



# NEWS LETTER

## Underground Sections & Tunneling Work Progress

Package	TBM	From	To	Tunnelling length in mtr	Completed in mtr	Percentage completed
UAA 01	TBM 1	Washermenpet Metro	Egmore Metro	4445	4445	100
	TBM 2	Washermenpet Metro	Egmore Metro	4445	4445	100
	TBM 3	May Day Park	Central Metro	2080	2080	100
UAA 02	TBM 1	May Day Park	AG-DMS	3616	3595	99.4
	TBM 2	May Day Park	AG-DMS	3616	3473	96.05
UAA 03		Saidapet Metro	AG-DMS	5736	5736	100
UAA 04		Egmore Metro	Shenoy Nagar	6776	6776	100
UAA 05		Shenoy Nagar	Thirumangalam	5594	5594	100
UAA 08	TBM 1	Washermenpet	Korukkupet	2000	2000	100
	TBM 2	Washermanpet	Korrukupet	2000	2000	100
<b>Total</b>				<b>40308</b>	<b>40144</b>	<b>99.59</b>

## Smart Infrastructure Innovation Award 2017

**VOLUME - 09**  
**Oct & Nov 2017**

**CHAIRMAN**

**Thiru Durga Shanker Mishra, I.A.S.,**  
**SECRETARY**  
**MINISTRY OF URBAN AFFAIRS**  
**GOVT. OF INDIA**

**Thiru Pankaj Kumar Bansal, I.A.S.,**  
**MANAGING DIRECTOR**  
**CHENNAI METRO RAIL LIMITED**



CMRL has provided real-time information of train services on CMRL mobile app so that commuters can plan their travel at ease. The app has been updated with information about the train schedule, Route Information, Station Information, Feeder Services and interconnections etc on regular basis. This will make it very convenient for first-time travelers.

Chennai Metro Rail has train services every 10 minutes during peak hours and every 15 minutes during lean hours, the information is captured in CMRL Mobile Application. The mobile app has received good reviews from public with Android rating of 4.3 out of 5.

In addition to this, CMRL has also received Smart Infrastructure Innovation Award 2017 by INDIAN EXPRESS for the CMRL Mobile Application in Android and iOS recently.



## Chennai Metro Rail Project - Completion of longest continuous tunnel drive in Phase 1 - break-through of first TBM in the stretch between Government Estate and AG-DMS

On 17<sup>th</sup> October 2017, S-703 Herrenknecht Tunnel Boring Machine completed its longest drive from Government Estate to AG-DMS in a section of 3.7 km since its break-in at Government Estate station. This is the longest section of continuous tunnel drive section as part of Phase 1 since drive-through concept is adopted wherein the Tunnels pass through the stations before the base level excavation takes place. This is the one of the last two Tunnel Boring Machines operational in Phase 1 underground section. With this TBM breakthrough, the complete tunnel in downline is available from Saidapet up to Washermenpet.



Originally, the works of the stretch from May Day Park to AG-DMS was entrusted to M/s.Gammon-Mosmetrostroy JV\*. On 1<sup>st</sup> May 2015, the tunneling partner of the JV, M/s.Mosmetrostroy absconded from Chennai leaving the project sites desolate. The tunnels had been abandoned with around 50 per cent drive balance to be completed. With the project time lines in jeopardy, CMRL had to terminate the contract with the JV on account of contractual breach. The sites were taken over by CMRL on 13<sup>th</sup> July 2015 after the termination of the contract with the JV\*.



The works of balance works of tunneling was awarded to M/s.Afcons Infrastructure Limited and works commenced on 20<sup>th</sup> May 2016. Since the award of the contract, M/s.Afcons have installed around 1358 tunnel lining segments casted by M/s.INMA International Limited utilizing the state-of-the-art carousel system installed at Muttukadu casting yard facility, which is an automated system for casting of segments specially mobilized for the project by M/s.Gammon-Mosmetrostroy JV.

The tunnel boring machine completed its drive across the LIC station, Thousand Lights station, beneath the busiest arterial road of Anna Salai and beneath the Gemini Fly over while crossing several buildings along the route. During the drive since its launch, the Herrenknecht TBM has traveled beneath the busy Anna Salai with active traffic till date and also beneath five pedestrian subways.

The cutter head had last been exposed for refurbishment in the temporary shaft constructed at Thousand Lights for intervention considering the mixed face geology determined from geo-technical reports. The second TBM is also following closely and shall be ready for break-through after completing the balance length of around 450m of tunnel drive. Also six out of 11 cross passages have been completed and the works are on-going in the balance 5 cross passages.

From here onward, the works to get the TBM out, cover up the shaft, complete balance cross passage works, clean up the tunnel and handover to the interfacing station contractor ie., M/s.L&T who will complete the works of stations, complete architectural detailing, and allow for laying track, installation of all critical electrical-signalling-telecommunication systems for proceeding to conduct trials, obtain necessary approvals and commence commercial operations.



## Major milestone in Phase 1 Extension underground tunneling works achieved with break-through of both the TBM's.

31<sup>st</sup> Oct 2017, marked the completion of the second tunnel drive between Washermanpet to Korukupet in the cut-and-cover retrieval shaft at Korukupet Metro Station. This is a major milestone for CMRL Project as it is one of the highest average rates achieved by TBMs operated in Chennai till date.

The extension of Corridor – I will have 8 new metro stations and a Depot at Wimco Nagar. The 8 stations are Sir Theagaraya College, Korukkupet, Tondiarpet, Tollgate, Thangal, Gowri Ashram, Tiruvottiyur and Wimco Nagar.

The total cost of the project is Rs. 3770 Crores. Construction works are in full swing. On completion of the Phase 1 Extension, a total of 1,60,000 passengers are expected to travel per day.



During the drive since its launch at Washermanpet, the Herrenknecht TBM has travelled beneath the Railway tracks at Washermanpet with active rail traffic till date in addition to crossing under 480 buildings of mixed developments and 310 numbers of wells/borewells of which 10 were open wells. The TBM was driven through the Theagaraya Underground station box of Phase 1 Extension of the Chennai Metro Rail Project. Intensive instrumentation and monitoring was undertaken by the contractor during the tunnel progress to maintain the structural integrity of existing buildings.

It is a major milestone in the tunneling works with the TBM progressing at an average rate of around 11m per day including interventions from the day it was launched at Washermanpet in April this year. This is significant since it is one of the highest average rates achieved by TBMs operated in Chennai till date. The precast tunnel lining segments required for the TBM drive had been casted at the state-of-the-art casting yard facility installed at Parivakkam for this purpose.

The Phase-1 Extension will seamlessly integrate with the Phase 1 Corridor 1 thereby introducing direct connectivity from Wimco Nagar to Chennai Air Port once all the works in elevated and the underground portions of the Phase 1 Extension corridor are completed.



## High Water Utilization factor



Special emphasis has been made to install and use water efficient fixtures at all CMRL metro stations. Through these efficient fixtures, CMRL is able to reduce its water consumption by 41.5%.

The Chennai Metro Rail Project has implemented station rain water harvesting scheme to capture and utilize run-off volumes from roof and non-roof areas. Independent Audits by **Indian Green Building Council** have proved that CMRL is able to harvest more than 75% of rain water run-off from roof & non-roof areas.

An Effluent Treatment Plant is also used for recycling of water at Train Maintenance depot.

## BI-CYCLES - FREE OF CHARGE AT CMRL FOR LAST MILE CONNECTIVITY

As part of providing last mile connectivity, Bi-cycles have been provided to passengers who can avail it free of charge as part of promotion of Eco-friendly transport for movement of passengers in vicinity of metro station which not only reduces the usage of private transport and is also economical for the users.

The facility is at present available in Ekkattuthangal, Nehru Park, Thirumangalam and Anna Nagar Tower metro stations.

- ✧ The bi-cycle can be availed free of charge for passengers on refundable security deposit of Rs.3000/-.
- ✧ A bi-cycle pass will be issued by the Station Controller.
- ✧ The passenger has to submit id proof like Aadhar card, Driving licence or any other government ID.
- ✧ A receipt will be issued for the deposit amount.
- ✧ The passenger can park the bi-cycle at any Metro station and no parking charges will be levied.
- ✧ The passenger can keep the bi-cycle in the night if they wish so.
- ✧ If the passenger does not want to avail the bi-cycle service, the passenger can handover the bi-cycle to the Parking security and can take refund of the security deposit.
- ✧ Bi-cycle should be returned in proper working condition as it is taken by the passenger.

- ✧ In case of Loss/theft of bi-cycle an amount of Rs.5000/ will be levied.

Apart from this, M/s. Athi's bi-cycle club in tie up with CMRL, is offering 100 hours free bi-cycle usage per month from Nehru park, Shenoy Nagar and Vadapalani. This is a SMS based Bi-cycle Scheme.

To hire a bi-cycle SMS rake-code<space>bicycle-ID to 9645511155.

To Know more about the club SMS abc to 9645511155 [www.abcpbs.in](http://www.abcpbs.in) 9744011777



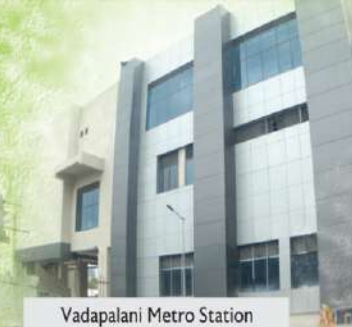
## “PLATINUM” rating by Indian Green Building Council.

The Indian Green Building Council (IGBC) has launched IGBC Green Mass Rapid Transit System (MRTS) rating to encourage green concepts in the design, construction & operation of all new Rail based MRTS projects. The rating system helps to address National priorities like conserving natural resources, demand side energy & water efficiency, adoption of renewable energy, management of waste and commuter health & comfort.

In January-2017, CMRL achieved a unique distinction of getting “PLATINUM” rating by Indian Green Building Council for designing metro stations in an environmental friendly manner with minimal energy foot print.

All the 13 Elevated metro Stations in the **Phase I of the Chennai Metro Rail Project in Corridor 1 & Corridor 2** namely '**Koyambedu, CMBT, Arumbakkam, Vadapalani, Ashoknagar, Ekkattuthangal, Alandur, Little Mount, Guindy, Nanganallur, Meenambakkam, Airport, St Thomas Mount**'. and 4 underground metro stations namely **Thirumangalam, Anna Nagar Tower, Anna Nagar East, Shenoy Nagar** have received “PLATINUM” rating by Indian Green Building Council.

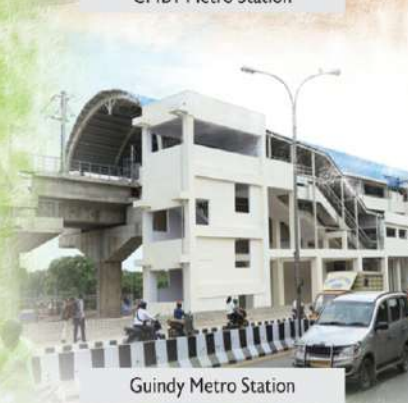
Ratings for Pachaiyappa's College, Kilpauk, and Nehru Park Metro Stations are in underway.



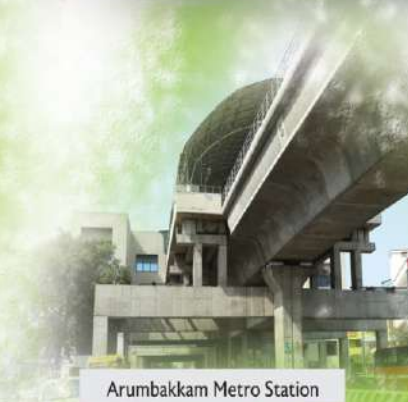
Vadapalani Metro Station



CMBT Metro Station



Guindy Metro Station



Arumbakkam Metro Station



Alandur Metro Station



Thirumangalam Metro Station



Anna Nagar Tower Metro Station



Little Mount Metro Station

Koyambedu Metro Station

Anna Nagar East Metro Station

Shenoy Nagar Metro Station



## Metro Poems

Prakriti Foundation with Bonjour India conducted a poetry reading and illustration session on 21st Nov 2017 where poems from the book, Metro Lands will be read in the Chennai Metro Train from Ashok Nagar to Shenoy Nagar at 4 pm along with illustrations done at the station, followed by a session at Alliance Francaise of Madras



## CMRL Activities

### Welcome to CMRL Family

1. Thiru Anand Kumar . S - Architect
2. Thiru Veerapan . V - Consultant (LA)
3. Thiru Sooriya Prabha . P - Dy. Collector (LA)
4. Thiru Shanmugam . K - SE(Electrical)

### Awards and Rewards

S.No.	Name	Designation	Awarded towards
1	Madhusudhanan.B	Technician (Electrical)	Crowd management with dedication and devotion to duty
2	Prem Kumar A	Station Controller	
3	Harihara Sudan J	Station Controller	
4	Prithivrajan K	Station Controller	
5	Kumar M	Train Operator	
6	Balaji C	Station Controller	Exploring renewable resources - zero cost water management technique
7	Ramesh S	JE (Mechanical)	
8	Meena M.	JE (Electrical)	
9	Balakumar.V	JE (Electrical)	
10	Purusothaman	Technician (Electrical)	
11	Saravanan.N	Manager (AC)	Vital role played in running train services during faulty condition
12	Preethy A	Train Operator	
13	Loganathan R	Station Controller	
14	Syed Ibrahim A	Traffic Controller	
15	Naganandhini C	Traffic Controller	
16	Muthukumar U	Traffic Controller	
17	Govindasamy T	Traffic Controller	
18	Rajesh J	Depot Controller	
19	Thiyagaraj P	Technician (Electrical)	Devotion to duty in identification of failed insulator for timely rectification
20	Sugumar A	Station Controller	Rolling Stock - Employee of the month-Sep'2017
21	Anburajan.M	Manager (UG-MEP)	Extraordinary contribution during the insulator failure & replacement on downline on 06.10.2017
22	Sabari B.K	DM (ET)	
23	Santhoshkumar R	Asst. Engineer (Electrical)	
24	Jeyamurugan M	JE (Electrical)	
25	Gopikrishna K	JE (Electrical)	
26	Kalaivanan G	Technician (Electrical)	
27	Prakash D	Technician (Electrical)	
28	Jegathratchagan.J.Y	JE (Electrical)	
29	Dharmaputhiran K	JE (Electrical)	
30	Aravindhana B	JE (Electrical)	
31	Balaji.R	JE (Electrical)	
32	Mahalakshmi K	JE (Electrical)	
33	Kavitha	Technician (Electrical)	
34	Partheeban.S	Technician (Electrical)	
35	Vijayakumar M	Technician (Electrical)	
36	John Peter	Technician (Electrical)	
37	Ananda Jothi R	Technician (Electrical)	
38	Ganesh R	JE (Electrical)	Certificate issued by JGM (RSO) - Very Efficient and Effective manner from May-2017 to Oct-2017
39	Sri Siva Sakthi M	JE (Electrical)	Certificate issued by JGM (RSO) - Very Efficient and Effective manner from May-2017 to Oct-2017

### Post your picture



**Thiru Abhishek Iyer**

**Location : Alandur**



**Thiru Naveen**

**Location : CMRL Viaduct**



**Editor**

**Thiru S. Pandiyan, JD/PRO**

**Sub-Editor**

**Selvi. Shruti Shambavi. R, AM (PR)**

**Published by :**

**Chennai Metro Rail Limited**

**The Editor,**

**Chennai Metro Rail Limited,  
"Administration Building",  
CMRL Depot, Poonamallee High Road,  
Koyambedu, Chennai - 600 107.**



## Urban Mobility India Exhibition 2017

CMRL was one of the Lead Sponsors at the 10th Annual Conference-cum-Exhibition and CODATU XVII conference on Urban Mobility at Hyderabad from 4<sup>th</sup> to 6<sup>th</sup> November 2017.

The theme of this year's Conference-cum-Exhibition was Intelligent, Inclusive & Sustainable Mobility.

CMRL had placed a pavilion at the Urban Mobility Exhibition and had been placed third in the Best exhibitor category for the year 2017.

This year, CMRL featured the newly launched Shuttle services at Airport Metro Station and Vadapalani Metro Station. In addition, As part of providing Last mile connectivity schemes, the SMS based bi-cycle schemes were also featured.

As part of encouraging Green Energy, CMRL featured 1 Megawatt Solar Panels placed at Depot and CMRL Car shed at Admin Building and Miyawaki Technique- a man made forest created in Admin Building was featured in the exhibition



Post  
your picture



Thiru Saleha Mohammed  
Location: Ashok Nagar Viaduct

Thiru Rameez Raja M  
Location: CMBT Metro Station

