

No. NH-15017/ 28/ 2018 - P&M
Government of India
Ministry of Road Transport & Highways
(Planning Zone)
Transport Bhawan, 1, Parliament Street, New Delhi - 110001

302.25^{1,2}

Dated, the 23rd March 2018

To

1. The Chief Secretaries of all the State Governments/ UTs
2. The Principal Secretaries/ Secretaries of all States/ UTs Public Works Department dealing with National Highways, other centrally sponsored schemes.
3. All Engineers-in-Chief and Chief Engineers of Public Works Department of States/ UTs dealing with National Highways, other centrally sponsored schemes.
4. The Chairman, National Highways Authority of India, G-5 & 6, Sector-10, Dwarka, New Delhi-110 075.
5. The Managing Director, NHIDCL, PTI Building, New Delhi-110001
6. The DG (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi- 110 010.

Subject: Standards for Lane width of National Highways and roads developed under Central Sector Schemes in Hilly and Mountainous terrains - Reg.

Sir,

On the subject of "Capacity building and lane width of National Highways", it has been stipulated vide this Ministry's letter No. NH-14019/6/2012-P&M dated 05.10.2012 that width of carriageway shall be at least two lane with paved shoulders irrespective of the traffic thereon in new projects undertaken for widening of carriageway/ bypasses/ realignments.

2. However, challenges have come to the fore in adhering to these standards in the context of National Highways and roads in hilly and mountainous terrains. These challenges arise on account of destabilization of hill slopes and progressive damaging effects on road alignments and structures in higher contours on hills due to excavation works, requirement for large-scale felling of precious trees, associated environmental damages. Resultantly, there arises need to provide largescale protection works, acquisition of additional land for Right of Way (ROW), etc.

3. It is pertinent to mention in this context that the Ministry has been laying emphasis on improvement of road connectivity for the hilly and mountainous regions, backward and tribal areas, and tourist destinations. Design traffic volumes in most of the roads connecting such destinations are invariably less than about 5,000 PCUs/ day or so. Considering the requirement to enhance road network in the hilly and mountainous regions in a time bound manner, development of connectivity to various destinations in such regions without compromising required road safety standards has to be accorded priority over development of facilities enabling high speed mobility of traffic.

4. The provisions of Ministry's letter No. NH-14019/6/2012-P&M dated 05.10.2012, have, accordingly, been reviewed and it has been decided with the approval of the Competent Authority that the following provisions shall be applicable henceforth for National Highways and roads under Central Sector Schemes in hilly and mountainous terrains until further orders:

1-Amended vide circular dated 15.12.2020

2-Amendment of circular dated 05.10.2012

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- 4.1 The design speed of the roads shall be as per the extant policies (viz. as per IRC: 73 - 1980 (Geometric Design Standards for rural (Non-Urban) Highways). Although, the geometric design standards need to comply with the broad requirements stipulated as per these standards, difficulties may arise in certain site-specific situations to ensure their strict adherence. Necessary speed restriction signs shall be erected at appropriate locations in such situations e.g. for stretches having inadequate available sight distances or at deficient curves/ hair-pin bends, etc. as per site specific requirements.
- 4.2 Adequate provisions for road signage and markings etc. shall be made in the road sections as per the extant policies viz. IRC: 67-2012 (Code of Practice for Road signs), IRC: 35 2015 (Code of Practice for Road markings). Provisions for crash barriers shall also be made as per extant policies, especially at vulnerable locations.
- 4.3 The additional land for the required ROW should preferably be acquired on one side rather than on both sides of the existing road unless dictated by road-geometrics requirements.
- 4.4 Following specific provisions shall be made for traffic volumes ranging from 3,000 PCUs/ day to about 8,000/ day: -
- (i) The carriageway width shall be of intermediate lane configurations, i.e. of 5.5 m width (18 ft), with two-lane structures (23 ft.).
 - (ii) The passing places may have widths of 2.5 m and 12 m length and these may be provided on alternate sides of the road. The length of the tapered section may be 6 m on either side of their approaches. Accordingly, the length of the passing places may be 24 m inclusive of the tapered length.
 - (iii) As far as possible, efforts shall be made to provide passing places at locations that could be inter-visible or upto a maximum distance of 500 m apart.
 - (iv) They should not be sited on the inside of a left hand curve of radius less than the appropriate value for the design speed of the road as this can lead to compromise with visibility.
 - (v) Further, the passing places/ temporary lay-bys should not be sited on the outside of a right hand curve with a radius of less than the appropriate value for the design speed of the road as this increases the risk as a fatigued driver may unintentionally enter the passing places/ temporary lay-by at high speed.
 - (vi) Also, drivers approaching a temporary lay-by along the road must be able to see vehicles entering or exiting the lay-by for a distance corresponding to the desirable Minimum Stopping Sight Distance for the design speed of the road. Informative signs shall be erected at appropriate locations for such lay-bys and further necessary markings shall also be provided.

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(vii) The Roadway width for Hilly and Mountainous Terrain as per IRC: SP-2015 (Manual of Specifications and Standards for Two laning of Highways with paved shoulder) would stand amended accordingly.

4.5 For traffic volume of more than 10,000 PCUs/ day or the existing traffic volumes likely to witness a fast growth to reach this level within a period of 3 to 5 years, the carriageway width shall be of two lane NH configurations, i.e. of 7 m width. The carriageway widths shall be of two lane NH configurations with paved shoulders only.

5. The provisions of Ministry's letter No. NH-14019/6/2012-P&M dated 05.10.2012 shall continue to be applicable in all other cases.

6. ¹[It is observed that the standards prescribed in the circular referred above does not address the issues concerning strategic roads as stipulated in clause 6.2.2 of IRC: 52-2019 (Guidelines for the Alignment Survey & Geometric Design of Hill Roads).

7. Accordingly, in partial modification of the circular cited above, the following additional guidelines are notified with immediate effect.

“For roads in hilly and mountainous terrain which act as feeder roads to the Indo-China border or are of strategic importance for notional security, the carriageway width should be 7m with 1.5m paved shoulder on either side.”]

8. It is requested that the contents of this letter may be brought to the notice of all concerned for needful compliance.

1- Amended vide circular dated 23.12.2020