

No. HNI-41 (2)/71

Dated the 26th October, 1971

To

1. Chief Engineers of all State PWDs and Union Territories (dealing with roads)
2. Engineer-in-Chief, C.P.W.D., New Delhi

Subject : Widening and strengthening of National Highways and other Centrally financed roads-Procedure to be followed as regards placing and compaction of different pavement courses over widened portions of the pavement

A large scale programme of widening and strengthening of National Highways and certain other roads under the centrally financed schemes is currently in hand. In a majority of the cases, this entails widening of the existing pavement from single-lane to two-lane width.

2. In this context a number of enquiries have emanated as to the exact manner of placing and compaction of different pavement courses in the widened portions, particularly where widening to be carried out is in narrow widths. It is clarified in this regard that commensurate with the requirement of proper consolidation of the different pavement and shoulder layers, the sequence of operations adopted for construction should generally be along the following lines :—
 - (i) The existing shoulders should be excavated to their full width upto the subgrade level, except of course where the widening specifications envisage construction of a stabilised soil sub-base using in-situ operations, in which case the same would be removed upto the sub-base level only;
 - (ii) Before proceeding with the laying of pavement courses, the shoulders should be rebuilt in layers in reduced width depending on the extent of widening, the compacted thickness of each layer corresponding to the compacted layer of the pavement course to be laid adjacent to it. After compaction, the in-side edges of shoulders should be trimmed vertical and the included area cleaned of all spilled material. The construction of the pavement layer could then follow. This procedure is suggested with a view to ensuring full lateral play of the roller for achieving the desired compaction of the different pavement courses as also the shoulder layers.
3. It is requested that the points brought out above may be kept in view while executing all widening works in future, whether on National Highways or other Centrally financed roads. As far as new works are concerned, necessary provision for carrying out the widening in the manner outlined above should be made in the estimates to be framed for submission to us. As regards works which have already been sanctioned, attempt should be made to cover the extra expenditure involved in adopting this procedure against the provision of contingencies or likely savings in the estimates and permissible limit of excess thereon.
4. It is further requested that the instructions contained in this circular letter may be given wide circulation among all officers in your organisation concerned with the works on National Highways and other roads taken up for improvement under the Centrally financed schemes.