

Proposal of Landscape Improvement Measures in Small Construction Work, Maintenance, etc. of Roads

(Research period: FY2017 to FY2018)

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1. Introduction

In October 2017, the Ministry of Land, Infrastructure, Transport and Tourism ("MLIT") revised the Road Design Guidelines (Draft) and formulated Guidelines for Road Accessories Considering Landscape.¹⁾ Based on the concepts and policies provided in these guidelines etc., the NILIM has been studying specific methods for creating good landscapes and road environment while controlling cost in small construction work, maintenance, etc.

2. Concept of landscape improvement in small construction work, maintenance, etc.

(1) Proposal of the concept of reducing road accessories
There are various road accessories etc. installed by various entities in road space (guard fence, traffic signs, lighting post, soft pole, etc.). Even if the size of each of such road accessories etc. is small, the road landscape will give a disorderly impression if their number increases. Given the recent trend of reducing maintenance personnel and budget, the concept of performing required functions with minimum road accessories etc. is required. When road accessories etc. are newly installed, reduction of maintenance cost / labor and landscape improvement can be achieved at the same time by considering removal / organization of existing road accessories etc. with overlapped functions to reduce the total quantity of road accessories etc.

(2) Direction of landscape improvement in maintenance
In maintenance, specific landscape improvement measures are studied from the following five viewpoints --- "Substitution" (change to other components or facilities), "Removal" (remove duplicate facilities), "Downsizing / Scaling down" (devise ways for smaller

appearance), "Organization" (arrange and organize many accumulated facilities), and "Concentration" (integrate facilities of the same or different kinds into one) (Fig. 1).

(3) Direction of landscape improvement in provisional use

If the period of provisional use is long, the same kind of considerations for landscape are required as for use after completion since the landscape during provisional use including unused portion becomes common to local residents and road users. Accordingly, specific landscape improvement measures have been studied based on the concepts of (i) Active and effective use of space, (ii) No installation of mostly closed facilities etc., and (iii) Considerations for landscape from a viewpoint of living environment maintenance if installation of such facilities is unavoidable (Fig. 2).

3. Future schedule

Results of this study will be organized in "Collection of Devices and Hints for Landscape Improvement in Small Construction Work, Maintenance, etc. (tentative title)" and published as Technical Note of NILIM.

☞ See the following for details.

1) MLIT website: http://www.mlit.go.jp/report/press/road01_hh_000896.html



Fig. 1 Example of "Downsizing / Scaling down"
Change from the whole surface colored pavement to line painting will reduce landscape obstruction and reduced area of painting on the spots where cars are unlikely to stop will reduce frequency of repair.



Fig. 2 Example of "Active and effective use of space"
Removal of single pipes and use of road-widening site as provisional sidewalk space will greatly improve user-friendliness.