



A.Y.DADABHAI TECHNICAL INSTITUTE, KOSAMBA



DEPARTMENT OF CIVIL ENGINEERING

Educational Visit at

Azim Brick Works (Pandvai, Kosamba.)

Visit Date: 31st DECEMBER-2022
Time-11.30:00 AM to 02:30 PM



Faculty co-coordinator

MS.D.K.MASTER
MR.B.V.SHINDE
MR. Shahid Y.Patel

Prepared by:

3RD SEMESTER (BATCH-2021)

Principal

MR.D.V.PATEL

I/C H.O.D.

MR.MUKESH J.PARMAR

A.Y.DADABHAI TECHNICAL INSTITUTE, KOSAMBA College is trying to reduce the gap between current demands of industry with the academic institution for upcoming future of our nation.

Department of Civil Engineering, A.Y.Dadabhai Technical Institute, Kosamba organized a site visit for 3rd semester (2nd Year) Diploma Civil Engineering students, Azim Brick Works (ABW), Pandvai, and Kosamba on 31ST December, 2022.

- Name of the subject : Construction Materials and Technology
- Date & Day : 31.12.2022 & Saturday(11:30 AM Onwards)
- No. Of Students : 42 Students
- Name of the Faculties: Mr.Bharat V. Shinde,Mr. Shahid Patel and Ms. Dharti Master

The objective of Industrial visit is for students to acquire knowledge through practical aspects like interaction, working methods, and employment practices. It also provides an exposure to students about the practical working environment and awareness about industrial practices. The visit to ABW Brick Works helped the students to acquire knowledge of brick manufacturing process.

A BRIEF REPORT ON AN EDUCATIONAL VISIT TO BRICK MANUFACTURING UNIT

Brick is a building material and no construction is possible without brick. Fly Ash bricks can be extensively used in all building constructional activities similar to that of common burnt clay bricks. The fly ash bricks are comparatively lighter in weight and stronger than common clay bricks. Since fly ash is being accumulated as waste material in large quantity near thermal power plants and creating serious environmental pollution problems, its utilisation as main raw material in the manufacture of bricks will not only create ample opportunities for its proper and useful disposal but also help in environmental pollution control to a greater extent in the surrounding areas of power plants.

Azim Brick Manufacturing Unit is located near Pandvai village in Kosamba district. Our Polytechnic College second year Civil Engineering students and Staff members visited the brick manufacturing unit at 11.30 AM by Auto rickshaw.

Plant In charge Mr. Imran Sheikh well Explained Whole Working Procedure of Manufacturing of Brick & Also Detailed explained about Flyash brick advantages.

The Various Processes are involved in the manufacturing of bricks,

- Raw Material Collection & Mixing
- Moulding
- Drying
- Loading

- **Raw Material Collection:**

The process of the brick formation starts with the collection of raw material i.e. clay. 50% of high plasticity Yellow fly ash and 50% of low plasticity Grey Fly Ash is mixed so as to get a mixture of desired composition. (8-tagara Yellow Fly Ash, 12-Tagara Grey fly ash) The mixture is then put into an excavator for further mixing and loose dough is prepared out of it which is kept for a day. With the help of labour, dough is put into moulds.

Rate of Raw Material

- 1) Yellow Fly ash: 1200/Tonne
- 2) Grey Fly ash: 600/Tonne



- **Moulding:**

The manufacturing unit has Plastic clay machine which uses wire cut brick moulding method. The bricks are cut by wire and spacing between two wires equal to the thickness of bricks. 15,000 bricks are manufactured per day.



- **Drying:**

Brick unit consists of arranging the wet bricks in many rows on their edges. A little space for circulation of air is kept for each brick. A portable temporary place is provided to protect the bricks from rain. Drying duration for the bricks is taken 2 to 5 days. It is mainly depending upon the weathering agencies.



Rate of Fly ash: 4/Piece
Weight of Brick: 2.5to3Kg



Conclusion

This visit was really useful for learning practical knowledge and informative for Civil Engineering team to know about manufacturing of bricks and a large scale industrial planning.

We thank the management of Azim Brick Works (ABW) for providing an opportunity to witness the brick manufacturing process and for permitting to interact with the workers.



THANK YOU