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Samruddhi's Package-14 to be a treat for senses

New leg of highway will be a marvel of engineering excellence, comprising Maharashtra's longest road tunnels and views of lush Sahyadri mountains

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PACKAGE-14 of the Samruddhi Mahamarg is set to be exceptional for several reasons. Besides boasting the country's widest and Maharashtra's longest road tunnels, it will provide motorists with a breathtaking view of the Sahyadri range while driving from Igatpuri to Mumbai on Viaduct-II, constructed over a dense forest area that overlooks the mountains. While the mega tunnels were completed in early 2021 within a record time of two years, Viaduct-II has been completed on schedule to finalise PKG-14 entirely.

"PKG-14 is complete, and only finishing touches inside the tunnel are being carried out at present. Viaduct-II, which spans 1.2 km, presented the second most challenging aspect of the project after the tunnels. Constructing it over a forest area with virtually no approach roads required careful planning," stated Afcons' Project Manager

PKG-14 Highlights

- Total length: 13.1 km
- Includes Maharashtra's longest and India's widest road tunnels
- Tunnel length: 8 km; Tunnel width: 17.6 m
- Tunnelling completed in a record time of 2 years
- Multiple cross passages inside tunnels
- Tunnels equipped with modern ventilation, firefighting and safety systems
- First-ever high-pressure water mist system in any tunnel in India for fire safety
- 2 viaducts
- 1 interchange

Sekhar Das.

Overcoming difficulties

Transporting materials to the Viaduct-II location posed significant difficulties due to the absence of access roads. Those executing the project sought approval from authorities to enlarge hairpin curves and construct a new pipe culvert bridge for the transit of heavy trucks. Additionally, navigating through monsoon conditions and establishing a nearby camp required exceptional skill.

"Igatpuri is the region with the highest rainfall in Mahar-

ashtra, and in some years, we faced unprecedented rainfall that affected both tunnel construction and our efforts on Viaduct-II. We had to exercise extreme caution due to the dense forest area, lack of access roads, mountainous terrain, and high rainfall. Visibility was a challenge due to heavy showers and dense fog. However, we implemented the best safety practices to ensure a secure working environment," explained Das.

Height challenge

In addition to its location, Viaduct-II presented another unique challenge—its height. The viaduct is a balanced cantilever cast-in-situ bridge, stretching 1.2 km in length. It features

35 piers, with the tallest pier reaching 60 m (equivalent to 20 floors). With 29 spans, the longest measuring 98 m, working at a height of 60 m in a valley exposed to strong winds and heavy rainfall was no easy feat. Nevertheless, adequate safety measures were implemented to complete the work within the stipulated period.

Package-14 of the Maharashtra Samruddhi Mahamarg encompasses twin tunnels spanning 7.78 km, two viaducts, one interchange, a toll plaza, multiple cross passages, and box culverts. This 13.1-km package will connect Pimpri Saroddin in Nashik with Vashala Budruk in Thane, providing a significant boost to industries and tourism in the Nashik district upon its commissioning.

Dec deadline

Maharashtra State Road Development Corporation's sources have stated that the Shirdi to Igatpuri stretch of the Samruddhi Mahamarg is expected to be opened in the next few months. The work on the final stretch between Igatpuri and Amane in Bhivandi is over 80 per cent complete, and the entire project is expected to be completed by December.

02

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in record
2 years

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Afcons' Project Manager, Sekhar Das