

INTRODUCTION

This document (hereinafter referred to as the “Manual”) supersedes the previously published 1987 Design Manual including subsequent updates and has been prepared to provide its users with current, uniform procedures and guidelines for the application and design of safe, convenient and efficient roadways that satisfy optimally the needs of the roadway users while maintaining the integrity of the environment and aesthetics for New Jersey Turnpike Authority engineering projects on the Garden State Parkway and New Jersey Turnpike. The Manual contains current, uniform criteria and guidelines to be used in the performance of work on Authority projects. **Please be aware that this Manual is intended only as an aid and not as a textbook.** Each project is unique and has particular needs and requirements. This Manual does not attempt to encompass the total scope of important, published information and literature relative to the formulation of highway design criteria, policies and procedures. Furthermore during the course of a project, Authority regulations and applicable statutes may change; different information may be required or different methods may need to be followed.

When design criteria presented in this Manual differs from criteria presented in other sources, this Manual shall take precedence. The design criteria and text presented herein provide guidance to the designer by referencing a recommended range of values for critical dimensions. Initiative should be exercised to utilize larger values within the given ranges whenever practicable and within reasonable economic limitations and sound engineering judgment.

The inclusion of specified design criteria in this Manual does not imply that existing roadways, which were designed and constructed using different criteria, are either substandard or must be reconstructed to meet the criteria contained herein. Many existing facilities which met the design criteria at the time of their construction are adequate to safely and efficiently accommodate current traffic demands.

Variations from the design criteria may be required for special or unusual conditions where deviations from a particular criteria may be desirable due to structural restrictions, especially bridge, roadway and shoulder widths. When the design criteria presented in this Manual cannot be achieved for new construction or reconstruction, a Design Element Modification request, discussed in Section 3 of the Procedures Manual, shall be prepared with a full explanation provided for the retention of these features. The determination to approve a project design not conforming to the minimum criteria should be made only after due consideration is given to all conditions such as maximum service and safety benefits, compatibility with adjacent sections of unimproved roadways and the probable time before reconstruction of the section due to increased traffic demand or changed conditions.

The Authority has prepared Standard Drawings to provide engineering personnel, designers and contractors with a catalog of specific design conditions for use in the development of the design of highways. The Standard Drawings shall be used in conjunction with the Standard Specifications, Special Provisions and construction plans to provide a uniform design and construction practice for all projects.

The word “Authority” as it appears in this Manual is intended to be the New Jersey Turnpike Authority, with its principal office at 581 Main Street, Woodbridge, New Jersey, or its duly authorized representative in cases of projects entrusted to the Authority’s General

Consultant or Program Manager, acting on behalf of the Authority and should be given the requisite respect and deference.

The word “Engineer” as it appears in this Manual is intended to be the Consulting Engineer that has been issued an Order for Professional Services to complete the design of a project for the Authority. This term can be further extended for any subconsultants to the prime consultant that are engaged in certain tasks for the project.

The words “Resident Engineer” as they appear in this Manual are intended to be the field representative of the Authority, having direct supervision of the administration of the construction contract.

Updates and revisions to this Manual may occur and will be posted on the Authority's website, <http://www.state.nj.us/turnpike/buss.htm>. Suggestions for future updates or clarifications are encouraged and may be submitted to the Authority's Assistant Chief Engineer, Design using the following form.

<i>New Jersey Turnpike Authority</i>			
DOCUMENT UPDATE REQUEST			
Forward to Assistant Chief Engineer, Design			
Initiator		Submittal Date	
Firm		Telephone	
Document (check one)			
<input type="checkbox"/> Procedures Manual			
<input type="checkbox"/> Design Manual			
<input type="checkbox"/> Sample Plans			
<input type="checkbox"/> Standard Drawings			
<input type="checkbox"/> Standard Specifications			
Description of Change			
Reason for Change			