

## **Construction Site Visit to Solan–Kaithleeghat Highway**

**Date of Event:** May 27, 2022

**Organizers:** Civil Engineering Department, JUIT, and National Highway Authority of India

B.Tech. 3<sup>rd</sup> and 4<sup>th</sup> year along with M.Tech. Structures students of Civil Engineering Department, JUIT, Wagnaghat along with three faculty members visited NHAI's tunnel Construction Site at Kandaghat, Solan and Bridge Site No. 115, Kandaghat, Solan on May 27, 2022. Approximately 55 students assembled at 12:30 pm at the main gate of JUIT and left the campus in two university buses that were arranged for the occasion. The buses reached the first destination, Tunnel site in Kandaghat, by 1:00 pm. The engineers working at the site apprised the students about methodology used for tunnel construction as well as various challenges faced during such projects. After the tunnel site, AIREF Engineers organized a few snacks for the students and faculty at their office. The students were then taken to the Bridge site No. 115 where description of bridge design and construction techniques was given to the students by the design engineers.

### **Aim of Construction Site Visit:**

Civil Engineering students require more practical experience to excel in the field. Hence, by organizing site visits, the students are introduced to various aspects of the profession. Furthermore, such visits give opportunity to students to develop their professional network and secure future internships and jobs.

### **Details of Industrial Visit are as below:**

#### **Kandaghat Tunnel construction site and Bridge No. 115, Kandaghat, Solan, H.P.**

- Date of Visit: 27<sup>th</sup> May 2022
- Under the Co-operation of: NHAI and Sushil Ahuja, Project Manager, AIREF
- Faculty during visit: Dr. Sugandha Singh, Mr. Niraj Parihar, and Mr. Kaushal Kumar
- No of Students: **55** [3<sup>rd</sup> Year - 21, 4<sup>th</sup> Year - 29 and M-Tech Structures – 05 of Department of Civil Engineering, JUIT Wagnaghat]

### **Description of Visit:**

National Highway 22 (Now NH-5) originates at its junction with NH-1 at 'Ambala' in Haryana and ends at 'Khab' in Himachal Pradesh. Govt. of India through National Highways Authority of India (NHAI) has taken up the work of "Four Laning of Solan to Kaithlight of NH – 22 (now NH-05) from Km. 106+139 to Km. 129+0.5 under NHDP Phase-III on EPC mode pattern in the state of Himachal Pradesh". M/s. Airef Engineers Pvt. Ltd. & Prakash Asphaltings & Toll Highways (I) Ltd. has been awarded the project through competitive bidding. EPC Contractor M/s. Airef Engineers Pvt. Ltd. & Prakash Asphaltings & Toll Highways (I) Ltd. has appointed M/s Saanvi Infrastructure Pvt. Ltd. as "Design Consultant" for the work of detailed engineering design.

### **Tunnel at Kandaghat:**

Tunnel at Kandaghat is 460 m in length with bottom width 10.7 meter, followed by 390 m of railway over bridge, in order to accommodate two lane carriage way for bi-directional traffic connecting Solan to Kaithlighat in Himachal Pradesh.

Officials from NHA and Aircel Engineers on site provided practical insights to the students about latest machinery being used for the construction of tunnel in tough terrain in the regions.

### **Minor Bridge (Steel) near Kandaghat:**

The Bridge is 35m long skew bridge having a width of 20m. Its girder is made up of built-up I-sections. It's a 4 lane bridge. It has the super elevation of 15 degree. The bridge is located 1 Kilometer from Kandaghat railway station towards Solan.

Officials on site provided practical insights to the students about latest machinery being used for the construction of tunnel in tough terrain in the regions.

### **Pictures from Site:**



**Jaypee University Student along with NHA officials and Aircel's Engineers at Kandaghat Tunnel Site.**



JUIT Students inside Kandaghat site Tunnel



NHAI officials Briefing JUIT Students



Q&A session between Aircf's Engineers



4<sup>th</sup> Year JUIT Students at Kandaghat Tunnel



Bridge Site Visit near Kandaghat



Students inspecting R/F of the Bridge Deck