

WESTERN RAILWAY

Mhow-Sanawad Gauge conversion project

Note containing details of the project

Ratlam-Akola MG line was a part of North-South MG link between Ajmer Secunderabad. The gauge conversion from MG to BG between Ajmer to Mhow has been completed and sections have been opened to traffic. The North-South link between Ajmer and Secunderabad has been broken due to termination of meter gauge at Mhow. To maintain the link, it is essential for gauge conversion of Mhow Sanawad and further up to Khandwa and Akola. Detail estimate of Sanawad-Khandwa has already sanctioned in the year 2015-16 and work has already started. Hence Mhow Sanawad is only missing link between Ajmer and Khandwa.

Mhow-Sanawad conversion will restore shorter alternative north-south link connecting Secunderabad, Chennai with Jaipur, Ajmer, Ratlam, Indore, Khandwa, Akola and other towns in North Western Rajasthan. It will also form an alternative shorter route between Indore-Mumbai. The distance between Mumbai and Indore via Mhow and Khandwa along proposed BG route will be reduced by 109 km as compared to existing BG route via Ujjain, Nagda and Ratlam.

Industrial estates at Pithampur near Indore and Mhow are developing very fast and traffic generated from these industries are being sent to Mumbai and also meant for export by road at present. After gauge conversion of Mhow Khandwa section, the traffic from the industries in and around Indore-Pithampur etc. can be conveniently move by rail. This will connect Pithampur special economic zone to Indore as well as Southern State. The broad gauge connectivity will facilitate the movement of military Personnel and equipment to and from Mhow.

Considering the above facts, Ministry of Railways has sanctioned the work of Gauge Conversion from Meter Gauge to Broad Gauge between Mhow to Khandwa.

Existing Meter Gauge alignment between Patalpani to Mukhtiara Balwara is built by achieving 307 m level difference in 34 km which is very steep. This gradient achievement is done by providing very sharp grade up to 1 in 40 (between Patalpani to Kalakund). Alignment mostly passes along the river at edge of hills and very sharp curvatures are provided. This section is having 58 curves in 37 km and maximum degree of curve is 9.40 degree. Hence Patalpani to Mukhtiara Balwara is very complicated section with very steep grade and sharp curvatures leading to restricted sectional speed. Detail of sectional speed of existing Meter Gauge line is as follows:-

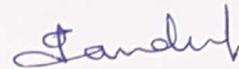
Block section	Km	Maximum permissible speedKMPH)
Mhow-Patalpani	Km 514.20-Km 519.71	55
Patalpani-Kalakund	Km 519.71-Km 529.23	30/20
Kalakund-Mukhtiara Balwada	Km 529.23-Km 543.00	55
	Km 543.00-Km 551.89	30

Proposed BG section will be designed for 100 km design speed with 1 in 100 ruling gradient and maximum 2.75 degree curvature.

Hence, it is planned to detour Patalpani to Mukhtiara Balwara section of existing alignment for proposed BG line so that curves can be smoothed and grade can be flattened.

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The proposed diversion between existing Patalpani and Mukthiara Balwada railway stations (MG) is unavoidable. The proposed diverted alignment has been finalized with due consideration to the aspect that the alignment should involve minimum forest land.



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