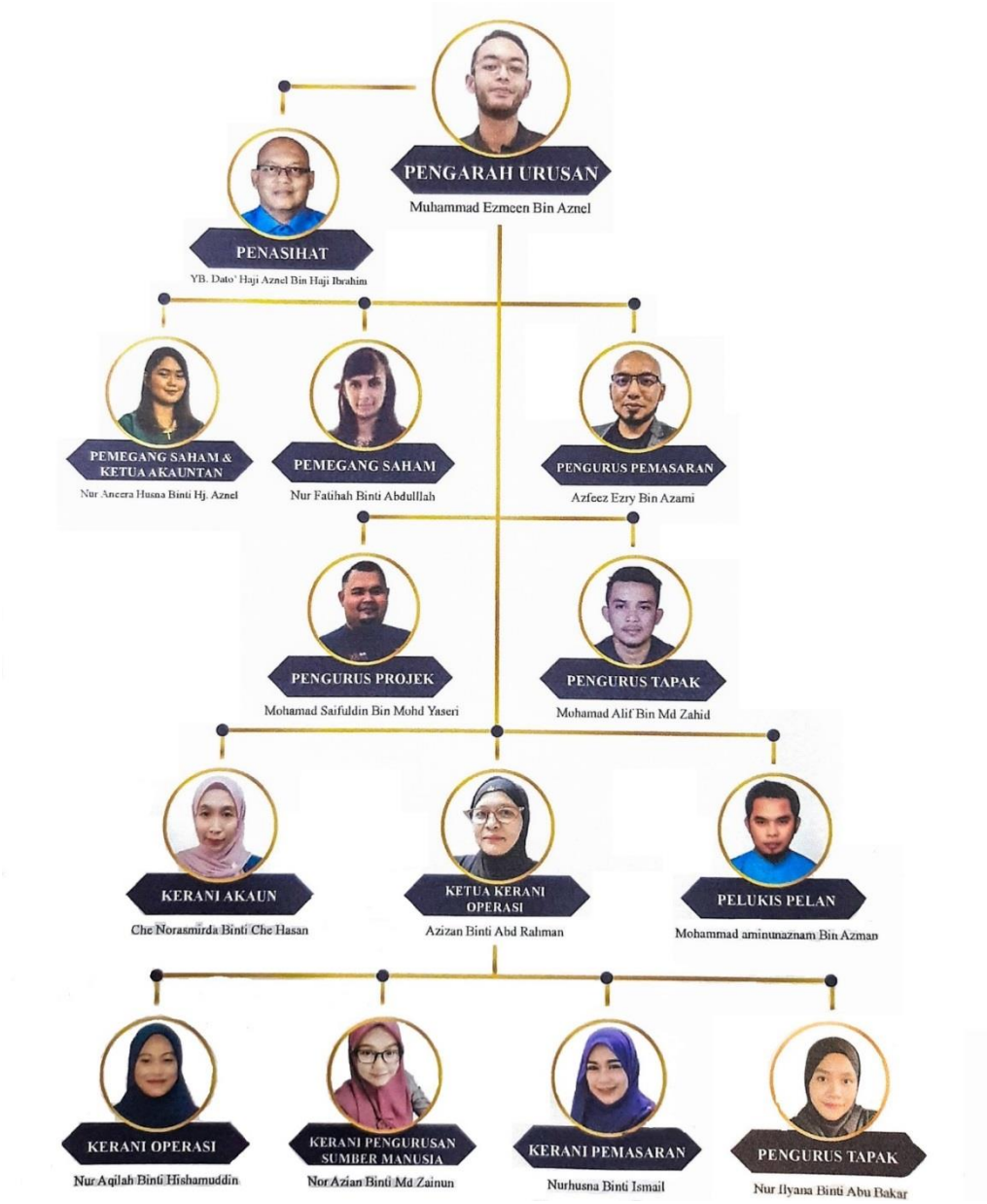

Figure 1.14: Organization chart for Bersatu Eramaju Sdn Bhd

1.5 Scope of Work of Bersatu Eramaju Sdn Bhd

No.	Person In Charge	Description
1	Business Manager/ Director	i. Assess and identify new opportunities for growth in current and prospective markets. ii. Establish the company's goals and objectives. iii. Recruit and train new employees. iv. Perform regular employee evaluations to determine areas of improvement. v. Design business strategies and plans to meet the company goals. vi. Make sure that the company has sufficient resources such as personnel, material, and equipment. vii. Develop a comprehensive company budget and perform periodic budget analyses. viii. Ensure all company activities adhere to legal guidelines and policies. ix. Assess overall company performance.
2	Project Manager	i. Determine and define project scope and objectives ii. Predict resources needed to reach objectives and manage resources in an effective and efficient manner iii. Develop and manage a detailed project schedule and work plan iv. Provide project updates on a consistent basis to various stakeholders about strategy,

		adjustments, and progress v. Manage contracts with vendors and suppliers by assigning tasks and communicating expected deliverables vi. Utilize industry best practices, techniques, and standards throughout entire project execution vii. Monitor progress and make adjustments as needed
3	Site Supervisor	i. Inspecting construction sites regularly to identify and eliminate potential safety hazards. ii. Supervising and instructing the construction team as well as subcontractors. iii. Educating site workers on construction safety regulations and accident protocol. iv. Enforcing site safety rules to minimize work-related accidents and injuries. v. Handling site accidents in accordance with established accident protocol. vi. Maintaining an accurate record of construction employee attendance. vii. Evaluating the performance of construction employees and instituting disciplinary measures as needed. viii. Analyzing blueprints to ensure that construction projects meet design, safety, and budget specifications. ix. Recommending changes to

		construction operations or procedures to increase efficiency.
4	Account Admin	i. Managing company assets and financial expenditures. ii. Preparing financial documents such as invoices, tax filings, and monthly profit reports. iii. Maintaining files on account receivables and updating records as required. iv. Managing the flow of petty cash by recording all monetary transactions. v. Ensuring that suppliers are informed of any changes to service agreements and payment options. vi. Updating management on any financial discrepancies found during tax filing or invoicing duties. vii. Archiving financial documentation and updating accounting databases on a monthly or annual basis. viii. Adhering to best practices in accounting, as outlined by industry experts and espoused by the company.
5	Human Resources Admin	i. Forming and maintaining employee records ii. Updating databases internally, such as sick and maternity leave iii. Preparing and amending where necessary HR documents, i.e. employment contracts and recruitment guides

		iv. Reviewing and renewing company policies and legal compliance v. Communicating with external partners vi. Being the first point of contact for employees on any HR related queries vii. Assisting with payroll by providing the department with relevant employee information, i.e. holiday and sick days taken viii. Helping with various arrangements internally, from travel to processing expenses

Table 1.2: Scope of work in Bersatu Eramaju Sdn Bhd

1.6 Job Sequences

The job sequences started with project initiation by determine the objective and feasibility of the project. This is the crucial phase to indicate whether the project is a good opportunity or not. Project initiation document is created after everything is decided. The document will provide the groundwork for the construction plan. Next is the planning phase where the design is decided and the list of all work to be done will be plan. It is the on-going activity almost to the end of the project. As soon as project budget, schedule and work have been defined, the project is near to ready to begin.

After planning phase, execution and construction phase will start with construction work. The site supervisor will make sure that the required works are being performed precisely. The progress of work being monitored and any issues and changes are made accordingly in monitoring and controlling phase. Lastly is the completion, which is the final stage where the project manager will conduct a project report and calculate the final budget and doing analysis and inspection before handover to the client.

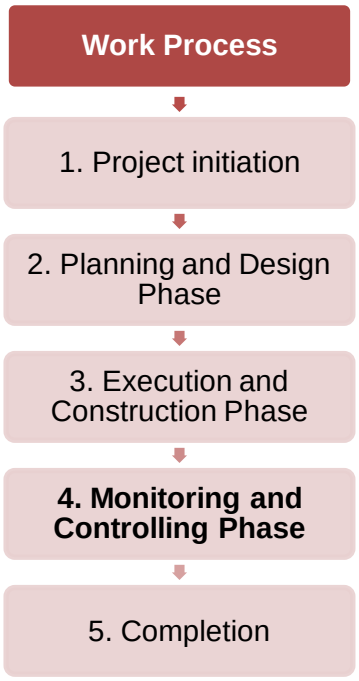

Figure 1.15: The flow chart of work process in project management

1.7 Training Duration, Department Served and Scope of Work Given

I have started my practical study since 11 October 2021 and will end on 30 January 2022. I was placed by the Company Director, Encik Ezmeen at their office in Ipoh, Perak under real estate and construction department. The scope of work given is to supervise a few sites in Ipoh and Taiping. I will follow their site supervisor to the construction sites to monitor and keep up to date with sub-contractor about the progress and the material supply.

Other than that, I need to survey a few suppliers that can supply the materials to our site such as floor tiles, roof tiles, piping system and ceiling. For office work, the job scope given is to arrange or print out documents and building plans related to the project.

In real estate, I have to make design for pamphlet, bunting and flyer related to their project and site, this materials will be used as marketing and promotion. When needed, I will be travel to Pengkalan Hulu which is their main branch to do house selling job such meeting with client and open a booth for house promotion. Other than that, I will do inspection at their property before proceeding to sell to clients.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction to Project Management

Project management is the basis on which every construction project is founded. A construction project manager has to obtain a variety of skills and competences in order to navigate through the project and to establish a functional connection with the numerous teams. Construction projects have a continuous need for alterations and in that sense project management is the key to the stability of the whole procedure.

Project management is the discipline of planning and executing projects. Project management seeks to achieve defined goals by using plans, schedules and resources to execute project activities within a set timeframe. The objectives for project management are set by the client or stakeholders and the project manager applies project management method to create plan that establish the resources, tasks, milestones and deliverables necessary to meet the client requirement.

Every project goes through the project life cycle, which is made up of five project management stages which are initiation, planning, execution, monitoring and control and closure.

2.1 Definition of Project Management

According to Building Property Review 1996, project management definition is an achievement of a specific objective, which involves a series of activities and tasks, which consume resources, has to be completed within prescribed specifications and having a definite start and end dates. Furthermore, the definition of project management through Associate of UK Project Managers is the planning, organizing, monitoring and control of all aspects of a project and the motivation of all involved to achieve the project objectives on time to cost, quality and performance.

2.1.1 Type of Construction Management

i. Residential Building Project Management

In real estate and construction management there is few type of construction management, one of it is residential building project management. This is the most common type of construction management for real estate professional and their clients. Residential building means apartment complexes, multifamily housing, and single family homes such bungalow and terrace house. Project management will be needed for a construction a new house or even a renovation or extension house compartment to make sure the client needed is fulfil within right time and budget.

2.2 Introduction to Project Monitoring and Controlling

According to the Project Management Body of Knowledge (PMBOK), the monitoring and controlling phase consist of those processes performed to observe project execution so that potential problems can be identified in a timely manner and corrective action can be taken, when necessary to control the execution of the project. Project controlling and monitoring take place in parallel with project execution and construction phase so that while project is being execute, the project is being monitored and controlled by implementing the appropriate level of oversight and corrective action (Hassib, 2018).

Project monitoring and controlling are processes for gathering and analysing project data to keep costs and schedules on track. The purpose of project controls include initiating, planning, monitoring and controlling, communicating and closing out project costs and schedule. Ultimately project controls are iterative processes for measuring project progresses, forecasting outcomes based on the measurement and proceeds to project performance improvement if the outcomes are unacceptable (ecosys, 2020).

Project monitoring and controlling are under project management and are integral to successful project management as it alerts project stakeholders to potential trouble areas and allows correction if needed. Project manager should always look for avoiding changes and controls them effectively. Change is required but not always mandatory because every issue need to be discussed with consultant or other project stakeholder and do not entertain the change that has nothing to do with project requirement (Simplilearn, 2021).

2.2.1 Objective of Project Monitoring and Controlling

i. To have a successful development and implementation of all project procedures. A project, regardless of its size, generally involves five distinctive phases of equal importance: Initiation, Planning and Design, Construction and Execution, Monitoring and Control, Completion. The smooth and uninterrupted development and execution of all the above phases ensures the success of a project.

ii. To have productive guidance, efficient communication and appropriate supervision of the project's team. The establishment of good communication is of major importance. Information needs to be articulated in a clear, unambiguous and complete way, so everything is comprehended fully by everyone.

iii. The achievement of the project's main goal within the given constraints. The most important constraints are scope in that the main goal of the project is completed within the estimated time, while being of the expected quality and within the estimated budget. Staying within the agreed limitations always feeds back into the measurement of a project's performance and success.

iv. Optimization of the allocated necessary inputs and their application to meeting the project's pre-defined objectives, is a matter where is always space for improvement. All processes and procedures can be reformed and upgraded to enhance the sustainability of a project and to lead the team through the strategic change process.

v. Production of a complete project which follows the client's exclusive needs and objectives. Once the client's aims are clearly defined they usually impact on all decisions made by the project's stakeholders. Meeting the client's expectations and keeping them happy not only leads to a successful collaboration which might help to eliminate surprises during project execution, but also ensures the sustainability of your professional status in the future.

2.2.2 Scope of Project Monitoring and Controlling

i. Procurement

This is to ensure the monitoring work for vendor to make sure their performance satisfied the requirements of the contract. Moreover, this is to make the required corrections and changes and to manage procurement relationships. The project manager will refer to procurement, contract or other document during monitoring and controlling activity (Practical, 2020).

ii. Control Quality

The purpose of this scope is to assess and make a determination on whether the activities are meeting the quality standard that has been established. These quality standards should be conformed as well as achieved to ensure project success. The project manager needs to be keen to understand client expectations and making sure that they are satisfied by the end product. The project manager refers to the Quality Management Plan to complete this activity successfully (Practical, 2020).

iii. Control Cost

The scope concerned with the supervision and management of project expenses. At this phase the project manager needs to prepare for financial risks that might occur. The expenses that are needed at various payment stages are identified and controlled. Besides, the project manager makes sure to manage the project budget. This is vital in order to ensure the appropriate use of finances and prevent shortfalls. A Cost Forecast document is prepared during this activity (Practical, 2020).

iv. Control Schedule

Schedule control will monitor the status of different activities involved in a project. The activity also concerns making necessary updates to the project process and managing changes made to the schedule. By making comparisons between the scheduled baseline and project

progress, a project manager determines whether certain project activities are behind or ahead of the schedule. Through this, correction actions are planned to ensure effective management of changes to the planned schedule. This scope will eliminate the risk of late delivery of a project. Therefore, the project manager should act promptly to prevent changes from influencing or affecting the whole project schedule. The purpose is includes to prevent the late project delivery by planning appropriate corrective actions for activities that are behind the schedule. Furthermore, the pending or delayed work plans should be reprioritized and relevant stakeholders also should be informed about the execution of planned work (Practical, 2020).

v. Control Risks

Risk control is very important in project control and project manager should have the ability to mitigate those risks proactively and envision potential risks as well. Effective methods for controlling risks required in project management. Control risks activity concerns implementing risk response plans. It involves monitoring residual risks, identifying new risks, tracking identified risks, and assessing the effectiveness of risk mitigation processes used during the project. The risk manager goes through the risk management plan to familiarize himself with the identified risks. This helps to come up with appropriate and effective risk response strategies. A key advantage of the control risk activity is that it enhances stakeholders' efficiency to manage risks during the project lifecycle. Besides, this activity motivates stakeholders to elevate their risk responses. The Risk Management Plan is consulted in this activity (Practical, 2020).

2.2.3 Process of Project Monitoring and Controlling

Project monitoring and control methodology is very important because no matter how well project costs are estimated and budgeted and how well triggers and tasks are scheduled in the planning phase, there are may still be changes once executed. Monitoring the project's deviation from expectations allows a project manager to set a corrective course for seamless execution that improves productivity and efficiency (Puntillo, 2021). The processes flow for project monitoring and controlling that are best practices for successful project is as below:

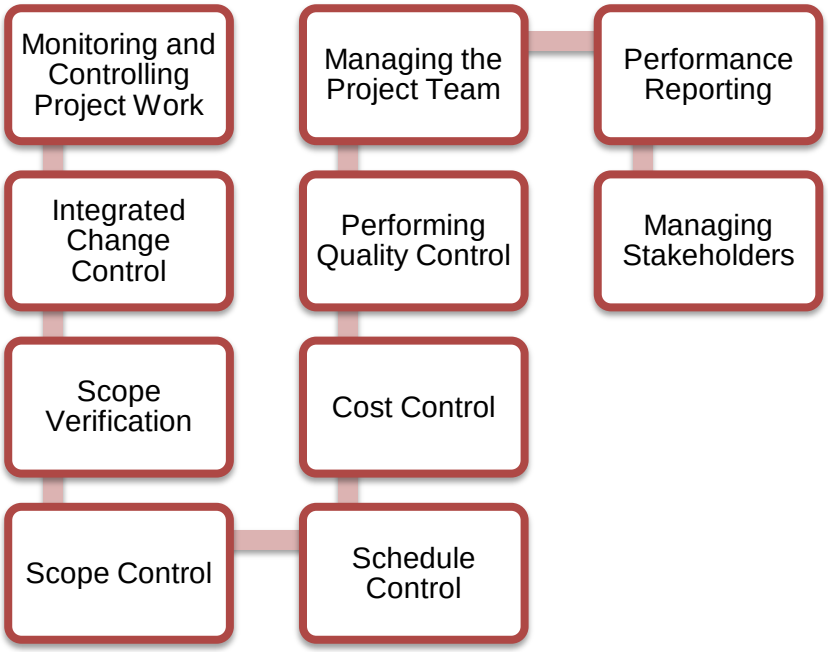

Figure 2.1: The methodology of project monitoring and controlling

i. Monitoring and Controlling Project Work

The process collect, measures and disseminates performance information, and assesses measures and trends to forecast potential items requiring corrective action. This includes monitoring project risks and ensuring that are being managed according to the project's risk plans. Outputs include:

- Recommended corrective actions
- Recommended preventive actions
- Forecasts
- Recommended defect repair
- Requested changes

ii. The Integrated Change Control

The process ensures that changes as a result of project corrective actions and other controlling factors managed across the project knowledge areas. Integrated change control takes place throughout the project, from project initiation through project closure. Outputs include:

- Approved change requests
- Rejected change requests
- Updates to the Project Management Plan
- Updates to the Project Scope Statement (and requirements)
- Approved corrective and preventive actions
- Approved defect repair
- Validated defect repair
- Deliverables

iii. Scope Verification

The process ensures that project deliverables are formally accepted. Outputs include:

- Accepted deliverables
- Requested changes
- Recommended corrective actions

iv. Scope Control

The process ensures that changes to project scope are controlled. Outputs include:

- Updates to the Project Scope Statement and Scope baseline
- Updates to the Work Breakdown Structure (WBS) and the WBS Dictionary
- Requested changes
- Recommended corrective actions
- Updates to organizational process assets
- Updates to the Project Management Plan

v. Schedule Control

The process monitors and controls changes to the project schedule. Outputs include:

- Updates to the schedule model data and baseline
- Performance measurements
- Requested changes
- Recommended corrective actions
- Updates to organizational process assets
- Activity list and activity attribute updates
- Updates to the Project Management Plan

vi. Cost Control

The process monitors and controls costs and changes to the project budget. Outputs include:

- Cost estimate updates
- Cost baseline updates
- Performance measurements
- Forecasted completion
- Requested changes
- Recommended corrective actions
- Updates to organizational process assets
- Updates to the Project Management Plan

vii. Performing Quality Control

The process measures specific project results to determine whether the project is meeting quality standards. Outputs include:

- Quality control measurements
- Validated defect repair
- Updates to the quality baseline
- Recommended corrective and preventive actions
- Requested changes
- Recommended defect repair
- Updates to organizational process assets
- Validated deliverables
- Updates to the Project Management Plan

viii. Managing the Project Team

It is to tracks team member performance, provides feedback, resolves issues and coordinates changes to maintain and improve project performance. Outputs include:

- Requested changes
- Recommended corrective and preventive actions
- Updates to organizational process assets
- Updates to the Project Management Plan

ix. Performance Reporting

The process collects and distributes performance information including status reports, progress reports forecasts. Outputs include:

- Performance reports
- Forecasts
- Requested changes
- Recommended corrective actions
- Updates to organizational process assets

x. Managing Stakeholders

This process manages stakeholder communications and works with stakeholders to ensure that requirements are satisfied and issues proactively resolved. Outputs include:

- Resolved issues
- Approved change requests
- Approved corrective a
- Actions
- Updates to organizational process assets
- Updates to the Project Management Plan

2.3 Primary Challenges in Project Monitoring and Controlling

Even though the discipline of project monitoring and control has been implemented during it phase, the organization will always been questions with how successful the project is. When the project fail many organization may end up to blames the effectiveness of their project controls. However, the right action is to assess whether the control processes have been adequately implemented. There are a few challenge and constraint faced by the teams in implementing control properly (ecosys, 2020):

i. Lack of commitment and support from senior management

This is one of the biggest challenges because project control does not only mean monitoring while monitoring is passive. Control also refers to actively making decisions based on analysis and reporting. This cannot be achieved without sufficient authority provided by the leadership. Many project controls team tends to be understaffed or not backed with enough budget to invest in the right tools (ecosys, 2020).

ii. Perception as just another cost function

As controls do not come into limelight unless things go awry, they can be perceived as an overhead expense. However, this is far from true. One study on this subject conducted by IPA Global indicates that while project controls function costs range from 0.5% to 3% of the project, cost improvement from their best practices can range from 6% to 20%. Organizations can resolve this perception issue by training project teams and executives of the potential Return Of Investment (ROI) from controls (ecosys, 2020).

iii. Confrontational dynamic

Functions such as controls and audit are often viewed with a suspicious approach by people focused on delivery and timelines. By building partnerships, this can be overcome. It is also important for organizations to integrate the function with other areas of project management. A project controller is not someone who visits once every few weeks or months with bad news. Rather, the role should be blended harmoniously into the project lifecycle (ecosys, 2020).

iv. Manual and outdated processes

Even when there is sufficient support from management and awareness in teams about the importance of controls, the actual implementation may not be keeping pace with the difficult challenges in projects. Many organizations still use manual processes with cumbersome spreadsheets to attempt to track and manage risk matrices and change requests. The manual systems tend to remain isolate and generate contrast data rather than holistic insights. They also do not provide the required visibility into the big picture (ecosys, 2020).

v. Inadequate Risk Management

Project managers put safeguards in place for long-term risk. Short-term issues, however, often are left out of the equation. These issues can snowball quickly and start to have a real impact on the bottom line. Whether it's subcontractors that turn out to be unreliable, scheduling conflicts, or the changing tastes of stakeholders, any seemingly small issue could derail a project. Therefore, it's important to have contingency plans. Build some wiggle room into schedules, and make investments in programs like safety training to avoid any of those potential issues (Micheal).

vi. Lack of Structure

Without clear goals, it is difficult to get things done in an efficient manner. A construction project can easily fall behind or run over budget if people do not have a clear target they need to hit. And without these goals, it is difficult to hold people accountable for their part in a project. Performance management is a key aspect of project management. In order to implement this and keep everyone on task, they all need clear tasks to perform. Break down bigger, project-wide goals into smaller, daily targets for individuals to accomplish. If something is not done one day, it is compounded into the next. Keep people accountable through set processes. This way can help the whole project from crumbling (Micheal).

vii. Poor Communication

Communication is an important tool in any profession, but it is especially important when work is delegated amongst various parties. Without clear and effective communicating, important tasks can slip through the cracks and the team can remain unaware of an issue until it is too late to rectify. Therefore, project managers need to enact clear guidelines. There should be communication up a clear ladder that informs the team of any progress or obstacles at the end of each day. This way, problems can be solved proactively. If in-person meetings are not an option, using different types of software could be an excellent solution (Micheal).

viii. Unrealistic Expectation

Some clients and stakeholders may make some big asks. Whether they want a project completed on an accelerated schedule or on a limited budget, there may be some challenges that come with their expectations. While some things are possible for a skilled project manager, some things simply are not. Working with unachievable goals can actually hinder productivity. Some of these expectations are set due to bad forecasting. It could be that this forecasting, much like risk management, focuses on the long-term instead of the short-term. Break those forecasts down into monthly, weekly, and daily goals to see if they are actually achievable. Then, if necessary, communicate the issues with stakeholders. Provide an alternate plan so that they can see an aggressive, yet achievable timeline or budget. Manage expectations from the beginning and you can set up a winning project (Micheal).

ix. Delayed Cash Flow

The construction business relies on invoicing, which can sometimes be an outdated system. And if payments fall behind, it could negatively impact a company's cashflow. This can in turn dry up a well of funds for other projects and cause delays. Therefore, systems of invoicing need to evolve. With improved software and enough follow through,

construction companies can ensure that cashflow does not affect other projects negatively (Micheal).

x. Limited Skills

Construction is very much a reputation-based industry. People tend to work with people they know and trust. This can often be a great thing, as teams who know how to work together can be incredibly efficient. But when there is a skills gap in the team, it could cause some delays. The solution is to be aware of these skills gaps before they have an impact on the project. Once project manager detect these gaps, they can fill them quickly and efficiently.

2.4 Method of Project Monitoring and Controlling

There are a lot of factors that will impact which project management methodology is right for your project, team and organization. Below is the breakdown of some of the key considerations that can help organization to decide project management methodology (Qualification, 2019). In the range of monitoring and control techniques that can be used by project managers or organization is as below:

i. A Requirements Trace-ability Matrix (RTM), this method will maps or traces the project's requirements to the deliverables. The matrix correlates the relationship between two baseline documents. This makes the project's task more visible. It also prevents new tasks or requirements being added to the project without approval.

ii. A control chart, which is to monitor the project's quality. There are two basic forms of control chart which is the univariate control chart displays one project characteristic, while a multivariate chart displays more than one.

iii. Review and status meetings, this is for further analyse problems, finding out why something happened. During the meeting they can also highlight any issues that might happen later.

2.5 Importance of Project Monitoring and Controlling

Project monitoring and controlling is one phase of the project management lifecycle and encompasses the fundamental management duty of a project manager, who directs the project from starting to end. The project monitoring and controlling phase is what keeps the project on track to completing its objectives successfully (Puntillo, 2021).

Project monitoring is informative to how a project is performing and when it is necessary to implement changes to keep the project on track. Utilizing leadership skills, emotional intelligence and data analytics tools, managers can assess project performance variables from the estimated and planned schedule, costs an quality to the actual performance. If there are variances in planned vs. actual performance, a control plan will enable accurate decision making for a project manager to implement corrective action and forecast the projections (ecosys, 2020).

In addition, no matter how well is project cost is estimated and budgeted and how well triggers and tasks are scheduled in the planning phase, there may still be changes once executed. Monitoring the project's deviation from expectations allows a project manager to set a corrective course for seamless execution that improves productivity and efficiency.

- Reduced project costs through ability to make timely decisions using KPIs Increased project predictability for cost and completion date
- Increased visibility into the financial health of the project at all stages
- Ability to mitigate project scope creep
- Meaningful benchmarking data for future projects via well-structured projects
- Increased margins when working in a fixed-price environment
- Improved reputation for properly managing and controlling projects
- Competitive advantage over organizations with less mature project management capabilities
- Increased job satisfaction for project team members

CHAPTER 3: CASE STUDY

3.0 Introduction

The project at construction site Puan Nizaha's Taiping in actual fact was constructed at first by the other sub-contractor. The house has been started to construct since March 2021 by the previous sub-contractor but the site has been left abandoned because they have a problem to proceeds with the construction process due to the Covid-19 Pandemic.

After few months being left abandoned because of some issues, Puan Nizaha decided to continue the construction of her house and make few alterations on the design that managed by Bersatu Eramaju Sdn Bhd. The company then will provide the new cost on budget for materials, sub-contractor and repairing works. The meeting has been made with Puan Nizaha about their new design and requirement related to the house. After a few weeks which were on 12 October 2021, the agreement with new sub-contractor has been agreed.

In the agreement with sub-contractor Encik Ahmad Saukani, they have agreed the duration is in 3 months since the house already in a half way process, the new sub-contractor only need to continue the roofing and piping works, plastering works, installation of ceiling, installation of floor tiles, construction of apron and porch, installation of door and window and also painting works.

Figure 3.1: Before the process started

Figure 3.2: The latest progress

3.1 Case Study Background

Table below shows the specific details and description about case study background that is located at Mukim Asam Kumbang, Taiping Perak.

Item	Description
Title	Continue to build and complete the construction of 1 unit bungalow house
Owner	Puan Nizaha Binti Md Isa
Sub-contractor	Encik Ahmad Saukani
Type of Building	1 unit of single storey bungalow house
Location	Lot 29411, Lorong Masjid 3, RKT. Kampung Kurnia Jaya, Mukim Asam Kumbang, Daerah Larut dan Matang, Taiping Perak Darul Ridzuan
Price	RM70,000.00
Duration of Construction	3 months
Start date	12 October 2021
Completion Date	Expected to complete on 12 January 2022
Size of Building	1880.44 sqft • Built up area: 1582.94 sqft • Porch: 188.90 sqft • Terrace: 46.50 sqft • Verandah: 62.10 sqft
Specification	• Single storey bungalow • 4 bedrooms • 3 bathrooms • Kitchen • Living hall
Additional	• Piling work • Red brick for external • Floor slab 3 feet from ground

Table 3.1: Background of case study

3.1.1 Location plan

The exact location of the case study is at Lot 29411, Lorong Masjid 3, RKT. Kampung Kurnia Jaya, Mukim Asam Kumbang, Daerah Larut dan Matang, Taiping Perak Darul Ridzuan.

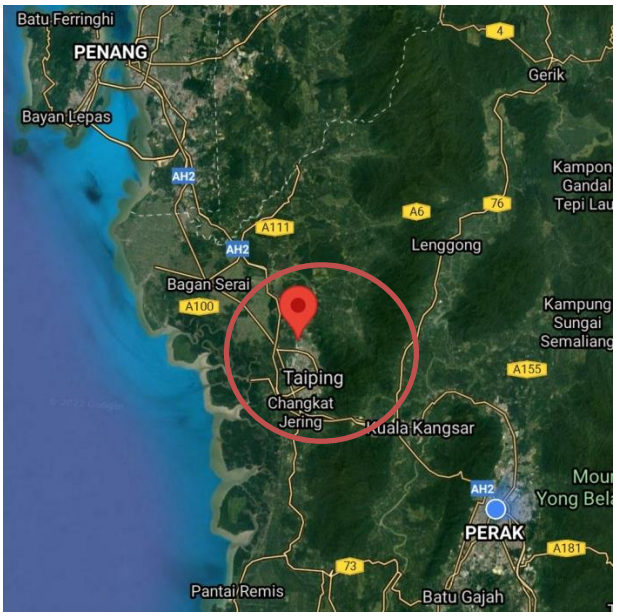

Figure 3.3: Key plan of the location in Larut Matang District, Taiping

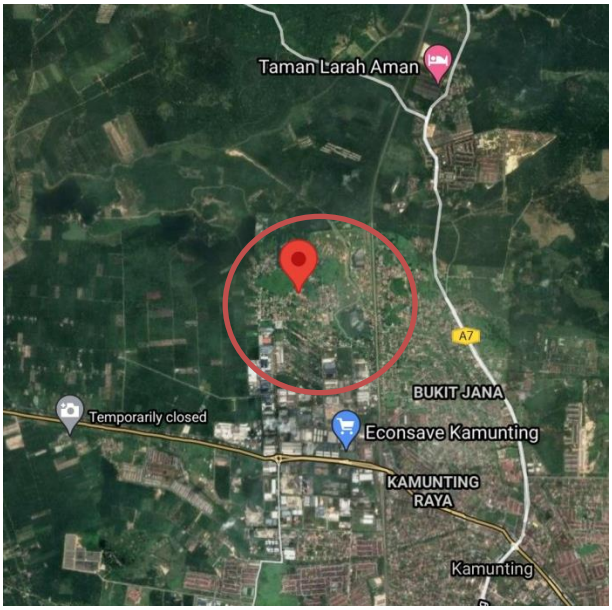

Figure 3.4: Location plan of the case study at Kamunting

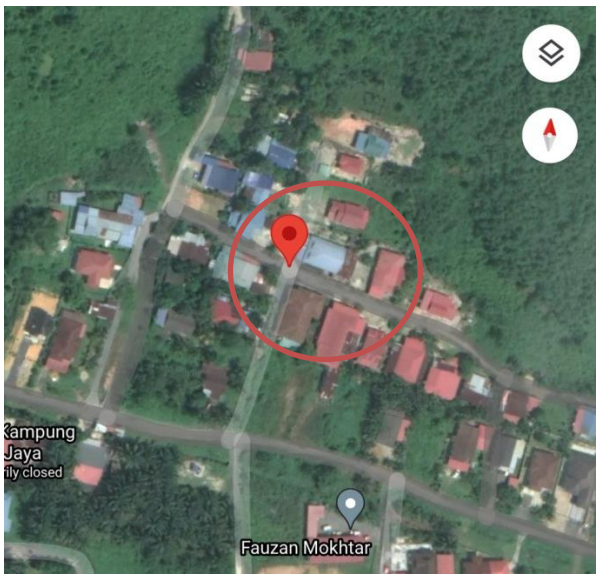

Figure 3.5: The site plan of case study at Lot 29411 Kampung Kurnia Jaya

3.2 Objective of Case Study

The objectives of this case study is important to set goals for the study parallel with the level of knowledge about construction project management that have learned. The objectives of the case study are :

a) To identify the method of construction project management use
b) To supervise the work done is accurate with the project plan and time
c) To keep up to date with problem and issue related
d) To find quick action on how to solve the issue related

3.3 Procedure and Scope in Monitoring and Controlling Work Involved

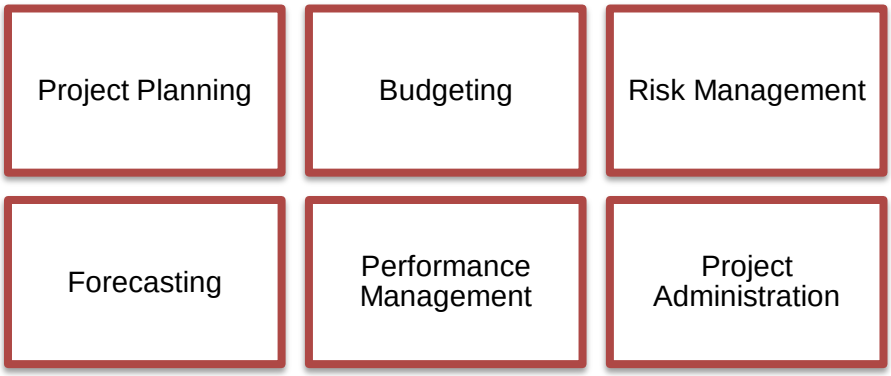

Figure 3.6: The procedure and scope in monitoring and controlling work involved during the project at Nizaha's site Taiping

3.3.1 Project Planning

Playing the most important steps in which is whether it is to create project plans, schedules, work-breakdown structures or cost estimates, planning gives everyone a baseline to work with throughout the project. In this project, the project was planned once they got the project. There are 9 items or works break-down structures that need to be done within 3 months. The cost estimate for each item also has been planned before the project started which is in total RM70,000 for this project.

No	Item	Cost
1	Repairing work from previous contractor until complete to proceed to the next item	RM5,000
2	Installation of roof tiles and piping system without building fittings and repairing work from previous contractor	RM10,000
3	Plastering work internal and external wall and flatten flooring work	RM10,000
4	Installation of gypsum ceiling	RM5,000
5	Flatten floor and installation of floor tiles	RM 10,000
6	Work on apron, porch and installation of mainhole and sewage tank	RM10,000
7	Installation of door	RM5,000
8	Work on bathroom and appliances and paint for internal and external wall, site clearing and keys handover	RM10,000
9	Repairing work if related	RM5,000

Table 3.2: Project planning and costing

3.3.2 Budgeting

Integrating the budgeting process into project activities is essential to calculate costs accurately and to understand when and why variances occur. By time-phasing budgets and refining the numbers, a transparent model is available for senior managers and team members alike to serve as both a benchmark throughout the project and understand vitally important cash flows. The budgeting process to calculate the materials and essential item is done before and throughout the project is running by the person in charge.

No	Item	Description
1	Structure Work	Reinforcement Concrete i. Floor Level up to 600mm from ground level
2	Wall	i. Internal : Claybrick ii. External : Claybrick
	Paint finishes	i. Internal : Easy Clean ii. External : Weather Shield
3	Roof i. Trusses	Aluminium Trusses c/w complete accessories
	ii. Roofing	Concrets Roof Tiles c/w complete accessories to Manuf's detail
4	Ceiling Internal i. Living Area	i. Decorative Plaster Celling c/w L.E.D Lighting Point all around inside ceiling box – living area

	ii. Family Area & Dining iii. Master Bedroom, Bedroom 2, 3 & 4. iv. Toilet 01, 02 & 03 v. Kitchen vi. Store vii. Walkway & others (internal)`	i. Flat Plaster Ceiling c/w complete accessories
	External : i. Car Porch (internal) ii. Terrace (internal)	i. Flat plaster Ceiling c/w complete accessories
	iii. Verandah	Skim coat finishes to be fine finish
	iv. Roof Eve & Others	Nos asbestos cembord ceiling c/w complete accessories and 1 ½ external beading all around
5	Window i.Windows	Min 5mm thk light green glass panel Aluminium casement window units. Min 1.2mm thk or equivalent aluminium windows framing system c/w 100mm X50mm pc coping- All
	ii. Top Hung	Min 5mm the light green glass panel Aluminium frame top hung unit. Min 1.2mm thk or equivalent aluminium top hung framing system toilet.

6	Door i.Main door	Double leaf 38mm thk solid timber Hardwood oval glass door with timber paintwork (min 2mm thk) and with complete set ironmongeries, min 35 x 150 x 3.5mm thk or squivalent antirust door frame unit
	ii.Kitchen	Single leaf 38mm thk solid timber Hardwood door with timber paintwork (min.2mm thk) and with complete set ironmongeries. Min 35 x 150 x 3.5mm thk or equivalent antirust door frame unit.
	iii. All bedrooms & store	Single leaf 38mm thk hollow moulded skin doors with complete set ironmongeries. Min 35 x 150 x 3.5mm thk or equivalent antirust door frame unit.
	iv. All bathroom/ Toilets	Aluminium bi-fold door c/w complete Accessories.
	v. Family Area	Min 5mm thk light green glass panel units (main sliding glass units). Min 2.4mm thk aluminium sliding door framing system. Min 35 x 150 x 3.5mm thk or equivalent antirust door frame unit (3 panel)
7	Floor Finishes with Skirting i.Living Family Area, & Dining ii. Store iii. All Bedrooms	600mm x 600mm glossy ceramic floor Tile to be well install & finishes c/w 75mm high ceramic tiles skirting all Around
	iv. Kitchen & toilet (All) v. Terrace vi.Verandah	300mm x 600mm ceramic floor tile to Be well install & finishes t/w 75mm High ceramic tiles skirting all around

	vii. Porch	300mm x 300mm homogeneous flour Tile to be well install & finishes
	viii. Table Tob	600mm x 600mm glossy porcelain tiles To be well install & finishes
8	Sanitary Fitting i.Kitchen Sink: Double Sink Aluminium sink c/w complete Acessories	1 NOS
	ii.Basin: Ceramic Basin c/w s/s racking & complete acessories	2 NOS
	iii.W.C : Ceramic water closet (Pendestal type) c/w complete Cistern & all acessories	3 NOS
	v. Shower : Rectangular Aluminium shower c/w complete Accessories including stop cock	3 NOS
9	Electrical Works i.Electrical supply/meter	Point: 3 phase

	ii.Lighting point c/w complete accessories	20 points
	iii.13 amp power point c/w complete accessories	15 points
	iv.Fan point c/w complete accessories	7 points
	v.Air Conditioner c/w complete accessories	2 points
	vi. Television point c/w complete acessories	1 points
10	Other Request Works i.Kitchen Cabinet c/w complete accessories	Complete Set Under & Above Counter Top 1 Nos Top
	ii.Loundry Complete system	Floor Trap & 1 Nos 13Amp Socket 4”
	iii.To Supply & install L.E.D Light	L.E.D light : 34 Nos
	iv. To Supply & Install 3 leaf ceiling Fan	3 Leaf Ceiling Fan : 7 Nos
	v. To Supply & Install L.E.D T8 Flourescent light	L.E.D T8 Flourescent Light 3 Nos

Table 3.3: The project budgeting table

3.3.3 Risk Management

Project controls provide a meticulous approach to managing risk. By preemptively identifying risks, monitoring risk continuously, and developing contingency plans to address and mitigate issues, it becomes possible to reduce impact on budget and schedule. It also helps prevent some risks from happening in the future. For Nizaha's site, there are written term and condition prepared by the company between sub-contractor with contractor and also the agreement between client and contractor. The purpose of this black and white document is to prevent from any problem to occur in future. The sub-contractor also needed to agree with all of term and condition before they wanted to proceed. In the term and condition, it has stated that materials, condition and safety at site need to be handled by the sub-contractor itself. The contractor will not responsible for any loss and accident that happened, as conclusion, this show that all the risk management at site need to be controlled by sub-contractor.

3.3.4 Forecasting

Good progress measurement is a critical input to the forecasting process. It serves as the comparison against actual and committed costs that enable project controllers to extrapolate a forecast using a combination of standard forecasting methods and formulas. Regular, timely updates aid the project controller by enabling faster response and corrective action to when a project begins to get off track. The forecasting process is done before the project started to help project manager take a fast action regarding to short supply of materials, costing for next item and also the action and cost for the unexpected issue in the future during the project.

3.3.5 Performance Management

Defining and using key performance indicators (KPIs) to monitor project health and forecast trends is crucial to take corrective actions. The performance management is important for any project to help the company to deliver the best product to their clients. In Nizaha's site, the performance is managed by doing site inspection in every progress. Site supervisor will measure the accuracy of the site measurement with reference in drawing plan. They will also refer to the agreement to make sure the type of materials use at site is same as what they have agreed. In addition, the workmanship of labour also will be supervise to make sure they do the right procedure and to prevent any huge mistakes that can give loss to company.

3.3.6 Project Administration

This process involves establishing processes and systems that can help team members communicate and collaborate with each other. The goal is to track status updates, capture meeting minutes and lessons learned, and manage workflows seamlessly so teams can focus on actual execution rather than routine tasks. As stated in the term and condition between sub-contractor and company, the sub-contractor is responsible to keep a daily update of progress at site to the contractor and client. They need to take every picture of the progress and each material that has been arrived at site. Through this daily update also the contractor can check for any defect of mistakes done by the sub-contractor. In addition, at every site also has a site supervisor to track and monitor every progress other than only depending to the sub-contractor.

3.4 List of Problem in Project Monitoring and Controlling at Case Study

No	Scope	Description
1	Project planning	<u>Unrealistic Expectation</u> i. The unrealistic expectation from the company is regarding to the budget. They always keep the lowest budget for their project. Furthermore, they did not put a budget for emergency work such as broken machineries or unexpected incidents. The real cost of certain project at site not same as the total in costing. The over budget of materials has happened regarding to unexpected incident such over supplying materials, damaged item, construction process mistake and stolen item. For example, they provide RM5000 budget for ceiling installation work while the onsite price is more than that. ii. Broken machineries at site with the late action from site supervisor when project is still running. This lead to delay of the project progress in fact will increase the costing of the project. The broken machineries at Nizaha's site Taiping is backhoe and concrete mixer. They more than a week to find solution to this problem.

		 *Figure 3.7: The broken cement mixer*
2	Forecasting	<u>Late and short of materials supply</u> i. Late and short materials supply problems usually happen when the management makes a late approval for payment process. The sub-contractor need to wait for account administrator to proceeds the payment before they can make the material order. In addition, the management also did not make forecasting for material supply especially if there is upcoming public holiday where the hardware will usually close.

3	Risk management	<u>Safety at site</u> i. During the site visit, the workers not wearing safety shoes and safety helmet when doing their job. This is very dangerous since there are many hazards at site such as nails, wood and steel splinter plus the slippery and uneven floor. They also do not wear any protective equipment when using tools such as steel cutter. Safety at site issues is regarding their safety of workers and safety at work place. They did not manage the hazardous tools and wastage correctly. The floor is full with hazard such as nails, steel, wood and others dangerous wastage. Their worker also not wearing any Personnel Protective Equipment while working. Even worst, they sometime did not wear footwear or only wear sandals.  *Figure 3.8: The situation of general labour at site*

Figure 3.9: The condition of tools and equipment at site

Storage for materials at site

i. Next is storage for materials at site, the risk management for materials also became an issue when they need to face damage and stolen materials. The damage material is cement and sand because it has been left with weather exposure. The cement became hard if it is expose to rain. Many materials such as concrete cement and sand cannot be use after certain time just because of it has been left under the weather exposure and it gave loss to the company since they need to make a new order for the materials.

Figure 3.10: The condition of materials

4	Performance management	<u>Poor workmanship</u> i. The wrong design of the house at the left elevation when there are extra column were constructed before. The problem is made by the previous sub-contractor that has left the project. They have constructed the different amount of column at the site and this give loss to the owner since the need of starting over the calculation and to find the new contractor.  *Figure 3.11: The left elevation of the house* ii. The leveling of the wall is not level and a bit tilted. This make the installation of window become not accurate to the wall and has reduced the aesthetic value of the house.  Figure 3.12: The titled frame

		<u>Making the wrong work order</u> i. The construction work not according to the list of item. For this company the list of work has been prepared before the project started. This is prepared by the project manager to make sure the work progress is smooth and to make the money claim easier. The problem tends to happened when the sub-contractor not doing their job by following the list prepared. This will give problem in the process of claiming money to proceed to the next work progress.  *Figure 3.13: The porch area at the house*

Table 3.4: List of Problem in Project Monitoring and Controlling at Case Study

3.5 Summary

Project management is not only what is seems, it is much more than that because it requires skills that take time, patience and perseverance. It will require project manager to constantly analyze setbacks and failures and take fast action with implement the lessons learned from it. Every phase in the project management important; project manager should focus on each challenge and find ways to deal with even before starting the project to make the project success.

In this project, there are four scopes that consisted problem during project monitoring and controlling phase. The scope is in project planning, forecasting, risk management and performance management. To get the best product, all aspect in project management needed to be taken seriously from the start item until the last item.

In Nizaha's construction site, the problems that has occurred during the project has led to slow progress and need extension of time. They cannot complete and deliver the house to client within the stipulated time. In addition, regarding to this setback, it will reduces the company performance and views. They should aware with every problem and have to take the lessons learned to improve their company productivity.

CHAPTER 4: STRATEGY AND RECOMMENDATION

4.0 Introduction

When projects fail, many organizations may end up blaming the effectiveness of their project controls.However, this is the time to assess whether the control processes have been adequately implemented. In this project we can look at a few challenges and obstacles faced by project teams in implementing project monitoring and controlling properly. Taking care of so many things can be nerve-wracking and it is not surprising if something slips out of your mind. Every day we hear the same stories, common challenges and issues in project management. Yet we fail to learn our lesson out of those stories.

4.1 Strategy of High Quality Monitoring and Controlling

i. Get organized with a software application

As business grow and projects are increased in size and frequency, it will become increasingly difficult to keep projects and tasks organized and manageable. Effectively monitoring scaled tasks and outcomes can be done by implementing a systematic procedure by breaking projects down into phases and organizing milestones, tasks, roles, and a timeline with a project management software application.

Another common tool that can be used by the company is a Gantt chart, which adds the element of time, mapping out the scheduled tasks against a timeline to help assess the planned project schedule in real-time. There are other project management techniques such as the critical path method, the waterfall method, and many others all supported by a variety of software applications.

ii. Structure employee roles and responsibilities

Strategically assigning the right employees to the right tasks during the setup of the work breakdown structure will greatly impact the project's ability to remain in management's control. Project managers should carefully consider the tasks at hand, the skills needed to complete them, and the structure of the task to role deployment. In addition to structuring employee tasks, spending time properly training employees on time management will increase long-term efficiency and help ensure the project remains within schedule.

Encouraging employees to prioritize their tasks by ranking them based on urgency and importance can help with efficient task completion. Assisting employees in managing their workload can be helpful, but avoiding micromanaging is necessary since they know how they work best. The quality of a project and its completion is dependent on many things, but the project may only be as great as the employees completing it. Monitoring the people, their roles, and their activities may be optimal if supported by a conductive structure of tasks to roles and a line of accountability.

iii. Measure performance analytically

Since the project monitoring and control process largely involves supervision on actual performance in comparison to planned performance, it is important to utilize measurable values and analytics to assess project performance. Earned Value Management is an effective method in calculating schedule and cost variances by measuring the planned and earned values alongside the actual cost. This method for schedule performance will indicate whether a project is on time, and the cost performance indicates where the project stands on budget. This is also useful in forecasting the budget at completion at any point in the project when variance or changes arise. Additionally, applying the control chart technique will assist in monitoring project quality by looking at predictability, behavior, and causes for deviation.

iv. Utilize project status reports

With the data analytics used in measuring performance, project managers should turn their performance calculations into status reports. Reporting the status of project deliverables, schedule, expenditures, risks, issues, and work performance will showcase comprehensible progress and indicate pain point areas. Utilizing predictive analytics tools to create data-driven progress reports and forecasts will increase accuracy and decision validation.

Status reporting can breakdown performance by budget, schedule, and scope quality, as well as project milestones and task performance at different employee levels, and it can outline issues and risks. Status reports should be concise with focused objectives and formatted to display transparent progress backed by data. This is an essential tool that should be utilized for communicating project progress with the team and the stakeholders.

v. Determine variance deviation threshold

To keep a project under control, setting a threshold limit for any deviation from the planned events and measurable values will enable swift decision making when things don't go as planned. If the project manager determines the deviation threshold from the estimated schedule and cost baseline prior to the start date, the need for corrective action can be appropriately triggered.

Additionally, pre-determining an action plan and identifying critical paths to appropriate authority for different levels of variance will allow for accelerated decision making. Putting in the effort to accurately estimate project variables will set up a project for success but ending there may leave the project in vain. Proactively setting a variance deviation threshold will trigger a quick and appropriate level of corrective change and forecasting the final project constraints sustaining minimum cost and schedule overruns.

vi. Implement change control appropriately

While it is necessary to make corrective changes to a project as variances arise, hastily adjusting the project constraints when any deviation occurs can harm a project. Utilizing integrated change control will only authorize one implemented project change at a time. This allows for an evaluation of how the change impacts the project and promotes an accurate identification of any adverse changes increasing project control and minimizing the risk of change.

Since there is a decision to be made at which level of change to the project budget or timeline a variance may require, monitoring integrated changes can enable better decision making. If there is a deviation that surpasses the threshold from the planned values, a change should be requested for approval or rejection before implementation. Once there are approved changes, stakeholders should be informed, and final planned values and forecasts should be adjusted to continue monitoring how performance meets the updated planned values.

4.2 Recommendation to the Problem

No	Problem	Recommendation
1	<u>Project planning</u> i. The unrealistic expectation from the company is regarding to the budget ii. Do not put a budget for emergency work such as broken machineries or unexpected incidents	Use proper project scheduling tools, budgeting procedure and make realistic assumptions to avoid cost overrun. Planning the project scope must be done keeping in mind the budget in hand. In fact the budget limitations could threaten the very success of a poorly budgeted project.
2	<u>Forecasting</u> i. Late and short materials supply ii. Do not make forecasting for material supply especially if there is upcoming public holiday	Use agile project management, velocity, which is the measure of work completed in a single sprint, is decided collectively by taking inputs from all stakeholders. This is done during the planning phase of the project. Further, frequent monitoring of deadlines by the project manager is a must. This ensures that any increase in scope during the execution of the project is either avoided or timelines modified as required.
3	<u>Risk management</u> i. Safety at site issues is regarding their safety of workers and safety at work place. ii. Storage for materials at site	It is the job of every project manager to come up with alternate plans that the team may adopt if the project begins to spiral out of control. Having a project risk management system helps in identifying the types of risks and mitigating

		them. Having a contingency plan in place is critical. This plan should identify all risks that the course of action to be taken if they materialize it.
4	<u>Performance management</u> i. Poor workmanship ii. Making the wrong work order	The project managers need to pre-determine the needed project management skills and competencies and assess the available workforce to determine whether the additional staff and skillsets are required or not. An effective project initiation plan will deal with the needs of the project and the resources required to accomplish it. These resources include the human skill component as well. The project plan will further build upon the groundwork of the initiation document.

Table 4.1: Table of problem and recommendation

4.3 Summary

In conclusion, the main obstacles to projects being within budget, on schedule and fit-for-purpose are not the quantifiable issues generally called risks, but uncertainties. Almost by definition it is what is poorly known that is problematic. Yet it is not just the unquantifiability and intangibility of uncertainties that cause project slippage, but that they are barely recognized and taken into account in project planning and execution. Improving project performance requires purpose-driven and managed deployment of scarce seasoned professionals. This can be aided with independent oversight of deeply experienced panellists who contribute technical insights and can potentially show that diligence is seen to be done.

CHAPTER 5: CONCLUSION

Bersatu Eramaju Sdn Bhd is a construction company that will manage the construction procedure from the beginning which is project execution until the last procedure, which is completion. All of the process will be conducted by their professional staffs and they will do their best to deliver the excellent product to their clients. They have started the company since 2003 and have got their client's trust since that.

In this report, chapter two has elaborated on the literature review related to the title 'Project Management: Monitoring and Controlling Setback at Construction Site Nizaha, Taiping'. Project management is a method to achieve the define goals by using the plans, schedules and resources within the stipulated timeframe. While project monitoring and controlling is parallel with project execution and construction phase, means that while project is being executed, the project is being monitored and controlled by implementing the appropriate level of oversight and corrective action.

The case study used for this report is located at Kampung Kurnia Jaya, Kamunting. In this case study, there are few setback has been identified within the different scope. The scope included is project planning, forecasting, risk management and performance management. In addition, the problem in project planning is the unrealistic expectation and do not have the emergency preparation budget. In forecasting they have a problem with materials supply, furthermore in risk management the issue occurred in safety of workers and materials at site. Lastly is in performance management, the setback identified that inflict to delay of project is poor workmanship and not doing the right work order.

The new strategy and recommendation to overall setback has been prepared in chapter four. Managing projects is no less than running a small city. Taking care of so many things can be nerve-wracking and it is not surprising if something slips out of mind. Therefore, to improve the project management the team must to learn from mistakes and make a new strategy.

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APPENDICES

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Kemunting Perak.

12 Oktober 2021

Tuan/Puan,

SURAT PERLANTIKAN KONTRAKTOR BAGI PROJEK CADANGAN MEMBINA DAN MENYIAPKAN 1 UNIT RUMAH BANGLO DI ATAS LOT 29411 MUKIM ASAM KUMBANG NEGERI PERAK.
(Puan Nizaha)

Dengan hormatnya saya merujuk kepada perkara di atas dan memaklumkan bahawa Syarikat Bersatu Eramaju Sdn Bhd telah bersetuju untuk melantik Syarikat tuan sebagai kontraktor seperti ketetapan berikut:

Nama Projek	: **CADANGAN MEMBINA DAN MENYIAPKAN 1 UNIT RUMAH BANGLO DI ATAS LOT 29411 MUKIM ASAM KUMBANG NEGERI PERAK.**
Kos Projek	: **RM 70,000.00**
Tempoh Siap	: **3 Bulan**
Skop Kerja	: **MEMBINA DAN MENYIAPKAN 1 UNIT RUMAH DAN SEMUA KERJA-KERJA YANG BERKAITAN**

Tandatangan Pengurus syarikat

…….
MUHAMMAD EZMEEN BIN AZNEL
No. K/P : 880311-35-5449

Saya yang telah mengakui maklumat diatas

……..
Nama : Ahmad Saukani
No ic : B.00932521

BINASIFU.COM
BERSATU ERAMAJU SDN. BHD.
PT 7, Jalan Iskandar, 33100
Pengkalan Hulu, Perak Darul Ridzuan

019 454 3737
04 477 8072
bersatueramaju@yahoo.com
H-2-1 Block H Putrawalk, 43300
Seri Kembangan, Selangor Darul Ehsan
No. 6A, (1st floor), Lang Jaya 1,
Pusat Komersial Lang Jaya, 30010 Ipoh, Perak.

Ahmad Saukani
No.169 Jalan Kelah Taman Lela 1,
Kemunting Perak.

12 Oktober 2021

Tuan/Puan,

CADANGAN MEMBINA DAN MENYIAPKAN 1 UNIT RUMAH BANGLO DI ATAS LOT 29411 MUKIM ASAM KUMBANG NEGERI PERAK.

~Perjanjian Pembinaan Rumah~

BIL	PERKARA	JUMLAH (RM)
1.	Membina dan menyiapkan 1 unit rumah banglo bersaiz (1880.44ft) i.Built up area 1582.94 sqft ii. Porch 188.90 sqft iii. Terrace 46.50 sqft iv. Verandah 62.10 sqft	
	Jumlah Keseluruhan	**RM 70,000.00**

***Tarikh siap 3 bulan daripada tarikh agreement iaitu …….**

Jumlah Harga : Ringgit Malaysia Tujuh Puluh Ribu Sahaja.

Tender Berdasarkan Plan Arkitek : yang dilampirkan

Tandatangan Pengurus syarikat

……
MUHAMMAD EZMEEN BIN AZNEL
No. K/P : 880311-35-5449

Saya yang telah mengakui maklumat diatas

……..
Nama : Ahmad Saukani
No ic : B.00932521

(Jadual Pembayaran Untuk Kos-Kos Pembinaan)

Harga Kontrak – Ringgit Malaysia Tujuh Puluh Ribu Sahaja.

No.	BAYARAN BERPERINGKAT	JUMLAH (RM)	Catatan
a.	Membaik pulih kerja-kerja kontraktor terdahulu sehingga siap bagi membolehkan item seterusnya dijalankan.	RM 5,000.00	
b.	Memasang bumbung dan menyalur paip-paip air tanpa kelengkapan pada bangunan tersebut dan membaik pulih kerja-kerja kontraktor terdahulu.	RM 10,000.00	
c.	Kerja-kerja melepa di dalam dan luar bangunan itu menggenting dinding dan melicinkan lantai.	RM 10,000.00	
d.	Memasang siling kapur	RM 5,000.00	
e.	Melicinkan lantai serta jubin	RM 10,000.00	
f.	Kerja-kerja memasang kaki lima sekeliling rumah, melincinkan lantai anjung kereta dan memasang mainhole dan tangki najis	RM 10,000.00	
g.	Memasang pintu	RM 5,000.00	
h.	Kerja memasang tandas dan cat berwarna dalam dan luar rumah, site clearing dan penyerahan kunci.	RM 10,000.00	
i.	Kerja baik pulih jika perlu	RM 5,000.00	
	JUMLAH KESELURUHAN	**RM 70,000.00**	

Tandatangan Pengurus syarikat

…….

MUHAMMAD EZMEEN BIN AZNEL
No. K/P : 880311-35-5449

Saya yang telah mengakui maklumat diatas

……..

Nama : Ahmad Saukani
No ic : B.00932521

Dalam menyaksikan hal-hal di atas maka pihak-pihak di dalam surat lantikan ini telah bersetuju untuk menurunkan tandatangan masing-masing pada hari dan tahun yang mula dinyatakan di atas.

Tandatangan Kontraktor

……

Nama : Ahmad Saukani
No ic : B.00932521

Tandatangan Saksi

……...

Nama :
No.K/P:

Tandatangan Pengurus Syarikat

……

Nama : MUHAMMAD EZMEEN BIN AZNEL
No. K/P : 880311-35-5449

Tandatangan Saksi

…….

Nama:
No.K/P:

BINASIFU.COM
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Pusat Komersial Lang Jaya, 30010 Ipoh, Perak.

Ahmad Saukani
No.169 Jalan Kelah Taman Lela 1,
Kemunting Perak.

12 Oktober 2021

Tuan/Puan,

PER: PENGESAHAN PERINCIAN SPESIFIKASI CADANGAN MEMBINA DAN MENYIAPKAN 1 UNIT RUMAH BANGLO DI ATAS LOT 29411 MUKIM ASAM KUMBANG NEGERI PERAK.
(Puan Nizaha)

No.	ITEM	DECRIPTION	AMOUNT
A	SRTUCTURE WORKS	Reinforcement Concrete • Floor Level up to 600mm from ground level	
B	WALL PAINT FINISHES	i.internal : Claybrick ii. external : Claybrick i.internal : Easy Clean ii. External : Weather Shield	
C	ROOF i.Trusses ii.Roofing	 Aluminium Trusses c/w complete accessories Concrets Roof Tiles c/w complete accessories to manuf's detail	
D	CEILING **1.Internal** i.Living Area	 i.Decorative Plaster Celling c/w L.E.D Lighting Point all around inside ceiling box – living area	

	ii.Family Area & Dining	i.Flat Plaster Ceiling c/w complete accessories	
	iii.Master Bedroom, Bedroom 2,3 &4.	i.Flat Plaster Ceiling c/w complete accessories	
	iv.Toilet 01,02 & 03	i.Flat Plaster Ceiling c/w complete accessories	
	v.Kitchen	i.Flat Plaster Ceiling c/w complete accessories	
	vi.Store	i.Flat Plaster Ceiling c/w complete accessories	
	vii.Walkway & others(internal)	i.Flat Plaster Ceiling c/w complete accessories	
	2. External :		
	i. Car Porch (internal)	i.FlatPlaster Ceiling c/w complete accessories	
	ii.Terrace (internal)	i.FlatPlaster Ceiling c/w complete accessories	
	iii. Verandah	Skim coat finishes to be fine finish	
	iv. Roof Eve & Others	Nos asbestos cembord ceiling c/w complet accessories and 1 ½ external beading all around	

E	**WINDOW**		
	i.Windows	Min 5mm thk light green glass panel aluminium casement window units. Min 1.2mm thk or equivalent aluminium windows framing system c/w 100mm x50mm pc coping- All	
	ii. Top Hung	Min 5mm the light green glass panel aluminium frame top hung unit. Min 1.2mm thk or equivalent aluminium top hung framing system toilet.	
F	**DOOR**		
	i.Main door	Double leaf 38mm thk solid timber hardwood oval glass door with timber paintwork (min 2mm thk) and with complete set ironmongeries, min 35 x 150 x 3.5mm thk or squivalent antirust door frame unit	

	ii.Kitchen	Single leaf 38mm thk solid timber hardwood door with timber paintwork (min.2mm thk) and with complete set ironmongeries. Min 35 x 150 x 3.5mm thk or equivalent antirust door frame unit.	
	ii. All bedrooms & store	Single leaf 38mm thk hollow moulded skin doors with complete set ironmongeries. Min 35 x 150 x 3.5mm thk or equivalent antirust door frame unit. Aluminium bi-fold door c/w complete accessories.	
	iv. Allbathroom/Toilets	Min 5mm thk light green glass panel units (main sliding glass units). Min 2.4mm thk aluminium sliding door framing system. Min 35 x 150 x 3.5mm thk or equivalent antirust door frame unit (3 panel)	
	v. Family Area		
G	**FLOOR FINISHES with skirting**		
	i.Living Family Area, & Dining	600mm x 600mm glossy ceramic floor tile to be well install & finishes c/w 75mm high ceramic tiles skirting all around	
	ii. Store	600mm x 600mm glossy ceramic floor tile to be well install & finishes c/w 75mm high ceramic tiles skirting all around 600mm x 600mm glossy ceramic floor tile to be well install & finishes c/w 75mm high ceramic tiles skirting all around	

	iii. All Bedrooms	300mm x 600mm ceramic floor tile to be well install & finishes t/w 75mm high ceramic tiles skirting all around	
	iv. Kitchen & toilet (All)	300mm x 600mm ceramic floor tile to be well install & finishes c/w 75mm high ceramic tiles skirting all around	
	v. Terrace	300mm x 600mm ceramic floor tile to be well install & finishes c/w 75mm high ceramic tiles skirting all around 300mm x 300mm homogeneous flour tile to be well install & finishes 600mm x 600mm glossy porcelain tiles to be well install & finishes	
	vi.Verandah		
	vii. Porch		
	viii. Table Tob		
I	**SANITARY FITTING** <u>i.Kitchen Sink:</u> Double Sink Aluminium sink c/w compleet acessories	1 NOS	
	<u>ii.Basin :</u> Ceramic Basin c/w s/s racking & complete acessories	2 NOS	
	iii.<u>W.C :</u>	3 NOS	

	Ceramic water closet (Pendestal type) c/w complete cistern & all acessories		
	v. <u>Shower :</u> Rectangular Aluminium shower c/w complete accessories including stop cock	3 NOS	
J	ELECTRICAL WORKS i.Electrical supply/meter ii.Lighting point c/w complete accessories iii.13 amp power point c/w complete accessories iv.Fan point c/w complete accessories v.Air Conditioner c/w complete accessories vi. television point c/w complete acessories	**Point** 3 phase 20 points 15 points 7 points 2 points 1 points	
K	OTHER REQUEST WORKS i.Kitchen Cabinet c/w complete accessories ii.Loundry Complete system iii.To Supply & install L.E.D Light iv. To Supply & Install 3 leaf ceiling Fan v. To Supply & Install l.e.d T8 Flourescent light	 Complete Set Under & Above Counter Top 1.Nos Top, Floor Trap & 1 Nos 13Amp socket 4" L.E.D light : 34 Nos 3 Leaf Ceiling Fan : 7 Nos L.e.d T& Flourescent Light 3 Nos	
L	**TOTAL BUILDING WORK**		

Yang benar,

.....
MUHAMMAD EZMEEN BIN AZNEL
PengarahUrusan

Dipersetujui

……
Nama : Ahmad Saukani
No ic : B.00932521

SPESIFIKASI

- **BANGLO SATU TINGKAT**
- **4 BUAH BILIK TIDUR**
- **3 BUAH BILIK AIR**
- **RUANG TAMU**
- **RUANG DAPUR**

TAMBAHAN : * BERTANDA

- Kerja-kerja Pailling
- Luar bata merah
- Rumah naik 3 kaki dari tanah

- **KITCHEN CABINET TINGKAT BAWAH 10 KAKI**
- **LAMPU DAN KIPAS**

Yang benar,

.....

MUHAMMAD EZMEEN BIN AZNEL
PengarahUrusan

Dipersetujui

……

Nama : Ahmad Saukani
No ic : B.00932521

SPESIFIKASI PERINCIAN BINAAN (RUMAH SETINGKAT)

NO.	KERJA-KERJA	PERINCIAN
1.	Kerja-kerja pertapakan dan penyediaan tapak	a) Penyediaan tapak, meratakan tapak dan meratakan tanah. b) *Hoarding* (jika perlu) dan kerja-kerja cerucuk (jika perlu). c) *Setting out* tapak.
2.	Kerja-kerja *Raft Footing*	a) Besi raga footing saiz 24 inci x 24 inci x 12 inci dengan ikatan besi Y12 yang diikat dengan besi *link* R6 menjadikan saiz *footing* selepas di konkrit dengan bancuhan konkrit Gred 20.
3.	Kerja-kerja *Stump*	Kerja- kerja stump dibina dengan saiz 12 inci x 12 inci dan tinggi yang bersesuaian dengan reka bentuk rumah dan di konkrit dengan konkrit Gred bancuhan 20 dengan ikatan besi Y12 dan besi *link* R6.
4.	Kerja- kerja *Beam* bawah	Kerja-kerja beam bawah akan diikat dengan besi Y12 yang diikat dengan besi R6 dengan saiz lebar 4 inci dan tinggi 12 inci dengan dikonkrit dengan konkrit Gred 20.
5.	Kerja- kerja Lantai	Kerja-kerja lantai. Lapisan pertama yang telah dibancuh dengan ubat anai-anai akan dimasukkan tanah. Lapisan kedua batu *hardcore*. Lapisan ketiga plastik. Lapisan keempat BRC R9 yang dilapik dan dikonkrit dengan ketebalan 4 inci dengan konkrit Gred 20.
6.	Kerja-kerja Tiang	Kerja-kerja tiang dibina dengan besi R12 yang diikat bersama besi R6 menjadi tiang bersaiz 4 inci x 6 inci dan dikonkrit dengan konkrit Gred 20.
7.	Kerja-kerja Bata	Kerja-kerja bata akan diikat dengan ikatan bata dilapis dengan *wire match* diletakkan setiap 4 lapisan bata dan besi R6 akan disambung daripada tiang bagi menambah kekuatan ikatan bata.
8.	Kerja- kerja *Beam* atas	Kerja-kerja *beam* atas akan dibina dan *formwork* akan ditahan selepas kerja- kerja bata siap diikat dengan besi R12 yang diikat dengan besi R6 dan dikonkrit dengan konkrit Gred 20 dengan size 4 inci x 12 inci.
9.	Kerja-kerja rangka bumbung dan atap bumbung	Kekuda bumbung akan dibina dengan reka bentuk seperti di dalam pelan dengan jarak kekuda tidak melebihi 48 inci dan besi baton akan dilintangkan dengan jarak 12 inci supaya atap genting dapat diletakkan dengan sempurna.
10.	Kerja-kerja melepa	Kerja-kerja melepa akan dijalankan dengan sebaiknya dengan lepaan span diluar dan lepaan licin di dalam.

Yang benar,

.....

MUHAMMAD EZMEEN BIN AZNEL

Pengarah Urusan

Dipersetujui

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TERMA DAN SYARAT PERJANJIAN PEMBINAAN RUMAH

1. Tuntutan bayaran akan dibayar setiap 2 minggu.

2. Pihak kontraktor yang dilantik harus bertanggungjawab dari segi keselamatan dan apa-apa masalah berkaitan undang-undang termasuk permit pekerja asing jika terlibat.

3. Rumah kongsi atau penyediaan tempat tinggal harus dibina sendiri oleh pihak kontraktor.

4. Penyediaan api dan air harus diuruskan oleh pihak kontraktor.

5. Pihak kontraktor harus bertanggungjawab dari segi keselamatan ditapak binaan bagi mengelakkan kes kecurian , denggi serta masalah-masalah keselamatan yang berkaitan.

6. Gambar ditapak binaan haruslah di hantar setiap 1 hari melalui WhatsApp.

7. Denda kelewatan sebanyak 2% sebulan dan akan dikira berdasarkan hari kelewatan.

8. Pihak Bersatu Eramaju Sdn. Bhd. Berhak membatalkan perjanjian jika pihak kontraktor melanggar mana-mana syarat dengan notis 14 hari.

9. Pihak Subkontraktor tidak boleh mendedahkan maklumat perjanjian dan harga kontrak. (Kontrak adalah sulit)

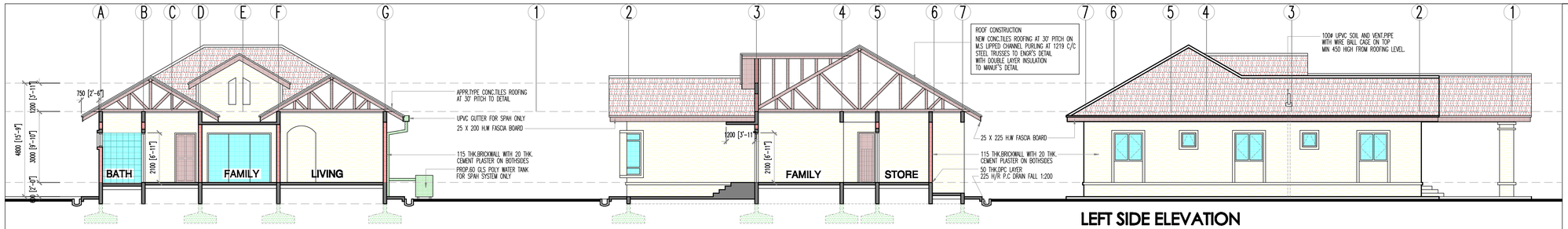
10. Pihak sub kontraktor perlu memasang CCTV yang dibekal oleh Pihak Syarikat di tapak bina.

Yang Benar

……
MUHAMMAD EZMEEN BIN AZNEL
No. K/P : 880311-35-5449

Dipersetujui

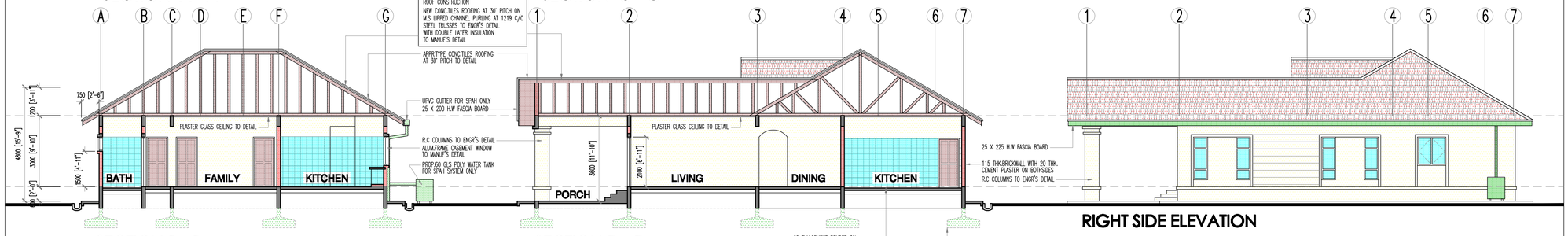
……..
Nama : Ahmad Saukani
No ic : B.00932521



SECTION A - A

SECTION C - C

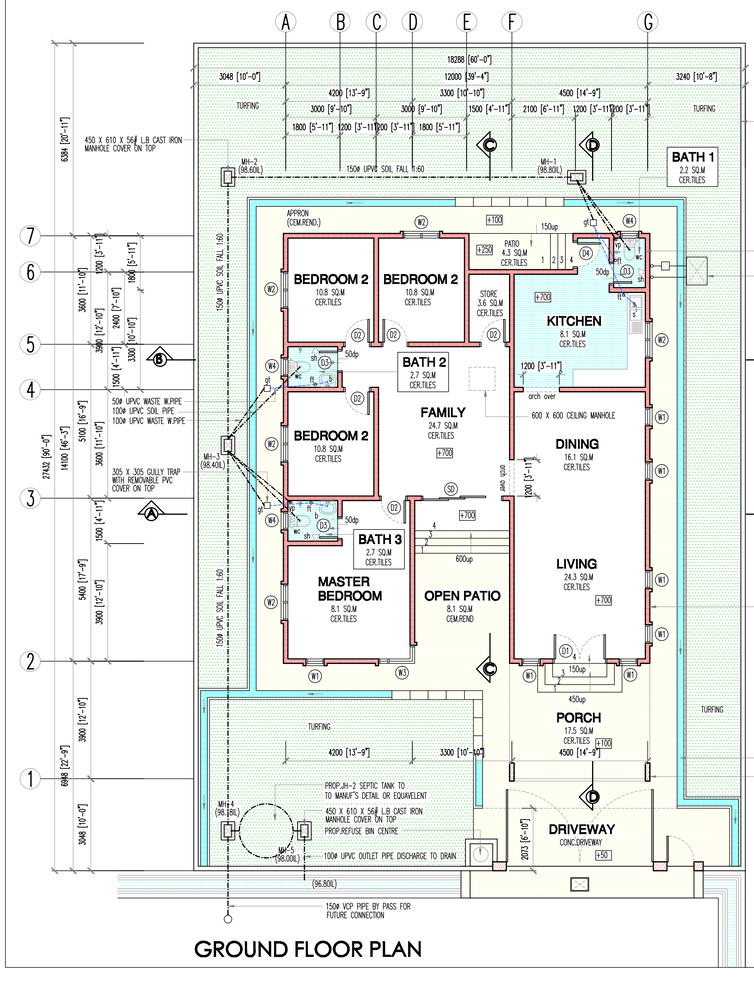
LEFT SIDE ELEVATION



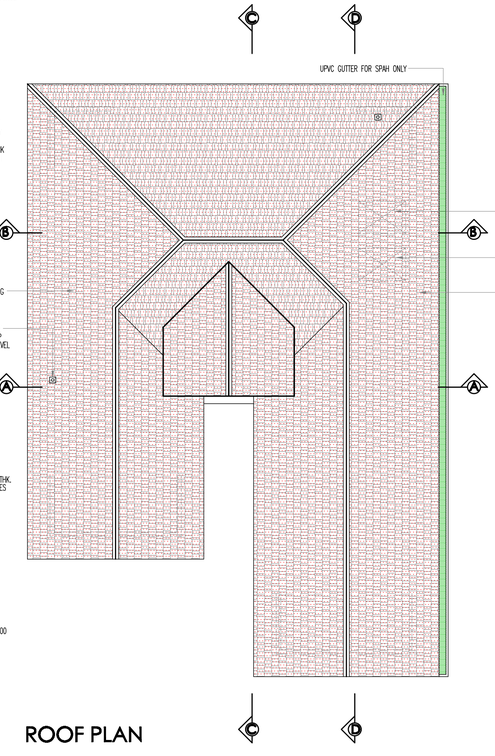
SECTION B - B

SECTION D - D

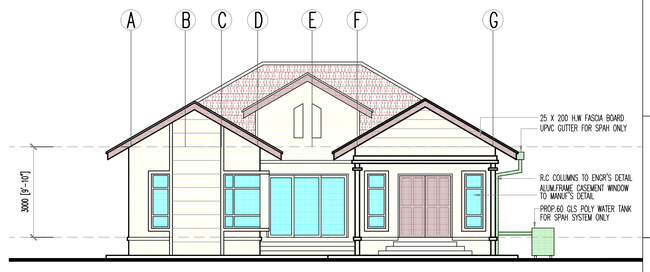
RIGHT SIDE ELEVATION



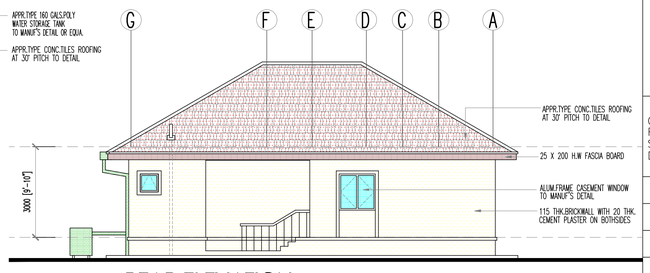
GROUND FLOOR PLAN



ROOF PLAN



FRONT ELEVATION



REAR ELEVATION

DOOR SCHEDULE

SYMBOL	DESCRIPTION	SIZES
D1	M.S FRAME DECORRATIVE PANEL DOOR TO MANUF'S DETAIL	900(W) X 2100(H)
D2	M.S FRAME TIMBER PANEL DOOR TO MANUF'S DETAIL	900(W) X 2100(H)
D3	M.S FRAME PVC FLUSH DOOR TO MANUF'S DETAIL	750(W) X 2100(H)
D4	M.S FRAME TIMBER DOOR TO MANUF'S DETAIL	900(W) X 2100(H)
SD	ALUM.FRAME SLIDING DOOR TO MANUF'S DETAIL	2700(W) X 2100(H)

WINDOW SCHEDULE

SYMBOL	DESCRIPTION	SIZES
W1	ALUM.FRAME CASEMENT WINDOW TO MANUF'S DETAIL	600(W) X 1800(H)
W2	ALUM.FRAME CASEMENT WINDOW TO MANUF'S DETAIL	1200(W) X 1200(H)
W3	ALUM.FRAME FIXED GLASS PANEL WINDOW TO MANUF'S DETAIL	900(W) X 1800(H)
W4	ALUM.FRAME TOP HUNG WINDOW TO MANUF'S DETAIL	600(W) X 600(H)

APPROVAL BY :

TANDATANGAN PEMILIK :

NIZAHA BINTI MD ISA
NO.KP : 790614-14-5722
11C-T10-U02,
BLOK C FASA 2,JALAN P9F,
PRESINT 9,62250 PUTRAJAYA.

PROJEK :

CADANGAN MEMBINA SEBUAH RUMAH KEDIAMAN SETINGKAT DI ATAS LOT 29411, LORONG MASJID 3, RKT.KAMPUNG KURNIA JAYA, MUKIM ASAM KUMBANG, DAERAH LARUT DAN MATANG, PERAK DARUL RIDZUAN.
UNTUK : NIZAHA BINTI MD ISA

PERKARA :

GROUND FLOOR PLAN,ROOF PLAN,FRONT ELEVATION, REAR ELEVATION,LEFT,RIGHT SIDE ELEVATION, SECTION A,B,C & D, DOOR SCHEDULE AND WINDOW SCHEDULE.

UKURAN : 1 : 100	DILUKIS OLEH : SAHROL MUSDIN
TARIKH : FEB 2018	DI SEMAK OLEH :

NO. FAIL :

TANDATANGAN ARKITEK :

AR. RAINI JAAFAR, AMP.
B ARCH (QUEENSLAND) DIP ARCH (ITM) APAM PRINCIPAL
ISMAIL MOHAMED YUSOFF PMP, AMP, PPT
arkitek DCA
105, REGAT SERI CEMPAKA,TAMAN CEMPAKA,
31400 IPOH, PERAK DARUL RIDZUAN
TEL . 05 5484595 . FAX 05 5498113

arkitek DCA DESIGNS CONSULTANT ASSOSIATES
DESIGNS INTERIORS LANDSCAPE PLANNING PROJECT MANAGEMENT

SAYA MEMPERAKUI BAHAWA PERINCIAN-PERINCIAN DIDALAM PELAN INI ADALAH MENURUT KEHENDAK UNDANG-UNDANG KECIL BANGUNAN SERAGAM 1988 DAN SAYA SETUJU MENERIMA TANGGUNG-JAWAB DENGAN SEWAJARNYA.

NO. LUKISAN :

ArazDC 2068 (18)/MPT/B1T/NIZAHA

02
03