

FOREWORD

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Late in 1974, the Urban Mass Transportation Administration requested that the Transportation Research Board plan a major national conference on light rail transit. It was felt that a special effort was needed to expose decision makers, planners, engineers, operators, and other interested individuals to the many virtues of the light rail transit mode. It also was believed that the conference proceedings would serve as a comprehensive report documenting the state of light rail transit development.

The papers contained in this Special Report were prepared for and delivered at the National Conference on Light Rail Transit held in Philadelphia, Pennsylvania, June 23-25, 1975. The Urban Mass Transportation Administration was the principal sponsor of this first national meeting. The Transportation Research Board Advisory Committee was responsible for structuring the conference content and reviewing the technical reports. Other cosponsors of the meeting were the American Public Transit Association and the University of Pennsylvania.

About twice the number of people expected attended the Philadelphia conference, which indicates the high interest in light rail transit. Presentations were made by key public officials, transit industry representatives, and members of the consulting and academic professions. To broaden the scope, speakers from several foreign countries also presented papers on light rail transit development in their countries.

There is increasing doubt that a single transport system of any technology can effectively serve the broad range of travel patterns and services that prevail in a large city. There is also no compelling reason why a single type of transportation system must dominate an entire metropolitan area. This trend to move away from a unimodal solution to a system that blends a number of discrete transit elements, each of which is closely tailored to demands and local conditions, should make light rail transit a particularly strong contender for attention by cities that desire some form of fixed guideway system. Light rail transit certainly should not be treated as a panacea for urban mobility problems, but it should be considered as one of various transit options available to cities.

The papers in this Special Report cover a wide range of subjects related to light rail transit. Included are a description of system concepts, such as performance characteristics of light rail transit; comparison with other modes; and applications. The technology and operational aspects of light rail transit are treated in a set of papers that address permanent way requirements, electrification and control systems, and U.S. and foreign vehicle developments. Of major significance are the economic considerations of light rail transit. A number of the papers contained in this Special Report discuss the various costs of construction, operation, and maintenance as well as social costs and benefits.

The sponsors of these proceedings of the National Conference on Light Rail Transit hope that the reader will find much useful information that is readily applicable to his or her special interests. The planned wide dissemination of these proceedings should help to increase the understanding of light rail transit and should help to bring about more rational urban transportation developments.