

CMRL to use cheaper ballasted tracks

Cost-Effective Move May Be Implemented At Phase-2 Depots

TIMES NEWS NETWORK

Chennai: Metro rail will lay ballasted tracks, where sleepers and rails rest on a bed of crushed stones like those of Indian Railways, in at least one of its depots servicing and maintaining driverless trains on the 118.9km phase-2 corridors.

In its recently floated tender for a depot at Poonamallee, CMRL had mentioned certain technical specifications for both ballasted and ballast-less tracks. While depots have been planned at Poonamallee and Madhavaram with the capacity to

POCKET-FRIENDLY



UPKEEP COSTS: The Koyambedu depot, pictured here, and the under-construction Wimco Nagar stn have ballast-less tracks

maintain 96 six-car trains, the mainline linking stations and corridors will have ballast-less tracks.

The detailed project report for phase-2 says stabling lines linked to depots where trains will be parked daily will have conventional ballasted tracks, while those for train washing will have ballast-less tracks. Specifica-

Ballasted tracks | Comprise steel rail, sleepers, fasteners and ballast bed (a bed of crushed stones below the sleepers)

> Cost of ballasted track per km- ₹2 crore (approx)

Pros | > Lower construction cost

> Simple, accurate and

mechanised maintenance

Cons | Frequent maintenance required, hence higher life-cycle costs

> Long maintenance operation could result in low track availability

Ballast-less tracks

> Comprise a bed made of concrete and bituminous mixture

and have steel rail, railway fasteners and concrete slab.

> Cost of ballast-less track per km - ₹5 crore (approx)

Pros | Reduced maintenance costs

> Longer service life

Cons | Higher construction cost

> High noise emission

In phase-2, depots at Poonamallee and Madhavaram are likely to have both ballasted and ballast-less track

tions were mentioned for ballasted tracks for the 15.3-hectare Poonamallee depot with 24 stabling lines or tracks to accommodate 31 six-car trains on the Lighthouse-Poonamallee corridor-4. CMRL is yet to float tender for the Madhavaram depot.

Ballasted tracks have a bed of specific crushed stones that will hold the

sleepers and the rail and absorb noise and vibrations. In ballast-less tracks, rails are laid on concrete slabs. "Ballasted tracks are cheaper to build but require frequent maintenance. In Indian Railways, a track machine is used to pack the ballast and the sleepers and rails are brought to their position. The muck on the ballast will also

have to be removed. The recurring cost is high," said former CMRL director R Ramanathan. "The phase-1 depot at Koyambedu has ballast-less tracks. They are double the cost of ballasted tracks, mainly due to the concrete material used instead of the crushed stones, but requires less maintenance."

Experts say laying 1 km of ballasted track could cost approximately ₹2 crore against ₹5 crore for a ballast-less track for the same distance.

CMRL brought down the cost of phase-2 from ₹89,000 crore to ₹61,843 crores by making many changes including scrapping the plan for an elevated depot at SIPCOT. "Ballasted tracks are best suited for ground level depots and not elevated or underground. At least 50% of the country's metro rail networks have ballasted tracks in depots," said Ramanathan.