

# Amritsar BRTS

(A Project sanctioned under JnNURM on January 21, 2014)

## Introduction

Government of Punjab through Punjab Bus Metro Society (PBMS) has taken up the task of implementation of Bus Rapid Transit System (BRTS) for the cities of Amritsar and Ludhiana. PBMS has engaged UMTC, A joint venture company of M/S IL&FS Ltd. and Ministry of Urban Development (MoUD), GoI to carry out the design, securing approvals, tendering and project management consultancy for complete implementation of BRTS in the cities of Amritsar and Ludhiana.



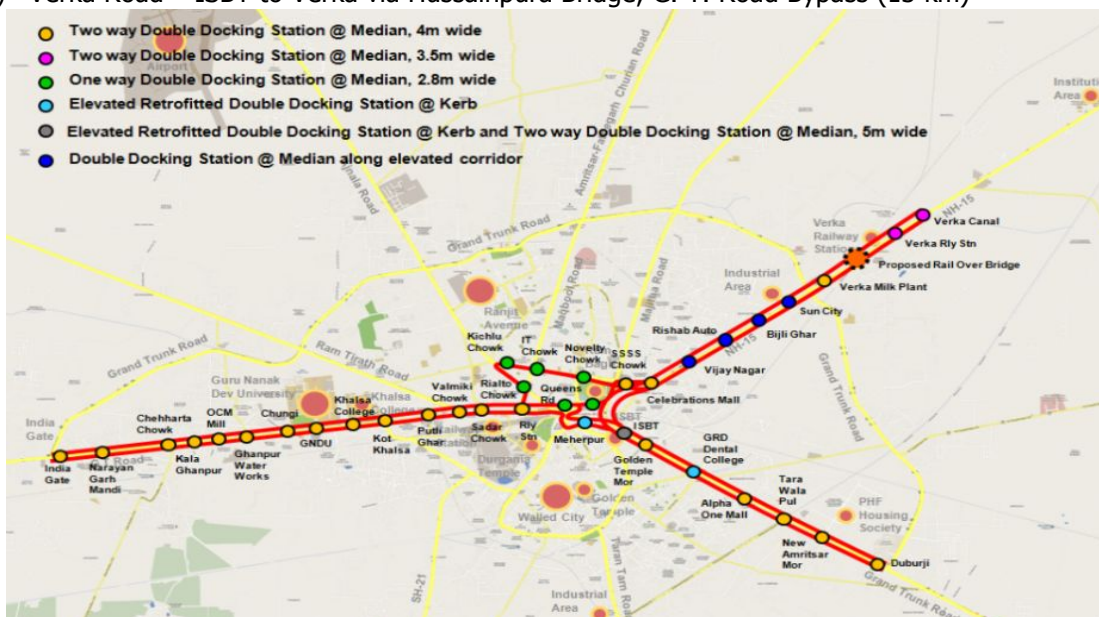
Figure 1 3D View of Amritsar BRT near Municipal corporation gate Amritsar

## Proposed BRTS Corridors

Identification of BRTS corridors in Amritsar was systematically done by taking Mass Rapid Transit (MRT) corridors identified in the CMP for Amritsar and with careful alternative analysis BRTS came out to be most suitable and sustainable solution for the city.

A 31 km of BRT corridor has been proposed in city with median side double docking stations

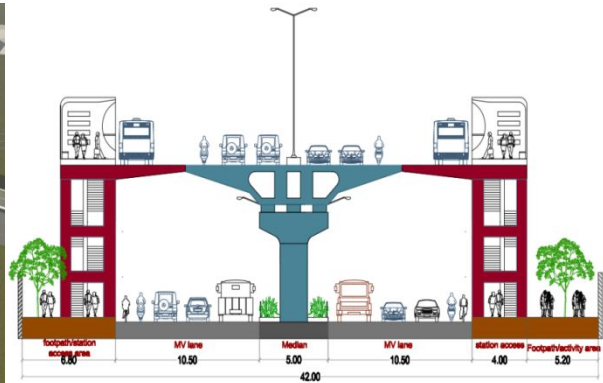
- 1) Atari Road – ISBT to India Gate via Bhandari Bridge, GNDU, Chheharta (12 km);
- 2) Jalandhar Road – ISBT to MCA Gate via Tarawalan Pul (6 km); and
- 3) Verka Road – ISBT to Verka via Hussainpura Bridge, G. T. Road Bypass (13 km)



Apart from these corridors, design interventions have been made on Bhandari Bridge, being the most critical RoB for connecting the northern part and southern part of the city. RoB over Verka Town Railway Crossing to facilitate movement of all modes of traffic is also included in this project.



**Figure 3 Improved Bhandari bridge intervention**



**Figure 2 Retrofitted station with existing Elevated station**

Existing elevated road is also part of proposed BRT corridor on which retrofitted BRT stations have been proposed

### **BRTS Operations Plan**

A three tier trunk and feeder system has been proposed with four major routes connecting whole city. Total fleet requirement for BRT is 93 buses (103 buses with 90% of vehicle utilisation) which will be running on following 4 routes with headways varying between 3.5 min to 4 min

- 1) India Gate to ISBT @ 3.5 min frequency (12 km);
- 2) India Gate to MCA gate @ 4 min frequency (17 km);
- 3) India Gate to Verka @ 4 min frequency (21 km); and
- 4) Verka to MCA gate @ 4 min frequency (16 km).

For providing the last mile connectivity in whole city facility of public bike sharing stations, feeder bus connectivity has been provided and rickshaw stands have been incorporated in design. It has been made sure that buses including other BRT infrastructure is easily accessible by the handicaps.

### **Total Project Cost**

The total cost of the project is 495.54 Crores and includes 35.43 Crores for improvement of Bhandari Bridge, 40.82 Crores for Verka RoB and 127.67 Crores for elevated BRTS corridors as major components. Cost of ITS infrastructure cost is 28.07 Crores.

| <b>Sr.no.</b> | <b>Item</b>   | <b>Cost</b> |
|---------------|---|-------------|
|               | S Development Including Roads, Drainage, Street Lighting & Street Furniture | 210.37      |
|               | Foot Over Bridge  | 3.91        |
| 3             | Bicycle Sharing Stand   | 0.16        |
| 4             | Bus Shelter   | 17.17       |
| 5             | Elevated BRT Corridor On Verka Road   | 127.67      |

|   |   |               |
|---|---|---------------|
| 6   | Retrofitted Bus Stops At Existing Elevated Road                 | 8.74          |
| 7   | Rob At Verka Railway Crossing                                   | 40.82         |
| 8   | Improvement Of Bhandari Bridge                                  | 35.43         |
| 9   | Cost Of Depot   | 7.55          |
| 10  | Cost Of ITS Infrastructure                                      | 28.07         |
| 11  | Cost Of Provision For Pedestians Crossings Along BRTS Corridors | 1.23          |
| 2   | Contingencies @ 3%  | 14.43         |
| <b>GRAND TOTAL ALL ITEMS ( Rs. In Crores)</b> |   | <b>495.54</b> |

Sharing of Funds for Amritsar BRTS project is in proportion of 50:20:30. Therefore the project fund contribution will be as follows:

After the approval from State Level Nodal Agency, DPR was submitted to MOUD on 26<sup>th</sup> October 2013.

| Source of funding                            | Sharing (%) | Sharing amount |
|--|-------------|----------------|
| GOI  | 50%         | 247.77         |
| Gov. of Punjab (Share will be borne by PBMS) | 20%         | 99.108         |
| MC Amritsar (through PBMS)                   | 30%         | 148.662        |
| <b>Total project cost (Crore)</b>            |             | <b>495.54</b>  |

Further to the comments received from MOUD (CoE-Urban Transport, CEPT, Ahmedabad- Appraisal agency) modifications were made and with revised cost of 495.54 Crore DPR was submitted to MOUD for approval. The DPR for BRTS Amritsar was hence approved in 130<sup>th</sup> CSMC meeting held on 21<sup>st</sup> January, 2014. For Funding of BRT buses, Government of India Guidelines for Bus Funding under JnNURM – II has been followed . The funding pattern has been distributed in Government of India, State Government of Punjab and Urban Local Body i.e. Municipal Corporation of Amritsar. The total cost and funding pattern of the buses is given below :

| Bus Types                     | JNNURM /GOI | State/PBMS | Amritsar Municipal Corporation (ULB) | Total (Rs Crores) |
|-------------------------------|-------------|------------|--------------------------------------|-------------------|
| Standard AC Bus 900 mm Diesel | 50%         | 20%        | 30%                                  | 100%              |
| Total in Rs. Crores           | 41.85       | 16.74      | 25.11                                | 83.70             |

The 93 buses for BRT have been also proposed to procure under JNNURM Bus funding scheme for which DPR has been approved by MOUD in the CSMC meet on 20<sup>th</sup> Feb 2014.

**Project promoter for Amritsar BRTS:**

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