- Pune Metro's Underground Tunnelling Work Completed at Budhwar Peth.
- A Breakthrough: Pune Metro completes 12 Km Underground Metro Tunnelling Work by TBM.

Today, on $4^{\text {th }}$ June 2022, marks the completion of the last leg of tunnelling from Swargate to Budhwar Peth underground stretch of the Pune metro project. The TBM Mula II achieved a breakthrough at Budhwar Peth metro station. It had started digging on $5^{\text {th }}$ September 2021 from Swargate crossed Mandai, and completed the 2.025 km tunnel digging work at Budhwar Peth in approximately 10 months. This milestone achieved by Pune metro signifies completion of the $100 \%$ tunnelling work of the total 12 km underground tunnel length.

Pune metro has two corridors with a total length of 33.2 kms . One from Vanaz to Ramwadi which is an elevated line and the other from PCMC to Swargate which is elevated from PCMC to Agriculture college and thereafter underground up to Swargate. The underground section is about 6 km and this stretch has Shivaji Nagar, Civil Court, Budhwar Peth, Mandai, and Swargate underground metro stations.

The underground section comprises of two parallel tunnel for up and down metro train. For the 6 km tunnelling work three TBM were used. These Tunnel Boring Machines (TBMs) have been named after the rivers in Pune viz. Mula, Mutha, and Pavana. The Tunnelling done by these TBMs is:

| TBM | From | To |
| :--- | :--- | :--- |
| Mutha | Agriculture College | Budhwar Peth |
| Mula- I | Agriculture College | Budhwar Peth |
| Pavana | Swargate | Budhwar Peth |
| Mula- II <br> (Mula- I has <br> been reused <br> and names <br> as Mula-II) | Swargate | Budhwar Peth |

When the TBM finishes the tunnelling work and arrives at a station shaft, the event is termed as a, Breakthrough. The present event is the last breakthrough in the Pune metro. In the past, 5 breakthroughs were seen, the details are given below.

| Breakthrough Details (mm/dd/yy) |  |  |  |
| :---: | :---: | :---: | :---: |
| Sr.No | Location | Up Line Date | Down Line Date |
| 1 | Civil Court | $9 / 28 / 2020$ | $11 / 7 / 2020$ |
| 2 | Budhwar Peth | $7 / 23 / 2021$ | $7 / 14 / 2021$ |
| 3 | Budhwar Peth |  | $1 / 14 / 2022$ |

The underground stretch is a very challenging and crucial part of the Pune metro project. $\mathrm{M} / \mathrm{s}$ TataGulermark, the underground stretch contractor for Pune metro has done a commendable work. Due to the technical expertise and sound project management the tunnelling work is completed without any trouble. Since the tunnel work is completed, it has paved way for track, signalling and traction work.

On this final breakthough, Dr Brijesh Dixit, MD Maha Metro said, "The tunnelling work of Pune Metro was done with utmost precision and world-class technology. This final breakthrough marks the completion of the 12 km tunnel line and it is a very proud moment for Maha metro. Without the active support of the citizens of Pune and administrative bodies, the work on the underground stretch of the Pune Metro project wouldn't have been achieved swiftly and successfully. MAHA Metro is committed to complete the work in time".

