

Shapoorji Pallonji gets KMRC contract

While the elevated section of the East-West corridor is expected to be operational by October 2013, the entire Metro line is likely to be in service by December 2014



BS REPORTER
Kolkata, 21 March

The Kolkata Metro Rail Corporation (KMRC) is steaming ahead. Within weeks of awarding the first contract for its underground section, the infrastructure arm of the Shapoorji Pallonji Group — Afcons Infrastructure — has been given the mandate to construct the final underground portion that is to be bored under the Hooghly river.

Earlier this month, ITD Cementation Ltd was awarded the Rs 909-crore contract to build the underground section from Subhas Sarobar to Central Station. Subsequently, Afcons will construct the remainder of the line from Central Station to Howrah Maidan at a cost of Rs 938 crore.

Afcons, in a joint venture with a Russia's Transtunnelstroy Limited, will build three underground stations and twin bored tunnels. The length of the tunnel will be about 2,954 meters, of which approximately 520 meters will be under the river.

"This is the first time in India that a transportation tunnel project is running approximately 20 meters below a river and hence, is challenging. This project will be a boon to commuters travelling

from Howrah to Kolkata. Latest technologies will be used in the construction of this under-river link and will go a long way in boosting the transportation infrastructure of the city," Afcons, Director (Transportation) Ramakrishna V Ramanan said.

KMRC, a joint venture between the state government and the Union urban development ministry, is developing the Rs 4676.40 crore East-West metro corridor project that comprises a 5.7 km-long elevated section and a 8 km-long underground segment.

Gammon India and Simplex have been given the contract for the viaducts and elevated stations, respectively.

While the elevated section of the East-West corridor is expected to be operational by October 2013, the entire Metro line is likely to be in service by December 2014.

Afcons venture bags Kolkata Metro contract

Our Bureau

Kolkata, March 21

Afcons Infrastructure Ltd., belonging to the Shapoorji Pallonji Group, in a 50:50 joint venture partnership with Transtunnelstory Ltd of Russia, has bagged the Rs 938-crore Kolkata Metro contract for constructing a transportation tunnel below the Hooghly riverbed. The project is part of the Rs Rs 4874.58 crore East-West Metro Corridor project.

East-West Metro, the country's first metro transit to pass below a riverbed, will cover a distance of 14.67 km, connecting Howrah with Salt Lake.

Of the 10 stations to be constructed under the project, Afcons has received mandate for three, Howrah Maidan, How-

rah Station and Mahakaran, also involving construction of two crucial tunnels 20 metres below the river.

"We plan to start construction in April and complete it in four years," Mr Ramkrishna Ramanan, Director, Transportation, Afcons, said. The company's Russian partner Transtunnelstory has experience in under-sea tunnel projects in Russia and Iran, he said. "Our partner will be in charge of tunnel boring operations, while we will concentrate on civil constructions," Mr Ramanan said.

The twin tunnels will be bored by earth pressure balancing tunnel boring machines. Dubai-based Atkins has been appointed consultant for the project, he added.

Kolkata to have India's first under-river tunnel

KUMAR SHANKAR ROY

Kolkata

AFCONS Infrastructure, the infrastructure arm of Shapoorji Pallonji Group and Russian company Transtunnelstroy will be jointly constructing India's first transportation tunnel project running 20 metres below a river.

The integrated joint venture between Afcons and Transtunnelstroy will construct this tunnel for Kolkata Metro and the 2.95-km tunnel under Hooghly river bed will connect the proposed metro stations between Ma-

hakaran (Writers' Buildings) and Howrah Station under the East West Metro project.

Ramakrishna V Ramanan, director (transportation), Afcons Infrastructure, said: "We have bagged Rs 938-crore project from Kolkata Metro Corporation (KMRC) through competitive bidding which saw participation from L&T, Senbo etc. Afcon's project includes design and construction of underground metro from Howrah Maidan Station (the terminal station in the new route) to Central Station."

East West Metro, a Rs

4875-crore project to connect Kolkata with Howrah by an underwater metro line has been cleared by the Central government and this line will be constructed and maintained by KMRC.

"Globally, Transtunnelstroy has built tunnels under the sea including in Iran. They have the technology. We will commence work very soon. The twin under river tunnels will be constructed using Earth Pressure Balancing Machine which is apt for soft soil. We plan to progress 300 metres per month once work starts. The project is tricky as the ma-

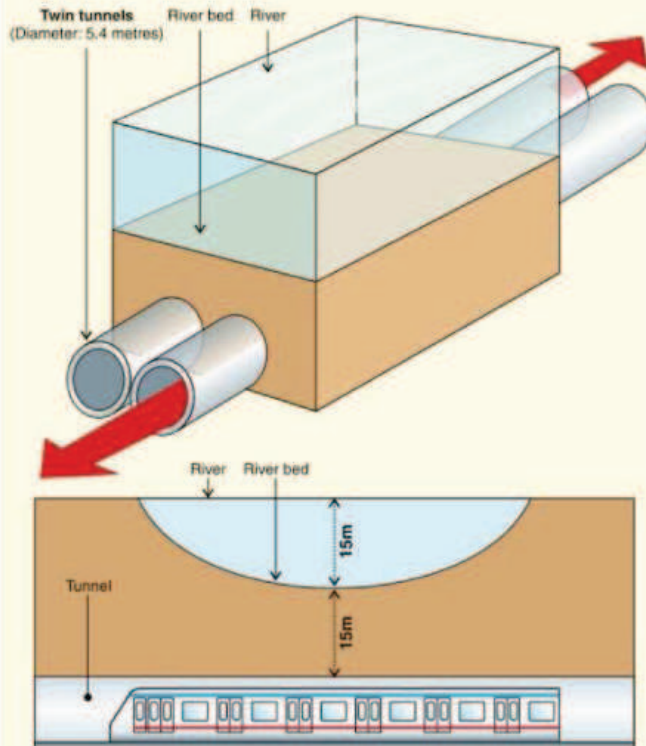
chine will bore forward under the river-bed and simultaneously a concrete lining has to be provided on the backside so that the tunnel is formed," said P Jayaraman, VP, Afcons Infrastructure.

The two companies will be bringing to Kolkata specially skilled experts from over the globe. The tunnelling equipment will possibly come from Japan and Germany. At its peak, this project will witness nearly 70-800 people working simultaneously when the construction of stations as well as the tunnel will be in full motion.

UNDERWATER PROJECT



● Central to Howrah Maidan: 3.89km ● Project cost: Rs 938 crore



Metro dips toe in river with deal

STAFF REPORTER

Calcutta, March 20: The seal was put today for the country's first underwater railway network to start in the city.

The Calcutta Metro Railway Corporation today signed a memorandum of understanding with a consortium formed by Afcons Infrastructure Ltd and Russia's Transstroi Limited who will build the length of the East-West Metro link from central Calcutta (close to the Central Metro station) to Howrah Maidan — the route running under the Hooghly river bed.

Afcons is the infrastructure arm of the Shapoorji Palonji Group.

In the bidding, the consortium bagged a Rs 938-crore deal from Metro, the nodal agency for the Rs 4,676-crore East West Metro project.

The Howrah Maidan Central stretch will have three stations — Howrah Maidan, Howrah station and Mahakaran (near Writers' Buildings) — which will also be constructed by the consortium.

There will also be a station close to the present Central Metro station, but the Indo-Russian partnership will not build that. The plan is to complete the project in 42 months.

At Howrah station, the Metro station will be built underground between platforms 17 and 18.

"This is the first time in India that a transportation tunnel project is being laid under a river and hence is

challenging. The latest technology will be used," said Ramakrishna V. Ramanan, the director, transportation, Afcons Infrastructure.

"The tunnel under the Hooghly will approximately be 30 metres under the water surface and 15 meters below the river bed," a Metro official said.

"There will be twin tunnels (under the river), which means two tunnels will be built for trains moving in opposite directions. The tunnels will have connecting passages for maintenance and safety work," said P. Jayaram, the vice-president of Afcons.

Officials in Afcons informed that the tunnels would be built using the earth pressure balancing method. A tunnel-boring machine will drill a hole into the earth and a concrete support will be put in place simultaneously so that the soft earth does not refill the tunnelled path. "The drilling work will start from the Howrah Maidan end and the target is to drill 300m every month," said Jayaram.

In a fortnight, soil testing will start and based on the report, the final design will be prepared. Metro officials said there would be provisions for footpath for safety of passengers inside the tunnels. "In case of emergency, the connecting passages can be used," an official informed.

The East-West Metro project from Salt Lake Sector V is above ground till Phoolbagan from which point the trains will run underground.

शपूरजी को कोलकाता मेट्रो का ठेका

कोलकाता, २१ मार्च (निप्र)। शपूरजी पल्लोनजी समूह की इन्फ्रास्ट्रक्चर इकाई एफकॉन्स इन्फ्रास्ट्रक्चर लि. ने कोलकाता मेट्रो रेलवे कारपोरेशन (केएमआरसी) से ९३८ करोड़ रुपये का ठेका अपनी झोली में डाल लिया है जिसके तहत कंपनी को ४६७८ करोड़ रुपये वाली ईस्ट-वेस्ट परियोजना का काम करना होगा। तीन अंडरग्राउंड स्टेशनों के साथ हुगली नदी के अंदर भी निर्माण कार्य की बात है। मालूम हो कि देश में पहली बार लगभग २० मीटर तक नदी के भीतर रेल चलाई जायेगी। मुंबई आधारित एफकॉन्स, जिसने हाल में ही दिल्ली मेट्रो के लिए काम पूरा किया है, ने खुलेआम बोली में यह अनुबंध हासिल किया है। इस दौर में इस कंपनी ने सेनबा-शंघाई अरबन, सीईसी-सिमप्लेक्स, आईवीआरसी व एल एंड टी जैसी कंपनियों को पछाड़ा है। उल्लेखनीय है कि केएमआरसी बंगाल सरकार व केन्द्रीय शहरी विकास मंत्रालय के बीच संयुक्त उपक्रम है। एफकॉन्स इन्फ्रास्ट्रक्चर द्वारा डिजाइन तैयार की जायेगी और परियोजना 'यूजी-1' को हाल में ही रूसी कंपनी ट्रांसटोनेलेस्ट्रो लि. के साथ संयुक्त उपक्रम के जरिये पूरा किया जाएगा। एफकॉन्स संयुक्त उपक्रम के साथ ३.८९ किमी. की निर्माण करेगी जिसमें ५.२० मीटर जल के अंदर तथा ३ भूगर्भित स्टेशन हावड़ा मैदान, हावड़ा स्टेशन, महाकरण का निर्माण भी शामिल होगा। मालूम हो कि सहयोगी रूसी कंपनी को ईरान में इसी तरह समुद्र के अंदर रोड बनाने का अनुभव है। चेन्नई मेट्रो परियोजना के लिए भी दोनों कंपनियां साथ मिलकर बोली लगा रही है। केएमआरसी ने पहले ही सुभाष सरोवर व सेंट्रल मेट्रो स्टेशन के लिए निर्माण के लिए आईटीडी सीमीटेशन लि. को ९०९ करोड़ रुपये का अनुबंध दिया है। एफकॉन्स के उपाध्यक्ष पी. जयराम ने कहा कि हमलोग परियोजना को पूरा करने के लिए विकसित टनल बोरिंग तकनीक का प्रयोग करेंगे। २९५४ मीटर लम्बाई की दो बोरिंग की जायेगी जिसमें ५.२० मीटर एक हिस्सा नदी के अंदर होगा। दो टनल बोरिंग मशीनों को इस परियोजना के लिए प्रयोग में लाया जाएगा। श्री जयराम ने कहा कि हमें विश्वास है कि नदी में टनल के लिए जनवरी २०११ से काम की शुरुआत हो जाएगी। हमने प्रत्येक सप्ताह में ५० मीटर अथवा एक महीने में ३०० मीटर बोरिंग की योजना बनाई है। टनल का व्यास ५.४ मीटर होगा और इस परियोजना को पूरा करने के लिए ७०० से ८०० श्रमिक काम करेंगे जिसमें कई विदेशी विशेषज्ञों की भी मदद ली जायेगी।