

No. NHIII-P/15/75

Dated the 20th May, 1976

To

All State and Union Territory Governments
(Departments dealing with National Highways)

Subject : Plantation, Maintenance and cutting of Trees on National Highways

In supersession of all instructions issued *vide* circulars referred to in the Appendix, I am directed to issue the following instructions on the subject mentioned above.

2. *Plantation of Trees along National Higwhways*

2.1. *Location of trees*

Trees should be placed at a minimum distance of 10-12 metres from the centre line of the extreme traffic lane to provide recovery area for the vehicle that runs off the road. A second row of trees 6 m. further away will also be desirable and planted wherever possible. Preferably the first row of trees should consist of species with thick shade and other rows of vertical type providing thin shade. However, further road expansion programme should be kept in view while locating the trees.

2.2. *Removal and plantation of trees*

Existing trees should generally be preserved as far as possible, and no indiscriminate felling of trees should be resorted while upgrading/widening and improving the highway. Trees located on roadway or embankment slopes have proved to be potential traffic hazard to vehicles going off the carriageway and hitting against them. Therefore, wherever the trees on National Highways are either on the roadway itself or too close to it constituting safety hazard, these shall be replaced systematically by alternative plantation. The existing trees by the side of the roadway, which in the opinion of Engineer-in-Chief are serious threat to safety should be removed immediately, after obtaining the approval of competent authority (refer para 3). Other trees within 10 m of the centre line of extreme traffic lane should be removed gradually after planting alternative trees.

2.3. Wherever there is a possibility of : (i) trees dying due to old age; (ii) removal for widening and

improvement; of (iii) removal for traffic safety, alternative trees must be planted to replace them well in advance. While planting new trees care should be taken to maintain lateral clearances mentioned in para 2.1.

2.4. *Temporary trees and shrubs*

Since permanent trees will take time to grow as an immediate measure quick-growing temporary trees may be planted in between the space for permanent trees which may be removed after the permanent ones have grown up.

2.5. *Selection of species of trees*

The spacing and type of permanent and temporary trees to be planted in any locality will depend on local conditions such as rainfall, climate type of soil etc. Selection of tree-species should, therefore, be carefully done with the advice of officers from horticulture or forest department. Age and the time at which the tree is transplanted from nurseries should be decided in consultation with horticulturist as small saplings generally have a high rate of fatality and their planting should be discouraged. In addition to growing of trees, efforts should be directed for planting the flowering sub-trees and shrubs on the sides of road embankments in tune with an overall landscaping scheme prepared by landscape or horticulture experts.

2.6. *Typical arrangement*

A general scheme of roadside plantation as suggested above is illustrated in the enclosed figure. The arrangement should be regarded as merely indicative and not definitive. These recommendations are meant to be applied not only to two-lane highways but also multi-lane highways. In the case of a 4-lane divided highway, the distances for alternative rows of trees given in para 2.1 should be reckoned from the nearest unidirectional carriageway. No indiscriminate felling of trees is resorted to at the time of upgrading a two-lane road to 4-lane divided standards. As far as possible, the existing trees should be preserved by suitably locating the second carriageway within the available right-of-way by adopting a wide enough central verge.

2.7. *Set-back of trees on curves*

Experience has been that growth of thick vegetation close to the formation on inside of horizontal curve leads to serious reduction of sight distance and causes avoidable accidents with cattle/children suddenly emerging from the side. Uncontrolled trees/vegetation may also affect visibility of traffic control devices and road signs. Therefore, in plain terrain, a stopping sight distance of 170 m corresponding to the design speed of 100 Km. P.H. may be ensured on all curved sections of National Highways along the innermost lane. However where there are site restrictions this requirement may be, as a special case, reduced to 120 m corresponding the design speed of 80 Km. P.H. The existing trees and vegetation on the sides have to be suitably thinned/trimmed, or even removed if necessary and a regular programme of pruning of the offending trees should be instilled as part of the maintenance operations.

2.8. *Landscaping of bridge approaches*

Bridges constitute an important part of the National Highway and as such landscaping scheme should incorporate them also. Shrubs and flowers should be planted around such structure to beautify the place and side slopes of approaches landscaped with some grassing/flowering trees/bushes. In this connection, the requirement of drainage, stability of slopes and traffic safety should be kept in view and given over-riding consideration.

2.9. *Landscaping and gardening of traffic rotaries*

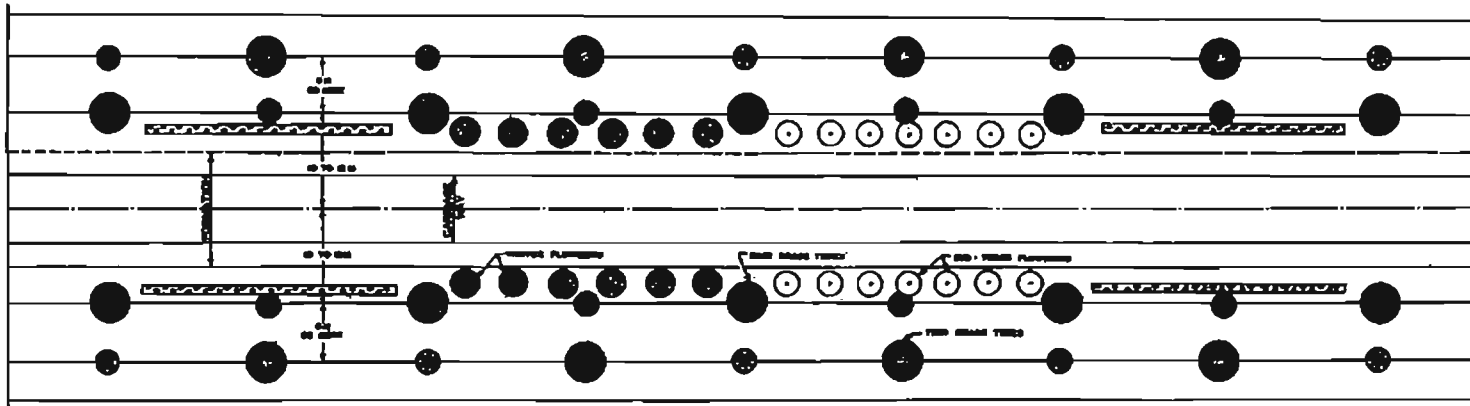
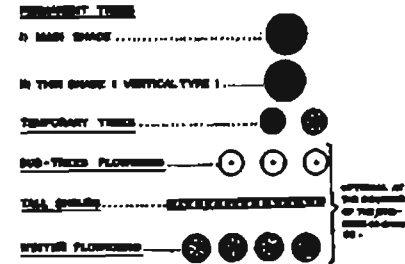
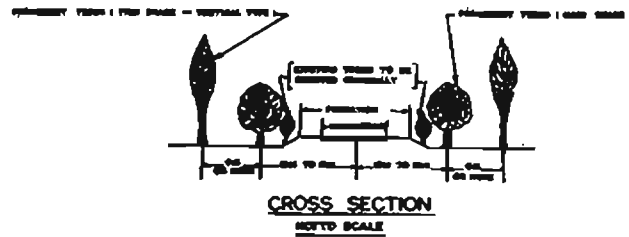
The traffic rotaries and/or road margins of National Highways should always be kept tidy and pleasing by the department dealing with the National Highways. Under no circumstances the firms or individuals (private bodies) should be granted permission to develop and maintain the rotaries and/or road margins on National Highways.

3. *Maintenance and Cutting of Trees*

3.1. *Permission to cut trees*

Trees on National Highways are a natural asset paid for from National Highway Funds. These should not be cut or their branches lopped off indiscriminately without the prior approval of the competent authority. However, prior permission will not be necessary in certain special cases like when dry or dead trees are required to be removed for the safety of traffic or pruning of trees being done as a regular feature of maintenance programme. The work of cutting of trees should be carried out only by the authorised department.

LEGEND



PLAN
NOT TO SCALE

NOTES:-

1. ON FOUR-LANE DIVIDED ROADS, THE TREES/SHRUBS SHOWN IN THE CROSS-SECTION AND PLAN ALONG THE SIDE SHOULD BE REPRODUCED FROM THE NEAREST UNOFFICIAL CATALOGUE.
2. LATERAL DISTANCE FOR ROWS OF TREES MAY BE INCREASED ON HORIZONTAL CURVES DEPENDING ON VISIBILITY REQUIREMENTS (SEE PARA 3 OF CIRCULAR LETTER 1).
3. THE ARRANGEMENT AND ORDER OF TREE-TYPES, SHRUBS ETC. SHOWN IN THE PLAN IS ONLY INDICATIVE. PLANTING OF TREES IS OPTIONAL AT THE DISCRETION OF THE DESIGNER-IN-CHARGE. LIST OF LANDSCAPE ARCHITECTURAL TREES SHOULD BE OBTAINED FOR PLANNED STREET PLANTATION.

MINISTRY OF SHIPPING AND TRANSPORT
(ROADS WING)
GOVT OF INDIA

ENCLOSURE
TO CIRCULAR
LETTER NO.
HDL-473/75
DL 20.5.75

**INDICATIVE ARRANGEMENT
FOR THE PLANTATION OF
TREES ON NATIONAL
HIGHWAYS**

3.2. Competent authority for these purposes is the Director General (Road Development), Government of India, Ministry of Shipping and Transport (Roads Wing) or persons authorised by him on his behalf. The officers authorised by Director General (Road Development) to accord permission for specific cases of felling trees are mentioned as under :—

- (i) The Regional Officer of the Ministry, for the felling of trees (including cutting of branches), on the National Highways and the land appurtenant thereto, after satisfying himself that the need for such cutting/felling actually exists and arrangement has been made to plant new trees. Regional Officers shall submit a report of felling authorised by him to the Ministry soon after doing so.
- (ii) State Chief Engineer dealing with National Highway in cases can grant permission where cutting of only a few trees is involved and is considered inevitable e.g. where a power line crosses a National Highway at right angle or a single tree is to be cut because of its dangerous condition or its coming in the widened formation of the road. Chief Engineer shall also furnish to the Director General, (Road Development) particulars of cuttings, authorised by him immediately after he has issued the necessary authorisation to cut. These powers cannot be delegated by the Chief Engineer to lower formations. Where a whole line of trees has to be cut i.e. when an electric line has to travel parallel to an existing highway for a long distance, the case should continue to be referred to Director General (Road Development) or the Regional Officer of the Ministry for approval.

3.3. When the plantation and maintenance of road side trees on National Highways has been handed over by the State Public Works Department to State Forest Department, the Chief Engineer concerned shall delegate his powers to the Chief Conservator of Forests who shall act as the competent authority for permitting felling of trees etc. The Chief Engineer in such cases shall communicate the contents of this letter to Forest Department for compliance and keep associated with them with regard to planning and implementation of proper road side plantation programme through periodical reviews (quarterly or half yearly) and intimate the progress in case of original works in the quarterly reports being furnished to this Ministry. The planning and implementation of landscaping work, however, shall remain with the State Public Works Department.

4. Maintenance of trees and plantation of new ones on existing roads should be done from funds allotted for maintenance and repairs of National Highways. In special cases original work sanctions could be considered for planting new trees on existing roads provided there is justification. These sanctions will be on the basis of detailed estimate. For bypasses and new constructions the project-estimates should provide for plantation and/or landscaping.

5. *Revenues from Trees*

Under Section 4 of the National Highways Act, 1956, the property of all land appurtenant to a National Highway and such structures, fences, trees etc. mentioned in that section fall within that land, vests in the Central Government. As such, the receipt and revenues from avenue trees etc. should be credited to the appropriate Central head of account.

6. It is requested that the circular may be brought to the notice of all concerned officers in the Public Works Department dealing with National Highways with instructions to comply with it.
