

Taking shape at Kathipara junction, Metro Rail's tallest pillar to tower above flyover

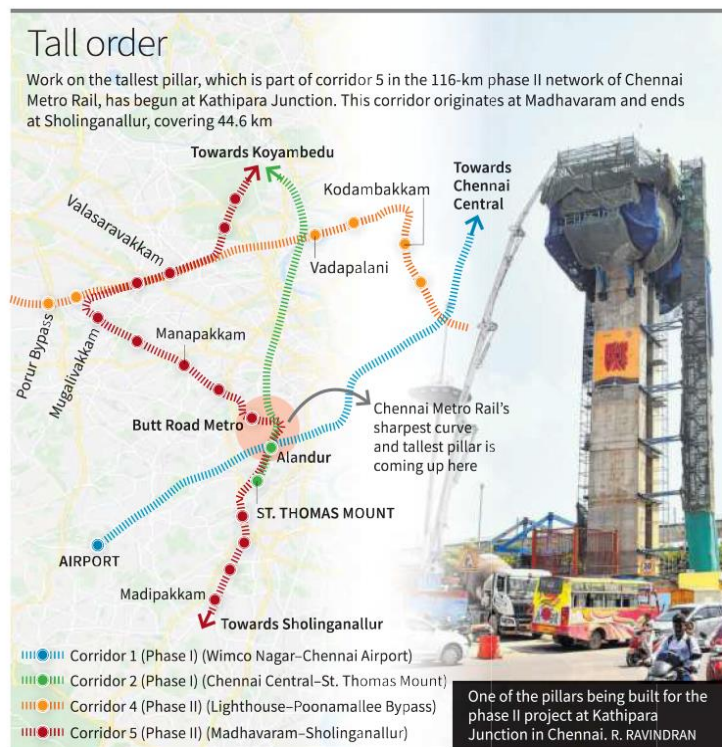
At the intersection, commuters will not only travel past the tallest pillar ever built in the Chennai Metro Rail network, but also cross the sharpest curve at a 125-metre radius, say officials. It is part of corridor 5 in phase II originating at Madhavaram

Sunitha Sekar
CHENNAI

In a few years, when you travel through Kathipara Junction via Chennai Metro Rail's phase II network, look below and you will find the clover flyover and the two trains from phase I network crisscrossing as well. At this junction, you will not only travel past the tallest pillar ever built in the Chennai Metro Rail network, but also cross the sharpest curve at a 125-metre radius.

Work on the tallest pillar for Chennai Metro Rail's phase II network has begun at Kathipara Junction by the contractor Larsen and Toubro amidst challenging conditions. According to officials of Chennai Metro Rail Limited (CMRL), this pillar is part of corridor 5 in the 116-km phase II network which originates at Madhavaram, passing through Retteri, Koyambedu, Thirumangalam, Porur, Butt Road, Alandur, St Thomas Mount, Medavakkam, Perumbakkam and ends at Sholinganallur, covering 44.6 km.

T. Archunan, director (projects), CMRL, said one of the major challenges here is, with busy traffic and two Metro Rail corridors of phase I project (corridor I: Wimco Nagar to Chennai airport and corridor II: Chennai Central to



St Thomas Mount) running above, the phase II viaduct has to be constructed. To build this, they have adopted the engineering method of 'Balanced Cantilever'. "Balanced Cantilever method is taken up for two reasons – one, when there is heavy traffic flow underneath and we have limited space availability on ground and secondly, when we have to

build the pillars at a massive height. The distance between pillars is very long in this method. Interestingly, in the phase I project too, the pillars were built using the same method," he said.

Special design

Krishna Prabhakar K., project manager of L&T for building the viaduct and station between CMBT and

Puzhuthivakkam, said, in the balanced cantilever construction (a method of incremental launching is done to maintain a balance on both sides of a pillar with the help of an equipment called Form Travelers) carried out at Kathipara Junction, a special design has been done to build the sharpest curve between Butt Road and Alandur. While the max-



Balanced Cantilever method is taken up for two reasons – heavy traffic flow and limited space availability

T. ARCHUNAN,
Director (projects), CMRL

imum height of the Kathipara flyover is 12 metres, Chennai Metro Rail's corridor I and corridor II pass through at a height of 19 metres and 20 metres respectively. "Since the pillars are much taller with over 30 metres height, we take extreme caution to ensure concrete or building debris doesn't fall on anyone and there is no inconvenience to public," he said.

The foundation of the tallest pillar (which is coming up in Paul Wells Road at Kathipara Junction) is massive too, unlike a normal pillar, he said. "The foundation of the tallest pillar itself is huge with a diameter of 1.5 metres and 12 piles and designed in such a way that it can take heavy loads. Now that the foundation is done, the main work to build the pillar is about to begin," he added.

Officials said, the work along this stretch has been progressing at a fairly good pace and they plan to finish it in a few years.