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PHOTOS: SWAPNIL AMBRE


The entrance of the tunnel at Siddhivinayak Station

Manning the Tunnel Boring Machine

"The introduction of Metro will reduce the number of cars on road, thus reducing our fuel requirement by 2.4 lakh liters/day"

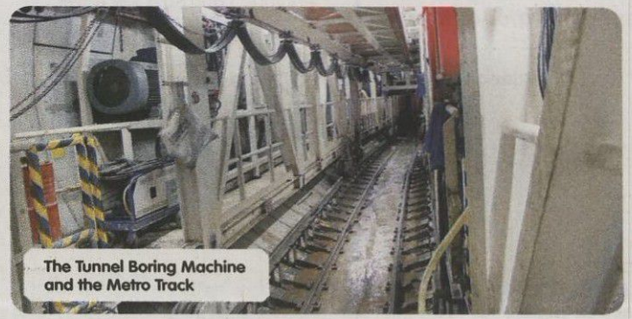
One of the marque projects of the city, the Metro Line 3 i.e. Colaba-Bandra-SEEPZ, is expected to be fully functional by December 2021. SK Gupta, director – projects, Mumbai Metro Rail Corporation (MMRCL), in an exclusive interview with *Times Property*, discusses the infrastructural potential of this ambitious project, while giving us a tour of the site. Here are a few excerpts...

The tapering end of the city houses a number of narrow roads, which are occupied on both sides with residential settlements. It is also worth mentioning that most of this part of the city stands on reclaimed land. So, what actions has MMRCL undertaken to facilitate a smooth functioning?

The condition that you just mentioned is what makes Mumbai Metro project different and one-of-a-kind. The challenges that we faced can be broadly categorised as administrative, technical and logistical. On the administrative level, we had to first decongest south Mumbai. Initially, we started using government land for the project; it was only when a vacant land wasn't available did we touch the human settlements. A total of 2807 entities were affected to create the space for this project, out of which 1866 were residential units, 795 were commercial properties, 39 were a combination of both and 107 were others. The administrative challenges were pertaining to pending court cases, CRZ and forest approvals. There are still issues as we are very close to or below buildings, highways, railway lines and water bodies. We have also made deep excavations and cuts for this project. We have completed over 20-kms of tunnelling until now with six breakthroughs. The work is gathering momentum at all stations, except for the one at Aarey.

The indiscriminate cutting of trees along the Aarey stretch and other areas have garnered everyone's attention. But it's also said that the Metro is expected to curb pollution as it will help take several cars off the road.

We have planted 25,000 plants at the Sanjay Gandhi National Park and committed to the High Court that we would plant another 3,000 trees in the areas where we have cut them. In fact, according to a UN study, which was constituted by us, the carbon benefit is 2.61 lakh metric tonne/year. 4.5 lakh vehicles will go off road in 2021 and 6.1 lakh vehicles will go off road by 2031. This will not only help the environment, but also citizens as they would lead a healthier lifestyle. Also, our government spends a substantial amount in importing fuel. It is estimated that the metro will reduce the number of cars on road, thus reducing our fuel requirement by 2.4 lakh liters/day. So, in reality, the benefits overpower the concerns.


The Tunnel Boring Machine and the Metro Track

MUMBAI METRO LINE 3 STATIONS

1. Cuffe Parade
2. Vidhan Bhavan
3. Churchgate Metro
4. Hutatma Chowk
5. CST Metro
6. Kalbadevi
7. Girgaon
8. Grant Road Metro
9. Mumbai Central Metro
10. Mahalaxmi Metro
11. Science Museum
12. Acharya Atre Chowk
13. Worli
14. Siddhivinayak
15. Dadar Metro
16. Shitladevi Temple
17. Dharavi
18. BKC
19. Vidyanagari
20. Santacruz Metro
21. CSIA (Domestic)
22. Sahar Road
23. CSIA (International)
24. Marol Naka
25. MIDC
26. SEEPZ
27. Aarey

SALIENT FEATURES:

- Total length: 33.5-km (fully underground);
- Stations: 27 (26 U/G+1);
- Completion cost: Rs 23,136 crore (USD 3731 million);
- Capacity: 3000 (8 cars @ 8 pax/sq m);
- CBTC (Communication Based Train Control) signaling system and driverless train operations;
- 2-level stations provided with escalators and lifts (designed for the physically-challenged);
- Automatic Fare Collection (AFC) system for passenger convenience;
- Maximum train speed: 85 kmph;
- 35 per cent reduction in traffic (456,771 less vehicle trips/day);
- Reduced fuel consumption (saves 243,390 l/day);
- Reduced air pollution (13,182 tonnes/yr) and noise pollution.

THE METRO LINE IS GOING TO CONNECT...

- Six CBDs and areas not served by suburban rail including Nariman Point, Cuffe Parade (WTC), Fort, Worli/ Lower Parel, BKC & SEEPZ / MIDC;
- Interchange junctions equipped with public transport at CST (CR), Churchgate, Bombay Central (WR), Marol Naka (Line 1), Mahalaxmi (Monorail), Mumbai Central (ST);
- Airports, both domestic as well as international terminals;
- 30 employment clusters;
- 12 educational institutions;
- 11 major hospitals;
- 25 religious and recreational structures.