

prepare a series of scale drawings showing design methods of controlling headlight glare. Typical designs should show:

- (1) Effects of various widths of median upon headlight glare.
- (2) Effects of varying degrees of curvature in alignment on glare.
- (3) Effects of variation in grade level on glare.

COMMENT

The trouble is that headlight glare has not been studied as a highway design problem. The median has been designed only as a separation for moving vehicles.

COMMENT

Most of the work of landscape engineers has been concerned with correcting defects in existing highway design. If correction of such defects is costly, as it usually is, we should keep careful records and inform the design engineer of such costs. He can then correct these defects in future new highway design.

REPORT OF PROJECT COMMITTEE ON RIGHT-OF-WAY AND BORDER CONTROL

Nelson M. Wells, Chairman
 Director of Landscape Bureau
 Department of Public Works, New York State

This report, in advance of committee activities, purports merely to outline the scope and objectives of the committee.

The objectives of the committee are based on a recognition of the fact that there is a desirable integration of a range of factors pertaining to the lands within the highway property bounds and to the lands lying adjacent to the public property which will contribute to desirable roadside development.

These include a consideration of the extents of rights-of-way to be acquired for roadside development; the relationship of various highway elements to adjacent bordering property; the desirable regulation of the right-of-way area for its use by others; and the desirable kinds and limitations of public control on lands bordering the right-of-way, all for the purpose of promoting safety, efficiency and beauty on the roadsides for the designed use of the highway by vehicles and pedestrians.

For a number of years in the past, Division I of the COMMITTEE ON ROADSIDE DEVELOPMENT covering Design, Right-of-Way and Border Control, and the project committee on RIGHT-OF-WAY AND BORDER CONTROL, have collected various data relating to the interests of this project committee. It now appears desirable in furthering these interests to review the findings of the COMMITTEE ON LAND ACQUISITION AND CONTROL OF HIGHWAY ACCESS in order to correlate their findings with independent research on those phases of the subject which affect roadside development.

For example, with respect to the general subject of right-of-way acquisition,

there is a continuing interest in promoting the acquisition of sufficient land to permit an appropriate design for the highway cross-section on the basic conception of the COMPLETE HIGHWAY. At this time there is a particular need evident for considering the increasing number of plans in many states for extending arterial routes into suburban and urban areas. In these cases it points to a need of evaluating widths of rights-of-way in relation to existing and probable developments on bordering lands in order to provide for suitable greensward and plantings as an insulation along such routes.

Types and locations of plantings themselves along all kinds of routes both in median strips, along property lines and particularly at intersections will benefit from analysis and the determination of control measures to improve highways safety and appearances. These considerations are also intimately related to the desired available rights-of-way.

The use of the right-of-way by others is exemplified by the accommodations permitted to utility companies. The extent of these facilities have so outgrown the proportions they had when first granted rights of occupancy that now their underground and overhead lines often preclude the presence of desirable shade trees, or materially detract from the landscape. A properly balanced relationship between these related highway and utility services is worthy of study and definition.

Some elements of the highway which are the primary concern of the project committees on Roadside Design and Waysides directly affect the bordering land and are reciprocal in determining highway and border control relationships. These include safe and convenient driver service provisions and the promulgation of standards for pedestrian facilities and for entrances and exits to the highway in recognition of both highway safety and the proper use of contiguous property. Highway drainage alone has so great a bearing on adjacent lands that it appears desirable to promote modern highway planning on a more comprehensive land planning basis.

Land-use controls and highway roadside zoning as they affect building "set-back" lines, development rights and billboard regulations are matters of interest for other groups also and particularly from the level of state and local governmental control. With currently available methods for roadside surveys and aerial photographs, however, certain phases of these roadside developments on bordering property may be further promoted by this subcommittee through means of collaboration between civic organizations and highway departments.

Thus, by correlating the findings of other project committees and the COMMITTEE ON LAND ACQUISITION AND CONTROL OF HIGHWAY ACCESS AND ADJACENT AREAS together with an independent assembly, analysis and promotion of some of the numerous factors relating to roadside development, the interests of this project committee will be progressed.

REPORT BY NELSON M. WELLS

MR. WELLS: The topics enumerated as committee interests are very diversified. We would appreciate suggestions as to which topics the committee might concentrate upon in order to be of the greatest immediate value.

Mr. Izzard emphasized land drainage. Messrs. Spelman, Elwood, and Dupre

suggested the topic of the relationship of utility lines to the highway cross section design from the standpoint of legislation, zoning and the protection of roadside trees. Messrs. Wright, Deakin, and McManmon referred to policies in their respective states. Controlled access and the control of architecture on bordering property were emphasized by Messrs. Neale, Wright, Elwood and Deakin.

REPORT OF PROJECT COMMITTEE ON SHOULDERS

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SYNOPSIS

This Committee offers its conception of the purpose of road shoulders and reviews briefly the literature on the effect of shoulders on traffic performance.

The Committee reports definite contributions made toward solution of one of the problems outlined in 1946 on the basis of which suggestions for the construction of stable turf shoulders are made. Laboratory and field analyses of test projects are recommended to the end that reports on these may be integrated. Other problems to be studied by the Committee are defined.

Functions of Road Shoulder - Recognizing that the primary purpose of a road shoulder is to aid in the safe operation of traffic and the development of full traffic capacity of the road, this Committee believes that the functions of a shoulder should be:

1. To serve for occasional use only. Regular use would constitute a traffic hazard and would impose a maintenance burden.
2. To be stable for all vehicles in all weather and at all times of year.
3. To carry water off from the pavement thereby preventing moisture from getting into the road subgrade. There should be no crack developing between the shoulder and the pavement.
4. To provide lateral support^o for flexible pavement.
5. To offer a good contrast in color and texture with the pavement to define the traffic lane.
6. To be pleasing in appearance not only in itself but as a part of the total highway seen by the traveler.

Relation of Pavement and Shoulder - Studies by others indicate that an adequate shoulder increases the effective width of pavement, that turf and gravel