

No Concourse At Underground Facilities, Construction And Maintenance To Become Cheaper

Metro rail to roll out big changes in Phase 2 with smaller stations

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Hopping onto a metro train at an underground station may be just a flight of stairs away from the road as Chennai Metro Rail Limited (CMRL) is planning to do away with concourses in its new design for stations in Phase 2 of the project. Besides being convenient for passengers, the trimmed layout will enable CMRL to bring down construction and maintenance costs, and build stations faster.

The underground stations, connecting 80% of Phase 2 lines, will be smaller compared to the facilities in Phase 1. That said, the designs will be on a par with similar structures worldwide. The 108.4km-long phase planned at an estimated ₹85,047 crore, and expected to get the Centre's approval before year-end, is scheduled to be ready in 10 years.

Metro rail officials said the stations will be 25% smaller than those built for Phase 1. The existing underground stations have two levels — the concourse, which accommodates ticket counters, smart card top-up kiosks and information desk, and the platform at an average depth of 18m. The new facilities will not have the concourse level. However, the length of the platforms will remain the same at 14m.

Modifications will be made to the space occupied by auxiliary systems like rooms for electrical equipment, communications and control at the platform level to accommodate ticket counters.

"Equipment in the stations is getting smaller. We will procure compact machines that will give desired results," an official said. "Besides, changes like shifting the exhaust fans closer to the shaft will be made to reduce the size of a station." The changes have been planned based on feedback officials received during the construction and operation of the existing stations.

Phase 2 will have three corridors connecting far-flung localities — from Madhavaram in the north to Siruseri and SIPCOT in the south, from Lighthouse in the east to Maduravoyal in the west. "The fourth corridor from Lighthouse will be extended till Poonamallee with an extension project," an official said.

Officials said corridor three from Madhavaram Milk Colony till SIPCOT across Old Mahabalipuram Road will be ready in three years. Half of the line from Madhavaram Milk Colony to Adyar Depot will be underground while the rest on OMR will be elevated as the roads are wider.

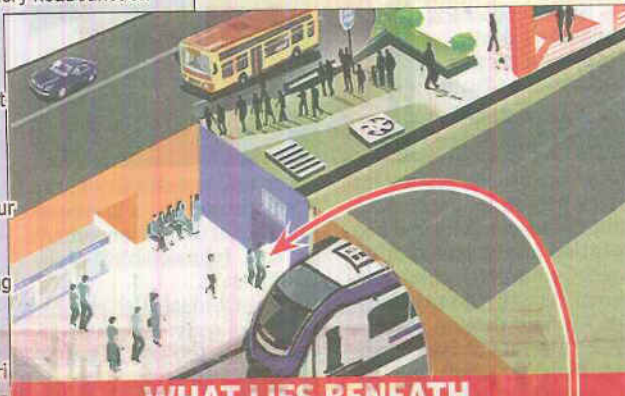
Corridor four from Lighthouse to CMBT, which will cut across congested localities on Anna Salai, and at Kodambakkam, Vadalapalani and Virugambakkam, will be completely underground. "Corridor five is orbital as it connects all the radial roads in the city including those in Phase 1. Except for a few kilometres on either ends of the line, the rest of the stretch will be underground," an official said. The Phase 2 lines will also connect MRTS, including the Adambakkam station and suburban railway network.



| 3 CORRIDORS | |
|---|---|
| 108.4km distance to be covered | ₹ 85,047cr estimated budget |
| 104 STATIONS | |
| STATUS Submitted Detailed project report to Centre for approval | 2018 Construction may begin 10 years: Expected time to complete |

| CORRIDORS | Poonamaallee for ₹ 3,850cr |
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| Madhavaram-SIPCOT (Corridor 3) 46.1km length of stretch 50 stations, 21 elevated from Indira Road Junction to SIPCOT2 | 17.1km length of stretch 20 underground stations |
| CMBT-Lighthouse (Corridor 4, to be extended till) | Madhavaram-Sholinganallur (Corridor 5) 45.2km length of stretch 46 stations |

IN VICINITY
Metro stations near mass transit systems | Nungambakkam, Adyar Depot, Kandanchavadi Bus Stop, Mettukuppam Bus Stop, Okkiyampet, Karappakkam TCS, Alwarpet Bus Stop, CMBT, Villivakkam Suburban, Chetpet, Villivakkam Bus Terminus, Nadhamuni Bus Stop, Anna Nagar Depot, Ramapuram, Alandur, St Thomas Mount, Adambakkam MRTS, Echangadu, Kovilambakkam, Vellakal, Medavakkam, Perumbakkam



WHAT LIES BENEATH
150m-170m | Length of an underground station in Phase 2 as against standard length of 200m to 250m in Phase 1
No concourse or ticketing level | Commuters can directly reach platform from the station entry point on the road

Not all stations of Corridor 4 are shown here