



SILIGURI INSTITUTE OF TECHNOLOGY

HILL CART ROAD, SALBARI, PO- SUKNA, SILIGURI,

DIST- DARJEELING, 734009

DEPARTMENT OF CIVIL ENGINEERING



INTERNSHIP REPORT

SUBMITTED BY: NISHA TIRKEY

ROLL NO: 11901320005

REGISTRATION NO: 201190101310005 of 2020-21

HOSTING COMPANY: MTRT CONSTRUCTION

DURATION OF THE INTERNSHIP: 17/07/2023 to 08/09/2023

ACKNOWLEDGEMENT

First of all I would like to thank every families and friends that participate on my life and get me in this intensity and individuals who support and share idea and also helping me to be like this.

I am very thankful to **MTRT CONSTRUCTION, DALKHOLA**. For having given me the opportunity to undertake my 45 working days internship class in their working area. It was a very good learning experience for me to have worked at this area.

I would also thank my mentor **ARIJIT DUTTA** for his endless support at site and also in office by consulting me how do things in the site like Conducting on-site investigations and analysing data etc. and how to manage, design, develop, create and maintain construction projects in outstanding manner, All teachers of civil and urban engineering who brought me to my present performance and shape me like this during the last three successive years.

Before I finish I would like to give my deepest thanks to all workers from the contractor and the consultant side starting from engineers to daily labourers. Also for those who do not listed in the above but support me in different areas I would like thank all.

ABSTRACT

Internship training offered by MTRT Construction, Dalkhola was fortunate opportunity for me during my fourth year of under graduation it helped me to apply my theoretical knowledge gained during the university academic programme into real world industrial based execution and experience professional construction process it helped me to enhance my skill and to enrich my industrial knowledge keeping me update with the latest technologies this opportunity has extremely helped me to expose into an environment where I could think as a civil engineer. I had my training experience from 17th July to 8th September 2023 at MTRT Construction, Dalkhola. This report contains the knowledge and experience I have gained through my internship training MTRT Construction, Dalkhola.

INTRODUCTION

MTRT Construction Company offers a full range of pre-construction and construction services. The project teams maintain a strong foundation of trust and mutual respect generated through positive relationships with clients, engineers, contractors and suppliers. A company-wide policy encouraging shared performance responsibility ensures the highest degree of professional service and results on all projects undertake. MTRT Construction Company was established in 2021 with its office in Dalkhola High School Para, Dalkhola, Uttar Dinajpur, West Bengal, 733201.

MTRT Construction is one of the fastest growing and most admired company in Dalkhola. They have expertise in complex urban and industrial infrastructure projects. They provide ready-to-deploy solutions for roads, bridges, commercial buildings, hospitals.

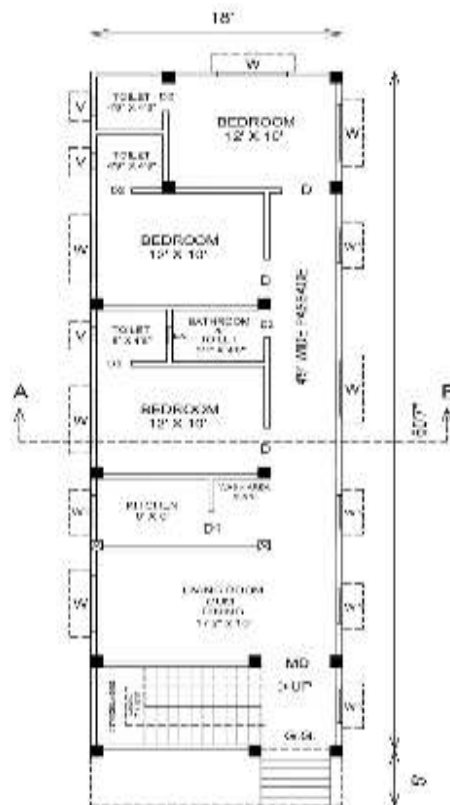


OFFICE DETAILS AND ADDRESS

- ❖ NAME : MTRT Construction
- ❖ OFFICE ADDRESS : High School Para, Dalkhola, Uttar Dinajpur, West Bengal, 733201
- ❖ EMAIL : official@mtrtconstruction.com
- ❖ PHONE NUMBER: 7873888749 , 8918021513

PROJECT DETAILS

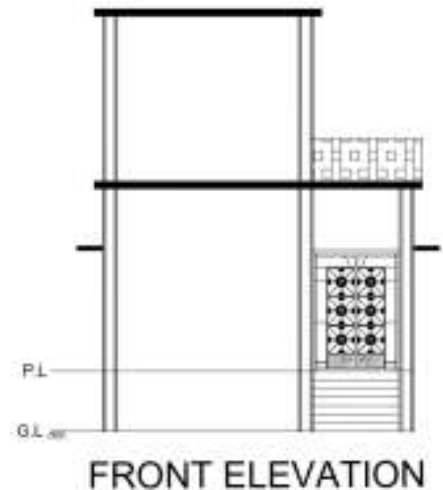
- ❖ NAME OF WORK: Construction of Residential Building
TOTAL BUILT UP AREA: 101.31 sqm



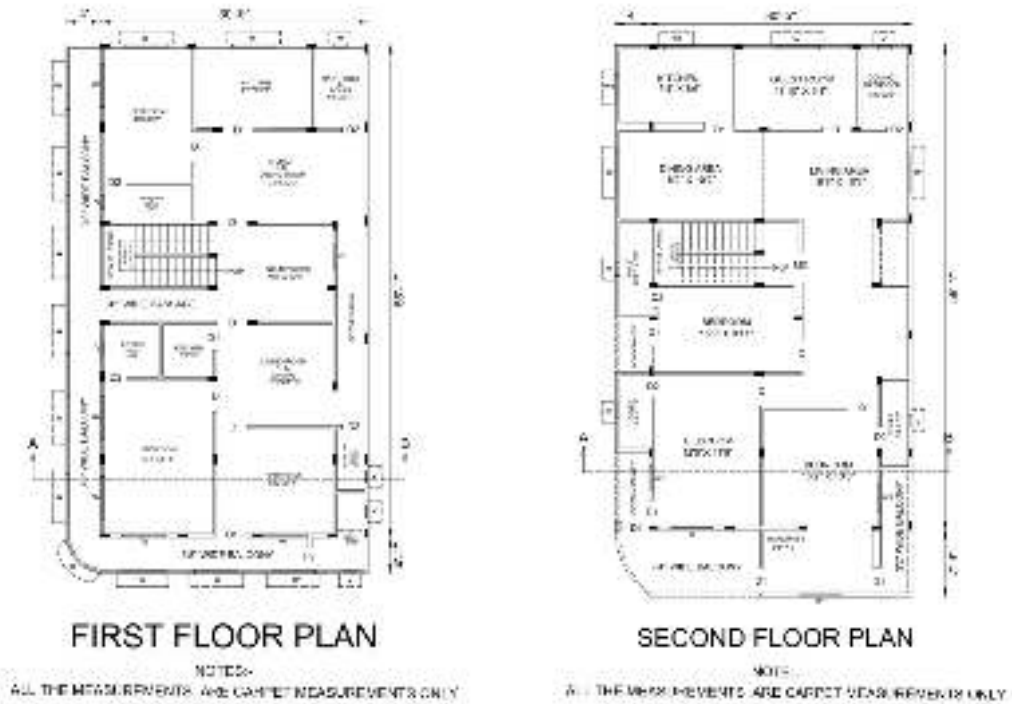
GROUND FLOOR PLAN

NOTES :-

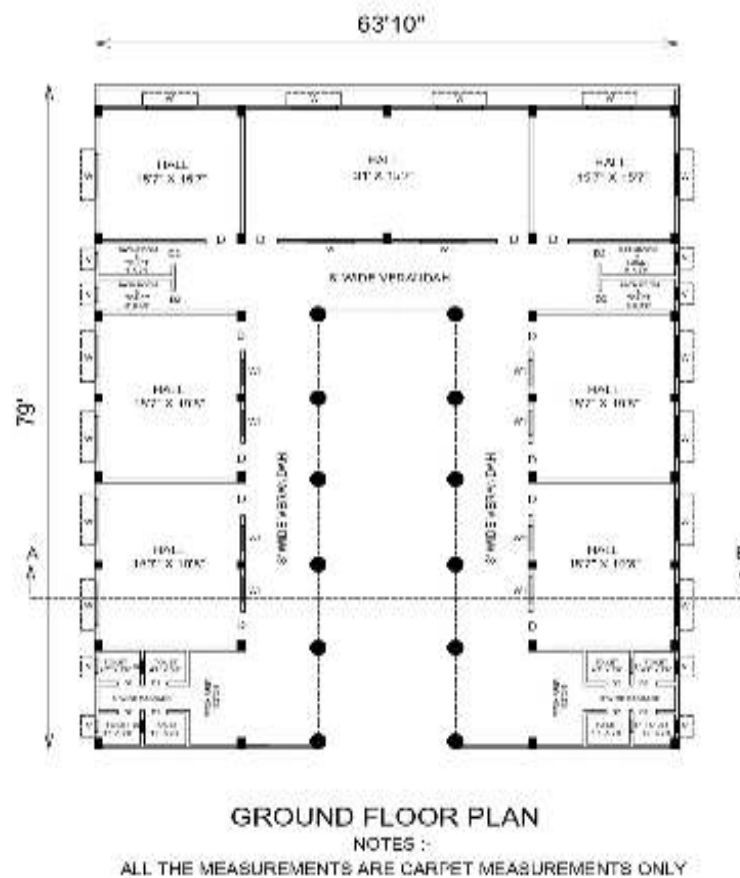
ALL THE MEASUREMENTS ARE CARPET MEASUREMENTS ONLY



❖ NAME OF WORK: Construction in an existing Residential Building



❖ NAME OF WORK: Extension of Madrasa



EQUIPMENTS USED FOR CONSTRUCTION

❖ CONCRETE MIXER

This is a power mechanically operated machine which is used to mix the concrete. It consists a hollow cylindrical part with inner side wings, in which cement, sand aggregates and water is mixed properly.



❖ TRANSPORTATION

The process of carrying the concrete mix from the place of its mixing to final position of deposition is termed as transportation of concrete. There are various methods of transportation as mentioned below-

Transport of concrete by pans.

Transport of concrete by wheel barrows.

Transport of concrete by tipping Lorries.

Transport of concrete by pumps.

Transport of concrete by belt conveyers.

At our site concrete was transported by pans.



❖ COMPACTORS

When the concrete has been placed, it shows a very loose structure. Hence, it must be compacted to remove air bubbles and voids so as to make it dense and solid concrete to obtain a high strength. There are two types methods of compaction.

- a) Manual Compaction
- b) Mechanical Compaction

There are four types of mechanical vibrators

1. Immersion or needle vibratory
2. Extended or shutter vibrator
3. Surface vibrator
4. Vibrating table

At our construction site needle type of vibrator was used for compaction of concrete.



NEEDLE VIBRATOR



TOOLS USED AT CONSTRUCTION SITE

OVERALL BENEFITS OF THE INTERNSHIP

Internship is a class held at site to provide an enhanced understanding of the outside working environment before the student graduate. Student like civil engineering and other fields also take this practice. The main aim of this practice (internship) is that to teach students communication with different workers or employees, to improve practical skill what they learned at class, upgrade the theoretical knowledge in addition to the class, improve their leadership skill, team playing skill and etc.

In my two month staying at the Siliguri Institute of Technology expansion project with MTRT Construction, I have acquired much knowledge in different tasks as explained below in different section. That different knowledge gets me a good performance in the internship period and I gain an experience that helps me after the graduation in the upcoming working era of mine.

1. Improving practical skill

The aim of the internship is to address more practical knowledge for student. So, I found a practical knowledge at the site as much possible within the two month. The knowledge we have learn in the class is helpful to get those practical or real work in the site and totally different from the actual knowledge gained from the class. Thus I found some knowledge in the site which helps me to work with the site environment or site peoples.

Some of the practical knowledge I gain from the internship class was:

- **Construction of formwork and false work for some reinforced concrete structure**
In any construction work the first stage before casting of concrete is designing and constructing of form work. The formwork and false work must be stiff and must resist the fresh concrete till the concrete gain its strength. Thus the construction stage of form work was new to me since I'm new for the practical world now I gain practical knowledge about how it is worked and erected.
- **Bar bending, positioning, splicing and tying, according the specified drawing**
After the formwork and false work is ready the bar bending, positioning and tying work goes next. This work is done based on the working drawing provided in the working drawings (structural drawing) by the design team of that specified structure. In most case it was new for me to see such work since it is a practical work only performed at the site.
- **Surveying on building construction**
We conduct the surveying class in the field for its lab session of the course in the normal class. But we don't know about how it is going to be in building construction in particular and in which particular stage of the construction work it used either the super structure or sub structure.

- **Casting and pouring of reinforced concrete structure and equipment used for casting**

Concrete is a vital material in any construction of reinforced concrete and is the main constituent or ingredient of any reinforced concrete structure. Thus it is mandatory to know this material in practice including how it is treated, placed(poured), mixed and the equipment used for those work. I got the practical knowledge in terms of those listed aspects of concrete.

- **Different construction equipment(machines) and their use in construction site**

Many of great structures before are a product of numerous human power and countless days inspired by great powers. Machines are capable of handling tough work which may be beyond the scope of human labour to be performed. They can be expected to work with fair degree of effectiveness even under adverse weather, climate or topographical conditions. I generally know how equipment are used in the site including their specific purpose.

2. Upgrading the theoretical knowledge

The internship class is not only depending on the practical aspect but it also helps students to upgrade or increase knowledge they have. I try to integrate the practical knowledge with that of the theory learned in the class in different place in order to get more knowledge. I got the internship class very interesting in terms of upgrading a theoretical knowledge.

3. Improving team playing skill

Team playing skill for construction work, especially for Engineers involved in every piece of task and achieving good team playing skill is essential for effective completion of task and increasing productivity. This skill already exists in my personality in the campus due to different assignments and project works that I work together with student. But this skill is more than this in the construction site. In construction site, the work is already a team work and it needs more closeness of workers to solve problems arise in different aspects, misunderstanding in the drawing or working methodology and consult every work. We the students at the site also work together as a team to get more understanding and share ideas. More or less, I improve my teamwork status by working together with different professionals Student and workers as a whole in the civil engineering works.

4. Upgrading Interpersonal Communication Skill

Communication is sharing or exchanging information or ideas with others in order to get some messages and knowledge. The communication system within the building design and construction enterprise has taken on a large role in the achievement of profitability and efficiency. A basic understanding of communication system is beneficial to all building professionals and trades, as they all play a part in the success of the construction. Construction is one of the places that ask a good communications skill either managing every trade of work or asking what is growing on over there. So, communication is important way of learning, which can be defined formally as the act, process, or experience of gaining knowledge or skills and sharing what we know. Good communications skill is important in the real construction world and it can appear in different forms as speaking, writing and listening. In the site, most things I gain are due to communication with other workers like engineers skilled and non-skilled workers etc.

5. Work Ethics and related issues

Work ethics refer to the quality of one's behaviour towards appreciating and performing well on the job to ensure the smooth flow of workflow. During my internship program, I demonstrated high spirit and enthusiasm, ensuring a smooth flow of activities both in the office and on the construction site. Work ethics encompass characteristics such as honesty, responsibility, reliability, and accountability.

Punctuality is one of the major issues that could be raised when talking about work ethics and on my side I tried to meet this criterion by attending to my work station in time so that there will not be any delay on the activities planned for that day. The behaviour that I show towards my peers and colleagues is also one manifestation of the concept of work ethics. Personally, I always respected and gave priority to the employees of the company.

We as a student should follow the rules and regulations set by the company and avoid complaining any work load, activity or assignment that may arise on the site or office. It is the pleasure of supervisors if we have a good work ethics and we are responsible for any given tasks. Since the aim of internship is to let students know the outside environment pertinent to their field. I was with the great interest that I tried to meet my responsibilities and work ethics that I suppose to be fulfil by my side.

Generally I can say. I have seen the potential benefits by taking the engineering internship programme.

CONCLUSION

The internship is a bridge between the theoretical knowledge and the practical or the reality work at the field of construction or civil engineering work. We all who have take the internship class go to the companies that already working either is a consultant or a contractor. The responsibilities of the hosting company are to teach student and shape them in two month as a real site workers. My hosting company is a construction company and they help me and my friends who took the internship session in this company in acquiring different knowledge and different positions. They collaborate with the contractors to teach us in that section and they believe that the civil engineering work is more important for us.

My experience as an intern at MTRT Construction Company has been enlightening and life-changing, giving me invaluable knowledge about the fast-moving construction industry. I had the good fortune to work with a group of people who represented dedication, creativity, and quality in all that they did throughout the period I was there.

The mentorship and guidance received from Arijit Dutta, Raghib Alam and Diya Das were instrumental in shaping my professional growth. Their insights, constructive feedback, and willingness to share knowledge not only facilitated my learning but also inspired me to strive for excellence in every task I undertook.

Overall, the internship program laid sound foundation for me to start our career. We are proud to be able to contribute towards nation building during the country's extremely critical period of the history. Its will be definitely sensible to scale this practice up and to replicate in other disciplines as well.