



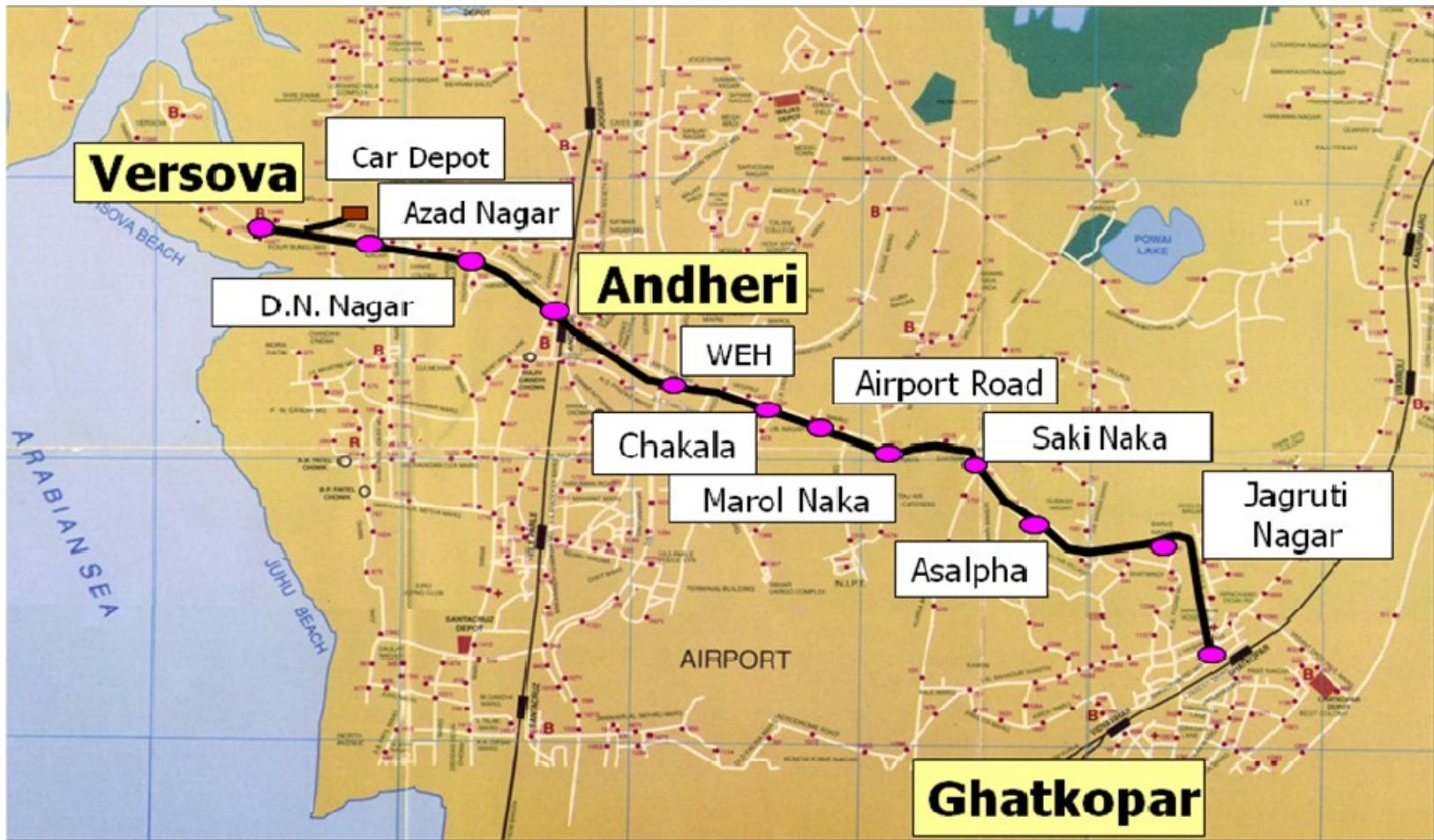
Mumbai Metro Rail Project



S V R SRINIVAS MD
MUMBAI METRO RAIL CORPORATION



Versova-Andheri-Ghatkopar Metro Corridor





Versova-Andheri-Ghatkopar Metro Corridor



Salient Features

- ↘ Length of the route : 11.40 km (Elevated)
- ↘ Gauge (standard) : 1.435m
- ↘ Car Depot location / Area : D. N. Nagar
- ↘ No. of stations : 12 (Elevated)
- ↘ Minimum ground clearance : 5.5 m
- ↘ Maximum Gradient : 4.0 %
- ↘ Minimum Curvature : 110 m
- ↘ Width of Coach : 3.20 m



Versova-Andheri-Ghatkopar Metro Corridor Present Status:



The up to date progress report of civil work is as follows.

Sr.No	Particulars	Scope of Work	Completed	Percentage
1	Viaduct Piles	1673	1673	100 %
2	Viaduct Pile Caps + Rafts	460	460	100 %
3	Viaduct Pier/Portals	460	458	99.57 %
4	Viaduct Pier Cap (Casting)	461	452	98.05 %
5	Viaduct Pier Cap (Erection)	461	452	98.05 %
6	U Girder Casting	806	777	96.40 %
7	U Girder Erection	806	737	91.44 %
8	Station Piles	1064	1005	94.45%
9	Station Pile Caps + Rafts	324	297	91.67 %
10	Station Columns	454	417	91.85%



Versova-Andheri-Ghatkopar Metro Corridor Financial Progress:



Sr.no.	Description	Amount (Rs.in Crore)
A	Total Project Cost	2356
1	Total VGF	650
2	Total debt component	1194
3	Total Equity	512
B	Equity by SPV	512
1	MMRDA equity (26%)	133
2	Reliance (69%)	354
3	Veolia (5%)	25
	Equity spent till date	512 (100%)
C	Viability Gap Fund (VGF)	650
1	Contribution by Govt. of India (ACA)	471
2	Contribution by Govt. of Maharashtra/MMRDA	179
3	Amount released so far by GOI	310.5
4	Amount released so far by MMRDA	194.55
		505.05
	Total VGF released including Govt. Of India's contribution of Rs.310.5 (i.e. 235.50 +75)	
D	Total Debt Component	1194
1	Total debt released by Lender	847.5
2	Expenditure against debt released by Lender	847.5
E	Finacial expenditure till April 2012	1907.32 (81% of Project Cost)



List of communications to Railway Board (through MoUD) for submission of Design documentation



MUMBAI METRO ONE PVT. LTD.

Date: 26.06.2012

S.No	Document Sent to Railway Board	Letter Number	Letter Date	Status
1	1. Schedule of Dimensions 2. Concession Agreement	Forwarded by MoUD through letter No. K-14011/21/2003	8/26/2011	No comments received.
2	Rolling Stock Documentation	Forwarded by MoUD through letter No. K-14011/46/2011	9/13/2011	No comments received.
3	Design Documents for 25kV OHE	MMOPL Letter No. MMOPL/App/2011/5	2/20/2011	No comments received.
4	Schedule of Dimensions Rev A	MMOPL Letter No. MMOPL/App/2011/6	2/20/2011	Comments received on 20th June 2012 through Railway Board's letter dated 1st June, 2012. Response to the same being sent by 30th June 2012
5	Track Work Design documents and Design and Compliance Statement for Metro Track Standard issued by Ministry of Railways	MMOPL Letter No. MMOPL/App/2011/11	6/1/2012	No comments received.
6	Additional Documents for Rolling Stock Design and request for issuance of Provisional Speed Certificate	MMOPL Letter No. MMOPL/App/2011/12	6/18/2012	No comments received.



Versova-Andheri-Ghatkopar Metro Corridor Issues :



- 1. Faster review & approval by RDSO**
- 2. Single Window Clearance**
- 3. Delink standardization of General Rules & Rules for Opening for line-1**
- 4. Immediate Amendments to Central Metro Acts.**



Versova-Andheri-Ghatkopar Metro Corridor





Critical Issues



- Amendments to the Metro Railways Act (Amendment) 2009.
- Procedure/Mechanism for time bound approvals
- Empanelment of independent International Certification Agencies.
- Ensuring consistency among the Acts and rules.
- Separate commissionerate for Metro Rail Safety / Panel of commissioners
- Creation of separate Metro Rail Regulatory Authority.



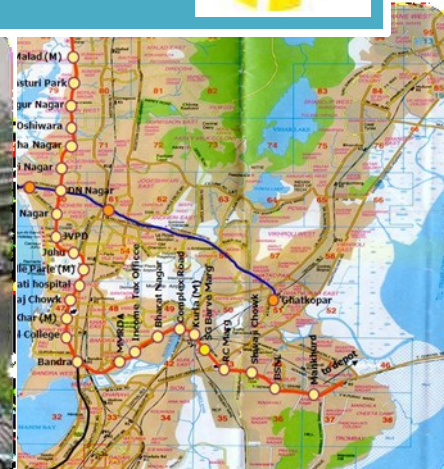
Commissionerate for Metro Rail Safety



- Metro Systems are being implemented in many cities across the country.
- Metros are being planned and likely to expand in future
- Hence the need for exclusive commissionerate for metro rail safety
- To nominate group of safety commissioners so that appropriate State Governments may appoint for their projects.



Line 2 : Charkop-Bandra-Mankhurd Metro Corridor



Metro line 2

Project Outline

Total Length : 31.871 km

Implementation period : 2011-16

Number of stations : 27 (Elevated)

Year	2016	2021	2031
PHPDT	24,700	30,460	35,840

**Estimated Cost : Rs. 8,250Cr
(US\$ 1830 Million)**

Project BOT /PPP format

Bhoomi Poojan by Hon'ble President of India -18th August 2009

Concession agreement signed on 21st January ,2010

Financial closure by Concessionaire on 14th March, 2011

Total project cost	Rs. 8250 Cr. (US\$ 1830 Million)
Viability Gap Fund (VGF) demanded by Bidder	Rs. 2298 Cr. (US\$ 510 Million)
MMRDA Contribution	Rs. 766 Cr (US\$ 170 Million)
R&R & utility shifting	Rs. 382 Cr. (US\$ 85 Million)
Land Acquisition	Rs. 665 Cr. (US\$ 147 Million)
* Govt. Of India VGF support	Rs. 1532 Cr (US\$ 340 Million)



Line 3 : Colaba-Bandra-SEEPZ Metro Corridor



- Length (fully u/g) : 33.50 km
- (Under ground)
- No. of Stations : 27
- Project cost (Rs cr) : 24,430
- Implementation : 2013-19

Ridership

Year	Daily	PHPDT
2016	10.6 lakhs	25,700
2021	13.9 lakhs	39,000
2031	17.0 lakhs	42,000

- Status:
- Project included in JICA Rolling Plan
- MoUD Appraisal mtg held on 27/2/12
- Pre PIB mtg scheduled for 4/7/12

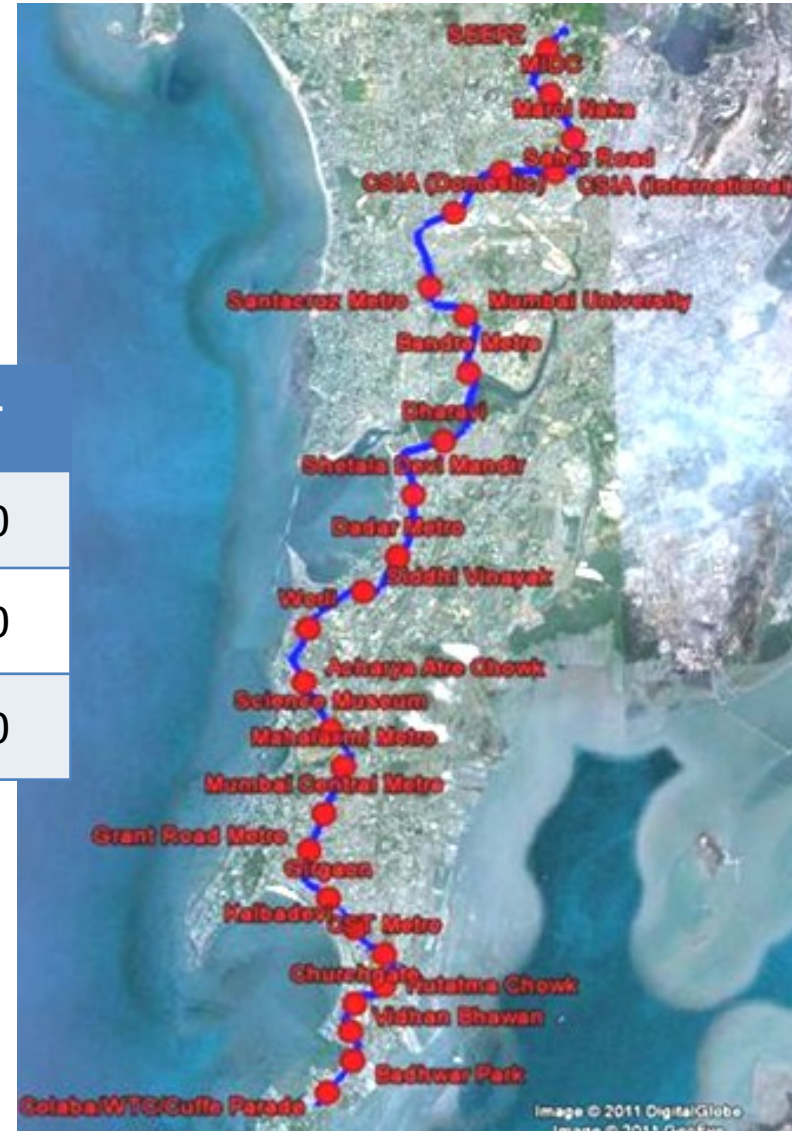


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WAY FORWARD



- Immediate consultation with MRAs for amendments to Central Metro Acts.
- Decide the timelines and notify the amendments within 2 to 3 months.
- Define/streamline procedure for approvals for RDSO for ongoing Metro Projects.
- Initiate the process for empanelment of International Independent Safety Engineers.
- Initiate process for commissionerate of Metro safety.

Thank You