

CHAPTER 10

Highways, Roads, and Streets*

A. NATURE AND COMPOSITION OF HIGHWAY PLANT IN THE UNITED STATES

1. DESCRIPTION OF FACILITIES

At the end of 1964, there were 3.6 million miles of roads and streets in the United States. These ranged in type of service from the highest class of modern multilane, controlled access freeways, serving intercity and interstate traffic movements, through the collector roads that move people and goods from the producer to the consumer, down to the local roads and streets that provide access to the farms, the industries, and the residences of nearly everyone in America.

We truly live in the age of the automobile, and as a Nation on wheels we must place great dependence upon the highway network to move our commerce, to afford us access to working, living, and recreational areas, and to provide for the great variety of services in the protection of life, health, and safety that our populace demands and expects.

The term "highway" includes roads, streets, and parkways, and also includes rights-of-way, bridges, railroad-highway crossings, tunnels, drainage structures, signs, guardrails, and protective structures, in connection with highways. "Highway," "street," or "road" are general terms denoting a public way for purposes of vehicular and pedestrian travel, including the entire area within the right-of-way. In rural areas, or in urban areas where there is comparatively little access and egress, a way between prominent termini is called a highway or a road. A way in an urban area, with or without provision for curbs, sidewalks, and paved gutters is ordinarily called a street.

The right-of-way consists of the entire strip of land set aside or devoted to highway use. It encompasses all the essential elements of a highway cross section, such as traffic lanes, auxiliary lanes, shoulders, highway signs, traffic control devices, roadside developments, and median strips. The roadbed itself is the graded portion of the right-of-way upon which the base course, surface, shoulders, and median are constructed.

The thickness of the surface and base and the type of pavement are determined by volume and composition of traffic, availability of materials, and the experience of contractors. Pavements may be considered as three general types: (1) High; (2) intermediate; and (3) low. High-type pavements are for high-volume traffic, provide smooth riding qualities, and good antiskid properties in all weather. The surface should retain its qualities and should provide adequate support for the expected volume and weights of vehicles without undue fatigue, thus keeping maintenance costs to a minimum. Inter-

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