



₹449.23 cr

is the cost of laying tracks. This project is a joint venture of Larsen and Toubro, Alstom Transport, SA and Alstom Project India

22 km

Koyambedu to St Thomas Mount stretch is part of the 22-km Chennai Central-St Thomas Mount line (Corridor-II)



STANDARD GAUGE IS PREFERRED FOR RAIL TRACKS BECAUSE **MOST OF THE METRO'S COMPONENTS ARE IMPORTED.** MANUFACTURERS ACROSS THE WORLD USE STANDARD GAUGE | Metro Rail official

Work On Koyambedu-St Thomas Mount Stretch Is Progressing Fast, Set To Meet 2013 Deadline

Tracks soon on 100 Ft Rd

V Ayyappan | TNN

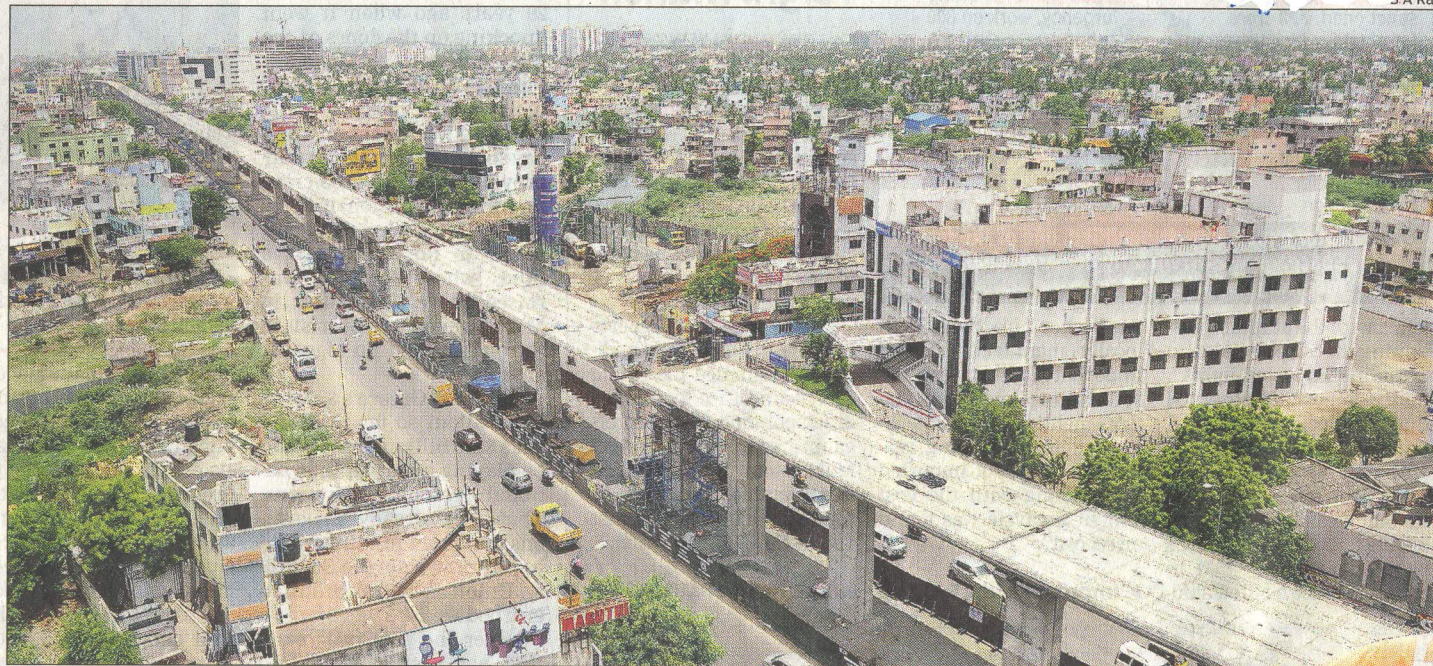
Metro Rail is on track to meet its 2013 deadline to run trains between Koyambedu and St Thomas Mount along an elevated line. With works progressing at a rapid pace, the Chennai Metro Rail Corporation will begin to lay tracks in the section from January 2012.

Elevated viaducts have been placed over pillars for about 1.5km from Koyambedu on the Koyambedu-St Thomas Mount stretch. Works are on to build the elevated viaducts for the rest of the section.

Koyambedu to St Thomas Mount stretch is part of the 22-km Chennai Central-St Thomas Mount line (Corridor-II). After installing viaducts, firming up the surface on top of the viaducts, laying of tracks and construction of stations, Metro Rail will run trial services from Koyambedu to St Thomas Mount by 2013-end.

The track laying is taken up as a joint venture by Larsen and Toubro (L&T), Alstom Transport, SA and Alstom Project India at a cost of ₹449.23 crore. Track laying will start from Koyambedu. "The tracks are going to be imported," said Metro Rail general manager (public relations) S Krishnamoorthy.

The tracks will be of standard gauge (4 feet and 8.5 inches) which



FAST FORWARD: The Koyambedu-Ashok Nagar stretch, complete with elevated viaducts, is expected to be finished first

has a low turning radius. This has been used for metro rail networks in several world cities like Cairo, Madrid, Bangkok, Manila and Beijing. "Standard gauge is preferred because most of the metro's components are imported. Manufacturers across the world build machines, coaches and engines on standard

gauge. It's easier to source track laying equipment and rolling stock of global standard if the gauge we follow is the same as the one used worldwide. Metro Rail will be able to get the best companies to build its infrastructure," a senior official said.

The Koyambedu-Ashok Nagar stretch will be completed first because the contract to install the elevated viaduct was awarded to Soma Constructions as early as in Febru-

ary 2009. L&T, which won the contract to build the elevated viaduct from Ashok Nagar to St Thomas Mount in January 2010 have also started a good portion of the works.

On the same corridor, the stretch from Chennai Central to Koyambedu is underground. Preliminary works like soil testing have started along Poonamallee High Road under which tunnels will run till they reach Aminjikarai. Soil tests have been

completed near Chennai Central.

"Soil tests are essential to finalise the design of tunnels and underground stations," said a Metro Rail official. Metro Rail is planning to start boring works by year-end when tunnel boring machines would arrive from abroad.

Two Metro Lines

Corridor I: Washermenpet to Chennai airport (via Anna Salai)

Corridor II: Chennai Central station to St Thomas Mount (via Koyambedu)

PROGRESS SO FAR:

1) Chennai Central to Saidapet (underground) stretch of Corridor I: Soil tests began two months ago. Tunnel boring machines will be employed to avoid digging out earth for the underground construction. This work is expected to begin in December.

2) Saidapet to Officers Training Academy stretch of Corridor I: Pile work has been completed and pillars are being erected. Viaducts will be installed near Officers Training Academy soon. Work on metro station at Guindy has begun.

3) Chennai Central to Koyambedu (underground) stretch of Corridor II:

Soil tests were carried out in June at Chennai Central and Egmore

4) Koyambedu-St Thomas Mount stretch of Corridor II: Tracks will be laid first in this section. Work is set to begin near Kathipara flyover and at Kasi theatre



Moving Ahead One Step At A Time

STAGE 1

STAGE 2

STAGE 3

STAGE 4

STAGE 5

STAGE 6

STAGE 1

Soil test



▶ Around **75 boreholes** were used to test soil condition at various places. This was to find whether underground rail or elevated corridor was best suited in that location. This began in 2003

STAGE 2

Pile load test



▶ Earth was bored for **27 metres** near Koyambedu and close to **10 metres** in other areas to gauge how much weight the earth could withstand. Load tests were carried out in 2009-2010

STAGE 3

Building piles and pillars



▶ Underground piles were built to provide support to overhead pillars of the elevated corridor. After that, pillars were built near Koyambedu bus terminus, Arumbakkam and Vadapalani by mid 2010

STAGE 4

Installing viaducts



▶ After pillars were built, **huge pre-fabricated viaducts** were installed using cranes on top of the pillars. Viaducts have been installed on a 1.5km stretch from Koyambedu

STAGE 5

Laying tracks



▶ After the base structures are built, **standard gauge rail tracks** will be laid. The track will require **minimal or no maintenance**. Metro Rail plans to begin laying of tracks from Jan 2012

STAGE 6

Building stations and depot



▶ Koyambedu to St Thomas Mount stretch will have **seven stations**. This work will start at a **later stage** because entry and exit ramps have to be set up at all stations

