

PREFACE

This Guide provides assistance in the selection, specification and design of flexible road pavements for a variety of applications. It brings together information on design, construction, performance and maintenance on a wide range of flexible road pavements with the aim of promoting selection, design and construction of pavements that will provide sound long-term performance and low whole-of-life costs.

The guide contains a number of charts that provide typical design thicknesses and compositions for a number of different types of flexible pavements. These charts have been prepared using the Austroads mechanistic analysis procedure for a specific set of input parameters and performance relationships and these designs should be used as preliminary designs only. Detailed designs, utilising job-specific input parameters and performance relationships and tempered by local experience should be prepared by an experienced pavement designer.

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INTRODUCTION

The purpose of this Guide is to assist in the selection, specification and design of flexible road pavements for a variety of applications.

It provides guidance on layering, composition, and construction and maintenance issues relating to a range of flexible pavements, as well as typical pavement thickness and compositions for specific situations.

The pavements covered by this Guide are those which are subject to trafficking by heavy commercial vehicles and which have load associated distress as the primary distress mode. For the design of light-duty pavements such as those subjected to pedestrian traffic, local access roads, residential driveways, car parks, cycleways etc., the AAPA Guide to the Design, Construction and Specification of Light-Duty Hot-Mix Asphalt Pavements (2002) may be used. Further information may also be found in APRG Report 21 (1998) – A guide to the design of new pavements for light traffic – A Supplement to Austroads Pavement Design.

The information contained in this Guide is intended to supplement and assist in the effective use of the Austroads Guide to the Structural Design of Road Pavements by providing information on current developments and good practice which will lead to pavements with sound long-term performance and low whole-of-life costs.

It is intended that the typical thicknesses and compositions provided in this Guide should be used at the conceptual, or preliminary, design stages. It is not to be used in lieu of detailed pavement design procedures that require consideration of site-specific traffic, climate and materials data. Detailed design should be undertaken using guidelines such as the Austroads Guide to the Structural Design of Road Pavements.

It should also be noted that the issues discussed in this guide primarily relate to conventional pavements carrying normal road traffic. Although the principles discussed may relate to a broader range of pavements, extrapolation should be made with caution.