RESEARCH NEEDS FOR STRUCTURES TAG

EFFECTIVE/UPDATED 7/17/2018

ISSUE

Review of the effectiveness of deck sealing projects in Illinois

SUMMARY OF PROBLEM

IDOT has been using a bridge deck sealing process for nearly a decade. This has been touted as an effective method for deck preservation in an attempt to achieve a longer life span from the deck. As a result, it is an important tool in IDOT's bridge preservation plan and ultimately its Transportation Asset Management Plan (TAMP). However, there has been no research to show the effectiveness of IDOT's deck sealing program nor provide recommendations for the future use of deck sealing as part of the TAMP. Ideally, the study would look at decks that have received deck sealing and compare its properties to similar aged decks that have not been sealed to quantify how much longer "sealed" decks should last than unsealed decks.

DESIRED RESULTS/OUTCOME

It is hoped that the study would accomplish these objectives:

- Study decks that have already been sealed in Illinois for a number of years (about a decade).
- Study it in different parts of the state based on environmental conditions and salt use.
- Prove its effectiveness so management is convinced that it needs to be part of the bridge preservation plan and the TAMP.
- Quantify its effectiveness: How much longer do sealed decks last than unsealed decks in the different parts of the state; and how often should they be sealed to maintain its effectiveness?

If a study can be performed that quantifies the effectiveness of deck sealing projects, IDOT management would be more inclined to support the deck sealing program at IDOT and allow for suitable funds to be allocated to the program as an important part of the statewide TAMP. It would also encourage all Districts to seal decks on a regular basis as part of the bridge preservation plan.