UNIVERSITI TEKNOLOGI MARA

FACULTY OF CIVIL ENGINEERING

INDUSTRIAL TRAINING REPORT

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ABSTRACT

The industrial training report in broad-spectrum contains four chapters in which I am trying to explain my two months experience in my hosting company. The content of all chapters is broadly explained and it is constructed from the practical basis of the site work.

In the opening chapter 1 I will be giving a details about the company that I have done my internship for two months including its organizational structure, nature of business, the products and market strength. In this chapter, we put all record or history and futurity of my hosting company with its official address. So, it is give details of the company in terms of reader can easily know and access the company.

The second chapter is the most hunted chapter which explains my overall internships familiarity in two months. This chapter is the main chapter and I record on it the overall work I have been executing. Besides, this chapter is a weekly summary based on my logbook that I have been record daily during the internship. It gives a higjlight of what I have been doing and main works of the construction industry.

On the third chapter I explained the nature of work of my company. In this chapter I will be sharing some of the problems that I have encountered during work and how to overcome it. Most of the information given in this chapter will showed how much experience I have gained.

ACKNOWLEDGEMENT

To become a professional in Civil Engineering, industrial training is the foundation for each undergraduate student. It helps students to improve their practical skills related to interpersonal, problems solving, research and reporting as well as soft skills. Also it helps the students get exposure to the industry, apply the gained knowledge throughout the academic program and learn new updated technologies. In addition, it helps students' career development and to prepare for employment after graduation, by engaging in personal and professional development planning.

I hereby to extend my sincere appreciation and thankfulness to my helpful internship supervisior En. Mohd Fauzi Bin Zubair, Executive Assistant CEO of Purata Abadi as well as the Project Manager for this company. Thank you for giving me the oppurtunity to be apart of Purata Abadi as an intern. Further I would like to thankful the Pn Norhasimah, Site Manager at SK Taman Pelangi, Semenyih for helping me out and support me throughout the progress of my internship. Also had given me lots of knowledge about the site, the progress of it and many more. To the others as well, I would like to express my gratitude to Mr Syariff, Resident Engineer, En Yusrey, Consultant, Akmal Haziq and Suhana , Site Assistant (SL1M) for helping me out in many ways, share some valuable knowledge and guide me through my internship progress.

Besides that, I would personally like to express my gratitude to En Firdaus Akhbar for guide me and my classmates before we all get our internship. Thank you for sharing lots of important information about internship, the process and progress

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CHAPTER 1: INTRODUCTION

1.1 Introduction

In this particular chapter, I will be explaining and share about the details of this company. In my explanation will be included some background of this company, the organizational structure, nature of business, products and market strength. I can say that I was quite lucky enough to get to do my industrial training here with Purata Abadi Sdn Bhd.

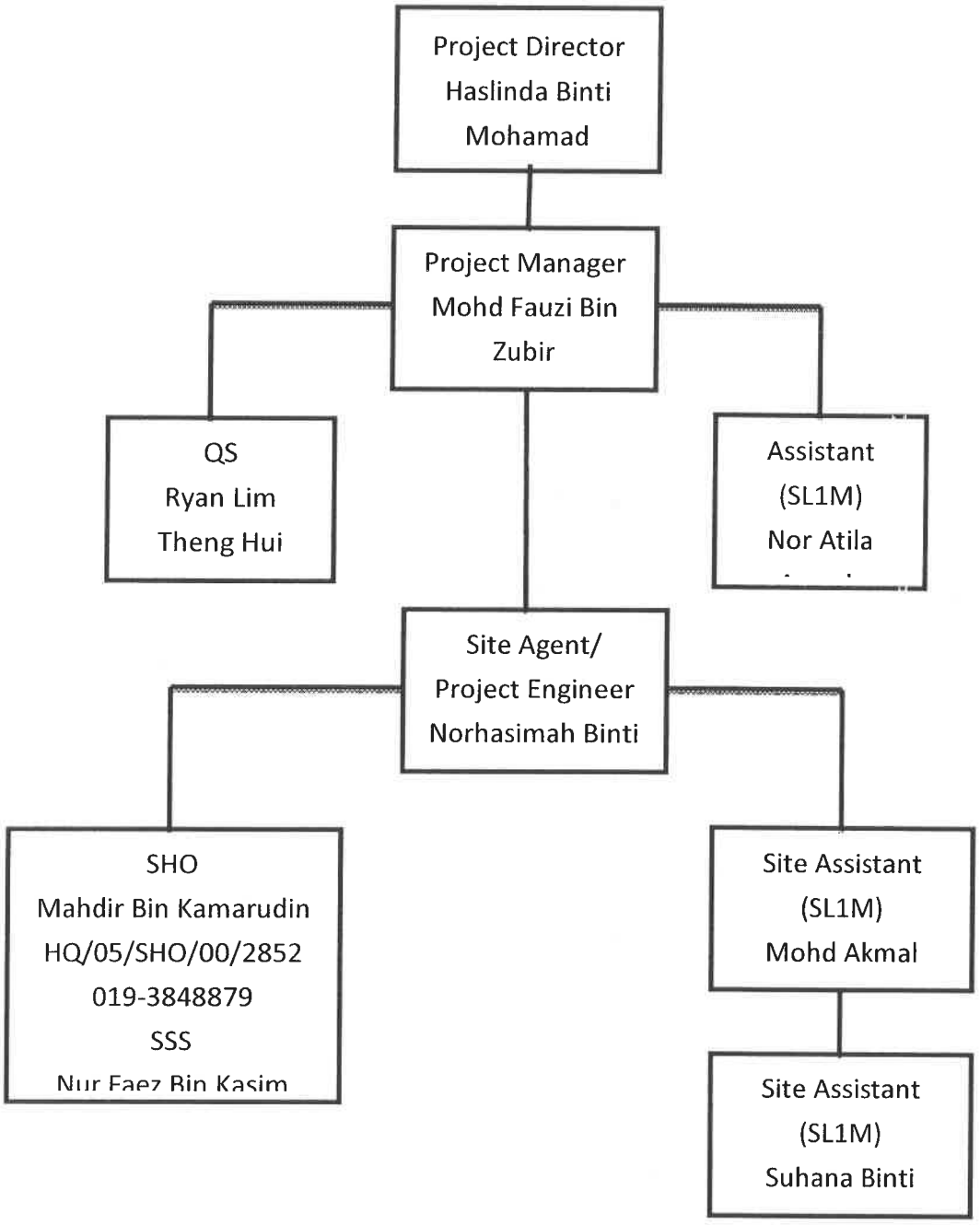
1.2 Background of the Company

Purata Abadi Sdn Bhd was incorporated on 26 April 1999 in Malaysia with registration number of 481939-K. Purata Abadi Sdn Bhd is a private limited company and has been existed for 20 years. However, on 31st January 2013, there was an incident happen where three directors of the company was said to have an affair of illegal share transfer. It was appeared on "The Star" news. During that time, Purata Abadi Sdn Bhd was at Kedah. It was said that the company approve the transfer of company shares worth RM1.3 million without consent of the shareholder. The judge found that the prosecution had failed to prove the case against the trio beyond reasonable doubt. However, the three directors were charged with committing the offence.

Five years later, another organization took over the company and thus a new director are in charge of this company.

1.3 Organizational Structures

Organizational Chart Purata Abadi Sdn Bhd Sk Taman Pelangi, Semenyih



1.6 Market Strength

Since Purata Abadi Sdn Bhd is a small private company, Purata Abadi Sdn Bhd tends to accept any project offer from the government or any client. As I observed, this company has the potential to thrive in the construction industry in a long period. Despite this company has limited employee, the company is and as was mentioned earlier, a contractor. Which one of the task of the contractor is to gather sub-contractor and hire them to do the task.

1.7 Conclusion

To conclude chapter 1, I can say that Purata Abadi Sdn Bhd is a very good and reliable company in doing their task. Besides that, it is a very good for any other students who like to do their internship here. It is because that Purata Abadi Sdn Bhd is a small company, which is one of the advantages for internship student as they can explore and experienced more. If you finds out this company interesting do give them a call or email your resume. It is really suitable for people who would like to start from basic and to gain more knowledge as well as experienced so it can be used in the future.

- Checking pile when pile arrived and make sure the number of pile is tally with Delivery Order (DO)
- Given a task to do MOS for turfing
- Understand in details about piling point based on piling plan.

Week 3 (29 July 2019 – 3 August 2019)

- Was given a RFWI (request for work inspection) task
- Record pile data, type of pile and quantity of pile per pile point at main building.
- Record DO list, updated RFWI daily and help out the team with MOS
- Gained knowledge about problems that happens during piling progress for example pile failure, crack and unset pile.
- Watch and observe the PDA test.

Weeek 4 (5 August 2019 – 10 August 2019)

- Record pile as usual at main building point.
- Noted any failure or broken pile/unset pile.
- Observe how the sub-contractor do their works
- Collect daily pile data to compile for RFWI.
- Prepare the office house for meeting as we prepare some pictures and plan view of piling point in A2.
- Meeting with consultants, sub-contractors and project director

Week 5 (12 August 2019 – 17 August 2019)

- Pay a little visit at site at Sungai Buloh to check the progress of works.
- Meet up with project manager himself, En Fauzi.

2.3 Conclusion

I can conclude that most of the task that has given to me was either directly from my site manager, Pn Norhasimah or site assistant, Suhana. I did a lot of site task and also QAQC task as well.

As you may noticed I quite actually did the same thing every week which is monitor, and record pile. That is because the site progress are still in piling phase which there is not much thing to do or learn everyday.

During internship, I tend to ask question at my site manager when she is free about civil engineering and construction. Most of the time I spend my free time studying and understand the drawings by comparing the architectural drawing with the given drawing by consultants. I also study a little bit the book of quantity.

Excavation, Earthwork and Filling Method Statement

WORK PROCEDURE

i) **SCOPE**

This procedure provides a standardised framework for the control of excavation, earthwork and filling to ensure compliance with conditions of contract and contract specifications.

ii) **PROCEDURE**

.1 All excavation, earthwork and filling will be carried out in accordance with the specification detailed in the project contract documentation. In any circumstances where specifications are not provided or they are in any way incomplete, the matter shall be referred back to consultant for additional information.

.2 **Method Statement**

A method statement will be prepared and approved where deemed necessary, and may include:

iii) Site plan showing the location of spoil heaps for temporary storage and if appropriate permanent storage area.

ii) Type of plant and equipment to be used.

iii) Means for keeping excavations free of water.

This survey should be carried out in co-ordination with and involving the participation of the Consultant's representative and the representative of the owners/occupiers of the adjacent property.

.7 **Excavation Work**

i) Excavation shall be allowed to progress to the designed formation level less 50mm (unless specified otherwise). The remaining 50mm shall be carried out by further careful excavation to avoid disturbing the formation level.

ii) After reaching the designed formation level, Consultant's representative shall be requested in writing to inspect and approve the formation prior to the commencement of any subsequent activities.

vii) Great care shall be taken to minimise noise, vibration and dust pollution, which can cause nuisance and damage, particularly if the site is located in a built-up area.

viii) Sides of all excavations should be properly supported using an appropriate method as detailed in the Method Statement.

.8 **Filling**

3.1.3 Quantity assurance & Quantity control

At the site at Taman Pelangi, Semenyih, there are two site assistant that used to do QAQC works. As an intern for the company, I help them do some of the QAQC works. For example Method of statement, pile record update, site diary, delivery order and many more.

The primary function of Quality Assurance/Quality Control Engineers is to ensure the quality of their company's products by participating in each stage of a product's creation, beginning with development and ending with packaging. In addition to upholding the standards of their company, QA/QC Engineers must also adhere to product quality and employee safety standards set by state and federal laws.

QA/QC Engineers typically work in factories, plants or the offices of technology companies, and usually report to a small number of higher-level executives while simultaneously supervising a large number of lower-level workers. QA/QC Engineers are employed in a variety of sectors, including software, aerospace, automotive, architecture and electronics manufacturing. According to the Bureau of Labor Statistics, demand for Industrial Engineers, which includes QA/QC Engineers, will decline by 4 percent, resulting in the loss of 6,300 positions through 2024. This decline can be at least partially attributed to the decline of manufacturing in the United States in general. However, it is worth noting that these statistics do not account for QA/QC Engineers who work in technology, which is a rapidly growing industry.

Solve Problems

QA/QC Engineers are an integral part of the problem-solving process. In addition to identifying issues, the QA/QC engineer suggests solutions, often working with a cross-functional team to develop a long-term fix.

QA/QC Engineer Skills

Successful QA/QC Engineers are able to look at the big picture as easily as they are able to home in on small details. They are thorough, methodical workers who have the ability to make difficult decisions while always keeping the interests of their company, their company's employees and legal regulations in mind. In addition to these general skills and personality traits, employers are looking for QA/QC Engineers with the following skills.

Core skills: Based on the job postings we looked at, employers are seeking QA/QC Engineers with these core skills. If you want to become a QA/QC Engineer, focus on mastering the following:

- Excellent written and verbal communication skills
- Ability to work in a cross-functional team environment
- Extremely detail-oriented
- Great troubleshooting skills
- Working knowledge of product development and manufacturing processes
- Excellent organization and time-management
- Ability to juggle multiple projects simultaneously
- PC software proficiency

3.2 Problems encounter & How to overcome it.

Problem	Solution
Pile crack	Mark the crack with red marker/spray and report to Site manager & Resident Engineer
Pile unset/Broken Pile	Report to Resident Engineer with the data such as number of piling point, time incident. This can be solved either repair by the sub-con piling or add new piling point or enlarge pile cap.
To produce MOS	Learnt from previous MOS as a guidance and request to Site Manager for more knowledge.
Printer machine jammed	Followed the instruction on the machine, by removing papers that has been stuck inside the machine.
No more pile, RC pile finished	Given a break. Recalculating RC pile needed and uses per day and estimate how many pile need to order per week.

Table 1: Problems and solution

3.3 Experience gained

- Understand the concept of working at a site, what was needed, the requirements and all. For example, safety helmets, boots etc.
- Understand on how to do MOS for any kind of work.
- Being able to monitor the contractor workers and helping out all the engineers and consultant at the site.

CHAPTER 4: CONCLUSION

4.1 Introduction

For the last chapter for this report, it would be the finale of this report and will conclude every chapter above. First of all, I would like to say that I am glad to get to do my internship at Purata Abadi Sdn Bhd. Although it is a small construction company with a minimum project, I still get to learn, experienced and get to do a lot of things during my internship period.

I finally understand how it is to work under a construction company, the way they giving orders and capability of doing each of their given task, and it really amaze me. I felt so blessed after being able to complete my internship and bring with me a very useful knowledge and experienced that I can use in the future.

For this final chapter, I would like to expose my opinion for this company and what I had gained from it as well.

4.4 Suitability of organizations

Industrial training is very crucial for a civil engineering students as this was like a preparation for the future when a student has graduate and decide to work in their major. However, it is also very important for a student to choose a company to do their industrial training as well. This is because the company or the internship should be under the same major the student take.

As for me, I am glad that my company, Purata Abadi Sdn Bhd is a construction company, which is still in my major area. What I have learnt for the past few years in UiTM Pasir Gudang in civil engineering is quite similar with what I go through during my internship. For example, I studied about Engineering Materials, Structural Engineering, Engineering Design and both Soil Mechanics and Soil Engineering.

However, some of the task that had been given to me is not related to what I studied. For example, site diary, QAQC and monitoring pile activity but it is still under construction progress. Besides, I also gained a lot of knowledge from the engineers and my site manager regarding about the construction.

Apart of that, I think I am able to work under a small company like Purata Abadi Sdn Bhd as I can start from the bottom and may learn a lot of things which

4.5 Limitations and recommendations

As I was doing my internship at Purata Abadi Sdn Bhd for two months, there is a lot of things I had experienced with this company including with all the staff there. I would not say that Purata Abadi Sdn Bhd is a perfect company but, as far as I am doing my internship, there is a very minimum problem I encountered with this company. However, there is still something that I would personally like to point out.

Firstly, I would like to comment about the relationship between the staff. As I observed from other company most of them would have like an appreciation day or conducting any event purposely for the staff to get along with each other. To be honest I have not really met with all of the staff in the company. This is because most of them are in the office and unavailable. Hence, a proper event or appreciation day would be a blast for this company relationship between employees.

Next, employees should be more alert and focus during monitoring the piling activity. This is to make sure that there will be a minimum mistake or problem from happening. For example, when monitoring the pile activity, the engineers and consultant are talking to each other and they did not focus on monitoring the pile. The machine then took this opportunity to speed up the hammer blows which in result causing the RC pile to break. A small mistake like this could give a lot of damage and cost for this company.

Finally, I just hope that this company can open up to any other students who would like to have an experienced doing their internship here with Purata Abadi Sdn Bhd. If they do, I really hope they could guide them and give them a lot of

REFERENCES

- En Mohd Fauzi Bin Zubir, Project Manager, my supervisor for this internship (010-6513681)
- Book of quantity for SK Taman Pelangi, Semenyih.
- Architectural & Structural drawing provided by Engineers and Consultants
- All pictures, documents, and record are SK Taman Pelangi, Semenyih property.

Figure 3: Machine 2 hook 9 meter extension RC pile.

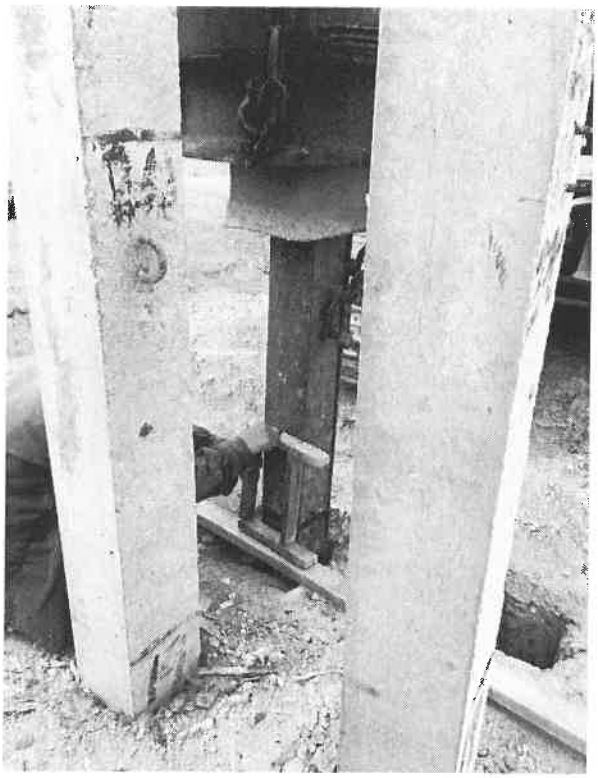


Figure 4: Pile set check, (10 blows = <25mm)

Figure 7: Pile arrived and being took down with excavator.

Figure 8: Stock pile with machine 2 and sub-contractors.

Figure 11: Picture of En Mohd Fauzi Bin Zubir (left) and his assistant.

Figure 12: Me and the team had a 'toolbox' talk from our new Site safety supervisor, Nur Faez.

KEMENTERIAN PELAJARAN MALAYSIA (KPM)

PERUNDING BMR SDN BHD

PURATA ABADI SDN BHD

CADANGAN MEMBINA DAN MENYIAPKAN SEBUAH SEKOLAH RENDAH YANG MENGANDUNGI 5 BLOK DENGAN 24 BILIK DARJAH, 1 BLOK PRASEKOLAH, 1 BLOK KANTIN DAN KEMUDAHAN-KEMUDAHAN LAIN DI ATAS LOT 21392, JALAN PERSIARAN TAMAN PELANGI, MUKIM SEMENYIH, DAERAH ULU LANGAT, SELANGOR DARUL EHSAN UNTUK KEMENTERIAN PENDIDIKAN MALAYSIA

METHOD STATEMENT FOR ROAD WORKS

Document Ref.	Revision No. : 00	Date of Issuance: 18 JULAI 2019

Prepared By:	Approved By:
..... QAQC (PASB)	..... CONSULTANT BMR
Status:	

1.0 INTRODUCTION

This method statement outlines the work methodology for road works and to ensure compliance to the Contract requirements, Drawings, Technical Specifications and Quality Control.

2.0 SCOPE OF WORKS

The work covered in this contract by the contractor, which comprises all materials, tools, transport, labour and everything else in necessary for the road works to the entire approval of the Superintending Officer (S.O.).

3.0 REFERENCES

The following documents shall be referred for the execution of works:

a. Project Quality Plan

b. Health & Safety Plan

c. Environmental Management Plan

d. Whole Landscape Plan

e. JKR 20800-0183-14

4.0 RESOURCES (MANPOWER AND MACHINERY / TOOL / EQUIPMENT)

The resources to be used:

No.	Resources	Numbers
1	Site Supervisor	1 persons / team
2	Motor Grinder	1 nos / team
3	General Workers	15 persons /team
4	Compactor	1 nos / team
5	Dumping Truck	1 nos / team
6	Surveyor	1 persons / team
7	Foreman	15 persons /team

**Resources will be increased depending on availability areas to carry out.*

e) Sequence (c) and (d) will be repeated until the required relative compaction is archived.

f) The finish surface will be sealed and have grades (crowing) to allow precipitation to flow off freely from the surface.

5.3 Road Base

a) The crusher run road base to be placed on the top of the sub base shall consisting of crushed aggregate laid in layers each of thickness not exceeding 300mm and to give the specified total compacted thickness and width, correct line and levels shown in drawings.

b) The materials shall be crushed rock of hard durable particles or fragments of rock crushed to the correct size, well graded and lie within the following grading limits specified in the specification.

c) Care shall be taken to prevent segregation of the material into the coarse and fine fractions.

5.4 Asphaltic Concrete Binder Course (ACBC)

a) Work shall commence on site upon approval and acceptance of the road base.

b) The surface shall be free from all damage, loose materials and standing water by sweeping.

c) Prime coat of approved bitumen emulsion shall be applied as per specifications on the prepared surface prior to lay of the ACBC.

d) ACBC shall be plant mixed with approved bitumen content.

e) The approved ACBC shall be delivered to site by tipper trucks. To prevent the loss of heat, the mixture shall cover by tarpaulin.

h) The surface of ACBC shall be finished to the line and grade as required by the drawings.

i) Upon completion of laying and compaction, joint survey shall be carried out to check for compliance with the specified requirement.

j) After all the above works is completed, the supervisor is to ensure that the site is to be tidied up and all excess materials are to be discarded away from the site.

6.0 QUALITY ASSURANCE SYSTEM

a. Contractor shall submit Inspection Request Form to the S.O.'s Representative prior to commencement of work.

b. All inspection and testing shall be carried out and recorded as the works progresses using relevant forms. QA/QC personnel will review the records.

7.0 HEALTH, SAFETY & ENVIRONMENTAL (HSE)

a. All the personnel at site, irrespective visitors or staff must wear Personnel Protective Equipment (PPE).

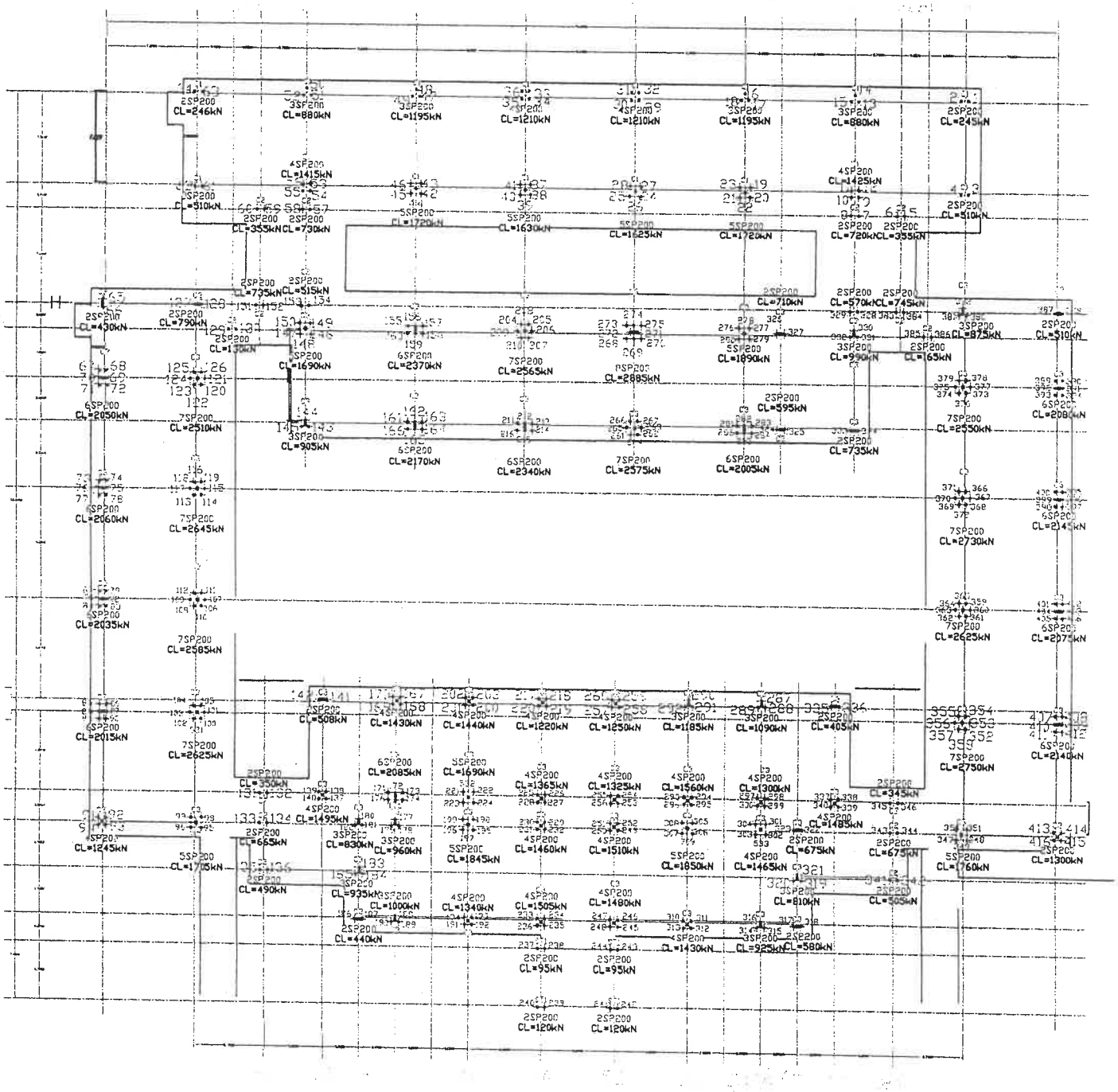
b. All staff shall attend induction course and weekly toolbox meetings, which shall be presented by Safety Manager/Supervisor.

c. Only machineries in good condition shall be permitted and operated by competent operators at site.

d. Engine servicing such as changing engine oil / hydraulic oil shall only be permitted at designated areas.

e. Dust emitted shall be minimized and controlled by water spraying using Water browser.

f. Proper traffic signage shall be placed at suitable places and flagman to be stationed if necessary at main entrance/exit point if necessary.



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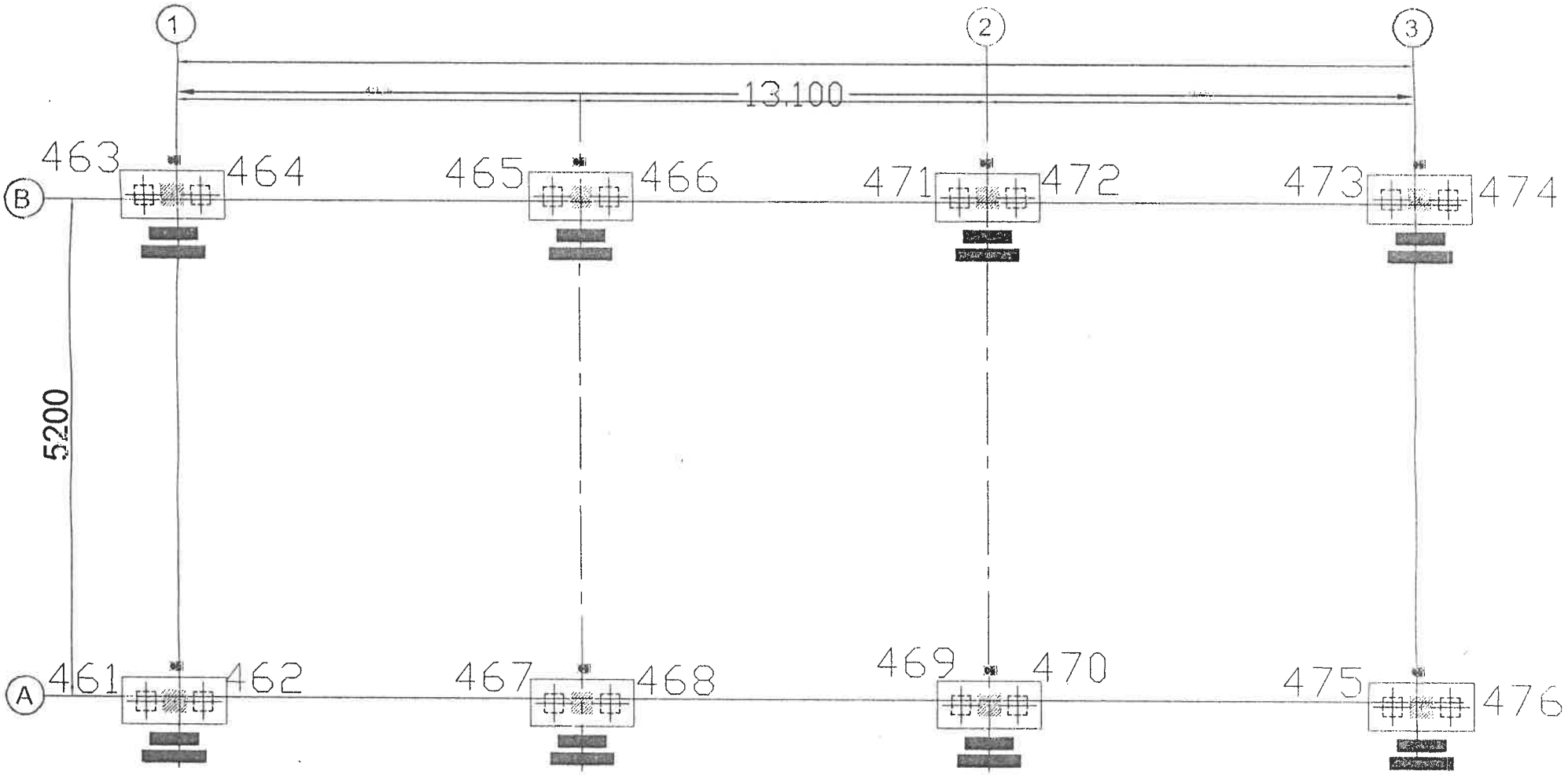

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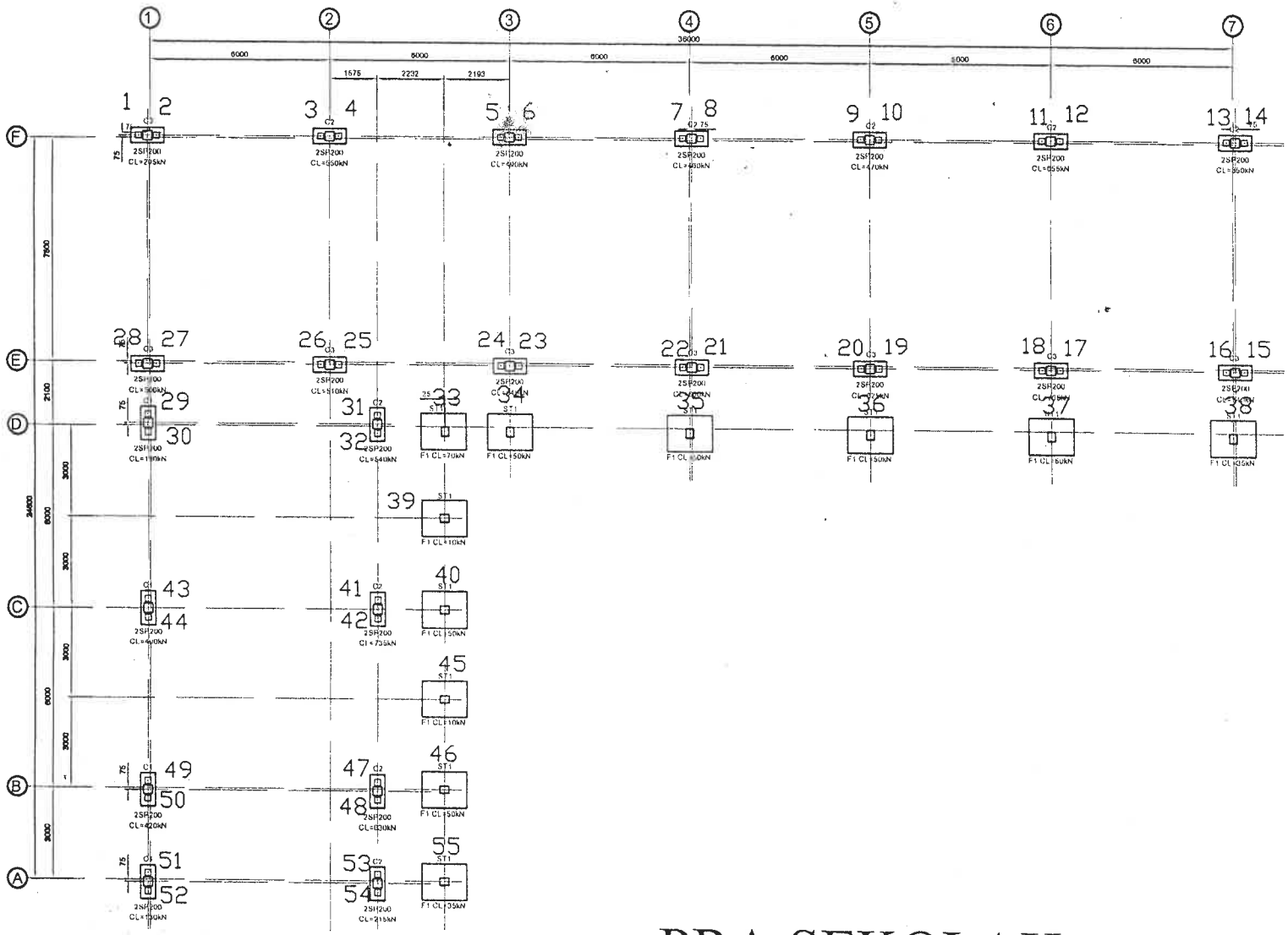
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