A METHOD OF FIELD EVALUATION OF NARROW BRIDGES FOR PRIORITY INDEXING

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MATERIALS & TESTS
A Method of Field Evaluation of Narrow Bridges for Priority Indexing

by

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The report summarized in these pages is the first in a series dealing with establishing a Priority Index of bridges for passive treatment. The sections of the report describe the problems, the purpose, the source, and the field work.

In the study, the Bridge Safety Index was established on fifty bridges. A Field Evaluation Form and a methodology developed in this study were used and field proven. A proposed treatment plan was devised for each bridge. The District Engineer and his staff prepared Treatment Cost Estimates for each proposed treatment plan. Then, the District Priority Index for the sample of bridges was calculated.

The report describes the Field Evaluation Form and enumerates helpful hints on its use. A nomogram for evaluation of the guard rail/transition/bridge rail factor is presented. A photographic scale of the distractions and roadside activities factor is presented.

Two extra Bridge Evaluation Forms with a perforated attachment are placed in the back of the report to aid the user in reproducing the form.

A description of the inspection and rating of the fifty-bridge sample and a summary of the data obtained will be the subject of a later report.

Implementation

The Districts containing the fifty-bridge sample have been visited more than once and will have an advantage with prior knowledge on preparing a Priority Index. Additional Districts will be added each year of the study.

With this report as an instructional manual and the reproduced Field Evaluation Forms, a field study may be commenced by each District. The Bridge Inventory and Inspection Program (BRINSAP) file is the logical point for beginning preparation of the forms. Only bridges on two-lane, two-way roadways are included.
A field evaluation party is formed as directed by the District Engineer. Provision is made for protection from traffic as the field evaluation is conducted. For each bridge from the data on the evaluation form, the Bridge Safety Index (BSI) is computed.

A bridge treatment plan is devised for each site and the costs of the treatments are estimated. The BSI times the AADT divided by the cost is the Priority Index. The Priority Indices are ranked and then may be used to provide the most cost beneficial response to the narrow bridge problem in the District.
The published version of this report may be obtained by addressing your request as follows:

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