



“Empowerment Through Technological Excellence”
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to Pune University)
25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

Date-6/09/2018

SITE VISIT NOTICE

All the students of B.E. are hereby informed that site visit to Waste Water Treatment plant has been arranged on 7/09/2018. All Students must be present at 10 am sharp in college premises.

NOTE:

- **STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM**
- **STUDENTS SHOULD CARRY WATER BOTTLE,CAP, SHOES etc**
- **ATTENDANCE IS COMPULSORY**

Prof.Arun Sankpal

(Faculty coordinator)

Prof.Rahul Hodage

HOD

**Head of the Department
CIVIL ENGINEERING**

**Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045**





"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, 411 045.

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)
DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-27390500 Website : www.gsmozece.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. : GSMCOE/ADMIN/18-19/125

Date : 11/9/18

To,

Executive Engineer,
Waste water treatment plant,
Pcmc, Pune.

Subject:- Permission to visit Waste water treatment Plant.

Respected Sir,


We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

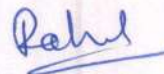
There would be a total of 60 students accompanied by 02 faculty members are interested to Visit your Waste water treatment Plant as a part of BE SPPU Syllabus in EEII Subject. The visit is aimed at enhancing their Practical knowledge. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

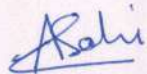
We are expecting visit on date (07/09/18)

Looking forward for your positive consent in this regard.

Thanking you.


Prof. Arun Sankpal
(Faculty coordinator)


Prof. Rahul Hdage
Head of the Department
CIVIL ENGINEERING
HOD
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045


Dr. A.B. Auti
Principal
PRINCIPAL
Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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Ph: 020-27390500 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Date:29/08/2018

To,
Executive Engineer,
Environmental Engineering department
Pcmc ,Pune-06

Letter of thanks


Respected Sir,

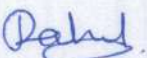
The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit your water treatment plant. We really appreciate the time spent with our students and information shared by you. We hope our students received precious knowledge which will definitely help them in their Curriculum.

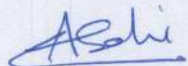
Thanking you.

Yours Regards,


Prof. Arun Sankpal
(Faculty coordinator)


Prof. Rahul Hodage

Hod
Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045


Dr. A.B. Auti
(GSMCOE, Balewadi)

PRINCIPAL
Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045



2018-19/BE/EE-II / site visit

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Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department of Civil Engineering



Date: 29/8/2018

Ref. No : gsm/ce/2018/Aug/595

To

The Executive Engineer,

Waste Water Treatment Plant,

Pimpri Chinchwad Pune.

Subject: Request to grant the permission for the visit to Waste Water Treatment Plant

Respected Sir,

We are one of the reputed institute offering various technical Degree and Diploma courses, approved by AICTE Delhi, Govt. of Maharashtra, DTE and affiliated to Savitribai Phule Pune University (SPPU).

With reference to above mentioned subject above as per the course curriculum for the subject Environmental Engineering part II of final year Civil Engineering students, we would like to arrange a visit to Waste Water Treatment Plant, and to know the various unit operations involved in waste water treatment plant and working and construction of Sewage Treatment Plant.

It's a kind request to grant us permission for the same along with students and faculties on any working day as per your convenience date (tentatively between 1 September to 15 September 2018). We will be thankful if you do the needful and allot us in-charge person who will explain us in detail the working and construction of Sewage Treatment Plant.

No of Students: 125 65 *Marks*

Faculty Member: 3

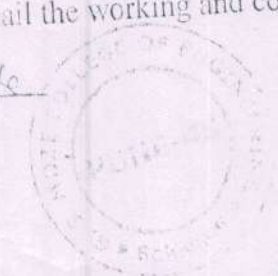
Thank you,

[Signature]
Contact person (Faculty)

Prof. Arun D. Sankpal

Mob: 8600340373

Mob: 8459265866



H.O.D. *[Signature]*

**Head of the Department,
CIVIL ENGINEERING**

Genba Sopanrao Moze College of Engineering,

25/1/3, Balewadi, Pune-411 045.

[Signature]
Principal

Dr. A. B. Auti

PRINCIPAL

विद्या (सर्वज्ञानं)
विद्या-विभवतः महान्भवति

पिंपरी चिंचवड महानगरपालिका, पिंपरी पुणे ४११०१८.
सामान्य पावती

पावती क्रमांक GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING दिनांक :

नाव : श्री/मे. BALEWADI

रा. : RUPEES ONE THOUSAND EIGHT HUNDRED ONLY

यांच्याकडून अक्षरी रुपये :

Visit Fee 1800.00

याबद्दल रोख/चेकने मिळाले.

हस्ते :

रुपये :

Cash Amt 1800.00

CHEQUE/DD 0.00

चेक/डी.डी.नं.:

बँक TOTAL 1800.00

अकॉंट

पिंपरी चिंचवड महानगरपालिका
पिंपरी - १८ रोख विभाग
३०४ SEP 2018
Received / मिळाले
रोखपाल/लिपोक



Create competent Socially Responsible Civil Engineers
Genba Sopanrao Moze Trust's
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
Balewadi, Pune - 411045.



Civil Engineering Department
Academic Year 2018-2019
BE Students Roll Call

Class - BE **DIV B**

Site Visit Attendance

Roll No	Names of students	Sign
B-01	PANZADE ANIKET	aniket
B-02	PATIL PRASAD NITIN	nitin
B-03	PATKAR SUMANT	-
B-04	PAWAR KAUSTUBH	-
B-05	RAGHUVANSHI SHUBHAM NANDKISHORE	-
B-06	RAJPUT MANTHAN D	-
B-07	RAKSHE SURAJ VASANT	suraj
B-08	RATHOD PRAGATI PARASRAM	rathod
B-09	RAUT AJAY PANDURANG	-
B-10	RAUT AJINKYA DHANRAJ	-
B-11	RAUT GAURAV GULAB	-
B-12	ROSHNI DEVCHANDRA NINGTHOUJAM	roshni
B-13	SAGAR PRATHAM DILIP	sagar
B-14	SAID KAJAL	said
B-15	SAMAGE VIJAY RAJU	sage
B-16	SANAP AVINASH GANPAT	ganpat
B-17	SANE AMIT VIJAY	-
B-18	SANGLE BABURAO	-
B-19	SAPARIYA BAVESH	-
B-20	SASTE SAGAR RAJARAM	-
B-21	SHAIKH MUBARAK SIRAJ	siraj
B-22	SHARDUL MAHAJAN	shardul
B-23	SHELKE VAIBHAV	vaibhav
B-24	SHINDE JYOTI SURESH	suresh
B-25	SHINDE MAHESH VILAS	vilas
B-26	SHINDE NIKHIL LAXMAN	-
B-27	SHINDE ROHIT MADHAVRAO	-
B-28	SHINDE SHREYASH VINOD	-
B-29	SHINDE SURAJ TANAJI	tanaji
B-30	SHUBHAM SUDHIR NAGARKAR	-
B-31	SWAMI VAISHNAVI	swami
B-32	TANDALE KISHOR HARIBHAU	haribhau
B-33	VATTE BHUSHAN NAGESH	nagesh
B-34	WAGHMODE PRUTHVIRAJ	pruthviraj
B-35	WALKE MANDAR SANJEEV	sanjeev
B-36	WANKHEDE ANKIT SANJAY	ankit
B-37	WANVE PRITI NARAYAN	priti



B-38	WARADE TUSHAR GAJANAN	<i>Wade</i>
B-39	WARUDKAR SANCHIT ANILKUMAR	<i>Wade</i>
B-40	ZINJADE KIRAN SURESH	<i>Zin</i>
P-01	MUNDE NILESH SHIVAJIRAO	—
P-02	NITIN DATTARAY AMBHORE	—
P-03	RAJIKA GURAV	—
P-04	CHOUGULE SOMESH SHIVAJI	—
P-05	HIPPARGI SHADAAB NAUSHADALI	—
P-06	RANGNATH RAMESH NARWADE	—
P-07	TUPE ANANT	—
P-08	SAURABH GAVALI	<i>Saurabh</i>
P-09	SHINDE APURVA	<i>Shinde</i>
P-10	TARATE KRISHNA	<i>Tarate</i>
P-11	RAJPUT KIRAN NANA	—
P-12	DEVANSH AJAYKUMAR DESHMUKH	—
P-13	SACHIN SHETE	<i>Shete</i>
P-14	SHARDUL THIGALE	<i>Shardul</i>
P-15	YELMAME VAIBHAV	<i>Yel</i>
P-16	WAGH CHIRAG GULABRAO	<i>Wagh</i>
P-17	KULDEEP KATALE	<i>Kul</i>
P-18	KATKEMOD POOJA SHIVDAS	<i>Kat</i>
P-19	KOKANE AISHWARYA AMOL	<i>Kokane</i>
P-20	SHAIKH MAAZ	<i>Shai</i>
P-21	RAUT AVINASH G.	<i>Raut</i>

Arun
Prof. Arun sankpal
Faculty Coordinator

Rahul
Prof. Rahul Hodage
H.O.D

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045.



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GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
Balewadi, Pune - 411045.



Civil Engineering Department
Academic Year 2018-2019
BE Students Roll Call
Class - BE **DIV A**
Site visit attendance

Roll No	Names of students	Sign
A-01	ARUN SINGH	<i>Arun</i>
A-02	AUDGE ASHWINI ATMARAM	<i>Audge</i>
A-03	BANSODE RANJANA RAMESH	<i>Bansode</i>
A-04	BHANDARE KISHOR	<i>Kishor</i>
A-05	BHORE VAISHNAVI VIVEKANAND	—
A-06	BHOSALE DIGVIJAY DATTATRAY	—
A-07	BHOSALE SHREYASH SUDHIR	—
A-08	BIRADAR POOJA SHRIRAM	—
A-09	BOTRE RAHUL VITHOBA	<i>Vithoba</i>
A-10	CHAUHAN KANHAYA LAXMINARAYAN	—
A-11	CHAUHAN KRISHNAMOHAN R	<i>KR</i>
A-12	CHOUDHARI GAURI BHAGAWAT	<i>Gauri</i>
A-13	CHOUGULE ANIKET SUNIL	<i>Aniket</i>
A-14	DABHOLKAR SOHAM RAJENDRA	<i>Soham</i>
A-15	DESHMUKH RAJWARDHAN	<i>Rajwardhan</i>
A-16	DEVKAR SHUBHAM RAJABHAU	<i>Shubham</i>
A-17	DIDWAGH DHANAJI HANMANT	<i>Dhanaji</i>
A-18	FARANDE MAYUR NAMDEO	<i>Namdeo</i>
A-19	GANDHI GAURAV HARSHAD	<i>Gaurav</i>
A-20	GARJE VIVEK	—
A-21	GHOLANE MAHESH	—
A-22	GOPALE NIKHIL MANISH	—
A-23	GORE MARUTI DAGADU	—
A-24	HINDRE SWAPNIL	<i>Swapnil</i>
A-25	HULAWALE PRATIK SHIVAJI	<i>Pratik</i>
A-26	JADHAV AKASH VENKATESH	<i>Akash</i>
A-27	JADHAV PRAVIN VILAS	<i>Pravin</i>
A-28	JADHAV ROHAN	<i>Rohan</i>
A-29	JAGDALE SUHAS SHIVAJI	<i>Suhas</i>
A-30	JAGIRDAR A. MOHID A. NAJIB	<i>Mohid</i>
A-31	JAMDADE DNYANESH SHIVAJI	<i>Dnyanesh</i>
A-32	KABUTARE PRASHANT KISAN	<i>Prashant</i>
A-33	KADAM VISHAL DATTATRAY	<i>Vishal</i>
A-34	KAKADE ARJUN RAGHUNATH	—
A-35	KAMBLE PANKAJ RAJESH	—
A-36	KANAME ABHIJEET BALAJI	—
A-37	KAPSE SAGAR ANKUSH	—



A-38	KETAN HAWALDAR	
A-39	KHAIRE AKSHAY BHANUDAS	—
A-40	KHATATE VINIT DINESH	—
A-41	KONJARE CHANDRAKANT P	—
A-42	KULKARNI RUSHIKESH	—
A-43	KUMAR PANKAJ KUMAR PAL S	—
A-44	LOKHANDE AMOL VITTHAL	Amol
A-45	LOMATE PRITAM	Pritam
A-46	MAHALE NEIL	Neil
A-47	MOHITE ROHIT DNYANESHWAR	Rohit
A-48	MURTADAK SHUBHAM	Shubham
A-49	NADAF FARUKH	Farukh
A-50	NAGE AKSHAY	Akshay
A-51	NAIKWADI ROHAN SHIVAJI	Rohan
A-52	NAKHATE NIKHIL	Nikhil
A-53	NANAVARE SANKET	Sanket
A-54	NEAVASE PRUTHIVIRAJ	Pruthiviraj
A-55	PAKHLE ROHAN SHRIKANT	—
A-56	PALKAR DAYANAD TUKARAM	—
A-57	PANCHAL PRAMILA	—

Arun

Prof. Arun Sankpal
Faculty Coordinator

Rahul

Prof. Rahul Hodage

H.O.D
Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045



Following are the various unit operations carried out at visited Waste Water Treatment Plant:

1. Receiving Chamber.
2. Coarse Screen.
3. Wet Well.
4. Fine Screen.
5. Mechanical grit chamber.
6. S.B.R. unit.
7. Centrifugation unit.
8. Chlorine contact tank.

1. Receiving Chamber:

Receiving chamber is the first unit where the whole waste water from sewer is first collected in the receiving chamber.

The receiving chamber is designed for the peak flow condition.

The detention time of the receiving chamber is 30 sec.

The main function of the receiving chamber is to collect the waste water and reduce its velocity before transferring the flow to the next unit.

2. Coarse Screen:

Mechanical coarse screen is provided at the visited plant at River Site.

The Ultra sonic transmitters are provided at the top and bottom and the head loss is measured. Depending upon the head loss the screens automatically starts for working.

The maximum head loss is the 300 mm, when it reach this limit it automatically starts working.

The floating matter, debris, are removed by the coarse screen, and conveyed towards the conveyer belt from the conveyer belt it is transfer to the small cart and finally disposed to the in municipal solid waste for landfilling.



3. Wet well:

After passing flow through the screen then it is diverted towards the wet well where it is stored and by means of the pump it is pumped out taken to the grit chamber.

The total eight numbers of pumps are provided in the wet well. Depending upon the flow the no of pumps is operated.

4. Fine Screen:-

The mechanical operated step type screens are provided at the visited site.

The 2mm thickness bars are provided at centre to centre 5mm distance which effectively removes the particle size up to 6mm size flowing matter from the waste water.

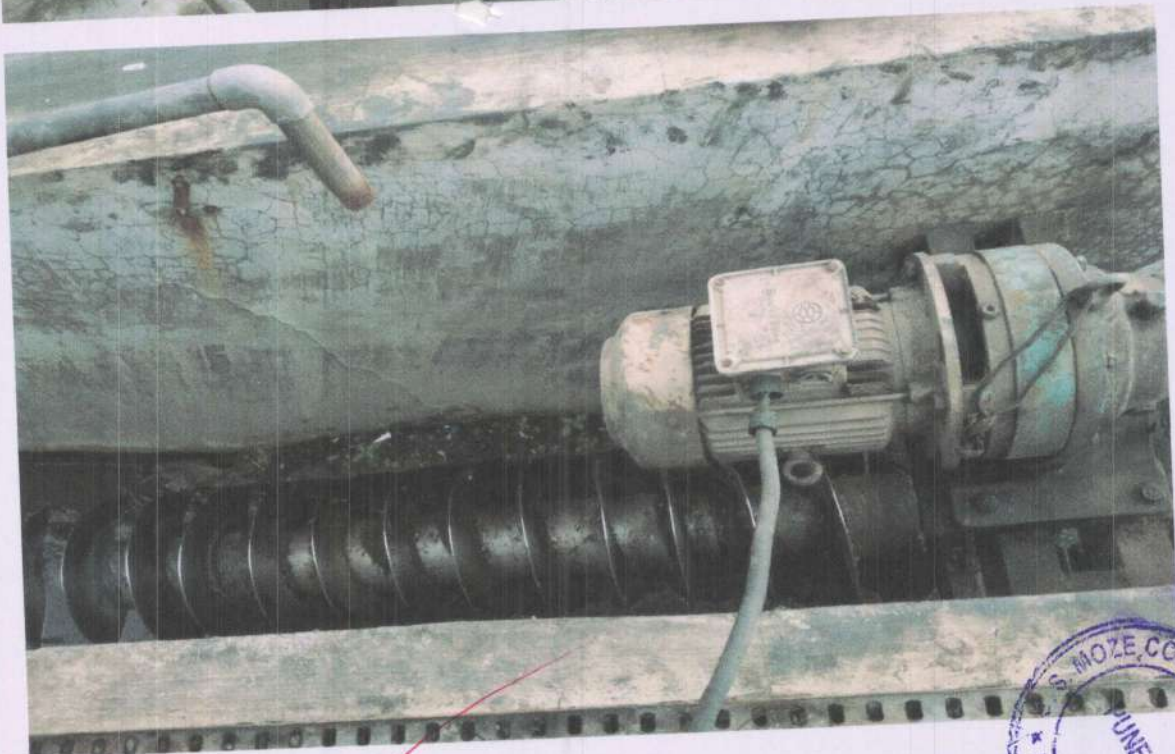


5. Mechanical grit chamber:

Grit chambers are basin to remove the inorganic particles to prevent damage to the pumps, and to prevent their accumulation in sludge digestion process.

At the visited plant the mechanically operated grit chamber are provided.

In mechanically cleaned grit chamber, scraper blades collect the grit settled on the floor of the grit chamber. The grit so collected is carried towards the screw type grit removal system and it is removed.



6. S.B.R. unit:-

The flow from the grit chamber via collecting launder it is taken to the SBR unit for further process.

At the visited plant the Sequencing Batch Reactor (SBR) process is used to treat the waste water.

SBR Process:

The Sequencing Batch Reactor (SBR) process has been extensively used in Europe and the United States in the past two decades. Its use in India has been limited to date, although within the last few years approximately treatment plants using this technology were constructed in various cities of India. One of the obstacles in the acceptability of SBR process has traditionally been the need for precise, automated and reliable control of various stages of the process. Recent developments in the programmable logic controller (PLC) technology, however, have made the control of an SBR process readily achievable. The SBR process is an activated sludge process in which the sewage is introduced into a Reaction Tank (or SBR Tank), one batch at a time. Wastewater treatment is achieved by a timed sequence of operations which occur in the same SBR Tank, consisting of filling, reaction (aeration), settling, decanting, idling, and sludge wasting. The various stages in the sequence are as follows:

Stage 1: Filling

During this stage the SBR Tank is filled with the influent wastewater. In order to maintain suitable F/M (food to microorganism) ratios, the wastewater should be admitted into the tank in a rapid, controlled manner. This method functions similarly to a selector, which encourages the growth of certain microorganisms with better settling characteristics.

Stage 2: Reaction

This stage involves the utilization of biochemical oxygen demand (BOD) and ammonia nitrogen, where applicable, by microorganisms. The length of the aeration period and the sludge mass determines the degree of treatment. The length of the aeration period depends on the strength of the wastewater and the degree of nitrification (conversion of the ammonia to a less toxic form of nitrate or nitrite) provided for in the treatment.

Stage 3: Settling

During this stage, aeration is stopped and the sludge settles leaving clear, treated effluent above the sludge blanket. Duration for settling varies from 45 to 60 minutes depending on the number of cycles per day.

Stage 4: Decanting

At this stage of the process effluent is removed from the tank through the decanter, without disturbing the settled sludge.

Stage 5: Idling



The SBR Tank waits idle until it is time to commence a new cycle with the filling stage.

Stage 6: Sludge Wasting

Excess activated sludge is wasted periodically during the SBR operation. As with any activated sludge treatment process, sludge wasting is the main control of the effluent quality and microorganism population size. This is how the operator exerts control over the effluent quality by adjusting the mixed liquor suspended solids (MLSS) concentration and the Mean Cell Residence Time (MCRT).

In this process, the SBR Tank acts as the equivalent of several components in the conventional activated sludge treatment process, as follows:

- 1. Aeration Tank:** the SBR Tank acts as an aeration tank during the reaction stage where the activated sludge is mixed with the influent under aerated conditions.
- 2. Secondary Clarifier:** the SBR Tank acts as a secondary clarifier during the settling and decanting stages where the mixed liquor is allowed to settle under quiescent conditions, and the overflow is discharged to the next stage of treatment.
- 3. Sludge Return System:** the activated sludge, following settling in the SBR Tank, is mixed with the influent similar to the sludge return system, except that the feed is transferred to the sludge rather than the sludge being transferred to the front end of the plant.

An advanced sequential batch reactor technology. This technology is extensively used for treating domestic sewage and industrial effluents. A very high degree of treatment of waste water is achieved which makes it suitable for recycle and reuse at a very low cost of treatment and by using minimum space.

Waste water Treatment Process:

It is a **CYCLIC ACTIVATED SLUDGE TREATMENT** process. It provides highest treatment efficiency possible in a single step biological process.

The System is operated in a batch reactor mode this eliminates all the inefficiencies of the continuous processes. A batch reactor is a perfect reactor, which ensures 100% treatment. Two or more modules are provided to ensure continuous treatment. The complete process takes place in a single reactor, within which all biological treatment steps take place sequentially.

No additional settling unit, secondary clarifier is required.

The complete biological operation is divided into cycles. Each cycle is of 3 hrs duration, during which all treatment steps take place.



Explanation of cyclic operation:

A basic cycle comprises:

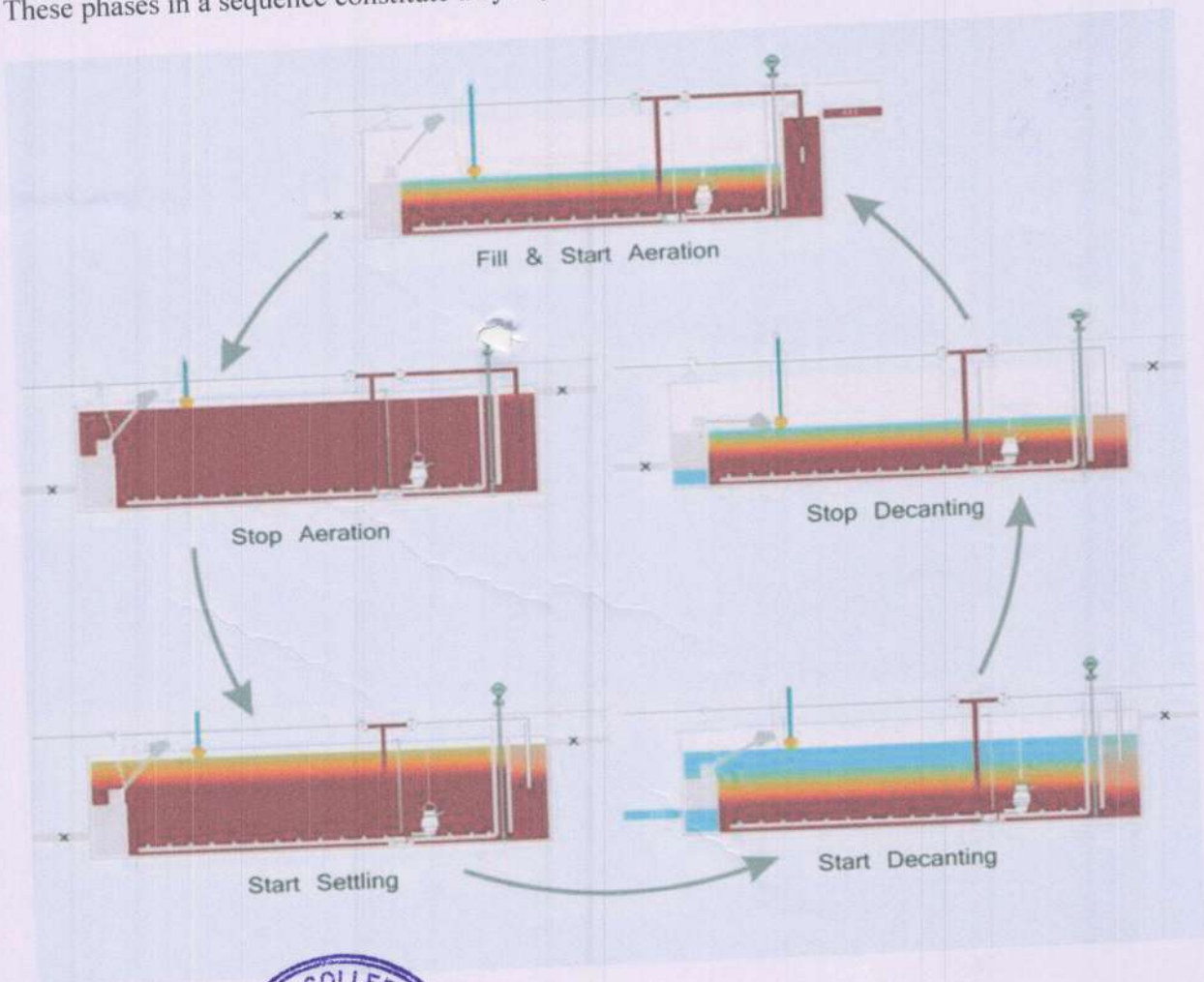
- Fill-Aeration (F/A)
- Settlement (S)
- Decanting (D)

These phases in a sequence constitute a cycle, which is then repeated.

A Typical Cycle:

During the period of a cycle, the liquid is filled in the Basin up to a set operating water level. Aeration Blowers are started for a pre-determined time to aerate the effluent along with the biomass. After the aeration cycle, the biomass settles under perfect settling conditions. Once settled the supernatant is removed from the top using a DECANTER. Solids are wasted from the tanks during the decanting phase.

These phases in a sequence constitute a cycle, which is then repeated.



A Typical Cycle



7. Centrifugation unit:-

The next step after the treatment of waste water is to treat the settled sludge from the SBR unit.

The consistency of the sludge increases by the 20%.

The sludge is passed through this mechanical unit where centrifugation of sludge is carried out and then it is taken to the final disposal.

Centrifuges are effective pieces of equipment for dewatering solids skimmed off most wastewater systems. Centrifuges provide cost saving advantages:

- 70% reduction of total disposal volume.
- Produces stackable cake-like sludge.
- Reduces handling costs.
- Increases options for sludge disposal.

8. Chlorine contact tank:

Disinfection of municipal wastewater is necessary for safe potable water supplies and for healthy rivers and streams. Microorganisms are present in large numbers in sewage treatment plant effluents and waterborne disease outbreaks have been associated with sewage-contaminated water supplies or recreational waters.

Chlorination is by far the most common method of wastewater disinfection and is used worldwide for the disinfection of pathogens before discharge into receiving streams, rivers or oceans. Chlorine is known to be effective in destroying a variety of bacteria, viruses and protozoa, including Salmonella, Shigella and Vibrio cholera.

The detention time for the chlorination unit provided is 30 min.

The dose of chlorine-5ppm.

After the waste water treatment the treated water is used for the construction activity in the nearby areas.

It is also used at the treatment plant for the gardening, and other secondary purposes.



Advantages of SBR Technology:

1. **All unit operation in Single Reactor Vessel:** One single reactor basin provides all of the unit operations like Equalization, primary clarification (in most cases), biological treatment, and secondary clarification can be achieved in a single reactor vessel.
2. **High efficiency of removal:** This process can be operated and controlled with flexibility for efficient removal of organic matter, suspended solids, nitrogen, and phosphorus under all loading conditions. Provides enhanced organic phosphorus removal with or without chemical augmentation.
3. **Reuse of effluent:** An effluent quality suitable for reuse.
4. **Bulking of Activated sludge:** This process can control the growth of filamentous bacteria and hence prevent bulking of activated sludge. Hence there are no operational problems like sludge bulking.
5. **Saving of Capital Cost and Area requirement:** This process saves capital cost by eliminating final sedimentation tanks. As secondary sedimentation tanks are not required in this process, the area needed is also minimal as simultaneous multiprocessing takes place in a single reactor basin (approximately 100 m²/1000 m³ only needed for SBR Tanks)
6. **Easy for Future Expansion:** Allows for easy modular expansion for population growth, modular configurations and cyclic operation is easily managed to provide continuous inflow and outflow hydraulic profiles dispensing with the need for outflow hydraulic balancing

Disadvantages of SBR:

1. High maintenance cost:

Compared to the conventional activated sludge system, a higher level of sophistication and maintenance can be associated with more automated switches and valves.

2. **Basin depth:** Should be sufficient to provide an adequate clear water depth over the sludge blanket to prevent settled solids entrainment

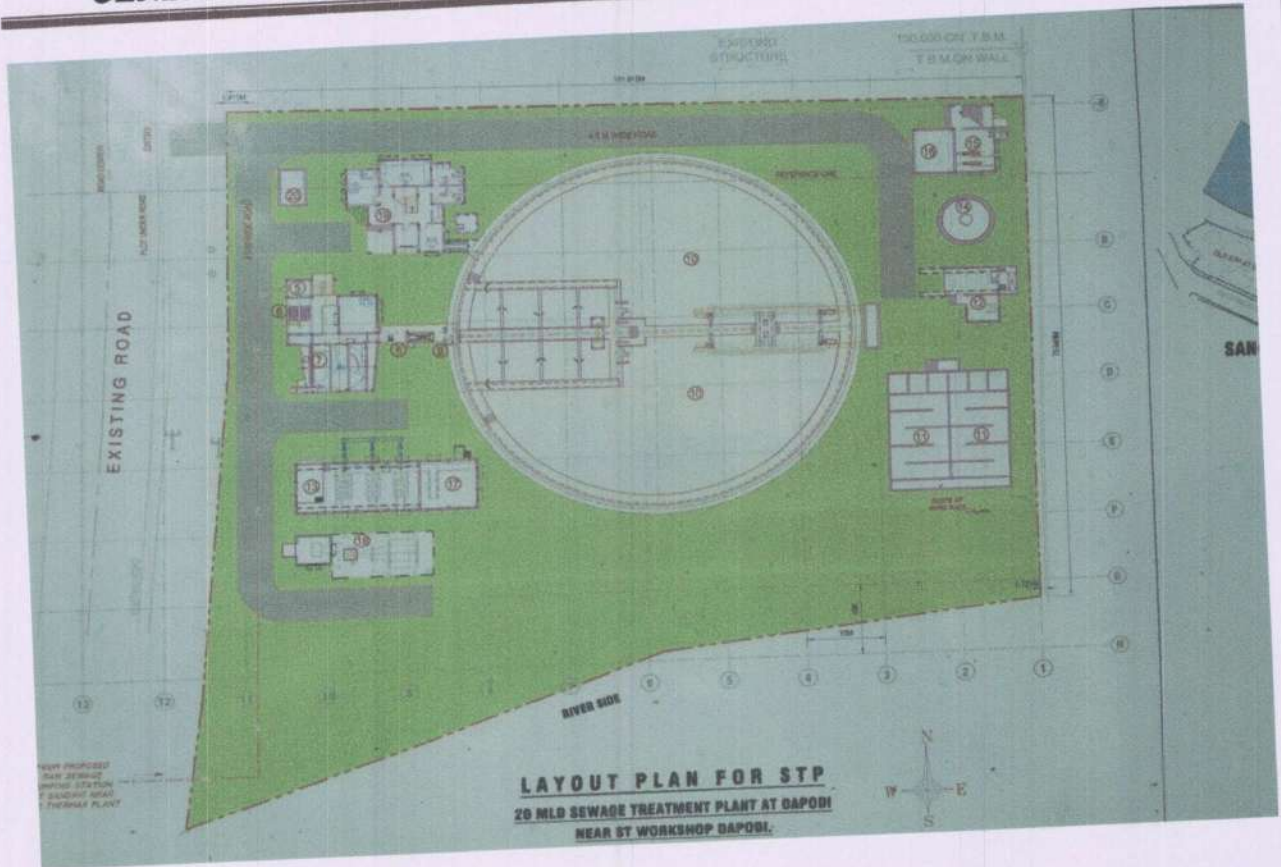
3. **Flow balancing:** In small single stream SBR systems approximately less than 10 MLD, effluent flow balancing may be needed for downstream processing, such as filtration or disinfection.

4. **Larger capacity aeration system** relative to aeration time per cycle and per day is required compared as to conventional activated sludge system.

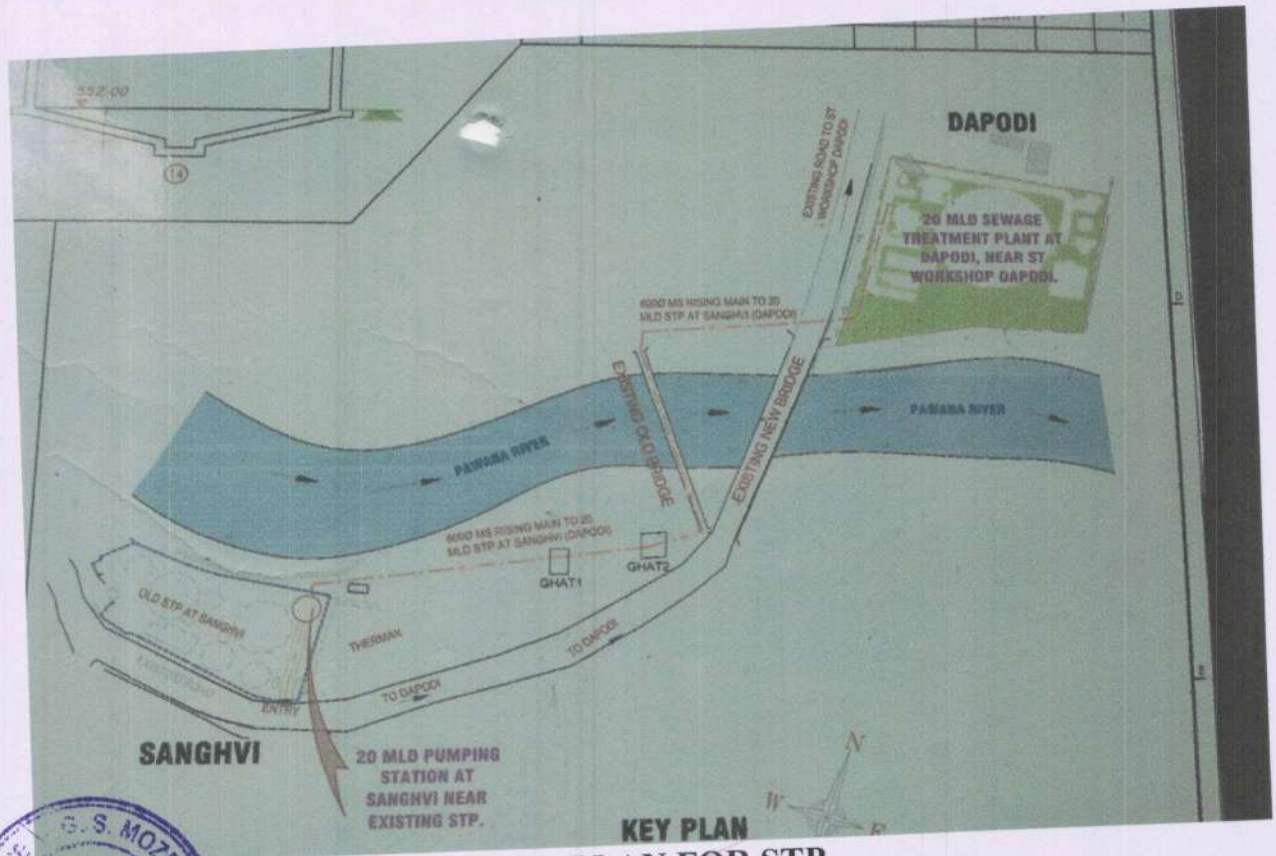
5. All the SBR plants must be designed to cater to the peak flows. A minimum of two tank system is required.



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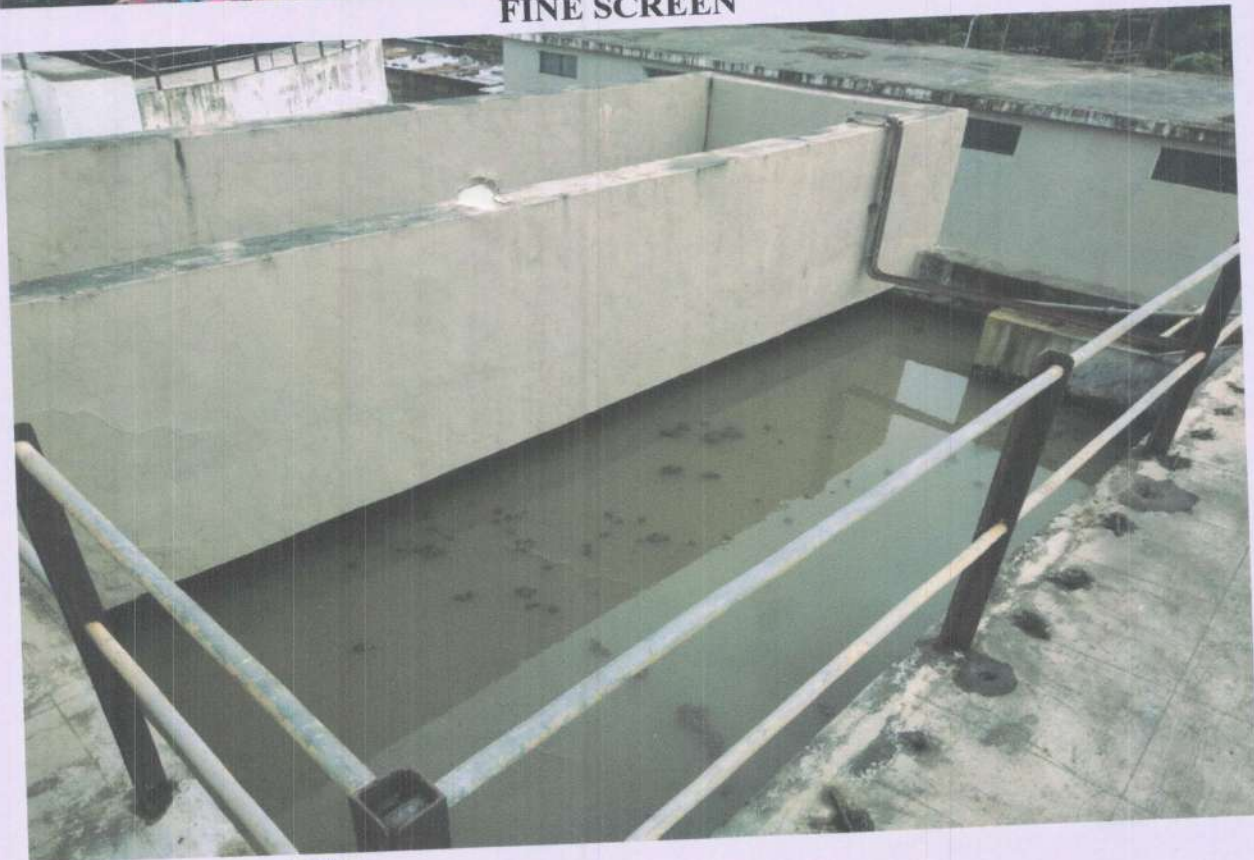


LAYOUT PLAN FOR STP



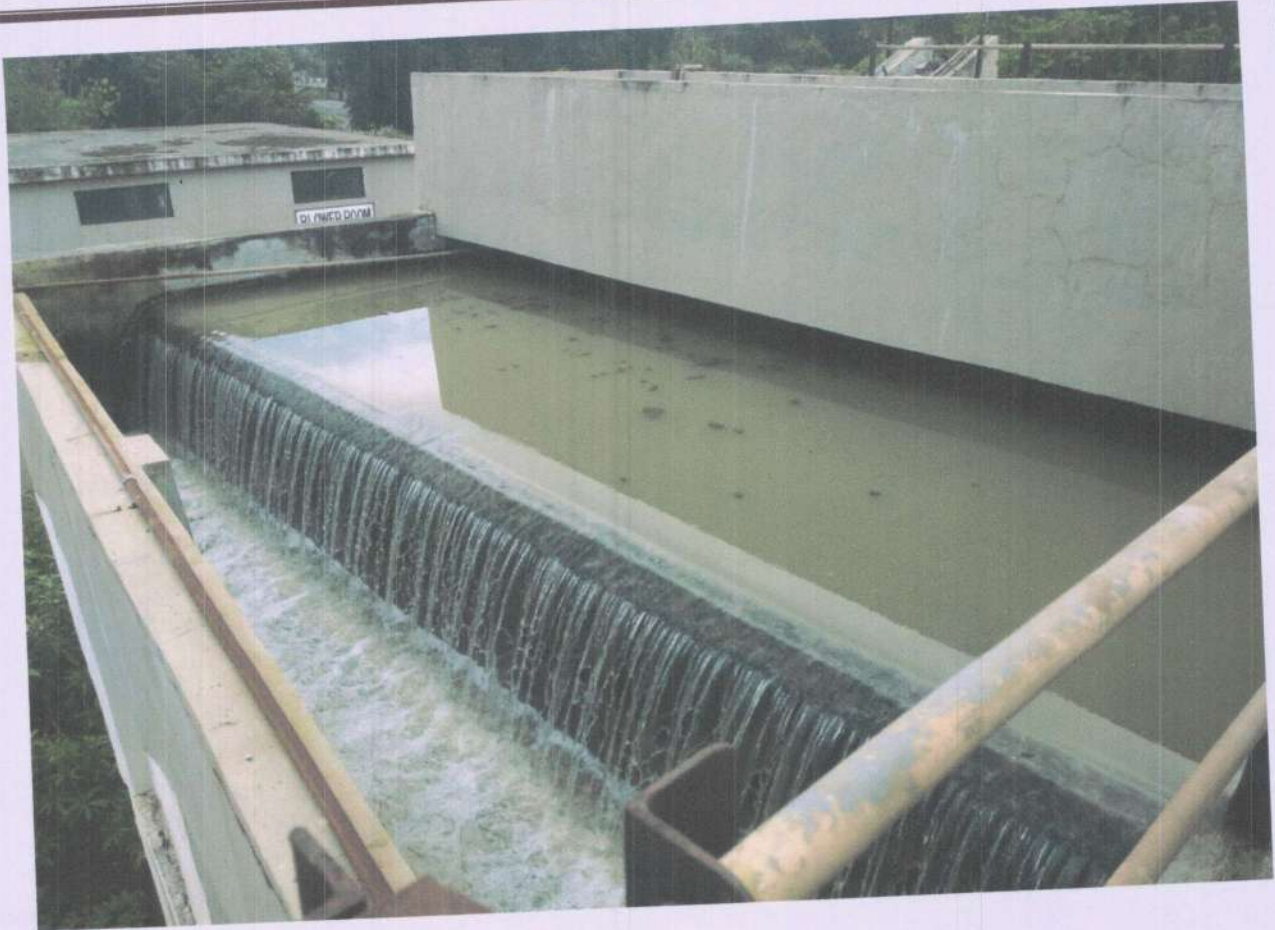


FINE SCREEN

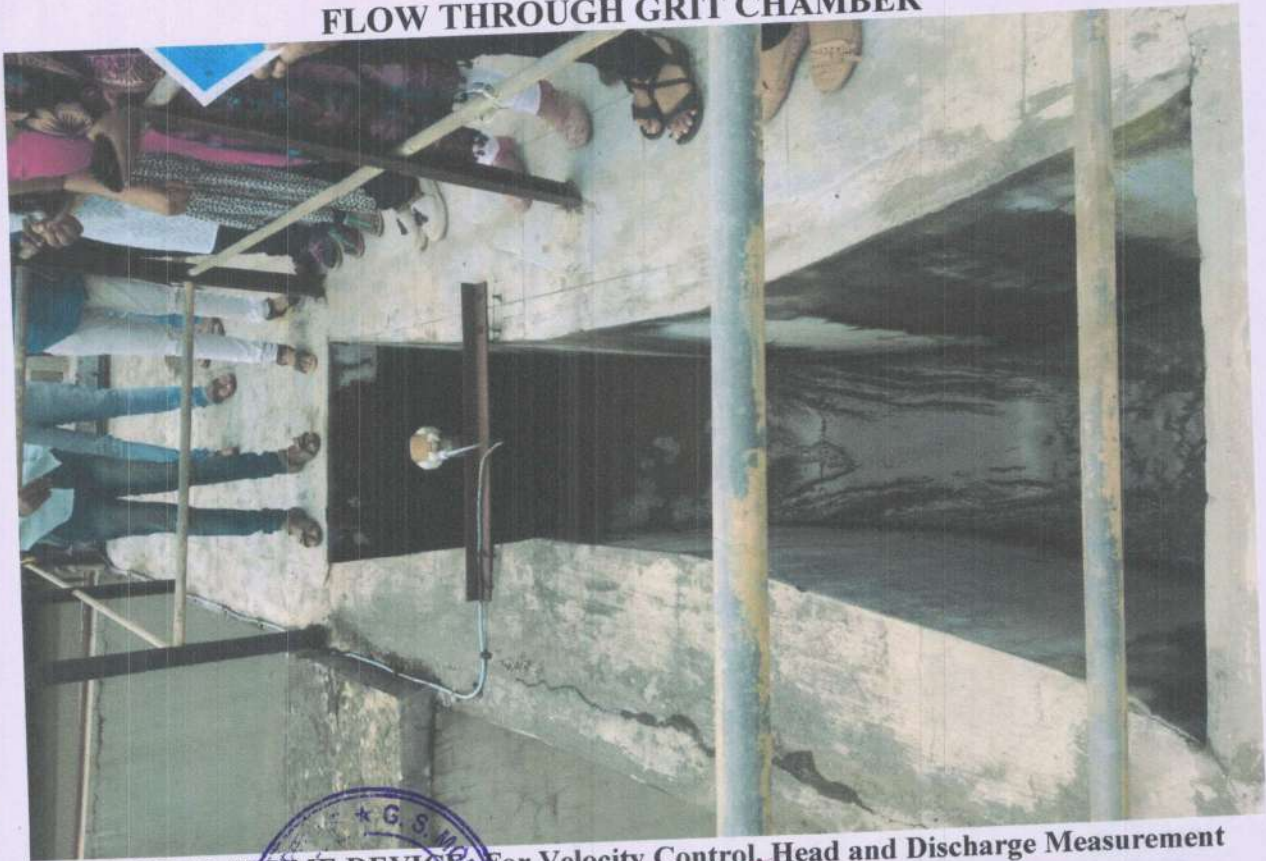


GRIT CHAMBER





FLOW THROUGH GRIT CHAMBER



PARSHAL FLUME DEVICE For Velocity Control, Head and Discharge Measurement

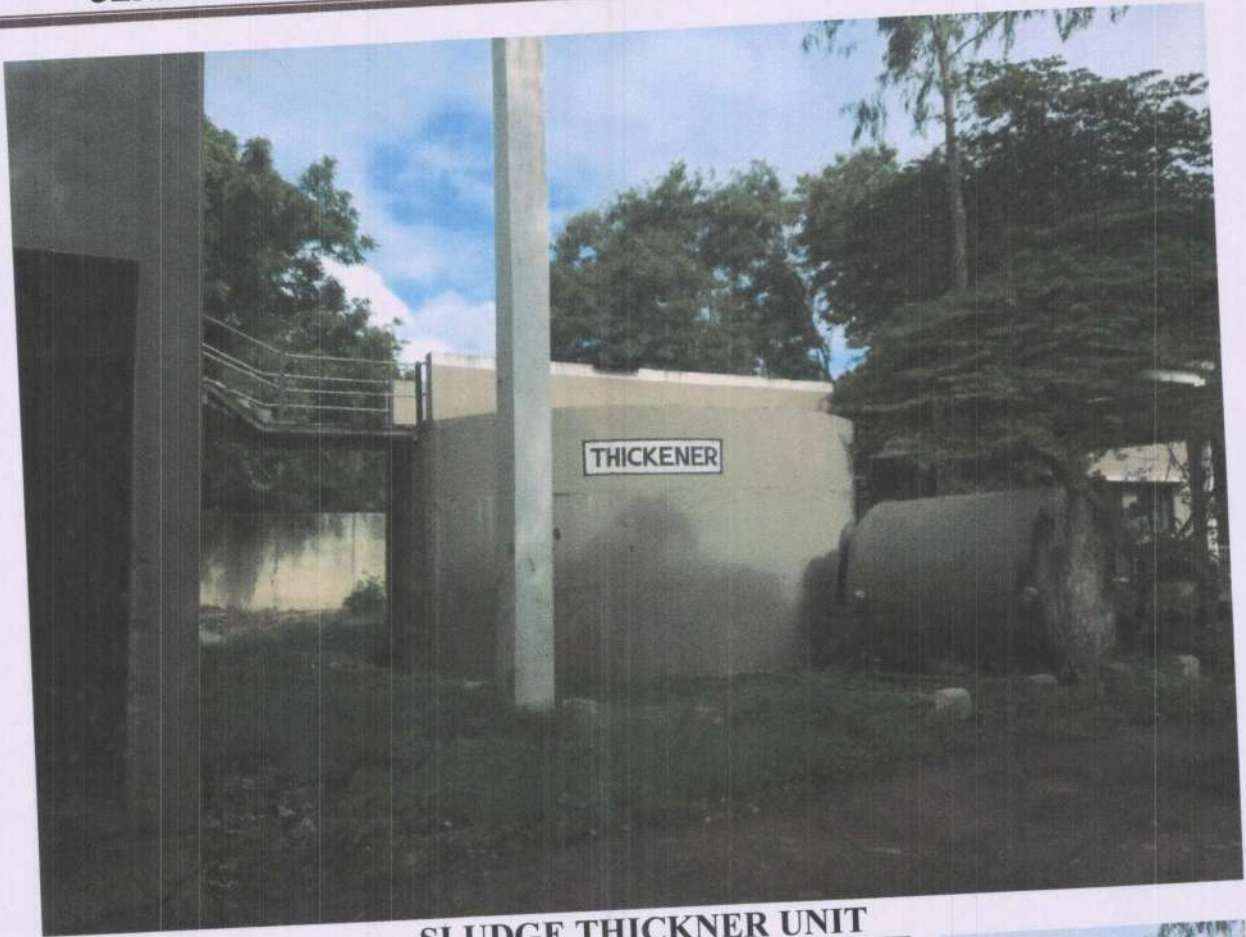


SBR BASIN : AERATION MODE

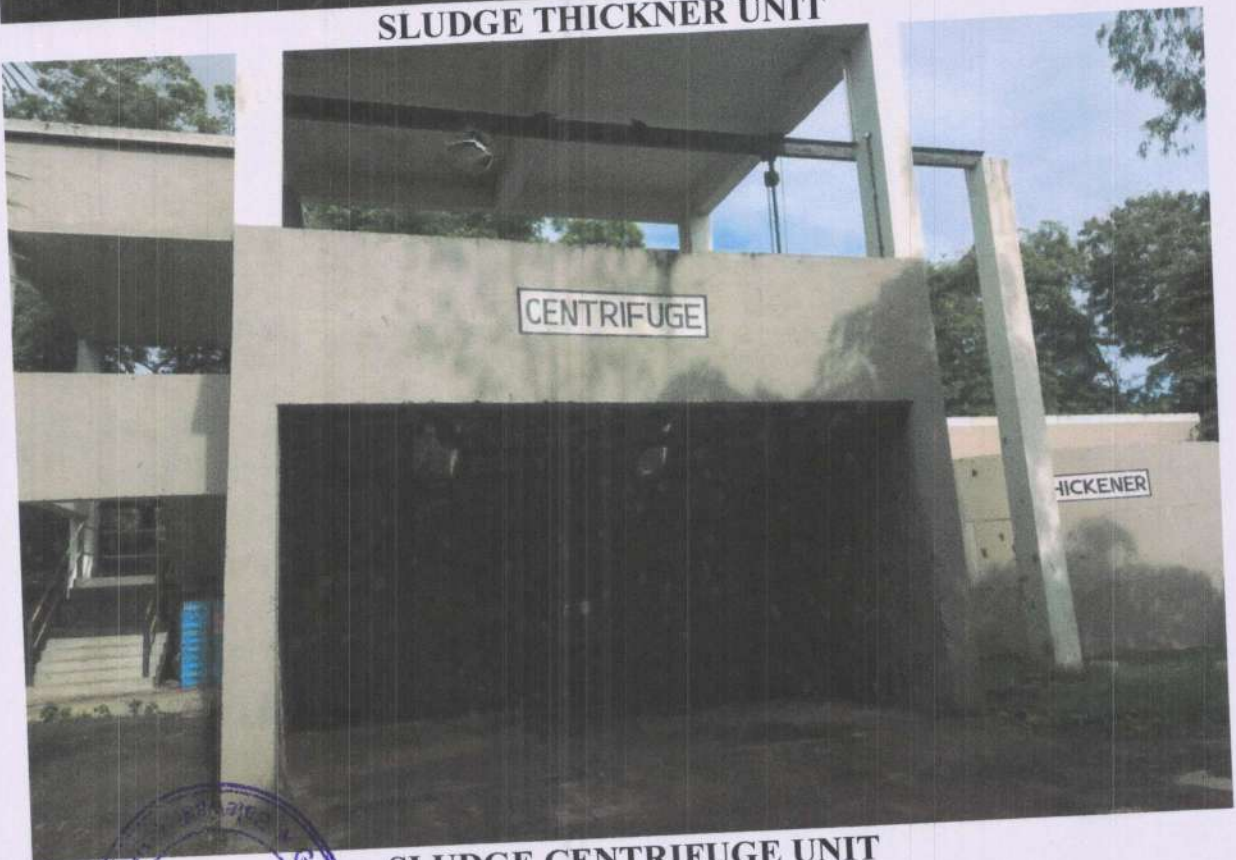


SBR BASIN : SETTLING MODE





SLUDGE THICKNER UNIT

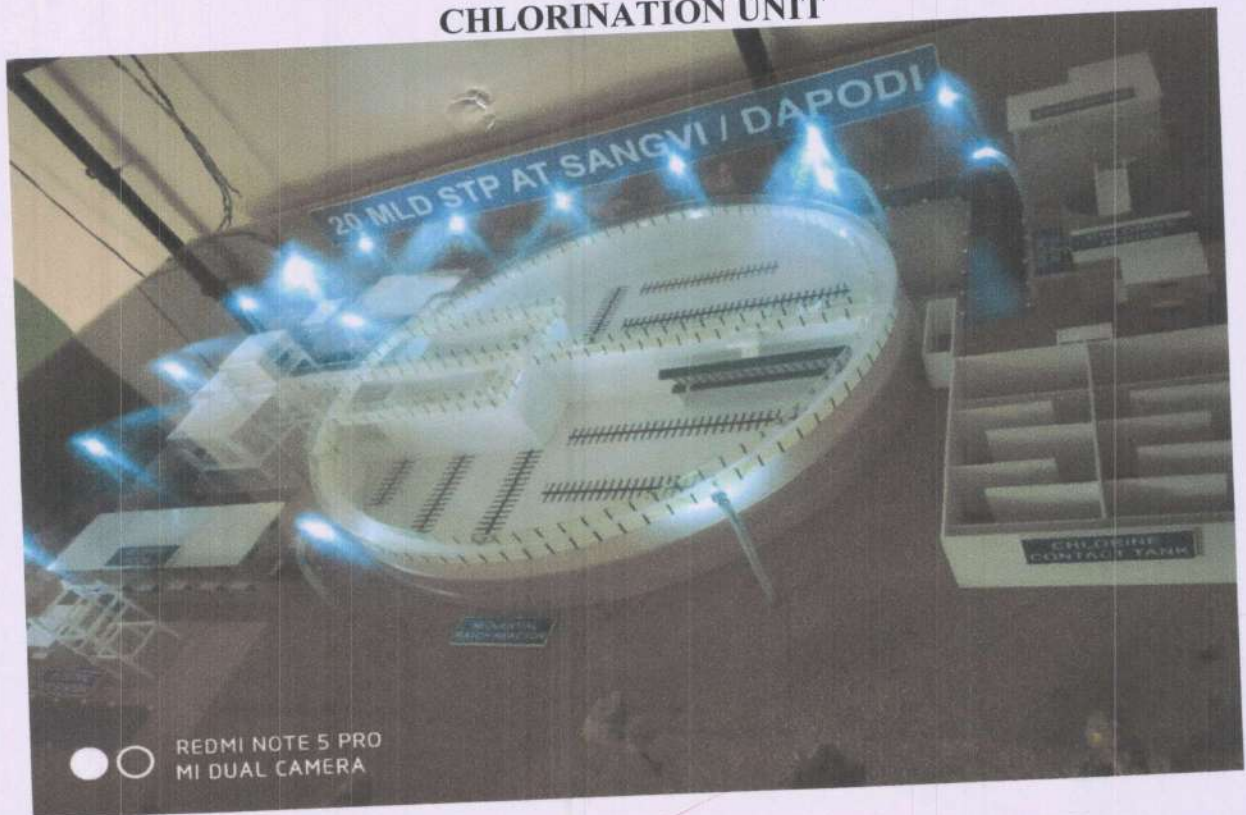


SLUDGE CENTRIFUGE UNIT





CHLORINATION UNIT



3D MODEL VIEW OF 20 MLD STP AT SANGHAVI (DAPODI)

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FINAL YEAR STUDENTS OF BE CIVIL FOR ACADEMIC YEAR 2018-19



Sankpal

Thanking

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(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to Pune University)
25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500
Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in



Department Of Civil Engineering


Date-7/04/2019

SITE VISIT NOTICE

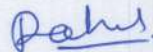
All the students of B.E. are hereby informed that site visit to Water Treatment plant has been arranged on -8/04/2019. All Students must be present at 10 am sharp in college premises.

NOTE:

- **STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM**
- **STUDENTS SHOULD CARRY WATER BOTTLE, CAP, SHOES etc**
- **ATTENDANCE IS COMPULSORY**


Prof. Arun Sankpal

(Faculty coordinator)


Prof. Rahul Hodage

HOD
Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045





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S. No. 25/1/3, Balewadi, Pune - 411 045

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. 020-27390500 Website www.gsmozecoe.org Email gsmoze@yahoo.co.in

Founder President **Shri Rambhau Moze**

Ref. No. GSMCOE/ADMIN/18-19/122

Date 2/4/19

To,

The Executive Engineer,
Water Treatment Plant,
Sector No-26A, Nigadi Pradhikaran,
Pimpri-Chinchwad Pune

Subject: Regarding permission to visit site Construction at Wakad

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 100-120 students accompanied by 02 faculty members are interested to Visit your **Water treatment Plant** as a part of TE SPPU Syllabus in Environmental Engineering Subject. The visit is aimed at enhancing their Practical knowledge. We intend to take a round of the entire Construction. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (8/04/19)

Looking forward for your positive consent in this regard.

Thanking you.

Prof. Arun Sankpal

(Faculty coordinator)

Prof. Rahul Hodage

HoD

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr. A.B. Auti

PRINCIPAL

Principal

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045



2018-19/ TE/EE-I/ SITE VISIT

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S. No. 25/1/3, Balewadi, 411 045.

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Ph. : 020-27390500 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze



Ref. No. : Gsm/COE/2019/March/44

Date : 23/03/2019

To
The Executive Engineer,
Water Treatment Plant,
Sector No-26A, Nigadi Pradhikaran
Pimpri- Chinchwad Pune.

जलसुध्दारा केंद्र से.नं.२३
पानीपुरण विभाग
पिंपरी
पुणे
दिनांक
संज्ञक
दस्तावेज सं. २६८
दिनांक २५/३/१९

Subject: Regarding permission for site visit to Water Treatment Plant

Respected Sir,

We are one of the reputed institutes offering various technical degree courses approved by AICTE Delhi, Govt. of Maharashtra, and DTE and affiliated to Savitribai Phule Pune University (SPPU).

With reference to above mentioned subject as per the course curriculum for the subject **Environmental Engineering I** of third year student of Civil Engineering Department, we would like to arrange a site visit to Water Treatment Plant

It's a kind request to grant us permission to visit the site along with **100-120 students** and **2 faculty** members on any working day as per your convenience on tentative duration (**25th March to 2nd April 2019**). We will thankful if you do the needful and allow us in-charge person so that he can explain the details about site.

Thanking you.

Mr. Arun Sankpal

Contact Person

Mobile No: 8600 340 373

8459 265 866

Email: sankpalarun888@gmail.com

Mr. Rahul Hodge

H.O.D

**Head of the Department,
CIVIL ENGINEERING**

Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.

Dr. Abhijeet Auti

Principal

PRINCIPAL

Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, Pune-411 045

Site Visit. 8th & 9th April 2019
at 9:00 a.m.





GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

Founder - President : **Shri Rambhau Moze.**

(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to University of Pune.)

S. No. 25/1/3, Balewadi, Pune - 45. Telephone : (020)27290500, Fax : (020)27290500, E-mail : gsmoze@yahoo.co.in

Ref. No.:

Date : 08/04/2019.

To
The Executive Engineer,
Water Treatment Plant,
Sector No-26A, Nigadi Pradhikaran
Pimpri- Chinchwad Pune.

Subject: Letter of thanks for permission and Guidance for Water Treatment Plant Visit.

Respected Sir,

The GENBASOPANRAO MOZE TRUST is an educational trust; a pioneer in imparting quality professional education in the field of engineering it has established two campuses in Pune at Wagholi and Balewadi.

We department of Civil Engineering of Genaba Sopanrao Moze College of Engineering, Balewadi , Pune, would sincerely thanks for allowing and guiding our TE CIVIL Students at Water Treatment Plant. Our TE CIVIL students also want to thank you again for giving the opportunity to study and understand the various unit operations in water treatment plant. We really appreciate the time spent with our students and provided the valuable information .We hope our students received precious knowledge in Environmental Engineering I from you.

Thanking you.


Asst. Prof. Arun Sankpal

Subject In charge

Mobile No: 8600 340 373

8459 265 866

Email: sankpalarun888@gmail.com


Asst. Prof. Rahul Hodge

Head of Civil Engineering Department

**Head of the Department,
CIVIL ENGINEERING**

Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.



Received
8/4/2019

08/04/2019



Genba Sopanrao Moze Trust's
GENBA SOPANRAO MOZÉ COLLEGE OF ENGINEERING

Balewadi, Pune - 411045.

Civil Engineering Department

Create competent Socially Responsible Civil Engineers

Academic Year 2018-2019

Class - TE

DIV: A and B

WATER TREATMENT PLANT SITE VISIT ATTENDANCE

Sr.No.	Roll No	Names of students	Signature
1	A4	ATTARDE BHUSHAN ANIL	B.M.A.
2	A7	BADADE SURAJ SHRIKISHAN	S.S. Badade
3	A8	BADE APURVA UTTAM	Abhale
4	A9	BAJABALE SAGAR DINKAR	S.D.
5	A11	BANKAR PRIYA SUBHASH	Pankaj
6	A12	BELVALKAR SURBHI SUNIL	Surbhi
7	A14	BHUNDE GANESH PANDHARINATH	Bhunde
8	A16	BIRAJDAR GURUSHANT SHANKAR	Gurushant
9	A18	CHATE SACHIN RAMCHANDRA	Sachin
10	A19	CHAVAN SHUBHAM PRADIP	Shubham
11	A21	CHONDHE AJINKYA MANOHAR	Ajinkya
12	A22	CHONDHE SHUBHAM NAMDEV	Shubham
13	A24	DAGADE SHUBHAM PANDURANG	Shubham
14	A25	DANGADE SHUBHAM DHANRAJ	Shubham
15	A32	DHAINJE SOURABH RAVINDRA	Sourabh
16	A33	DHANGAR AKSHAY KASHIRAM	Akshay
17	A34	DHONDDEV PRATIK RAJU	Pratik
18	A36	DONGALE SANGRAM TANAJI	Sangram
19	A39	EKHANDE MAHESH POPAT	Mahesh
20	A43	GAJARE SIDDHARTH ANIL	Siddharth
21	A45	GHADGE SAURABH SUMITRA	Saurabh
22	A46	GITTE MAHESH BAJIRAO	Mahesh
23	A47	GORE SHRIKANT SHIWANNA	Shrikant
24	A50	HIRAVE VISHAL SHIVAJI	Vishal
25	A51	HIRAY POOJA PADMAKAR	Pooja
26	A52	HULPALLE CHAITANYA RAJKUMAR	Chaitanya
27	A53	JADHAV LAXMAN SIDRAMAPPA	Laxman
28	A54	JAYBHAYE MOHIT GOVINDRAO	Mohit
29	A55	JUNGHARE JAYASHREE GAJANAN	Jayashree
30	A57	KALYANI NANASAHEB KALOKHE	Nanasaheb
31	A60	KASHID VEERA UPKAR	Veera
32	A61	KATE ROHAN RAJU	Rohan
33	A64	KOKARE SURAJ POPAT	Suraj
34	A68	LAMBHADE AJAY DILIP	Ajay
35	A69	LOKHANDE SHIVANI BHAUSAHEB	Shivani
36	A70	MAGARE RAMABAI NAMDEV	Ramabai
37	A72	MAYUR NAKHATE	Mayur
38	A75	MORE VIKAS CHANDRAKANT	Vikas
39	B4	NIKAM ROMA YASHWANT	Roma
40	B6	PADWAL NILESH SHAM	Nilesh
41	B7	PANDEY ASHUTOSH VINODKUMAR	Ashutosh
42	B16	PAWAR AKSHAY BHAU	Akshay
43	B19	PAWAR YOGESHVAREE LAXMAN	Yogeshvaree
44	B29	RATHOD VIKRAM BHIMRAO	Vikram
45	B32	SAPATE HANUMANT SHIVAJI	Hanumant
46	B33	SARAF SWARALI ANANT	Swarali
47	B37	SHENDRE SUMIT VINODRAO	Sumit
48	B38	SHINDE AMIT BALASAHEB	Amit



49	B39	SHINDE CHETAN KASHINATH	
50	B41	SHINDE SMITA KRISHNADEV	
51	B43	SHIRSATH PRATIK PRALHAD	
52	B46	SOLAPURE SAGAR SURYAKANT	
53	B51	SONKAMBLE AJAY GANESH	
54	B55	TANDALE AKSHAY MANOHAR	
55	B56	TAPKEER JAYDATTA KISHOR	
56	B58	THETE PRAJWAL VILAS	
57	B59	THIKEKAR PURVA DHARMANATH	
58	B66	ZINJADE RAVINDRA SHIVAJI	
59	B67	CHAVHAN AMOL KISHOR	
60	B75	VENGURLEKAR MIHIR BHANUDAS	

B2 Tanmay Nagane
A56 Rushikesh Kankar
AA1 Prashant Gaitwad

Tanmay
Pratik
Pratik

Subject Incharge: 1

1. Asst. Prof. Arun Sankpal

2. Asst. Prof. Sonam Agrawal

Head of The Civil Department

Asst. Prof. Rahul Hodge

Head of the Department,
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering,

25/1/3, Balewadi, Pune-411 045.



A
Site Visit Report
On
Water Treatment Plant

Corporation	PimpariChinchwadMunicipal Corporation
Location	Water treatment Plant, near Appughar, Akurdi , PimpariChinchwad
Average Flow	428 MLD

Submitted By

Third Year Civil Engineering

Under The Guidance Of

Asst. Prof. ArunSankpal

Academic Year : 2018-19



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• **Purpose/ Aim of Water treatment :**

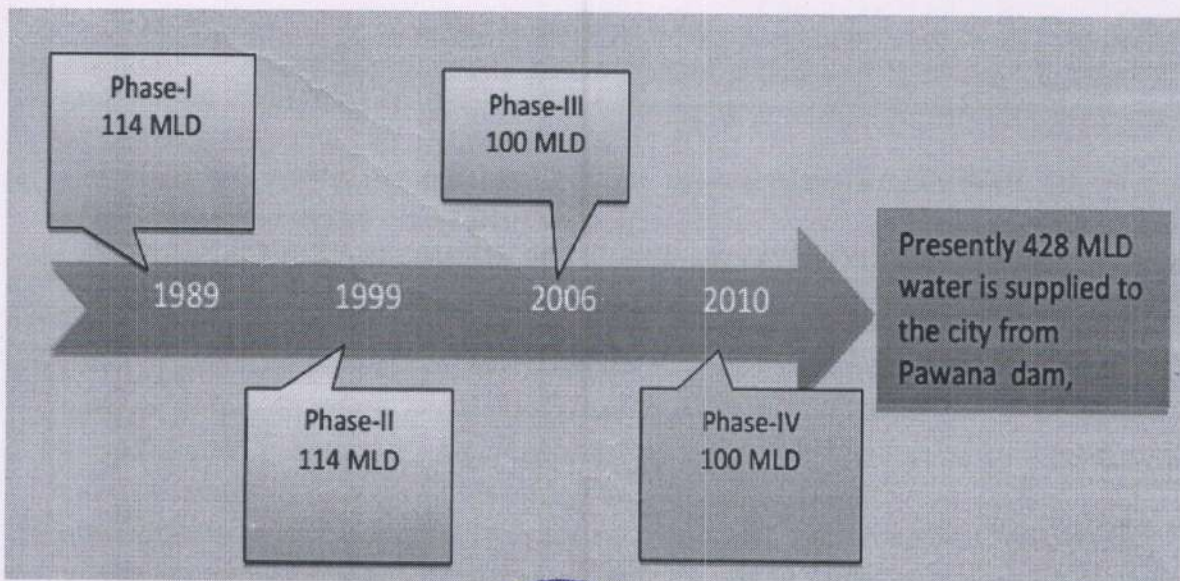
The aim of Water treatment is to produce & maintain water that is Hygienically Safe, Aesthetically attractive & palatable in an economical manner.

The method of treatment to be employed depends on the nature of raw water constituents the desired standards of water quality

• **Typical unit processes used for the water treatment includes:**

1. Source of water: Intake Structure
2. Pre-chlorination
3. Aeration
4. Plain sedimentation Tank (PST)
5. Flash mix (Rapid mixing)
6. Flocculation-slow mixing
7. Clari-flocculator
8. Granular filtration-Rapid sand filtration
9. Post-chlorination
10. Sump: to store clear treated water
11. Treated water to E.S.R
12. Treated water (E.S.R) –To distribution system

History of Pimpri-Chinchwad water supply is shown in Figure:



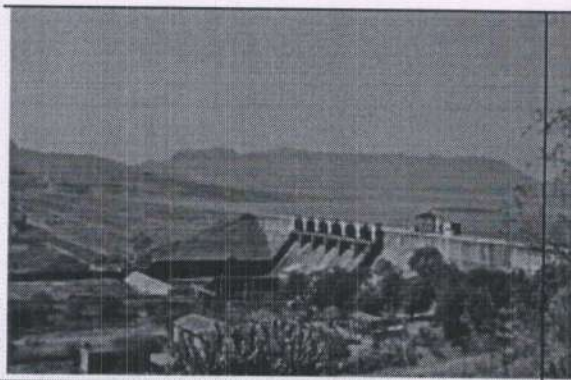
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The existing water supply to the Pimpri-Chinchwad city is managed by Pimpri-Chinchwad Municipal Corporation (PCMC). The City Engineer of the city and his team of Executive engineers and staff are responsible for ensuring protected drinking water supply in the city.

1. Source of water:

Main source of the Pimpri-Chinchwad water supply system is Pawana dam which is shown in Figure This dam is 35 kilometres away from the city and is in the West direction. There is a pick up weir (Ravet- Punavale) on downstream side of the dam

Water is pumped from the pickup weir at Ravet -Punavale dam and conveyed to water treatment plant by three mild steel (MS) pipe pumping mains (1053 mm for 228 MLD, 1165 mm for 100 MLD and 1400 mm 100 MLD). Treated water is pumped to Master Balancing Reservoirs (MBR) at WTP site and then transmitted by pumping/gravity to 85 Elevated Service Reservoirs (ESR) s in the city.

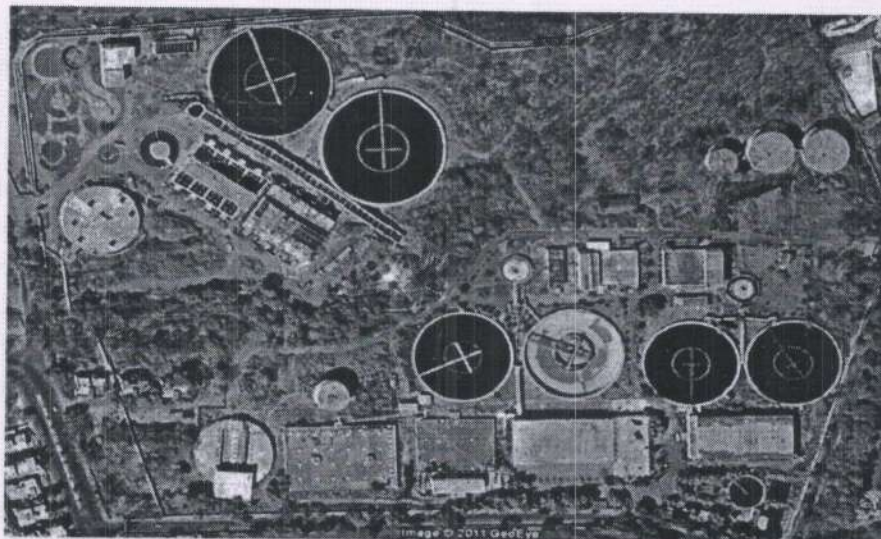


(a):Pawana dam



(b): Ravet-Punavale weir

Aerial View of water treatment Plant:



2. Pre-chlorination:

- Pre chlorination is the process of applying chlorine to water before filtration
- It helps in improving coagulation and reduces the loads can reduce the loads on the filters. It also reduces the taste odour, algae and other organisms.
- Pre chlorination is the process of applying chlorine to water before filtration /rather before sedimentation coagulation.

Uses of Prechlorination:

- It helps in removing coagulation and reduces the load on the filter.
- It reduces the test odour algae and other organisms.
- Chlorine dose = 0.1-0.5 mg/lit prechlorination is followed by the post chlorination.
- It controls the growth or algae in sedimentation tank.
- It prevents the putrefaction of sludge in setting tank.

3. Aeration:

- In this method the water to be treated is brought in close contact with air.

Purpose of aeration:

- Under the process of aeration water is brought in intimate contact with air.
- Aeration is necessary to promote the exchange of gases between the water and atmosphere.

In water treatment, aeration is practiced for three purposes:

- To add oxygen to water for imparting freshness (because the water from underground sources deficient in oxygen).
- Expulsion of CO₂, H₂S and other volatile substance causing taste and odour.
- To precipitate impurities like iron and magnesium in certain forms (if the water from the underground sources)

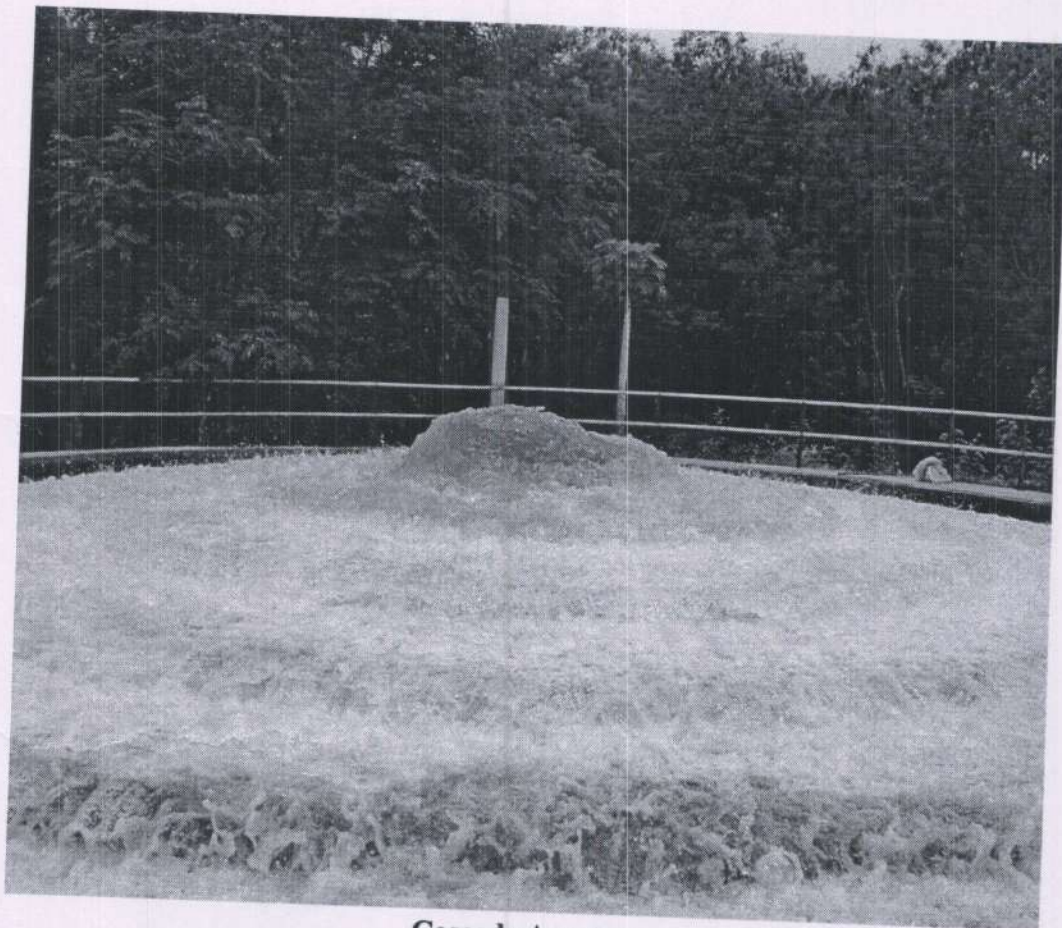
Limitation of aeration:

- **Requirement of significant head:** The unit operation of aeration require significant head of water
- **Increase the property of corrosiveness:** When the dissolve O₂ content is increased it causes for the corrosion of system
- **Residual Carbon di oxide:** The aeration cannot remove 100% CO₂, so the residue of 3.5 mg/liter remains in water.
- **For the removal of taste and odour**



3.1 Cascade Aerator:

- In this method the water is made to fall through a certain height (1 – 3m) over a series of steps (3 to 10 no.) with a fall about 0.15m – 0.2m in each step. The stricter so formed as free fall aerator.
- The simplest type of free fall aerator is known as cascade aerator.
- The cascade aerator can carry large quantity of water in comparatively small area small area at low head.
- The steps/plates can be made of cast iron, RCC or timber.
- The aerator is preferably installed in an open air. When the water is mixed with air gets purified.
- The cascade aerator is efficient in raising dissolve oxygen content of water, but not for co₂ removal, which is only removed in range of 60- 70%.
- The water flows down the step or trays in the form of thin sheets providing a large water surface. And creating aeration.



Cascade Aerator



4. Plain Sedimentation Tank (PST):

- When the water is highly turbid in that case to reduce the suspended load,
- The suspended particle whose specific gravity is greater than 1, that can be removed in primary sedimentation tank.

5. Flash mix / rapid mix:

- The chemicals coagulant added to raw water is vigorously mixed & agitated by flash mixer for its rapid dispersion in raw water.
- Addition of chemicals such as ferric chloride, alum, polymers to destabilize particles found in water.

6. Flocculation: Clari-flocculator

- Aggregation of particles (or Agglomeration) of the floc particles called flocculation
- Used to create larger particle that can be more radially removed by other processes such as gravity sedimentation tank.



7. Filtration:

- **The Sedimentation Tank:** Remove the large percentage of the suspended solid and organic matter present in raw water.
- **The process of coagulation:** The process of coagulation of water further assist in the removal of impurities present in water.

- But even the resultant water is not pure and may contain some very fine suspended particles bacteria.
- In order to remove the very fine suspended particles bacteria, the water is filtered through the beds of fine granular materials like sand.
- The process of passing the water through the beds of such granular materials called filters is known as filtration.
- The filtration may help in removing colloidal / colour / odour / turbidity / pathogenic bacteria from water.

7.1 Theory of Filtration:

- The process of passing of water through bed of such granular material is known as the filtration

Effect of Filtration:

1. The suspended and colloidal impurities which are present in water in finely divided state are removed to a great extent
2. The chemical characteristics of water are altered
3. The load of pathogenic bacteria is reduced.

Theory of filtration is based on following four mechanisms:

1. Mechanical straining
2. Sedimentation
3. Biological metabolism
4. Electrolytic charge

1. Mechanical straining:

- The suspended particles present in water and which is bigger size than the size of voids in sand layer of the filter cannot pass through these voids and get arrested in them.
- Most of the particles removed in the upper sand layers.
- The mat formed by the arrested particles and flocs which further helps in straining out impurities.

2. Flocculation and Sedimentation:

- The voids present in the sand grains of filter act as like small sedimentation tank.
- The particles of impurities arrested in voids adhere to the particles of sand grains mainly for the following reasons:
 1. Due to presence of a gelatinous film/coating developed on sand grains by previously adhered bacteria and colloidal matter.
 2. Due to physical attraction between the two particles of matter.

- Thus suspended impurities are removed by the action of sedimentation.

3. Biological metabolism:

- Certain presence of bacteria and microorganisms in voids which forms the coating over the sand grains.
- These organism require organic impurities- such as (Algae, plankton as their food for survival.
- The organism utilities such organic impurities and convert them into harmless compound by the process of Biological Metabolism.
- The layer formed by the harmless compound called as dirt skin /Schmutzdeche
- .This layer further helps in absorbing and staining out impurities.

4. Electrolytic Charge:

- The action of filter is also explained by the Ionic theory.
- The sand grains in filter media and impurities in water carry electrical charge of opposite nature.

7.3 Rapid Sand Filter:

Purpose:

- The great disadvantage of S.S.F. is low rate of filtration and requires large area to deliver filtered water.
- To increase the rate of filtration in rapid sand filter by increasing the size of sand so that the friction to the water passing through the filter media is minimized.
- The R.S.F may yield as high as 30 times more than the slow sand filter.
- Water from the coagulation and sedimentation tank are used in these filter.
- The filtered water is treated with the disinfectant.

Essential Parts of Rapid Sand filter:

1. Enclosure tank
 2. Under drainage system
 3. Base material
 4. Filter media of sand
 5. Appurtenances
1. Enclosure Tank



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- It consists of an open water tight rectangular tank made up of masonry / concrete.
- The depth of the tank varies from - 2.5 m to 3.5 m.
- The sides of the tank and bottom floor coated with the water proof material.

2. Under – drainage system

Purpose / function:

- To receive and collect the filtered water.
- Back – washing for the cleaning of filter.

There are various forms of the under – drainage system following are the two common types:

- A. Perforated Pipe System
- B. Pipe and Strainer system

A. Perforated Pipe system

- In this system there is a central drain / manifold the various lateral drains are attached to the central drain.
- **Lateral drains:** The lateral drains are placed at distance of 150 mm to 300 mm. The lateral drains provided with hole of dia. 10 mm at angle 30° with vertical. The holes are drilled at c/c distance of 7.5 cm to 20 cm.
- **Wash water:**
- The wash water is requiring for the backwashing of the filter, the compressed air is used for the purpose of washing. This results saving of water.
- Water required = 250 liters / min / m² of filter area.
- It is called low velocity wash.

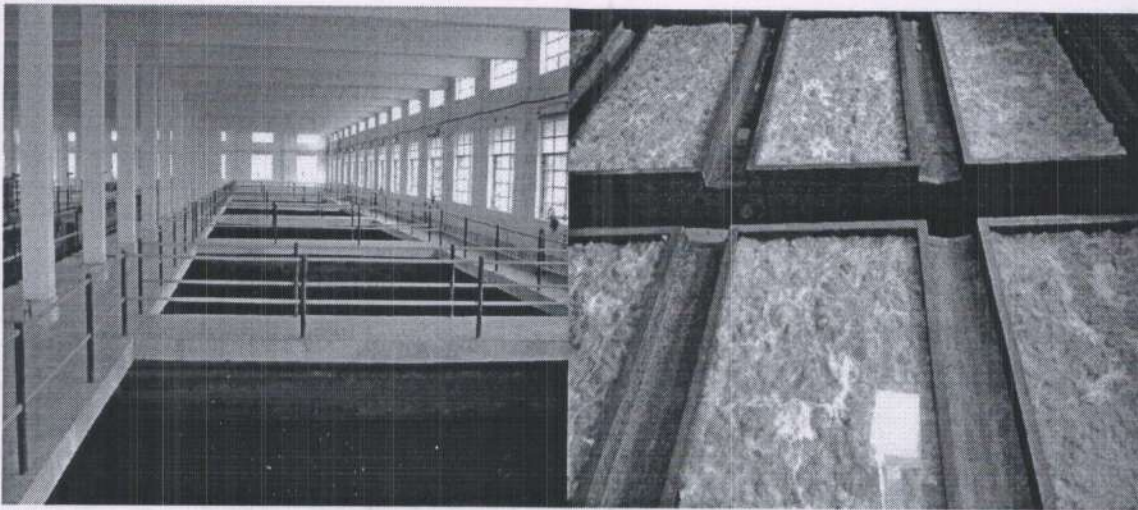
Base Material:

- The base material is gravel and it is placed on the top of under drainage system.
- The depth of the gravel varies from – 450 mm to 600 mm.
- The gravel is laid in layers of 150 mm.
- The top most layers are of small size gravel and the lowest layer is of big size gravel.
- Typical section of Gravel –
 - Top most layer = 150 mm, Size – 3mm to 6mm
- Intermediate layer = 150 mm Size = 6 mm to 12 mm
- Lowest layer = 150 mm, Size = 20 mm to 40 mm
- Total depth = 600 mm



Filter media of sand

- A layer of sand is placed above gravel.
- The depth of the sand layer varies from = 600 mm to 750 mm.
- The coarse sand is used as filter media.
- The effective size of sand = 0.5 mm to 1 mm.
- Uniformity coefficient = 1.20 to 1.70
- The space of voids between sand particles is increased and results in the rate of filtration.



R.S.F and Appurtenances

Following are the special devices are to be provided in case of Rapid Sand Filter:

- **Air Compressor:** During the washing of filter → the agitation of sand grains carried out by → compressed air or by water jet, or by mechanical rake.
When the air is used, then the compressor of capacity of supplying air at the rate of 0.60 to $0.80 \text{ m}^3 / \text{min/m}^2$ of filter area for duration of 5 min.
The compressed air may be supplied through laterals or through a separate pipe system.
- **Wash water trough:** The dirty water after washing of filter is collected in wash water trough, which is placed above the sand bed level. The wash water trough may be made up of - cast Iron, concrete, steel, and wrought iron.
- **Venturi rate controller:** To control the rate of flow, the venture ate controller is provided; It works on the principle of venturimetre.



8. Post-chlorination (Disinfection):

- The addition of the oxidising chemical agents to kill the pathogenic bacteria from water.
- Disinfection of water with chlorine, chlorine compounds, or ozone.
-
- Post chlorination / simply called chlorination is the normal standard process of applying chlorine in the end , When all others treatment have been completed.
- The post- chlorination is adopted after filtration and before the water enters the distribution system.
- The dose of chlorine should be such that to leave a residual chlorine of about 0.1/0.2 mg/lit.
- Contact period of chlorination = 20 min.
- The residual chlorine helps to prevent the recontamination of water.
- DISINFECTION- disinfection is the process of killing of diseases producing organisms (pathogenic bacteria) from water called as disinfection.
- Following are the three main types of human enteric pathogen.
- Bacteria
- Viruses
- Amoebic cysts
- Helminthes are responsible for the water borne diseases
- The chemicals used for killing the bacteria are known as disinfectant.

Modern disinfection process includes:

1. Physical methods: Such as thermal treatment and ultrasonic waves
2. Chemical treatment by use of :
 - -Chlorine and its compound
 - -Bromine
 - -Iodine
 - -Potassium permanganate
 - -Ozone and metals like silver
3. Radiation

8.1 Mechanism of disinfection:

The mechanism of killing the pathogen are largely depend on the

1. Nature of disinfectant
2. Type of micro organism

1. **Damage to cell wall:** It leads to cell lysis and death.
2. **Alteration of cell permeability:**



It refers to the destruction of selective permeability of cytoplasmic membrane because of the outflow from the cell nutrients as nitrogen and phosphorus takes place

3. Changing the colloidal nature of the cell protoplasm:

The cell protoplasm which contains the proteins which are converted into acids and bases leads to destruction of cell. In activation of critical enzyme system responsible for metabolic activities for the growth of cell the metabolism of enzyme are required but because of the inactivation of critical enzyme are destruction of the pathogen take place.

Chemical disinfectant proceeds normally in two steps:

1. Penetration of disinfectant through cell wall
2. Reaction with enzyme within the cell

8.2 Properties of Chlorine

- It is represented by symbol =CL
- It is soluble in water.
- The chlorine gas greenish yellow colour pungent order which cause irritation when inhaled
- The chlorine gas is not combustible
- In the presence of moisture it is very active and corrosive to the metal'
- It is cheap , reliable , easy to handle and measurable
- It is capable of providing the residual disinfecting effect for long period , thus avoid future recontamination of water

8.3 Residual Chlorine:

- When all the demand of chlorine is satisfied the chlorine will appear as free chlorine.
- After the completion of chlorination treatment, the treatment water may get contaminated due to faulty pipes distribution system.
- To take care of the future recontamination the purposely 0.2 mg/lit residual chlorine is kept.

9. E.S.R:

The elevated storage reservoir is used to store the treated water. To store the treated water



1. They are also known as Overhead Tank
2. Shape of ESR- Rectangular, Circular or Elliptical
3. Material for construction=RCC, Steel, Prestressed concrete

9.1 Purpose/Function of the service /distribution ESR

1. for meeting fluctuating daily demand

They finish the facility of storage of water for meeting the fluctuating daily demand

2. Pressure: To maintain the constant pressure in the mains

3. Economical:

They make the design & construction of treatment & distribution system economically

4. Storage of Emergencies:

- a) Break-down of pumps
- b) Bursting of mains
- c) Heavy fire demand
- d) Interruption in power supply

5. Pump rate

The provision of the reservoir makes to run pumps at uniform rate in case of gravity system the provision of these reservoirs will result in mains of smaller diameter

9.2 Suitability of Construction

1. Combined Gravity and Pumping system if adopted from W.T.P & from E.S.R. The water is supplied to distribution network under gravity.
2. When there is necessity of Pressure requirement.

9.3 Accessories of ESR:

1. Inlet pipe: for the entry of water
2. Manhole: to provide the entry to the inside of the Reservoir for inspection
3. Outlet Pipe: For exit of water
4. Ventilator: for circulation of air
5. Washout Pipe: Removing water after cleaning of reservoir



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6. Water Level Indicator: to know the level of water inside the tank
7. Overflow Pipe: for the exit of water above full supply level.



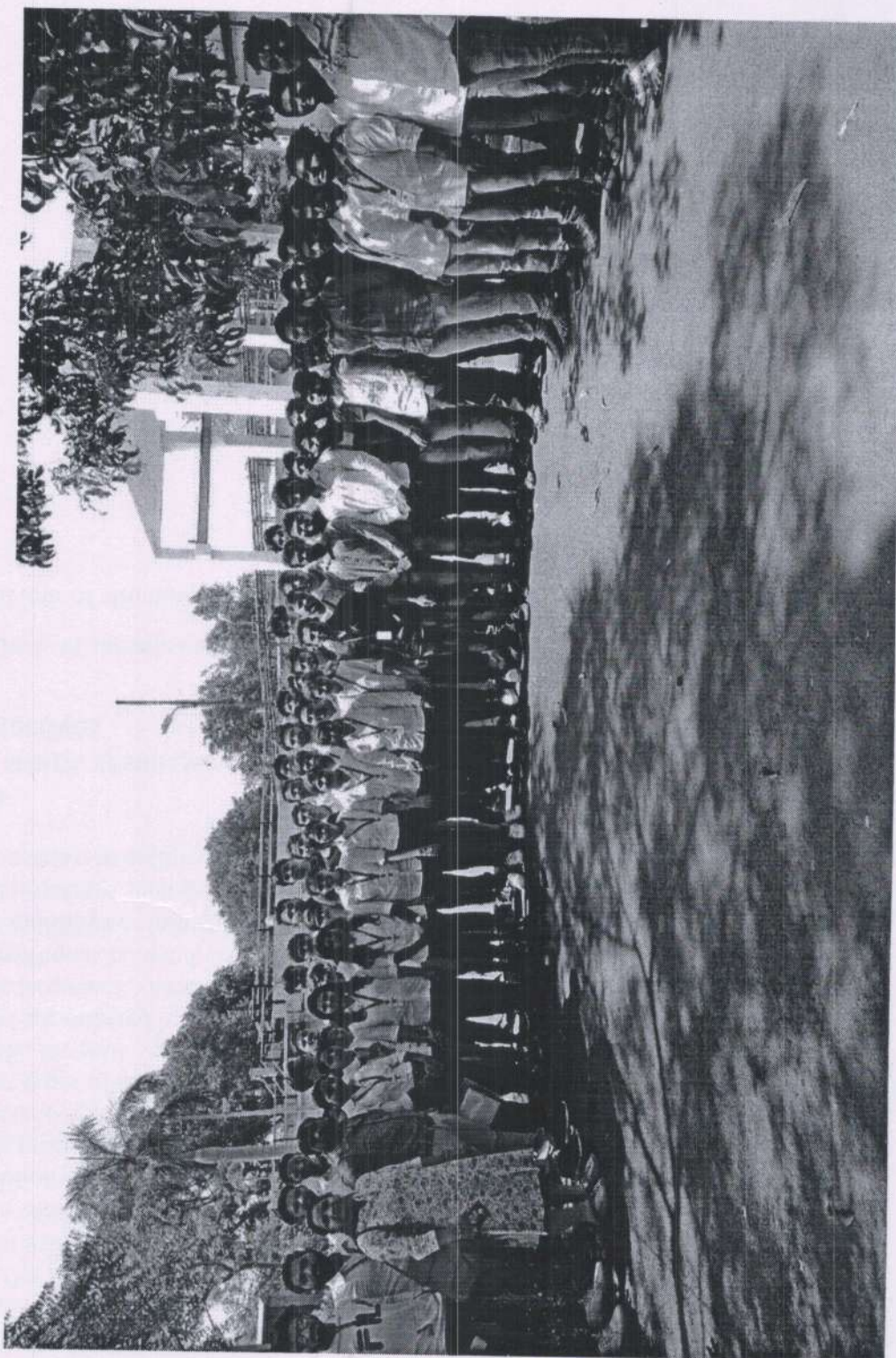
View of ESR

10. Distribution network:

The function of carrying the water from the treatment plant to the individual homes is done through the well planned distribution network.

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TE CIVIL BATCH 2018-2019



Sub: Environmental Engineering I,
Under the Guidance of Prof. Arun D. Sankpal



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25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering



Date-20/02/2019

SITE VISIT NOTICE

All the students of B.E. are hereby informed that site visit to Visit to Koyna Dam has been arranged on **23/02/2019**. All Students must be present at 10 am sharp in college premises.

NOTE:

- **STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM**
- **STUDENTS SHOULD CARRY WATER BOTTLE,CAP, SHOES etc**
- **ATTENDANCE IS COMPULSORY**

Prof.Priyanka Garsole

(Faculty coordinator)

Prof.Rahul Hodage

HOD

Head of the Department

CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering

25/1/3, Balewadi, Pune-411045





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Founder President **Shri Rambhau Moze**

Ref. No. GSM/COE/DEC/2018/682

Date 10/12/2018

To,

Chief Engineer/Executive Engineer
Irrigation Department,
Pune

Subject: Permission for students visit to koyana dam


Respected Sir/Madam,

We are one of the reputed institutes offering various technical degree courses approved by AICTE Delhi, Govt of Maharashtra, DTE and affiliated to Savitribai Phule Pune University (SPPU).

With reference to above mentioned subject as per the course curriculum for the subject visit is aimed at enhancing their knowledge. We intend to take a round of the entire Hydro-power station, dam structure such as gallery, spillways, canals, lake tapping etc and show the tasks handled in different departments to our students.

It's a kind request to grant us permission for the same along with 130 students and 5 faculties on any working day as per your convenience (tentatively 1st feb to 20 Feb). We will be thankful if you do the needful and allot us Incharge person who will explain us in detail about models.


Priyanka Garsole
Dept Coordinator
(8149298837)


Rahul Hodage
HOD Civil

Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.
(9021043275)


Dr. Abhijeet Auti
Principal





2018-19) BE/DHS/site visit

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Founder President: Shri Rambhau Moze

Ref. No.:

Date: 23/02/2019

To

Executive Engineers

Koyna Irrigation Department,
Koynanagar

Subject: Letter of thanks for Permission & Guidance for **Koyna Dam** Visit

Respected Sir,

The GENBA SOPANRAO MOZE TRUST is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank for allowing and guiding our BE Civil students at **Koyna Dam**. Our BE (Civil) students want to thank you again for giving the opportunity to study and understand the actual design considerations at site. We really appreciate the time spend with our students and information shared by you.

We hope our students received precious knowledge in **Dams & Hydraulics Structure (DHS)** from you. Thanking you.

Yours,

[Signature]

Head

Department of Civil Engineering

**Head of the Department,
CIVIL ENGINEERING**

**Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.**



[Signature]
Principal,
GSMCOE, Balewadi, Pune

PRINCIPAL

**Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, Pune-411 045**

[Signature]
23/2/2019

उपकार्यकारी अभियंता
कोयना सिंचन विभाग
कोयनानगर

परिपत्रक

शाखाधिकारी, वारणा पाटबंधारे शाखा
वारणावती, यांचे कार्यालय
दिनांक : २६/०२/२०१९

प्रति, २१५००००
U GSMCOE Balewadi
Pune

विषय :- वारणा धरण व परिसर पाहण्यास परवानगी मिळणेबाबत
संदर्भ :- आपला दिनांक २६/०२/२०१९ चा विनंती अर्ज.

संदर्भिय पत्रान्वये आपल्या समवेत असणाऱ्या२.... व्यक्तींना दिनांक २६/०२/२०१९ रोजी वारणा धरण (वारणा प्रकल्प) परिसर पाहण्यास शासनाच्या प्रचलित नियमास व अटीस आधीन राहून परवानगी देणेत येत आहे.

धरण व परिसर पाहताना खालील अटींचे पालन करावे.

- १) धरण व परिसर पाहतेवेळी आपल्या कुटुंबाची / विद्यार्थ्यांची सुरक्षिततेची जबाबदारी पूर्णतः अर्जदार / प्राचार्य / संबंधित महाविद्यालयाच्या संस्थेवर राहिल.
- २) धरण स्थळी छायाचित्रण करू नये. नोबाईल व कॅमेरा वरती नेण्यास सक्त मनाई आहे.
- ३) धरणक्षेत्र फक्त दिवसा सकाळी ९.०० ते सायंकाळी ५.०० वाजेपर्यंतच पाहणेस परवानगी असून रात्रीच्या वेळी धरण स्थळावर राहण्याची अनुमती राहणार नाही.
- ४) धरण क्षेत्रामध्ये कोणत्याही प्रकारचे नुकसान होणार नाही त्याची दक्षता घेण्याची आहे. नुकसान झालेस कायदेशीर कारवाई केली जाईल. धरण स्थळ पाहत असताना आपणास कसल्याही प्रकारचा धोका झाल्यास पाटबंधारे खाते जबाबदार राहणार नाही.
- ५) धरणावती खाजगी वाहने सोडता येणार नाही.
- ६) धरणाच्या पाणी साठ्यात पोहण्यास अगर उतरण्यास मनाई असून याची संपूर्ण जबाबदारी संबंधित अर्जदार / प्राचार्य यांची राहिल.

या अटीवर परवानगी देण्यात आलेली आहे.

सोबत :-

व्यक्तीची यादी

हकूमावरून

प्रत :- वारणा धरण स्थळ, पाटबंधारे कार्यालय चांदोली यांना, सदर धरण पाहणेस परवानगी दिलेल्या खाजगी व्यक्ती / कुटुंब / विद्यार्थी / शिक्षक यांचे धरण पाहणे परवानगी रजिस्टरमध्ये नोंद करून व स्वाक्षरी घेऊन त्यांना धरण पाहणेस मार्गदर्शन व सहकार्य करावे.





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Founder President: Shri Rambhau Moze

Ref. No.:

Date: 23/02/2019

To

Executive Engineer,

Kolhapur Irrigation Division,
North Kolhapur

Subject: Letter of thanks for Permission & Guidance for **Chandoli Dam** Visit

Respected Sir,

The GENBA SOPANRAO MOZES TRUST is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

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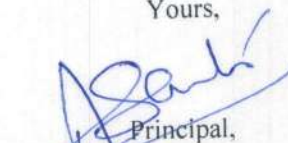
We hope our students received precious knowledge in **Dams & Hydraulics Structure (DHS)** from you. Thanking you.

Yours,



Head

Department of Civil Engineering
Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.




Principal,
GSMCOE, Balewadi, Pune

PRINCIPAL
Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, Pune-411 045


शाखा लिपिक
वारणा भद्रधारे शाखा,
वारणावर्दी



Genba Sopanrao Moze Trust's
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

Balewadi, Pune - 411045.

Civil Engineering Department

Create competent Socially Responsible Civil Engineers

Academic Year 2018-2019

Site Visit Attendance - DHS

Date: 25 & 26 Feb 2019

Sem - II

Class - BE (A div)

Sr.No.	Roll No.	Names of students	Sign
1	A - 1	ARUN SINGH	
2	A - 2	AUDGE ASHWINI ATMARAM	
3	A - 3	BHORE VAISHNAVI VIVEKANAND	
4	A - 4	BHOSALE DIGVIJAY DATTATRAY	
5	A - 5	BHOSALE SHREYASH SUDHIR	
6	A - 6	BIRADAR POOJA SHRIRAM	
7	A - 7	CHAUHAN KRISHNAMOHAN R	
8	A - 8	CHOUGULE ANIKET SUNIL	
9	A - 9	CHOUGULE SOMESH SHIVAJI	
10	A - 10	DABHOLKAR SOHAM RAJENDRA	
11	A - 11	DESHMUKH RAJWARDHAN	
12	A - 12	DEVKAR SHUBHAM RAJABHAU	
13	A - 13	FARANDE MAYUR NAMDEO	
14	A - 14	GANDHI GAURAV HARSHAD	
15	A - 15	GOPALE NIKHIL MANISH	
16	A - 16	HIPPARGI SHADAAB NAUSHADALI	
17	A - 17	HULAWALE PRATIK	
18	A - 18	JADHAV AKASH VENKATESH	
19	A - 19	JADHAV PRAVIN VILAS	
20	A - 20	JAGDALE SUHAS SHIVAJI	
21	A - 21	JAMDADE DNYANESH SHIVAJI	
22	A - 22	KABUTARE PRASHANT KISAN	
23	A - 23	KADAM VISHAL DATTATRAY	
24	A - 24	KAKADE ARJUN RAGHUNATH	
25	A - 25	KAMBLE PANKAJ RAJESH	
26	A - 26	KANAME ABHIJEET BALAJI	
27	A - 27	KHAIRE AKSHAY BHANUDAS	
28	A - 28	KHATATE VINIT DINESH	
29	A - 29	KONJARE CHANDRAKANT P	
30	A - 30	KUMAR PANKAJ KUMAR PAL S	
31	A - 31	LOKHANDE AMOL VITTHAL	
32	A - 32	MOHITE ROHIT DNYANESHWAR	
33	A - 33	PAKHLE ROHAN SHRIKANT	



34	A - 34	PALKAR DAYANAD TUKARAM	
35	A - 35	PATIL PRASAD NITIN	
36	A - 36	RAHUL VITHOBA BOTRE	
37	A - 37	RAJPUT KIRAN NANA	
38	A - 38	RAJPUT MANTHAN D	
39	A - 39	RAKSHE SURAJ VASANT	
40	A - 40	RATHOD PRAGATI PARASRAM	
41	A - 41	RAUT AJAY PANDURANG	Ajay
42	A - 42	RAUT AVINASH G	
43	A - 43	ROHAN SHIVAJI NAIKWADI	
44	A - 44	ROSHNI DEVCHANDRA NINGTHOUJAM	
45	A - 45	SAGAR PRATHAM DILIP	
46	A - 46	SAMAGE VIJAY RAJU	
47	A - 47	SANAP AVINASH GANPAT	
48	A - 48	SANE AMIT VIJAY	
49	A - 49	SASTE SAGAR RAJARAM	
50	A - 50	SHINDE APURVA	
51	A - 51	SHINDE JYOTI SURESH	
52	A - 52	SHINDE MAHESH VILAS	
53	A - 53	SHINDE NIKHIL LAXMAN	
54	A - 54	SHINDE ROHIT MADHAVRAO	
55	A - 55	SHUBHAM SUDHIR NAGARKAR	
56	A - 56	TANDALE KISHOR HARIBHAU	
57	A - 57	VATTE BHUSHAN NAGESH	
58	A - 58	WALKE MANDAR SANJEEV	
59	A - 59	WANKHEDE ANKIT SANJAY	
60	A - 60	WANVE PRITI NARAYAN	
61	A - 61	WARADE TUSHAR GAJANAN	
62	A - 62	WARUDKAR SANCHIT ANILKUMAR	
63	A - 63	ZINJADE KIRAN SURESH	
64	A - 64	BANSODE RANJANA RAMESH	
65	A - 65	BHANDARE KISHOR	
66	A - 66	LAXMINARAYAN	
67	A - 67	CHOU DHARI GAURI BHAGAWAT	
68	A - 68	DIDWAGH DHANAJI HANMANT	
69	A - 69	GHOLAVE MAHESH	
70	A - 70	GORE MARUTI DAGADU	
71	A - 71	HAWALDAR KETAN	
72	A - 72	HINDRE SWAPNIL	
73	A - 73	JADHAV ROHAN ASHOK	
74	A - 74	JAGIRDAR A. MOHID A. NAJIB	
75	A - 75	JALKOTE SHWETA V.	
76	A - 76	KAPSE SAGAR ANKUSH	

77	A - 77	KULKARNI RUSHIKESH	
78	A - 78	LOMATE PRITAM	
79	A - 79	MAHAJAN SHARDUL	
80	✓ A - 80	MANMODE SAURABH	
81	A - 81	MUNDE NILESH SHIVAJIRAO	
82	A - 82	MURTADAK SHUBHAM	
83	A - 83	NAGE AKSHAY	
84	✓ A - 84	NAKHATE NIKHIL	
85	A - 85	NANAVARE SANKET	
86	A - 86	NEAVASE PRUTHIVIRAJ	
87	A - 87	NITIN DATTARAY AMBHORE	
88	A - 88	PANCHAL PRAMILA	
89	A - 89	PANZADE ANIKET	
90	A - 90	PATKAR SUMANT	
91	A - 91	PAWAR KAUSTUBH	
92	✓ A - 92	NANDKISHORE	
93	A - 93	RAUT AJINKYA DHANRAJ	
94	A - 94	RAUT GAURAV GULAB	
95	A - 95	SAID KAJAL	
96	✓ A - 96	SANGLE BABURAO	
97	✓ A - 97	SAPARIYA BAVESH	
98	✓ A - 98	SHAIKH MUBARAK SIRAJ	
99	A - 99	SHINDE SHREYASH VINOD	
100	A - 100	SHINDE SURAJ TANAJI	
101	A - 101	SWAMI VAISHNAVI	
102	A - 102	TARATE KRISHNA	
103	✓ A - 103	WAGHMODE PRUTHVIRAJ	

Priyanka Garsole
Subject Teacher

Asst. Prof. Priyanka Garsole

Rahul Hodge
HOD

Asst. Prof. Rahul Hodge

Head of the Department
ENGINEERING

Genba
25/1/15, Balewadi, Pune-411045



Akshay Anil Kshirsagar
Prajakta Kakade

Akshay
Prajakta



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Date:23/02/2019

To,
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Kolhapur Irrigation Division,
Kolhapur

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(Faculty coordinator)

Prof. Rahul Hodage

Hod

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr. A.B. Auti

(GSMCOE, Balewadi)

PRINCIPAL

Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, PUNE-411 045





Genba Sopanrao Moze college of Engineering, Balewadi
Department of Civil Engineering

Visit Report

Visit Location: Koyna Dam & Chandoli (Varna) Dam

Report Submitted by: Ms. Priyanka Garsole

Subject: Dams & Hydraulic Structure (DHS)

Visit Date: 25 & 26 Feb 2019

Under course curriculum requirement of Dams & Hydraulic Structure, BE Civil (SPPU), our BE Civil students visited to Koyana Dam & Warna Dam. Koyna dam is situated at Koyna Nagar, Satara District, nested in Western Ghats, on state highway between Karad & Chiplun.

Koyna is massive rubble-concrete gravity dam. It is known one of the largest projects in Maharashtra. Its construction started in 1956 and completed on 1964 by Govt of Maharashtra. Catchment area impounds the Koyna river and forms Shivasagar Lake which approximately 50 kms in length. Dam plays major role in controlling flood in monsoon season. Koyna is the largest completed hydroelectric power plant in India, which has total installed capacity of 1960 MW.

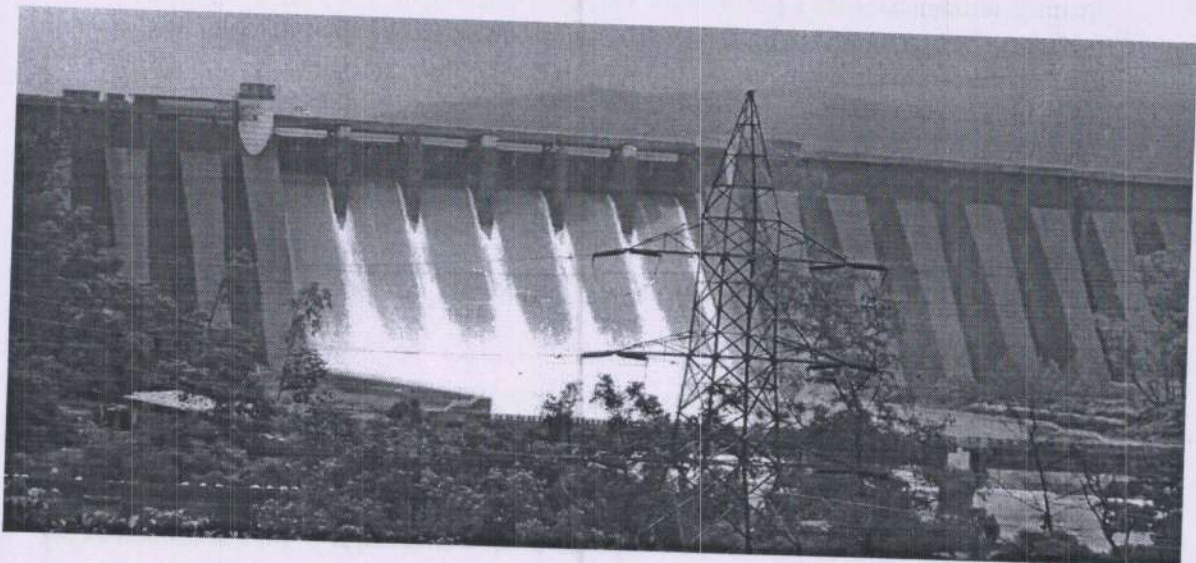


Fig.(a) Koyna Dam Spillways



The total height of dam is 103.2 m (3389 ft) & length is 807.2 m (2648 ft). Spillway of the dam is located at the centre. It has 6 radial gates to discharge water to downstream.

Hydropower Generation:

Stage 1: 4*70 MW (Since Feb 1963)

Stage 2: 4*75 MW (Since March 1966)

Stage 3: 4*80 MW (Since 1977)

Stage 4: 4*250 MW (Since 1988)

Koyna dam foot power house: 2*20 MW.

There are total 8 Pelton & 10 Francis turbines. Hydropower plant is having 1960 MW installed capacity.

Day 1: Students visited Koyna dam. Information about dam site, gravity cross section, capacity & discharge schedule and energy dissipation structure was given to students by junior engineers & faculty from WRE, Asst. Prof. Priyanka Garsole.

Video demonstration about construction stages, lake tapping & other details information about dam was given to students at Nehru Garden situated nearby. This garden is developed for providing information about dam site along with photographs, video demonstration, backwater view & aesthetic purpose.

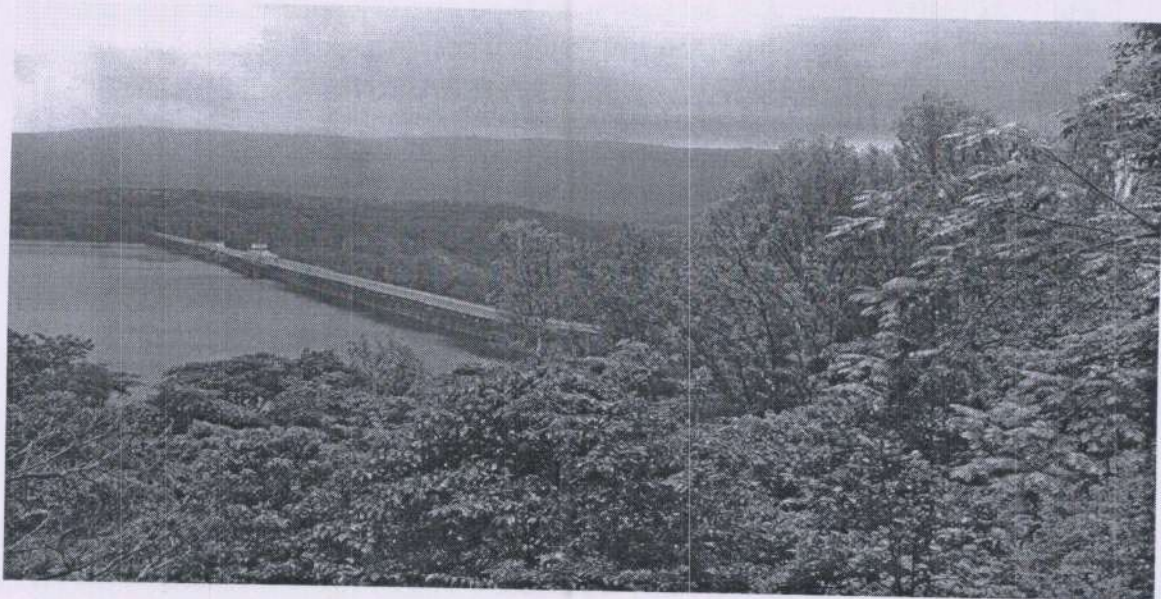


Fig.(b) Koyna Backwater



Day 2: Students visited Chandoli dam; an earthen dam situated in Satara District. Its construction started in 1976. The dam is built on Varna river which forms a boundary between Satara & Kolhapur District.

Chandoli dam is one of the oldest earthen dam in country; having its upstream & downstream slopes protected with stone pitching. There are berms provided on downstream face for slope protection at certain constant interval. Chandoli dam having concrete gravity non-overflow section with radial gates inserted on it. There are 4 radial gates provided for the discharge of water to downstream.

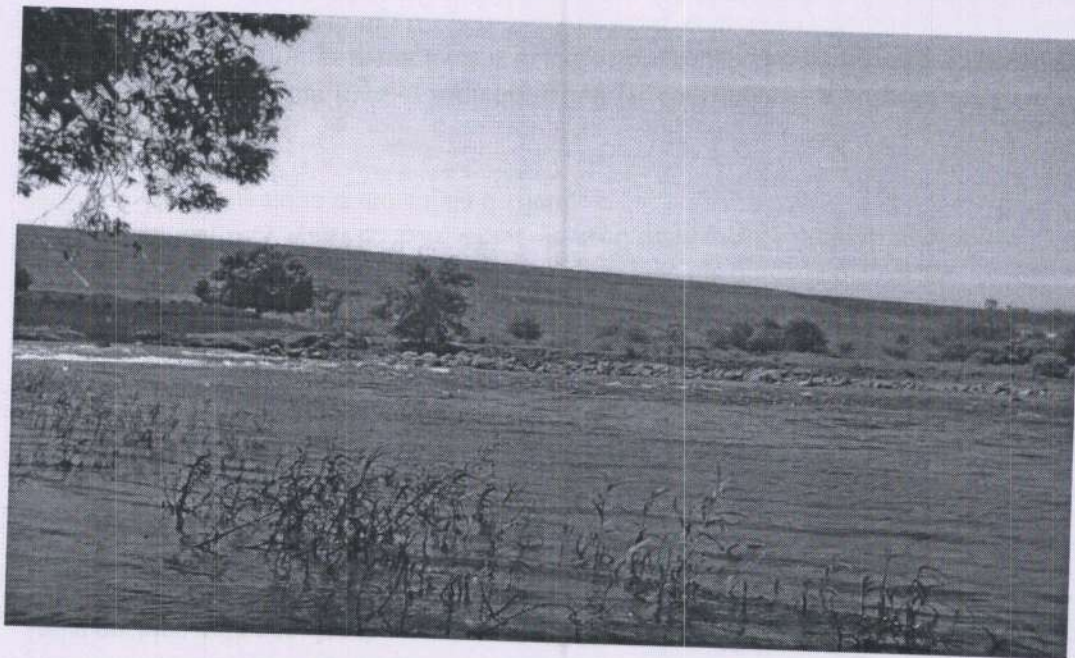


Fig. (c) Chandoli Dam Upstream side



Subject Incharge

Asst. Prof. Priyanka Garsole



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Website: www.gsmozece.co.in Email: gsmoze@yahoo.co.in
Department of Civil Engineering

Date: ___ / ___ / ___


NOTICE

All the students of B.E. are hereby informed that, your site visit of Construction Management subject has been arranged on 03/04/2019 at western Avenue wakad. So all of you have to be present in college at 10.30 am sharp.

Site Address: *Next to Ford Motors Showroom, Near Sayaji Hotel, Pune-Mumbai By Pass,, Wakad, Pimpri-Chinchwad, Maharashtra 411057*

Note :

- STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM with Id card
- STUDENTS SHOULD CARRY WATER BOTTLE, CAP, SHOES etc
- ATTENDANCE IS COMPULSORY


Faculty Coordinator

Rahul Hodage


HOD

**Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.**





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Founder - President : **Shri Rambhau Moze.**

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S. No. 25/1/3, Balewadi, Pune - 45. Telephone : (020)27290500, Fax : (020)27290500, E-mail : gsmoze@yahoo.co.in

Ref. No.: GSM/COE/2019/APRIL/57

Date : 02/04/2019

To

Project Manager,

Western Avenue,

Waked, Pune

Subject: Regarding visit to Construction site

Respected Sir/Ma'am,

We are one of the reputed institutes offering various Technical Degree, Diploma and Post Graduate Courses, approved by AICTE Delhi, Govt. of Maharashtra, DTE and affiliated to Savitribai Phule Pune University (SPPU).

With reference to above mentioned subject above as per the course curriculum for the subject **Construction Management** of Final year students, we would like to arrange a visit to your construction site (**Western Avenue, Wakad**) and to know the information about the management at site.

It's a kind request to grant us permission for the same along with students and faculties on any working day as per your convenience (tentatively in April 1st week). We will be thankful if you do the needful and allot us in-charge person who will explain us in detail the information given below.

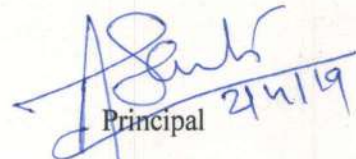
- Project Cash Flow Analysis.
- Project Balance Sheet.
- Work Break Down Structure. (WBS)
- Materials Flow System in the Project.

Thank you in advance.


H.O.D.

Prof. Rahul Hodage
(9021043275)

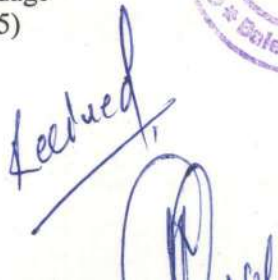



Principal 24/19

Dr. A. B. Auti

PRINCIPAL

Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, Pune-411 045





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Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in
Department of Civil Engineering

Date: 03/04/2019

To,
Project Manager
Western Avenue,
Wakad, PCMC
Subject:- Thanks Letter

Dear Sir,

We at the Genba Sopanrao Moze College of Engineering, Balewadi, would like to thank to you for the valuable contribution you made during the site visit at Western Avenue Wakad.

We appreciate the time you took out of your busy schedule to join us and thank you for sharing your insights and expertise with our attendees. Your willingness to volunteer your time, energy and support is greatly appreciated.

HOD

**Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.**



SITE VISIT REPORT

Name of Site: Western Avenue by Kolte Patil

Address: Wakad,
Pimpri Chinchwad- 411057

Date of Visit: Wednesday, 3rd April 2019

Name of Guide: Mr. Pankaj Chaudhary (Quality Manager)
Mr. Nilesh Kharche (Store In-charge)

Faculty Guide: Prof. Rahul Hodage
Prof. Rajesh Patil

Objective:

To study the ERP module utilised on site with the focus on Aspects of Material Management, Construction Scheduling, Cash Flow Analysis, Balance Sheet and Work Breakdown Structure.

Introduction:

As per the syllabus of the subject Construction Management, students of BE Civil from GSM COE visited a construction site in progress. We gathered in the college premises and then travelled to the site. The site is named 'Western Avenue' and is being developed by Kolte Patil Developers. It is located in Wakad near Sayaji Hotel along the Bangalore Highway. We were guided by Mr. Pankaj Chaudhary who is a Quality Manager at the site and Mr. Nilesh Kharche who is the store in-charge.

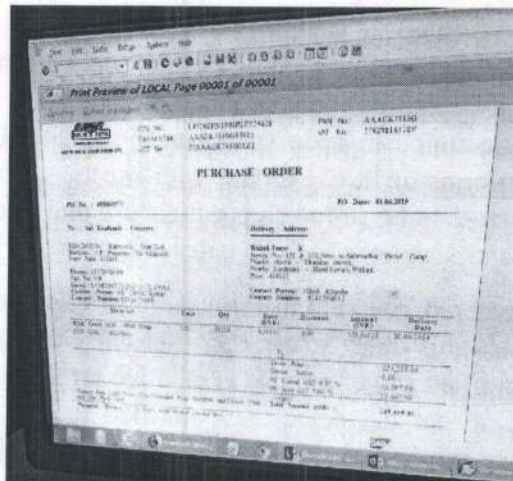
The site, spread over 35 acres, is a residential township with a few commercial spaces. A Sewage Treatment Plant and a Water Treatment Plant has also been provided. The work of the residential units is underway and a few of the wings are yet to be developed. The STP unit is being developed. The WTP unit however is operational. An extensive firefighting system has also been provided using High

Material Flow System in Project:

A proposal for any project includes the detailed design drawing and the approximate material requirements and the specifications of material and technical requirements. An approximate estimate of material quantities and specifications by PMC methods including wastage is downloaded to SAP before the project work is initiated. If there is more than one phase of work each independent structure is assigned a Plan Number. In every plan each activity is designated according to priority and the relative position in the construction schedule. The materials are coded in the system according to the grades and quality. SAP is linked with activity and the quantities are well defined for every activity

Material Purchase:

When the engineer opens an activity a Purchase Requisition (PR) is filed for the required quantity using material code is sent out to the Purchase Department. For economy in purchase the Purchase Order (PO) is sent out in bulk to contractors. Now, the order can be sent directly to Purchase or a dual release by the Project Manager (PM) and the Chief Engineer can be set up for activity confirmation.



The Purchase Order is sent from the Head Office; however, the selection of the supplier is being automated through SAP. A list of suppliers is attached to every code of material. When a PO is to be filed the system automatically identifies the most reliable and economical supplier and the PO is sent out to them once approved. The project delivery cycle for every material depends on the quantity, quality specification, supplier, mode of transport, etc. The typical delivery cycle for Cement is 45 to 50 days at the site. Thus, the PR for every activity is filed in advance.

Material Quality Check and Storage:

When the delivery of the material reaches the gate, a MIGO (Movement in Goods Out) entry is booked in SAP. This MIGO entry generates a Goods Received



KOYTE-PATIL GROUP
MATERIAL ISSUE SLIP

No. 3384 DATE: 03/04/14
 To store: M/resh SITE: M/8/da
 Issued to Contractor: Rubej Sanitation
 Through his representative: Pam

Sl. No.	ITEM WITH SIZE	Qty	Orig. No. Location
X	7" PVC End caps	300	MS
X	4" PVC End caps	200	MS
X	1/2" x 1/2" R. bulb PVC	150	MS
X	1" x 3/4" R. bulb PVC	100	MS

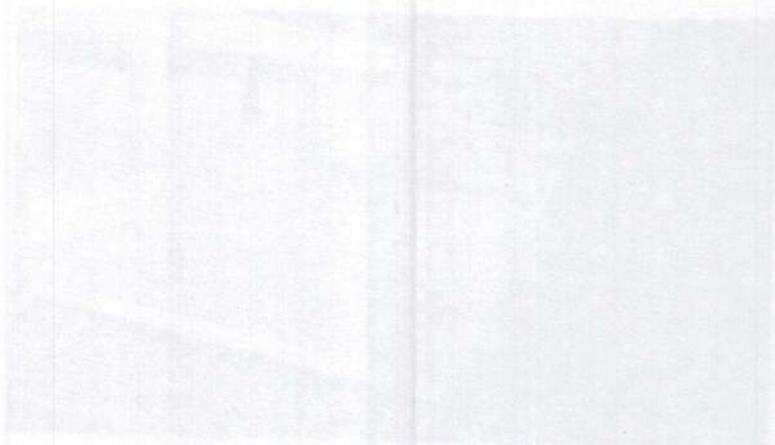
ISSUED BY: [Signature] STOREKEEPER: _____
 RECD. BY: _____ SUPERVISOR: _____

Material Consumption:

The contractor is expected to consume the material issued to them for a particular activity. It is recommended that the specified quantities be used in every activity however the engineer can authorize changes in specification. A consumption report is filed upon completion of activity by booking a MIGO entry. The report contains the actual quantity of material that was used for the activity, and changes or corrections if any are mentioned in the report. If a smaller quantity of material was consumed in an activity, the remaining material can be used in other activities and must be mentioned in the corresponding reports.



released. Once the work for the full project is handed over, the remaining payment is calculated. Any defects are penalized and the final payment may be processed.



Advantages:

- ❖ Total project cost against a plan no or project no. is instantaneously available, even for a particular flat.
- ❖ Management can keep track of multiple sites. All modules are connected and thus a senior level authority can keep track of work with various regular reports; daily cross checking, reconciliation, schedule, planning can be verified
- ❖ Alerts are sent to management for any suspicious activity.
- ❖ Shelf life for material can be specified; alerts for better reconciliation and efficient use can be set up.



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Civil Engineering Department

Academic Year 2018-2019

BE Students Roll Call

Class - BE

DIV A

Site visit attendance

Roll No	Names of students	Sign
A-01	ARUN SINGH	
A-02	AUDGE ASHWINI ATMARAM	<i>Audge</i>
A-03	BANSODE RANJANA RAMESH	<i>Bansode</i>
A-04	BHANDARE KISHOR	<i>Bhandare</i>
A-05	BHORE VAISHNAVI VIVEKANAND	<i>Bhore</i>
A-06	BHOSALE DIGVIJAY DATTATRAY	<i>Bhosale</i>
A-07	BHOSALE SHREYASH SUDHIR	<i>Bhosale</i>
A-08	BIRADAR POOJA SHRIRAM	<i>Biradar</i>
A-09	BOTRE RAHUL VITHOBA	<i>Botre</i>
A-10	CHAUHAN KANHAYA LAXMINARAYAN	<i>Chauhan</i>
A-11	CHAUHAN KRISHNAMOHAN R	<i>Chauhan</i>
A-12	CHOUDHARI GAURI BHAGAWAT	<i>Choudhari</i>
A-13	CHOUGULE ANIKET SUNIL	<i>Chougule</i>
A-14	DABHOLKAR SOHAM RAJENDRA	<i>Dabholkar</i>
A-15	DESHMUKH RAJWARDHAN	<i>Deshmukh</i>
A-16	DEVKAR SHUBHAM RAJABHAU	<i>Devkar</i>
A-17	DIDWAGH DHANAJI HANMANT	<i>Didwagh</i>
A-18	FARANDE MAYUR NAMDEO	<i>Farande</i>
A-19	GANDHI GAURAV HARSHAD	<i>Gandhi</i>
A-20	GARJE VIVEK	<i>Garje</i>
A-21	GHOLANE MAHESH	<i>Gholane</i>
A-22	GOPALE NIKHIL MANISH	<i>Gopale</i>
A-23	GORE MARUTI DAGADU	<i>Gore</i>
A-24	HINDRE SWAPNIL	<i>Hindre</i>
A-25	HULAWALE PRATIK SHIVAJI	<i>Hulawale</i>
A-26	JADHAV AKASH VENKATESH	<i>Jadhav</i>
A-27	JADHAV PRAVIN VILAS	<i>Jadhav</i>
A-28	JADHAV ROHAN	<i>Jadhav</i>
A-29	JAGDALE SUHAS SHIVAJI	<i>Jagdale</i>
A-30	JAGIRDAR A. MOHID A. NAJIB	<i>Jagirdar</i>
A-31	JAMDADE DNYANESH SHIVAJI	<i>Jamdade</i>
A-32	KABUTARE PRASHANT KISAN	<i>Kabutare</i>
A-33	KADAM VISHAL DATTATRAY	<i>Kadam</i>
A-34	KAKADE ARJUN RAGHUNATH	<i>Kakade</i>
A-35	KAMBLE PANKAJ RAJESH	<i>Kamble</i>
A-36	KANAME ABHIJEET BALAJI	<i>Kaname</i>
A-37	KAPSE SAGAR ANKUSH	<i>Kapse</i>



A-38	KETAN HAWALDAR	<i>Ketan</i>
A-39	KHAIRE AKSHAY BHANUDAS	<i>Akhair</i>
A-40	KHATATE VINIT DINESH	—
A-41	KONJARE CHANDRAKANT P	—
A-42	KULKARNI RUSHIKESH	<i>Kulkarni</i>
A-43	KUMAR PANKAJ KUMAR PAL S	<i>Kumar</i>
A-44	LOKHANDE AMOL VITTHAL	—
A-45	LOMATE PRITAM	—
A-46	MAHALE NEIL	<i>lomate</i>
A-47	MOHITE ROHIT DNYANESHWAR	<i>neil</i>
A-48	MURTADAK SHUBHAM	<i>mu</i>
A-49	NADAF FARUKH	<i>nadaf</i>
A-50	NAGE AKSHAY	<i>Nage</i>
A-51	NAIKWADI ROHAN SHIVAJI	—
A-52	NAKHATE NIKHIL	—
A-53	NANAVARE SANKET	—
A-54	NEAVASE PRUTHIVIRAJ	<i>neav</i>
A-55	PAKHLE ROHAN SHRIKANT	—
A-56	PALKAR DAYANAD TUKARAM	—
A-57	PANCHAL PRAMILA	<i>Panchal</i>

Rahul

Prof. Rahul Hodage
Faculty Coordinator

Rahul

Prof. Rahul Hodage

H.O.D

Head of the Department
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Balewadi, Pune - 411045.



Civil Engineering Department

Academic Year 2018-2019

BE Students Roll Call

Class - BE

DIV B

Site Visit Attendance

Roll No	Names of students	Sign
B-01	PANZADE ANIKET	
B-02	PATIL PRASAD NITIN	
B-03	PATKAR SUMANT	
B-04	PAWAR KAUSTUBH	
B-05	RAGHUVANSHI SHUBHAM NANDKISHORE	
B-06	RAJPUT MANTHAN D	
B-07	RAKSHE SURAJ VASANT	
B-08	RATHOD PRAGATI PARASRAM	
B-09	RAUT AJAY PANDURANG	
B-10	RAUT AJINKYA DHANRAJ	
B-11	RAUT GAURAV GULAB	
B-12	ROSHNI DEVCHANDRA NINGTHOUJAM	
B-13	SAGAR PRATHAM DILIP	
B-14	SAID KAJAL	
B-15	SAMAGE VIJAY RAJU	
B-16	SANAP AVINASH GANPAT	
B-17	SANE AMIT VIJAY	
B-18	SANGLE BABURAO	
B-19	SAPARIYA BAVESH	
B-20	SASTE SAGAR RAJARAM	
B-21	SHAIKH MUBARAK SIRAJ	
B-22	SHARDUL MAHAJAN	
B-23	SHELKE VAIBHAV	
B-24	SHINDE JYOTI SURESH	
B-25	SHINDE MAHESH VILAS	
B-26	SHINDE NIKHIL LAXMAN	
B-27	SHINDE ROHIT MADHAVRAO	
B-28	SHINDE SHREYASH VINOD	
B-29	SHINDE SURAJ TANAJI	
B-30	SHUBHAM SUDHIR NAGARKAR	
B-31	SWAMI VAISHNAVI	
B-32	TANDALE KISHOR HARIBHAU	
B-33	VATTE BHUSHAN NAGESH	
B-34	WAGHMODE PRUTHVIRAJ	
B-35	WALKE MANDAR SANJEEV	
B-36	WANKHEDE ANKIT SANJAY	
B-37	WANVE PRITI NARAYAN	



B-38	WARADE TUSHAR GAJANAN	warade
B-39	WARUDKAR SANCHIT ANILKUMAR	warud
B-40	ZINJADE KIRAN SURESH	zinz
P-01	MUNDE NILESH SHIVAJIRAO	munde
P-02	NITIN DATTARAY AMBHORE	nitin
P-03	RAJIKA GURAV	rajika
P-04	CHOUGULE SOMESH SHIVAJI	chou
P-05	HIPPARGI SHADAAB NAUSHADALI	—
P-06	RANGNATH RAMESH NARWADE	—
P-07	TUPE ANANT	tupe
P-08	SAURABH GAVALI	—
P-09	SHINDE APURVA	—
P-10	TARATE KRISHNA	—
P-11	RAJPUT KIRAN NANA	raju
P-12	DEVANSH AJAYKUMAR DESHMUKH	—
P-13	SACHIN SHETE	sachin
P-14	SHARDUL THIGALE	shu
P-15	YELMAME VAIBHAV	yel
P-16	WAGH CHIRAG GULABRAO	wag
P-17	KULDEEP KATALE	katal
P-18	KATKEMOD POOJA SHIVDAS	—
P-19	KOKANE AISHWARYA AMOL	—
P-20	SHAIKH MAAZ	—
P-21	RAUT AVINASH G.	—

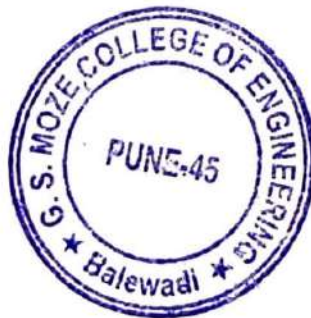
Rahul

Prof. Rahul Hodage
Faculty Coordinator

Rahul

Prof. Rahul Hodage
H.O.D

Head of the Department
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Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045



19/04/2019 / site visit

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Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in



Department of Civil Engineering

Date: - 01/04/2019

NOTICE

It is hereby informed to all TE (A & B) students that, Site visit of Structural Design II subject to RCC Residential Project is arranged on 2/4/ 2019 Tuesday.

All students must present at 11.30 am sharp at college premises.

NOTE:

- ❖ Students must present in college uniform
- ❖ Students should carry water bottle, cap and shoes.
- ❖ Attendance is compulsory

Faculty Incharge

Asst. Prof. Nivedita Thorat

Asst. Prof. Vinayak Kulkarni

N Thorat

V Kulkarni

Rahul

HOD

Prof. Rahul Hodage





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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. 020-27390500

Website www.gsmozecoe.org

Email gsmoze@yahoo.co.in

Founder President **Shri Rambhau Moze**

Date 26/03/2019

Ref. No. GSM/COE/2019/April/56

To, Project Manager

Western Avenue, Wakad

Subject : Regarding site visit permission of Structural Design II

Respected Sir,

We are one of the reputed institutes offering various technical degree courses approved by AICTE Delhi, Govt. of Maharashtra, DTE and affiliated to Savitribai Phule Pune University (SPPU).

With reference to above mentioned subject as per the course curriculum for the subject **Structural Design II** of Third year student of Civil Engineering Department, we would like to arrange a site visit to ongoing RCC construction.

It's a kind request to grant us permission to visit the site along with 150 students and 2 faculty members on any working day as per your convenience on tentative duration (28th March or 29th March 2019). We will be thankful if you do the needful and allow us In-charge person so that he can explain the details about site.

Thanking you.

Nivedita Thorat

Nivedita Thorat

Contact Person

(7721819160)

Rahul Hodge
26/03/19

Rahul Hodge

Head of the Department,
H.O.D
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.

Dr. Abhijeet Auti

Dr. Abhijeet Auti

Principal

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045



Dr. Abhijeet Auti
02/04/19

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Balewadi, Pune - 411045.



Civil Engineering Department
Academic Year 2018-2019
Site visit attendance TE A

Roll No	Name of Student	Sign
1	ATTARDE BHUSHAN ANIL	Anil
2	AVHAD SHUBHAM BHASKAR	Avhad
3	BAJABALE SAGAR DINKAR	S.D. Bajabale
4	BANDE BASWESHWAR SANJAY	B. B. Bande
5	BANKAR PRIYA SUBHASH	Priya
6	BELVALKAR SURBHI SUNIL	B. Surabhi
7	BHUNDE GANESH PANDHARINATH	
8	BIRADAR GEETASHRI BALAJI	
9	BIRAJDAR AKASH BHIMRAO	Akash
10	BOBADE AKSHAY ANANT	Akshay
11	CHATE SACHIN RAMCHANDRA	
12	CHAVAN SHUBHAM PRADIP	Shubham
13	CHENDKE AMAR SHIVAJI	
14	CHIPPA NITESH VYANKATESH	
15	CHONDHE SHUBHAM NAMDEV	
16	DAGADE SHUBHAM PANDURANG	Dagade
17	DANGADE SHUBHAM DHANRAJ	
18	DARSHALE SURAJ ASHOK	Suraj
19	DESHMUKHE ADITYA VIVEKANAND	
20	DESHPANDE DURGESH GANESH	
21	DEVDADE ADINATH BALASAHEB	
22	DHAINJE SOURABH RAVINDRA	Sourabh
23	DHANGAR AKSHAY KASHIRAM	Dhangar
24	DHONDDEV PRATIK RAJU	
25	DIXIT SHUBHAM SHIRISH	Dixit
26	DONGALE SANGRAM TANAJI	
27	DUTARE SACHIN SANTOSH	Sachin
28	EDAKE BHUSAN VILAS	E. D. Vilas
29	GAIKWAD PRASHANT PANDHARINATH	
30	GAJARE SIDDHARTH ANIL	Gajare
31	GAWADE DHANANJAY SUBHASH	
32	GAWALI ROSHANI BHANUDAS	R. Gawali
33	GHADGE SAURABH SUMITRA	
34	GORE SHRIKANT SHIWANNA	
35	HIRAVE VISHAL SHIVAJI	V. S. Hirave
36	HIROY POOJA PADMAKAR	Pooja
37	HULPALLE CHAITANYA RAJKUMAR	
38	JUNGHARE JAYASHREE GAJANAN	
39	KADAM OMKAR SHANTARAM	
40	KALBHOR RUSHIKESH SATISH	Satish
41	KALOKHE KALYANI NANSASHEB	
42	KAMBLE NARESH BHAGWAN	Naresh
43	KAMBLE SHRADDHA RAMESH	
44	KANAWADE PRADNYA SUBHASH	Pradnya
45	KASHID VEERA UPKAR	Veera



Roll No	Name of Student	Sign
46	KATE ROHAN RAJU	Kate
47	KHARAMBALE SURAJ RACHANA	S.R.K
48	KHEDKAR YOGESH SOMNATH	Yogesh
49	KOKARE SURAJ POPAT	Suraj
50	LABDE RISHIKESH HANUMAN	R.H.L
51	LAMHADE AJAY DILIP	Ajay
52	MAGARE RAMABAI NAMDEV	R.P.M.
53	MASKE SHUBHAM MANOJ	S.M.M
54	MOHITE VISHAL RAMESH	Vishal
55	MORE VIKAS CHANDRAKANT	V.K.C
56	MORE RAVINDRA GORAKH	R.G.M
57	MULE SHRIDHAR DATTA	Mule
58	NAGANE TANMAY PRADIP	T.P.D.
59	NARHARE RUSHIKESH DHARAMPAL	Rushikesh
60	NATAMBE AKSHAY ANKUSH	
61	NIKAM ROMA YASHWANT	
62	NILEWAR SURESH RAJARAM	
63	PADAWAL NILESH SHAN	
64	PAWAR YOGESHVAREE LAXMAN	
65	THETE PRAJWAL VILAS	Prajwal
66	SURAJ SHRIKISHAN BADADE	S.S.B
67	SIRSAT GANESH	Ganesh
68	TUSHAR TARADE	Tushar
69	YADAV SWAPNIL	Swapnil
70	BUDALE AMOL	Amol
71	KETAN CHOUDHARI	Ketan
72	KULKARNI CHAITANYA	
73	ABHANG AKASH SURESH	
74	BHAVSAR SHUBHAM	
75	DESHMUKH AISHWARYA	Aishwarya
76	HARIDAS AKSHAY JAYANT	
77	SHELKE PRASAD (F.E. 2012)	
78	MORE SANJAY	More
79	YOGESH NAIK	Naik
80	KOKATE PRASAD	Kokate

Thorat

Prof.Nivedita Thorat
Faculty coordinator

Rahul

Prof.Rahul Hodage
H.O.D

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045



Create competent Socially Responsible Civil Engineers
Genba Sopanrao Moze Trust's
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
Balewadi, Pune - 411045.
Civil Engineering Department
Academic Year 2018-2019
SITE VISIT ATTENDANCE - TE B



Roll No	Name of Student	Sign
1	PAGARE ARJUN DINESH	<i>Arjun</i>
2	PANDEY ASHUTOSH VINODKUMAR	<i>Ashu</i>
3	PARMAR VIREN RAMESH	<i>Viren</i>
4	PATEL HARSH HASMUKH	<i>Harsh</i>
5	PATIL RAJASHRI GULABRAO	<i>Rajashri</i>
6	PATIL MAMTA VISHWAS	<i>Mamta</i>
7	PATOLE SANKET BALU	
8	PAWAR KARTIK CHANDRASHEKHAR	
9	PAWAR ADITYA DASHRATH	<i>Aditya</i>
10	PAWNE ANAS MAQSOOD	
11	POL RACHNA RAVI	<i>Rachna</i>
12	POUL VIJAY RUPCHANDE	<i>Vijay</i>
13	RAJPUT SANGRAMSINGH RAJENDRASINGH	<i>Sangram</i>
14	RAKSHE SAURABH SUBHASH	
15	RANDHE SHRADDHA VIKAS	
16	RANE PRATIK PRABHAKAR	<i>Pratik</i>
17	RATHOD AMOL RAJARAM	
18	RATHOD VIKRAM BHIMRAO	<i>Vikram</i>
19	SANGOLKAR KIRAN PANDHARINATH	
20	SAPATE HANUMANT SHIVAJI	<i>Hanuman</i>
21	SARAF SWARALI ANANT	<i>Saraf</i>
22	SASANE HRUSHIKESH BALASAHEB	
23	SATHE VAIBHAV BHARAT	<i>Sathe</i>
24	SHENDRE SUMIT VINODRAO	
25	SHINDE AMIT BALASAHAEB	<i>Amit</i>
26	SHINDE CHETAN KASHINATH	<i>Chetan</i>
27	SHINDE SMITA KRISHNADEV	<i>Smita</i>
28	SHINDE RAMESHWAR RAJENDRA	<i>Rameshwar</i>
29	SHIRSATH PRATIK PRAHLAD	<i>Pratik</i>
30	SOLAPURE SAGAR SURYAKANT	<i>Sagar</i>
31	SONAWANE VISHAL BALASAHEB	
32	SONDE SAHIM ABDUL KARIM	<i>Sahim</i>
33	SONGIRE DARSHAN SURESH	
34	SONKAMBLE AJAY GANESH	<i>Ajay</i>
35	SURVASE SIDDHARTH MACHHINDRA	<i>Survase</i>
36	TAKAWANE SHUBHAM SUNIL	<i>Shubham</i>
37	TANDALE AKSHAY MANOHAR	
38	TAPKEER JAYDATTA KISHORE	<i>Tapkeer</i>
39	THIKEKAR PURVA DHARMANATH	
40	THORAT SWAPNIL KAILASH	<i>Swapnil</i>
41	UGALE MONIKA ASHOK	
42	UPADE PRANALI BALASAHEB	<i>Pranali</i>
43	VALECHHA MOHIT RAJESH	<i>Mohit</i>
44	VYAS ANAGHA AJAY	<i>Anagha</i>
45	WAGHMARE ASHOK VISHNU	<i>Waghmare</i>
46	YEDAVE AVINASH SUKHADEV	<i>Yedave</i>
47	CHAVAN ADITYA	
48	BADE APURVA UTTAM	<i>Bade</i>
49	GAIKWAD TEJAS VINOD	<i>Tejas</i>
50	GITTE MAHESH BAJIRAO	<i>Gitte</i>

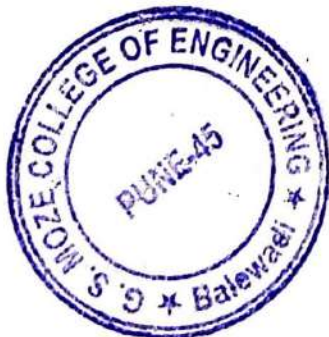


Roll No	Name of Student	Sign
51	GURAV ANIKET ANIL	<i>Ceuss</i>
52	JADHAV LAXMAN SIDRAMAPPA	<i>ms</i>
53	LOKHANDE SHIVANI BHAUSAHEB	<i>ms</i>
54	RAWADE LALESH RAOSAHEB	<i>ms</i>
55	SHAIKH AFTAB ANWAR	<i>ms</i>
56	SISODE VAIBHAV DILIPSING	<i>ms</i>
57	TONAGE NIKITA NAVANATH	<i>ms</i>
58	ZINJADE RAVINDRA SHIVAJI	
59	ALKUNTE KRISHNA ARJUN	<i>ms</i>
60	BACHHAV ROHAN RAVINDRA	<i>ms</i>
61	SONAWANE BHUSHAN LAXMAN	
62	AMOL K CHAVAN	<i>ms</i>
63	PAWAR SWAPNIL VIKAS	<i>ms</i>
64	KAUSTHUBH TATYASAHEB WALKE	<i>ms</i>
65	DHEERAJ VISHWAS SURYAVAMSHI	
66	ATUL JAWALE	<i>ms</i>
67	MAYUR NAKHATE	<i>ms</i>
68	SWARALI PAWAR	<i>ms</i>
69	EKHANDE MAHESH POPAT	<i>ms</i>
70	SHINDE VIVEK	<i>ms</i>
71	BIRAJDAR GURUSHANT SHANKAR	<i>ms</i>
72	MOHIT JAYBHAYE	<i>ms</i>
73	YANAMAWAR PRATIK	<i>ms</i>
74	CHONDHE AJINKYA MANOHAR	<i>ms</i>
75	DESHMUKH HITESH	<i>ms</i>
76	ANIKET LAKHPATI	<i>ms</i>
77	KORE SHEKHAR	<i>ms</i>
78	PAWAR AKSHAY BHAU	<i>ms</i>
79	PARIT AMOL	<i>ms</i>
80	JAIPHALKAR AKSHAY	<i>ms</i>
81	AKSHAY ASHOK KALE	<i>ms</i>

Prof.
Prof. Nivedita Thorat
Class Teacher

Prof.
Prof. Rahul Hodage
H.O.D

Head of the Department
CIVIL ENGINEERING
 Genba Sopanrao Moze College of Engineering
 25/1/3, Balewadi, Pune-411045



GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING, BALEWADI

Civil Department

Site Visit Report – Structural Design –II

Under Savitribai Phule Pune University, for Third year of civil engineering syllabus in Structural design II students are supposed to visit RCC structures. According to syllabus we arranged site visit at Western Avenue waked.

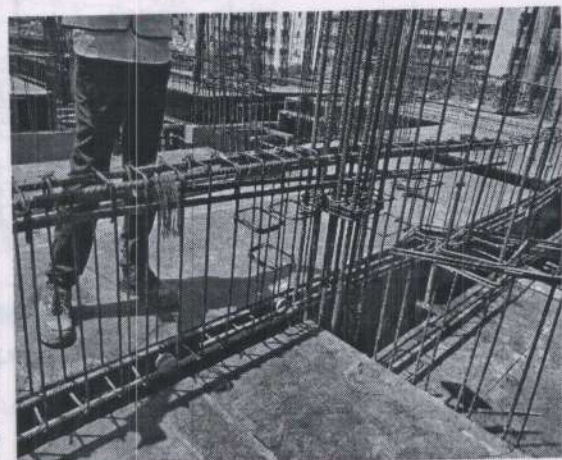
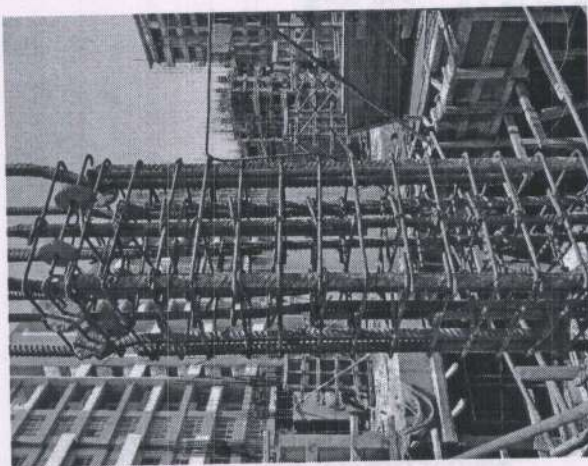
Total No of students = 150

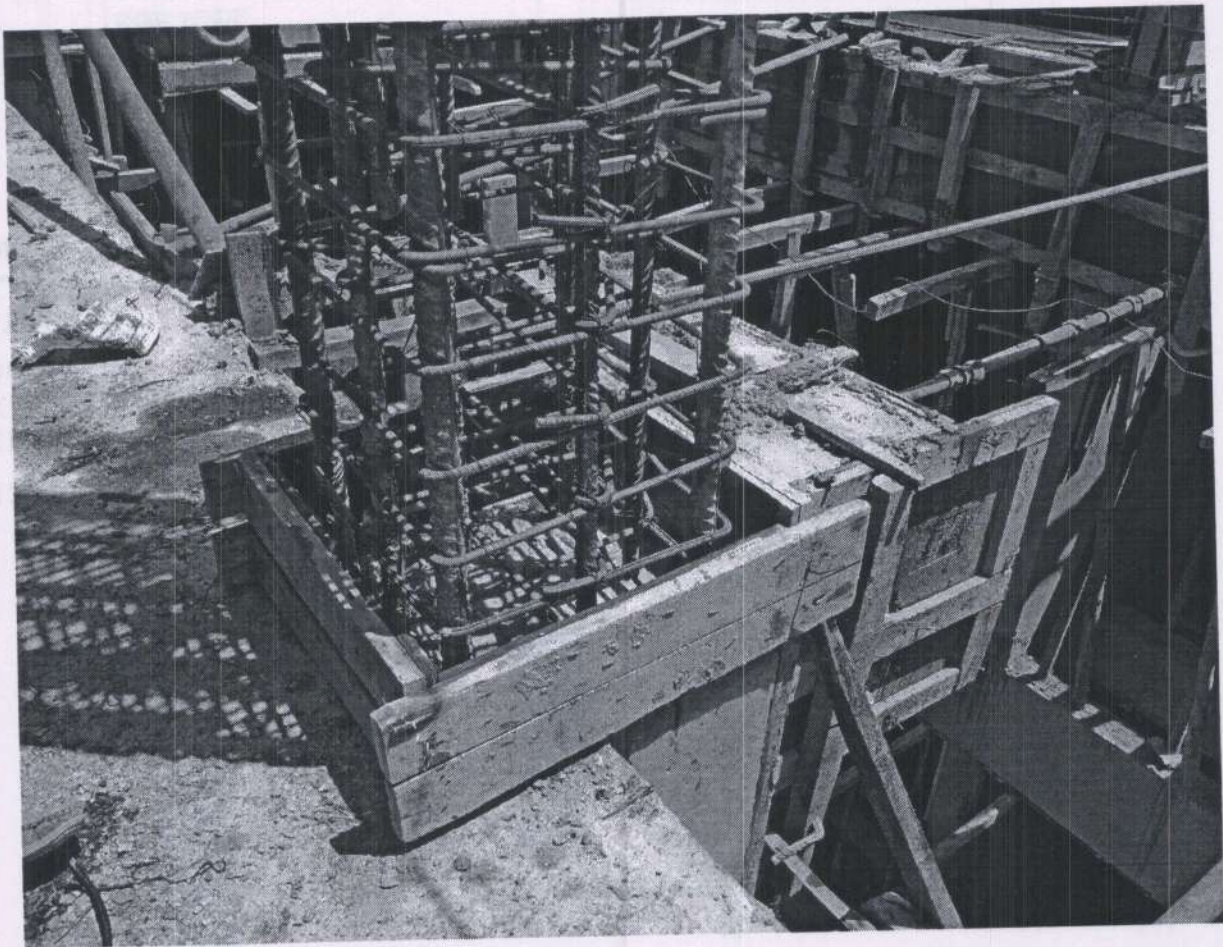
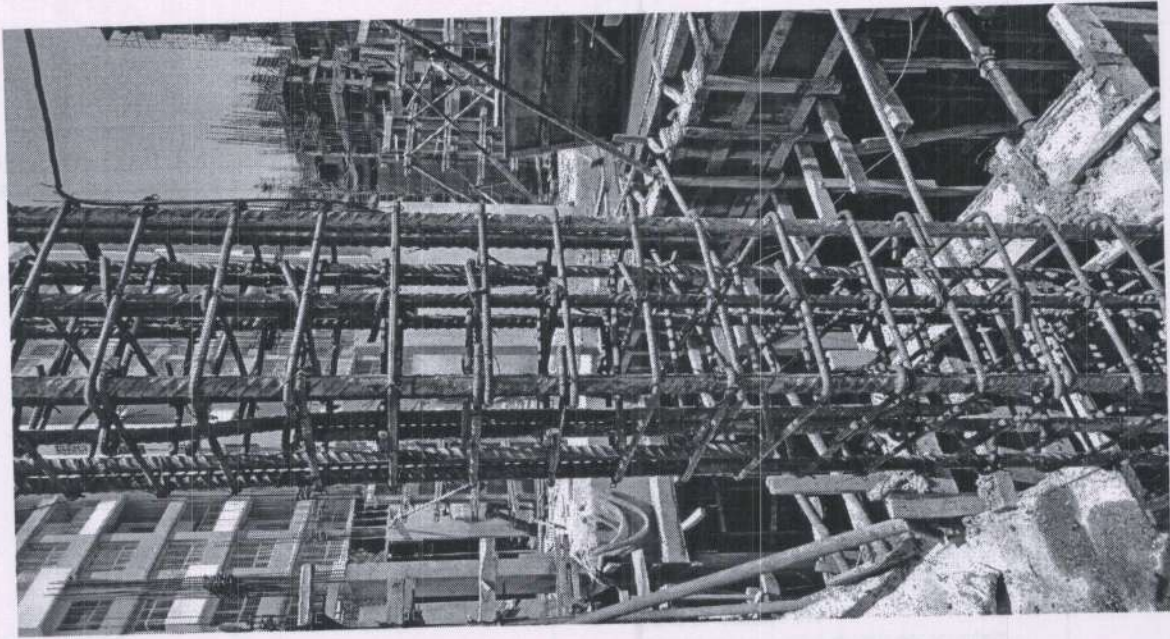
Name of faculties = 1. Asst. Prof. Nivedita Thorat

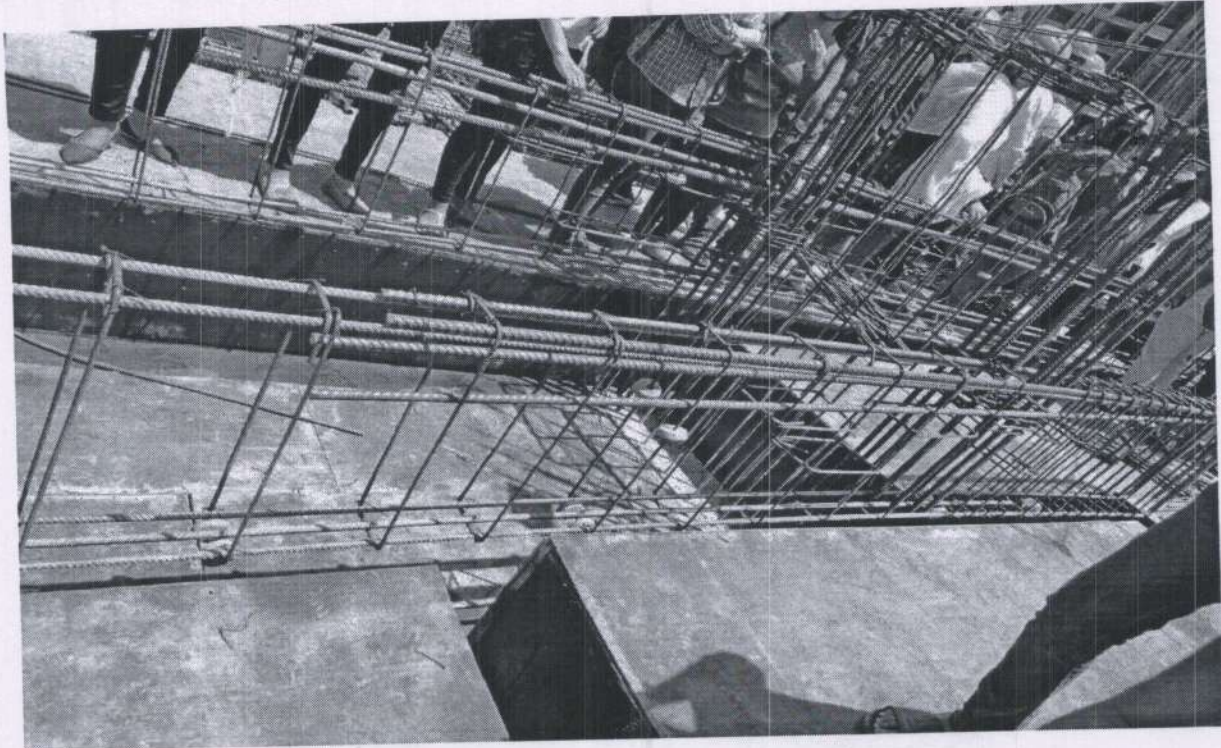
2. Asst. Prof. Vinyak Kulkarni

As per syllabus of structural design II students are supposed to study execution and reinforcement of RCC structures. In our site visit at wakad students got opportunity to understand design detailing of rcc members as Beams, Columns and Staircase.

Site Engineer was available at site explained first of all the detail drawings of various slab, beam and column and then we proceed to actual site. Following are the photos of detailing of structural members.









GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

Founder - President : **Shri Rambhau Moze.**

(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to University of Pune.)

S. No. 25/1/3, Balewadi, Pune - 45. Telephone : (020)27290500, Fax : (020)27290500, E-mail : gsmoze@yahoo.co.in

Ref. No.: GSM/COE/2019/April/56/01

Date: 02/04/2019

To, Project Manager

Western Avenue, Wakad.

Dear Sir,

We at the Genba Sopanrao Moze College of Engineering, Balewadi, would like to thank to you for the valuable contribution you made during the site visit at Western Avenue Wakad.

We appreciate the time you took out of your busy schedule to join us and thank you for sharing your insights and expertise with our attendees. Your willingness to volunteer your time, energy and support is greatly appreciated.




HOD

Civil Department,

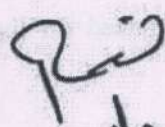
GSMCOE, Balewadi

Head of the Department,

CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering,

25/1/3, Balewadi, Pune-411 045.


02/4/19



“EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE”
**GENBA SOPANRAO MOZE COLLEGE OF
ENGINEERING**

S. No. 25/1/3, Balewadi, Pune – 411 045

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune
University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph: 020-27390500 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Date:1/04/2019

To,
Project Manager
Western Avenue Wakad, Pune

Thanking Letter

Respected Sir,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit your Railway Track visit We really appreciate the time spent with our students and information shared by you. We hope our students received precious knowledge which will definitely help them in their Curriculum.

Thanking you.

N.T.

Prof. Nivedita Thorat

Faculty coordinator

Rahul

Prof. Rahul Hodage

HOD

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

A. B. Auti

Dr. A. B. Auti

Principal GSMCOE

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045



2018-19/BE/APC/site Visit/29/03/19/By Asst Prof Shalaka Barshetty

"Empowerment Through Technological Excellence"



GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to Pune University)

25/1/3, Balewadi, Pune - 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

Date : 28/03/2019

NOTICE

All students of B.E Civil are hereby informed that, your site visit for APC to "Shree Sant Tukaram Sahakar Sakhar Karkhana" has been arranged on **29/03/2019 Friday**. All students must be present at sharp **9.30 am** to Sugar factory directly.

NOTE:

- Students must be present in college uniform
- Attendance is compulsory

Subject Faculty

Prof. Shalaka Barshetty

Prof. Sheetal Marawar

H.O.D

Prof. Rahul Hodage

Head of the Department,
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.



"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"

GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, 411 045.

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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-27390500 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze



Ref. No. :

Date :

To,

Managing Director,
Shri Sant Tukaram Sahakari Sakhar Karkhana,
Pune

Subject: Regarding permission to site visit to Shri Sant Tukaram Sahakari Sakhar Karkhana, Kasarsai dam Pune.

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 104 students accompanied by 02 faculty members are interested to Visit your Shri Sant Tukaram Sahakari Sakhar Karkhana as a part of BE SPPU Syllabus in Air pollution control Subject. The visit is aimed at enhancing their Practical knowledge. We intend to take a round of the entire Construction. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (29/03/19)

Looking forward for your positive consent in this regard.

Thanking you.

Prof. Shalaka Barshetty

(Faculty coordinator)

Prof. Rahul Hodage

HoD

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr. A.B. Auti
PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





“EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE”
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, 411 045.

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-27390500 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. :

Date : 15/03/2019

To
Managing Director
Shri Sant Tukaram Sahakari Sakhar Karkhana
Pune- 412108

Subject: Regarding permission for site visit to Shri Sant Tukaram Sahakari Sakhar Karkhana, Kasarsai Pune.

Respected Sir,

We are one of the reputed institutes offering various technical degree courses approved by AICTE Delhi, Govt. of Maharashtra, DTE and affiliated to Savitribai Phule Pune University (SPPU).

With reference to above mentioned subject as per the course curriculum for the subject **Air Pollution & Control** of final year student of Civil Engineering Department, we would like to arrange a site visit to Shri Sant Tukaram Sahakari Sakhar Karkhana.

It's a kind request to grant us permission to visit the site along with 104 students and 2 faculty members on any working day as per your convenience on tentative duration (29th March or 5th April 2019). We will thankful if you do the needful and allow us in-charge person so that he can explain the details about site.

Thanking you.

Sol/CC
nr
Shalaka
Shalaka Barshetty

Contact Person

(9145176665)

Rahul
Rahul Hodge

H.O.D

Head of the Department,
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.

Dr. Abhijeet
Dr. Abhijeet Auti
Principal

GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
25/1/3, Balewadi, Pune-411 045





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25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

Date : 28/03/2019

To

The Director,

Shri Sant Tukaram Sahakari Sakhar Karkhana,

Kasarsai.

Subject: Letter of thanks for permission & guidance for Sugar Factory & Air pollution control devices.

Respected Sir,


The GENBA SOPANRAO MOZE TRUST is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We department of Civil Engineering o Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank for allowing and guiding our BE Civil students at Shri Sant Tukaram Sugar factory . Our BE students want to thank you again for giving the opportunity to study and understand the actual design considerations at site. We really appreciate the time spend with our students and information shared by you.

We hope our students received precious knowledge in Air pollution control devices from you. Thanking you.


HOD

Department of Civil Engineering


Principal 28/3
GSMCOE, Balewadi, Pune
PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, Pune-411 045



Successfully visited.
E.O 28.3.2019
Shri Sant Tukaram Sah. Sakhar Kar. Ltd



Genba Sopanrao Moze Trust's
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
Balewadi, Pune - 411045.

Civil Engineering Department
Create competent Socially Responsible Civil Engineers
Academic Year 2018-2019

Sem - II Class - BE (A div) Date: 29/03/2019
APC Site Visit at Shri Sant Tukaram Sahakari Sakhar Karkhana

Sr.No.	Roll No.	Names of students	Sign
1	A - 1	ARUN SINGH	
2	A - 2	AUDGE ASHWINI ATMARAM	
3	A - 3	BHORE VAISHNAVI VIVEKANAND	
4	A - 4	BHOSALE DIGVIJAY DATTATRAY	Bhosale
5	A - 5	BHOSALE SHREYASH SUDHIR	Bhosale
6	A - 6	BIRADAR POOJA SHRIRAM	
7	A - 7	CHAUHAN KRISHNAMOHAN R	Chauhan
8	A - 8	CHOUGULE ANIKET SUNIL	
9	A - 9	CHOUGULE SOMESH SHIVAJI	Somesh
10	A - 10	DABHOLKAR SOHAM RAJENDRA	
11	A - 11	DESHMUKH RAJWARDHAN	
12	A - 12	DEVKAR SHUBHAM RAJABHAU	Devkar
13	A - 13	FARANDE MAYUR NAMDEO	Faran
14	A - 14	GANDHI GAURAV HARSHAD	
15	A - 15	GOPALE NIKHIL MANISH	
16	A - 16	HIPPARGI SHADAAB NAUSHADALI	Hippargi
17	A - 17	HULAWALE PRATIK	Hulawale
18	A - 18	JADHAV AKASH VENKATESH	
19	A - 19	JADHAV PRAVIN VILAS	
20	A - 20	JAGDALE SUHAS SHIVAJI	Jagdale
21	A - 21	JAMDADE DNYANESH SHIVAJI	
22	A - 22	KABUTARE PRASHANT KISAN	
23	A - 23	KADAM VISHAL DATTATRAY	
24	A - 24	KAKADE ARJUN RAGHUNATH	
25	A - 25	KAMBLE PANKAJ RAJESH	
26	A - 26	KANAME ABHIJEET BALAJI	
27	A - 27	KHAIRE AKSHAY BHANUDAS	Khaire
28	A - 28	KHATATE VINIT DINESH	
29	A - 29	KONJARE CHANDRAKANT P	
30	A - 30	KUMAR PANKAJ KUMAR PAL S	
31	A - 31	LOKHANDE AMOL VITTHAL	
32	A - 32	MOHITE ROHIT DNYANESHWAR	Mohite
33	A - 33	PAKHLE ROHAN SHRIKANT	



34	A - 34	PALKAR DAYANAD TUKARAM	
35	A - 35	PATIL PRASAD NITIN	<i>Nitin</i>
36	A - 36	RAHUL VITHOBA BOTRE	
37	A - 37	RAJPUT KIRAN NANA	
38	A - 38	RAJPUT MANTHAN D	<i>MB</i>
39	A - 39	RAKSHE SURAJ VASANT	<i>Prakash Prasad</i>
40	A - 40	RATHOD PRAGATI PARASRAM	
41	A - 41	RAUT AJAY PANDURANG	<i>Ajay</i>
42	A - 42	RAUT AVINASH G	
43	A - 43	ROHAN SHIVAJI NAIKWADI	
44	A - 44	ROSHNI DEVCHANDRA NINGTHOUJAM	<i>Roshni</i>
45	A - 45	SAGAR PRATHAM DILIP	<i>Pratham</i>
46	A - 46	SAMAGE VIJAY RAJU	<i>VR</i>
47	A - 47	SANAP AVINASH GANPAT	<i>Sanap</i>
48	A - 48	SANE AMIT VIJAY	<i>Amit</i>
49	A - 49	SASTE SAGAR RAJARAM	<i>Sagar</i>
50	A - 50	SHINDE APURVA	
51	A - 51	SHINDE JYOTI SURESH	
52	A - 52	SHINDE MAHESH VILAS	
53	A - 53	SHINDE NIKHIL LAXMAN	
54	A - 54	SHINDE ROHIT MADHAVRAO	
55	A - 55	SHUBHAM SUDHIR NAGARKAR	
56	A - 56	TANDALE KISHOR HARIBHAU	
57	A - 57	VATTE BHUSHAN NAGESH	<i>Bhushan</i>
58	A - 58	WALKE MANDAR SANJEEV	<i>Mandar</i>
59	A - 59	WANKHEDE ANKIT SANJAY	
60	A - 60	WANVE PRITI NARAYAN	
61	A - 61	WARADE TUSHAR GAJANAN	
62	A - 62	WARUDKAR SANCHIT ANILKUMAR	<i>Sanjit</i>
63	A - 63	ZINJADE KIRAN SURESH	<i>Kiran</i>
64	A - 64	BANSODE RANJANA RAMESH	<i>Ranjana</i>
65	A - 65	BHANDARE KISHOR	<i>Kishor</i>
66	A - 66	CHAUHAN KANHAYA LAXMINARAYAN	
67	A - 67	CHOUDHARI GAURI BHAGAWAT	<i>Gauri</i>
68	A - 68	DIDWAGH DHANAJI HANMANT	<i>Didwagh</i>
69	A - 69	GARJE VIVEK	
70	A - 70	GHOLAVE MAHESH	
71	A - 71	GORE MARUTI DAGADU	
72	A - 72	HAWALDAR KETAN	<i>Ketan</i>
73	A - 73	HINDRE SWAPNIL	
74	A - 74	JADHAV ROHAN ASHOK	
75	A - 75	JAGIRDAR A. MOHID A. NAJIB	
76	A - 76	JALKOTE SHWETA V.	<i>Shweta</i>



77	A - 77	KAPSE SAGAR ANKUSH	
78	A - 78	KULKARNI RUSHIKESH	
79	A - 79	LOMATE PRITAM	Mahajan
80	A - 80	MAHAJAN SHARDUL	Shardul
81	A - 81	MANMODE SAURABH	Saurabh
82	A - 82	MUNDE NILESH SHIVAJIRAO	
83	A - 83	MURTADAK SHUBHAM	
84	A - 84	NAGE AKSHAY	AA
85	A - 85	NAKHATE NIKHIL	NA
86	A - 86	NANAVARE SANKET	
87	A - 87	NEAVASE PRUTHIVIRAJ	Pruthi
88	A - 88	NITIN DATTARAY AMBHORE	Palkar
89	A - 89	PANCHAL PRAMILA	Prithvi
90	A - 90	PANZADE ANIKET	
91	A - 91	PATKAR SUMANT	
92	A - 92	PAWAR KAUSTUBH	
93	A - 93	RAGHUVANSHI SHUBHAM NANDKISHORE	
94	A - 94	RAUT AJINKYA DHANRAJ	Shubham
95	A - 95	RAUT GAURAV GULAB	Gulab
96	A - 96	SAID KAJAL	Kajal
97	A - 97	SANGLE BABURAO	
98	A - 98	SAPARIYA BAVESH	
99	A - 99	SHAIKH MUBARAK SIRAJ	
100	A - 100	SHINDE SHREYASH VINOD	
101	A - 101	SHINDE SURAJ TANAJI	Suraj
102	A - 102	SWAMI VAISHNAVI	
103	A - 103	TARATE KRISHNA	Krishna
104	A - 104	WAGHMODE PRUTHIVIRAJ	Pruthi

Rangnath L. Morawade



AIR POLLUTION & CONTROL

SITE VISIT REPORT

SUBJECT : Air Pollution & Control

NAME& ADDRESS: SHRI SANT TUKARAM SAHAKARI SAKHAR
KARKHANA, PUNE, 412108

DAY & DATE: Friday , 29/03/2009

OBJECTIVE: STUDY OF AIR POLLUTION CONTROL TECHNIQUE

GUIDED BY: Asst. Prof. Shalaka Barshetty

Asst.Prof. Sheetal Marawar

EXPERTS FROM SITE: Project Manager – Mr. Manoj Naikwade

Number of student's present- 51

Number of faculties - 02

Overview

We have arranged the visit for Sugar factory at Kasarsai for BE civil A & B division. with reference to subject mentioned above as per the course curriculum. At site after Introduction part he took us to his factory site where he showed us various equipments which is used for controlling air pollution. Then Mr. Manoj Naikwade explained us about various components of Gravity Settlers and ESP. Efficiencies of Gravity Settler and ESP are 75% and 99%. These equipments are used for controlling dust particles which produced in sugar factory.



Specification of Sources creating Air Pollution:

1. Electrostatic Precipitator

2. Gravity Settling Chamber

At present there are 173 cooperative sugar factories in operation, employing 165,000 people. Almost 800,000 people are engaged in the harvesting and transportation of sugarcane to factories from the fields. The sugar industry provides annual revenue of over 22 billion to the government. Due to the cooperative sugar industry, allied businesses including milk cooperatives, fertilizer supply, and irrigation systems have flourished. The presence of this industry has led to development of rural places, from which the sugarcane is drawn to factories, including an improved road network, transportation facilities, medical facilities, education facilities, and banking.

1.1 ELECTROSTATIC PRECIPITATOR



Principle

The electrostatic precipitator (ESP) is suitable for the precipitation of solid particles. The particles are charged by a flow of ions from the discharge electrode and drift under the influence of the electrical field towards the collecting electrode. The cleaning of the collecting electrodes is achieved by periodic rapping for dry precipitators and by flushing for wet precipitator.

Working

The dust laden gas is passed between the oppositely charged conductors and is becomes ionized as the voltage applied between the conductors is sufficiently large (30kV to 60kV depending upon the electrodes spacing). As the dust laden gas is passed through the highly charged electrodes, both negative and positive ions are formed (positive ions will be a high as 80%).

The ionized gas is further passed through the collecting unit which consists of set of metal plates. Alternate plates are charged and earthed. As the alternate plates are grounded, high intensity electrostatic field exerts a force on the positive charged dust particles and drives them towards the ground plate. The deposited dust particles are removed from the plates by giving the shaking motion of the plates with the help of cams driving by external means. The dust removed from the plates with the help of shaking motion is collected in the dust hoppers. Care should be taken that the dust collected in the hopper should not be entrained in the clean gas.

Advantages

- Electrostatic Precipitators (ESP) is also most effective for high dust loaded gas (as high as 100 grams per cu meter). Its efficiency is as high as 99.5%
- The drought loss of the separator is the least of all forms
- The maintenance charges are less compared to all other separators
- Electrostatic Precipitators provides ease of operation
- The dust or fly-ash is collected in dry form and can be removed either dry or wet.

Disadvantages

- The direct current (DC) is not available with the modern thermal power plants. Hence considerable electrical equipment is required to convert from ac to dc (60kV dc). This increases the capital cost of the equipment.
- The running charges is also high as the amount of power required for charging is considerably high
- The space required for electrostatic precipitators is larger than wet system
- The efficiency of the electrostatic precipitators is not maintained if the gas velocity exceeds that for which the plant is designed. The dust carried with the gases increases with an increase of gas velocity.



Gravity Settling Chamber:



Settling chambers are generally built in the form of long, horizontal, rectangular chambers with an inlet at one end and an exit at the side or top of the opposite end. Flow within the chamber must be uniform and without any macroscopic mixing. Hoppers are used to collect the settled particles.

Advantages

1. Low capital cost;
2. Very low energy cost;
3. No moving parts, therefore, few maintenance requirements and low operating costs;
4. Excellent reliability;
5. Efficiency of chamber is 77%

Disadvantages



1. Unable to handle sticky or tacky materials
2. Large physical size
3. Relatively low PM collection efficiencies, particularly for particulate matter less than $50\mu\text{m}$ in size





Conclusion:

We have studied various uses and applications along with efficiency of Electrostatic precipitator and gravity settling chamber.

We are really thankful for such valuable guidance and information.



2018-19/ SE/CT/ Site Visit/ 29/03/19/ By Asst Prof Shilpa Mahajan
"Empowerment Through Technological Excellence"



GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to Pune University)

25/1/3, Balewadi, Pune - 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

DATE: 28/03/2019

NOTICE

All the students of S.E. are hereby informed that , your site visit of RMC Plant has been arranged on 29/03/19 FRIDAY. So you all have to present at 11.30 am sharp in college premises.

NOTE:

- STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM
- STUDENTS SHOULD CARRY WATER BOTTLE,CAP, SHOES etc
- ATTENDANCE IS COMPULSORY

Subject Faculty:

Prof. Shilpa Mahajan
Prof. Sonam Agrawal

H.O.D.

Prof. Rahul Hodage





"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
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S. No. 25/1/3, Balewadi, Pune - 411 045

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. 020-27390500 Website www.gsmozecoe.org Email gsmoze@yahoo.co.in

Founder President **Shri Rambhau Moze**

Ref. No. GSHCOE/ADMIN/2018/99

Date 20/3/2019

To,

VRS Concrete,

Near Bhumkar Chowk, Wakad

Pune

Subject: Regarding permission visit to VRS Concrete Pune.

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 50 students accompanied by 02 faculty members are interested to Visit your VRS Concrete Pune as a part of SE SPPU Syllabus in Concrete Technology Subject. The visit is aimed at enhancing their Practical knowledge. We intend to take a round of the entire Construction. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (29/03/19)

Looking forward for your positive consent in this regard.

Thanking you.

Prof. Shilpa Mahajan

(Faculty coordinator)

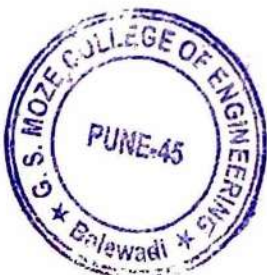
Prof. Rahul Hodage

HoD
Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr. A. B. Auti
PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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Ph: 020-27390500 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Ref. No.

Date: 29/3/2019


To,
VRS Concrete
Near Bhumkar Chowk, Wakad

Dear Sir,

We at the Genba Sopanrao Moze College of Engineering, Balewadi, would like to thank to you for the valuable contribution you made during the site visit at VRS RMC Plant Wakad.

We appreciate the time you took out of your busy schedule to join us and thank you for sharing your insights and expertise with our attendees. Your willingness to volunteer your time, energy and support is greatly appreciated.

Thanks and Regards


Prof. Rahul Hodage

HoD, Civil Engineering Department,

GSMCOE, Balewadi

**Head of the Department,
CIVIL ENGINEERING**
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.



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Genba Sopanrao Moze Trust's

GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

Balewadi, Pune - 411045



Civil Engineering Department

A.Y. 2018-19

Site Visit Attendance

Class: SE Div: A

Roll no	Name of Student	sign
1	ATOLE BHAGYASHREE	—
2	BIDAVE SNEHAL	—
3	GAWADE SHUBHAM	—
4	MIRASHI VISHAKHA	—
5	PAGARE AKSHAYKUMAR	—
6	PAWAR GAURAV	Pawar
7	RAIPURE KSHITIJ	Kshitiy
8	SHETEWAD MANISHA	Shetewad
9	SHINDE OMKAR G	—
10	WALUNJ NIKHIL	Walunj
11	ADAGALE SURAJ NAMDEV	Adagale
12	ADE ROSHNI GOVINDA	—
13	AMBORE AKSHAY MANIKRAO	Ambore
14	BADE NIKHIL LALAJI	Lalaji
15	BADGUJAR JITENDRA VASANTBHAI	—
16	BAGUE SAURABH ANANT	Anant
17	BEHAL PRABJYOT SINGH PRADEEP SINGH	Singh
18	BHAGAT HARSHVARDHAN RAJENDRA	Rajendra
19	BHANDWALKAR AKSHAY RAJENDRA	AK.
20	BHOIR AKASH SAHADEV	sahdev
21	BHOITE RHISHIKESH TANAJI	Tareji
22	BHOSALE SHUBHAM SUNIL	Sunil
23	BONAKRUTI PARTH NANDKUMAR	Parth
24	BORADE VAIBHAV ANIL	Anil
25	BORSE SHUBHAM PANJABRAO	Ranjitbhai
26	BOTRE RUSHIKESH VITTHAL	Vitthal
27	CHAUDHARI AKSHAY KASHINATH	Kashinath
28	CHAURE KUNAL GOJIR	Gopid
29	DAMLE ATHARVA SUNIL	Seenil
30	DANGE OMKAR TUKARAM	Tukaram
31	DHADDE SUPRIYA RAJKUMAR	Rajkumar
32	DHAMAL AKSHAY DATTATRAY	Dattatray



33	DHIDE AJAY ANKUSH	Dhide
34	GAIKWAD ABHIJIT SUNIL	Sunil
35	GAIKWAD LAHU DHARMARAJ	Lahu
36	GAIKWAD ROHIT RAMDAS	Rohit
37	GAIKWAD SANDESH SUNIL	Sunil
38	GAIKWAD SHUBHAM NAGESH	Nagesh
39	GAIKWAD SWARAJ SADANAND	Sadanand
40	GAIKWAD VISHVAJEET BALAJIRAO	Balajirao
41	GALANDE POOJA SHIVAJI	Pooja
42	GHANERI SHIVAM SUNIL	Sunil
43	GHARE AMAR PRAKASH	Amar
44	GHODKE VISHAL BALIRAM	Vishal
45	GORDE SURAJ PIRBHAU	—
46	GUND SAURABH GOPALKRUSHNA	—
47	INGLE PRATHAMESH EKNATH	—
48	JADHAV KIRAN DATTATRYA	—
49	JADHAV NIKHIL PRADEEP	—
50	JADHAV RANJIT RAJARAM	—
51	KADAM RAVIRAJ DADASO	—
52	KAHANDAL VIKAS DATTATRAYA	—
53	KALAMBATE HARSHAD JAYAWANT	—
54	KALE ANIKET BIBHISHAN	Aniket
55	KAMBALE YOGESH BHIKAJI	Bhikaji
56	KAMBLE SHUBHAM	Shubham
57	KAMTE TANISHK SHEKHAR	Shekhar
58	KAMTHEKAR VIJAY SOMNATH	Vijay
59	KAWATHE AVINASH BALAJI	Avinash
60	KEDAR AVINASH APPASO	Appaso
61	KHADE AKSHAY VIJAY	Akshay
62	KHAJURE ISHWAR UMAKANT	Ishwar
63	KHEDEKAR SHUBHAM DIPAK	Shubham
64	KHILLARE SHUBHAM S.	Shubham
65	KHOLIYA HARSHAL HARESH	Harshal

Prof. Shilpa Mahajan
Faculty Coordinator

Prof. Rahul Hodage

HOD

Head of the Department
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Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045



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Balewadi, Pune - 411045

Civil Engineering Department

A.Y. 2018-19

Site Visit attendance

Class: SE Div: B



Sr.No.	Name of Student	sign
1	KONDE PRATHAMESH SHRIKANT	Kohela
2	KRITESH KUMAR	Kritesh
3	KSHIRSAGAR SANJANA RAJENDRA	Sanjana
4	KSHIRSAGAR VAIBHAV BHIMRAO	Vaibhav
5	KUMBHAR SUMIT BABASAHEB	Sumit
6	LABADE ROHAN HARIDAS	Rohan
7	LAWARDE BHAVESH BHARAT	—
8	LOKHANDE NILESH MAHADEV	—
9	MANANI MOHIT PRAVIN	—
10	MANWATKAR VISHWANIL KIRAN	—
11	MASHETTE AVINASH RAMESH	—
12	MAZIRE KIRAN SURESH	Kiran
13	MIRGALE NANDINI ANANT	Anant
14	MISHRA TEJAS RAJESH	Tejas
15	MORE HARSHAVARDHAN PRAMOD	Pramod
16	NAGDIVE ASHUTOSH SATISH	Satish
17	NAIKWADE DHANJAY SAINATH	—
18	NARSAPURE ABHIJEET MADHUKAR	—
19	NIMBALKAR SAURABH RAJENDRA	Saurabh
20	NIPHADKAR MAYURESH NITIN	Nitin
21	PANCHAL RUSHIKESH HARISH	Rushikesh
22	PANDHRE AKASH DHONDIRAM	Akash
23	PARGADE AJINKYA RAMDAS	Ajinkya
24	PARGAVE SUNIL KISHANRAO	—
25	PATIL SACHIN BALU	—
26	PATIL SHAHURAJ RAJKUMAR	—
27	PATIL SHUBHAM VINAYAK	—
28	PATIL VISHAL VIJAYKUMAR	—
29	PAWAR ANIKET NAMDEV	—
30	PAWAR PRAFULLA BHAUSAHEB	—
31	PAWAR RAHUL SHIVAJI	—
32	PAWAR VAIBHAV RAVSAHEB	—
33	RANSING SANKET SUDAMRAO	Sanket
34	RATHOD ASHWINI RANGNATH	Ashwini
35	RATHOD HARSHAL MUKESH	Harshal
36	RAUT MOHAN BHARAT	Mohan
37	RAWATE ROHIT DNYANESHWAR	Rohit
38	RITHE SAHIL MAHESH	Sahil
39	SABALE SNEHAL BHAGAVAT	Snehal
40	SAKHALKAR KUNAL SHARAD	Kunal



41	SALUNKHE SHUBHAM MAHADEV	Shubham
42	SAPARIYA ANKIT JAGDISH	ankit
43	SAVANT YASH RAMCHANDRA	Yash
44	SHAH NIRAJ SANJAY	Niraj
45	SHEDOLE BHAKTRAJ GOVINDRAO	Bhaktraj
46	SHELKE SHRADDHA BALU	Shelke
47	SHENDE PUNDLIK JAIRAM	Pundlik
48	SHINDE GANESH HARIDAS	Shinde
49	SHINDE SAGAR BABAN	Sagar
50	SHINDE SANJYOT SANDEEP	Sanjyot
51	SHINDE SAURABH SURENDRA	Saurabh
52	SHINDE SWAPNIL RAJENDRA	Swapnil
53	SHITOLE PRADNYESH PANDIT	Pradnyesh
54	SHIVSHARAN BHAKTI UTTAM	Shivsharan
55	SOMWASHI SUPRIYA BALAJI	Supriya
56	SONTAKE SHRIKANT S	Shrikant
57	SURVE SAIDEEP DEEPAK	Deepak
58	SURYAWANSHI HARISHCHANDRA SHANKAR	Suryawanshi
59	TADGE SAURABH SANJAY	Tadge
60	TAWARE SWAPNIL KALIDAS	Swapnil
61	THAKARE VARSHA GOKUL	Varsha
62	THEHTE PRAMOD SHIVAJI	Pramod
63	TODALBAGI ONKAR ASHOK	Onkar
64	WALUNJ CHAITANYA KUNDLIK	Chaitanya
65	BHOSALE TEJAS	Tejas
66	LONDHE SIDDHI RAJENDRA	Siddhi

Shilpa Mahajan

Prof. Shilpa Mahajan
Faculty Coordinator

Rahul Hodage

Prof. Rahul Hodage
HOD

Head of the Department
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Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

CONCRETE TECHNOLOGY VISIT REPORT

NAME & ADDRESS: 'VRS CONCRETE PVT LTD, S.NO. 1190, ASKSHARA INTERNATIONAL SCHOOL, BHUMKAR CHOWK, PUNE-11033

DAY & DATE :- Friday 29/03/19

OBJECTIVE: STUDY OF RMC, TRANSIT MIXER AND BATCHING.

GUIDED BY: Asst. Prof. SHILPA MAHAJAN

Asst. Prof. SONAM AGRAWAL

EXPERTS FROM SITE: Project Manager – RAJU MORE ,

Overview

We had arranged the visit for RMC plant at Wakad for SE civil A & B division. with reference to subject mentioned above as per the course curriculum.

Mr. Vinod first introduced us to the laboratory where various test on concrete and cement are carried out i.e initial and final setting time, slump cone test, standard consistency test etc. The machine and equipments which were preparing the concrete mix was by IDF company named CP30. The capacity or volume of per Batch was to be found of half m³. There were two silos each containing cement and fly ash.

The admixture used for the particular batch was named BSF which is a local superplasticizer. The main assembly consisted of a hopper and mixing station. The hopper contained coarse aggregate, fine aggregate upto size of 20mm. The Hopper itself weighs the aggregate, cement and water as per the inputted mix. Then the proportion is further taken near the mixer by the means of conveyer. The mixer mixes every constituent as per the command given. After mixing the concrete is then poured into the trucks for transportation. After each mix the mixer is cleaned to assure the quality of each batch. The trucks have capacity of 6m³, 8m³, 10m³ respectively. To fill 6m³ truck the mixer takes 15 mins. The maximum grade of concrete available was of M60 grade. The price of 0.5m³ of concrete was 4500 rupees. The plant usually manufactures 80-100 m³ concrete daily. The whole set-up is controlled by the IDF software which contains all the details of clients such as site location, grade of concrete, amount of concrete, no of trucks supplied, contact details etc. Most of the process is automated but it also can be manually controlled Mr. Vinod explained everything quite precisely. We are thankful to each and everyone who made the visit successful.





Fig 1. READY MIX CONCRETE PLANT



Fig 2 : SILOS CONTAINING CEMENT, FLY ASH AND GGBS RESPECTIVELY



**VRS CONCRETE LLP.
WAKAD**

MONTHLY TEST REPORTS OF Jan -2019

Sr.NO	NAME OF TESTS
1	Sieve analysis of coarse & fine Aggregate
2	Aggregate impact value
3	Aggregate crushing value
4	Flakiness index of coarse Aggregate
5	D.L.B.D of coarse & fine Aggregate
6	SPECIFIC GRAVITY OF CORSE AND FINE AGG.
7	TEST CERTIFICATE OF CEMENT
8	TEST CERTIFICATE OF FLYASH
9	TEST CERTIFICATE OF ADMIXTURE
	<p>_____ LAB TECHNICIAN</p> <p>_____ QA-QC INCHARGE</p> <p>_____ CLIENT</p>





VRS CONCRETE LLP
WAKAD

TEST FOR AGGREGATES

AGGREGATE SIEVE ANALYSIS REPORT

1. SOURCE : Talegaon KAKADE STONE CRUSHER
2. SIZE OF AGGR. : 20 MM
3. DATE OF TESTING: : 1/1/2019

SL. No.	IS SIEVE (MM)	WEIGHT RETAINED (GMS)	PERCENT RETAINED	CUM. PERCENT		IS REQ. *	REMARKS
				RETAINED	PASSING		
1	40	0				100	
2	25	0	0.00	100.00	100.00	100	
3	20	150	3.00	3.00	97.00	85-100	
4	10	4695	93.90	96.90	3.10	0-20	
5	4.75	155	3.10	100.00	0.00	0-5	
6	PAN	0	0.00	100.00		-	
Total		5000					

*Note:- As per Limits given in IS:383 - 1970 Table 2, Clauses 4.1 & 4.2

LAB TECHNICIAN

QC INCHARGE





VRS CONCRETE LLP

WAKAD

TEST FOR AGGREGATES

AGGREGATE SIEVE ANALYSIS REPORT
(IS.2386 / IS.383)

1. SOURCE : Talegaon KAKADE STONE CRUSHER
2. SIZE OF AGGR. : 10 MM
4. DATE OF TESTING : 1/1/2019

SL. No.	IS SIEVE (MM)	WEIGHT RETAINED (GMS)	PERCENT RETAINED	CUM. PERCENT		IS REQ. *	REMARKS
				RETAINED	PASSING		
1	20	-	-	-	-		
3	12.5	0				100	
6	10	290	5.80	5.80	94.20	85-100	
8	4.75	4580	91.60	97.40	2.60	0-20	
9	2.36	110	2.20	99.60	0.40	0-5	
14	PAN	20	0.40	100.00	0.00	-	
Total		5000					

*Note:- As per Limits given in IS:383 - 1970 Table 2, Clauses 4.1 & 4.2

LAB-TECHNICIAN

QC- INCHARGE





VRS CONCRETE LLP
WAKAD

TEST FOR AGGREGATES

AGGREGATE SIEVE ANALYSIS REPORT
(IS.2386 / IS.383)

1. SOURCE : Talegaon KAKADE STONE CRU:
2. SIZE OF AGGR. : Cr/Sand
3. DATE OF TESTING : 1/1/2019

SL. No.	IS SIEVE (MM)	WEIGHT RETAINED (GMS)	PERCENT RETAINED	CUM. PERCENT		IS REQ. ZONE-1	REMARKS
				RETAINED	PASSING		
		-	-	-	-	ZONE-I	ZONE-II
1	10	0	-	-	100.00	100	
2	4.75	80	4.00	4.00	96.00	90-100	90-100
3	2.36	280	14.00	18.00	82.00	60-95	75-100
4	1.18	416	20.80	38.80	61.20	30-70	55-90
5	0.6	493	24.65	63.45	36.55	15-34	35-59
6	0.3	311	15.55	79.00	21.00	5-20	8-30
7	0.15	198	9.90	88.90	11.10	0-10	0-10
9	Pan	222	11.10	100.00	0.00	-	

Total	2000
-------	------

FM : 2.92

*Note:- As per Limits given in IS:383 - 1970 Table 4, Clause 4.3 (Note 1)

LAB TECHNICIAN

QC INCHARGE





VRS CONCRETE LLP

WAKAD

TEST OF AGGREGATES

AGGREGATE IMPACT TEST

Aggregate - coarse aggregate IS : 2386 / IS : 383.

1 SOURCE : KAKADE STONE CRUSHER
2 DATE : 1/1/2019
3 SIZE OF AGGR. : 10mm
4 TEST FREQUENCY : Once in a month

SL. No.	DETAILS	TRIAL NO.		AVERAGE
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure (Gm)	388	387	6.97
2	Weight of aggt. passing through 2.36 mmsieve after the test (Gm)	26	28	
3	weight of aggt. Retained on 2.36 mm sieve after test (Gm)	362	359	
4	Aggregate impact value (%)	6.70	7.24	

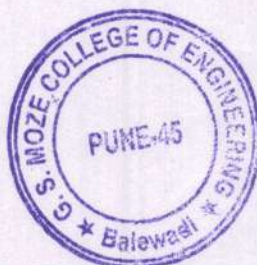
Note:- As per Limits given in IS:383 - 1970, 3.4

Results : Selected / Rejected under the Clause

Remarks : _____

LAB TECHNICIAN

QC - INCHARGE





VRS CONCRETE LLP

WAKAD

TEST OF AGGREGATES

SPECIFIC GRAVITY TEST (IS - 2386 / 383)

1 SOURCE : Talegoan KAKADE STONE CRUSHER
2 DATE : 1/1/2019
3 SAMPLE NO. : 00
4 SIZE OF AGGR. : 20mm
5 TEST FREQU 01-10-15 : Once in a month

SL NO.	DETAILS	TRAIL NO.	
		1	2
1	WEIGHT OF PYCNOMETER (GMS) -- W1	485	485
2	WEIGHT OF PYCNOMETER + DRY. AGG.,(GMS) --W2	1380	1398
3	WEIGHT OF PYCNOMETER + AGG.+ WATER , (GMS) -- W3	1881	1892
4	WEIGHT OF PYCNOMETER + WATER , (GMS) -- W4	1278	1278
5	SPECIFIC GRAVITY $\frac{(W2 - W1)}{(W4 - W1) - (W3 - W2)}$	3.065	3.054
AVERAGE =		3.059	

TEST ACCEPTED / REJECTED - (Limits not specified)

REMARKS :

LAB TECHNICIAN

QC INCHARGE





VRS CONCRETE LLP

WAKAD

TEST OF AGGREGATES

SPECIFIC GRAVITY TEST (IS - 2386 / 383)

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE : 1/1/2019
4 SIZE OF AGGR. : 10mm
5 TEST FREQUENCY : Once in a month

SL NO.	DETAILS	TRAIL NO.	
		1	2
1	WEIGHT OF PYCNOMETER (GMS) -- W1	485	485
2	WEIGHT OF PYCNOMETER + DRY. AGG.,(GMS) --W2	1355	1334
3	WEIGHT OF PYCNOMETER + AGG.+ WATER , (GMS) -- W3	1850	1836
4	WEIGHT OF PYCNOMETER + WATER , (GMS) -- W4	1278	1278
5	SPECIFIC GRAVITY $\frac{(W2 - W1)}{(W4 - W1) - (W3 - W2)}$	2.919	2.918

AVERAGE = 2.918

TEST ACCEPTED / REJECTED - (Limits not specified)

REMARKS :

LAB TECHNICIAN

QC INCHARGE





VRS CONCRETE

WAKAD

TEST OF AGGREGATES

SPECIFIC GRAVITY TEST (IS - 2386 / 383)

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE : 1/1/2019
3 SIZE OF AGGR. : Crushed Sand
4 TEST FREQU 01-10-15 : Once in a month

SL NO.	DETAILS	TRAIL NO.	
		1	2
1	WEIGHT OF PYCNOMETER (GMS) -- W1	485	485
2	WEIGHT OF PYCNOMETER + DRY. AGG.,(GMS) --W2	1364	1349
3	WEIGHT OF PYCNOMETER + AGG.+ WATER , (GMS) -- W3	1845	1835
4	WEIGHT OF PYCNOMETER + WATER , (GMS) -- W4	1278	1278
5	SPECIFIC GRAVITY $\frac{(W2 - W1)}{(W4 - W1) - (W3 - W2)}$	2.817	2.814

AVERAGE = 2.816

TEST ACCEPTED / REJECTED - (Limits not specified)

REMARKS :

LAB TECHNICIAN

QC INCHARGE





VRS CONCRETE LLP

WAKAD

TEST OF AGGREGATES

WATER ABSORPTION TEST

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE : 2/1/2019
3 SAMPLE NO. : 00
4 SIZE OF AGGR. : 20mm
5 TEST FREQUENCY : Once in a month

SL NO.	DETAILS	TRAIL NO.	
		1	2
1	WT. OF SSD SAMPLE, (GMS) -- W1	1000	1000
2	WT. OF OVEN DRIED SAMPLE, (GMS) -- W2	984	983
5	WATER ABSORPTION = $\frac{(W1 - W2)}{W2} \times 100$	1.63	1.73
AVERAGE =		1.68	

TEST ACCEPTED / REJECTED - (Limits not specified)

REMARKS :

LAB TECHICIAN

(QC INCHARGE)





VRS CONCRETE LLP

WAKAD

TAST OF AGGREGATES

WATER ABSORPTION TEST

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE : 2/1/2019
3 SIZE OF AGGR. : 10mm
4 TEST FREQUENCY : Once in a month

SL NO.	DETAILS	TRAIL NO.	
		1	2
1	WT. OF SSD SAMPLE, (GMS) -- W1	1000	1000
2	WT. OF OVEN-DRIED SAMPLE, (GMS) -- W2	981	982
5	WATER ABSORPTION = $\frac{(W1 - W2)}{W2} \times 100$	1.94	1.83
AVERAGE =		1.88	

TEST ACCEPTED / REJECTED - (Limits not specified)

REMARKS :

LAB TECHICIAN

(QC INCHARGE)





**VRS CONCRETE LLP
WAKAD**

TAST OF AGGREGATES

WATER ABSORPTION TEST

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE : 2/1/2019
3 SIZE OF AGGR. : 10mm
4 TEST FREQUENCY : Once in a month

SL NO.	DETAILS	TRAIL NO.	
		1	2
1	WT. OF SSD SAMPLE, (GMS) -- W1	1000	1000
2	WT. OF OVEN-DRIED SAMPLE, (GMS) -- W2	981	982
5	WATER ABSORPTION = $\frac{(W1 - W2)}{W2} \times 100$	1.94	1.83
AVERAGE =		1.88	

TEST ACCEPTED / REJECTED - (Limits not specified)

REMARKS :

LAB TECHICIAN

(QC INCHARGE)





VRS CONCRETE LLP

WAKAD

TEST OF AGGREGATES

WATER ABSORPTION TEST

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE : 2/1/2019
4 SIZE OF AGGR. : Crushed Sand
5 TEST FREQUENCY : Once in a month

SL NO.	DETAILS	TRAIL NO.	
		1	2
1	WT. OF SSD SAMPLE, (GMS) -- W1	1000	1000
2	WT. OF OVEN-DRIED SAMPLE, (GMS) -- W2	965	966
5	WATER ABSORPTION = $\frac{(W1 - W2)}{W2} \times 100$	3.63	3.52
AVERAGE =		3.57	

TEST ACCEPTED / REJECTED UNDER CLAUSE _____

REMARKS :

LAB TECHNICIAN

(QC INCHARGE)





VRS CONCRETE LLP
WAKAD
TEST FOR AGGREGATES

FLAKINESS INDEX TEST (IS . 2386)

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE OF TESTING : 2/1/2019
3 TOTAL WT. OF SAMPLE : 5652Gms
4 SIZE OF AGGREGATE : 20mm
5 FREQUENCY OF TEST : Once in a month

SL NO.	SIZE OF AGGREGAT		NO. OF PARTICLES			X I PERCENT	WEIGHT OF PARTICLES	Y I PERCENT	(X I x Y I)/100
	PASS THROUGH SIEVE (MM)	RETAINED ON SIEVE (MM)	PASS THROUGH (MM)	RETAINED ON GAUGE	TOTAL				
1	63	50							
2	50	40							
3	40	31.5							
4	31.5	25							
5	25	20	28	172	200	14.00	2290	40.52	5.67
6	20	16	26	174	200	13.00	1840	32.55	4.23
7	16	12.5	25	175	200	12.50	864	15.29	1.91
8	12.5	10	17	183	200	8.50	519	9.18	0.78
9	10	6.3	8	192	200	4.00	139	2.46	0.10

TOTAL (%) = **12.69**

FLAKINESS INDEX = $\frac{X I \times Y I}{100} = 12.69 \%$

TEST ACCEPTED / REJECTED

REMARKS :

LAB TECHNICIAN

(QC INCHARGE)





VRS CONCRETE LLP
WAKAD
TEST FOR AGGREGATES

ELONGATION INDEX

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE OF TESTING : 2/1/2019
4 TOTAL WT. OF SAMPLE : 5652Gms
5 SIZE OF AGGREGATE : 20mm
6 FREQUENCY OF TEST : Once in a month

SL NO.	SIZE OF AGGREGATE		WEIGHT OF PARTICLES (GMS)	
	PASS THROUGH SIEVE (MM)	RETAINED ON SIEVE (MM)	PASS THROUGH	RETAINED ON XI
1	63	50		
2	50	40		
3	40	31.5		
4	31.5	25		
5	25	20	2134	156
6	20	16	1688	152
7	16	12.5	679	185
8	12.5	10	414	105
9	10	6.3	115	24
TOTAL SAMPLE			Y1 = 5030	622

5030

ELONGATION INDEX : $\frac{XI}{YI} = 12.37\%$

TEST ACCEPTED / REJECTED

REMARKS :

LAB TECHNICIAN

(QC INCHARGE) |





VRS CONCRETE LLP
WAKAD
TEST FOR AGGREGATES

FLAKINESS INDEX TEST (IS . 2386)

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE OF TESTING : 2/1/2019
4 TOTAL WT. OF SAMPLE : 618Gms
5 SIZE OF AGGREGATE : 10mm
6 FREQUENCY OF TEST : Once in a month

SL NO.	SIZE OF AGGREGAT		PASS THROUGH (MM)	RETAINED ON GAUGE	TOTAL	X I PERCENT	WEIGHT OF PARTICLES	Y I PERCENT	(X I x Y I)/100
	PASS THROUGH SIEVE (MM)	RETAINED ON SIEVE (MM)							
1	63	50							
2	50	40							
3	40	31.5							
4	31.5	25							
5	25	20							
6	20	16							
7	16	12.5							
8	12.5	10	20	180	200	10.0	318	51.46	5.15
9	10	6.3	19	181	200	9.5	300	48.54	4.61

TOTAL (%) = 9.76

FLAKINESS INDEX = $\frac{X I \times Y I}{100}$ = 09.76 %

TEST ACCEPTED / REJECTED

REMARKS :

LAB TECHNICIAN

(QC INCHARGE)





VRS CONCRETE LLP
WAKAD
TEST FOR AGGREGATES

ELONGATION INDEX

1 SOURCE
2 DATE OF TESTING
4 TOTAL WT. OF SAMPLE
5 SIZE OF AGGREGATE
6 FREQUENCY OF TEST

: Talegaon KAKADE STONE CRUSHER
: 2/1/2019
: 618Gms
: 10mm
: Once in a month

SL NO.	SIZE OF AGGREGATE		WEIGHT OF PARTICLES (GMS)	
	PASS THROUGH SIEVE (MM)	RETAINED ON SIEVE (MM)	PASS THROUGH	RETAINED ON XI
1	63	50		
2	50	40		
3	40	31.5		
4	31.5	25		
5	25	20		
6	20	16		
7	16	12.5		
8	12.5	10	286	32
9	10	6.3	280	20
TOTAL SAMPLE			Y1 = 566	52

ELONGATION INDEX :

$$\frac{XI}{YI} = 9.19\%$$

TEST ACCEPTED / REJECTED

REMARKS :

LAB TECHICIAN

(QC INCHARGE)





VRS CONCRETE LLP
WAKAD
TEST FOR AGGREGATES

BULK DENSITY (IS. 2386 / 383)
(D. L. B. D)

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE : 3/1/2019
3 SAMPLE NO. : 00
4 SIZE OF AGGR. : 20mm
5 TEST FREQUENCY : Once in a month

SL NO.	DETAILS	TRAIL NO.	
		1	2
1	WOLUME OF CONTAINER (LIT.), V	15	15
2	WEIGHT OF EMPTY CONTAINER, (GMS) -- W1	8404	8404
3	WEIGHT OF EMPTY CONTAINER + AGGREGATE, (GMS)-- W2	31822	31710
4	WEIGHT OF AGGREGATE (GMS), W3 = (W2 - W1)	23418	23306
5	DENSITY = $\frac{W3}{V}$	1.561	1.554
AVERAGE =		1.557	

TEST ACCEPTED / REJECTED - (Limits not specified)

REMARKS :

LAB TECHICIAN

(QC INCHARGE)





VRS CONCRETE LLP
WAKAD
TEST FOR AGGREGATES

BULK DENSITY (IS. 2386 / 383)
(D. L. B. D)

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE : 3/1/2019
4 SIZE OF AGGR. : 10mm
5 TEST FREQUENCY : Once in a month

SL NO.	DETAILS	TRAIL NO.	
		1	2
1	VOLUME OF CONTAINER (LIT.), V	15	15
2	WEIGHT OF EMPTY CONTAINER, (GMS) -- W1	8404	8404
3	WEIGHT OF EMPTY CONTAINER + AGGREGATE, (GMS)-- W2	32110	32139
4	WEIGHT OF AGGREGATE (GMS), W3 = (W2 - W1)	23706	23735
5	DENSITY = $\frac{W3}{V}$	1.580	1.582
AVERAGE =		1.581	

TEST ACCEPTED / REJECTED - (Limits not specified)

REMARKS :

LAB TECHICIAN

(QC INCHARGE)





VRS CONCRETE LLP
WAKAD
TEST FOR AGGREGATES

BULK DENSITY (IS. 2386 / 383)
(D. L. B. D)

1 SOURCE : Talegaon KAKADE STONE CRUSHER
2 DATE : 3/1/2019
4 SIZE OF AGGR. : Crushed Sand
5 TEST FREQUENCY : Once in a month

SL NO.	DETAILS	TRAIL NO.	
		1	2
1	VOLUME OF CONTAINER (LIT.), V	15	15
2	WEIGHT OF EMPTY CONTAINER, (GMS) -- W1	8695	8695
3	WEIGHT OF EMPTY CONTAINER + AGGREGATE, (GMS)-- W2	34761	34751
4	WEIGHT OF AGGREGATE (GMS), W3 = (W2 - W1)	26066	26056
5	DENSITY = $\frac{W3}{V}$	1.738	1.737
AVERAGE =		1.737	

TEST ACCEPTED / REJECTED - (Limits not specified)

REMARKS :

LAB TECHICIAN

(QC INCHARGE)



$$\text{Cost Saving} = 6.32 - 3.65$$

$$= \text{Rs.}2.60 \text{ 7.3.}$$

Total cost of conventional brick masonry = cost of bricks + cost of cement + cost of sand + labour cost

Cost of Bricks:

No. of bricks used = 300

$$\text{Cost for 300 bricks} = 300 \times 6.32$$

$$= \text{Rs.}1896$$

Cost of cement:

Cement required = 20Kg

$$\text{Cost for 1 bag (50 Kg) cement} = \text{Rs.}400$$

$$\text{Cost for 20 Kg cement} = (400 \times 20)/50$$

$$= \text{Rs.}160$$

Cost of Sand:

Sand required = 100 Kg

$$\text{Cost for 100 cub ft sand} = \text{Rs.}4000$$

$$1 \text{ cub ft.} = 68.15 \text{ Kg}$$

$$\text{Cost for 100Kg sand} = (4000 \times 100)/6815$$

$$= \text{Rs.}58.70$$

Labour Cost:

Labour cost for mason for brick Work-I Class/day = Rs.451

Labour cost for mazdoor category II per day = Rs.255

Total Labour cost = Rs.706

$$\text{Total Cost} = 1896 + 160 + 58.7 + 706$$

$$= \text{Rs.}2820 \text{ 7.4.}$$

Total cost for BB masonry

Total cost = cost of BB + cost of cement + cost of sand + labour cost





2018-19/BE/AET/Site Visit/30-08-18/By Asst Prof Sonam Agrawal
"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, Pune - 411 045

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph: 020-27390500 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Ref. No. GSM/COE/2018/AVG/592

Date 29/08/18

To

S.J. RMC Plant

Baner, Pune

Subject: Request to grant permission for RMC plant site visit


Dear Sir/Mam,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in offering technical Degree approved by AICTE Delhi, Government of Maharashtra, DTE and affiliated to Savitribai Phule Pune University.

We the department of civil Engineering of GSMCOE, Balewadi Pune want to arrange site visit at your RMC plant for our final year students

Kindly grant us permission for the site visit along with 125 students and 5 faculties.

Thank you


Subject Faculty


Asst.Prof. Sonam Agrawal


HOD

Prof. K. Pramod
Head of the Department,
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.




Principal

Dr. Auti

PRINCIPAL

Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, Pune-411 045

Received
M. K. Kulkarni
Banarade

"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"

GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, 411 045.

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-27390500 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze



Ref. No. : GSMCOE/ADMIN/18-19/104

Date : 29/8/2018

To,

S.J .RMC Plant ,
Baner,Pune

Subject: Regarding permission visit to RMC Plant Visit.

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 125 students accompanied by 05 faculty members are interested to Visit your S.J .RMC Plant Pune a as a part of BE SPPU Syllabus in Advance Concrete Technology Subject. The visit is aimed at enhancing their Practical knowledge. We intend to take a round of the entire Construction. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (30/08/18)

Looking forward for your positive consent in this regard.

Thanking you.

Prof.Sonam Agrawal
(Faculty coordinator)

Prof.K.Pramod

HoD

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr.A.B.Auti

Principal
PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045

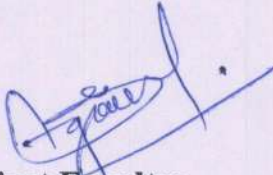


NOTICE

All the students of B.E. are hereby informed that , your ACT site visit of RMC Plant has been arranged on 30/08/18. So you all have to present at 10 am sharp in college premises.

NOTE:

- **STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM**
- **STUDENTS SHOULD CARRY WATER BOTTLE,CAP, SHOES etc**
- **ATTENDANCE IS COMPULSORY**



Subject Faculty:
Prof. Sonam Agrawal



H.O.D.
Prof. K. Pramod
Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.



Create competent Socially Responsible Civil Engineers
Genba Sopanrao Moze Trust's
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
Balewadi, Pune - 411045.



Civil Engineering Department
Academic Year 2018-2019

BE Students Roll Call

Class - BE


DIV A

Site visit attendance

Roll No	Names of students	Sign
A-01	ARUN SINGH	
A-02	AUDGE ASHWINI ATMARAM	Audge
A-03	BANSODE RANJANA RAMESH	-
A-04	BHANDARE KISHOR	-
A-05	BHORE VAISHNAVI VIVEKANAND	Bhore
A-06	BHOSALE DIGVIJAY DATTATRAY	Bhosale
A-07	BHOSALE SHREYASH SUDHIR	-
A-08	BIRADAR POOJA SHRIRAM	-
A-09	BOTRE RAHUL VITHOBA	-
A-10	CHAUHAN KANHAYA LAXMINARAYAN	Chauhan
A-11	CHAUHAN KRISHNAMOHAN R	-
A-12	CHOUDHARI GAURI BHAGAWAT	Chaudhary
A-13	CHOUGULE ANIKET SUNIL	-
A-14	DABHOLKAR SOHAM RAJENDRA	-
A-15	DESHMUKH RAJWARDHAN	-
A-16	DEVKAR SHUBHAM RAJABHAU	Devkar
A-17	DIDWAGH DHANAJI HANMANT	-
A-18	FARANDE MAYUR NAMDEO	-
A-19	GANDHI GAURAV HARSHAD	Gandhi
A-20	GARJE VIVEK	-
A-21	GHOLANE MAHESH	Gholane
A-22	GOPALE NIKHIL MANISH	Gopale
A-23	GORE MARUTI DAGADU	Gore
A-24	HINDRE SWAPNIL	Hindre
A-25	HULAWALE PRATIK SHIVAJI	Hulawale
A-26	JADHAV AKASH VENKATESH	-
A-27	JADHAV PRAVIN VILAS	-
A-28	JADHAV ROHAN	Jadhav
A-29	JAGDALE SUHAS SHIVAJI	Jagdale
A-30	JAGIRDAR A. MOHID A. NAJIB	Jagirdar
A-31	JAMDADE DNYANESH SHIVAJI	Jamdade
A-32	KABUTARE PRASHANT KISAN	Kabutare
A-33	KADAM VISHAL DATTATRAY	Kadam
A-34	KAKADE ARJUN RAGHUNATH	Kakade
A-35	KAMBLE PANKAJ RAJESH	Kamble
A-36	KANAME ABHIJEET BALAJI	Kaname
A-37	KAPSE SAGAR ANKUSH	Kapse



A-38	KETAN HAWALDAR	Ketan
A-39	KHAIRE AKSHAY BHANUDAS	-
A-40	KHATATE VINIT DINESH	Vinit
A-41	KONJARE CHANDRAKANT P	-
A-42	KULKARNI RUSHIKESH	-
A-43	KUMAR PANKAJ KUMAR PAL S	-
A-44	LOKHANDE AMOL VITTHAL	-
A-45	LOMATE PRITAM	-
A-46	MAHALE NEIL	Neil
A-47	MOHITE ROHIT DNYANESHWAR	Rohit
A-48	MURTADAK SHUBHAM	Shubham
A-49	NADAF FARUKH	Farukh
A-50	NAGE AKSHAY	Akshay
A-51	NAIKWADI ROHAN SHIVAJI	Rohan
A-52	NAKHATE NIKHIL	-
A-53	NANAVARE SANKET	-
A-54	NEAVASE PRUTHIVIRAJ	Pruthi
A-55	PAKHLE ROHAN SHRIKANT	Rohan
A-56	PALKAR DAYANAD TUKARAM	Reedy
A-57	PANCHAL PRAMILA	Panbu


Prof. Sonam Agrawal
Faculty Coordinator


Prof. K. Pramod
H.O.D

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045



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Balewadi, Pune - 411045.



Civil Engineering Department
Academic Year 2018-2019

BE Students Roll Call

Class - BE

DIV B

Site Visit Attendance

Roll No	Names of students	Sign
B-01	PANZADE ANIKET	
B-02	PATIL PRASAD NITIN	dniket
B-03	PATKAR SUMANT	Wine
B-04	PAWAR KAUSTUBH	sumant
B-05	RAGHUVANSHI SHUBHAM NANDKISHORE	
B-06	RAJPUT MANTHAN D	rajput
B-07	RAKSHE SURAJ VASANT	suraj
B-08	RATHOD PRAGATI PARASRAM	pragati
B-09	RAUT AJAY PANDURANG	ajay
B-10	RAUT AJINKYA DHANRAJ	dhankaj
B-11	RAUT GAURAV GULAB	gulab
B-12	ROSHNI DEVCHANDRA NINGTHOUJAM	roshni
B-13	SAGAR PRATHAM DILIP	sagar
B-14	SAID KAJAL	said
B-15	SAMAGE VIJAY RAJU	raju
B-16	SANAP AVINASH GANPAT	ganpat
B-17	SANE AMIT VIJAY	vijay
B-18	SANGLE BABURAO	baburao
B-19	SAPARIYA BAVESH	bash
B-20	SASTE SAGAR RAJARAM	sagar
B-21	SHAIKH MUBARAK SIRAJ	sheikh
B-22	SHARDUL MAHAJAN	
B-23	SHELKE VAIBHAV	
B-24	SHINDE JYOTI SURESH	
B-25	SHINDE MAHESH VILAS	
B-26	SHINDE NIKHIL LAXMAN	
B-27	SHINDE ROHIT MADHAVRAO	laxman
B-28	SHINDE SHREYASH VINOD	
B-29	SHINDE SURAJ TANAJI	vinod
B-30	SHUBHAM SUDHIR NAGARKAR	Tanaji
B-31	SWAMI VAISHNAVI	
B-32	TANDALE KISHOR HARIBHAU	Vaishavi
B-33	VATTE BHUSHAN NAGESH	
B-34	WAGHMODE PRUTHVIRAJ	
B-35	WALKE MANDAR SANJEEV	
B-36	WANKHEDE ANKIT SANJAY	wankhe
B-37	WANVE PRITI NARAYAN	priti



B-38	WARADE TUSHAR GAJANAN	<i>Warade</i>
B-39	WARUDKAR SANCHIT ANILKUMAR	<i>Warudkar</i>
B-40	ZINJADE KIRAN SURESH	<i>Zinjade</i>
P-01	MUNDE NILESH SHIVAJIRAO	<i>Munde</i>
P-02	NITIN DATTARAY AMBHORE	<i>Nitin</i>
P-03	RAJIKA GURAV	<i>Rajika</i>
P-04	CHOUGULE SOMESH SHIVAJI	<i>Chougule</i>
P-05	HIPPARGI SHADAAB NAUSHADALI	<i>Hippargi</i>
P-06	RANGNATH RAMESH NARWADE	<i>Rangnath</i>
P-07	TUPE ANANT	<i>Tupe</i>
P-08	SAURABH GAVALI	<i>Saurabh</i>
P-09	SHINDE APURVA	<i>Shinde</i>
P-10	TARATE KRISHNA	<i>Tarate</i>
P-11	RAJPUT KIRAN NANA	<i>Rajput</i>
P-12	DEVANSH AJAYKUMAR DESHMUKH	<i>Devansh</i>
P-13	SACHIN SHETE	<i>Sachin</i>
P-14	SHARDUL THIGALE	-
P-15	YELMAME VAIBHAV	-
P-16	WAGH CHIRAG GULABRAO	<i>Wagh</i>
P-17	KULDEEP KATALE	<i>Kuldeep</i>
P-18	KATKEMOD POOJA SHIVDAS	<i>Katkemod</i>
P-19	KOKANE AISHWARYA AMOL	<i>Kokane</i>
P-20	SHAIKH MAAZ	-
P-21	RAUT AVINASH G.	<i>Raut</i>

Sonam
Prof. Sonam Agrawal
Faculty Coordinator

K.S.
Prof. K. Pramod
H.O.D

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045





"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, Pune - 411 045

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph: 020-27390500 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Ref. No. CIVIL/2018/AUG/40

Date: 30/08/18

Letter of Thanks

To,

SJ RMC Plant

Baner Pune

Dear Sir,

We at the Genba Sopanrao Moze College of Engineering, Balewadi, would like to thank to you for the valuable contribution you made during the site visit.

We appreciate the time you took out of your busy schedule to join us and thank you for sharing your insights and expertise with our attendees. Your willingness to volunteer your time, energy and support is greatly appreciated.

Thanks and Regards

Prof. K. Pramod

HoD, Civil Engineering Department,

GSMCOE, Balewadi

Head of the Department,

CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering,

25/1/3, Balewadi, Pune-411 045.

Received
Plant Incharge
Mohit
30/08/18



ADVANCE CONCRETE ENGG.

SITE

VISIT

REPORT

ON

RMC PLANT

DATE:-~~20~~/08/18

30/08/18



❖ **Name:- SJ Construction Nande plant**

❖ **ADD:- Nande-gaon near ACC Cement plant behind
balewadi stadium mahalunge, pune 411-045**

❖ **Capacity of plant:- 1 m³.**

❖ **Total no of silos:- 3nos**

❖ **Capacity of each silos: - 1 silo – 120 tons (cement)
2 silo – 100 tons (GGBS)**

❖ **Type of cement used :- OPC 53 grade and above.**

❖ **Type of admixture used:- GGBS.**

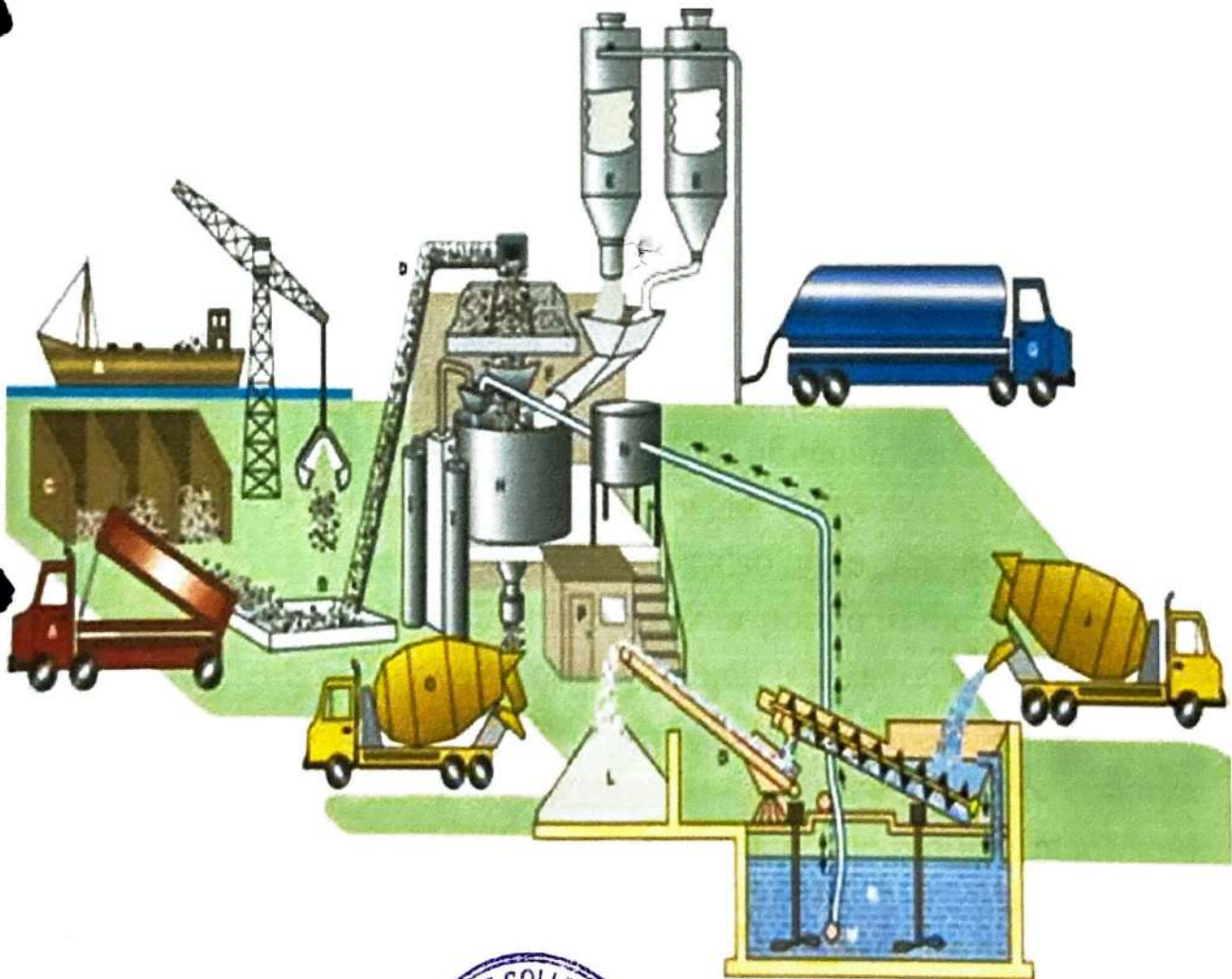
❖ **Faculty: - 1. Prof. Sonam Agrawal.
2. Prof. Priyanka Gharsole.
3. Prof. Vishal Panchal.**

* Total No. of students attended = 48



Content

Acknowledgement
General Information
Purpose of Visit
What we learnt
Conclusion



Purpose of Visit

Technical exposure of Concrete Technology, Manufacturing Processes and other Engineering aspects of Concrete Technology Subject. Students have learnt Process of making concrete, Material used in making of concrete, Test conducted over Concrete Blocks, Curing process for Concrete Blocks etc. With this kind of industrial visit, we gained more knowledge on Concrete Technology application aside from the theoretical aspect learned from the classrooms and laboratory.

What We Learnt

First a technical Explanation by Mr. Mohit sir, Plant Supervisor. First, he explained us regarding the Concrete Mix Plant Capacity, Testing Unit of Concrete, Compressive Strength of Concrete, and Curing Tank for Curing of Concrete, Transit Mixer, Material used in Concrete, Design parameters, etc. He also shared some Knowledge about their Experience regarding to Concrete Mix.

They also prepared the dry mix mixing of cement, sand and aggregate. After that by adding the water the concrete is prepared. The green concrete test like slump is also done. The concrete is filling in the transporting truck and transported to the construction site. Students show the laboratory which is situated at the plant. Laboratory assistance show us the test conducting on materials as well as on concrete. They perform the compression test of concrete also. Student also show the software use for the running plant, and also give the report of bath mixing of concrete for that day, Which is enclosed in the report.





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25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

Date-16/09/2019

SITE VISIT NOTICE

All the students of B.E. are hereby informed that site visit to Railway Track has been arranged on **17/09/2019**. All Students must be present at 10 am sharp in college premises.

NOTE:

- **STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM**
- **STUDENTS SHOULD CARRY WATER BOTTLE,CAP, SHOES etc**
- **ATTENDANCE IS COMPULSORY**

Prof. S.R.Mahajan

(Faculty coordinator)

Prof.Sahu Pali

HOD

**Head of the Department
CIVIL ENGINEERING**

**Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045**





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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-27390500 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. :

Date :

To,

Railway,(Executive Engineer),

Dept.of Railway,

Pune.

Subject:- Permission to Railway track visit

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 80 students accompanied by 02 faculty members are interested to Visit your Railway track visit as a part of TE SPPU Syllabus. The visit is aimed at enhancing their Practical knowledge.I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (13/05/22)

Looking forward for your positive consent in this regard.

Thanking you.

Prof.Shilpa Mahajan
(Faculty coordinator)

Prof.Pali Sahu
HOD

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr. A.B.Auti
Principal

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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Ph. : 020-27390500 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in
Founder President : Shri. Rambhau Moze

Ref. No. : GSMYCOE/2019/Sept./246

Date : 5/9/19

To,
Railway, (Executive Engineer)
Dept. of Railway
Pune.


Subject: Regarding permission for Railway Track Visit

Respected Sir,


We introduce ourselves as G. S. Moze College of engineering Pune. We offer courses at the under graduate level in various areas of engineering. As a part of education tour to a fully functioning of Railway Track , our students are very eager to visit various process areas. There would be a total of 80 students accompanied by 02 faculty members from our college. The visit is aimed at enhancing their knowledge. We intend to take a round of the entire area and show the tasks handled in different departments to our students.

I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us an opportunity to visit Railway Track and meet your skilled staff. Please reply us with possible date on which we can visit your premises. I anticipate a positive response from your end.

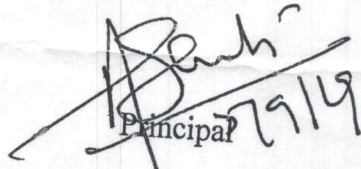
Thanking you.


Subject Teacher

(Asst.Prof.S.R.Mahajan)


HoD
Pali Salun
(Civil Deptt.,

Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.


Principal
(Dr.A.B.Auti)



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Genba Sopanrao Moze Trust's
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING



Balewadi, Pune - 411045.

Civil Engineering Department

Academic Year 2018-2019

Site visit attendance

TEB

Date-17/9/2019

Roll No	Name of Student	Sign
1	ATTARDE BHUSHAN ANIL	<i>[Signature]</i>
2	AVHAD SHUBHAM BHASKAR	<i>[Signature]</i>
3	BAJABALE SAGAR DINKAR	<i>[Signature]</i>
4	BANDE BASWESHWAR SANJAY	<i>[Signature]</i>
5	BANKAR PRIYA SUBHASH	<i>[Signature]</i>
6	BELVALKAR SURBHI SUNIL	<i>[Signature]</i>
7	BHUNDE GANESH PANDHARINATH	<i>[Signature]</i>
8	BIRADAR GEETASHRI BALAJI	<i>[Signature]</i>
9	BIRAJDAR AKASH BHIMRAO	<i>[Signature]</i>
10	BOBADE AKSHAY ANANT	
11	CHATE SACHIN RAMCHANDRA	
12	CHAVAN SHUBHAM PRADIP	<i>[Signature]</i>
13	CHENDKE AMAR SHIVAJI	<i>[Signature]</i>
14	CHIPPA NITESH VYANKATESH	
15	CHONDHE SHUBHAM NAMDEV	
16	DAGADE SHUBHAM PANDURANG	
17	DANGADE SHUBHAM DHANRAJ	
18	DARSHALE SURAJ ASHOK	
19	DESHMUKHE ADITYA VIVEKANAND	<i>[Signature]</i>
20	DESHPANDE DURGESH GANESH	<i>[Signature]</i>
21	DEVDADE ADINATH BALASAHEB	<i>[Signature]</i>
22	DHAINJE SOURABH RAVINDRA	<i>[Signature]</i>
23	DHANGAR AKSHAY KASHIRAM	<i>[Signature]</i>
24	DHONDDEV PRATIK RAJU	<i>[Signature]</i>
25	DIXIT SHUBHAM SHIRISH	<i>[Signature]</i>
26	DONGALE SANGRAM TANAJI	
27	DUTARE SACHIN SANTOSH	<i>[Signature]</i>
28	EDAKE BHUSAN VILAS	<i>[Signature]</i>
29	GAIKWAD PRASHANT PANDHARINATH	<i>[Signature]</i>
30	GAJARE SIDDHARTH ANIL	<i>[Signature]</i>
31	GAWADE DHANANJAY SUBHASH	<i>[Signature]</i>
32	GAWALI ROSHANI BHANUDAS	<i>[Signature]</i>
33	GHADGE SAURABH SUMITRA	<i>[Signature]</i>
34	GORE SHRIKANT SHIWANNA	<i>[Signature]</i>
35	HIRAVE VISHAL SHIVAJI	<i>[Signature]</i>
36	HIREY POOJA PADMAKAR	<i>[Signature]</i>
37	HULPALLE CHAITANYA RAJKUMAR	<i>[Signature]</i>
38	JUNGHARE JAYASHREE GAJANAN	<i>[Signature]</i>
39	KADAM OMKAR SHANTARAM	<i>[Signature]</i>
40	KALBHOR RUSHIKESH SATISH	<i>[Signature]</i>
41	KALOKHE KALYANI NANSASHEB	<i>[Signature]</i>
42	KAMBLE NARESH BHAGWAN	<i>[Signature]</i>
43	KAMBLE SHRADDHA RAMESH	<i>[Signature]</i>
44	KANAWADE PRADNYA SUBHASH	<i>[Signature]</i>
45	KASHID VEERA UPKAR	<i>[Signature]</i>

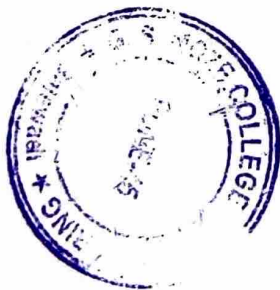


Roll No	Name of Student	Sign
46	KATE ROHAN RAJU	
47	KHARAMBALE SURAJ RACHANA	
48	KHEDKAR YOGESH SOMNATH	
49	KOKARE SURAJ POPAT	
50	LABDE RISHIKESH HANUMAN	
51	LAMBHADE AJAY DILIP	
52	MAGARE RAMABAI NAMDEV	
53	MASKE SHUBHAM MANOJ	
54	MOHITE VISHAL RAMESH	
55	MORE VIKAS CHANDRAKANT	
56	MORE RAVINDRA GORAKH	
57	MULE SHRIDHAR DATTA	
58	NAGANE TANMAY PRADIP	
59	NARHARE RUSHIKESH DHARAMPAL	
60	NATAMBE AKSHAY ANKUSH	
61	NIKAM ROMA YASHWANT	
62	NILEWAR SURESH RAJARAM	
63	PADAWAL NILESH SHAN	
64	PAWAR YOGESHVAREE LAXMAN	
65	THETE PRAJWAL VILAS	
66	SURAJ SHRIKISHAN BADADE	
67	SIRSAT GANESH	
68	TUSHAR TARADE	
69	YADAV SWAPNIL	
70	BUDALE AMOL	
71	KETAN CHOUDHARI	
72	KULKARNI CHAITANYA	
73	ABHANG AKASH SURESH	
74	BHAVSAR SHUBHAM	
75	DESHMUKH AISHWARYA	
76	HARIDAS AKSHAY JAYANT	
77	SHELKE PRASAD (F.E. 2012)	
78	MORE SANJAY	
79	YOGESH NAIK	
80	KOKATE PRASAD	

Prof.S.R.Mahajan
Course Incharge

Prof.Rahul Hodage
H.O.D

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045



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GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
Balewadi, Pune - 411045.
Civil Engineering Department
Academic Year 2018-2019



Site visit attendance

T.E-A

Date-17/9/2019

Roll No	Name of Student	Sign
1	PAGARE ARJUN DINESH	
2	PANDEY ASHUTOSH VINODKUMAR	
3	PARMAR VIREN RAMESH	
4	PATEL HARSH HASMUKH	
5	PATIL RAJASHRI GULABRAO	
6	PATIL MAMTA VISHWAS	
7	PATOLE SANKET BALU	
8	PAWAR KARTIK CHANDRASHEKHAR	
9	PAWAR ADITYA DASHRATH	
10	PAWNE ANAS MAQSOOD	
11	POL RACHNA RAVI	
12	POUL VIJAY RUPCHANDE	
13	RAJPUT SANGRAMSINGH RAJENDRASINGH	
14	RAKSHE SAURABH SUBHASH	
15	RANDHE SHRADDHA VIKAS	
16	RANE PRATIK PRABHAKAR	
17	RATHOD AMOL RAJARAM	
18	RATHOD VIKRAM BHIMRAO	
19	SANGOLKAR KIRAN PANDHARINATH	
20	SAPATE HANUMANT SHIVAJI	
21	SARAF SWARALI ANANT	
22	SASANE HRUSHIKESH BALASAHEB	
23	SATHE VAIBHAV BHARAT	
24	SHENDRE SUMIT VINODRAO	
25	SHINDE AMIT BALASAHAE	
26	SHINDE CHETAN KASHINATH	
27	SHINDE SMITA KRISHNADEV	
28	SHINDE RAMESHWAR RAJENDRA	
29	SHIRSATH PRATIK PRAHLAD	
30	SOLAPURE SAGAR SURYAKANT	
31	SONAWANE VISHAL BALASAHEB	
32	SONDE SAHIM ABDUL KARIM	
33	SONGIRE DARSHAN SURESH	
34	SONKAMBLE AJAY GANESH	
35	SURVASE SIDDHARTH MACHHINDRA	
36	TAKAWANE SHUBHAM SUNIL	
37	TANDALE AKSHAY MANOHAR	
38	TAPKEER JAYDATTA KISHORE	
39	THIKEKAR PURVA DHARMANATH	
40	THORAT SWAPNIL KAILASH	
41	UGALE MONIKA ASHOK	
42	UPADE PRANALI BALASAHAE	
43	VALECHHA MOHIT RAJESH	
44	VYAS ANAGHA AJAY	
45	WAGHMARE ASHOK VISHNU	
46	YEDAVE AVINASH SUKHADEV	
47	CHAVAN ADITYA	
48	BADE APURVA UTTAM	
49	GAIKWAD TEJAS VINOD	
50	GITTE MAHESH BAJIRAO	



Roll No	Name of Student	Sign
51	GURAV ANIKET ANIL	
52	JADHAV LAXMAN SIDRAMAPPA	
53	LOKHANDE SHIVANI BHAUSAHEB	
54	RAWADE LALESH RAOSAHEB	
55	SHAIKH AFTAB ANWAR	
56	SISODE VAIBHAV DILIPSING	
57	TONAGE NIKITA NAVANATH	
58	ZINJADE RAVINDRA SHIVAJI	
59	ALKUNTE KRISHNA ARJUN	
60	BACHHAV ROHAN RAVINDRA	
61	SONAWANE BHUSHAN LAXMAN	
62	AMOL K CHAVAN	
63	PAWAR SWAPNIL VIKAS	
64	KAUSTHUBH TATYASAHEB WALKE	
65	DHEERAJ VISHWAS SURYAVAMSHI	
66	ATUL JAWALE	
67	MAYUR NAKHATE	
68	SWARALI PAWAR	
69	EKHANDE MAHESH POPAT	
70	SHINDE VIVEK	
71	BIRAJDAR GURUSHANT SHANKAR	
72	MOHIT JAYBHAYE	
73	YANAMAWAR PRATIK	
74	CHONDHE AJINKYA MANOHAR	
75	DESHMUKH HITESH	
76	ANIKET LAKHPATI	
77	KORE SHEKHAR	
78	PAWAR AKSHAY BHAU	
79	PARIT AMOL	
80	JAIPHALKAR AKSHAY	
81	AKSHAY ASHOK KALE	

Prof.S.R.Mahajan
Course Incharge

Prof.Rahul Hodage
H.O.D
Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045





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Founder President: Shri Rambhau Moze

Date:17/09/2019

To,
Railway ,Executive Engineer
Dept.of Railway
Pune

Thanking Letter

Respected Sir,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit your Railway Track visit We really appreciate the time spent with our students and information shared by you. We hope our students received precious knowledge which will definitely help them in their Curriculum.

Thanking you.

Prof. S.R.Mahajan
(Faculty coordinator)

Prof.Sahu Pali

HOD

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr.A.B.Auti

(GSMCOE)

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045



• site visit Report •

• site visit report: →

An site visit for third year civil engg. student was organised at hadapsar railway station (Railtracks Introduction). Ramtekdi. pune.

• Date - on 17th sept 2019.

• purpose →

This visit was related to basic & practical introduction of Railtracks concept related to railtracks.

• Point covered during the visit →

A) All technical term & brief.

Explanation of them

B) Actual construction of site

C) All important points regarding how to prepared for placement interview of any company

This visit organised by →

i) Prof: Shilpa Mahajan

ii) Prof: Thorat Nivedita.

Other.

Total. no. of student & staff.

60 students (boy's & girl's).

following are the introduction regarding visit.



- Introduction →

The department of civil engg G.S.M.C.O.E. Balewadi, pune organised one day educational visit on railway tracks at hadapsar (pune) on 17 sept. 2019 for T:E civil engg. students

sites visit was organised as per pune universities guidelines & the recommendation regarding of T:E civil engg.

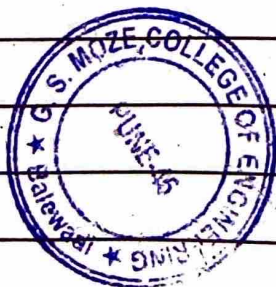
visit was organised with the perior permission & guidance of honorable HOD of civil dept Pali sahu & by the initiative & hard efforts of head of visit Shilpa mahajan mam, continuous guidance miss Thorat Nivedita mam which makes this visit a good success.

- Location →

pune, Hadapsar (Railway tracks)

- Guide By →

- i) Prof. S. mahajan mam
- ii) Prof. N. Thorat mam.



Railways :- (concept covered in visit)

• Railway Engineering :->

Railway Engg. is a branch of civil engg which deals with design development, construction & maintenance of railway.

Tracks for safe & efficient movement of trains.

- Rails :-> Rails are the rolled steel section laid end to end in two parallel lines over sleepers to form of railway tracks is called rail

Types :->

- (i) Bowler headed
- (ii) Bull headed
- (iii) Flat headed.

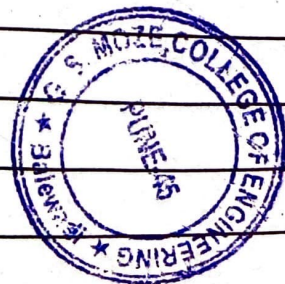
• Sleepers Types :->

- (i) wooden
- (ii) metal
- (iii) concrete

- Rail joints :-> To ensure continuity of railway tracks rails joint are necessary. This connection of any two adjacent rails in correct position is called rails joint.

• Type :->

- (i) supported
- (ii) suspended



- iii) Bridge
- iv) welded
- v) welded
- vi) square
- vii) staggered
- viii) compromise
- ix) Insulated

• point of crossing \Rightarrow

- i) A pair of tongue rails.
- ii) A pair of stock rails.
- iii) stretchers bar.
- iv) distance blocks
- v) Toe of switch
- vi) cheek rails
- vii) wing rails
- viii) splice rails
- ix) point rail
- x) main tracks
- x) Brant tracks

point of crossing is special arrangement provided on railway tracks facilitate trains to be diverted from one track to another.

• switches of point \Rightarrow

- i) simple split.
- ii) stub switches.



- Turnouts \rightarrow

Turnouts is a combination of turnout of point & crossing by which train is diverted from one track to another track.

- Types \rightarrow

i) Right hand

ii) Left hand turnout's

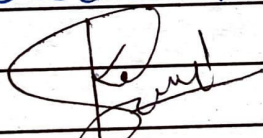
&

other important tracks maintenance & other object of the tracks

- Summary \rightarrow

This visit conveys all points required for students to know about the how the railway tracks is made or how does it looks.

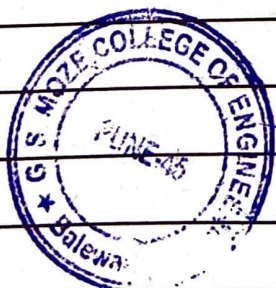
The point on point & crossing, turnouts were discussed too.

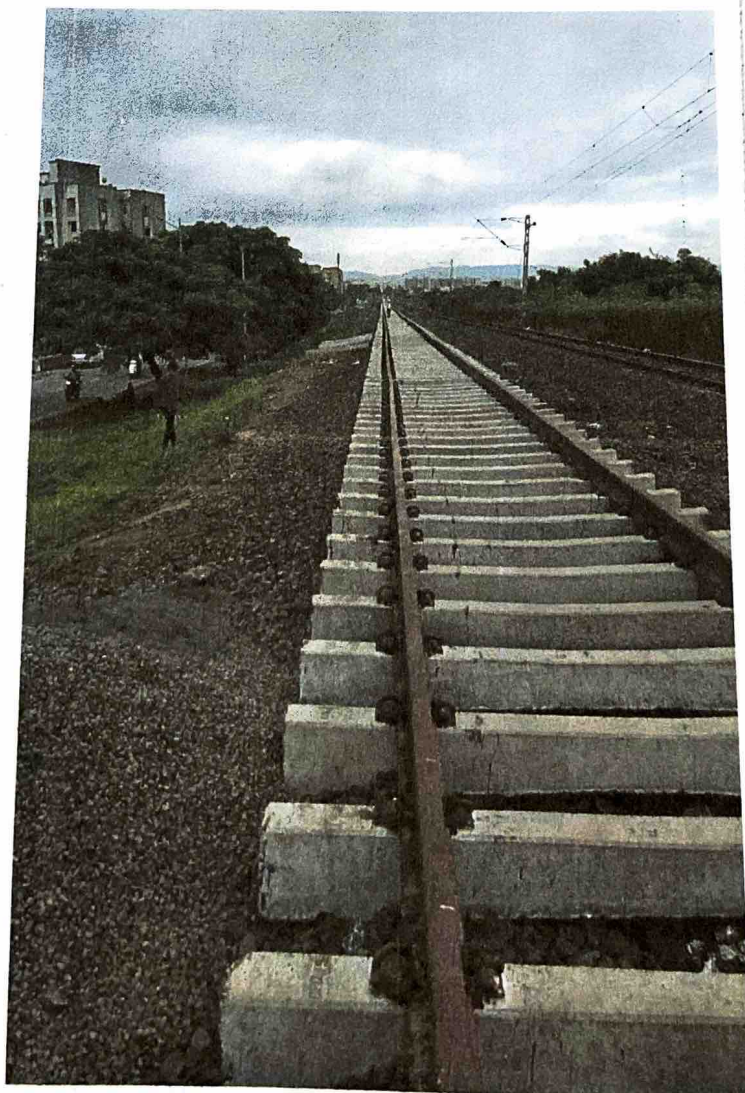


- Prof. Shilpa Mahajan
(subject incharge)



- Prof. Pali shahu.
(H.O.D. of Dept.)









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25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

DATE: 10/05/2022


NOTICE


All the students of S.E. are hereby informed that , your site visit of RMC Plant has been arranged on 13/05/2022 FRIDAY. So you all have to present at 9:30 am sharp in college premises .Or directly report at site sharp 10am. Location of RMC site will inform you one day before the schedule.

NOTE:

- STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM ALSO CARRY COLLEGE ID
- STUDENTS SHOULD CARRY WATER BOTTLE,CAP, SHOES etc
- ATTENDANCE IS COMPULSORY

Subject Faculty:


Prof. Shilpa Mahajan


H.O.D.

Prof. Seema Shiyekar

Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.





"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, 411 045.

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-29513395 Website : www.gsmozece.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. :

Date : 10/5/22

To,

Mr.Pawan Dhagate,
QC Manager,
Hella RMC India.

Subject:- Permission to visit RMC Plant.

Respected Sir,


We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.


There would be a total of 40 students accompanied by 02 faculty members are interested to Visit your RMC Plant as a part of SE SPPU Syllabus in EEII Subject. The visit is aimed at enhancing their Practical knowledge.I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (13/05/22)

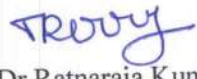
Looking forward for your positive consent in this regard.

Thanking you.


Prof.Shilpa Mahajan
(Faculty coordinator)


Prof.Seema Shiyekar
HOD

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045


Dr. Dr.Ratnaraja Kumar Jambhi
Principal
PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

DATE: 10/05/2022

To,
The Principal
GSMCOE Balewadi
Pune

Subject: Request to grant the permission for RMC plant site visit.

Respected Sir,

With reference to subject mentioned above we want to arrange site visit for the subject **Concrete Technology** for Second Year students of Civil Engineering Dept.

The site is situated near Nande Gaon (Hella RMC India) which is 10 km approx away from our college.

It's a kind request to grant us permission for the same along with 70 students and 2 faculty member to visit this site on **13/05/2022(FRIDAY)** at 11 am.

Thanking You,

Faculty

Prof. Shilpa Mahajan

Prof. Nivedita Thorat

H.O.D.

Prof. Seema Shiyekar

**Head of the Department,
CIVIL ENGINEERING**

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, Pune-411 045.

Principal

Dr. Ratnarajakumar Jambi

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph: 020-27390500 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Date: 17/05/2022

To,

Mr.Pawan Dhagate(QC Manager)

&Entire Team

Infra Market. Pvt. Ltd.

Pune-412115

Subject: Letter of Appreciation


Respected Sir,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit your renowned RMC plant at Nande. Our SE students are satisfied with the knowledge given by entire team and very good cooperation we got from the whole team of Infra. Market .We really appreciates the time spent by **Mr.Pawan Dhagate &Team** with our students and information shared.

Thanking you.

Yours Regards,


Prof. Shilpa Mahajan

(Faculty coordinator)




Prof. Seema Shiyekar

HoD

**Head of the Department,
CIVIL ENGINEERING**

Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.


Dr. Ratnarajkumar Jambi

Principal

PRINCIPAL

Genba Sopanrao Moze College of Engg.
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Ph: 020-27390500 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Date:13/05/2022

To,
Mr.Pawan Dhagate ,
QC Manager ,
RMC India

Letter of thanks

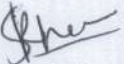
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We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to RMC plant. We really appreciate the time spent with our students and information shared by you. We hope our students received precious knowledge which will definitely help them in their Curriculum.

Thanking you.

Yours Regards,


Prof. Shilpa Mahajan

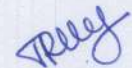
(Faculty coordinator)


Prof. Seema Shiyekar

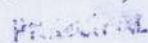
Hod

**Head of the Department
CIVIL ENGINEERING**

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045


Dr. Ratnaraja Kumar Jambi

(GSMCOE, Balewadi)


Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph: 020-27390500 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Date: 5/5/2022

To,
Mr. Pawan Dhagate
(QC manager)
Hella RMC India

Subject: Regarding permission to visit RMC plant

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 40 students accompanied by 02 faculty members are interested to visit RMC plant as a part of curriculum.. The visit is aimed at enhancing their knowledge. We intend to take a round of the entire RMC plant. **(Various operation involved to prepare concrete mix. additionally if we get any information about admixtures which is used to prepare special concrete)** I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

After the approval from your side college will provide identity cards of Students and Faculty

Members and will do the needful. **we are expecting visit on date (7/5/22 or 9/5/22)**

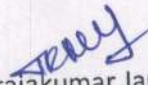
Looking forward for your positive consent in this regard.

Thanking you.


Prof. Shilpa Mahajan

(Faculty Incharge)


Prof. Seema Shiyekar
(H.o.D Civil Dept)


Dr. Ratnarajakumar Jambi
(Principal, GSMCOE)

Received and Accepted


Pawan Dhagate
Technical

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045



G S Moze College of Engineering Balewadi Pune

Second Year AY 2021-22

Department of Civil Engineering

RMC Site Visit Attendance



Course -Concrete Technology

Date- 16/05/2022

Roll. NO.	Class	Student Name	Sign
1	SE	BANAGAR SHASHANK SHIVASHANKAR	
2	SE	GAIKWAD RUTUJA JEEVA	
3	SE	NALWADE ADITYA DEEPAK	
4	SE	SHINDE HINDRAJ MILIND	
5	SE	AGJIL SHRIPAD MUKUNDRAO	
6	SE	AMBRE SAHIL NAGESH	
7	SE	AMIT KUMAR	
8	SE	BADGUJAR ASHUTOSH VIJAY	
9	SE	BARVE SAKSHI NITIN	
10	SE	BHALKE NIKHIL RAJKUMAR	
11	SE	BHISE SAURABH SAMPAT	
12	SE	BURUD AADESH SITARAM	
13	SE	CHINCHOLI NAGESH SHIVSHARANAPPA	
14	SE	DESHMUKH MUKUND GAJANAN	
15	SE	DHANGE ABHISHEK BHAGWAN	
16	SE	DHANKUDE SWARAJ SUHAS	
17	SE	DHAR SOUMK	
18	SE	DHEWADE CHAITANYA NARWIN	
19	SE	DHORE SUJAL SHAM	
20	SE	DIXIT SAISH SUNIL	
21	SE	GADE KAUSTUBH VIVEK	
22	SE	GADE SANKET SHAHAJI	
23	SE	GAIKWAD ABHIJEET SHANKAR	
24	SE	GAWALI ANIKET BAPU	
25	SE	GIRI NIKHIL AMVRUSHI	
26	SE	GUNDAL ANUJ CHANDRAKANT	
27	SE	INDORE AJAY JAGARNATH	

63	SE	SHAIKH MUZIB AZIZ	<i>Haik</i> <i>Recepive</i>
64	SE	SHELAR PRATIK PRADIP	<i>Shelar</i>
65	SE	SHINDE RUSHIKESH SHIVAJI	<i>Shubham</i>
66	SE	SHUBHAM CHANDRAKANT BARKUL	<i>Shubham</i>
67	SE	SUTAR PRASAD GULAB	<i>Prasad</i>
68	SE	TAKALE JITENDRA MAHENDRA	<i>Takale</i>
69	SE	TARE SHARAD RAMKRISHRAO	<i>Tare</i>
70	SE	TAYDE CHAITANYA SANJAY	<i>Tayde</i>
71	SE	TELMORE ANUPRIYA RAMESH	<i>Telmore</i> <i>Ramesh</i>
72	SE	UNDE SAHIL ASHOK	<i>Unde</i>
73	SE	VEDNERE ANANT PROMOD	<i>Vedner</i>
74	SE	VETALE VIVEK SOPAN	<i>Vetale</i>
75	SE	WAKADE PRANAV SANDEEP	<i>Wakade</i> <i>Pranav</i>
76	SE	KEDARI HARSHAD POPAT	<i>Kedari</i>

Shilpa

Prof. Shilpa Mahajan

Course Incharge

Seema

Prof. Seema Shiyekar

H.O.D



Visit on
RMC Plant
Hella Infra Market Pvt. Ltd.

G S MOZE COLLEGE OF
ENGINEERING, BALEWADI

Department of civil engineering

CONCRETE TECHNOLOGY

Academic year 2021-2022



NAME: HELLA INFRA MARKET PVT LTO, Sr.No71, Nande Gaon, Mulshi, PUNE-412115

DAY & DATE : -Saturday & 13 May 2022

OBJECTIVE: STUDY OF RMC, TRANSIT MIXER AND BATCHING.

GUIDED BY: Prof. SHILPA MAHAJAN,

EXPERTS FROM SITE: Project Manager - . Pawan Dhagate and Team

We, second year students had a visit to: HELLA INFRA MARKET PVT LTO, Sr.No71, Nande Gaon, Mulshi. It is a Ready Mix Concrete Plant. Nearly about at 11 A.M we reached at plant. The project manager Mr. Pawan Dhagate greeted us with warm welcome.

After Introduction part he took us to his testing laboratory where he showed us various equipments which is used for testing of fresh as well as hardened concrete.

Introduction:

Few things are more aggregating to produce on a worse than concrete, bags of cement, sand, aggregate & possibly other additive must be delivered to the construction area. A supply of clean water is also necessary, along with a rented concrete mixing hopper. Even after all the dusty & heavy ingredients have been loaded into the hopper, one shall error in wet dry ratio can ruin an entire batch of concrete usable. One common solution to this messy & time consuming problem is ready mix concrete.

PROCESS

QUALITY CHECK

When all the raw materials come to site they do some field test on them and then materials are accepted and then they do required checking limit W/c ratio, workability and compression test on cubes made by that materials as per grades of cement. Some laboratory test are done in their own lab in Pune.

STORAGE YARD

In the storage yard they store 20mm, 10mm, aggregate and crushed sand, they also have attached the sprinkler above the materials to absorb water to increase workability of aggregate. Once the trial



test are done then they move materials to storage yard for lading of RMC.
There were 3 Silos to store fly ash, cement and GGBS about 100ton capacity
each and they silos dont allow moisture to be absorbed in materials to
maintain the quality.

PNEUMATIC HOPPERS

From storage yard a (JCB) load all the materials in
different hoppers as per requirement.

CONVEYER BELT

From hopper all materials fall on conveyer belt as per
requirement with the help of automated pneumatic arm. All
mechanism is controlled with software .



CONTROL CABIN

From cabin they send all materials to mixers as per client requirement with help of software they start loading.

MIXERS



In mixer all materials, admixtures, cement from silos connected to mixer and water is mixed as per proportion entered in software by the engineer

LOADING

Once the RMC is ready for loading, the transit mixer comes under the opening of mixer.

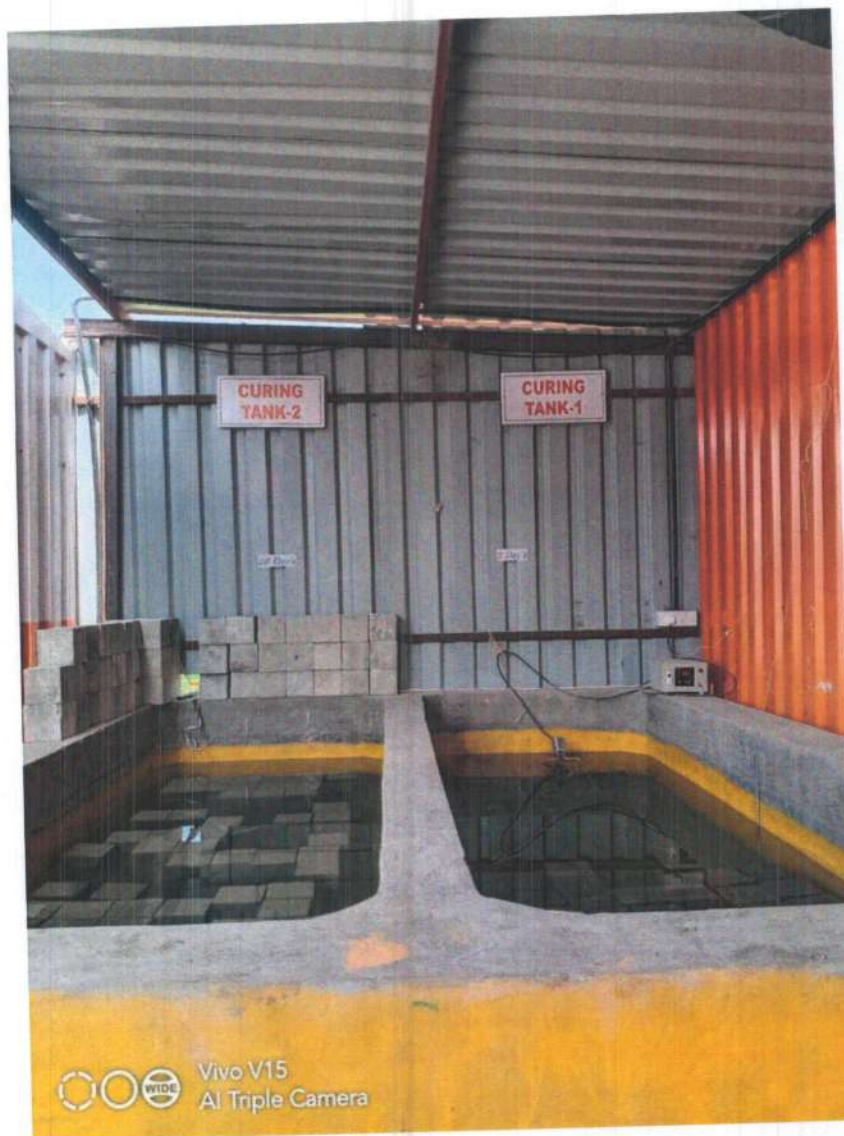
And then transit mixer is loaded, and a final horn is honked as a signal regarding transit mixer is loaded and ready to go.

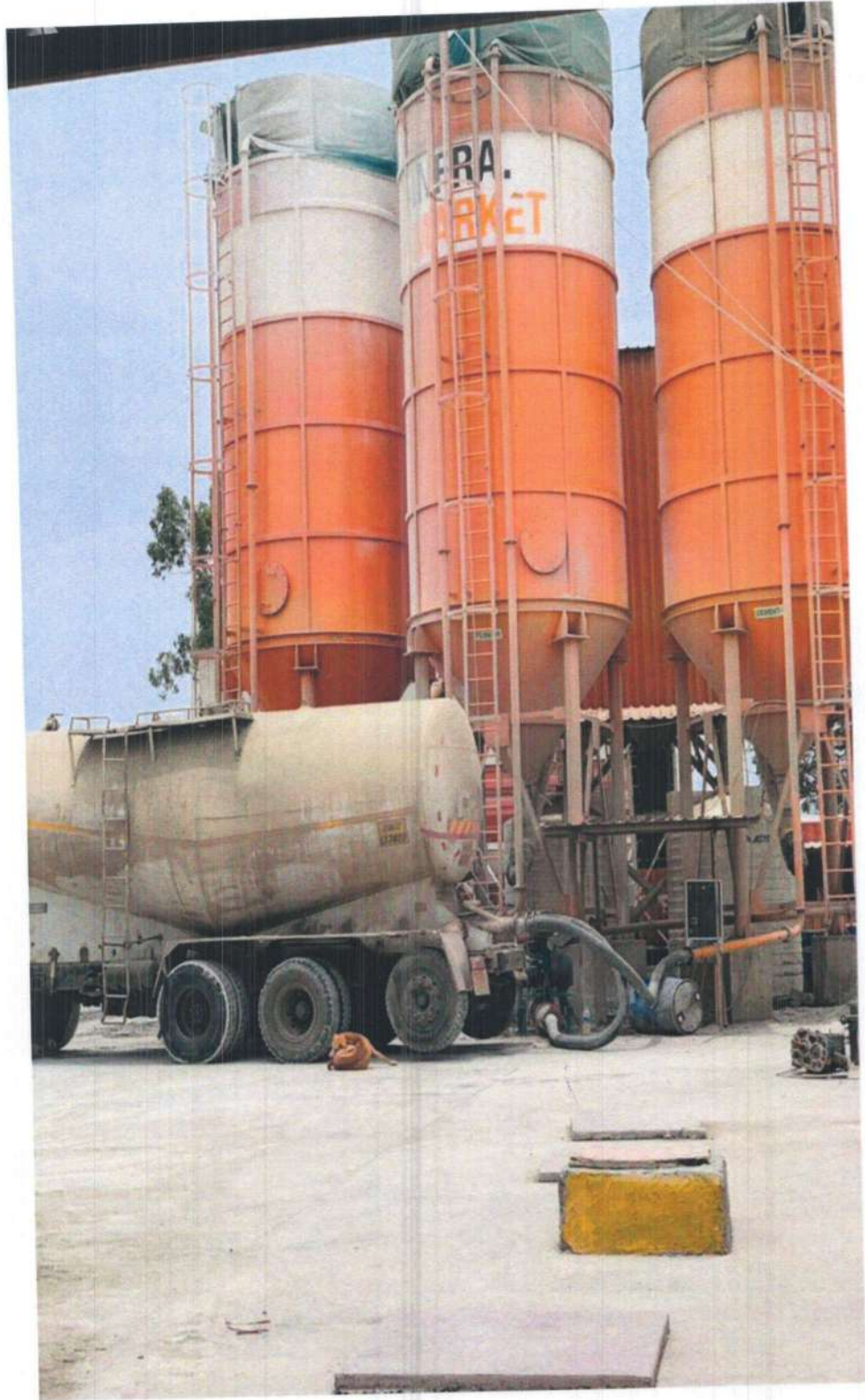
A final checking is done by engineers so confirm that loaded transit mixer is filled with proper grade and Quality



of materials. Transit mixer were had the capacity of 7m³ on site but truck also comes with different sizes like 6m³, 8m³, 9m³. With capacity of 25 to 50 tone.

After that they showed us compression test on cubes which they had made 28days ago, cured in 28 degree celcius controlled with thermostat.









Conclusion:

This visit was really helpful to us for understanding working and benefits of READY MIX CONCRETE PLANT.



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Website: www.gsmozece.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

UNDERTAKING

Subject: Undertaking for Educational visit

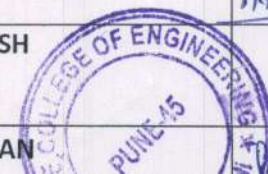
Sir/Madam,I, the undersigned with name & roll no. listed below, student of “SE A Div “ CIVIL” hereby give the following undertakir

1. That I am joining the site visit to RMC PLANT ~~NANDE~~ Pune.on 13th May 2022 at my own risk & cost.
2. That I will not hold responsible either G. S. MOZE COLLEGE OF ENGINEERING, CIVIL ENGINEERING DEPARTMENT or ORGANIZERS for any eventuality.
3. That I am giving this undertaking in my full consciousness and alertness.
4. I will follow all the instructions given to me by ORGANIZERS & FACULTY MEMBERS.
5. I will follow all disciplines and rules from start to end of the tour.
6. I will not smoke, consume alcohol, tobacco in the tour at any time.

I am aware that I will be detained for a year if I violate the undertaking.

I have informed my parents about the study tour and they have permitted me for the same. My parents know the schedule of this study Visit.

Roll No.	Name of Student	Sign	Roll No.	Name of Student	sign
✓ A1	BANAGAR SHASHANK SHIVASHANKAR		A19	DHORE SUJAL SHAM	
✓ A2	GAIKWAD RUTUJA JEEVA N		A20	DIXIT SAISH SUNIL	
✓ A3	NALWADE ADITYA DEEPAK		A21	GADE KAUSTUBH VIVEK	
A4	SHINDE HINDRAJ MILIND		A22	GADE SANKET SHAHAJI	
✓ A5	AGJIL SHRIPAD MUKUNDRAO		✓ A23	GAIKWAD ABHIJEET SHANKAR	
A6	AMBRE SAHIL NAGESH		A24	GAWALI ANIKET BAPU	
A7	AMIT KUMAR		A25	GIRI NIKHIL AMVRUSHI	
A8	BADGUJAR ASHUTOSH VIJAY		A26	GUNDAL ANUJ CHANDRAKANT	
✓ A9	BARVE SAKSHI NITIN		A27	INDORE AJAY JAGARNATH	
A10	BHALKE NIKHIL RAJKUMAR		✓ A28	JADHAV DIPALI MARUTI	
A11	BHISE SAURABH SAMPAT		A29	JADHAV MAHADEV RAJENDRA	
A12	BURUD AADESH SITARAM		A30	JAGTAP KARAN SANJAY	
A13	CHINCHOLI NAGESH SHIVSHARANAPPA		A31	KAMBLE SHWETA JAYANT	
A14	DESHMUKH MUKUND GAJANAN		A32	KARWADE PRAGATI PRAKASH	
✓ A15	DHANGE ABHISHEK BHAGWAN		A33	KEDARI HARSHAD POPAT	
A16	DHANKUDE SWARAJ SUHAS		A34	KHUPSE VYANKTESH MURLIDHARRAO	
A17	DHAR SOUMK		✓ A35	KIRVE POOJA BABAN	





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Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

Roll No.	Name of Student	Sign	Roll No.	Name of Student	sign
A37	KOLEKAR YUVRAJ MOHAN		A65	SHINDE RUSHIKESH SHIVAJI	
A38	KONDEVILKAR JAGRUTI TUKARAM	<i>Jagruti</i>	A66	SHUBHAM CHANDRAKANT BARKUL	
A39	LAGOTE SHAILESH RANGNATHRAO		A67	SUTAR PRASAD GULAB	
A40	MAHATRE SHUBHAM BALU		A68	TAKALE JITENDRA MAHENDRA	
A41	MAKASARE SANKET MANOJ		A69	TARE SHARAD RAMKRISHRAO	
A42	NAGTILAK PRATHAMESH TANAJI		A70	TAYDE CHAITANYA SANJAY	
A43	NAIK DATTA VENKATRAO		A71	TELMORE ANUPRIYA RAMESH	
A44	NANGARE MADHRI NAMDEO		A72	UNDE SAHIL ASHOK	
A45	OVHAL PRADNYA DILIP		A73	VEDNERE ANANT PROMOD	<i>[Signature]</i>
A46	PADULE MANGESH SAHEBRAO	<i>[Signature]</i>	A74	VETALE VIVEK SOPAN	
A47	PANDIT AKSHATA BALASAHEB	<i>[Signature]</i>	A75	WAKADE PRANAV SANDEEP	
A48	PATANKAR PRAJAKTA RAMCHANDRA				
A49	PAVAL KARAN SUNIL				
A50	PAWAR PRACHODAY MAHADEV				
A51	PAWAR SAKSHI GOVIND	<i>Sakshi</i>			
A52	PILLE SURAJ BALKRISHNA				
A53	PISAL PRATHAMESH SUNIL	<i>[Signature]</i>			
A54	PRADHI ROHAN KASHINATH				
A55	RAJPUT AKSHAY MAHESH				
A56	RAKSHE GAURAV DATTATRAY	<i>[Signature]</i>			
A57	ROKADE PRAKASH VILAS				
A58	SANAP HANUMANT SUKHDEV				
A59	SARODE POOJA RAVINDRA				
A60	SATPUTE SNEHA JYOTIRAM				
A61	SHAHA ANIKET MOHAN				
A62	SHAIKH KASHAF EJAZ AHMED				
A63	SHAIKH MUZIB AZIZ				





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Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department of Civil Engineering

Date: - 09/04/2022

NOTICE

It is to inform all the Third Year Civil Engineering Students that a site visit for Waste water Engineering subject has been arranged on 12/04/2022 at Sewage Treatment plant, Akurdi. Attendance is mandatory to all the students. Amount of Rs 40 will be collected from each student for the same. Transaction Details will be shared on the official group shortly.

Prof. Poonam Nandihalli

Subject Teacher

Prof. Seema Shiyekar

H.O.D



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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-29513395 Website : www.gsmozece.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. :

Date :

To,
Executive Engineer,
Environmental engineering department,
Pcmc, Pune.

Subject:- Permission to visit Sewage Treatment Plant, Akurdi .

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 30 students accompanied by 02 faculty members are interested to Visit your Sewage Treatment Plant ,Akurdi as a part of TE SPPU Syllabus in WWE Subject. The visit is aimed at enhancing their Practical knowledge. We intend to take a round of the entire Sewage Treatment Plant. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (12/04/22)

Looking forward for your positive consent in this regard.

Thanking you.



Prof. Poonam Nandihalli

(Faculty coordinator)


Prof. Seema Shiyekar

HOD
Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411045


Dr. Ratnaraja Kumar Jambi

Principal

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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Founder President : Shri. Rambhau Moze

Ref. No. : GSMCOE/2022/ADMIN/223

Date : 11/04/2022

To
Executive Engineer,
Environment Engineering Department,
Pimpri Chinchwad Municipal Corporation, Pimpri,
Pune- 411018.

Subject: Regarding Permission for Site Visit to Sewage Treatment Plant, Akrudi.

Respected Sir,

We are one of the reputed institutes offering various technical degree courses approved by AICTE Delhi, Govt. of Maharashtra, DTE and affiliated to Savitribai Phule Pune University (SPPU).

With reference to above mentioned subject as per the course curriculum for the subject **Waste Water Engg.** of Third year student of Civil Engineering Department, we would like to arrange a site visit to Sewage Treatment Plant for the same.

It's a kind request to grant us permission to visit the site along with the students and 2 faculty members on 12/04/2022. We will be thankful if you do the needful and allow us In-charge person so that he can explain the details about site.

Thanking you.

Prof. Poonam Nandihalli

Subject Incharge

(8867845069)

Prof. Seema Shiyekar

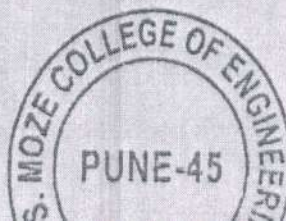
H.O.D

Dr. Ratnaraja Kumar Jambi

Principal

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





G S MOZE COLLEGE OF ENGINEERING

Department of Civil Engineering

Roll call list

Class TE A A.Y. 2021-22

Sewage Treatment Plant Visit Attendance

Course -Waste water Engineering

Date- 09/04/2022

Roll No	Name of Student	Sign
TE A 1	SURYAWANSHI ABHISHEK BHANUDAS	
TE A 2	SURYAWANSHI RUSHIKESH RAJENDRA	
TE A 3	SANDEEP NEBBOOLAL PRAJAPATI	
TE A 4	CHAVAN RUTVI PRADEEP	
TE A 5	PHADE SHUBHAM KRUSHNAJI	
TE A 6	BHANGE SAIPRASAD SANJAY	
TE A 7	DHANGEKAR ABHISHEK MAHADEV	
TE A 8	GAURAV TAPKIR	
TE A 9	ALKUNTE PRATIK SHANKAR	
TE A 10	ANDHALE PRUTHVIRAJ YUVRAJ	
TE A 11	ANIKET UDDHAV MANDHARE	
TE A 12	ANIMESH SANJAY NAGWANSHI	
TE A 13	BACHCHE SHAILESH VASANT	
TE A 14	BARKULE SHUBHAM CHANDRAKANT	
TE A 15	BHAGWAT ADITYA GOPALA	
TE A 16	BHANAWASE SUJIT JOYTIRM	
TE A 17	BHELSAIKAR AJINKYA RAJU	
TE A 18	BIRADAR GAURAV DNYANESHWAR	
TE A 19	CHAUDHARI DHIRAJ POPATRAO	
TE A 20	CHAVAN MANASI VITTHAL	
TE A 21	CHAVAN SANGRAM MANSING	
TE A 22	CHAVAN SURAJ RAMESH	
TE A 23	CHIPLUNKAR SAHIL SANJAY	
TE A 24	DESAI POOJA DINKAR	
TE A 25	DUBALE ATHARV HANUMANT	
TE A 26	DUDHAL SHUBHAM SANJAY	
TE A 27	GADEKAR SHRADDHA GAJANAN	
TE A 28	GAIKWAD NIKHIL VISHNU	
TE A 29	GANDHARE JANHAVI AJAY	
TE A 30	GHOHARE REVANSIDDHA NAMDEV	
TE A 31	GODAGE SAMEER SURESH	
TE A 32	GOLE SANJAY BABURAO	
TE A 33	GUNJAL SHIVRAJ BRAMANAND	
TE A 34	HAWALDAR SANKET BALA PUSHNA	

TE A 35	INDRALE PRITI ASHOKRAO	INDRALE
TE A 36	ITKALE SHUBHAM DILIP	ITKALE
TE A 37	JADHAV NIKHIL SHIVAJI	JADHAV
TE A 38	JADHAV PRATIK NANDKUMAR	JADHAV
TE A 39	JADHAV VAIBHAV PRAKASH	JADHAV
TE A 40	JAGTAP GURUPRASAD AJAY	JAGTAP
TE A 41	JAGTAP SACHIN RAJENDRA	JAGTAP
TE A 42	JAYESH SUDAM SAINDANE	JAYESH
TE A 43	JOSHI SOHAM SANJOT	JOSHI
TE A 44	KADAM AKASH BABASAHEB	KADAM
TE A 45	KADAM AKASH BHAUSAHEB	KADAM
TE A 46	KADAM GANESH MAHADEV	KADAM
TE A 47	KALE RUSHIKESH BABASAHEB	KALE
TE A 48	KALOKHE SURAJ AVINASH	KALOKHE
TE A 49	KAMBLE PRAJAKTA JITENDRA	KAMBLE
TE A 50	KAMBLE PRASHIK BHARATBHUSHAN	KAMBLE
TE A 51	KHAN HUMA JAVEDKHAN	KHAN
TE A 52	KHANDARE RAJESHWAR RAMESHRAO	KHANDARE
TE A 53	KHARAT AVINASH VINAYAK	KHARAT
TE A 54	KHARAT GANESH ARJUN	KHARAT
TE A 55	KOLEKAR AMOL SURESH	KOLEKAR
TE A 56	KORKE SAGAR DATTATRAY	KORKE
TE A 57	KSHIRSAGAR VISHWANATH BHAGWAN	KSHIRSAGAR
TE A 58	LAKKAM SUDHANSHU SANJAY	LAKKAM
TE A 59	MADAKE SAYALI BALU	MADAKE
TE A 60	MAGARE PREETI DATTATRY	MAGARE
TE A 61	MAHALE DEVENDRA SHIRISH	MAHALE
TE A 62	MANE GEETANJALI GHANSHYAM	MANE
TE A 63	MANSUTE GAURAV SUDHAKAR	MANSUTE
TE A 64	MATERE PRADIP RAMESH	MATERE
TE A 65	MHALUNGEKAR SAURABH SAMBHAJI	MHALUNGEKAR
TE A 66	MOHITE PRANAV PRAKASH	MOHITE
TE A 67	MOKASHI SUHEL DAUD	MOKASHI
TE A 68	MORE RAHUL VASANT	MORE
TE A 69	NAWALI SAGAR VILAS	NAWALI
TE A 70	NIKHIL DATIR	NIKHIL
TE A 71	PIMPLE VIKESH MANIK	PIMPLE
TE A 72	MESHARAM RAVINDRA	MESHARAM
TE A 73	NIKHIL SHIMPI	NIKHIL
TE A 74	PRATHMESH KHONDE	PRATHMESH

Prof. Poonam N.
Course Incharge



Prof. Seema Shiyekar
H.O.D

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411045



G S MOZE COLLEGE OF ENGINEERING

Department of Civil Engineering

Roll Call

Class TE B A.Y. 2021-22

Sewage Treatment Plant Visit Attendance

Course -Waste water Engineering

Date-09/04/2022

Roll No	Name of Student	Sign
TE B 1	BAWANKAR AMIT DNYANESHWAR	Amit
TE B 2	PAWAR RACHANA NANDRAM	Rachana
TE B 3	GADIWADD SWAPNIL TIPANA	Swapnil
TE B 4	RAYMANE AKASH MACHHINDRANATH	Akash
TE B 5	BIJAWA PRITI RAMDASRAO	Priti
TE B 6	NAKHATE VANITA MARUTI	Vanita
TE B 7	JYOTI DNYANESHWAR RAJAPURE	Jyoti
TE B 8	NEHARKAR DINESH BABASAHEB	Dinesh
TE B 9	KUMBHAR RAJU ANNA	Raju
TE B 10	KAMBLE RUSHIKESH SUDESHKUMAR	Rushikesh
TE B 11	MORE VANDANA BHAGWANRAO	Vandana
TE B 12	CHAVAN AVINASH REVAN	Avinash
TE B 13	GIR SWATI KHUSHAL	Swati
TE B 14	DEVAKAR TANAJI TUKARAM	Devakar
TE B 15	JADHAV PRATIK RAVINDRA	Pratik
TE B 16	GUNDAL CHANDRAKANT RAMDAS	Chandrakant
TE B 17	ADISHERLAWAR VITTHALNATH LAXMANRAO	Vitthalnath
TE B 18	ARBUNE VAIBHAV PANDURANG	Vaibhav
TE B 19	BHAGAT RUSHIKESH HARISHCHANDRA	Rushikesh
TE B 20	BHANDARKAR GAURAV RAMLING	Gaurav
TE B 21	DHADDE OMKAR ASHOK	Omkar
TE B 22	DHUMAL DISHA DASHARTH	Disha
TE B 23	GAIKWAD AKSHAY SURESH	Akshay
TE B 24	GAVALI SHREYASH JAGDISH	Shreyash
TE B 25	KADAM ANIKET MALHARI	Aniket
TE B 26	KALASKAR AKASH ANNASAHEB	Akash
TE B 27	KAMBLE RUTURAJ DILIP	Ruturaj
TE B 28	KAMBLE VINAY ANIL	Vinay
TE B 29	MULE YOGESH SHANKAR	Yogesh
TE B 30	NAIK OMKAR SANTOSH	Omkar
TE B 31	NAVGHARE PRASAD MILIND	Prasad
TE B 32	NIKALJE SIDDHARTH SHASHIKANT	Siddharth
TE B 33	NIKHIL MOHAN GHANEKAR	Nikhil
TE B 34	OLEKAR PRATIK VIJAY	Pratik
TE B 35	ORASE ABHISHEK SHANKAR	Abhishek
TE B 36	ORSE MUKESH KISAN	Mukesh
TE B 37	PATIL KIRANRAJ NANA	Kiranraj



TE B 38	PAWALE TUSHAR TUKARAM	Patil
TE B 39	PHARANDE PRASAD GANESH	Patil
TE B 40	POTDAR GAURAV NAGNATH	POTDAR
TE B 41	RAJE PANKAJ DNYANOBA	Patil
TE B 42	RAJPUT VISHWAJITSING PREMSING	Patil
TE B 43	RANDIVE MANDAR GOKUL	RANDIVE
TE B 44	RANGOJI DIVYA GNYANADEV	RATHOD
TE B 45	RATHOD ARCHANA SANJAY	RAJOD
TE B 46	RAUT GANESH ASHOK	RATOD
TE B 47	RAWOOL VIKAS VIJAY	Rawool
TE B 48	SANCHIT RAGHUNATH CHAUGULE	Sanchit
TE B 49	SANNAV TANVI PRATAP	SANNAV
TE B 50	SATAV SHUBHAM MUKESH	SATAV
TE B 51	SATHE MEGHA MOHAN	SATHE
TE B 52	SAURABH WACHAK PADALE	SHINDE
TE B 53	SHINDE DIKSHA DATTATRAY	SHINDE
TE B 54	SHINDE JYOTI VISHWAS	SHINDE
TE B 55	SHINDE OM SANJAY	SHINDE
TE B 56	SHINDE RUSHIKESH RAMRAJE	SHINDE
TE B 57	SHINDE VRUSHABH DILIP	SHINDE
TE B 58	SINGH PRASHANT DURGAPRASAD	SINGH
TE B 59	SONUNE SACHIN KUNDALIK	SONUNE
TE B 60	SUDATTA LAXMAN GAIKWAD	SUDATTA
TE B 61	SURPAM LALITA MAHADEO	SURPAM
TE B 62	TEJAS VILAS DALVI	TEJAS
TE B 63	TEMKAR SAURABH VILAS	TEMKAR
TE B 64	THORAT SUYASH SAMBAHAI	THORAT
TE B 65	TIKAR RUPAL PANDURANG	TIKAR
TE B 66	TUPLONDHE SIDDHANT SUNIL	TUPLONDHE
TE B 67	UBALE RUTUJA MANOJ	UBALE
TE B 68	VAISHNAVI KORATE	VAISHNAVI
TE B 69	VHANMANE AKSHAY DASHARATH	VHANMANE
TE B 70	WAGHMARE GANESH KRUSHNA	WAGHMARE
TE B 71	WARLE AMRUTA LOBHAI	WARLE
TE B 72	CHAITANYA SHINDE	CHAITANYA
TE B 73	SUNIL PARGAVE	SUNIL
TE B 74	VISHAL GHODAKE	VISHAL

Prof. Poonam N.
Course Incharge

Prof. Seema Shiyekar
H.O.D



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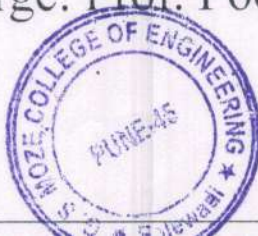


GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
Balewadi, Pune – 411045, Ph: 020-27390500

REPORT ON EDUCATIONAL VISIT SEWAGE TREATMENT PLANT, AKURDI.



Under SPPU as per syllabus
Organized by
Civil Engineering Department
Subject Incharge: Prof. Poonam Nandihalli



AIM - To generate knowledge and practical visualization of construction and working of sewage treatment plant.

SUBJECT - The visit was conducted for the better understand of Waste Water Engineering.

LOCATION - Near inox Jai Ganesh, Ganga Nagar road, Akurdi, Pune -411044

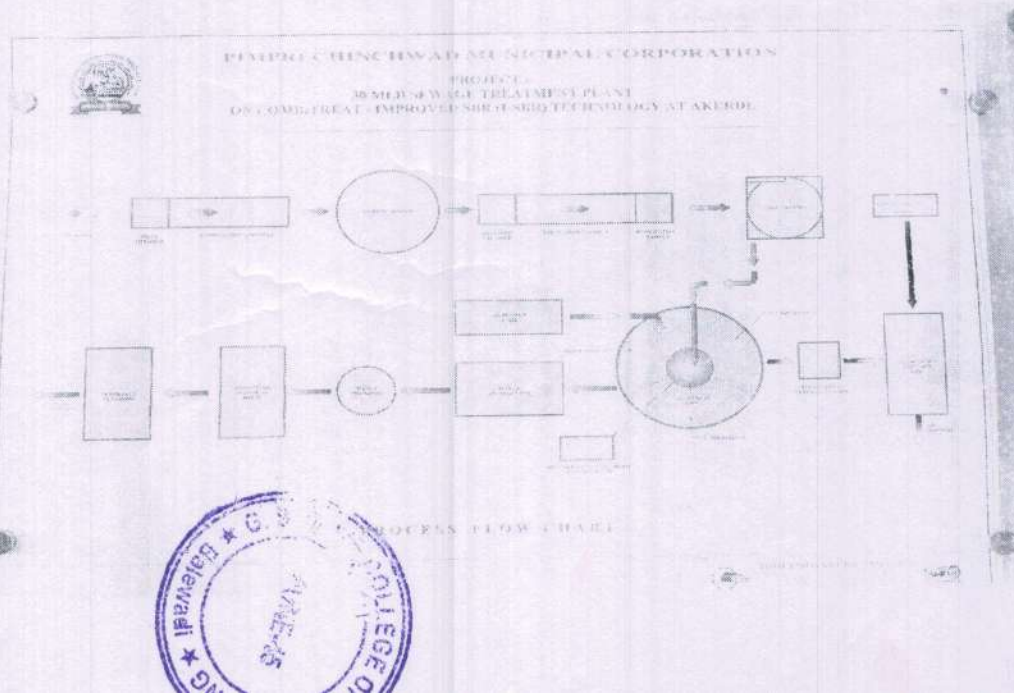
DATE - It was organized on 12 April 2022.

TIME - From 10:00AM Onwards.

NO. OF PARTICIPANTS- 50 Students along With 2 Faculty Members

YEAR OF ESTABLISHMENT OF PLANT - Sewage Treatment Plant was inaugurated in December 2011 The plant lies under the jurisdiction of **pimpri Chinchwad Municipal corporation (PCMC)**. Pune.

CAPACITY OF PLANT- 30 MLD Capacity Sewage Treatment Plant.



GENERAL INFORMATION -

As per the syllabus of Savitribai Phule Pune University for Third year of Civil engineering, field visit report Writing is one of the assignment for the subject of Waste Water Engineering.

For the assignment, the site visit was organized for the 50 students by our department of Civil Engineering on 12 April 2022 At 10:00 AM, with prior permission of respected HOD and Principal Sir by the initiative and hard efforts of Prof. Poonam Nandihalli and Prof. Sneha Palled K.

OBJECTIVE -

The objective of the visit was to provide practical knowledge about Sewage treatment. We appreciate the effort of the management of GSMCOEB for executing this successful Sewage treatment plant visit.

REASON FOR CHOOSING THIS SITE -

The main reason for choosing this site is for observation process and to see the theoretical knowledge being fitted in practice and implementing all that theory we have gone through at this stage. Unit to generate power from Bio-gas and to reduce organic load in CLSBR basins.

- SBR technology has potential to generate power from Biogas through Combi-Treat unit by providing Bio-Gas engine

Constituents of Sewage - Sewage is 99 % water carrying wastes originating in urine and night soil. It contains waterborne pathogenic organisms from the night soil of already infected persons.



INTRODUCTION

Sewage is a water-carried waste, in solution or suspension that is intended to be removed from a community. Also known as domestic or municipal wastewater, it is characterized by volume or rate of flow, physical condition, chemical and toxic constituents, and its bacteriologic status (which organisms it contains and in what quantities). It consists mostly of grey water (from sinks, tubs, showers, dishwashers, and clothes washers), black water (the water used to flush toilets, combined with the human waste that it flushes away); soaps and detergents; and toilet paper (less so in regions where bidets are widely used instead of paper), where sewer line and grey water line is not provided separately. It also contains surface runoff depends on the design of sewer system.

Sewage treatment is the process of removing contaminants from wastewater, primarily from household sewage. It includes physical, chemical, and biological processes to remove these contaminants and produce environmentally safe treated wastewater (or treated effluent). A by-product of sewage treatment is usually a semisolid waste or slurry, called sewage sludge, that has to undergo further treatment before being suitable for disposal or land application.

NECESSITY FOR SEWAGE TREATMENT -

To remove the organic and inorganic matter which would otherwise cause pollution.

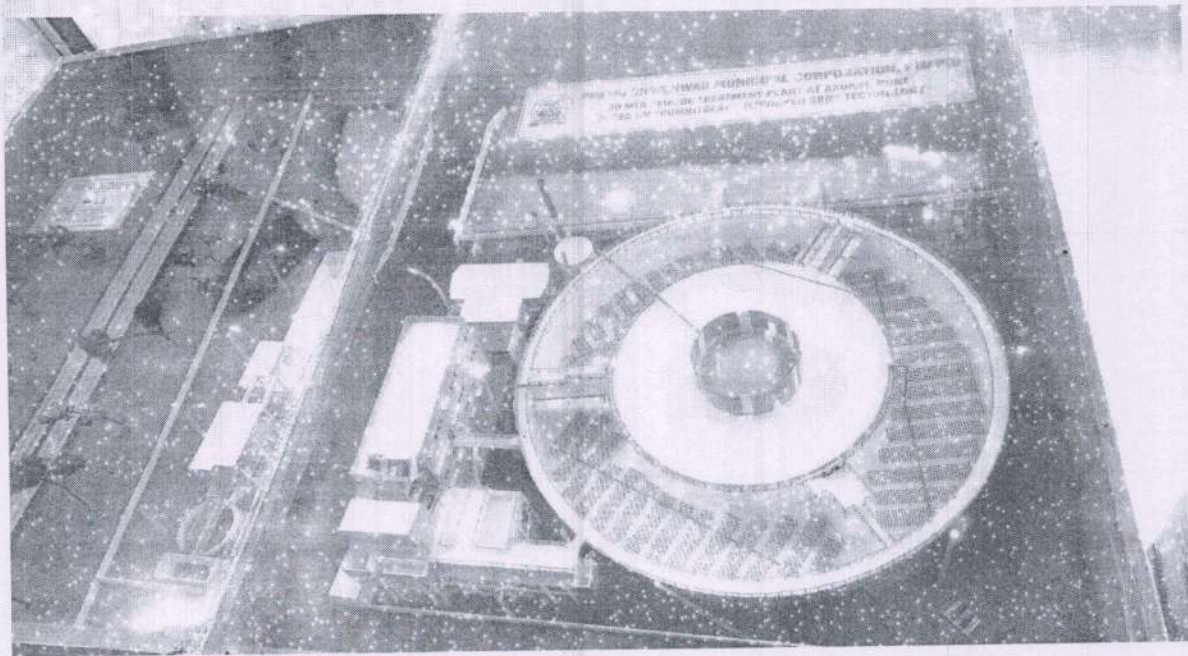
To remove pathogenic (disease causing) organisms in order to protect the:

- Environment
- Human Health

WORKING PRINCIPLE OF SOMLD STP

This revolutionary unit is an improvement made to the Conventional SBR (Sequential Batch Reactor) technology to convert into power saving and power generation technology, which modifies the process to Improved SBR technology. This innovation has incorporated the advantages of both, aerobic





Sr No	Units	Used for	Time Cycle
1	Primary Units Coarse Screen	Used To separate big particles	Continuous rotation
2	Fine Screen 1. Mechanical 2. Manual	Used to separate particles automatically Manual Op_eration is to be done	Continuous revolution
3	Grit Chamber	Used to separate grit materials	Continuous Movement
4	Combi Treat Unit		
	6 Digester Mixer	Used to Digest Sludge	
	Biogas Balloon	Used for the Collection of pure Methane Gas	Continuous process
5	3 Basins	10MLD Each	
5.1	Decanting	is a process used to separate mixtures, and ii its simplest form it just means allowing a mixture of solid and liquid or two immiscible liquids to settle and separate by gravity	60Mins
5.2	Aeration	brings water and air in close contact in order to remove dissolved gases	60Mins
5.3	Settling	is to remove suspended solids from the wastewater	60Mins
6	Treated Water Is used for the generation of hydroelectricity using hydro engines		
7	Treated Water is Sent to CCT (Chlorine Contact Tank) unit Where Chemical Dosage of Chlorine is given Then This Water Is used for gardening, construction process and rest water is again drained out in washed down back		



and anaerobic sewage treatment methodologies. Sewage is treated in this Combi-treat unit before it enters the 1-SBR basin. Combi-treat unit consists of a large tank, preferably cylindrical in shape. Upper portion of Combi-Treat functions as Primary Clarifier and bottom act as Anaerobic Sludge Digester. Anaerobic digestion is the biological degradation of organic matter in the absence of free oxygen. During this process, much of the organic matter is converted into methane, carbon-di-oxide and water and therefore the anaerobic digestion is a net energy producer. There is a dome at the top of the tank to store gas produced from Digester. The collected gas is then scrubbed to remove impurities and moisture. Further a gas engine facilitates power generation from Bio Gas.

OBSERVATIONS

Following are the steps we observed for the treatment of the sewage water

1. Inlet Chamber

This unit receives sewage from some areas of Pune like Deccan, Shivaji nagar etc.

2. Screen Channel

The function of the bar screen is to prevent entry of solid particles/ articles above a certain size; such as plastic cups, paper dishes, polythene bags, condoms and sanitary napkins into the STP. (If these items are allowed to enter the STP, they clog and damage the STP pumps, and cause stoppage of the plant.) The screening is achieved by placing a screen made out of vertical bars, placed across the sewage flow.

3. Grit Chamber (Mechanically)

4. Grit Chamber (Manual)

Grit chambers are basin to remove the inorganic particles to prevent damage to the pumps, and to prevent their accumulation in sludge digesters. There are two types of Grit chambers: mechanically cleaned and manually cleaned. In mechanically cleaned grit chamber, scraper blades collect the grit settled on the floor of the grit chamber. The grit so collected is elevated to the ground level by



several mechanisms such as bucket elevators, jet pump and air lift. The grit washing mechanisms are also of several designs most of which are agitator devices using either water or air to produce washing action. Manually cleaned grit chambers should be cleaned at least once a week. The simplest method of cleaning is by means of shovel.

5. Combi -treat Unit:

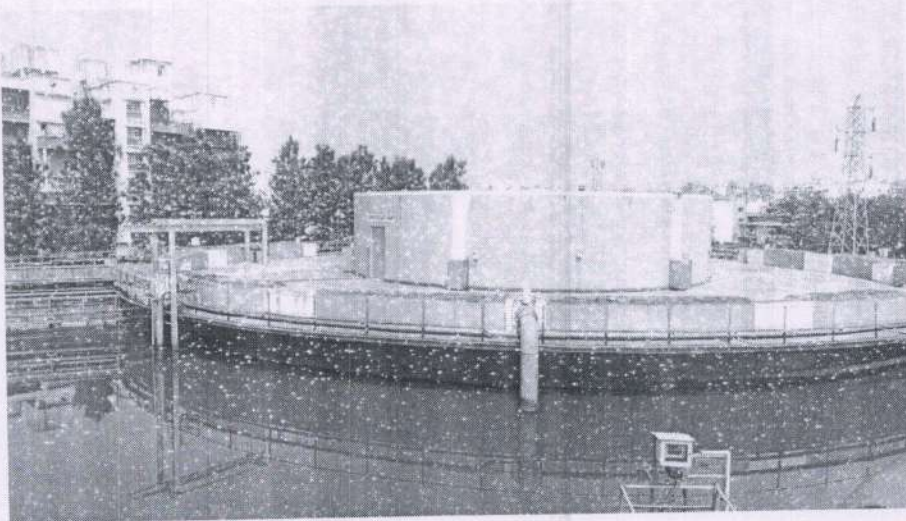
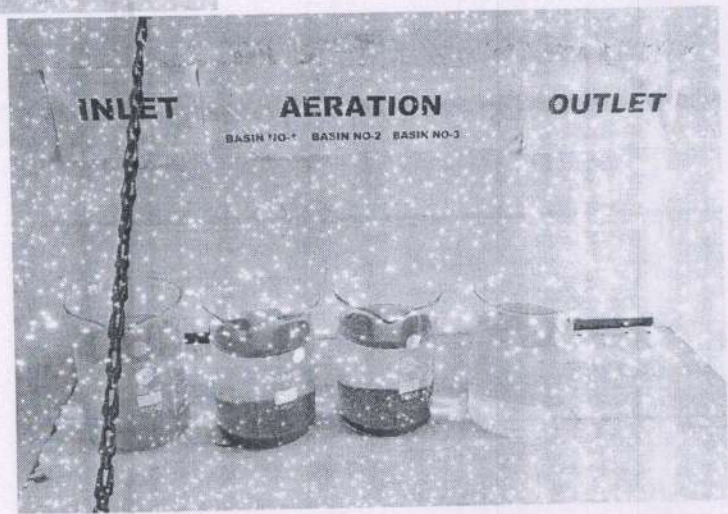
After screening and de-gritting unit, raw sewage enters to Combi -treat Unit where much of the organic matter settles, like it does in a primary clarifier. Proper feeding arrangement of raw sewage into Combi-Treat Unit enables to settle the sludge. Sludge is allowed to settle at bottom of Combi-Treat Unit, which act as Sludge Digester. Draft tube type mixers are provided to mix entire sludge settled at bottom in such a way that settled raw sewage on upper portion of Combi-Treat Unit does not affect. Thorough mixing helps in stable performance of the digestion process and creates a homogeneous environment throughout the digester. It also quickly brings the raw sludge into contact with microorganisms. Furthermore, when stratification is prevented because of mixing, the entire digester is available for active decomposition, thereby, increasing the effective solids retention time (SRT). This Combi-Treat Unit ensures BOD removal efficiency around 35% to 45% Removal of these parameters in Combi-Treat Unit results in less power requirement for balance organic load in the 1-SBR Basins. The supernatant from upper portion of Combi-Treat Unit is allowed to flow over a weir and flows radially outwards into CLSBR Basins.

6. Preliminary Treatment

Preliminary treatment to screen out, grind up, or separate debris is the first step in wastewater treatment. Sticks, rags, large food particles, sand, gravel, toys, etc., are removed at this stage to protect the pumping and other equipment in the treatment plant. Treatment equipment such as bar screens, Comminutors (a large version of a garbage disposal), and grit chambers are used as the wastewater first enters a treatment plant. The collected debris is usually disposed of in a landfill.





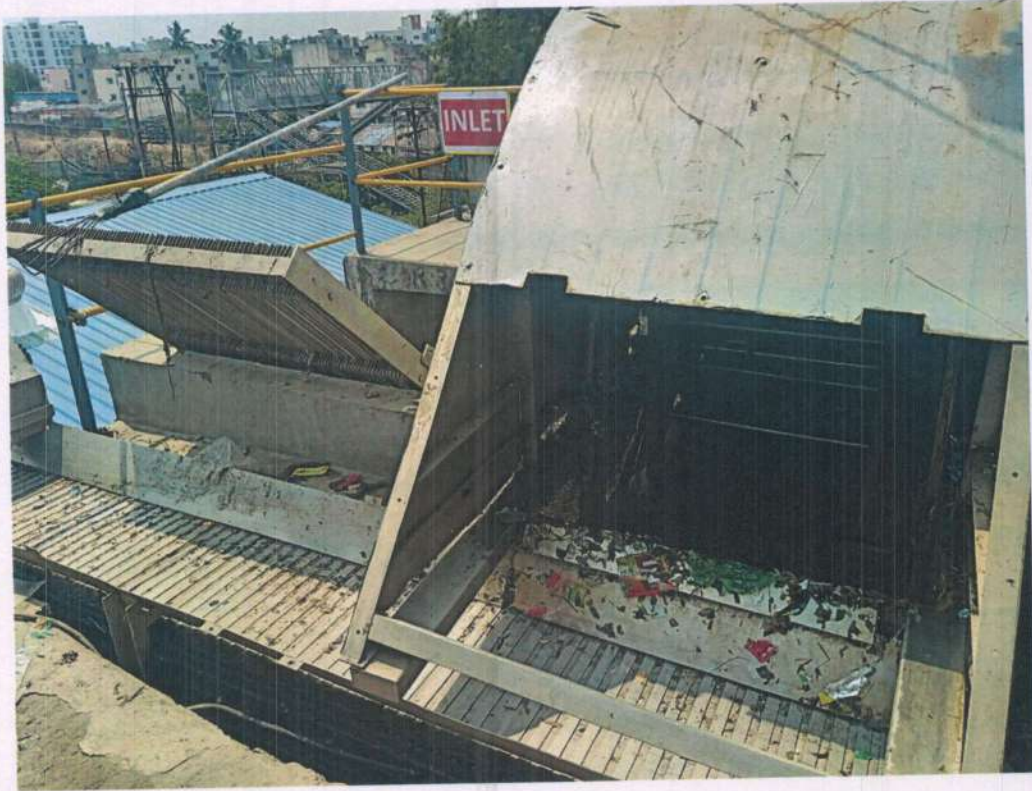


Date

Place - G.S. Moze Balewadi Pune

sign













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GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to Pune University)

25/1/3, Balewadi, Pune - 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

Ref No. GSMCE/2022/ADMIN/125

Date 12/04/22

To

Executive Engineer

Engineering Department
Pimpri chinchwad Municipal Corporation
Pune: 411018

Subject: Letter of thanks for permission & guidance

Respected Sir,

The GENBA SOPANRAO MOZE TRUST is an educational trust; a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank for allowing and guiding our TE Civil students at your STP Site. Our TE students want to thank you again for giving the opportunity to study and understand the actual design considerations at site. We really appreciate the time spend with our students and information shared by you.

Thanking you,

Prof. Poonam Nandihalli

Subject Incharge

Prof. Seema Shiyekar

HOD

Dr. Ratnaraja Kumar Jambi

Principal



“Empowerment through Technological Education”
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to
25/1/3, Balewadi, Pune – 411045, Ph: 020-27390500
Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in)

Department of Civil Engineering

Date: - 10/04/2022

NOTICE

It is to inform all **Third Year Civil Engineering** Students that a site visit for Solid Waste Management subject has been arranged on 12/04/2022 at Moshi Landfill. Attendance is mandatory to all the students. Amount of Rs 100 will be collected from each student for the same. Transaction Details will be shared on the official group shortly.

Prof. Sneha Palled K

Subject Teacher

Prof. Seema Shiyekar

H.O.D

Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.





“EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE”
**GENBA SOPANRAO MOZE COLLEGE OF
ENGINEERING**

S. No. 25/1/3, Balewadi, Pune – 411 045

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph: 020-27390500 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Date:29/08/2018

To,
Executive Engineer,
Environmental Engineering department
Pcmc ,Pune-06

Letter of thanks

Respected Sir,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit your Moshi Landfill. We really appreciate the time spent with our students and information shared by you. We hope our students received precious knowledge which will definitely help them in their Curriculum.

Thanking you.

Yours Regards,

Prof. Sneha Palled K.

(Faculty coordinator)

Prof.seema Shiyekar

Hod
Head of the Departmen
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr.Ratnaraja kumar Jambi

(GSMCOE,Balewadi)

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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Ph. : 020-27390500 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. : GSMCOE / 2022 / ADMIN / 222

Date : 11/04/2022

To
Executive Engineer,
Environment Engineering Department,
Pimpri Chinchwad Municipal Corporation, Pimpri,
Pune- 411018.

Subject: Regarding Permission for Site Visit to Moshi Landfill, Pune.

Respected Sir,

We are one of the reputed institutes offering various technical degree courses approved by AICTE Delhi, Govt. of Maharashtra, DTE and affiliated to Savitribai Phule Pune University (SPPU).

With reference to above mentioned subject as per the course curriculum for the subject **Solid Waste Management** of Third year student of Civil Engineering Department, we would like to arrange a site visit to Moshi Landfill for the same.

It's a kind request to grant us permission to visit the site along with the students and 2 faculty members on 12/04/2022. We will be thankful if you do the needful and allow us In-charge person so that he can explain the details about site.

Thanking you.

Prof. Sneha Palled K

Subject Incharge

(9742038458)

Prof. Seema Shiyekar

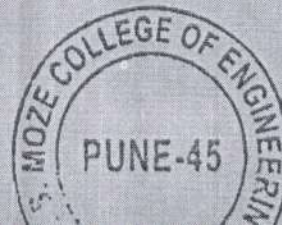
H.O.D

Dr. Ratnaraja Kumar Jambi

Principal

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045



Genba Sopanrao Moze College of Engineering, Balewadi, Pune.



Report of Site Visit to Moshi Landfill, Pune.



Prof. Sneha Palled K

Subject In charge

Prof. Seema Shiyekar

H.O.D



Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
Balewadi, Pune-411 005.

Report of Site Visit to Moshi Landfill,Pune.

Organized by : Civil Engineering Department,GSMCOE,Balewadi.

Co-ordinator: Prof. Sneha Palled K

Date:12/04/2022

Place: Disposal site , Moshi ,Pune.

Time:11:00 A.M



Purpose of Visit

Main purpose of visit was to bridge the gap between the syllabus and reality , i.e to achieve the practical knowledge about the solid waste management, to understand in detail the various aspects involved in solid waste management, its process and live demonstrations .Showcase the problems what is faced in site and by visiting the site it self we get to know the severity of the waste generated on regular basis.

Solid Waste Management at Site

- Collection of Municipal solid waste :
In Moshi Composting plant , all Municipal waste from pimpri ,Pune was collected here by the specially design vehicle.
- Segregation of Waste:
Initially Municipal Waste was received from the trucks followed by hand picking and sorting for plastic wastes ,later this waste was carried on to conveyor belts to take out metal belongings ,the metals get



attached to belt and rest is segregated ,after this waste is confined by composting. different composting methods are used, one of them was vermicomposting and Windrow with length 60 m were used and was

left for Composting for volume reduction ,after few days the composted waste is passed through screens and the particles with large size go back for composting or mechanically they are resized to smaller fragments and dispatched .

- Landfill : In order to keep as much material out of the landfill as possible, its important for us to go through 3 R s of Management i.e Reduce, Reuse and Recycle ,but even with this concept we still produce tons and tons of waste so landfill is to dump garbage and other disposable materials after all the above process.

Material Recovery Facility Plant

Capacity =1000TPD

Received MSW segregated with help of MRF Plant

Below 60 mm fraction used for composting and more then 60 mm is considered as a RDF (Refuse Derived Fuel).

RDF use for burning purpose in the cement plant and power plant (Waste to Energy) for Power Generation

Outcome of the Site Visit:

On 12/04/2022 at 11:00A.M. We reached at Mechanical Composting Plant in Moshi,pune.The Visit Started with guide explaining complete layout of site with layout plan, there after we are taken to collection point and we were shown with different segregation units,long length Windrows, Different Belts ,Screens and incineration unit.so we understood the process of live Operating Modules of Solid Waste Management in Detail.

Conclusion

From this visit we got to know the gap between the syllabus and in site reality , i.e we got the practical knowledge about the solid waste management, understood in detail the various aspects involved in solid waste management, its process and live demonstrations .Challenges faced in site and by visiting the site it self we got to know the severity of the waste generated on regular basis and how if we take action personally /single house to change our attitude towards waste it can effect the society and waste generation in large scales.





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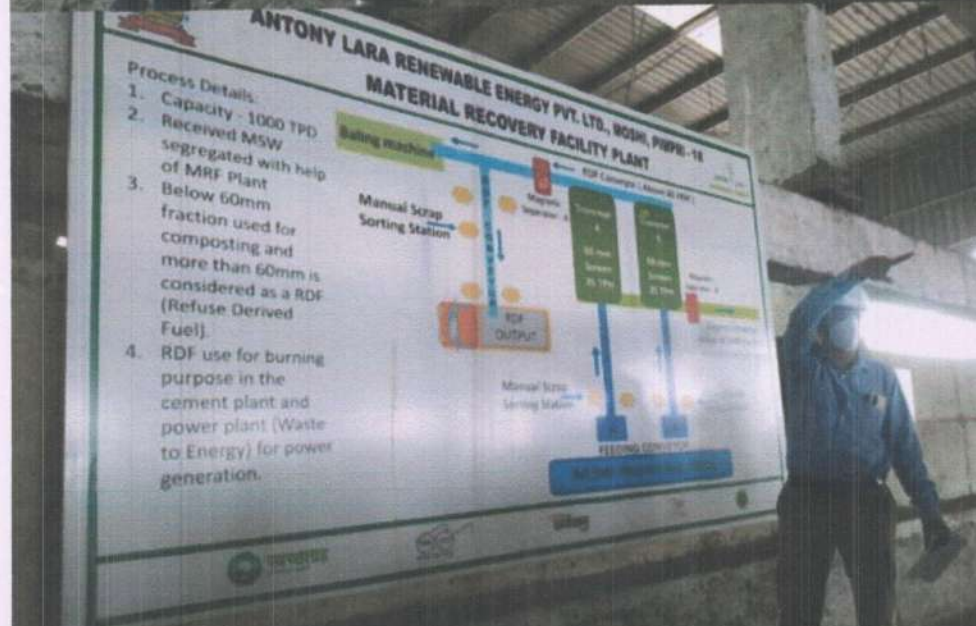


● ○ REDMI NOTE 6 PRO
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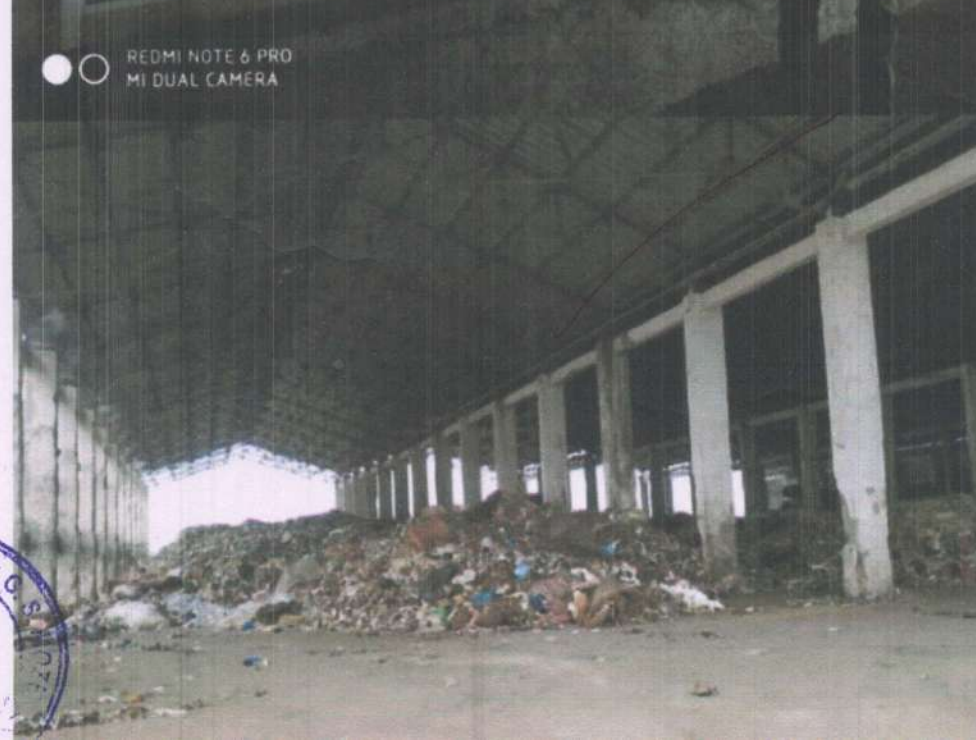




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REDMI NOTE 6 PRO
MI DUAL CAMERA





“EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE”
**GENBA SOPANRAO MOZE COLLEGE OF
ENGINEERING**

S. No. 25/1/3, Balewadi, Pune – 411 045

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph: 020-27390500

Website: www.gsmozecoe.org

Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Ref: GSMCOE / ADMIN / 2022 / 225 A

Date: 12/04/2022

To

Executive Engineer,
Environment Engineering Department,
Pimpri Chinchwad Municipal Corporation, Pimpri,
Pune- 411018.

Subject: Letter of thanks for permission & guidance for Solid Waste Mangement at Moshi
Landfill.

Respected Sir,

The GENBA SOPANRAO MOZE TRUST is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We department of Civil Engineering at Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank for allowing and guiding our TE Civil students at **Moshi Landfill**. Our TE students want to thank you again for giving the opportunity to study and understand the actual design considerations at site. We really appreciate the time spend with our students and information shared by you.

We hope our students received precious knowledge in Solid Waste Mangement from the organization. Thanking you.


Prof. Sneha Palled K

Subject Teacher


Prof. Seema Shiyekar


HOD

Head of the Department,

CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering

25/1/3, Balewadi, Pune-411 045.


Dr. Ratna Raja Kumar Jambhi

Principal

PRINCIPAL

Genba Sopanrao Moze College of Engg

25/1/3, Balewadi, PUNE-411 045





G S MOZE COLLEGE OF ENGINEERING

Department of Civil Engineering

Roll call list

Class TE A A.Y. 2021-22

Moshi Land Fill Site Visit Attendance

Course -Solid Waste Management

Date- 12/04/2022

Roll No	Name of Student	Sign
TE A 1	SURYAWANSHI ABHISHEK BHANUDAS	
TE A 2	SURYAWANSHI RUSHIKESH RAJENDRA	
TE A 3	SANDEEP NEBBOOLAL PRAJAPATI	
TE A 4	CHAVAN RUTVI PRADEEP	
TE A 5	PHADE SHUBHAM KRUSHNAJI	
TE A 6	BHANGE SAIPRASAD SANJAY	
TE A 7	DHANGEKAR ABHISHEK MAHADEV	
TE A 8	GAURAV TAPKIR	
TE A 9	ALKUNTE PRATIK SHANKAR	
TE A 10	ANDHALE PRUTHVIRAJ YUVRAJ	
TE A 11	ANIKET UDDHAV MANDHARE	
TE A 12	ANIMESH SANJAY NAGWANSHI	
TE A 13	BACHCHE SHAILESH VASANT	
TE A 14	BARKULE SHUBHAM CHANDRAKANT	
TE A 15	BHAGWAT ADITYA GOPALA	
TE A 16	BHANAWASE SUJIT JOYTIRM	
TE A 17	BHELSAIKAR AJINKYA RAJU	
TE A 18	BIRADAR GAURAV DNYANESHWAR	
TE A 19	CHAUDHARI DHIRAJ POPATRAO	
TE A 20	CHAVAN MANASI VITTHAL	
TE A 21	CHAVAN SANGRAM MANSING	
TE A 22	CHAVAN SURAJ RAMESH	
TE A 23	CHIDLUNKAR SAHIL SANJAY	
TE A 24	DESAI POOJA DINKAR	
TE A 25	DUBALE ATHARV HANUMANT	
TE A 26	DUDHAL SHUBHAM SANJAY	
TE A 27	GADEKAR SHRADDHA GAJANAN	
TE A 28	GAIKWAD NIKHIL VISHNU	
TE A 29	GANDHARE JANHAVI AJAY	
TE A 30	GHOHARE REVANSIDDHA NAMDEV	
TE A 31	GODAGE SAMEER SURESH	
TE A 32	GOLE SANJAY BABURAO	
TE A 33	GUNJAL SHIVRAJ BRAMANAND	
TE A 34	HAWALDAR SANKET BALKRUSHNA	
TE A 35	INDRALE PRITI ASHOKRAO	
TE A 36	ITKALE SHUBHAM DILIP	
TE A 37	JADHAV NIKHIL SHIVAJI	
TE A 38	JADHAV PRATIK NANDKUMAR	
TE A 39	JADHAV VAIBHAV PRAKASH	
TE A 40	JAGTAP GURUPRASAD AJAY	
TE A 41	JAGTAP SACHIN RAJENDRA	
TE A 42	JAYESH SUDAM SAINDANE	
TE A 43	JOSHI SOHAM SANJOT	

TE A 44	KADAM AKASH BABASAHEB	<i>[Signature]</i>
TE A 45	KADAM AKASH BHAUSAHEB	<i>[Signature]</i>
TE A 46	KADAM GANESH MAHADEV	<i>[Signature]</i>
TE A 47	KALE RUSHIKESH BABASAHEB	<i>[Signature]</i>
TE A 48	KALOKHE SURAJ AVINASH	<i>[Signature]</i>
TE A 49	KAMBLE PRAJAKTA JITENDRA	<i>[Signature]</i>
TE A 50	KAMBLE PRASHIK BHARATBHUSHAN	<i>[Signature]</i>
TE A 51	KHAN HUMA JAVEDKHAN	<i>[Signature]</i>
TE A 52	KHANDARE RAJESHWAR RAMESHRAO	<i>[Signature]</i>
TE A 53	KHARAT AVINASH VINAYAK	<i>[Signature]</i>
TE A 54	KHARAT GANESH ARJUN	<i>[Signature]</i>
TE A 55	KOLEKAR AMOL SURESH	<i>[Signature]</i>
TE A 56	KORKE SAGAR DATTATRAY	<i>[Signature]</i>
TE A 57	KSHIRSAGAR VISHWANATH BHAGWAN	<i>[Signature]</i>
TE A 58	LAKKAM SUDHANSHU SANJAY	<i>[Signature]</i>
TE A 59	MADAKE SAYALI BALU	<i>[Signature]</i>
TE A 60	MAGARE PREETI DATTATRY	<i>[Signature]</i>
TE A 61	MAHALE DEVENDRA SHIRISH	<i>[Signature]</i>
TE A 62	MANE GEETANJALI GHANSHYAM	<i>[Signature]</i>
TE A 63	MANSUTE GAURAV SUDHAKAR	<i>[Signature]</i>
TE A 64	MATERE PRADIP RAMESH	<i>[Signature]</i>
TE A 65	MHALUNGEKAR SAURABH SAMBHAJI	<i>[Signature]</i>
TE A 66	MOHITE PRANAV PRAKASH	<i>[Signature]</i>
TE A 67	MOKASHI SUHEL DAUD	<i>[Signature]</i>
TE A 68	MORE RAHUL VASANT	<i>[Signature]</i>
TE A 69	NAWALI SAGAR VILAS	<i>[Signature]</i>
TE A 70	NIKHIL DATIR	<i>[Signature]</i>
TE A 71	PIMPLE VIKESH MANIK	<i>[Signature]</i>
TE A 72	MESHARAM RAVINDRA	<i>[Signature]</i>
TE A 73	NIKHIL SHIMPI	<i>[Signature]</i>
TE A 74	PRATHMESH KHONDE	<i>[Signature]</i>

[Signature]
Prof. S. Palled
Course Incharge

[Signature]
Prof. Seema Shiyekar
H.O.D



Head of the Department
CIVIL ENGINEERING
Sopanrao Moze College of
25/1/3, Balewadi, Pune-41



G S MOZE COLLEGE OF ENGINEERING

Department of Civil Engineering

Roll Call

Class TE B A.Y. 2021-22

Moshi Land Fill Site Visit Attendance

Course -Solid Waste Management

Date- 12/04/2022

Roll No	Name of Student	Sign
TE B 1	BAWANKAR AMIT DNYANESHWAR	
TE B 2	PAWAR RACHANA NANDRAM	
TE B 3	GADIWADD SWAPNIL TIPANA	
TE B 4	RAYMANE AKASH MACHHINDRANATH	
TE B 5	BIJAVE PRITI RAMDASRAO	
TE B 6	NAKHATE VANITA MARUTI	
TE B 7	JYOTI DNYANESHWAR RAJAPURE	
TE B 8	NEHARKAR DINESH BABASAHEB	
TE B 9	KUMBHAR RAJU ANNA	
TE B 10	KAMBLE RUSHIKESH SUDESHKUMAR	
TE B 11	MORE VANDANA BHAGWANRAO	
TE B 12	CHAVAN AVINASH REVAN	
TE B 13	GIR SWATI KHUSHAL	
TE B 14	DEVAKAR TANAJI TUKARAM	
TE B 15	JADHAV PRATIK RAVINDRA	
TE B 16	GUNDAL CHANDRAKANT RAMDAS	
TE B 17	ADISHERLAWAR VITTHALNATH LAXMANRAO	
TE B 18	ARBUNE VAIBHAV PANDURANG	
TE B 19	BHAGAT RUSHIKESH HARISHCHANDRA	
TE B 20	BHANDARKAR GAURAV RAMLING	
TE B 21	DHADDE OMKAR ASHOK	
TE B 22	DHUMAL DISHA DASHARTH	
TE B 23	GAIKWAD AKSHAY SURESH	
TE B 24	GAVALI SHREYASH JAGDISH	
TE B 25	KADAM ANIKET MALHARI	
TE B 26	KALASKAR AKASH ANNASAHEB	
TE B 27	KAMBLE RUTURAJ DILIP	
TE B 28	KAMBLE VINAY ANIL	
TE B 29	MULE YOGESH SHANKAR	
TE B 30	NAIK OMKAR SANTOSH	
TE B 31	NAVGHARE PRASAD MILIND	
TE B 32	NIKALJE SIDDHARTH SHASHIKANT	
TE B 33	NIKHIL MOHAN GHANEKAR	
TE B 34	OLEKAR PRATIK VIJAY	
TE B 35	ORASE ABHISHEK SHANKAR	
TE B 36	ORSE MUKESH KISAN	
TE B 37	PATIL KIRANRAJ NANA	
TE B 38	PAWALE TUSHAR TUKARAM	
TE B 39	PHARANDE PRASAD GANESH	
TE B 40	POTDAR GAURAV NAGNATH	
TE B 41	RAJE PANKAJ DNYANOBA	
TE B 42	RAJPUT VISHWAJITSING PREMSING	
TE B 43	RANDIVE MANDAR GOKUL	
TE B 44	RANGOJI DIVYA GNYANADEV	
TE B 45	RATHOD ARCHANA SANJAY	
TE B 46	RAUT GANESH ASHOK	

APC/BE 2021-2022/EP/20-

"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"

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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-27390500

Website : www.gsmozecoe.org

Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze



Date : 09/04/2022

Ref. No. :

To
Managing Director
Shri Sant Tukaram Sahakari Sakhar Karkhana
Pune- 412108

Subject: Regarding permission for site visit to **Shri Sant Tukaram Sahakari Sakhar Karkhana**, Kasarsai Pune.

Respected Sir,

We are one of the reputed institutes offering various technical degree courses approved by AICTE Delhi, Govt. of Maharashtra, DTE and affiliated to Savitribai Phule Pune University (SPPU).

With reference to above mentioned subject as per the course curriculum for the subject **Air Pollution & Control** of final year students of Civil Engineering Department, we would like to arrange a site visit to Shri Sant Tukaram Sahakari Sakhar Karkhana.

It's a kind request to grant us permission to visit the site along with 70 students and 2 faculty members on Tuesday 12/04/2022. We will thankful if you do the needful and allow us In-charge person so that he can explain the details about site.

Thanking you.

Prof. Shalaka Barshetty

Subject Teacher

(9145176665)

Prof. Seema Shiyekar

H.O.D

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr. Ratna Raja Kumar Jambi

Principal



Site Visit Report

On

Air Pollution and Control

- ✦ **Name of Visit:** - Industrial visit at "Shree Sant Tukaram SakharKarkhana".
- ✦ **Place of visit:** - Kasarsai Mulshi Pune-06
- ✦ **Date of visit:** -12 April,2022.
- ✦ **Subject Teacher:** - Prof. Shalaka Barshetty
 - ✦ plant Guide: - Sir Manoj Naikwade.
 - ✦ Students :80

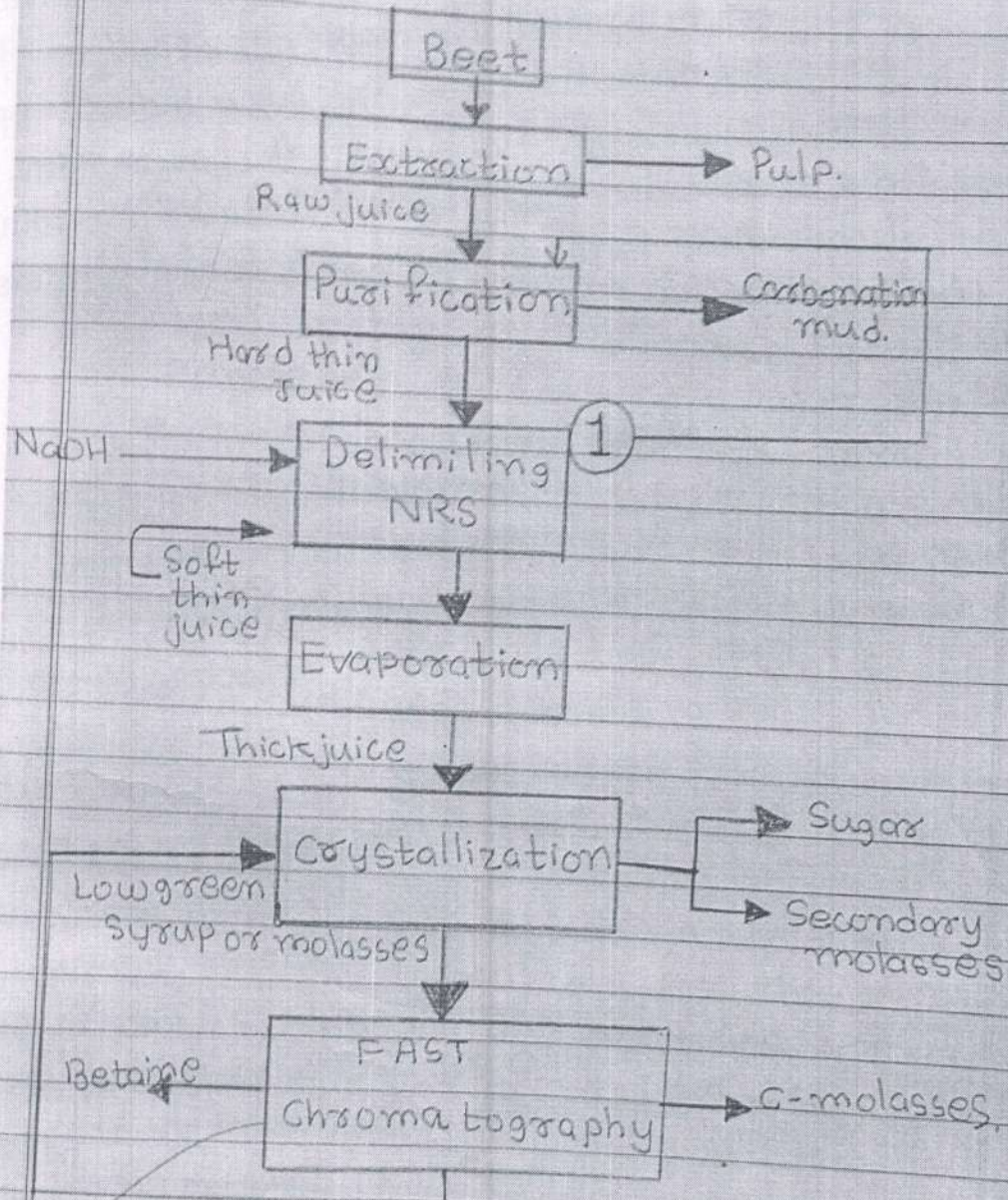
✦ Introduction: -

As a part of syllabus, G.S. Moze College of Engineering student of final year visited the sugar factory. Total 104 students along with 2 faculty members visited the industry.

Sant Tukaram Sakhar Karkhana, Mulshi is the manufacturer of sugar. Student saw the actual production of sugar. Student saw the crushing of sugarcane, how sugarcane juice sent to boiler for further processing, how wastage (Baggers)bis used to produce electricity, how sugar is purified and crystallized. Production manager provided lot of information to student about the same.



• Sugar Production Flow Chart :-



from the plates with the help of comes driving by external means. Care should be taken that the dust collected in the hopper should not be entrained in the clean gas.

2) Advantages: -

1. Electrostatic precipitators (ESP) is also most effective for high dust loaded gas (as high as 100 gm per cu.meter). Its efficiency is as high 99.5%.
2. The drought loss of the separator is the least of all forms.
3. The maintenance charges are less compared to all other separators.
4. Electrostatic precipitators provides ease of operation.
5. The dust or fly –ash is collected in dry form and can be removed either by dry or wet.

3) Disadvantages: -

1. The direct current (DC) is not available with the modern thermal power plants hence considerable electrical equipment is required to convert from AC to DC (60KV DC).
2. The running charges is also high as the amount of power required for charging is considerably high.
3. The space required for electrostatic precipitators is larger hen wet system



✦ Working of cyclone:-

1. The gas steam containing particulate matter enters the cylinder near the top.
2. The gas stream after entering a cyclone moves downwards as a descending outer vertex because of its tangential velocity. The gas stream reaches almost at the bottom of the cone and the it reverses its direction, moving upward as an ascending vertex.
3. The larger and heavier particles while moving downwards along with the spirally moving gas stream experience a centrifugal force , as a result of which they migrate towards the wall
4. Then the particles slide down towards the bottom outlet and the gas leaves the the cyclone through a centrally located outlet at the top

1) Advantages :-

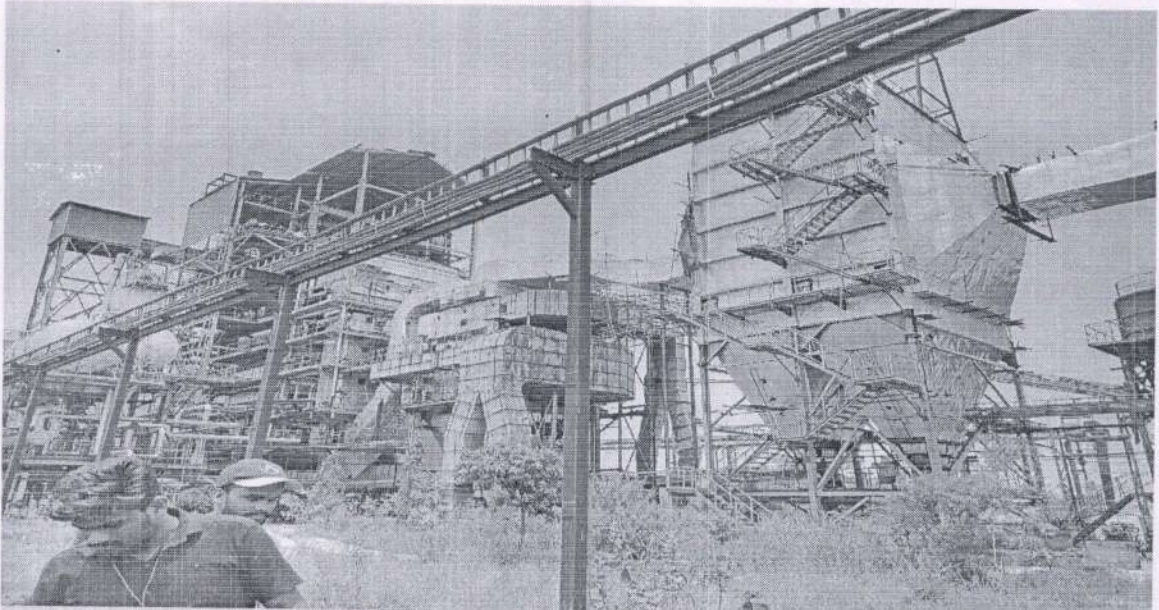
1. Low initial cost .
2. Construction and operation is simple
3. Low maintenance cost is it has no moving parts
4. Low pressure drop
5. Dry and continuous disposal of solid particulates
6. Cyclones can be constructed of any material which will satisfy the temperature and pressure requirement





8
18/01/2022







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Ph. : 020-27390500 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. :

Date : 12/04/2022

To

The Director,

Shri Sant Tukaram Sahakari Sakhar Karkhana,

Kasarsai.


Subject: Letter of thanks for permission & guidance for Sugar Factory & Air pollution control devices.

Respected Sir,

The GENBA SOPANRAO MOZE TRUST is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.


We department of Civil Engineering o Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank for allowing and guiding our BE Civil students at **Shri Sant Tukaram Sugar factory** . Our BE students want to thank you again for giving the opportunity to study and understand the actual design considerations at site. We really appreciate the time spend with our students and information shared by you.

We hope our students received precious knowledge in Air pollution control devices from you. Thanking you.

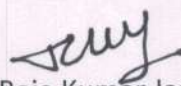

Prof. Shalaka Barshetty

Subject Teacher




Prof. Seema Shiyekar
Head of the Department
CIVIL ENGINEERING
HOD

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045


Dr. Ratna Raja Kumar Jambi

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045

"Create Competent Socially Responsible Civil Engineers"

GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

Balewadi, Pune - 411045

Civil Engineering Department

A.Y. 2021-22

Site Visit Attendance

Class : BE A

Roll No	Student Name	Sign
A1	ALAPURE ROHAN KESHAVRAO	Rohan.
A2	BHOSALE TEJAS R	Tejas.
A3	GHUNGRAD SHRINIVAS BHUJANGRAO	gh.
A4	JADHAV SURAJ SUBHASH	-
A5	KHOD JAGDISH BABAN	khod
A6	KULKARNI MANALI M.	-
A7	SHARMA JITENDRA VIJAY	vijay
A8	SUTAR SOPAN VAJINATH	sutar
A9	THAKARE KRUSHNA CHANDRAKANT	-
A10	TONDE ROHIT BALASAHEB	Tonde
A11	WAKADE MAHESH BHAUSAHEB	wakade
A12	SIDDHI LONDHE	siddhi
A13	ADASARE RISHIKESH VIKAS	vikas
A14	AKULWAD AKASH PANDITRAO	akash
A15	ANDHALE VISHWAJEET GAJANAN	-
A16	BAMANE SHRIKANT VIJAY	vijay
A17	BANGI Aaftab Rafique	-
A18	BANKAR SHUBHAM KONDIBA	Bankar
A19	BHINGARE SURAJ SUNIL	-
A20	BHOKARE PRAFUL ASHOK	ashok
A21	BHOSALE ANIKET RAMESH	Ramesh
A22	BHOSALE CHATURBUJ VAMAN	-
A23	BIRADAR SHUBHAM BALAJI R	RB
A24	BIRAJDAR SHREYAS GIRIDHAR	Birajdar
A25	BIRAMBOLE SWATI DEELIP	Swati
A26	BORDE POOJAN RAMESH	-
A27	BULBULE MANGESH MAHARUDRA	-
A28	CHOUDHARI BALAJI BAPPASAHEB	-
A29	CHOUDHARI SHAILESH RAVI	esher
A30	DADAR DIGVIJAY ASHOK	ashok
A31	DAGADE TEJAS TANAJI	Tanaji
A32	DESHMUKH BHARATBHUSHAN DASRAO	-
A33	DESHMUKH PRAFULLA SUDAMRAO	-
A34	DESHPANDE YASH MILIND	Yash
A35	DESLE PRANALI DHARMA	dharma
A36	DHANKUDE KARAN MADHUKAR	R
A37	VALMIKI SURYAKANT DHANRAJ	-
A38	DHARME VITTHAL BIRMAL	-



A39	DHERANGE BHUSHAN ROHIDAS	—
A40	DHUMAL DIKSHANTI VIJAYKUMAR	Ebtias
A41	DHUMAL SHEFALI VIJAYKUMAR	Shefali
A42	DIGHE RUPESH KISAN	Kisan
A43	DOLAS AKASH RAVIDRA	—
A44	GAIKWAD AKASH RAJENDRA	gaikwad
A45	GAIKWAD DHANASH JAGANNATH	Jagan
A46	GAIKWAD RAJESH TUKARAM	Tukar
A47	GANGURDE VISHAL BHAGWAN	—
A48	GHUGE LAXMAN BHIMA	Bhimg
A49	GOLHAR SWATI RAJENDRA	swati
A50	GORE PRAJWAL SANJAY	sanjay
A51	ISHWARKATTI PRADIP ADAVYAPPA	Pradip
A52	JADHAV EKLAVYA YOGESH	Yogesh
A53	JADHAV RUSHIKESH RAMESH	Ram
A54	JADHAV SWAPNIL GANESH	Swapnil
A55	JAGTAP ANIKET KAILAS	Kailas
A56	JAWALE PRAVIN OMKAR	Omkar
A57	KACHHAWA DEVENDRASINGH VIJAYSINGH	dev.
A58	KADU JITENDRA PANDITRAO	Panditrao
A59	KAMBLE PRASHANT RAHUL	Rahul
A60	KAMBLE ROHAN VIJAY	Vijay
A61	KANDEKAR KAUSHIK CHANDRAKANT	—
A62	KARANDE JAYESH SAKHARAM	—
A63	KATKAR ROHAN SANJAY	—
A64	KAWALE ANIKET PRAMOD	Pramod
A65	KAYASTH SONIYA HEMANT	—
A66	KHOND SANKET DATTA	Datta
A67	KUTE OMKAR SUNIL	Sunil
A68	NAGDIWE ASHUTOSH	—
A69	RATHOD AJAY	Ashu.
A70	ISHWAR KHAJURE	—
A71	AKSHAY CHAUDHARI	—
A72	SURWASE VIDYASAGAR	—
A73	NIKHIL WALANJ	—
A74	SHUBHAM VINAYAK PATIL	—
A75	NAIKWADE DHANANJAY	—
A76	VISHAL DYANESHWAR PATIL	naib
A77	SONTAKKE SHRIKANT SHRIMANI	Patil
A78	KSHIRSAGAR AKSHAY ANIL	sh.
A79	GHANERI SHIVAN SUNIL	—
A80	GAIKWAD LAHU DHARMRAJ	—
A 81	KADAM RAVIRAJ DADASO	Sunde
A82	KOKATE PRASAD NAGORAO	dadaso

Prof. Shalaka Barshetty
Faculty Incharge

Prof. Seema Shiyekar
HOD
Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moza College of Engineering
25/1/3, Balewadi, Pune-411045





G. S. Moze College of Engineering, Balewadi
Civil Engineering Department
Academic Year 2021-22

Site Visit Attendance


Course -DHS


Date- 12/04/2022

Roll No	Student Name	Sign
A1	ALAPURE ROHAN KESHAVRAO	
A2	BHOSALE TEJAS R	
A3	GHUNGRAD SHRINIVAS BHUJANGRAO	
A4	JADHAV SURAJ SUBHASH	
A5	KHOD JAGDISH BABAN	
A6	KULKARNI MANALI M.	
A7	SHARMA JITENDRA VIJAY	
A8	SUTAR SOPAN VAJJINATH	
A9	THAKARE KRUSHNA CHANDRAKANT	
A10	TONDE ROHIT BALASAHEB	
A11	WAKADE MAHESH BHAUSAHEB	
A12	SIDDDHI LONDHE	
A13	ADASARE RISHIKESH VIKAS	
A14	AKULWAD AKASH PANDITRAO	
A15	ANDHALE VISHWAJEET GAJANAN	
A16	BAMANE SHRIKANT VIJAY	
A17	BANGI AAFTAB RAFIQUE	
A18	BANKAR SHUBHAM KONDIBA	
A19	BHINGARE SURAJ SUNIL	
A20	BHOKARE PRAFUL ASHOK	
A21	BHOSALE ANIKET RAMESH	
A22	BHOSALE CHATURBHUIJ VAMAN	
A23	BIRADAR SHUBHAM BALAJI R	
A24	BIRAJDAR SHREYAS GIRIDHAR	
A25	BIRAMBOLE SWATI DEELIP	
A26	BORDE POOJAN RAMESH	
A27	BULBULE MANGESH MAHARUDRA	
A28	CHODHARI BALAJI BAPPASAHEB	
A29	CHODHARI SHAILESH RAVI	
A30	DADAR DIGVIJAY ASHOK	
A31	DAGADE TEJAS TANAJI	
A32	DESHMUKH BHARATBHUSHAN DASRAO	
A33	DESHMUKH PRAFULLA SUDAMRAO	
A34	DESHPANDE YASH MILIND	
A35	DESLE PRANALI DHARMA	
A36	DHANKUDE KARAN MADHUKAR	
A37	VALMIKI SURYAKANT DHANRAJ	
A38	DHARME VITTHAL BIRMAL	
A39	DHERANGE BHUSHAN ROHIDAS	
A40	DHUMAL DIKSHANTI VIJAYKUMAR	
A41	DHUMAL SHEFALI VIJAYKUMAR	
A42	DIGHE RUPESH KISAN	
A43	DOLAS AKASH RAVIDRA	
A44	GAIKWAD AKASH RAJENDRA	



B 40	SHAIKH SAMEER LALSAB (W)	sameer
B 41	SHARMA DEEPAK VIRENDRA	deepak
B 42	SHARMA SUBODH GANESH	—
B 43	SHERIKAR VAISHALI SUBHASH	—
B 44	SHINDE KISHOR DATTATRAY	—
B 45	SHINDE PALLAVI	—
B 46	SHINDE PANDURANG PRALHAD	Pallavi
B 47	SHIROTE SONHIRA SIDDHAPPA	Pralhad
B 48	SONTAKKE VRUSHALI SATISH	shirte
B 49	SUL SNEHA ASHOKE	—
B 50	SUTAR JAYESH RAJENDRA	—
B 51	SUTAR MAYURESH SURESH	sneha
B 52	TARGUDE VISHAL VENKATRAO	—
B 53	THORAT AISHWARYA SURESH	—
B 54	THORAT TUSHAR VINAYAK	vishal
B 55	TIKORE VAIBHAV DAS	—
B 56	UCHEKAR PRADNYA GOVINDRAO	—
B 57	UKEY VAISHALI GONDU	leona
B 58	WAGHMARE ANIKET ANURATH	aniket
B 59	YADAV AKSHAYA JAYWANT	—
B 60	YADAV PRATIK MADHUKAR	Aniket
B 61	TANPURE NIKITA ARUN	—
B 62	PATIL ROHIT ANIL	ateen
B 63	YADAV GAURAV PRAVIN	nik
B 64	VISHAKHA MIRASHI	Rohi
B 65	PAWAR GAURAV	—
B 66	SNEHAL BIDAVE	—
B 67	KAMTHEKAR VIJAY	—
B 68	KHEDKAR SHUBHAM DIPAK	vijay
B 69	AMBORE AKSHAY MANIKRAO	—
B 70	JADHAV NIKHIL PRADEEP	—
B 71	JADHAV KIRAN DATTATRAY	—
B 72	BOBADE AKSHAY ANANT	kiran
B 73	DANGE OMKAR	akshay
B 74	GAIKWAD SHUBHAM	omkar
B 75	VAIBHAV ANIL BORADE	shubham
B 76	BIRAJDAR AKASH BHIMRAO	anil
B 77	PRADNYESH SHITOLE	—
B 78	AISHVARYA DESHMUKH	shitole
B 79	BALAJI SHINDE	—
B 80	AKSHAY PARDESHI	shinde
B 81	AKSHAY BANKAR	—
B 82	SAGAR TAKLE	—


Prof. Shalaka Barshetty
Faculty Incharge


Prof. Seema Shiyekar
HOD

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045





“EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE”
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

DEPARTMENT OF CIVIL ENGINEERING

SITE VISIT NOTICE

Date: - 10 April 2022

All the students of TE Civil Engineering are hereby informed that the department is planning for DRCS site visit on 13th April 2022. All students are instructed to attend the visit in proper dress code.

(Prof. Vinayak Kulkarni)
Subject Teacher

(Prof. Seema Shiyekar)
HOD





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Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

DATE: 08/04/2022

To

The Principal

GSMCOE Balewadi

Pune

Subject: Request to grant the permission for Design of RC structure site visit at Balewadi.

Respected Sir,

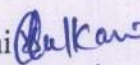
We need to arrange the visit as per the course curriculum for the subject **Design of RC structure** for Third Year students of Civil Engineering Dept.

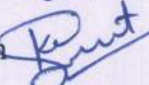
We are arranging the site visit for TE Civil A & B division between 11/04/22 13/04/22.

It's a kind request to grant us permission for the same along with 146 students and 2 faculty member to visit the site.

Thanking You

Faculty

Prof. Vinayak Kulkarni 

Prof. Shilpa Mahajan 

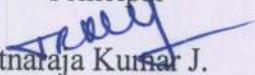


H.O.D.

Prof. S S Shiyekar
Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Principal

Dr. Ratnaraja Kumar J. 

PRINCIPAL

Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, PUNE-411 045





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GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, Pune - 411 045
(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)
DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999
Ph. 020-27390500 Website www.gsmozecoe.org Email gsmoze@yahoo.co.in
Founder President Shri Rambhau Moze

Ref. No.

Date

To,
Project Manager,
SR builders,
Balewadi, Pune

Subject: Regarding permission to site under Construction

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 120 students accompanied by 01 faculty members are interested to Visit site under Construction your as a part of TE SPPU Syllabus in design of reinforced concrete structure Subject. The visit is aimed at enhancing their Practical knowledge. We intend to take a round of the entire Construction. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (13/04/22)

Looking forward for your positive consent in this regard.

Thanking you.

Prof.V.B.Kulkarni
(Faculty coordinator)

Prof. Seema Shiyekar
Head of the Department
Civil Engineering

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr.Ratnaraja Kumar Jambi
Principal

PRINCIPAL

Genba Sopanrao Moze College of Engineering





“EMPOWERMENT TO THROUGHT TO TECHNOLOGICAL EXCELLENCE”
Genba Sopanrao Moze Trust's
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
S. No. 25/1/3, Balewadi, Pune – 411 045

Date: 08/04/2022

To
Project Manager,
S R Builders,
Balewadi-Pune

Subject: Regarding visit to site under construction.

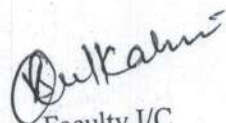
Respected Sir/Ma'am,


We are one of the reputed institutes offering various Technical Degree, Diploma and Post Graduate Courses, approved by AICTE Delhi, Govt. of Maharashtra, DTE and affiliated to Savitribai Phule Pune University (SPPU).

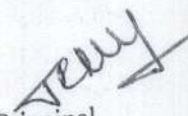
With reference to above mentioned subject, as per the course curriculum for the subject **Design of RC Structures** of third year Civil Engineering students, we would like to arrange a visit to site under construction to know design and detailing of structural elements as well as to observe the reinforcement of various elements at different sections.

It's a kind request to grant us permission for the same along with students and faculties on any working day as per your convenience (tentatively between 11 to 13 April 2022). We will be thankful if you do the needful and allot us in-charge person who will explain us in detail the information.

Thank you in advance.


Faculty I/C
Prof. V B Kulkarni
(7721085110)


H.O.D.
Prof. Shima S Shiyekar


Principal
Dr. Ratna Raja Kumar J
PRINCIPAL
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, PUNE-411 045





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Ph: 020-27390500

Website: www.gsmozecoe.org

Email: gsmoze@yahoo.co.in

Founder President: Shri Rambhau Moze

Date:08/04/2022

To,
Project Manager
SR Builders
Balewadi-Pune-06

Letter of thanks

Respected Sir,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit Design of RC structure. We really appreciate the time spent with our students and information shared by you. We hope our students received precious knowledge which will definitely help them in their Curriculum.

Thanking you.

Yours Regards,

Prof. V.B.Kulkarni

(Faculty coordinator)

Prof. Seema Shiyekar

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr. Ratnaraja Kumar Jambi

(GSMCOE, Balewadi)

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Department Of Civil Engineering

SITE VISIT REPORT

SUBJECT: DESIGN OF RC STRUCTURES

NAME& ADDRESS: ‘

DAY & DATE :-Wednesday& 13-04-2022

OBJECTIVE: STUDY OF REINFORCEMENT DETAILS IN RC STRUCTURE.

GUIDED BY:Asst. Prof. Vinayak Kulkarni

EXPERTS FROM SITE: Project Manager –Mr. Bhagwan

Number of students present- 120

Number of faculties - 01

Overview:

The visit for RCC framed structure at Balewadi for TE civil A & B division was arranged with reference to subject mentioned as per the SPPU course curriculum. Site is under construction and the aim of visit is to study the reinforcement detailing of columns, beams, stair and slabs. The structure is having total 15 floors (B+G+13). All the students were able to see the different types of slabs like one way, two way and cantilever slabs. The structure is on hard strata having $SBC = 400kN/m^2$.

Observations at site:

Students have observed reinforcements placement and the direction how these are placed in different types of slabs. Students have observed the reinforcements placements for beams, columns and stair. Mr. Bhagwan has explained the bar bending schedule for all elements using the drawings. He has shown different diameter bars used in slabs, beams and columns. In slabs 8mm and 10 mm dia.bars, in beams 10mm, 12mm and 16 mm dia.bars and in columns 16 mm dia.bars are used. The grade of concrete upto 8th floor is M30 and above 8th floor grade of concrete is M25. For foundation, raft and stair M25 grade of concrete is used. Clear cover for concrete to main reinforcements was, for slabs 15mm, beams 25mm and columns 40mm.



Sl. No.	Particulars	Quantity	Rate	Amount
1	1000 x 1000 mm	1.00	1000.00	1000.00
2	1000 x 1200 mm	1.00	1200.00	1200.00
3	1000 x 1500 mm	1.00	1500.00	1500.00
4	1000 x 1800 mm	1.00	1800.00	1800.00
5	1000 x 2100 mm	1.00	2100.00	2100.00
6	1000 x 2400 mm	1.00	2400.00	2400.00
7	1000 x 2700 mm	1.00	2700.00	2700.00
8	1000 x 3000 mm	1.00	3000.00	3000.00
9	1000 x 3300 mm	1.00	3300.00	3300.00
10	1000 x 3600 mm	1.00	3600.00	3600.00
11	1000 x 3900 mm	1.00	3900.00	3900.00
12	1000 x 4200 mm	1.00	4200.00	4200.00
13	1000 x 4500 mm	1.00	4500.00	4500.00
14	1000 x 4800 mm	1.00	4800.00	4800.00
15	1000 x 5100 mm	1.00	5100.00	5100.00
16	1000 x 5400 mm	1.00	5400.00	5400.00
17	1000 x 5700 mm	1.00	5700.00	5700.00
18	1000 x 6000 mm	1.00	6000.00	6000.00
19	1000 x 6300 mm	1.00	6300.00	6300.00
20	1000 x 6600 mm	1.00	6600.00	6600.00
21	1000 x 6900 mm	1.00	6900.00	6900.00
22	1000 x 7200 mm	1.00	7200.00	7200.00
23	1000 x 7500 mm	1.00	7500.00	7500.00
24	1000 x 7800 mm	1.00	7800.00	7800.00
25	1000 x 8100 mm	1.00	8100.00	8100.00
26	1000 x 8400 mm	1.00	8400.00	8400.00
27	1000 x 8700 mm	1.00	8700.00	8700.00
28	1000 x 9000 mm	1.00	9000.00	9000.00
29	1000 x 9300 mm	1.00	9300.00	9300.00
30	1000 x 9600 mm	1.00	9600.00	9600.00
31	1000 x 9900 mm	1.00	9900.00	9900.00
32	1000 x 10200 mm	1.00	10200.00	10200.00
33	1000 x 10500 mm	1.00	10500.00	10500.00
34	1000 x 10800 mm	1.00	10800.00	10800.00
35	1000 x 11100 mm	1.00	11100.00	11100.00
36	1000 x 11400 mm	1.00	11400.00	11400.00
37	1000 x 11700 mm	1.00	11700.00	11700.00
38	1000 x 12000 mm	1.00	12000.00	12000.00
39	1000 x 12300 mm	1.00	12300.00	12300.00
40	1000 x 12600 mm	1.00	12600.00	12600.00
41	1000 x 12900 mm	1.00	12900.00	12900.00
42	1000 x 13200 mm	1.00	13200.00	13200.00
43	1000 x 13500 mm	1.00	13500.00	13500.00
44	1000 x 13800 mm	1.00	13800.00	13800.00
45	1000 x 14100 mm	1.00	14100.00	14100.00
46	1000 x 14400 mm	1.00	14400.00	14400.00
47	1000 x 14700 mm	1.00	14700.00	14700.00
48	1000 x 15000 mm	1.00	15000.00	15000.00
49	1000 x 15300 mm	1.00	15300.00	15300.00
50	1000 x 15600 mm	1.00	15600.00	15600.00
51	1000 x 15900 mm	1.00	15900.00	15900.00
52	1000 x 16200 mm	1.00	16200.00	16200.00
53	1000 x 16500 mm	1.00	16500.00	16500.00
54	1000 x 16800 mm	1.00	16800.00	16800.00
55	1000 x 17100 mm	1.00	17100.00	17100.00
56	1000 x 17400 mm	1.00	17400.00	17400.00
57	1000 x 17700 mm	1.00	17700.00	17700.00
58	1000 x 18000 mm	1.00	18000.00	18000.00
59	1000 x 18300 mm	1.00	18300.00	18300.00
60	1000 x 18600 mm	1.00	18600.00	18600.00
61	1000 x 18900 mm	1.00	18900.00	18900.00
62	1000 x 19200 mm	1.00	19200.00	19200.00
63	1000 x 19500 mm	1.00	19500.00	19500.00
64	1000 x 19800 mm	1.00	19800.00	19800.00
65	1000 x 20100 mm	1.00	20100.00	20100.00
66	1000 x 20400 mm	1.00	20400.00	20400.00
67	1000 x 20700 mm	1.00	20700.00	20700.00
68	1000 x 21000 mm	1.00	21000.00	21000.00
69	1000 x 21300 mm	1.00	21300.00	21300.00
70	1000 x 21600 mm	1.00	21600.00	21600.00
71	1000 x 21900 mm	1.00	21900.00	21900.00
72	1000 x 22200 mm	1.00	22200.00	22200.00
73	1000 x 22500 mm	1.00	22500.00	22500.00
74	1000 x 22800 mm	1.00	22800.00	22800.00
75	1000 x 23100 mm	1.00	23100.00	23100.00
76	1000 x 23400 mm	1.00	23400.00	23400.00
77	1000 x 23700 mm	1.00	23700.00	23700.00
78	1000 x 24000 mm	1.00	24000.00	24000.00
79	1000 x 24300 mm	1.00	24300.00	24300.00
80	1000 x 24600 mm	1.00	24600.00	24600.00
81	1000 x 24900 mm	1.00	24900.00	24900.00
82	1000 x 25200 mm	1.00	25200.00	25200.00
83	1000 x 25500 mm	1.00	25500.00	25500.00
84	1000 x 25800 mm	1.00	25800.00	25800.00
85	1000 x 26100 mm	1.00	26100.00	26100.00
86	1000 x 26400 mm	1.00	26400.00	26400.00
87	1000 x 26700 mm	1.00	26700.00	26700.00
88	1000 x 27000 mm	1.00	27000.00	27000.00
89	1000 x 27300 mm	1.00	27300.00	27300.00
90	1000 x 27600 mm	1.00	27600.00	27600.00
91	1000 x 27900 mm	1.00	27900.00	27900.00
92	1000 x 28200 mm	1.00	28200.00	28200.00
93	1000 x 28500 mm	1.00	28500.00	28500.00
94	1000 x 28800 mm	1.00	28800.00	28800.00
95	1000 x 29100 mm	1.00	29100.00	29100.00
96	1000 x 29400 mm	1.00	29400.00	29400.00
97	1000 x 29700 mm	1.00	29700.00	29700.00
98	1000 x 30000 mm	1.00	30000.00	30000.00
99	1000 x 30300 mm	1.00	30300.00	30300.00
100	1000 x 30600 mm	1.00	30600.00	30600.00
101	1000 x 30900 mm	1.00	30900.00	30900.00
102	1000 x 31200 mm	1.00	31200.00	31200.00
103	1000 x 31500 mm	1.00	31500.00	31500.00
104	1000 x 31800 mm	1.00	31800.00	31800.00
105	1000 x 32100 mm	1.00	32100.00	32100.00
106	1000 x 32400 mm	1.00	32400.00	32400.00
107	1000 x 32700 mm	1.00	32700.00	32700.00
108	1000 x 33000 mm	1.00	33000.00	33000.00
109	1000 x 33300 mm	1.00	33300.00	33300.00
110	1000 x 33600 mm	1.00	33600.00	33600.00
111	1000 x 33900 mm	1.00	33900.00	33900.00
112	1000 x 34200 mm	1.00	34200.00	34200.00
113	1000 x 34500 mm	1.00	34500.00	34500.00
114	1000 x 34800 mm	1.00	34800.00	34800.00
115	1000 x 35100 mm	1.00	35100.00	35100.00
116	1000 x 35400 mm	1.00	35400.00	35400.00
117	1000 x 35700 mm	1.00	35700.00	35700.00
118	1000 x 36000 mm	1.00	36000.00	36000.00
119	1000 x 36300 mm	1.00	36300.00	36300.00
120	1000 x 36600 mm	1.00	36600.00	36600.00
121	1000 x 36900 mm	1.00	36900.00	36900.00
122	1000 x 37200 mm	1.00	37200.00	37200.00
123	1000 x 37500 mm	1.00	37500.00	37500.00
124	1000 x 37800 mm	1.00	37800.00	37800.00
125	1000 x 38100 mm	1.00	38100.00	38100.00
126	1000 x 38400 mm	1.00	38400.00	38400.00
127	1000 x 38700 mm	1.00	38700.00	38700.00
128	1000 x 39000 mm	1.00	39000.00	39000.00
129	1000 x 39300 mm	1.00	39300.00	39300.00
130	1000 x 39600 mm	1.00	39600.00	39600.00
131	1000 x 39900 mm	1.00	39900.00	39900.00
132	1000 x 40200 mm	1.00	40200.00	40200.00
133	1000 x 40500 mm	1.00	40500.00	40500.00
134	1000 x 40800 mm	1.00	40800.00	40800.00
135	1000 x 41100 mm	1.00	41100.00	41100.00
136	1000 x 41400 mm	1.00	41400.00	41400.00
137	1000 x 41700 mm	1.00	41700.00	41700.00
138	1000 x 42000 mm	1.00	42000.00	42000.00
139	1000 x 42300 mm	1.00	42300.00	42300.00
140	1000 x 42600 mm	1.00	42600.00	42600.00
141	1000 x 42900 mm	1.00	42900.00	42900.00
142	1000 x 43200 mm	1.00	43200.00	43200.00
143	1000 x 43500 mm	1.00	43500.00	43500.00
144	1000 x 43800 mm	1.00	43800.00	43800.00
145	1000 x 44100 mm	1.00	44100.00	44100.00
146	1000 x 44400 mm	1.00	44400.00	44400.00
147	1000 x 44700 mm	1.00	44700.00	44700.00
148	1000 x 45000 mm	1.00	45000.00	45000.00
149	1000 x 45300 mm	1.00	45300.00	45300.00
150	1000 x 45600 mm	1.00	45600.00	45600.00
151	1000 x 45900 mm	1.00	45900.00	45900.00
152	1000 x 46200 mm	1.00	46200.00	46200.00
153	1000 x 46500 mm	1.00	46500.00	46500.00
154	1000 x 46800 mm	1.00	46800.00	46800.00
155	1000 x 47100 mm	1.00	47100.00	47100.00
156	1000 x 47400 mm	1.00	47400.00	47400.00
157	1000 x 47700 mm	1.00	47700.00	47700.00
158	1000 x 48000 mm	1.00	48000.00	48000.00
159	1000 x 48300 mm	1.00	48300.00	48300.00
160	1000 x 48600 mm	1.00	48600.00	48600.00
161	1000 x 48900 mm	1.00	48900.00	48900.00
162	1000 x 49200 mm	1.00	49200.00	49200.00
163	1000 x 49500 mm	1.00	49500.00	49500.00
164	1000 x 49800 mm	1.00	49800.00	49800.00
165	1000 x 50100 mm	1.00	50100.00	50100.00
166	1000 x 50400 mm	1.00	50400.00	50400.00
167	1000 x 50700 mm	1.00	50700.00	50700.00
168	1000 x 51000 mm	1.00	51000.00	51000.00
169	1000 x 51300 mm	1.00	51300.00	51300.00
170	1000 x 51600 mm	1.00	51600.00	51600.00
171	1000 x 51900 mm	1.00	51900.00	51900.00
172	1000 x 52200 mm	1.00	52200.00	52200.00
173	1000 x 52500 mm	1.00	52500.00	52500.00
174	1000 x 52800 mm	1.00</		

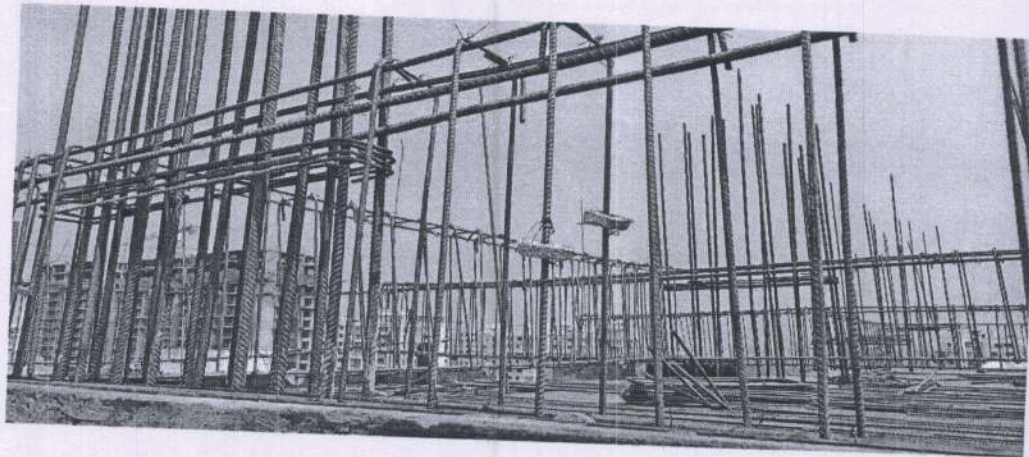


Fig 3: Column beam junction



Fig 4: Footing reinforcement



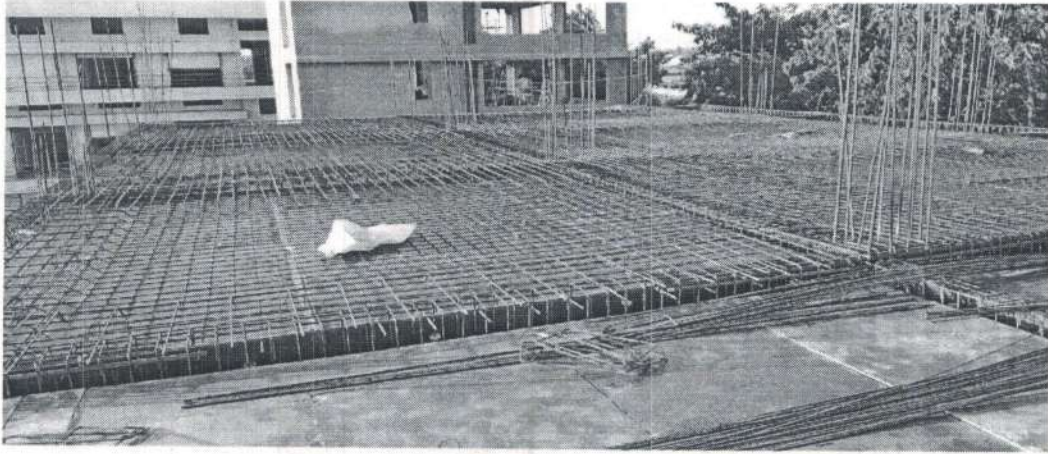


Fig 5: Slab reinforcement



Fig 6: Site visit by students and faculty

P. Kan





G S MOZE COLLEGE OF ENGINEERING

Department of Civil Engineering

Roll call list

Class TE A A.Y. 2021-22

Site Visit Attendance

Course -DRCS

Date- 13/04/2022

Roll No	Name of Student	Sign
TE A 1	SURYAWANSHI ABHISHEK BHANUDAS	
TE A 2	SURYAWANSHI RUSHIKESH RAJENDRA	
TE A 3	SANDEEP NEBBOOLAL PRAJAPATI	
TE A 4	CHAVAN RUTVI PRADEEP	
TE A 5	PHADE SHUBHAM KRUSHNAJI	
TE A 6	BHANGE SAIPRASAD SANJAY	
TE A 7	DHANGEKAR ABHISHEK MAHADEV	
TE A 8	GAURAV TAPKIR	
TE A 9	ALKUNTE PRATIK SHANKAR	
TE A 10	ANDHALE PRUTHVIRAJ YUVRAJ	
TE A 11	ANIKET UDDHAV MANDHARE	
TE A 12	ANIMESH SANJAY NAGWANSHI	
TE A 13	BACHCHE SHAILESH VASANT	
TE A 14	BARKULE SHUBHAM CHANDRAKANT	
TE A 15	BHAGWAT ADITYA GOPALA	
TE A 16	BHANAWASE SUJIT JOYTIRM	
TE A 17	BHELSAIKAR AJINKYA RAJU	
TE A 18	BIRADAR GAURAV DNYANESHWAR	
TE A 19	CHAUDHARI DHIRAJ POPATRAO	
TE A 20	CHAVAN MANASI VITTHAL	
TE A 21	CHAVAN SANGRAM MANSING	
TE A 22	CHAVAN SURAJ RAMESH	
TE A 23	CH IPLUNKAR SAHIL SANJAY	
TE A 24	DESAI POOJA DINKAR	
TE A 25	DUBALE ATHARV HANUMANT	
TE A 26	DUDHAL SHUBHAM SANJAY	
TE A 27	GADEKAR SHRADDHA GAJANAN	
TE A 28	GAIKWAD NIKHIL VISHNU	
TE A 29	GANDHARE JANHAVI AJAY	
TE A 30	GHO GARE REVANSIDDHA NAMDEV	
TE A 31	GODAGE SAMEER SURESH	
TE A 32	GOLE SANJAY BABURAO	
TE A 33	GUNJAL SHIVRAJ BRAMANAND	
TE A 34	HAWALDAR SANKET BALKRUSHNA	



TE A 35	INDRALE PRITI ASHOKRAO	<i>Indra</i>
TE A 36	ITKALE SHUBHAM DILIP	<i>Itkale</i>
TE A 37	JADHAV NIKHIL SHIVAJI	<i>Jadhav</i>
TE A 38	JADHAV PRATIK NANDKUMAR	<i>Jadhav</i>
TE A 39	JADHAV VAIBHAV PRAKASH	<i>Jadhav</i>
TE A 40	JAGTAP GURUPRASAD AJAY	<i>Jagtap</i>
TE A 41	JAGTAP SACHIN RAJENDRA	<i>Jagtap</i>
TE A 42	JAYESH SUDAM SAINDANE	<i>Jayesh</i>
TE A 43	JOSHI SOHAM SANJOT	<i>Joshi</i>
TE A 44	KADAM AKASH BABASAHEB	<i>Kadam</i>
TE A 45	KADAM AKASH BHAUSAHEB	<i>Kadam</i>
TE A 46	KADAM GANESH MAHADEV	<i>Kadam</i>
TE A 47	KALE RUSHIKESH BABASAHEB	<i>Kale</i>
TE A 48	KALOKHE SURAJ AVINASH	<i>Kalokhe</i>
TE A 49	KAMBLE PRAJAKTA JITENDRA	<i>Kamble</i>
TE A 50	KAMBLE PRASHIK BHARATBHUSHAN	<i>Kamble</i>
TE A 51	KHAN HUMA JAVEDKHAN	<i>Khan</i>
TE A 52	KHANDARE RAJESHWAR RAMESHRAO	<i>Khandare</i>
TE A 53	KHARAT AVINASH VINAYAK	<i>Kharat</i>
TE A 54	KHARAT GANESH ARJUN	<i>Kharat</i>
TE A 55	KOLEKAR AMOL SURESH	<i>Kolekar</i>
TE A 56	KORKE SAGAR DATTATRAY	<i>Korke</i>
TE A 57	KSHIRSAGAR VISHWANATH BHAGWAN	<i>Kshirsagar</i>
TE A 58	LAKKAM SUDHANSHU SANJAY	<i>Lakkam</i>
TE A 59	MADAKE SAYALI BALU	<i>Madake</i>
TE A 60	MAGARE PREETI DATTATRY	<i>Magare</i>
TE A 61	MAHALE DEVENDRA SHIRISH	<i>Mahale</i>
TE A 62	MANE GEETANJALI GHANSHYAM	<i>Mane</i>
TE A 63	MANSUTE GAURAV SUDHAKAR	<i>Mansute</i>
TE A 64	MATERE PRADIP RAMESH	<i>Mater</i>
TE A 65	MHALUNGEKAR SAURABH SAMBHAJI	<i>Mhalungekar</i>
TE A 66	MOHITE PRANAV PRAKASH	<i>Mohite</i>
TE A 67	MOKASHI SUHEL DAUD	<i>Mokashi</i>
TE A 68	MORE RAHUL VASANT	<i>More</i>
TE A 69	NAWALI SAGAR VILAS	<i>Nawali</i>
TE A 70	NIKHIL DATIR	<i>Nikhil</i>
TE A 71	PIMPLE VIKESH MANIK	<i>Pimple</i>
TE A 72	MESHARAM RAVINDRA	<i>Mesharam</i>
TE A 73	NIKHIL SHIMPI	<i>Nikhil</i>
TE A 74	PRATHMESH KHONDE	<i>Prathmesh</i>

Prof. Shilpa Mahajn
Prof. Vinayak Kulkarni
Course Incharge

Prof. Seema Shiyekar
H.O.D

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045





G S MOZE COLLEGE OF ENGINEERING

Department of Civil Engineering

Roll Call

Class TE B A.Y. 2021-22

Site Visit Attendance

Course -DRCS

Date- 13/04/2022

Roll No	Name of Student	Sign
TE B 1	BAWANKAR AMIT DNYANESHWAR	<i>[Signature]</i>
TE B 2	PAWAR RACHANA NANDRAM	<i>[Signature]</i>
TE B 3	GADIWADD SWAPNIL TIPANA	<i>[Signature]</i>
TE B 4	RAYMANE AKASH MACHHINDRANATH	<i>[Signature]</i>
TE B 5	BIJAWE PRITI RAMDASRAO	<i>[Signature]</i>
TE B 6	NAKHATE VANITA MARUTI	<i>[Signature]</i>
TE B 7	JYOTI DNYANESHWAR RAJAPURE	<i>[Signature]</i>
TE B 8	NEHARKAR DINESH BABASAHEB	<i>[Signature]</i>
TE B 9	KUMBHAR RAJU ANNA	<i>[Signature]</i>
TE B 10	KAMBLE RUSHIKESH SUDESHKUMAR	<i>[Signature]</i>
TE B 11	MORE VANDANA BHAGWANRAO	<i>[Signature]</i>
TE B 12	CHAVAN AVINASH REVAN	<i>[Signature]</i>
TE B 13	GIR SWATI KHUSHAL	<i>[Signature]</i>
TE B 14	DEVAKAR TANAJI TUKARAM	<i>[Signature]</i>
TE B 15	JADHAV PRATIK RAVINDRA	<i>[Signature]</i>
TE B 16	GUNDAL CHANDRAKANT RAMDAS	<i>[Signature]</i>
TE B 17	ADISHERLAWAR VITTHALNATH LAXMANRAO	<i>[Signature]</i>
TE B 18	ARBUNE VAIBHAV PANDURANG	<i>[Signature]</i>
TE B 19	BHAGAT RUSHIKESH HARISHCHANDRA	<i>[Signature]</i>
TE B 20	BHANDARKAR GAURAV RAMLING	<i>[Signature]</i>
TE B 21	DHADDE OMKAR ASHOK	<i>[Signature]</i>
TE B 22	DHUMAL DISHA DASHARTH	<i>[Signature]</i>
TE B 23	GAIKWAD AKSHAY SURESH	<i>[Signature]</i>
TE B 24	GAVALI SHREYASH JAGDISH	<i>[Signature]</i>
TE B 25	KADAM ANIKET MALHARI	<i>[Signature]</i>
TE B 26	KALASKAR AKASH ANNASAHEB	<i>[Signature]</i>
TE B 27	KAMBLE RUTURAJ DILIP	<i>[Signature]</i>
TE B 28	KAMBLE VINAY ANIL	<i>[Signature]</i>
TE B 29	MULE YOGESH SHANKAR	<i>[Signature]</i>
TE B 30	NAIK OMKAR SANTOSH	<i>[Signature]</i>
TE B 31	NAVGHARE PRASAD MILIND	<i>[Signature]</i>
TE B 32	NIKALJE SIDDHARTH SHASHIKANT	<i>[Signature]</i>
TE B 33	NIKHIL MOHAN GHANEKAR	<i>[Signature]</i>
TE B 34	OLEKAR PRATIK VIJAY	<i>[Signature]</i>
TE B 35	ORASE ABHISHEK SHANKAR	<i>[Signature]</i>
TE B 36	ORSE MUKESH KISAN	<i>[Signature]</i>
TE B 37	PATIL KIRANRAJ NANA	<i>[Signature]</i>



TE B 38	PAWALE TUSHAR TUKARAM	<i>[Signature]</i>
TE B 39	PHARANDE PRASAD GANESH	<i>[Signature]</i>
TE B 40	POTDAR GAURAV NAGNATH	<i>[Signature]</i>
TE B 41	RAJE PANKAJ DNYANOBA	<i>[Signature]</i>
TE B 42	RAJPUT VISHWAJITSING PREMSING	<i>[Signature]</i>
TE B 43	RANDIVE MANDAR GOKUL	<i>[Signature]</i>
TE B 44	RANGOJI DIVYA GNYANADEV	<i>[Signature]</i>
TE B 45	RATHOD ARCHANA SANJAY	<i>[Signature]</i>
TE B 46	RAUT GANESH ASHOK	<i>[Signature]</i>
TE B 47	RAWOOL VIKAS VIJAY	<i>[Signature]</i>
TE B 48	SANCHIT RAGHUNATH CHAUGULE	<i>[Signature]</i>
TE B 49	SANDAV TANVI PRATAP	<i>[Signature]</i>
TE B 50	SATAV SHUBHAM MUKESH	<i>[Signature]</i>
TE B 51	SATHE MEGHA MOHAN	<i>[Signature]</i>
TE B 52	SAURABH WACHAK PADALE	<i>[Signature]</i>
TE B 53	SHINDE DIKSHA DATTATRAY	<i>[Signature]</i>
TE B 54	SHINDE JYOTI VISHWAS	<i>[Signature]</i>
TE B 55	SHINDE OM SANJAY	<i>[Signature]</i>
TE B 56	SHINDE RUSHIKESH RAMRAJE	<i>[Signature]</i>
TE B 57	SHINDE VRUSHABH DILIP	<i>[Signature]</i>
TE B 58	SINGH PRASHANT DURGAPRASAD	<i>[Signature]</i>
TE B 59	SONUNE SACHIN KUNDALIK	<i>[Signature]</i>
TE B 60	SUDATTA LAXMAN GAIKWAD	<i>[Signature]</i>
TE B 61	SURPAM LALITA MAHADEO	<i>[Signature]</i>
TE B 62	TEJAS VILAS DALVI	<i>[Signature]</i>
TE B 63	TEMKAR SAURABH VILAS	<i>[Signature]</i>
TE B 64	THORAT SUYASH SAMBHAJI	<i>[Signature]</i>
TE B 65	TIKAR RUPAL PANDURANG	<i>[Signature]</i>
TE B 66	TUPLONDHE SIDDHANT SUNIL	<i>[Signature]</i>
TE B 67	UBALE RUTUJA MANOJ	<i>[Signature]</i>
TE B 68	VAISHNAVI KORATE	<i>[Signature]</i>
TE B 69	VHANMANE AKSHAY DASHARATH	<i>[Signature]</i>
TE B 70	WAGHMARE GANESH KRUSHNA	<i>[Signature]</i>
TE B 71	WARLE AMRUTA LOBHAJI	<i>[Signature]</i>
TE B 72	CHAITANYA SHINDE	<i>[Signature]</i>
TE B 73	SUNIL PARGAVE	<i>[Signature]</i>
TE B 74	VISHAL GHODAKE	<i>[Signature]</i>

Prof. Vinayak Kulkarni
Course Incharge

Prof. Seema Shiyekar
H.O.D



Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balawadi, Pune-411045



"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, 411 045.

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-27390500 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. : GSMCOE/office/179/2021-2022

Date :

Date: 28/03/2022

To

The Site head

Kasarsai dam

Marunji, Taluka- Mulashi

Subject: Regarding Site visit to kasarsai dam as per course curriculum of final year Civil Engineering for the subject Dams and Hydraulic Structures

Respected Sir/Ma'am,

We are one of the reputed institutes offering various Technical Degree, Diploma and Post Graduate Courses, approved by AICTE Delhi, Govt. of Maharashtra, DTE and affiliated to Savitribai Phule Pune University (SPPU).

With reference to above mentioned subject as per the course curriculum for the subject Dams and Hydraulic Structures of final year students, we would like to arrange a visit to dam and to know the information and working about same as well to study energy dissipation system.

It's a kind request to grant us permission for the same along with students and faculties on any working day as per your convenience (tentatively between 03 to 13 April 2022). We will be thankful if you do the needful and allot us in-charge person who will explain us in detail the information.

Thank you in advance.

Course In charge

Prof. S.S. Shiyekar

H.O.D.

Prof. S.S. Shiyekar

Principal

Dr. Ratnaraja kumar

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045

Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.

HAce
31-3-22
शाखाधिकारी





“EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE”
**GENBA SOPANRAO MOZE COLLEGE OF
ENGINEERING**

S. No. 25/1/3, Balewadi, Pune – 411 045
(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)
DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999
Ph: 020-27390500 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in
Founder President: Shri Rambhau Moze

Date:28/03/2022

To,
The Site Head
Kasarsai Dam
Marunji, Taluka-Mulshi

Letter of thanks

Respected Sir,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit your Kasarsai Dam. We really appreciate the time spent with our students and information shared by you. We hope our students received precious knowledge which will definitely help them in their Curriculum.

Thanking you.

Yours Regards,

Prof. Seema Shiyekar
(Faculty coordinator)

Prof. Seema Shiyekar
Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr. Ratnaraja Kumar Jambi

(GSMCOE, Balewadi)
PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045



Out ward No/KISR/ 179/2022

Kasarsai Irrigation Section ,
Kasarsai, Tal-Maval, Dist-Pune

Date- 31/3/22

To,

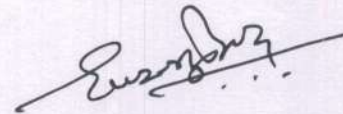
The Principal,
Genba Sopanrao Moze College of Engineering
S.No.25/1/3, Balewadi
Pune-411084.

Subject — Regarding site visit to kasarsai Dam as per course curriculum of final year Civil Engineering for the subject Dams and Hydraulic structures .

Reference- Letter of Genba Sopanrao Moze College of Engineering
No.GSMCOE/ office/179/2021-22 Dated-28/3/2022.

As per reference to the above subject you may arrange a visit to the Kasarsai Dam on 08/04/2022 or 12/4/2022 with students and faculties . We request you to follow all the government rules and regulations. Please convey your schedule in advance.

Thanking You.



FIC
Sectional Engineer
Kasarsai Irrigation Section

Kasarsai Tal-Maval, Dist-Pune





Date :

Pg No :

* Visit Report *

- * Site name :- Kasarsai Dam.
- * Site Location :- Kasarsai Dam, Somatne - Kasarsai Road, Kusgaon P.m, Maharashtra, Pune - 410506.
- * Visit Date :- 12/04/2022.
- * Objective :- To study & get a brief knowledge of construction & working of dam.
- * General Information :-

Kasarsai irrigation project consist of an earthen dam across Kasarsai nalla 35km away from Pune city. The dam is 1170 meter long having height of 29.36 meter. The catchment area of dam is 10.5 km^2 & water is used for irrigation. The spillway of dam is Ogee type with 3 gates of size 12×5 meter. Designed flood capacity of 932.57 cumec. ~~length~~ Length of spillway is 14 meter.

Left bank canal is 7km long. The 41 cumec capacity canal will irrigate 512 hectare (ICA). The Right bank canal is 19.5 km long. The 2.203 cumec capacity canal irrigate 2524 hectare (ICA) of land. In revised proposal left irrigation is included & irrigates 1083 hectare & ultimate irrigation potential is 6590 hectare.





B] Height of dam	29.36 meter.
C] Top width of dam	1170 meter
D] Spillway gate	3 nos.

* Conclusion :-

During visit to Kazarsai Dam, initially the entire working of dam was studied. We understand dam site so, that what ever problems are coming during the study we saw, the over flow, non-over flow sections of dam. We were also saw the maintainance of Gates of dam of moving or lifting by jacks. We also saw spillway details of their operating system.



DHS Site Visit (2021-22)





G. S. Moze College of Engineering, Balewadi
Civil Engineering Department
Academic Year 2021-22
Site Visit Attendance

Course -DHS

Date- 12/04/2022

Class : BE B

Roll No.	Student Name	Sign
B 1	LANDAGE SHUBHAM PRABHAKAR	PRABHAKAR
B 2	LOKHANDE YOGESH SITARAM	SITARAM
B 3	MADAGE BHUSHAN GANPAT	GANPAT
B 4	MAHALLE PIYUSH SATISH	SATISH
B 5	MANANI RAHUL NARENDRA (W)	NARENDRA
B 6	MANE SHREESH GANESH	GANESH
B 7	NAGANE AKSHAY BHARAT (W)	BHARAT
B 8	NAGARGOJE SONALI SHRIDHAR	SHRIDHAR
B 9	NAIK RUSHIKESH RAJKUMAR	RAJKUMAR
B 10	NARSALE PRATAP RAJARAM	RAJARAM
B 11	NAVALE SHUBHAM PRAMOD	PRAMOD
B 12	NISHAD RAMASHISH GANESH	GANESH
B 13	PADAGE ABHIJEET PRAKASH	PRAKASH
B 14	PADALE ADITYA GANPAT	GANPAT
B 15	PANCHAL AKASH VIJAY	VIJAY
B 16	PANDIT PRATIKSHA CHANDULAL	CHANDULAL
B 17	PATALE GAJANAN SHESHRAO	SHESHRAO
B 18	PATANGE MANOJ BHIMASHANKAR	BHIMASHANKAR
B 19	PATIL AKASH MOHANRAO	MOHANRAO
B 20	PATIL ARIHANT ANIL	ARIHANT
B 21	PATIL SHWETA NANASO	NANASO
B 22	PATIL TUSHAR VILAS	VILAS
B 23	PATIL YOGESHWAR NANDKUMAR	NANDKUMAR
B 24	PAWAR SAURABH VISHWANATH	VISHWANATH
B 25	PAWSHERE AMIT DEVIDAS	DEVIDAS
B 26	PAYAL KUNAL RATAN	RATAN
B 27	PURKAR SAURABH DILIP	DILIP
B 28	RASGE SAYALI RAJESH	RAJESH
B 29	RATHOD DINESH MALLESHI	MALLESHI
B 30	RUPEKAR SAGAR ASHOK	ASHOK
B 31	SALUNKE PRAGALBHA RAVINDRA	RAVINDRA
B 32	SALUNKE SAMARTH SHIVAJI	SHIVAJI
B 33	SANAP AMOL KHUSHALRAO	KHUSHALRAO
B 34	SANAP SANKET HANUMANT	HANUMANT
B 35	SANDE AKIB SHAKIL	SHAKIL
B 36	SANGALE MAHESH UMAJI	UMAJI
B 37	SANGOLKAR SUMIT PRAHALD	PRAHALD
B 38	SHAH TANISH PRAKASH	PRAKASH
B 39	SHAH TEJAS JITENRA	JITENRA
B 40	SHAIKH SAMEER LALSAB (W)	LALSAB



A46	GAIKWAD RAJESH TUKARAM	<i>Om</i>
A47	GANGURDE VISHAL BHAGWAN	<i>Om</i>
A48	GHUGE LAXMAN BHIMA	<i>Om</i>
A49	GOLHAR SWATI RAJENDRA	<i>Om</i>
A50	GORE PRAJWAL SANJAY	<i>Om</i>
A51	ISHWARKATTI PRADIP ADAVYAPPA	<i>Om</i>
A52	JADHAV EKLAVYA YOGESH	<i>Om</i>
A53	JADHAV RUSHIKESH RAMESH	<i>Om</i>
A54	JADHAV SWAPNIL GANESH	<i>Om</i>
A55	JAGTAP ANIKET KAILAS	<i>Om</i>
A56	JAWALE PRAVIN OMKAR	<i>Om</i>
A57	KACHHAWA DEVENDRASINGH VIJAYSINGH	<i>Om</i>
A58	KADU JITENDRA PANDITRAO	<i>Om</i>
A59	KAMBLE PRASHANT RAHUL	<i>Om</i>
A60	KAMBLE ROHAN VIJAY	<i>Om</i>
A61	KANDEKAR KAUSHIK CHANDRAKANT	<i>Om</i>
A62	KARANDE JAYESH SAKHARAM	<i>Om</i>
A63	KATKAR ROHAN SANJAY	<i>Om</i>
A64	KAWALE ANIKET PRAMOD	<i>Om</i>
A65	KAYASTH SONIYA HEMANT	<i>Om</i>
A66	KHOND SANKET DATTA	<i>Om</i>
A67	KUTE OMKAR SUNIL	<i>Om</i>
A68	NAGDIWE ASHUTOSH	<i>Om</i>
A69	RATHOD AJAY	<i>Om</i>
A70	ISHWAR KHAJURE	<i>Om</i>
A71	AKSHAY CHAUDHARI	<i>Om</i>
A72	SURWASE VIDYASAGAR	<i>Om</i>
A73	NIKHIL WALANJ	<i>Om</i>
A74	SHUBHAM VINAYAK PATIL	<i>Om</i>
A75	NAIKWADE DHANANJAY	<i>Om</i>
A76	VISHAL DYANESHWAR PATIL	<i>Om</i>
A77	SONTAKKE SHRIKANT SHRIMANI	<i>Om</i>
A78	KSHIRSAGAR AKSHAY ANIL	<i>Om</i>
A79	GHANERI SHIVAN SUNIL	<i>Om</i>
A80	GAIKWAD LAHU DHARMRAJ	<i>Om</i>
A 81	KADAM RAVIRAJ DADASO	<i>Om</i>
A82	KOKATE PRASAD NAGORAO	<i>Om</i>

SSS

Prof.Seema Shiyekar

Course Incharge



SSS

Prof.Seema Shiyekar

HOD

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

"Create Competent Socially Responsible Civil Engineers"
 GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

Balewadi, Pune - 411045

Civil Engineering Department

A.Y. 2021-22

Site Visit Attendance

Class : BE B



Roll No.	Student Name	sign
B 1	LANDAGE SHUBHAM PRABHAKAR	<i>Shubham</i>
B 2	LOKHANDE YOGESH SITARAM	<i>Yogesh</i>
B 3	MADAGE BHUSHAN GANPAT	<i>Bhushan</i>
B 4	MAHALLE PIYUSH SATISH	-
B 5	MANANI RAHUL NARENDRA (W)	-
B 6	MANE SHREESH GANESH	<i>Shreesh</i>
B 7	NAGANE AKSHAY BHARAT (W)	<i>Akshay</i>
B 8	NAGARGOJE SONALI SHRIDHAR	<i>Sonali</i>
B 9	NAIK RUSHIKESH RAJKUMAR	-
B 10	NARSALE PRATAP RAJARAM	-
B 11	NAVALE SHUBHAM PRAMOD	<i>Pramod</i>
B 12	NISHAD RAMASHISH GANESH	-
B 13	PADAGE ABHIJEET PRAKASH	<i>Prakash</i>
B 14	PADALE ADITYA GANPAT	<i>Aditya</i>
B 15	PANCHAL AKASH VIJAY	<i>Akash</i>
B 16	PANDIT PRATIKSHA CHANDULAL	<i>Pratiksha</i>
B 17	PATALE GAJANAN SHESHRAO	<i>Patale</i>
B 18	PATANGE MANOJ BHIMASHANKAR	-
B 19	PATIL AKASH MOHANRAO	<i>Patil</i>
B 20	PATIL ARIHANT ANIL	<i>Arihant</i>
B 21	PATIL SHWETA NANASO	<i>Nanaso</i>
B 22	PATIL TUSHAR VILAS	<i>Tushar</i>
B 23	PATIL YOGESHWAR NANDKUMAR	<i>Yogeshwar</i>
B 24	PAWAR SAURABH VISHWANATH	<i>Pawar</i>
B 25	PAWSHERE AMIT DEVIDAS	<i>Devidas</i>
B 26	PAYAL KUNAL RATAN	-
B 27	PURKAR SAURABH DILIP	-
B 28	RASGE SAYALI RAJESH	-
B 29	RATHOD DINESH MALLESHI	-
B 30	RUPEKAR SAGAR ASHOK	-
B 31	SALUNKE PRAGALBHA RAVINDRA	-
B 32	SALUNKE SAMARTH SHIVAJI	-
B 33	SANAP AMOL KHUSHALRAO	-
B 34	SANAP SANKET HANUMANT	-
B 35	SANDE AKIB SHAKIL	<i>Sanap</i>
B 36	SANGALE MAHESH UMAJI	<i>Sangale</i>
B 37	SANGOLKAR SUMIT PRAHALD	-
B 38	SHAH TANISH PRAKASH	-
B 39	SHAH TEJAS JITENRA	<i>Shah</i> <i>Tejas</i>



B 41	SHARMA DEEPAK VIRENDRA	Deepak
B 42	SHARMA SUBODH GANESH	Subodh
B 43	SHERIKAR VAISHALI SUBHASH	Subhash
B 44	SHINDE KISHOR DATTATRAY	Kishor
B 45	SHINDE PALLAVI	Pallavi
B 46	SHINDE PANDURANG PRALHAD	Pandurang
B 47	SHIROTE SONHIRA SIDDHAPPA	Sonhira
B 48	SONTAKKE VRUSHALI SATISH	Satish
B 49	SUL SNEHA ASHOKE	Sneha
B 50	SUTAR JAYESH RAJENDRA	Jayesh
B 51	SUTAR MAYURESH SURESH	Mayuresh
B 52	TARGUDE VISHAL VENKATRAO	Vishal
B 53	THORAT AISHWARYA SURESH	Aishwarya
B 54	THORAT TUSHAR VINAYAK	Tushar
B 55	TIKORE VAIBHAV DAS	Vaibhav
B 56	UCHEKAR PRADNYA GOVINDRAO	Pradnya
B 57	UKEY VAISHALI GONDU	Vaishali
B 58	WAGHMARE ANIKET ANURATH	Aniket
B 59	YADAV AKSHAYA JAYWANT	Akshaya
B 60	YADAV PRATIK MADHUKAR	Pratik
B 61	TANPURE NIKITA ARUN	Nikita
B 62	PATIL ROHIT ANIL	Rohit
B 63	YADAV GAURAV PRAVIN	Gaurav
B 64	VISHAKHA MIRASHI	Vishakha
B 65	PAWAR GAURAV	Gaurav
B 66	SNEHAL BIDAWE	Snehal
B 67	KAMTHEKAR VIJAY	Vijay
B 68	KHEDKAR SHUBHAM DIPAK	Shubham
B 69	AMBORE AKSHAY MANIKRAO	Akshay
B 70	JADHAV NIKHIL PRADEEP	Nikhil
B 71	JADHAV KIRAN DATTATRAY	Kiran
B 72	BOBADE AKSHAY ANANT	Akshay
B 73	DANGE OMKAR	Omkar
B 74	GAIKWAD SHUBHAM	Shubham
B 75	VAIBHAV ANIL BORADE	Vaibhav
B 76	BIRAJDAR AKASH BHIMRAO	Akash
B 77	PRADNYESH SHITOLE	Pradnyesh
B 78	AISHVARYA DESHMUKH	Aishvarya
B 79	BALAJI SHINDE	Balaji
B 80	AKSHAY PARDESHI	Akshay
B 81	AKSHAY BANKAR	Akshay
B 82	SAGAR TAKLE	Sagar

Prof. Seema Shiyekar

Prof. Seema Shiyekar

Course Incharge

HOD

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/13, Balewadi, Pune-411045



“Empowerment Through Technological Excellence”
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to Pune University)
25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering



Date: 15/10/2023

SITE VISIT NOTICE

All the students of B.E. are hereby informed that , your TRE site visit to Hot Mix Plant has been arranged on 26/10/2023. All Students are asked to be present at 10 am sharp. in college premises.

NOTE:

- **STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM**
- **STUDENTS SHOULD CARRY WATER BOTTLE,CAP, SHOES etc**
- **ATTENDANCE IS COMPULSORY**

Prof. Richa Lalge

(Faculty coordinator)

Prof. Seema Shiyekar

HOD
Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045





"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, 411 045.

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-29513395 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. :

Date :

To,
The Plant Manager
Yerawada Hot Mix Plant,
Yerewada college road Pune.

Subject:- Permission to visit HOT MIX PLANT .

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.


There would be a total of 50 students accompanied by 02 faculty members are interested to Visit your renowned **HOT MIX PLANT** Yerewada,Pune as a part of BE SPPU Syllabus in TRE Subject. The visit is aimed at enhancing their Practical knowledge. We intend to take a round of the entire HOT MIX PLANT plant. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

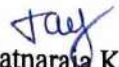
We are expecting visit on date (26/10/23)

Looking forward for your positive consent in this regard.

Thanking you.


Prof. Richa Lalge
(Faculty coordinator)


Prof. Seema Shiyekar
Hod
Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411 045


Dr. Ratnaraja Kumar jambi
PRINCIPAL
Principal
Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. 020-27390500 Website www.gsmozecoe.org Email gsmoze@yahoo.co.in

Founder President Shri Rambhau Moze

Ref. No. GSMCOE / ADMIN / 741 / 2023-24

Date 09/10/2023

To,

The Principal

GSMCOE, Balewadi Pune.

Subject:- Request to grant the Permission to visit HOT MIX PLANT .

Respected Sir,

With reference to above mention subject we want to arrange site visit for the subject **Transportation Engineering** for Last year students of Civil Engineering Department.

The site is situated near Yerewada- College Road which nearly 15 km away from our campus.

It is kind request to grant the permission for same along with 50 students and one faculties to visit site on date **16/10/2023** at 9 am.

Thanking you.

Prof. Richa Lalde

Faculty coordinator

Prof. Seema Shiyekar

HOD

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045

Dr. Ratnaraj Kumar Jambi

Principal

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. 020-27390500 Website www.gsmozecoe.org Email gsmoze@yahoo.co.in

Founder President Shri Rambhau Moze

Ref. No. GSMCOE / ADMIN / 739 / 2023 - 24

Date 09/10/2023

To,

The Plant Manager

Yerawada Hot Mix Plant,

Yerawada -College Road, Pune.

Subject: Letter of thanks

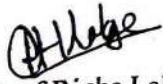
Respected Sir,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit your renowned Hot mix plant at Yerawada. Our BE students are satisfied with the knowledge shared by entire team. We really appreciate the time spent by Project Manager with our students and knowledge shared.

Thanking you.

Your Regards,


Prof. Richa Lalge

Faculty Coordinator


Prof. Seema Shiyekar

HoD

Head of the Department
CIVIL ENGINEERING

Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045


Dr. Ratnarajakumar Jambi

Principal

PRINCIPAL

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Balewadi, Pune - 411045.

Civil Engineering Department

Academic Year 2022-23

Site Visit Attendance

Date - 26/10/23



Sr. No.	Roll. No	Student Name	Sign
1	A-01	DESAI POOJA DINKAR	—
2	A-02	ADISHERLAWAR VITTHALNATH LAXMANRAO	—
3	A-03	AKASH ANNASAHEB KALASKAR	—
4	A-04	ARBUNE VAIBHAV PANDURANG	vaibhava
5	A-05	BACHCHE SHAILESH VASANT	vasant
6	A-06	BAWANKAR AMIT DNYANESHWAR	amit
7	A-07	BHAGAT RUSHIKESH	Rushikesh
8	A-08	BHANDARKAR GAURAV RAMLING	gaurav
9	A-09	BHELSAIKAR AJINKYA RAJU	ajinkya
10	A-10	BIJAWA PRITI RAMDASRAO	priti
11	A-11	BIRADAR GAURAV DNYANESHWAR	—
12	A-12	CHAUDHARI DHIRAJ POPATRAO	—
13	A-13	CHAUGULE SANCHIT RAGHUNATH	—
14	A-14	CHAVAN AVINASH REVAN	—
15	A-15	CHAVAN MANASI VITTHAL	vitthal
16	A-16	CHAVAN RUTVI PRADEEP	rutvi
17	A-17	CHAVAN SANGRAM MANSING	sangram
18	A-18	CHAVAN SURAJ RAMESH	suraj
19	A-19	CHIPLUNKAR SAHIL SANJAY	sahil
20	A-20	DALVI TEJAS VILAS	tejas
21	A-21	DEVAKAR TANAJI TUKARAM	tanaji
22	A-22	DEVENDRA SHIRISH MAHALE	—
23	A-23	DHADDE OMKAR ASHOK	—
24	A-24	DHANGEKAR ABHISHEK MAHADEO	abhishek
25	A-25	DHUMAL DISHA DASHARTH	—
26	A-26	DUBALE ATHARV HANUMANT	atharv
27	A-27	DUDHAL SHUBHAM SANJAY	—
28	A-28	GADEKAR SHRADDHA GAJANAN	shraddha
29	A-29	GADIWADD SWAPNIL TIPANA	—
30	A-30	GAIKWAD AKSHAY SURESH	akshay
31	A-31	GAIKWAD NIKHIL VISHNU	—
32	A-32	GANDHARE JANHAVI AJAY	janhavi
33	A-33	GANESH MAHADEV KADAM	—
34	A-34	GAVALI SHREYASH JAGDISH	shreyash
35	A-35	GHODKE VISHAL BALIRAM	vishal



Sr. No.	Roll. No	Student Name	Sign
36	A-36	GIR SWATI KHUSHAL	g.s.
37	A-37	GODAGE SAMEER SURESH	Sameer Ramdas
38	A-38	GUNDAL CHANDRAKANT RAMDAS	—
39	A-39	GUNJAL SHIVRAJ BRAMANAND	—
40	A-40	HAWALDAR SANKET BALKRUSHNA	Sanket
41	A-41	ITKALE SHUBHAM DILIP	Dilip
42	A-42	JADHAV PRATIK NANDKUMAR	Nandkumar
43	A-43	JADHAV PRATIK RAVINDRA	Pratik
44	A-44	JADHAV VAIBHAV PRAKASH	Vaibhav
45	A-45	JAGTAP GURUPRASAD AJAY	Ajay
46	A-46	JAGTAP SACHIN RAJENDRA	Sachin
47	A-47	JOSHI SOHAM SANJOT	Sanjot
48	A-48	KADAM AKASH BABASAHEB	Akash
49	A-49	KADAM AKASH BHAUSAHEB	—
50	A-50	KADAM ANIKET MALHARI	—
51	A-51	KALE RUSHIKESH BABASAHEB	—
52	A-52	KALOKHE SURAJ AVINASH	Suraj
53	A-53	KAMBLE PRAJAKTA JITENDRA	—
54	A-54	KAMBLE PRASHIK BHARATBHUSHAN	Prashik
55	A-55	KAMBLE RUSHIKESH SUDESHKUMAR	—
56	A-56	KAMBLE RUTURAJ DILIP	Ruturaj
57	A-57	KAMBLE VINAY ANIL	Vinay
58	A-58	KHAN HUMA JAVEDKHAN	—
59	A-59	KHANDARE RAJESHWAR RAMESHRAO	—
60	A-60	KHARAT AVINASH VINAYAK	—
61	A-61	KOLEKAR AMOL SURESH	—
62	A-62	KONDE PRATHAMESH SHRIKANT	—
63	A-63	KORKE SAGAR DATTATRAY	—
64	A-64	KSHIRSAGAR VISHWANATH BHAGWAN	—
65	A-65	KUMBHAR RAJU ANNA	Raju
66	A-66	LAKKAM SUDHANSHU SANJAY	Sanjay
67	A-67	MADAKE SAYALI BALU	Sayali
68	A-68	MAGARE PREETI DATTATRAY	Preeti
69	A-69	MANDHARE ANIKET UDDHAV	Aniket

Prof Richa Lalge
Subject Teacher



Prof. Seema Shiyekar

HOD
Head of the Department
CIVIL ENGINEERING
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25/1/13, Balewadi, Pune-411045

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Balewadi, Pune - 411045.

Civil Engineering Department

Academic Year 2022-23

Site Visit Attendance



Date - 26/10/23

Sr. No.	Roll. No	Student Name	Sign
1	A-01	DESAI POOJA DINKAR	—
2	A-02	ADISHERLAWAR VITTHALNATH LAXMANRAO	—
3	A-03	AKASH ANNASAHEB KALASKAR	—
4	A-04	ARBUNE VAIBHAV PANDURANG	vaibhavae
5	A-05	BACHCHE SHAILESH VASANT	vasant
6	A-06	BAWANKAR AMIT DNYANESHWAR	amit
7	A-07	BHAGAT RUSHIKESH	Rushikesh
8	A-08	BHANDARKAR GAURAV RAMLING	gaurav
9	A-09	BHELSAIKAR AJINKYA RAJU	ajinkya
10	A-10	BIJAW PRITI RAMDASRAO	priti
11	A-11	BIRADAR GAURAV DNYANESHWAR	—
12	A-12	CHAUDHARI DHIRAJ POPATRAO	—
13	A-13	CHAUGULE SANCHIT RAGHUNATH	—
14	A-14	CHAVAN AVINASH REVAN	—
15	A-15	CHAVAN MANASI VITTHAL	vitthal
16	A-16	CHAVAN RUTVI PRADEEP	rutvi
17	A-17	CHAVAN SANGRAM MANSING	sangram
18	A-18	CHAVAN SURAJ RAMESH	suraj
19	A-19	CHIPLUNKAR SAHIL SANJAY	sahil
20	A-20	DALVI TEJAS VILAS	tejas
21	A-21	DEVAKAR TANAJI TUKARAM	tanaji
22	A-22	DEVENDRA SHIRISH MAHALE	—
23	A-23	DHADDE OMKAR ASHOK	—
24	A-24	DHANGEKAR ABHISHEK MAHADEO	abhishek
25	A-25	DHUMAL DISHA DASHARTH	—
26	A-26	DUBALE ATHARV HANUMANT	atharv
27	A-27	DUDHAL SHUBHAM SANJAY	—
28	A-28	GADEKAR SHRADDHA GAJANAN	shraddha
29	A-29	GADIWADD SWAPNIL TIPANA	—
30	A-30	GAIKWAD AKSHAY SURESH	akshay
31	A-31	GAIKWAD NIKHIL VISHNU	—
32	A-32	GANDHARE JANHAVI AJAY	janhavi
33	A-33	GANESH MAHADEV KADAM	ganesh
34	A-34	GAVALI SHREYASH JAGDISH	shreyash
35	A-35	GHODKE VISHAL BALIRAM	vishal



Sr. No.	Roll. No	Student Name	Sign
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37	A-37	GODAGE SAMEER SURESH	Sameer Ramdas
38	A-38	GUNDAL CHANDRAKANT RAMDAS	—
39	A-39	GUNJAL SHIVRAJ BRAMANAND	Sanket
40	A-40	HAWALDAR SANKET BALKRUSHNA	Dilip
41	A-41	ITKALE SHUBHAM DILIP	Wend Kumar
42	A-42	JADHAV PRATIK NANDKUMAR	Pratik
43	A-43	JADHAV PRATIK RAVINDRA	Varshav
44	A-44	JADHAV VAIBHAV PRAKASH	Ajay
45	A-45	JAGTAP GURUPRASAD AJAY	Sachin
46	A-46	JAGTAP SACHIN RAJENDRA	Joshi
47	A-47	JOSHI SOHAM SANJOT	Kelkar
48	A-48	KADAM AKASH BABASAHEB	—
49	A-49	KADAM AKASH BHAUSAHEB	—
50	A-50	KADAM ANIKET MALHARI	—
51	A-51	KALE RUSHIKESH BABASAHEB	—
52	A-52	KALOKHE SURAJ AVINASH	Seesay
53	A-53	KAMBLE PRAJAKTA JITENDRA	—
54	A-54	KAMBLE PRASHIK BHARATBHUSHAN	Prashik
55	A-55	KAMBLE RUSHIKESH SUDESHKUMAR	—
56	A-56	KAMBLE RUTURAJ DILIP	Seetha
57	A-57	KAMBLE VINAY ANIL	Dilip
58	A-58	KHAN HUMA JAVEDKHAN	—
59	A-59	KHANDARE RAJESHWAR RAMESHRAO	—
60	A-60	KHARAT AVINASH VINAYAK	—
61	A-61	KOLEKAR AMOL SURESH	—
62	A-62	KONDE PRATHAMESH SHRIKANT	—
63	A-63	KORKE SAGAR DATTATRAY	—
64	A-64	KSHIRSAGAR VISHWANATH BHAGWAN	—
65	A-65	KUMBHAR RAJU ANNA	Anna
66	A-66	LAKKAM SUDHANSHU SANJAY	Sanjay
67	A-67	MADAKE SAYALI BALU	Balu
68	A-68	MAGARE PREETI DATTATRAY	Preeti
69	A-69	MANDHARE ANIKET UDDHAV	Aniket

Prof Richa Lalge
Subject Teacher



Prof. Seema Shiyekar

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Balewadi, Pune - 411045.
Civil Engineering Department
Academic Year 2022-23
Site Visit Attendance
BE B

Date - 26/10/2023

SR.no.	Roll. No	Student Name	Sign
1	B-01	MANE GEETANJALI GHANSHYAM	Mane
2	B-02	MANSUTE GAURAV SUDHAKAR	Mansute
3	B-03	MATERE PRADIP RAMESH	Pradip
4	B-04	MESHARAM RAVINDRA DILIP	Mesharam
5	B-05	MHALUNGEKAR SAURABH SAMBHAJI	Mhalungekar
6	B-06	MORE RAHUL VASANT	More
7	B-07	MORE VANDANA BHAGWANRAO	More
8	B-08	MULE YOGESH SHANKAR	Mule
9	B-09	NAGWANSHI ANIMESH SANJAY	Nagwanshi
10	B-10	NAIK OMKAR SANTOSH	Naik
11	B-11	NAKHATE VANITA MARUTI	Nakhate
12	B-12	NAVGHARE PRASAD MILIND	Navghare
13	B-13	NAWALI SAGAR VILAS	Nawali
14	B-14	NEHARKAR DINESH BABASAHEB	Neharkar
15	B-15	NIKALJE SIDDHARTH SHASHIKANT	Nikalje
16	B-16	NIKHIL DATIR	Nikhil
17	B-17	NIKHIL JADHAV	Nikhil
18	B-18	NIKHIL MOHAN GHANEKAR	Nikhil
19	B-19	OLEKAR PRATIK VIJAY	Olekar
20	B-20	ORASE ABHISHEK SHANKAR	Orase
21	B-21	ORSE MUKESH KISAN	Orse
22	B-22	PATIL KIRANRAJ NANA	Patil
23	B-23	PAWALE TUSHAR TUKARAM	Pawale
24	B-24	PAWAR RACHANA NANDRAM	Pawar
25	B-25	PHADE SHUBHAM KRUSHNAJI	Phade
26	B-26	PIMPLE VIKESH MANIK	Pimple
27	B-27	POTDAR GAURAV NAGNATH	Potdar
28	B-28	PRANAVKUMAR	Pranav
29	B-29	PRASAD GANESH PHARANDE	Prasad
30	B-30	PRITI ASHOK INDRALE	Priti
31	B-31	PRUTHVIRAJ YUVRAJ ANDHALE	Pruthviraj
32	B-32	RAJAPURE JYOTI DNYANESHWAR	Rajapure
33	B-33	RAJE PANKAJ DNYANOBA	Raje
34	B-34	RAJPUT VISHWAJITSING PREMSING	Rajput



SR.no.	Roll. No	Student Name	Sign
35	B-35	RANDIVE MANDAR GOKUL	randive
36	B-36	RANGOJI DIVYA GNYANADEV	divya
37	B-37	RATHOD ARCHANA SANJAY	archana
38	B-38	RAUT GANESH ASHOK	raut
39	B-39	RAWOOL VIKAS VIJAY	rawool
40	B-40	RAYMANE AKASH MACHINDRANATH	Raymane
41	B-41	REVANSIDDHA NAMDEV GHOGARE	Revansiddha
42	B-42	SAIPRASAD SANJAY BHANGE	Saiprasad
43	B-44	SANDEEP NEBBOOLAL	Sandeep
44	B-45	SATAV SHUBHAM MUKESH	SataV
45	B-46	SATHE MEGA MOHAN	Sathe
46	B-48	SHIMPI NIKHIL RAJESH	Shimpi
47	B-49	SHINDE DIKSHA DATTATRAY	Diksha
48	B-50	SHINDE JYOTI VISHWAS	Jyoti
49	B-51	SHINDE OM SANJAY	Om
50	B-52	SHINDE RUSHIKESH RAMRAJE	Shinde
51	B-53	SHINDE VRUSHABH DILIP	Shinde
52	B-54	SINGH PRASHANT DURGAPRASAD	Singh
53	B-55	SONUNE SACHIN KUNDALIK	Sonune
54	B-56	SUDATTA LAXMAN GAIKWAD	Sudatta
55	B-57	SURYAWANSHI ABHISHEK BHANUDAS	Suryawanshi
56	B-58	SURYAWANSHI RUSHIKESH RAJENDRA	Suryawanshi
57	B-59	TAPKIR GAURAV SANDESH	Tapkir
58	B-60	TEMKAR SAURABH VILAS	Temkar
59	B-61	THORAT SUYASH SAMBHAJI	Thorat
60	B-62	TIKAR RUPAL PANDURANG	Tikar
61	B-63	TUPLONDHE SIDDHANT SUNIL	Tuplondhe
62	B-64	UBALE RUTUJA MANOJ	Udale
63	B-65	VAISHNAVI KORATE	Vaishnavi
64	B-66	VHANMANE AKSHAY DASHRATH	Vhanmane
65	B-67	WAGHMARE GANESH KRISHNA	Waghmare
66	B-68	WARLE AMRUTA LOBHAI	Warle
67	B-69	JAYESH SUDAM SAINDANE	Jayesh

Prof. Richa Llage
Subject Teacher

Prof. Seema Shiyekar
HOD



Head of the Department
CIVIL ENGINEERING
Moze College of Engineering
Salwad, Pune-411045

TRANSPORTATION ENGINEERING (BE Civil)

SITE VISIT

REPORT ON

HOT MIX PLANT

- **Name:-** PMC Hot Mix Plant
- **Location :**PMC Hot Mix Plant Yerawada, Pune
- **Date of Visit:** 26th Oct. 2023
- **Purpose of Visit:-** To Study the Hot mix plant and its process.
- **Guide Name:-** Er. Tushar Khare (Plant Manager)



Photo: PMC Hot Mix Plant, Yerawada.

The Department of Civil Engineering of Genba Sopanrao Moze College of Engineering Balewadi, Pune. Organized educational visit to **"PMC Hot Mix Plant"**, Yerawada, Pune. on 26th Oct. 2023 for B.E. Civil Engineering students to study different aspects of Hot Mix Plant. Visit was organized as per Savitribai Phule Pune University guidelines and recommendations regarding syllabus of B.E Civil Engineering.

Visit was organized with the prior permission and guidance of Head of Civil Engineering Department Prof. Seema Shiyekar & Subject Teacher Prof. Richa Lalge and Prof. Dr. Rajnikant Prasad guided the students.

Students left the GSMCOE Campus for visit on 26th Oct. 2023 at 9.00 am. Students carefully studied and observed the different Parts of Drum Mix plant & Batch Mix Plant.



INTRODUCTION:

Is an ISO 9001:2008 certified govt. own plant started in 1991, with initial 25 employees? The plant is operational for 24 hrs to meet the construction activities with various government departments like MIDC, CIDCO, PWD etc. of Maharashtra and various Municipal Councils and Municipal Corporations ,engaged with various construction activities which includes construction of roads, civil works etc. at different places in and around Pune which are accomplished successfully.



Photo: Hot mix Plant

The plant is spread over an area of 3.5 acres and has all the modern equipments needed for production of bitumen. The production capacity of plant is 45 tones per hour.

The raw material for bitumen production is imported from various PSUs like HPCL, BPCL, and IOCL situated in Mumbai. The aggregates are imported from Wagholi of various sizes 6mm, 12mm, 20mm. as per design needs. For warm conditions emulsion is used which is stored in barrels of 200 ltr. capacity. The transport temp to be maintained is around 150 degree Celsius.





Photo: Students learning plant working from plant Manager

The manufacture of coated road stone demands the combination of a number of aggregates, sand and a filler (such as stone dust), in the correct proportions, heated, and finally coated with a binder, usually bitumen based or, in some cases, tar, although tar was removed from BS4987 in 2001 and is not referred to in BSEN 13108/1 . The temperature of the finished product must be sufficient to be workable after transport to the final destination. A temperature in the range of 100 - 200 degrees Celsius is normal

Main Structure

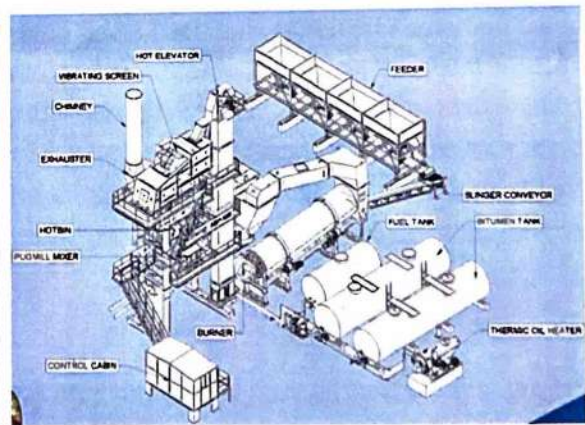


Photo: Hot Mix Plant Layout

The asphalt plant is mainly composed of cold aggregate supply system, drum dryer, coal burner, coal feeder, dust collector, hot aggregate elevator, vibrating screen, filler supply system, weighing and mixing system, asphalt storage, bitumen supply system.



Binder:-

Binder comes in different grades known as "penetration" or "pen" grades, with values varying between around 30 and 300. The pen value is an expression of the depth to which a standard needle will penetrate the surface of the binder at a specified temperature (the higher the value, the softer the binder). This has an effect on the workability of hot asphalt and the stiffness of the asphalt when cooled. Lower pen values give harder wearing. Asphalt wearing courses are typically 35-50 pen, base courses will be higher, typically 200 or 300 pen. The coating plant may combine binder of different grades to achieve a grade between those held on site.

Filler:-

Filler, as the name implies, fills the voids between aggregate grains and improves the wearing capabilities of the overall mix. It is stored and fed dry into the mix, during or after addition of binder. A common source of filler is fines from the heating process recovered by bag filters or wet filtration ponds from the exhaust of the heating drum.

• **Types of Plants:-**

Batch Type Plant

Mobile asphalt batch type plant A batch heater plant runs material from various cold feed hoppers into a heater drum, where the batch is then heated up to temperature. The hot aggregate is screened into numerous hot bins (depending on the various aggregate sizes). Each hot bin releases a certain amount of aggregate into a weigh hopper, then it is discharged into a mixing drum where (dry) filler and binder are added. The blend is mixed and discharged either directly into the delivery vehicles or into a small weighing and collecting hopper. To increase throughput, the heater can be heating the next batch while the previous is being mixed. Capacity is usually of the order of tens of tons per hour. Batch heater plant is used where short production runs are common (a different recipe can be used on each mix) or where total volume is low. Mobile batch heaters are available.

Continuous

The asphalt drum mix plant (also called continuous asphalt plant) is a set of machine that produces asphalt. It is the traditional type of asphalt mixing plant. Different from asphalt batch mix plant, the asphalt drum mix plant produce asphalt in a continuous way.

Classification

By structure, the asphalt drum mix plant can be divided as single drum type plant and twin drum type plant. By functions, the asphalt drum mix plant can be divided as stationary drum plant and mobile drumplant

Function principle

In the continuous (or drum) plant, raw aggregate is brought up from ground hoppers at a precisely controlled rate and fed into a heater drum similar to that used in the asphalt plant. Once heated it is immediately coated in the same drum (with the binder spraybars situated behind the burner) or in a smaller drum situated immediately behind it. Finished product is almost invariably discharged into a hot storage silo or surge bin rather than directly into delivery vehicles.



Changing mix is achieved by varying the feed rates of the aggregate, filler and binder feeders, with time delays so that the change of blend occurs at the same point in the coating drum. Sand tends to move more slowly through the heating drum, so the blend proportions will not necessarily change at the same point on the feed conveyor. It is common to divert a small amount of material to a waste chute when the transition point reaches the hot elevator.

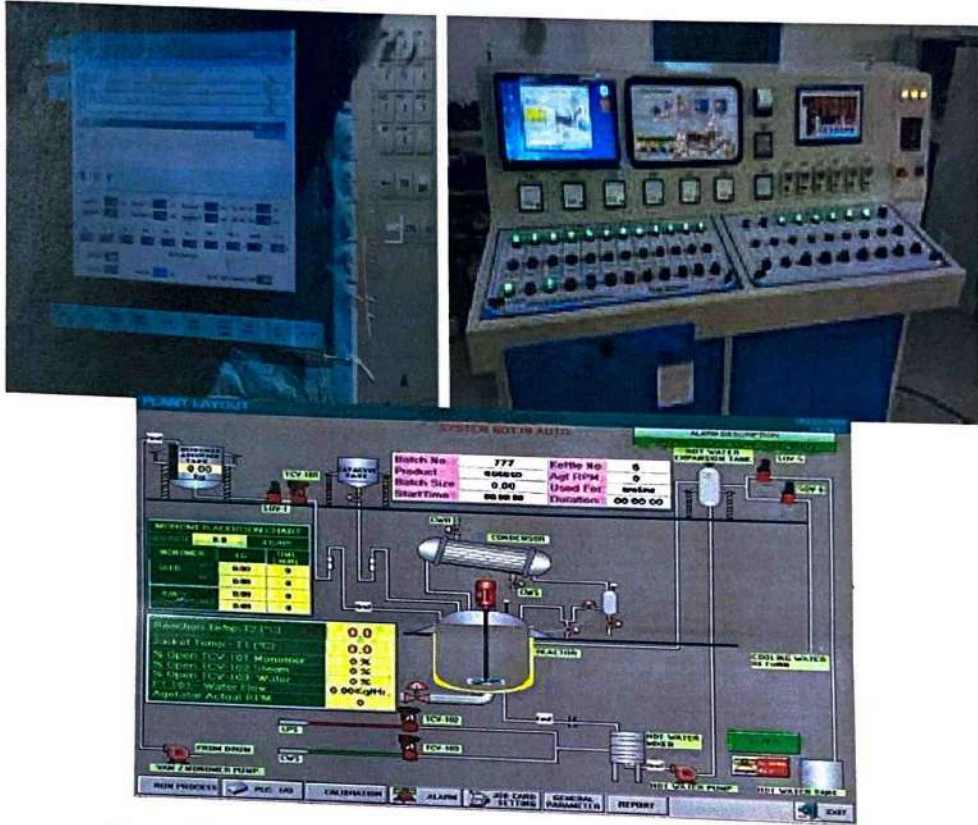


Photo: Display control Panel setup during working with Scada software

Drum mix plants are not really suitable for short production runs; although with sophisticated controls the change of mix can be accurate to within some seconds, production rates of hundreds of tonnes per hour may equate to a tonnes every ten seconds or so.

Hot storage :-

Finished Road stone must be kept heated to avoid setting. It is commonly stored in large electrically heated insulated stainless steel silos, from which it is weighed into delivery vehicles. This may be achieved by intermediate weigh hoppers (which may shuttle between hoppers) or by mounting the hoppers directly on load cells. Control of load out by this method involves accurately predicting the material "in flight" between the discharge door and the vehicle.

CONCLUSION:-

The site visit to hot mix plant gives us the clear idea about the process of this plant. We learn about the types of hot mix plant such as batch mix plant & drum mix plant. We also learn about binder and filler material.





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GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to Pune University)
25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

DATE: 29/05/2023

RMC SITE VISIT NOTICE

All the students of S.E. are hereby informed that , your CT site visit to **ACCURATES RMC PLANT at Nande Road** has been arranged on **02/06/2023**. All Students are asked to be present at **8:30 am sharp**. in college premises.

NOTE:

- **STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM**
- **STUDENTS SHOULD CARRY WATER BOTTLE,CAP, SHOES etc**
- **ATTENDANCE IS COMPULSORY**

Prof. Shilpa Mahajan,

(Faculty coordinator)

HoD

Civil Engineering Department
Head of the Departmen
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045





"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
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S. No 25/1/3, Balewadi-Baner, Pune – 411045
(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)
DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999
Ph: 020-29513395 Website: www.gsmozecoe.org Email: gsmoze@yahoo.co.in

Date: 30/05/2023

To,
The Principal
GSMCOE, Balewadi Pune.

Subject:- Request to grant the Permission to visit RMC PLANT .

Respected Sir,

With reference to above mention subject we want to arrange site visit for the subject **CONCRETE TECHNOLOGY** for second year students of Civil Engineering Department.

The site is situated near Mahalunge- Nande Road which nearly 5 km. away from our campus.

It is kind request to grant the permission for same along with 30 students and two faculties to visit site on date **02/06/2023 at 9 am.**

Thanking you.

Prof. Shilpa Mahajan
(Faculty coordinator)

HoD

Civil Engineering Department



Principal

(GSMCOE, Balewadi)
PRINCIPAL

Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, PUNE-411 045



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Civil Engineering Department



Principal

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PRINCIPAL

Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, PUNE-411 045



"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-29513395 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. :

Date :

To,

The Plant Manager
ACCURATES RMC Plant,
Mahalunge -Nande Road, Pune.

Subject:- Permission to visit RMC PLANT .

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 30 students accompanied by 02 faculty members are interested to Visit your renowned RMC PLANT Bhumkar Chowk Wakad. as a part of SE SPPU Syllabus in Concrete technology Subject. The visit is aimed at enhancing their Practical knowledge. We intend to take a round of the entire RMC plant. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (02/06/23)

Looking forward for your positive consent in this regard.

Thanking you.


Prof. Shilpa Mahajan


(Faculty coordinator)



HoD

Civil Engineering Department
Head of the Department
Civil Engineering
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045




Principal

(GSMCOE, Balewadi)

PRINCIPAL

Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045



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Founder President : Shri. Rambhau Moze

Ref. No. : GSMCOE/ADMIN/292/2022-23

Date : 02/06/2023

To,

The Plant Manager

ACCURATES RMC Plant,

Mahalunge -Nande Road, Pune.

Subject: Letter of thanks

Respected Sir,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit your renowned RMC plant at Mahalunge. Our SE students are satisfied with the knowledge shared by entire team. We really appreciate the time spent by Project Manager with our students and knowledge shared.

Thanking you.

Your Regards,

Prof. Shilpa Mahajan

Workshop Coordinator

& Subject Incharge

Prof. Seema Shiyekar

HoD

Civil Engineering Department

Dr. Ratnarajakumar J. Ambi

Principal

(GSMCOE, Balewadi) **PRINCIPAL**

Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, PUNE-411 045





Create competent Socially Responsible Civil Engineers
Genba Sopanrao Moze Trust's
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING
Balewadi, Pune - 411045.
Civil Engineering Department
Academic Year 2022-23
Site Visit Attendance
Class - SE

Date-2/6/23

Sr. No	Roll No	Name of Student	Sign
1	1	AYUSH SHASHIKANT WAKODE	<i>Wakode</i>
2	2	BAGADE ROHAN TANAJI	—
3	3	BAHIRAM CHAHUTI BAPU	<i>Bahuram</i>
4	4	BHONGALE AMOL HANUMANTRAO	—
5	5	BIRADAR VYANKAT SATYANARAYANA	<i>Biradar</i>
6	6	CHAUDHARI LATESH DILIP	<i>Latesh</i>
7	7	CHAUDHARI PRAVITRA NITINKUMAR	<i>Chav</i>
8	8	CHAVAN ASHISH VILAS	<i>Vilas</i>
9	9	CHILE RUSHIKESH JIVAN	<i>Chile</i>
10	10	DALVI MANIK KRISHANA	—
11	11	DANI SHADANAN JAIPRAKASH	<i>Dani</i>
12	12	DESHMANE MONIKA SURYAKANT	<i>Monika</i>
13	13	DHOBAL HARSHAL SUDHAKARRAO	—
14	14	DHORE PRANAV SURESH	—
15	15	DHUMAL SAIRAJ TANAJI (NA)	—
16	16	DOIPHODE KISHOR KALYAN	<i>Kishor</i>
17	17	FEGADE SUSHANT VINOD	<i>Sushant</i>
18	18	GANDOLE PRATIBHA SUNIL	<i>Pratibha</i>
19	19	GAVALI ROHAN BABASAHEB	<i>Rohan</i>
20	20	GODAMBE HARSHAL SANTOSH	<i>Harsh</i>
21	21	JADHAV DIPAK VITTHAL	<i>Dipak</i>
22	22	JOSHI DURGESH SUNIL	<i>Joshi</i>
23	23	KAKADE PRADIP SUDHIR	<i>Pradip</i>
24	24	KAMBLE DIVAKAR IRAPA	<i>Divakar</i>
25	25	KAMBLE RITESH VINOD	<i>Ritesh</i>
26	26	KAMBLE VRUSHABH ARUN	—
27	27	KASHALE DIPAK CHINDHU	—
28	28	KIRAN PRABHAKAR KANK	—
29	29	KORE AKSHAY LAXMAN	—
30	30	KSHIRSAGAR SHREYA BABASAHEB	—
31	31	KUMBHAR ROHIT SANTOSH	<i>Rohit</i>
32	32	LOHALE PRAJYOT GAUTAM	<i>Prajyot</i>
33	33	MANE ATHARV DATTATRAYA	<i>Mane</i>



34	34	MANNAN BHARATHY BABU	Babu
35	35	MANVATKAR SAHIL DATTATRAY	
36	36	MORE DNYANESHWAR BHASKAR	
37	37	MORE VAIBHAV VASANT	
38	38	NAGARALE VARSHA SUBHASH	
39	39	NEVASE PRATIKSHA GANPAT	
40	40	PATHAN MAHEK MEHBOOB	
41	41	PATIL JAYESH SHARAD	
42	42	PATIL SADANAND DEVENDRA	
43	43	PAVAN SAHEBRAO AHIRE	
44	44	PHALPHALE HARSHVARDHAN SUNIL	
45	45	PINJAN SHANTANU DATTATRAY	Rm
46	46	RAGADE ANIKET HIRALAL	Rer
47	47	RATHOD SANJAY KHANDU	Rathod
48	48	RUSHIKESH CHANDRAKANT DESHMUKH	
49	49	RUSHIKESH SUDHIR JAGDALE	Jar
50	50	SHALAKA DHANRAJ BHALERAO	Sh.
51	51	SHELAR VAIBHAV GORAKSHANATH	Shekar
52	52	SHIKARE SUNIL SHANKAR	Shitare
53	53	SHINDE KHEMCHAND KRUSHNARAO	
54	54	SUNJIT BHARAT KABLA	
55	55	SURVE PRIYESH RAJESH	
56	56	SURYAWANSHI KOMAL DIPAK	Komal
57	57	TAMBAT SUARAV DINESH	Sambal
58	58	TAPKIR SARTHAK JALINDAR	
59	59	VAVALE PRANAV NAVANATH	Poan
60	60	VINEETH MOHAN	Vin
61	61	VISHWAKARMA ARCHANA NAGENDRA	
62	62	WAGH PRAVIN ADINATH	
63	63	WAGHMARE VINAYAK VASUDEV	
64	64	W Aidande Prathmesh Avinash	
65	65	WANJALE HARSHAL NAMDEO	
66	66	WARADE KARTIK GAJANAN	

Asst. Pro. S.R.Mahajan
Course Incharge

Prof. Seema Shiyekar
HOD



Head of the Department
CIVIL ENGINEERING
Genba Sopanrao More College of Engineering
25/1/13, Balewadi, Pune-411045

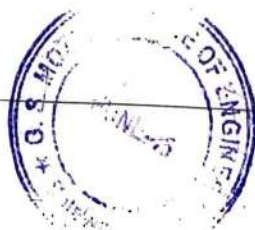
REPORTON
VISIT TO RMC PLANT.
(Accurates RMC)

GS MOZE COLLEGE OF ENGINEERING,
BALEWADI

(Department of civil engineering)

CONCRETE TECHNOLOGY

The academic year 2022-2023



INTRODUCTION

- Ready-mix concrete (RMC) is a ready-to-use material, with a predetermined mixture of Cement, sand, aggregates, and water.
- The idea of Ready Mix Concrete was first introduced by Architect Jürgen Heinrich Magen's, he got his patent for RMC in Germany in 1903.
- A plant in a central mixer or truck mixer, before delivery to the construction site in a condition ready for placing by the builder. Thus, 'fresh' concrete is manufactured in a plant away from the construction site and transported within the requisite journey time. The RMC supplier provides two services, firstly one of processing the materials for making fresh concrete and secondly, of transporting a product within a short time.
- Between the years 1950 and 1980 considerable growth of RMC took place in the United States.
- In India, RMC was first initially used in 1950 during the construction sites of Dams like Bhakra Nangal, and Koyna.
- The increasing availability of special transport vehicles, supplied by the new and fast-growing automobile industry, played a positive role in the development of the RMC industry.



SITE VISIT

- SITE DETAILS:-
- NAME OF SITE:- ACCURATES RMC PLANT.
Mahalunge- Nande road Pune.
- DAY AND DATE:- FRIDAY 2 JUNE 2023.
- OBJECTIVE:- STUDY OF RMC PLANT,
TRANSIT MIXER, AND
BATCHING.
- GUIDED BY:- PROF. SHILPA MAHAJAN.
- EXPERT FROM SITE:- MR. BALAJI KADAM
(QUALITY CONTROL MANAGER)
- DURATION :- 10:30 AM – 12:00 AM
- TOTAL STUDENTS COUNT:-28



- **VISIT DETAILS:-**

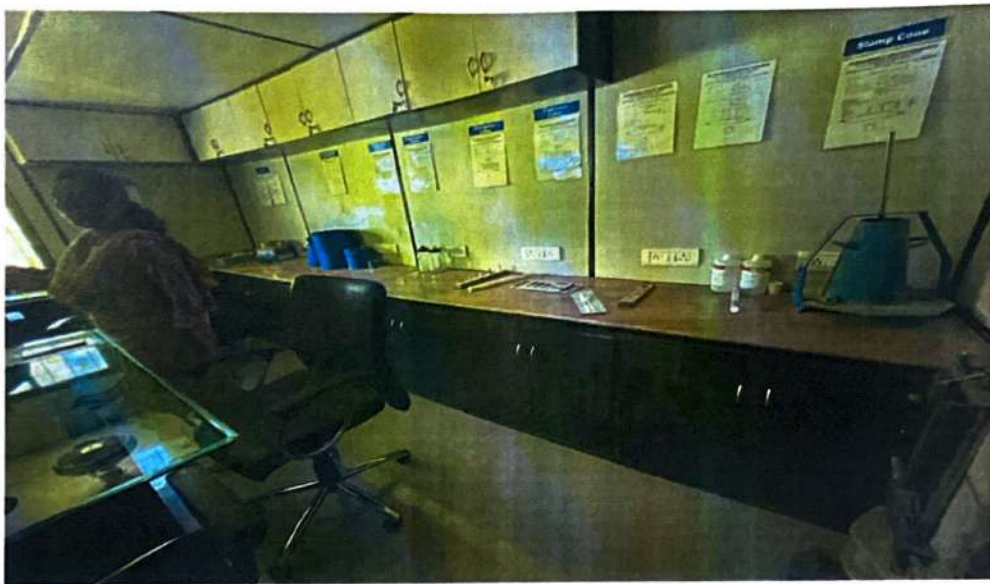
The students of Second Year Civil Engineering with college teaching staff reached the **Accurates RMC Plant at Nande** around **10:30 am** for the site visit. We were welcomed by **Mr. Balaji** and his associate at the site.

After a brief introduction about his site duties and the RMC plant, we started with the visit.



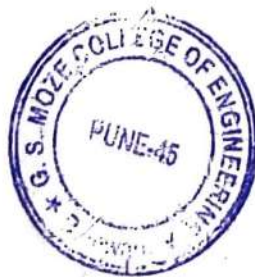
- **INTRODUCTION TO TESTING EQUIPMENT AND TEST:-**

After a brief introduction, we were given a tour of the testing facilities on the plant.



- **COMPRESSIVE STRENGTH OF CONCRETE BY USING CTM :-**

Compressive strength is the ability of a material or structure to carry the loads on its surface without any crack or deflection. A material under compression tends to reduce its size, while in tension, size elongates. For this samples of 7 days curing were used.





- **WORKABILITY OF CONCRETE BY SLUMP CONE TEST:-**

Concrete slump test or slump cone test is to determine the workability or consistency of concrete mix prepared at the laboratory or the construction site during the progress of the work. Concrete slump test is carried out from batch to batch to check the uniform quality of concrete during construction.. For this test we took fresh concrete from agitator truck in a wheel barrow, then poured the concrete in the slump cone we got the slump value of above 120mm hence the slump is collapsible slump.

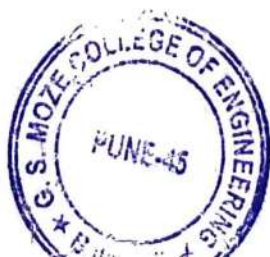




• TEMPERATURE TESTING OF CONCRETE:-

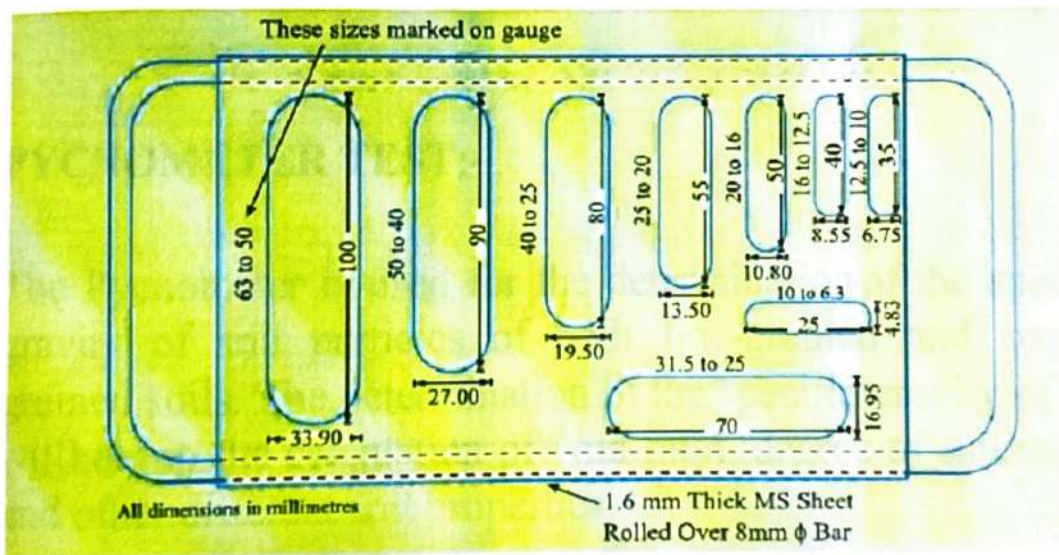
The temperature of fresh concrete can be determined as per ASTM C1064 to ensure the concrete's conformity with standard temperature specifications. The method employs a calibrated thermometer to test the concrete temperature.

The temperature of the concrete affects the way it cures, and the final-strength gain. Hence, it is necessary to test the temperature of the concrete during its mixing and placing.



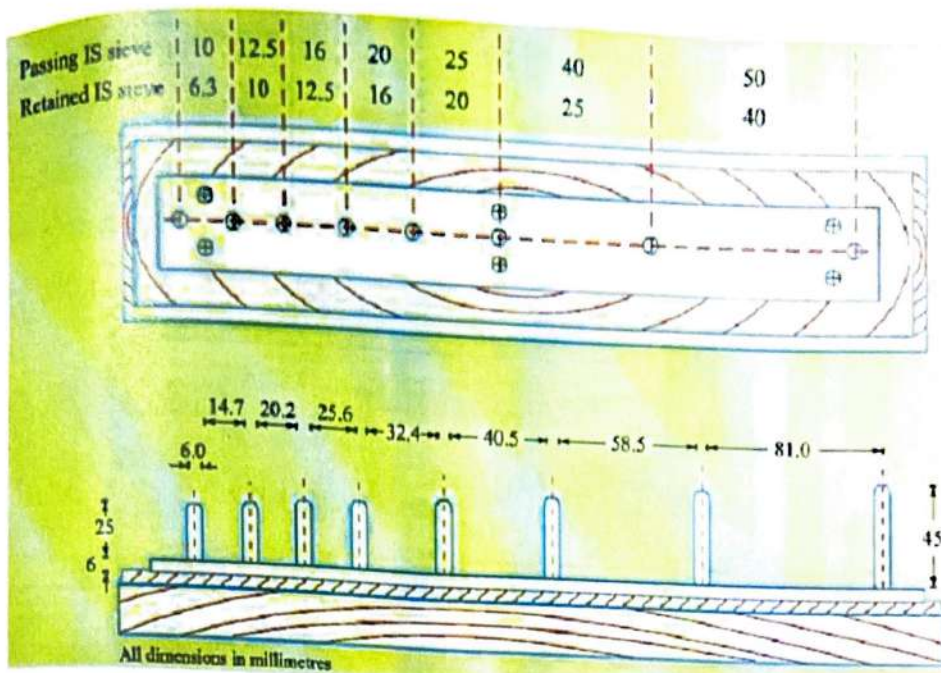
• FLAKINESS AND ELONGATION INDEX OF AGGREGATE:-

Particle shape and surface texture influence the properties of freshly mixed concrete more than the properties of hardened concrete. Rough-textured, angular, and elongated particles require more water to produce workable concrete than the smooth, rounded compact aggregate. Consequently, the cement content must also be increased to maintain the water-cement ratio. Generally, flat and elongated particles are avoided or are limited to about 15 % by weight of the total aggregate.



Thickness Gauge- For Flakiness Index





Length Gauge- For Elongation Index

• PYCNOMETER TEST:-

The Pycnometer is used for the determination of the specific gravity of soil particles of both fine-grained and coarse-grained soils. The determination of the specific gravity of soil will help in the calculation of void ratio, degree of saturation, and other different soil properties.



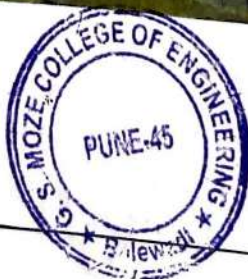
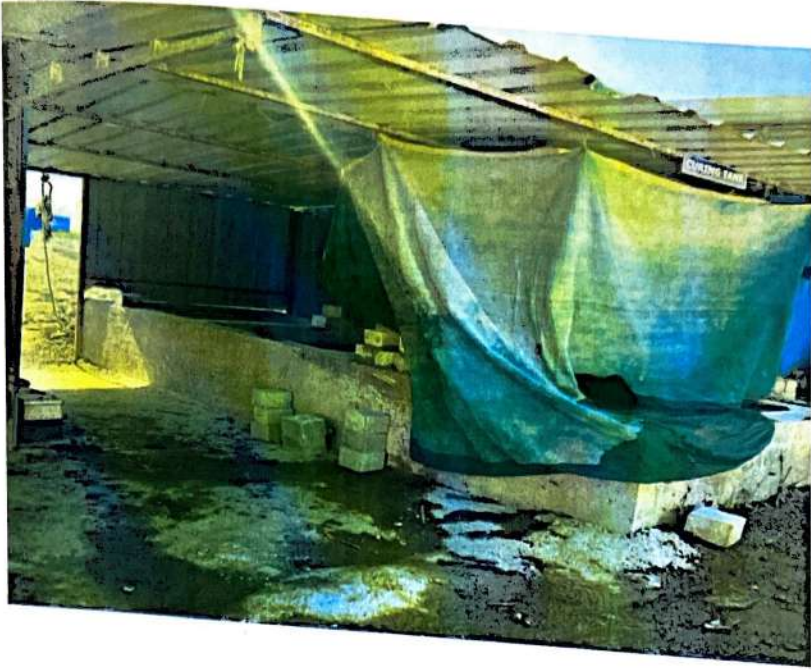


• CURING OF CEMENT CONCRETE:-

Curing of cement concrete is defined as the process of maintaining the moisture and temperature conditions of concrete for hydration reaction to normal so that concrete develops hardened properties over time. The main component which needs to be taken care of is moisture, heat, and time during the curing process .



The curing of concrete for a longer duration increases the strength and durability of concrete structural members. However, after 28 days of the casting of concrete, 99% of the hydration process of the concrete is completed. Further to which continuation of curing is of no use.



• INTRODUCTION TO RMC PLANT AND EQUIPMENT:-

After finishing with the test and testing material we started with the **RMC PLANT**

• SILOS:-

Three silos of 100-ton capacity were used containing water, cement, and water respectively. They were filled using air compressors.



• CONTROL ROOM:-

This is where the functioning of the plant is overseen by an operator. The operator uses a pc to input already designed mixes for concrete according to batching order.



• AGGREGATE STORAGE:-

The aggregate is usually stored in diff sizes ranging from 20mm to crush and is brought to the mixer using a mechanical plow of 70 kg capacity.



CONCLUSION

We were able to understand and learn the proper functioning and importance of RMC PLANT through this visit.





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25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

DATE 26/04/2023

SITE VISIT NOTICE

All the students of B.E. are hereby informed that , your QSCT site visit **under construction site (Signature Park)at Wakad** has been arranged on **28/04/2023**. All Students are asked to be present at 10 am sharp. in college premises.

NOTE:

- **STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM**
- **STUDENTS SHOULD CARRY WATER BOTTLE,CAP, SHOES etc**
- **ATTENDANCE IS COMPULSORY**

Prof. Shilpa Mahajan

(Faculty coordinator)

HoD

Civil Engineering Department

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune - 411045





"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, 411 045.

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-29513395 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. : GSMCOE/ADMIN/255/2022-23

Date : 26/04/2023

To,

Mr. Dipesh Bafna (CEO)

Working in Education Industry & Skill Development)

Know How Schools LLP. Company

Subject: Regarding permission to visit site Construction at Wakad

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 46 students accompanied by 02 faculty members are interested to Visit your **under construction site (Signature Park) at Wakad** as a part of BE SPPU Syllabus in Quantity Surveying Contracts and Tendering Subject. The visit is aimed at enhancing their Practical knowledge. We intend to take a round of the entire Construction. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (28/04/23)

Looking forward for your positive consent in this regard.

Thanking you.

Prof. Shilpa Mahajan

(Faculty coordinator)

HoD

Civil Engineering Department

Head of the Department

CIVIL ENGINEERING

Genba Sopanrao Moze

25/1/3, Balewadi

411 045

Principal

(GSMCOE, Balewadi)

PRINCIPAL

Genba Sopanrao Moze College of Engg

25/1/3, Balewadi, PUNE-411 045





G S MOZE COLLEGE OF ENGINEERING BALEWADI PUNE
DEPARTMENT OF CIVIL ENGINEERING
BE SEM-I I -A.Y-2022-23

Site Visit Attendance

Date:-04/05/2023

Division : BE-A

Subject:-QSCT

Subject Incharge:-Prof.Shilpa R.Mahajan

Roll. No	Student Name	Sign
A-01	DESAI POOJA DINKAR	
A-02	ADISHERLAWAR VITTHALNATH LAXMANRAO	
A-03	AKASH ANNASAHEB KALASKAR	<i>AKASH</i>
A-04	ARBUNE VAIBHAV PANDURANG	
A-05	BACHCHE SHAILESH VASANT	
A-06	BAWANKAR AMIT DNYANESHWAR	
A-08	BHANDARKAR GAURAV RAMLING	
A-09	BHELSAIKAR AJINKYA RAJU	<i>GAURAV</i>
A-10	BIJAWA PRITI RAMDASRAO	
A-11	BIRADAR GAURAV DNYANESHWAR	
A-12	CHAUDHARI DHIRAJ POPATRAO	
A-13	CHAUGULE SANCHIT RAGHUNATH	
A-14	CHAVAN AVINASH REVAN	<i>CHAVAN</i>
A-15	CHAVAN MANASI VITTHAL	
A-16	CHAVAN RUTVI PRADEEP	
A-17	CHAVAN SANGRAM MANSING	<i>CHAVAN</i>
A-18	CHAVAN SURAJ RAMESH	<i>SURAJ</i>
A-19	CHIPLUNKAR SAHIL SANJAY	
A-20	DALVI TEJAS VILAS	
A-21	DEVAKAR TANAJI TUKARAM	
A-22	DEVENDRA SHIRISH MAHALE	<i>TANAJI</i>
A-23	DHADDE OMKAR ASHOK	
A-24	DHANGEKAR ABHISHEK MAHADEO	<i>OMKAR</i>
A-25	DHUMAL DISHA DASHARTH	
A-26	DUBALE ATHARV HANUMANT	
A-27	DUDHAL SHUBHAM SANJAY	
A-28	GADEKAR SHRADDHA GAJANAN	
A-29	GADIWADD SWAPNIL TIPANA	<i>SHUBHAM</i>
A-30	GAIKWAD AKSHAY SURESH	
A-31	GAIKWAD NIKHIL VISHNU	
A-32	GANDHARE JANHAVI AJAY	
A-33	GANESH MAHADEV KADAM	
A-34	GAVALI SHREYASH JAGDISH	
A-35	GHODKE VISHAL BALIRAM	<i>SHREYASH</i>
A-36	GIR SWATI KHUSHAL	
A-37	GODAGE SAMEER SURESH	
A-38	GUNDAL CHANDRAKANT RAMDAS	
A-39	GUNJAL SHIVRAJ BRAMANAND	
A-40	HAWALDAR SANKET BALKRUSHNA	<i>SHIVRAJ</i>
A-41	ITKALE SHUBHAM DILIP	
A-42	JADHAV PRATIK NANDKUMAR	
A-43	JADHAV PRATIK RAVINDRA	<i>PRATIK</i>
A-44	JADHAV VAIBHAV PRAKASH	
A-45	JAGTAP GURUPRASAD AJAY	
A-46	JAGTAP SACHIN RAJENDRA	
A-47	JOSHI SOHAM SANJOT	<i>SOHAM</i>
A-48	KADAM AKASH BABASAHEB	
A-49	KADAM AKASH BHAUSAHEB	
A-50	KADAM ANIKET MALHARI	<i>ANIKET</i>
A-51	KALE RUSHIKESH BABASAHEB	
A-52	KALOKHE SURAJ AVINASH	<i>SURAJ</i>
A-53	KAMBLE PRAJAKTA JITENDRA	
A-54	KAMBLE PRASHIK BHARATBHUSHAN	
A-55	KAMBLE RUCHIKESH SUDESHKUMAR	
A-56	KAMBLE RUTURAJ DILIP	
A-57	KAMBLE VINAY ANIL	
A-58	KHAN HUMA JAVEDKHAN	<i>KHAN</i>
A-59	KHANDARE RAJESHWAR RAMESHRAO	
A-60	KHARAT AVINASH VINAYAK	
A-61	KOLEKAR AMOL SURESH	
A-62	KONDE PRATHAMESH SHRIKANT	
A-63	KORKE SAGAR DATTATRAY	
A-64	KSHIRSAGAR VISHWANATH BHAGWAN	<i>VISHWANATH</i>
A-65	KUMBHAR RAJU ANNA	
A-66	LAKKAM SUDHANSHU SANJAY	
A-67	MADAKE SAYALI BALU	
A-68	MAGARE PREETI DATTATRAY	
A-69	MANDHARE ANIKET UDDHAV	



G S MOZE COLLEGE OF ENGINEERING BALEWADI PUNE

DEPARTMENT OF CIVIL ENGINEERING

Site Visit Attendance

Date:-04/05/2023

Division : BE-B

Subject:-QSCT



Subject Incharge:-Prof.Shilpa R.Mahajan

Roll. No	Student Name	Sign
B-01	MANE GEETANJALI GHANSHYAM	
B-02	MANSUTE GAURAV SUDHAKAR	
B-03	MATERE PRADIP RAMESH	Multip. Mat.
B-04	MESHAM RAVINDRA DILIP	
B-05	MHALUNGEKAR SAURABH SAMBHAJI	
B-06	MORE RAHUL VASANT	
B-07	MORE VANDANA BHAGWANRAO	
B-08	MULE YOGESH SHANKAR	
B-09	NAGWANSHI ANIMESH SANJAY	
B-10	NAIK OMKAR SANTOSH	
B-11	NAKHATE VANITA MARUTI	
B-12	NAVGHARE PRASAD MILIND	
B-13	NAWALI SAGAR VILAS	
B-14	NEHARKAR DINESH BABASAHEB	
B-15	NIKALJE SIDDHARTH SHASHIKANT	
B-16	NIKHIL DATIR	
B-17	NIKHIL JADHAV	
B-18	NIKHIL MOHAN GHANEKAR	
B-19	OLEKAR PRATIK VIJAY	
B-20	ORASE ABHISHEK SHANKAR	
B-21	ORSE MUKESH KISAN	
B-22	PATIL KIRANRAJ NANA	
B-23	PAWALE TUSHAR TUKARAM	
B-24	PAWAR RACHANA NANDRAM	
B-25	PHADE SHUBHAM KRUSHNAJI	
B-26	PIMPLE VIKESH MANIK	
B-27	POTDAR GAURAV NAGNATH	
B-28	PRANAVKUMAR	Pranavkumar.
B-29	PRASAD GANESH PHARANDE	
B-30	PRITI ASHOK INDRAL	
B-31	PRUTHIVIRAJ YUVRAJ ANDHALE	
B-32	RAJAPURE JYOTI DNYANESHWAR	
B-33	RAJE PANKAJ DNYANOBA	
B-34	RAJPUT VISHWAJITSING PREMSING	
B-35	RANDIVE MANDAR GOKUL	
B-36	RANGOJI DIVYA GNYANADEV	
B-37	RATHOD ARCHANA SANJAY	
B-38	RAUT GANESH ASHOK	
B-39	RAWOOL VIKAS VIJAY	
B-40	RAYMANE AKASH MACHINDRANATH	
B-41	REVANSIDDHA NAMDEV GHOGARE	
B-42	SAIPRASAD SANJAY BHANGE	
B-44	SANDEEP NEBBOOLAL	
B-45	SATAV SHUBHAM MUKESH	
B-46	SATHE MEGA MOHAN	
B-48	SHIMPI NIKHIL RAJESH	
B-49	SHINDE DIKSHA DATTATRAY	
B-50	SHINDE JYOTI VISHWAS	
B-51	SHINDE OM SANJAY	
B-52	SHINDE RUSHIKESH RAMRAJE	
B-53	SHINDE VRUSHABH DILIP	
B-54	SINGH PRASHANT DURGAPRASAD	
B-55	SONUNE SACHIN KUNDALIK	
B-56	SUDATTA LAXMAN GAIKWAD	
B-57	SURYAWANSHI ABHISHEK BHANUDAS	
B-58	SURYAWANSHI RUSHIKESH RAJENDRA	
B-59	TAPKIR GAURAV SANDESH	
B-60	TEMKAR SAURABH VILAS	
B-61	THORAT SUYASH SAMBHAJI	
B-62	TIKAR RUPAL PANDURANG	
B-63	TUPLONDHE SIDDHANT SUNIL	
B-64	UBALE RUTUJA MANOJ	
B-65	VAISHNAVI KORATE	
B-66	VHANMANE AKSHAY DASHRATH	
B-67	WAGHMARE GANESH KRISHNA	
B-68	WARLE AMRUTA LOBHAJI	
B-69	JAYESH SUDAM SAINDANE	



SITE VISIT REPORT

Site Visit And Report For Understanding of BBS with Photographs.

- o **Date Site Visit** : 28 April 2023, 10 Am to 2 Pm.
- o **Name of Site** : Signature Park.
- o **Site Location** : S.No. 33, Aundh - Ravet BRTS Road, Gujar Nagar, Jai Hind Nagar, Thergaon, PCMC, Maharashtra - 33
- o **Project Type** : Residential Real Estate.
- o **Project Manager** : Mr. Naik A. Sir.
- o **Site Engineer** : Mr. Jayane Nandkishor.
- o **Under Control of** : PCMC Commissioner and Private Developer of Signature Group.
- o **Building Type** : 3G + 21 Floor
- o **Total No. of Flat** : 225 Flatts.
- o **Flat Size** : 1 BHK - 500 Carpet Area.
- o **Start Date** :
- o **End Date** :
- o **Work @ site Visit Time** : R.C.C. Work of column beam, slab centering, shuttering, casting cutting and bending of steel.
- o **Total No. of Building** : 13 Buildings.
- o **Subject Teacher** : Shipla Mahajan.



Bar Bending Schedule :

It is process of cutting, bending & fixing the reinforcement bars as per drawing. But without dimensions we are not calculate of steel required in project. It is list of reinforcement bars for any structural element that includes a mark, shape, size, location, length & bending details of the reinforcement. It is often ref. to as BBS bars bending schedule.

Guidelines to follow :

- Every RCC structural element should have a separate BBS. Do not group them as one.
- Ensure to follow the IS guidelines for bending hook length lap length & development length cal.
- It would be handy if you memorize the unit wt. of steel
- Ensure the estimation by thumb rule cal. of steel reinforcement for different structural members.
- Keep bar bending shape codes handy for easy ref.

BBS Basics & Formulae to be remembered :

- ϕ OF bars (in mm) 8, 10, 12, 16, 20, 25, 32 mm.
- Std. length of one reinforcement bar 12 m or 40 feet.
- Unit wt/kg = $\frac{D^2}{162}$ 'D' = Diameter of bar.

Extension/Length Formulas :

- Footing lap length formula = $40d$
- Column lap length formula = $50d$
- Development length for dowel bars = $16d$.
- Hook length = $10d / 11d$ (IS code 456, 2000)

Concrete Cover or clear Cover :

- Footing = 50 mm
- Column = 40 mm
- Beam = 25 mm
- Slab = 20
- Staircase = 20 mm

Bend Deduction

- 45° = 1d
- 90° = 2d
- 135° = 3d

Crank length formula

- 45° = 0.42 d
- 30° = 0.27 d
- 60° = 0.58 d

• Starter :

It is a small piece of column which is cast before the whole column is cast. It is starter to fix the column shuttering if the starter is already in place.

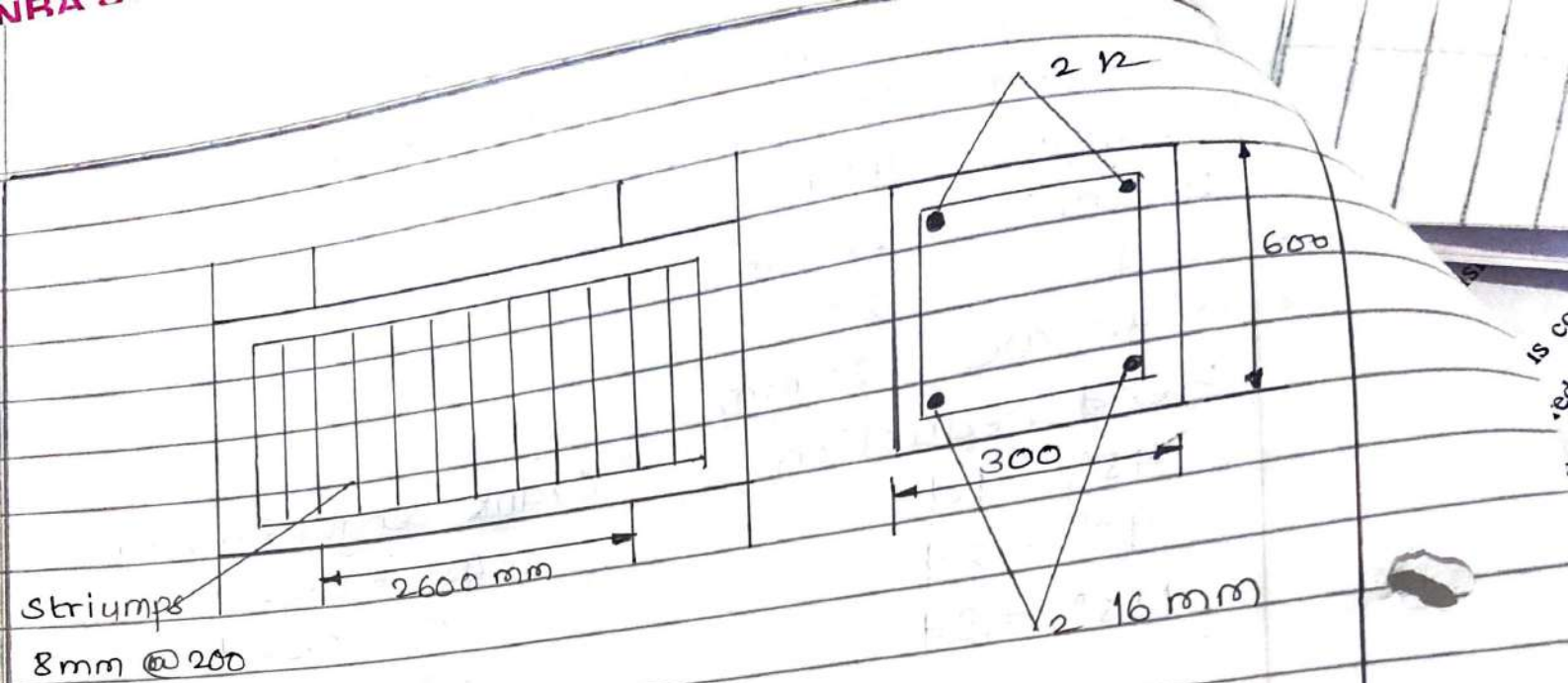
• Fram Work :

It was used having thickness 25 mm. Shikarja was used for holding the framwork in reqd. dim. steel props are used to hold the column in vertical position.

• Calculation of BBS :

- Find no. of reinforcement bars to be used.
- Find the cutting length of each other.
- Find the no. of stirups eal. or no. of distributⁿ bar eal.
- Find the cutting length of stirups or extra bars into the table and find out the quantity of steel.





Concrete Cover Top and Bottom

40 mm @ side = 25 mm

45° bend = 1d

90° bend = 2d

135° bend = 3d

Given data :

Beam size = 600 x 300 x 2600 mm

Bottom Reinforcement 16 mm of 2 no.

Top R/f 12 mm of 2 no.

Striumps = 8 mm of 200 c/c

Concrete cover = 25 mm @ side

Development length as 50 d.

Cutting Length

Step 1

Cutting length = clear span + 2 x Ld . n

of Top bar = 2600 + (2 x 50 x 12)

= 3800 mm

Cutting length of bottom bar

$$= L - \text{Clear span} + 2 \times \text{development length}$$

$$= 2600 + (2 \times 50 \times 16)$$

$$= \boxed{4200 \text{ mm}}$$

• Step 2 -

Find number of stirrups

$$\text{Number of stirrups} = \frac{\text{Clear span} + 1}{\text{spacing}}$$

$$= \frac{2600 + 1}{200}$$

$$= \boxed{14 \text{ Nos.}}$$

• Step 3 -

$$\text{Cutting length} = (520 + 250 + 520 + 250) - (3 \times 2d) - (2 \times 3d) + (2 \times 10d)$$

$$= 1540 - (3 \times 2 \times 8) - (2 \times 3 \times 8) + (2 \times 10 \times 8)$$

$$= 1440 + 160$$

$$= 1604 \text{ mm}$$

$$= \boxed{1.604 \text{ m}}$$



Advantages of BBS :

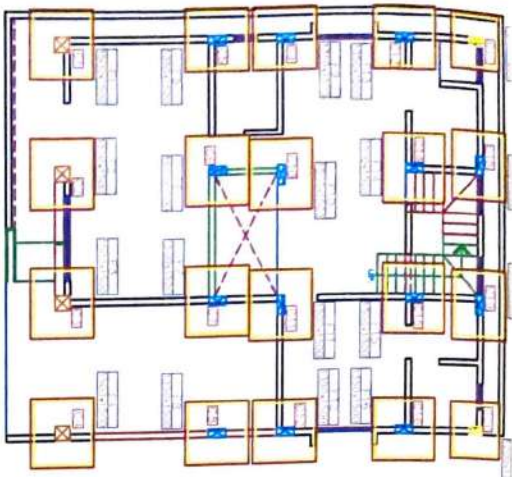
Quantities of steel Reinforcement of different diameter and different grades are calculated easily.

Ideas of different size of bars, bend of length of bars can be easily required through schedule of bars.

During the quantity of RIF on construction site. BBS become very much helpful Bar Bending schedule makes is easy for site Engineer to check and verify the cutting length bar bending while inspection on the site.

Conclusion:- Visit was helpful to gain knowledge and knowledge regarding the process undertaken for the preparation of BBS.





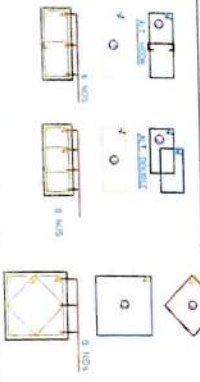
LAYOUT OF FOOTINGS

SR. NO.	FOOTING NOS	PCC (M-10) (150 THK.) (B x L)	RCC SIZE (B x L)	DEPTH (D/D)	REINFORCEMENT ALONG WIDTH (MAIN STEEL) AS BOTTOM STEEL	REINFORCEMENT ALONG LENGTH (DIST. STEEL) AS TOP STEEL	CONCRETE GRADE
1.	F-1,2,3,4	1650 x 1650	1500 x 1500	450	13 NOS ϕ 10 \bullet EQUAL SPACING.	13 NOS ϕ 10 \bullet EQUAL SPACING.	M-20 GRADE CONCRETE
2.	F-5,8,9,12,13,16,18,19	1500 x 1650	1350 x 1500	450	11 NOS ϕ 10 \bullet EQUAL SPACING.	10 NOS ϕ 10 \bullet EQUAL SPACING.	M-20 GRADE CONCRETE
3.	F-6,7,10,11,14,15	1650 x 1650	1500 x 1500	450	13 NOS ϕ 10 \bullet EQUAL SPACING.	13 NOS ϕ 10 \bullet EQUAL SPACING.	M-20 GRADE CONCRETE
4.	F-17,20	1350 x 1350	1200 x 1200	380	9 NOS ϕ 10 \bullet EQUAL SPACING.	9 NOS ϕ 10 \bullet EQUAL SPACING.	M-20 GRADE CONCRETE

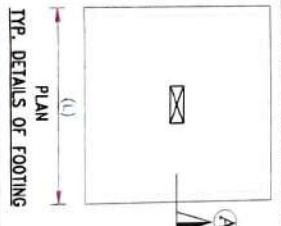
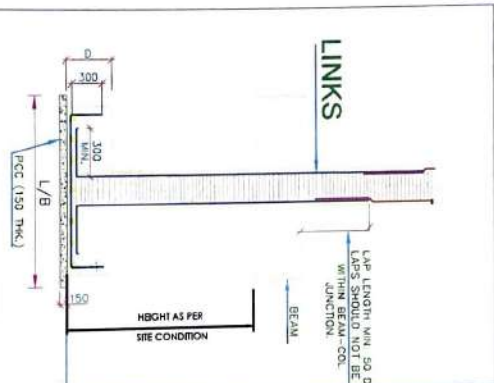
SCHEDULE OF FOOTINGS

SR. NO.	FOOTING NOS	PCC (M-10) (150 THK.) (B x L)	RCC SIZE (B x L)	DEPTH (D/D)	REINFORCEMENT ALONG WIDTH (MAIN STEEL) AS BOTTOM STEEL	REINFORCEMENT ALONG LENGTH (DIST. STEEL) AS TOP STEEL
1.	F-1,2,3,4	1650 x 1650	1500 x 1500	450	13 NOS ϕ 10 \bullet EQUAL SPACING.	13 NOS ϕ 10 \bullet EQUAL SPACING.
2.	F-5,8,9,12,13,16,18,19	1500 x 1650	1350 x 1500	450	11 NOS ϕ 10 \bullet EQUAL SPACING.	10 NOS ϕ 10 \bullet EQUAL SPACING.
3.	F-6,7,10,11,14,15	1650 x 1650	1500 x 1500	450	13 NOS ϕ 10 \bullet EQUAL SPACING.	13 NOS ϕ 10 \bullet EQUAL SPACING.
4.	F-17,20	1350 x 1350	1200 x 1200	380	9 NOS ϕ 10 \bullet EQUAL SPACING.	9 NOS ϕ 10 \bullet EQUAL SPACING.

TYPICAL DETAILS OF LINKS



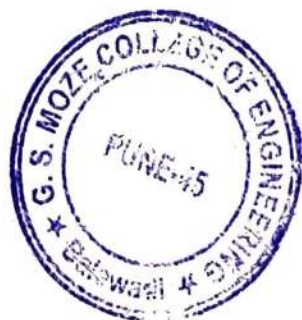
TYP. SECTION THROUGH FOOTING



- 1) STRUCTURE DESIGNED FOR CLAY BRICKS 150 THICK HAVING INTENSITY OF 1800/KMT AND PARAPET WALLS CONSIDERED TO BE 1.20 M HEIGHT OF CLAY BRICKS OF 150 THICK HAVING WT. DENSITY OF (18 KN/CMT).
- 2) GRADE OF CONCRETE IS 20 FOR ALL FLOOR SLABS.
- 3) GRADE OF CONCRETE IS 20 FOR ALL COLUMNS, FOOTINGS.
- 4) GRADE OF CONCRETE IS 20 FOR ROOF SLAB.
- 5) WATERPROOFING CONSIDERED TO 125 THICK.
- 6) HAVING DENSITY 1800/CMT.
- 7) GRADE OF STEEL IS 250 FOR ALL STRUCTURAL STEEL.
- 8) EXCEPT 6mm OF 7-250 WHERE EVER IMPLEMENTED.
- 9) SAFE BEARING CAPACITY OF THE SOIL IS ASSUMED TO BE 50.0T/SM² (5000KG/SM²) WHICH MAY VARY AS PER THE SOIL CONDITIONS FOR RESPECTIVE FOOTING IF BROUGHT TO OUR NOTICE PRIOR TO EXECUTION. IT IS RECOMMENDED TO CARRY OUT SOIL INVESTIGATION PRIOR TO EXECUTION FOR SAFETY OF THE STRUCTURE.
- 10) THE REPORT TO BE PRODUCED PRIOR TO EXECUTION SUBJECT TO VARIATION OF FOOTING SIZE.
- 11) MINIMUM DEPTH OF EXCAVATION MUST BE 1.20m FROM EXISTING GROUND LEVEL.
- 12) DO NOT SCALE THE DRAWING, PLEASE REFER FIGURE DIMENSIONS.
- 13) ALL DIMENSIONS ARE IN MILLIMETERS.
- 14) FOR ZONE - III.
- 15) PLEASE REFER ARCHITECTURE DRAWING IN CONSULTATION WITH THIS DRAWING.
- 16) ANY DISCREPANCIES OR OMISSION OR CHANGES SHALL BE BROUGHT TO OUR NOTICE PRIOR TO EXECUTION.
- 17) LAPPING OR ANCHORAGE LENGTH FOR
 - A) BEAMS AND SLABS (TENSION STEEL) - 70 x DIAMETER OF BAR.
 - B) COLUMNS (COMPRESSION STEEL) - 60 x DIAMETER OF BAR.
- 18) CLEAR COVER TO THE REINFORCEMENT
 - A) FOOTINGS - 50mm, COLUMNS - 40mm, (FROM MAIN REBAR).
 - B) SLABS/MUST SLAB OR STAIRCASE - 20mm, BEAMS - 25mm.
- 19) STRIPPING TIME OF FORM WORK :-
 - A) COLUMNS AND BEAMS FACES - 24 TO 48 HOURS
 - B) SLABS SPANNING UP TO - 4.5M - 7DAYS.
 - C) SLABS SPANNING ABOVE - 4.5M - 14DAYS.
 - D) BEAMS SPANNING UP TO - 4.5M - 14DAYS.
 - E) BEAMS SPANNING ABOVE - 4.5M - 21DAYS.
- 17) DESIGN OF CENTERING, SHUTTERING AND CONCRETE MIX IS OWNER/ CONTRACTORS RESPONSIBILITY.
- 18) SAFETY FOR ADVANCING STRUCTURE NOT DESIGNED BY US IS THE OWNER/ CONTRACTORS RESPONSIBILITY.









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(Recognized by AICTE, New Delhi; Approved by Govt. of Maharashtra; Affiliated to Pune University)

25/1/3, Balewadi, Pune – 411045. Ph: 020-27390500

Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

Academic Year - 2022-23 sem- III civil (TE) 2019 Pat.

Date: 11/11/2022.

NOTICE

All the students of Civil Engineering Department are hereby informed that site visit of Design of steel structure is arranged on 12/11/2022. All students are asked to be present at 10 am to the College.

Instruction for site visit

1. Site visit is compulsory to each and every student and those who will be absent will not be considered for oral examination on the basis of incomplete course work.
2. Uniform is compulsory for site visit.
3. All students must wear shoes and carry cap and water bottle.
4. Each student is asked to follow all instructions given by site instructors and faculty members strictly.

Nivedita Thorat

Nivedita Thorat
Faculty Co-ordinator

Seema Shiyekar
HoD, Civil

Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. : 020-29513395 Website : www.gsmozecoe.org Email : gsmoze@yahoo.co.in

Founder President : Shri. Rambhau Moze

Ref. No. :

Date : 12/11/22

Date:12/11/2022

To,
Site Engineer,
D.S. Fabricators
Pune

Subject: Regarding permission to site visit of Course Design of Steel structure

Respected Sir,


We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 30 students accompanied by 01 faculty members are interested to Visit your **D.S. Fabricators site,Pune** as a part of TE SPPU Syllabus in Design of steel structure Subject. The visit is aimed at enhancing their Practical knowledge. We intend to take a round of the entire Construction. I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

We are expecting visit on date (12/11/22)

Looking forward for your positive consent in this regard.

Thanking you.



Prof. Nivedita Thorat

(Faculty coordinator)


Prof. Seema Shiyekar

Hod

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045


Dr. Ratnaraja Kumar Jambhi

PRINCIPAL
(GSMCOE, Balewadi)
Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE-411 045





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Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

Date:12/11/2022

To,
Site Engineer
D.S. Fabricators
Pune-06

Letter of thanks


Respected Sir,


The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

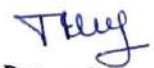
We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit your D.S. Fabricators Site Visit Pune. We really appreciate the time spent with our students and information shared by you. We hope our students received precious knowledge which will definitely help them in their Curriculum.

Thanking you.

Yours Regards,


Prof. Nivedita Thorat
(Faculty coordinator)


Prof. Seema Shiyekar
Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045


Dr. Ratnaraja Kumar Jambi
PRINCIPAL
(GSMCOE, Balewadi)
Genba Sopanrao Moze College of Engg.
25/1/3, Balewadi, PUNE



Create competent Socially Responsible Civil Engineers
Genba Sopanrao Moze Trust's
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

Balewadi, Pune - 411045.

Civil Engineering Department

Academic Year 2022-23

Site Visit Attendance

Date- 12/11/2022



Sr.No.	Roll No.	Name of Students	Sign
1	1	NALAWADE ADITYA DEEPAK	
2	2	PANDIT AKSHATA BALASAHEB	—
3	3	AMBRE SAHIL NAGESH	
4	4	AMIT KUMAR	
5	5	GAWALI ANIKET BAPU	
6	6	BADGUJAR ASHUTOSH VIJAY	
7	7	BANAGAR SHASHANK SHIVASHANKAR	—
8	8	BARVE SAKSHI NITIN	
9	9	BHALKE NIKHIL RAJKUMAR	—
10	10	BHISE SAURABH SAMPAT	
11	11	BURUD AADESH SITARAM	—
12	12	CHINCHOLI NAGESH SHIVSHARANAPPA	
13	13	DESHMUKH MUKUND GAJANAN	
14	14	DHANGE ABHISHEK BHAGWAN	
15	15	DHANKUDE SWARAJ SUHAS	
16	16	DHEWADE CHAITANYA NARWIN	
17	17	DHORE SUJAL SHAM	—
18	18	DIXIT SAISH SUNIL	—
19	19	GADE KAUSTUBH VIVEK	
20	20	GADE SANKET	
21	21	GAIKWAD ABHIJEET SHANKAR	—
22	22	GAIKWAD RUTUJA JEEVAN	
23	23	GIRI NIKHIL AMVRUSHI	
24	24	GUNDAL ANUJ CHANDRAKANT	
25	25	INDORE AJAY JAGARNATH	
26	26	JADHAV DIPALI MARUTI	
27	27	JADHAV MAHADEV RAJENDRA	—
28	28	JAGTAP KARAN SANJAY	—
29	29	KARWADE PRAGATI PRAKASH	—
30	30	KEDARI HARSHAD POPAT	
31	31	KHUPSE VYANKTESH MURLIDHARRAO	—
32	32	KIRVE POOJA BABAN	
33	33	KONDEVILKAR JAGRUTI TUKARAM	
34	34	LANGOTE SHAILESH RANGNATHRAO	
35	35	MAKASARE SANKET MANOJ	
36	36	NAGTILAK PRATHAMESH TANAJI	
37	37	NAIK DATTA VENKATRAO	
38	38	OVHAL PRADNYA DILIP	—
39	39	PADULE MANGESH SAHEBRAO	—
40	40	PAVAL KARAN SUNIL	—

Sr.No.	Roll No.	Name of Students	Sign
41	41	PAWAR SAKSHI GOVIND	<i>Son</i>
42	42	PILLE SURAJ BALKRISHNA	<i>Pille</i>
43	43	PISAL PRATHAMESH SUNIL	<i>Pisal</i>
44	44	SARODE POOJA RAVINDRA	<i>Sarode</i>
45	45	PAWAR PRACHODAY MAHADEV	<i>Pawar</i>
46	46	ROKADE PRAKASH VILAS	<i>Rokade</i>
47	47	RAJPUT AKSHAY MAHESH	<i>Rajput</i>
48	48	RAKSHE GAURAV DATTATRAY	-
49	49	PRADHI ROHAN KASHINATH	-
50	50	SHINDE RUSHIKESH SHIVAJI	-
51	51	SANAP HANUMANT SUKHDEV	<i>Sanap</i>
52	52	SHAHA ANIKET MOHAN	<i>Shaha</i>
53	53	SHAIKH MUZIB AZIZ	<i>Shai</i>
54	54	SHELAR PRATIK PRADIP	<i>Shelar</i>
55	55	SHINDE HINDRAJ MILIND	-
56	56	MAHATRE SHUBHAM BALU	-
57	57	SHUBHAM CHANDRAKANT BARKULE	-
58	58	KAMBLE SHWETA JAYANT	-
59	59	SOUMIK DHAR	-
60	60	SUTAR MOUNESH LAKSHMAN	-
61	61	TARE SHARAD RAMKRISHRAO	<i>Tare</i>
62	62	TAYDE CHAITANYA SANJAY	<i>Tayde</i>
63	63	TELMORE ANUPRIYA RAMESH	-
64	64	UNDE SAHIL ASHOK	<i>Unde</i>
65	65	VADNERE ANANT PROMOD	-
66	66	VETALE VIVEK SOPAN	<i>Vetale</i>
67	67	WAKADE PRANAV SANDEEP	-
68	68	ALKUNTE PRATIK SHANKAR	-

NT

Prof.Nivedita Thorat
Subject Teacher

SSS

Prof.Seema Shiyekar
HoD

Head of the Department
CIVIL ENGINEERING
Genba Soanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411045





G S MOZE COLLEGE OF ENGINEERING BALEWADI
(SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE)



“A VISIT TO STEEL STRUCTURE OF INDUSTRIAL BUILDING”



Conduct by

Department Of Civil Engineering

TE Civil Dept: Academic Year - 2022-23 sem-VI

Subject incharge,

Ms. Nivedita Thorat

H.O.D

Prof. Seema Shiyekar

Date: - 12 November 2022



GENERAL INFORMATION

The steel structure which we have visited is one of the proposed G.S Moze College of engineering workshop. These structure is workshop shed, a truss is a structure composed of slender members joined together at their end point. The sloping flat truss using and bolted and welded conation used in truss.

PURPOSE OF VISIT

- Our main purpose for this visit is to be familiar with industrial environment and to get practical knowledge of Construction process. With the need of steel in construction industry due so many reason which should be economical, Eco-friendly, safe and efficient.
- The other reason was to figure out the joint (bolted connection & welded connection), roof truss, etc. which used in steel structure as a civil engineers how these structures are constructed is always interesting.
- Some other purpose was to know about different members of roof truss and how they erected.



WHAT WE LEARN?

On 12 November 2022 (Saturday), we have visited these structure we firstly got the overall technical information at from supervisor.

The plant consists of following components:-

1. Sloping flat truss.
2. Purlins
3. Column
4. Inclined member
5. Column base
6. GI or AC sheet
7. Tie member
8. gusset plate
9. welded and bolted connection
10. gusset angle
11. span
12. rise

1. Sloping flat truss:-

Sloping flat trusses are used almost like a joist in settings where the interior ceiling pitch is desired to be the same as the roof pitch. Sloping flat trusses are typically supported by a ridge beam or girder truss at the roof peak and have sloping flat trusses on both sides to create wide, open span spaces in public venues like riding arenas and churches.



2. Purlins:-

The purlins are horizontal beams spanning between the two adjacent trusses. These are the structural members subjected to transverse loads and rest on the top chords of roof trusses. The purlins are meant to carry the loads of the roofing material and to transfer it on the panel points.



3. Column:-

The vertical truss columns are primarily used to resist wind loads. These columns are located on the southern and western wall of the lobby as shown below. For more detail on the layout, see structural floor plan documents. The steel 'C' section columns are use in site.



4. **Inclined member:** - Whereas, principal rafter are the incline members of a Truss.



5. **Column base:-**

Used for axially loaded columns where load is moderate column bases are used where the columns have independent concrete pedestals a thick steel base plate and two cleat angles connecting the flanges of the column to the base plate. Web cleats are provided to connect the web of the column to the base plate.

6. **GI or AC sheet:-**

Galvanized iron (GI) sheets are steel sheets which are basically coated with zinc and include a range of hot dip galvanized and electro-galvanized steel sheets. Corrugated galvanised iron or steel is a building material composed of sheets of hot-dip galvanised mild steel, cold-rolled to produce a linear corrugated pattern in them. The corrugations increase the bending strength of the sheet in the direction perpendicular to the corrugations, but not parallel to them. Normally each sheet is manufactured longer in its strong direction.



CONCLUSION

From this visit, we get the information and knowledge about the components of Steel Structure and its Erection. We got very clear idea about the importance of different components of Industrial Building.



PHOTO GALLERY





Thanking

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Website: www.gsmozece.co.in Email: gsmoze@yahoo.co.in

Date: -8/11/2022


DEPARTMENT OF CIVIL ENGINEERING


SITE VISIT NOTICE: Transportation Engineering

All the Final Students of Civil Engineering are hereby informed that a site visit to Road Construction has been arranged on 9/11/2022, Wednesday. All students are instructed to remain present at 9.30 am sharp in Transportation Engineering Laboratory, Civil Engineering Department.

NOTE:

- **STUDENTS MUST PRESENT IN COLLEGE UNIFORM.**
- **STUDENTS MUST CARRY COLLEGE ID CARD WITH THEM.**
- **STUDENTS SHOULD CARRY WATER BOTTLES, CAP, SHOES ETC.**
- **ATTENDANCE IS COMPULSORY.**


Dr. Rupali Zope
Subject In-Charge


Mrs. Seema Shiyekar
HOD Civil
Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.





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DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. 020-27390500 Website www.gsmozece.org Email gsmoze@yahoo.co.in

Founder President Shri Rambhau Moze

Ref. No. GSMCOE/ADMIN/728/2022

Date 9.11.2022

To,
The Project Manager,
Krishnae Infrastructure Pvt. Ltd,
Pune.

Subject: Letter of Appreciation

Respected Sir,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in the field of Engineering. The trust has two campuses in Pune, Balewadi and Wagholi.

We, Department of Civil Engineering of Genba Sopanrao Moze college of Engineering, Balewadi, Pune would sincerely thank you for giving us permission to visit your road construction site at Tathawade, Pune. Our Final Yea students are benefited with the knowledge given. We really appreciate the time spent by your team for our students.

Thanking you.

Regards,



Dr. Rupali Zope
Subject-In-Charge


Prof. Seema Shiyekar
(HOD Civil Dept)


Dr. Ratna Rajakumar Jambi
(Principal, GSMCOE)

Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.

PRINCIPAL
Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, PUNE-411 045


Aman Kokate
(KIPL)



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Ph. 020-27390500 Website www.gsmozecoe.org Email gsmoze@yahoo.co.in

Founder President Shri Rambhau Moze



Ref. No. GSMCOE/ADMIN/723/2022

Date 8.11.2022

To,
The Project Manager,
Krishnae Infrastructure Pvt. Ltd,
Pune.

Subject: Regarding permission to visit Road Construction Site

Respected Sir,

We, G. S. Moze College of engineering Balewadi, are one of the reputed institutes offering various technical degree courses approved by AICTE Delhi and is affiliated to Savitribai Phule Pune University (SPPU).

With reference to the above mentioned subject as per the course curriculum for the subject of Transportation Engineering of Final Year Civil Engineering, we would like to arrange a site visit to road construction site.

It is a kind request

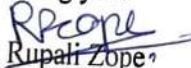
There would be a total of 40 students accompanied by 02 faculty members are interested to Visit the Road Construction Site as a part of curriculum. The visit is aimed at enhancing their knowledge. We intend to take a round of the entire RMC plant. (Various operation involved in road construction. additionally if we get any information about admixtures which is used to prepare special concrete). I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

After the approval from your side college will provide identity cards of Students and Faculty

Members and will do the needful. We are expecting visit on date (9/11/2022)

Looking forward for your positive consent in this regard.

Thanking you.


Dr. Rupali Zope,
(Faculty In-charge)



Prof. Seema Shiyekar
(HOD Civil Dept)

Head of the Department,
CIVIL ENGINEERING


Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.


Dr. Ratna Rajakumar Jambi
(Principal, GSMCOE)

PRINCIPAL

Genba Sopanrao Moze College of Engg
25/1/3, Balewadi, PUNE-411 045




Aman Kokate
(CRIPPL)



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Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

DEPARTMENT OF CIVIL ENGINEERING

REPORT ON EDUCATIONAL SITE VISIT TO
ROAD CONSTRUCTION SITE –
TRANSPORTATION ENGINEERING

Subject In-Charge: Dr. Rupali Pankaj Zope

A.Y. 2022-23 (Semester I)



Name: Krishnae Infrastructure Pvt. Ltd, Pune

Place of Visit: Road Construction Site at Tathawade, Pune

Objective: To understand the design and construction process of a pavement.

Resource Persons: - Mr. Aman Kokate & Mr. Tejas Bhosale

Faculty-in-charge:- Dr. Rupali Zope

Date of Visit: 9/11/2022

16 Field visits are one of the most important parts of learning. It allows students to develop a greater understanding of theories implemented in practice. Final Year students of Civil Engineering Department of G.S. Moze College of Engineering, Balewadi had visited a road construction site at Tathawade. The visit was scheduled at 10.00 am. Students were allowed to see the different layers of road construction and high drainage. All the queries and doubts of students were answered by the site engineer during site visit.

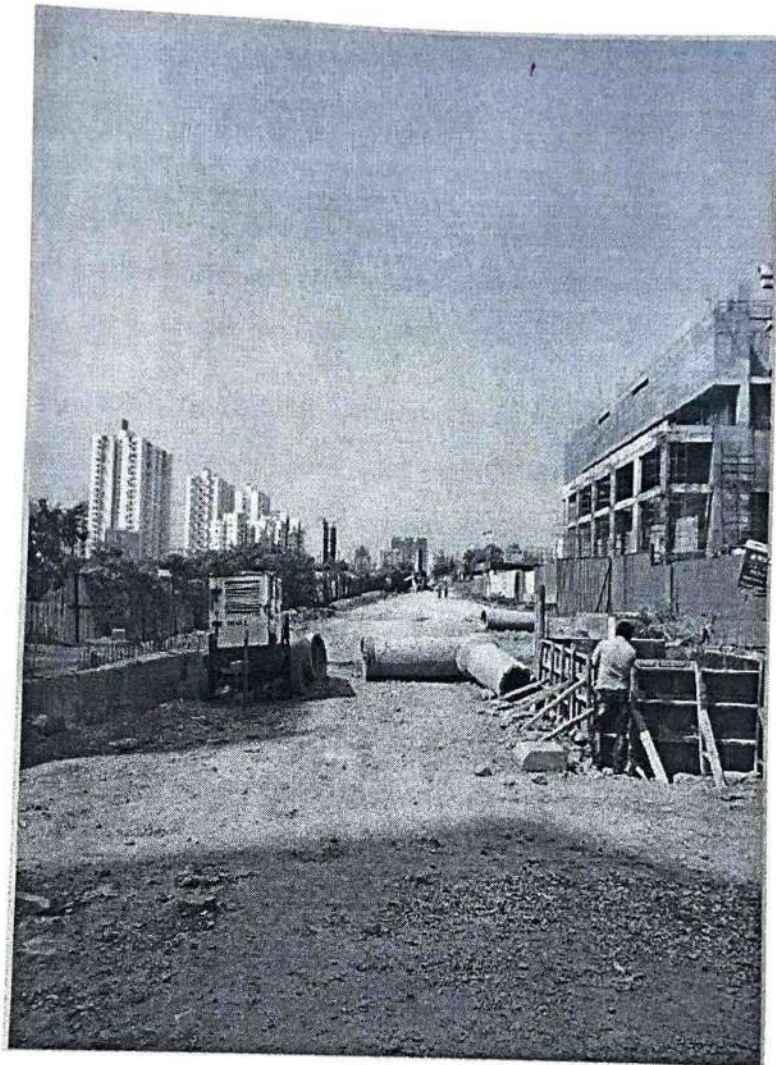
Brief Report of Site Visit:

20 The transportation by road is the only road which could give maximum service to one all. This mode has also the maximum flexibility for travel with is possible to provide door to door service only by the road transport. Concrete pavement a large number of advantages such as long life span negligible maintenance, user and environment friendly and lower cost. Keeping in this view the whole life cycle cost analysis for the black topping and white topping have been done on various conditions such as type of lane as single lane, two lane, four lane different traffic categories deterioration of road three categories base (GSB) or drainage layer. 3. Base course/ (DLC-Dry lean concrete). 4. CC pavement slab using PQC (paving quality concrete).

COMPONENTS OF RIGID PAVEMENT AND THERE FUNCTIONS: 1. Prepared soil subgrade. 2. Granular sub- Prepared soil subgrade: • The soil subgrade of rigid pavement consists of natural or selected soil from identified borrow pits fulfilling the specified requirements. • The soil subgrade is well compacted to the desired density and to the required thickness. • The soil subgrade is the lower most layer of the pavement structure which ultimately supports all other pavement layer and traffic loads.







• A good soil subgrade / well compacted and prepared soil subgrade gives long service life to the pavement.

2. Granular sub-base (GSB) or drainage layer: • The GSB course has to serve as an effective drainage layer of the rigid pavement to prevent early failures due to excessive moisture content in the subgrade soil. • Crushed stone aggregate are preferred. In the granular sub-base course as this material has high permeability and serves as a effective drainage layer. • Coarse graded



is archived. Quality control tests: 1. Sand test: 2 tests per 3000m³ 2. Plasticity test: 2 tests per 3000m³ 3. Density test: 2 tests per 3000m³ 4. Moisture content test: 1 test per 250m³ 5. CBR test: 1 test per 3000m³

C. CONSTRUCTION OF GRANULAR SUB-BASE OR DRAINAGE LAYER: General: The GSB course have to serve as an effective drainage layer of the rigid pavement to prevent early failures due to excessive moisture content in the subgrade soil. It also supports the other pavement layers. Materials: a. Crushed stone aggregates b. Gravel. c. Coarse sand. d. Crushed slag. e. Crushed bricks. f. Crushed concrete. g. Natural sand h. Moorum. Requirements of materials: • A material should not contain organic matter or other deleterious constituents. • The aggregate size should be less then 75mm.

Construction procedure: The GSB layer is constructed on the top of the prepared subgrade therefore first the surface of the subgrade is checked and grass and vegetation if any are removed. The grade and the cross slope of the top surface of the subgrade are corrected as required. The construction steps are given below:

- The sub-base material is spread to the uniform thickness and specified cross slope using a mortar grader by adjusting the blade of the grader.
- The moisture content of the material is checked and the additional quantity of water required to bring up to the optimum moisture content is sprinkled at a uniform rate using a truck mounted sprinkler.
- The water material is mixed properly using machinery such as disc harrows and rotavators.
- The mixed material is spread to the desired thickness, grade and camber using a mortar grader with hydraulic controls of the blade.
- The loose GSB layer is compacted by rolling if the compacted thickness of the layer is 100mm or lesser an ordinary smooth wheeled roller may be used. For compacted thickness exceeding 100mm and up to 225mm compaction is done by vibratory rollers of static weight 10 tons or more.



- Rolling is done starting from the lower edge and proceeded towards the centre of the un divided carriage way or towards the upper edge of the divided carriage way with a minimum 1/3rd overlap between each run of the roller. The rolling speed is limited to less than 5kmph.
- Rolling is continued till at least 98% of maximum density of the material is archived.
- The surface level tolerance will be (+ or -) 6 mm.

Quality control tests:

- Gradation test
- Altarburge limits:
- Moisture content test before
- CBR test.





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Department Of Civil Engineering

A-19	CHIPLUNKAR SAHIL SANJAY		B-19	OLEKAR PRATIK VIJAY	
A-20	DALVI TEJAS VILAS		B-20	ORASE ABHISHEK SHANKAR	
A-21	DEVAKAR TANAJI TUKARAM		B-21	ORSE MUKESH KISAN	
A-22	DEVENDRA SHIRISH MAHALE		B-22	PATIL KIRANRAJ NANA	
A-23	DHADDE OMKAR ASHOK		B-23	PAWALE TUSHAR TUKARAM	
A-24	DHANGEKAR ABHISHEK		B-24	PAWAR RACHANA NANDRAM	
A-25	DHUMAL DISHA DASHARTH		B-25	PHADE SHUBHAM	
A-26	DUBALE ATHARV HANUMANT		B-26	PIMPLE VIKESH MANIK	
A-27	DUDHAL SHUBHAM SANJAY		B-27	POTDAR GAURAV NAGNATH	
A-28	GADEKAR SHRADDHA		B-28	PRANAVKUMAR	
A-29	GADIWADD SWAPNIL TIPANA		B-29	PRASAD GANESH PHARANDE	
A-30	GAIKWAD AKSHAY SURESH		B-30	PRITI ASHOK INDRALE	
A-31	GAIKWAD NIKHIL VISHNU		B-31	PRUTHVIRAJ YUVRAJ	
A-32	GANDHARE JANHAVI AJAY		B-32	RAJAPURE JYOTI	
A-33	GANESH MAHADEV KADAM		B-33	RAJE PANKAJ DNYANOBA	
A-34	GAVALI SHREYASH JAGDISH		B-34	RAJPUT VISHWAJITSING	
A-35	GHODKE VISHAL BALIRAM		B-35	RANDIVE MANDAR GOKUL	
A-36	GIR SWATI KHUSHAL		B-36	RANGOJI DIVYA GNYANADEV	
A-37	GODAGE SAMEER SURESH		B-37	RATHOD ARCHANA SANJAY	
A-38	GUNDAL CHANDRAKANT		B-38	RAUT GANESH ASHOK	
A-39	GUNJAL SHIVRAJ BRAMANAND		B-39	RAWOOL VIKAS VIJAY	
A-40	HAWALDAR SANKET		B-40	RAYMANE AKASH	
A-41	ITKALE SHUBHAM DILIP		B-41	REVANSIDDHA NAMDEV G	
A-42	JADHAV PRATIK NANDKUMAR		B-42	SAIPRASAD SANJAY BHANGE	
A-43	JADHAV PRATIK RAVINDRA		B-43	SANNAV TANVI PRATAP	
A-44	JADHAV VAIBHAV PRAKASH		B-44	SANDEEP NEBBOOLAL	
A-45	JAGTAP GURUPRASAD AJAY		B-45	SATAV SHUBHAM MUKESH	
A-46	JAGTAP SACHIN RAJENDRA		B-46	SATHE MEGA MOHAN	
A-47	JOSHI SOHAM SANJOT		B-47	SAURABH PADALE	
A-48	KADAM AKASH BABASAHEB		B-48	SHIMPI NIKHIL RAJESH	
A-49	KADAM AKASH BHAUSAHEB		B-49	SHINDE DIKSHA DATTATRAY	
A-50	KADAM ANIKET MALHARI		B-50	SHINDE JYOTI VISHWAS	
A-51	KALE RUSHIKESH BABASAHEB		B-51	SHINDE OM SANJAY	
A-52	KALOKHE SURAJ AVINASH		B-52	SHINDE RUSHIKESH	



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Department Of Civil Engineering

A-53	KAMBLE PRAJAKTA JITENDRA	<u>W</u>	B-53	SHINDE VRUSHABH DILIP	<u>W</u>
A-54	KAMBLE PRASHIK	<u>W</u>	B-54	SINGH PRASHANT	<u>W</u>
A-55	KAMBLE RUSHIKESH	<u>W</u>	B-55	SONUNE SACHIN KUNDALIK	<u>W</u>
A-56	KAMBLE RUTURAJ DILIP	<u>W</u>	B-56	SUDATTA LAXMAN GAIKWAD	
A-57	KAMBLE VINAY ANIL	<u>W</u>	B-57	SURYAWANSHI ABHISHEK	<u>W</u>
A-58	KHAN HUMA JAVEDKHAN	<u>W</u>	B-58	SURYAWANSHI RUSHIKESH	<u>W</u>
A-59	KHANDARE RAJESHWAR	<u>W</u>	B-59	TAPKIR GAURAV SANDESH	
A-60	KHARAT AVINASH VINAYAK	<u>W</u>	B-60	TEMKAR SAURABH VILAS	<u>W</u>
A-61	KOLEKAR AMOL SURESH	<u>W</u>	B-61	THORAT SUYASH SAMBHAJI	
A-62	KONDE PRATHAMESH	<u>W</u>	B-62	TIKAR RUPAL PANDURANG	<u>W</u>
A-63	KORKE SAGAR DATTATRAY		B-63	TUPLONDHE SIDDHANT	
A-64	KSHIRSAGAR VISHWANATH	<u>W</u>	B-64	UBALE RUTUJA MANOJ	
A-65	KUMBHAR RAJU ANNA	<u>W</u>	B-65	VAISHNAVI KORATE	<u>W</u>
A-66	LAKKAM SUDHANSHU SANJAY	<u>W</u>	B-66	VHANMANE AKSHAY	<u>W</u>
A-67	MADAKE SAYALI BALU	<u>W</u>	B-67	WAGHMARE GANESH	
A-68	MAGARE PREETI DATTATRAY	<u>W</u>	B-68	WARLE AMRUTA LOBHAJI	<u>W</u>
A-69	MANDHARE ANIKET UDDHAV	<u>W</u>			





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Website: www.gsmozecoe.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

DATE: 2/11/2022

NOTICE

All the students of B.E. are hereby informed that , your APC site visit of Sant Tukaram Sugar Factory Mulashi has been arranged on 04/11/2022. All Students are asked to be present at 10 am sharp. in college premises.

NOTE:

- **STUDENTS MUST BE PRESENT IN COLLEGE UNIFORM**
- **STUDENTS SHOULD CARRY WATER BOTTLE,CAP, SHOES etc**
- **ATTENDANCE IS COMPULSORY**

Prof. Shilpa Mahajan

(Faculty coordinator)

HoD

Civil Engineering Department

Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.





"EMPOWERMENT THROUGH TECHNOLOGICAL EXCELLENCE"
GENBA SOPANRAO MOZE COLLEGE OF ENGINEERING

S. No. 25/1/3, Balewadi, Pune - 411 045

(Approved by AICTE and Govt. of Maharashtra, Affiliated to Savitribai Phule Pune University)

DTE Code - EN6144 University Affiliation ID - PU/PN/ENGG/138/1999

Ph. 020-27390500 Website www.gsmozecoe.org Email gsmoze@yahoo.co.in

Founder President Shri Rambhau Moze

Ref. No. GSMCOE / ADMIN / 740 A / 2022-23

Date

Date: 29/10/2022

To,

Mr. Manoj Naikwade

(The Director)

Kasarsai Mulshi Pune-06

Subject: Regarding permission to visit Sant Tukaram Sugar Factory.

Respected Sir,

We introduce ourselves as G. S. Moze College of engineering Balewadi is affiliated to University of Pune and approved by AICTE New Delhi. The college runs five UG program including Civil Engineering.

There would be a total of 82 students accompanied by 02 faculty members are interested to Visit Sugar Factory as a part of BE SPPU Syllabus in Air Pollution & Control Subject. The visit is aimed at enhancing their knowledge. We intend to take a round of the entire Industry. (**Various operation involved to Manufacturing of sugar.**) I assure you that no nuisance will be created and the visit will be carried out with proper discipline. I hope you will give us permission to visit the same.

After the approval from your side college will provide identity cards of Students and Faculty Members and will do the needful. **We are expecting visit on date(4/11/22)**

Looking forward for your positive consent in this regard.

Thanking you.

Prof. Shilpa Mahajan

(Faculty coordinator)

HoD

Civil Engineering Department

Principal

(GSMCOE, Balewadi)

Head of the Department
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering
25/1/3, Balewadi, Pune-411 045



Principal
Genba Sopanrao Moze College of Engg
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Founder President Shri Rambhau Moze

Ref. No. GSMCOE / ADMIN / 740B / 2022-23

Date 04/11/2022

To,

Mr. Manoj Naikwade

(QC manager)

Kasarsai Mulshi Pune-06

Letter of thanks

Respected Sir,

The Genba Sopanrao Moze trust is an educational trust, a pioneer in imparting quality professional's education in field of Engineering. It has established two campuses in Pune at Wagholi & Balewadi.

We Department of Civil Engineering of Genba Sopanrao Moze College of Engineering, Balewadi, Pune, would sincerely thank you for giving us permission to visit your sugar factory. We really appreciate the time spent with our students and information shared by you. We hope our students received precious knowledge which will definitely help them in their Curriculum.

Thanking you.

Yours Regards,

Prof. Shilpa Mahajan

(Faculty coordinator)

HoD

Civil Engineering Department

Principal

(GSMCOE, Balewadi)

Head of the Department,
CIVIL ENGINEERING
Genba Sopanrao Moze College of Engineering,
25/1/3, Balewadi, Pune-411 045.

PRINCIPAL
Genba Sopanrao Moze College of Engg
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25/1/3, Balewadi, Pune - 411045. Ph: 020-27390500

Website: www.gsmozece.co.in Email: gsmoze@yahoo.co.in

Department Of Civil Engineering

A-19	CHIPLUNKAR SAHIL SANJAY		B-19	OLEKAR PRATIK VIJAY	
A-20	DALVI TEJAS VILAS		B-20	ORASE ABHISHEK SHANKAR	
A-21	DEVAKAR TANAJI TUKARAM		B-21	ORSE MUKESH KISAN	
A-22	DEVENDRA SHIRISH MAHALE		B-22	PATIL KIRANRAJ NANA	
A-23	DHADDE OMKAR ASHOK		B-23	PAWALE TUSHAR TUKARAM	
A-24	DHANGEKAR ABHISHEK		B-24	PAWAR RACHANA NANDRAM	
A-25	DHUMAL DISHA DASHARTH		B-25	PHADE SHUBHAM	
A-26	DUBALE ATHARV HANUMANT		B-26	PIMPLE VIKESH MANIK	
A-27	DUDHAL SHUBHAM SANJAY		B-27	POTDAR GAURAV NAGNATH	
A-28	GADEKAR SHRADDHA		B-28	PRANAVKUMAR	
A-29	GADIWADD SWAPNIL TIPANA		B-29	PRASAD GANESH PHARANDE	
A-30	GAIKWAD AKSHAY SURESH		B-30	PRITI ASHOK INDRALE	
A-31	GAIKWAD NIKHIL VISHNU		B-31	PRUTHVIRAJ YUVRAJ	
A-32	GANDHARE JANHAVI AJAY		B-32	RAJAPURE JYOTI	
A-33	GANESH MAHADEV KADAM		B-33	RAJE PANKAJ DNYANOBA	
A-34	GAVALI SHREYASH JAGDISH		B-34	RAJPUT VISHWAJITSING	
A-35	GHODKE VISHAL BALIRAM		B-35	RANDIVE MANDAR GOKUL	
A-36	GIR SWATI KHUSHAL		B-36	RANGOJI DIVYA GNYANADEV	
A-37	GODAGE SAMEER SURESH		B-37	RATHOD ARCHANA SANJAY	
A-38	GUNDAL CHANDRAKANT		B-38	RAUT GANESH ASHOK	
A-39	GUNJAL SHIVRAJ BRAMANAND		B-39	RAWOOL VIKAS VIJAY	
A-40	HAWALDAR SANKET		B-40	RAYMANE AKASH	
A-41	ITKALE SHUBHAM DILIP		B-41	REVANSIDDHA NAMDEV G	
A-42	JADHAV PRATIK NANDKUMAR		B-42	SAIPRASAD SANJAY BHANGE	
A-43	JADHAV PRATIK RAVINDRA		B-43	SANDAV TANVI PRATAP	
A-44	JADHAV VAIBHAV PRAKASH		B-44	SANDEEP NEBBOOLAL	
A-45	JAGTAP GURUPRASAD AJAY		B-45	SATAV SHUBHAM MUKESH	
A-46	JAGTAP SACHIN RAJENDRA		B-46	SATHE MEGA MOHAN	
A-47	JOSHI SOHAM SANJOT		B-47	SAURABH PADALE	
A-48	KADAM AKASH BABASAHEB		B-48	SHIMPI NIKHIL RAJESH	
A-49	KADAM AKASH BHAUSAHEB		B-49	SHINDE DIKSHA DATTATRAY	
A-50	KADAM ANIKET MALHARI		B-50	SHINDE JYOTI VISHWAS	
A-51	KALE RUSHIKESH BABASAHEB		B-51	SHINDE OM SANJAY	
A-52	KALOKHE SURAJ AVINASH		B-52	SHINDE RUSHIKESH	

Schedule of this study Visit.

Roll No.	Name of Student	Sign	Roll No.	Name of Student	sign
A-01	DESAI POOJA DINKAR	<i>Pooja D</i>	B-01	MANE GEETANJALI	<i>Geetanjali</i>
A-02	ADISHERLAWAR	<i>ad</i>	B-02	MANSUTE GAURAV S	
A-03	AKASH ANNASAHEB	<i>akash</i>	B-03	MATERE PRADIP RAMESH	<i>Pradip</i>
A-04	ARBUNE VAIBHAV	<i>vaibhav</i>	B-04	MESHARAM RAVINDRA DILIP	
A-05	BACHCHE SHAILESH VASANT		B-05	MHALUNGEKAR SAURABH	
A-06	BAWANKAR AMIT	<i>amit</i>	B-06	MORE RAHUL VASANT	
A-07	BHAGAT RUSHIKESH		B-07	MORE VANDANA	
A-08	BHANDARKAR GAURAV		B-08	MULE YOGESH SHANKAR	
A-09	BHELSAIKAR AJINKYA RAJU	<i>Ajinkya</i>	B-09	NAGWANSHI ANIMESH	<i>animesh</i>
A-10	BIJAWA PRITI RAMDASRAO	<i>Priya</i>	B-10	NAIK OMKAR SANTOSH	
A-11	BIRADAR GAURAV	<i>Gaurav</i>	B-11	NAKHATE VANITA MARUTI	
A-12	CHAUDHARI DHIRAJ		B-12	NAVGHARE PRASAD	
A-13	CHAUGULE SANCHIT	<i>sanchit</i>	B-13	NAWALI SAGAR VILAS	<i>Sagar</i>
A-14	CHAVAN AVINASH REVAN		B-14	NEHARKAR DINESH	
A-15	CHAVAN MANASI VITTHAL	<i>Manasi</i>	B-15	NIKALJE SIDDHARTH	
A-16	CHAVAN RUTVI PRADEEP	<i>Rutvi</i>	B-16	NIKHIL DATIR	<i>Nikhil</i>
A-17	CHAVAN SANGRAM MANSING		B-17	NIKHIL JADHAV	<i>Nikhil</i>
A-18	CHAVAN SURAJ RAMESH		B-18	NIKHIL MOHAN GHANEKAR	





**Genba Sopanrao Moze College of Engineering,
Balewadi, Pune
DEPARTMENT OF CIVIL ENGINEERING
Academic Year:-2022-23 Sem- I**

SITE VISIT REPORT ON AIR POLLUTION & CONTROL

**Subject :-APC LAB
I/C :- Prof.Shilpa R.Mahajan**

**Class:-BE
Date:- 04/11/2022**

Name of Visit:- Industrial visit at Shree “Sant Tukaram Sugar Factory”.

Place of Visit:-Kasarsai Mulshi Pune-06

Date of Visit:- 4th November 2022

Plant Guide:- Mr.Manoj Naikwade (Plant Incharge)

Introduction:-

As a part of Syllabus G.S.Moze College of Engineering Students of Final Year visited the sugar Factory.Total 82 students along with two faculty members visited the industry. “ Sant Tukaram Sugar Factory”.,Mulshi.

Our students saw the actual production of sugar in this industry.also students saw whole stepwise procedure of sugar manufacturing. also students got to know how the wastage (Bagass)is used to produced Electricity,How sugar is purified and Crystallized. Production Manager provided lot of information to student about the same.



↓ Specifications of the sugar Factory: -

- 1) Estimated cast of plant: - 174 crore
- 2) Stack height: -75 m
- 3) Stack Diameter: - 4.2 m
- 4) Two types of sugar produced: -1. S31
2. S32
- 5) Monitoring System used: -Online monitoring system used as per CPCB
- 6) ASH COLLECTION SYSTEM: -85 TPH
- 7) ESP: - 99.9%
- 8) Process used for ESP: -Ionization process ESP
- 9) Capacity of ESP: - 150mg/lit.
- 10) Boiler capacity with temp.: - 32 TPH with 120° C temp. maintained.



↓ Specification of Sources creating Air Pollution: -

1. Electrostatic Precipitator
2. Gravity setting chamber

As present there are 173 co-operative sugar factories in operation. Employing engaged in the harvesting from the fields. The sugar industry provides annual revenue of the 22 billion to the government. Due to the co-operation sugar industry, business including milk co-operative, fertilizer supply & irrigation systems have flourished.

1. Electrostatic precipitator:-

Principle: - The electrostatic precipitator of solid particles. The particles are charged by a flow of ions from the discharge electrical field towards the collecting electrode. The cleaning of the collecting electrodes is achieved by periodic rapping for dry precipitator & by flushing for wet precipitator.

1) Working: - The dust laden gas is passed between the oppositely charged conductors & is becomes ionized as the voltage applied between the conductors is sufficiently large (30Kv to 60KV) depending upon the electrodes spacing . As the dust laden gas is passed through the highly charged electrodes both negative and positive ions are formed (positive ions will be a high as 80%).

The ionized gas is further passed through the collecting unit which consists of set of metal plates. The deposited dust particles are removed



from the plates with the help of comes driving by external means. Care should be taken that the dust collected in the hopper should not be entrained in the clean gas.

2) Advantages: -

1. Electrostatic precipitators (ESP) is also most effective for high dust loaded gas (as high as 100 gm per cu.meter). Its efficiency is as high 99.5%.
2. The drought loss of the separator is the least of all forms.
3. The maintenance charges are less compared to all other separators.
4. Electrostatic precipitators provides ease of operation.
5. The dust or fly –ash is collected in dry form and can be removed either by dry or wet.

3) Disadvantages: -

1. The direct current (DC) is not available with the modern thermal power plants hence considerable electrical equipment is required to convert from AC to DC (60KV DC).
2. The running charges is also high as the amount of power required for charging is considerably high.
3. The space required for electrostatic precipitators is larger hen wet system



✦ Working of cyclone:-

1. The gas stream containing particulate matter enters the cylinder near the top.
2. The gas stream after entering a cyclone moves downwards as a descending outer vertex because of its tangential velocity. The gas stream reaches almost at the bottom of the cone and then it reverses its direction, moving upward as an ascending vertex.
3. The larger and heavier particles while moving downwards along with the spirally moving gas stream experience a centrifugal force, as a result of which they migrate towards the wall.
4. Then the particles slide down towards the bottom outlet and the gas leaves the cyclone through a centrally located outlet at the top.

1) Advantages :-

1. Low initial cost.
2. Construction and operation is simple.
3. Low maintenance cost as it has no moving parts.
4. Low pressure drop.
5. Dry and continuous disposal of solid particulates.
6. Cyclones can be constructed of any material which will satisfy the temperature and pressure requirement.



2) Disadvantages:-

1. It has low efficiency for particles less than 5-10 μm in diameter
2. Unable to tackle sticky material
3. Low collection efficiency for low particle concentration

* Conclusion:

We have studied various uses and application along with efficiency of electrostatic precipitator, gravity setting chamber and understand the working function of cyclone.

We also really thank full for such valuable guidance and information.





ERLING
PUNE-46
Balewadi