



**ITA TUNNELLING  
AWARDS 2017**

**MAJOR  
PROJECT OF THE YEAR**  
- MORE THAN €500 MILLION -

# Delhi Metro Rail Corporation Phase-III Expansion of Network

S.A.Verma, General Manager, DMRC





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# Stakeholders

**Project Owner :** **Delhi Metro Rail Corporation Ltd.**

**Principal Stakeholders:** **Government of India**  
**Government of Delhi**  
**Japan International Cooperation Agency**

**Contractor :** **L&T- SUCG JV, HCC-SAMSUNG JV, HCC,  
CEC-CICI JV, JKumar-CRTG JV, Pratibha-  
FEMC JV, ITD-ITD CEM JV**

**Designer :** **AYESA, IRCON, SYSTRA**





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# DMRC Phase-III Underground Network











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## Delhi MRTS Phase III

- **Total Length: 160 km**
- **No. of Stations: 109**
- **Completion cost of Project: € 5.2 Billion**





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# **Delhi MRTS Phase III**

## **Details of Underground Construction**

- **Underground tunnels: 106 Kms. Single tube**
- **No. of Underground Station: 35**
- **No. of TBM used in Phase III: 34 TBMs**
- **76 launching and retrieval of TBMs**







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# Major challenges Faced In Delhi MRTS Phase III

1. Construction of underground INA station above existing operational tunnels of Line-2
2. Reduction in length of Ashram station
3. Construction of Hauz khas station
4. Crossing of Line-8 tunnels below operational line-2 tunnels near Hauz Khas
5. Tunneling work below existing elevated Janakpuri West station
6. Tunneling in between Delhi Gate and Jama Masjid stations
7. Construction of Cross Passages between South Extension and Lajpat Nagar Stations.





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# Short film on challenges in constructing underground network

[DMRC Phase-III Expansion of network.mp4](#)







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## **Benefits of Phase-III**

- **Ridership on Project Completion: 2.3 million**
- **Vehicles taken off road: 1,15,561 daily (2018)**
- **Vehicular emission reduction: 233,414 tonnes**
- **Annual social benefits: € 527.15 Million**







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## **Additional Benefits of Phase-III**

- **No. of interconnections will lead in time saving for commuters.**
- **Reduction in vehicle density on road will lead to:**
  - ❖ **Reduction in accidents**
  - ❖ **Reduced fuel consumption**
  - ❖ **Reduced vehicle operating costs**
  - ❖ **Increase in the average speed of road vehicles**
- **Improvement in the quality of life.**
- **Boost investment and growth.**







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Thank you!

  
**DELHI METRO**  
मैरा मेट्रो

