

AASHTO Guide Manual for Bridge Element Inspection

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of State Highway and
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FOREWORD

This Manual is intended as a resource for agencies performing element level bridge inspections. It replaces the AASHTO Guide to Commonly Recognized Structural Elements (1994) and its interims as a reference for standardized element definitions, element quantity calculations, condition state definitions, element feasible actions, and inspection conventions.

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AASHTO would also like to thank the following Steering Committee members for their support and guidance in developing this manual:

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INTRODUCTION

The proper assessment of the condition of bridge elements is the cornerstone of sound bridge management. The introduction of element inspection condition methods in the early 1990s represented a significant advancement in the bridge inspection practice and has been adopted by the vast majority of all State Transportation Departments in the United States. Bridge owners nationwide have recognized the benefits of detailed condition assessments through the use of the raw inspection information, expanded performance measures, and bridge management system deterioration forecasting and evaluation. As the use of element level inspection techniques has proliferated, the need for improvements has been identified. This manual incorporates improvements through changes in the measurement units of decks and slabs, the development of a wearing surface element, the standardization of the number of element states, the development of a protective coating element, and the incorporation of expanded element Smart Flags. The goal of this manual is to completely capture the condition of bridges in a simple way that can be standardized across the nation while providing the flexibility to be adapted to both large and small agency settings. This manual is not intended to supplant proper training or the exercise of engineering judgment by the inspector or professional engineer.