

Field Visit Report

Date: 03/02/2018

Place of Visit: Construction of Diaphragm wall, 3rd -three, behind Girish Cold drinks, C.G. Road, Ahmedabad

Student Group: B. E. Semester – VI (Civil Engineering)

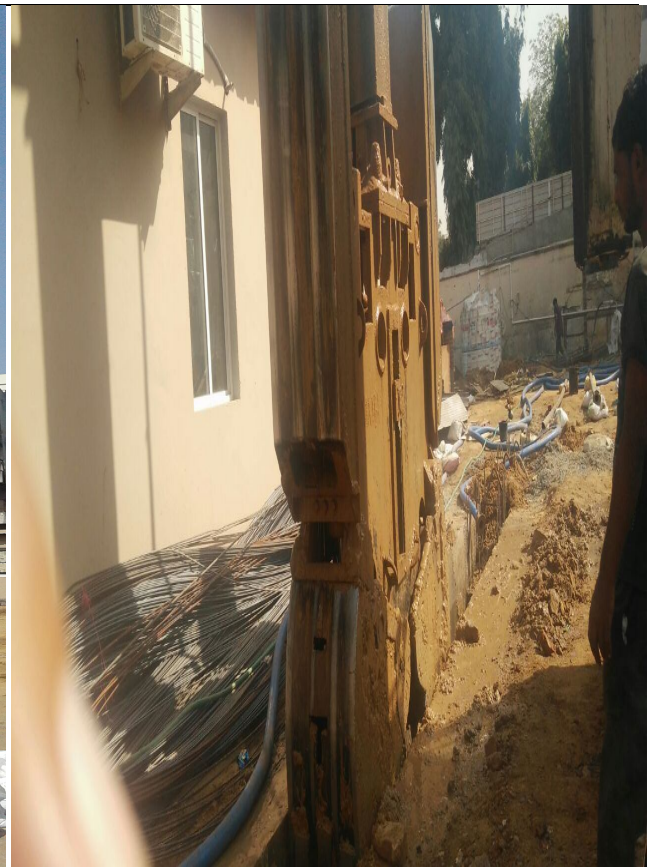
Faculty Members: 1) Prof. R.M.Jadav 2) Prof. D.K.Oza 3) Prof. J.S.Kamle 4) Prof R. H. Bhudhbhatti

Faculty coordinator: Prof. D.K.Oza

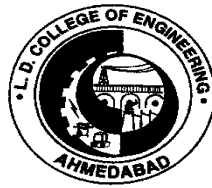
Description of visit: The students of B.E. Semester – VI (50 students in 2 batch) and Faculty Members have visited construction of 3rd Eye – three Ahmedabad. The objective of the technical visit is to understand the construction of Diaphragm wall – boring and concreting, Mr. Kunal Purohit (Site in charge- Mehul construction) and Prof.D.K.Oza had explained Procedure of diaphragm wall . They had also explained the Construction Sequence of diaphragm wall i.e. construction of Guide wall, Boring with Hydraulic Rig and Polymer, cage fabrication and lowering of the cage, Tremie concreting. Mr. Kunal had shown the total drawings, Bar Bending schedule, anchoring in soil etc.



Hydraulic Rig



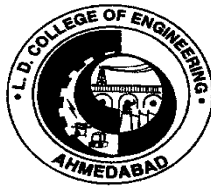
Hydraulic Grab –Boring of Diaphragmwall



Cage Fabrication with Drawing and Bar Bending Schedule



Tremie Concreting



Types of equipment and tools used at site and observed by Students

- Hydraulic Rig with Hydraulic Grab – MAIT HR 180
- Crawler Crane
- Back Hoe loader – JCB Make
- Transit mixer
- Stop end Pipe
- Trimme pipe
- Reinforcement Bending machine

Grade of Concrete used: M25

It is a reinforced concrete structure constructed in-situ panel by panel.

The diaphragm wall panel having Length of 5 meters, Width of 600mm and depth of 18.25 meter. Guide wall depth 1.2 m, width 660 mm, Boring work is done with water and polymer mixture. Trimme pipe having a diameter of 200mm. This diaphragm wall was being built for a three-level basement for a commercial complex, situated on C.G. road; hence the adjoining area was surveyed after which anchorage at an angle of 20 degrees and up to 14 meter was provided to prevent the diaphragm wall from overturning due to earth pressure.



The field visit was very helpful to the students for understanding, visualization and upgrading the knowledge of construction activity. The students and Faculty Members of the department are very much thankful to the Respected Principal sir, Head of Department civil engineering for giving permission and Officials of the Site sparing their time.