MOST IMMEDIATE

F.No.14011/22/2013-MRTS/Coord
Government of India
Ministry of Urban Development
(MRTS Cell)

311-B, Nirman Bhawan,
New Delhi, the 15th May, 2014.

OFFICE MEMORANDUM

Subject: Record Note of Discussions held during One day National level Workshop on Monorail and Transit Hubs held on 22.3.2014 at Mumbai.

The undersigned is directed to forward herewith a copy of the Record Note of Discussions on the above mentioned subject for information and necessary action.

Encl. as above.

[Signature]
15/5/14

(Deen Dayal)
Under Secretary to the Govt. of India
Telefax: 2306 2935

To

1. All the participants.
2. Chief Secretaries of State Governments
3. Principal Secretary (UD) & Town Planning of State Governments
4. Principal Secretary (Transport) of State Governments
5. Regional Planning Development Authority of State Governments
6. Municipal Commissioners (Million Plus cities)
7. Managing Director of Metro Rail Corporations.

Copy to:-

1. PS to UDM
2. PS to MoS (UD)
3. PSO to Secretary (UD)
4. JS (UT) / OSD (UT) & E.O. JS / Director (UT-I) / Director (MRTS-I) / Director (MRTS-II)
5. Sr. Technical Director, NIC, Nirman Bhawan for uploading on the website of MoUD.

[Signature]
15/5/14

(Deen Dayal)
Under Secretary to the Govt. of India
Record Note of Discussions held during One day National level Workshop on Monorail and Transit Hubs held on 22.3.2014 at Mumbai.

List of participants is at Annexure.

2. A National level one day Workshop was organized by Ministry of Urban Development (MoUD) and Mumbai Metropolitan Region Development Authority (MMRDA), Mumbai on 22nd March, 2014 at Mumbai. At the outset, Shri P.R.K. Murthy, Chief, Transport & Communications Division, MMRDA welcomed Dr. Sudhir Krishna, Secretary, MoUD, Shri C.K. Khaitan, Joint Secretary, MoUD, Shri U.P. S. Madan, Metropolitan Commissioner, MMRDA, Shri Manukumar Srivastav, Pr. Secretary-1, UDD, Government of Maharashtra and other senior officers from various State Governments and other organizations to the Workshop.

3. Dr. Sudhir Krishna, Secretary, MoUD delivered the key note address and stated that there is a need for multi-modal solutions for cities, assessment of positive and negative impacts of new urban transport systems and transit oriented development. He complimented that India’s first Monorail has been introduced in Mumbai and started recently. The Monorail fits into the urban transit gap between the low capacity road transportation and very high capacity Metro and suburban systems. It also acts as feeder to Metro system for large cities and main mode for medium and small cities. He further added that in order to disseminate and exchange the information about the various aspects of Monorail and transit hubs, this workshop has been organized.

4. Shri U.P.S. Madan, Metropolitan Commissioner, MMRDA gave a presentation on Mumbai Monorail System covering the alignment, integration with other modes, salient features, benefits, suitable criteria for selection of monorail system, challenges faced during construction and during operations of Phase-1 i.e. Wadala to Chembur. He further informed delegates that the Phase-II of monorail system i.e. Wadala to Jacob Circle is under progress and once it is completed it is expected to serve 15 to 18 lakhs population. During the presentation, he mentioned that the Security cost and high per capita O&M cost needs to be addressed.

5. After that the representatives from M/s. Bombardier Transportation, India, M/s. Hitachi India Pvt. Ltd., M/s. Scomi Engineering Malaysia and M/s. ALSTOM India, gave their presentations on the mode of public transport. All of them explained the benefits of Monorail, i.e. technology adopted for the System, Safety, Reliability, Driverless operation, Communication, Evacuation Plan, etc.
6. Dr. BI Singal, DG, Institute of Urban Transport (IUT) India also made a presentation on comparative analysis on life cycle cost of various alternative public Transport Systems including bus systems, BRTS, LRT, Monorail, Metro etc. which gave an insight in making a considered Choice of System for a given city.

7. Presentations were followed by discussion by the panel consisting of Secretary, MoUD, Joint Secretary, MoUD, Principal Secretary-1, UDD, Metropolitan Commissioner and Director General, IUT.

8. During the discussions, the aspects related to Monorail systems namely, Planning, Capacity Analysis, Implementation Challenges, Operation & Maintenance, Technology to be adopted, Improvements in Design of Stations and Depot, Passenger convenience facilities like restaurants / washrooms / drinking water / etc., Standardization, Legal Framework, Regulatory Framework, Safety Certification, Institution for Safety Certification, Capacity Building, Development of local skills, Research & Development, Training, Transfer of Knowledge, Security Arrangements, Funding Pattern, Operational Model, Prospects of Monorail in other Indian cities were deliberated upon.

9. Secretary, MoUD suggested that the DPR should factor the requirements of different authorities, details of ownership of land required for the project, suggest solutions for various identified challenges and recommend reasonable time period for implementation considering the various challenges involved.

10. Secretary, MoUD said that with respect to selection of suitable system, there could be a Committee by MoUD to look into guidelines for system selection criteria and educate the State Governments so that decision making for appropriate system by concerned State agencies is facilitated.

11. Since the clearance from RDSO for metros is time consuming Secretary, MoUD suggested that manufacturers can initiate dialogue with RDSO and also indicate the issues from their point of view which can be taken up subsequently.

12. The Metropolitan Commissioner expressed concern about the Security mechanism and resulting cash flow burden on Project Implementing Authorities.

13. After detailed deliberations, following decisions were taken:-

   (i) All the presentations may be placed on the website of all the concerned organizations including contact person details. The presentations should be updated from time to time.

   (ii) In respect of Security concerns, a separate Transport Police as a part of State Police with complete responsibility to handle security of Mass Transit Systems including Metro and Mono Rails should be taken up, for which the funding will be shared by the concerned State Government and Central Government.
(iii) The Feasibility Study should also include Passenger convenience facilities like drinking water, restaurants, washrooms, etc.

(iv) The model of PPP should be discussed in another Workshop.

(v) Another Workshop on the Monorail should be conducted with public representatives.

14 After the Workshop, the delegates were taken for Mumbai Monorail ride from Wadala Depot Station to Chembur Station. Further the delegates were also taken on a technical tour of Terminal-2 (T2) of Chhatrapati Shivaji International Airport.

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List of participants of one day Workshop on Monorail held on March 22, 2014 at Mumbai.

Ministry of Urban Development

1. Dr. Sudhir Krishna, Secretary
2. Shri C.K. Khaitan, Joint Secretary
3. Shri Deen Dayal, Under Secretary (MRTS-Cord)

Government of Maharashtra

4. Shri Manu Kumar Srivastava, Principal Secretary-I
5. Shri Shree Kanth Singh, Principal Secretary-II
6. Dr. S.K. Sharma, Principal Secretary (Transport)
7. Mrs. K. Vijayalakshmi, Addl. Chief, UMMA
8. Shri M. Kharat, Executive Engineer
9. Shri Sandip Raghunath Patil, Pune Municipal Corporation
10. Shri Vinay Kumar, Spl. Director General (WR), CPWD
11. Er. Ram Sajwan Verma, Executive Engineer, CPWD Mumbai

Mumbai Metropolitan Regional Development Authority (MMRDA)

12. Shri U.P.S. Madan, Metropolitan Commissioner (Tel: 022-26594001)
13. Shri P.R.K. Murthy, Chief, Transport & Communication

Government of Assam

14. Shri V.B. Pyaraelal, Addl. Chief Secretary (UD) (Mob:9401017865)
15. Dr. M. Angamuthu, CEO, Guwahati Met. Dev. Authority (Mob:9435037631)
16. Shri Mukul Chandra Gogoi, Jt. Secretary, Guwahati Dev.
    Deptt.(Mob:9811990531)

Government of Meghalaya

17. Shri W. Nongsiej, MD, Meghalaya Transport Corpn. (Mob: 9436310004)

Government of Rajasthan

18. Shri D.B. Gupta, Principal Secretary (UD) (Mob: 9928944425)
19. Shri Anoop Bhartaria, Architect Consultant (Mob: 9829055126)

Government of Tamil Nadu

20. Shri Braj Kishore Prasad, Principal Secretary (Transport) (Tel: 044-25671475)
Government of Gujarat

21. Shri A.M. Trivedi, Deputy Secretary (Transport) (Mob: 9998942204)
22. Shri Nitish Parmar
23. Shri Neeraj Kumar Singh (Mob: 9974092309)

Government of Madhya Pradesh

24. Shri Sanjay Kumar Shukla, Commissioner (UA&D)
25. Shri Rohith Gupta
26. Shri Vishesh Garapale, Commissioner, Bhopal Municipal Corporation
27. Shri Sandeep Soni, Chief Executive Officer, AICTSL, Indore

Greater Noida Industrial Development Authority

28. Shri Sushil Chandra Dwivedi, General Manager (Project)

Delhi Metro Rail Corporation Limited

29. Shri Som Dutt Sharma, Director (Business Development) (Mob: 9810598117)
30. Shri S.K. Gupta, Executive Director (Tender) (Mob: 9810598123)
31. Shri Dilip Kumar Sinha, Chief (CSTE) (Mob: 9810998400)

Kolkata Metro Rail Corporation Limited

32. Shri Biswanath Dewanjee, Chief Engineer (Civil) (Mob: 9051399329)
33. Shri Sandeep Kumar, Chief (Electrical Engg.) (Mob: 9051399336)

Chennai Metro Rail Limited

34. Shri N.K. Kumar, Chief General Manager (PF)
35. Shri L. Narasim Prasad, Director (System & Operation) (Mob: 9445868296)
36. Shri Keerthi Kumar Challa, Manager, Asset Management (Mob: 9445858232)

Jaipur Metro Rail Corporation Limited

37. Shri N.C. Goel, Chairman & Managing Director (Mob: 7568112244)
38. Shri Vijay Gupta, Executive Director (Civil) (Mob: 9667556706)

Hyderabad Metro Rail Limited

39. Shri Md. Ziauddin, Chief General Manager & CE (Mob: 9704567437)
40. Shri B.N. Rajeshwar, General Manager (W) (Mob: 8008456866)
41. Shri D.V. Raju, Chief Electrical Engineer (Railways) (Mob: 9652224699)
42. Shri K. Laxman, Chief Signal & Telecomm. Engineer (Railways) (Mob: 8978780263)
43. Shri H.S. Ananda, Deputy Chief Electrical Engineer (Mob: 8897000452)
44. Shri D. Mallikarjun, Executive Engineer (Mob: 9908099940)
45. Shri M. Vishnu Vardhan Reddy, Executive Engineer (Mob: 9959552473)

Kochi Metro Rail Limited

46. Shri G.P. Hari, Dy. General Manager (RS)
47. Shri G. Santosh Kumar, Dy. General Manager (Civil)

IL&FS Rail

48. Shri Dilip Jadeja, Vice-President (Rolling Stock)

Bangalore Airport Rail Link Limited

49. Shri C. Jayaram, Director (Projects) (Tel: 080-22200110)

Chennai Monorail

50. Shri Anandharaj, Additional Project Director (Mob: 9944776773)
51. Shri Kannan, Deputy Director (Mob: 9444403818)
52. Shri Ilango, DRO (Tel: 044-25671475)

Mumbai Monorail

53. Shri Karthikayan Singal, Head (P&TA)

BEST Colaba Mumbai

54. Shri O.P. Gupta, General Manager (BESR)

Institute of Urban Transport

55. Shri B.I. Singal, Director General (Mob: 9811990531)

Larsen & Toubro, Mumbai

56. Shri Atul K Jain, Project Director (Mob: 9930162126)
57. Shri Ashish Gupta, Dy. General Manager (Projects)

ALSTOM India Limited

58. Mr. Mangal Dev, Director (Business Development) (Mob: 9810506313)
Hitachi India Pvt. Ltd.

59. Mr. Hitoshi Mihara, Director & Head of Rail System Company (Mob: 8527193838)

Bombardier Transportation

60. Mr. Harsh Dhingra (Tel: 011- 66497323)
61. Mr. Sushil Kumar Jaitley, Head – Systems (Mob: 9582608649)

Urban Transit Pvt. Ltd. (Scomi)

62. Mr. Roshan Stanislaus, General Manager (Operation/Monorail (Mob: 9930142963)

M/s Scomi Engineering Berhad

64. Mr. Chiak Yang Chee, Joint Project Director – Mumbai Monorail (Mob: 9930029521)
65. Mr. Peter Johan Edwards, Head of System Integration (Mob: +6012 275 7354)

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