

Advanced, Automated NDE for Bridge Deck Evaluations

STUDY TIMELINE

9/2022 – 12/2023

INVESTIGATORS

Amir Rezvani,
Infratek Solutions Inc.
amir@infrateksolutions.com

AOT CONTACTS

James Lacroix, State
Bridge Design Engineer,
james.lacroix@vermont.gov

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STIC



More information about the Agency of Transportation Research Program, including additional Fact Sheets, can be found at:
<http://vtrans.vermont.gov/planning/research>

Introduction (or Problem Statement)

A lack of data, actionable insights, and visibility into bridge decks' current condition can lead to untimely strategies, unreliable repair estimates, quantities, and decisions.



Project Methodology

Employing automated and standardized NDE methods in high-speed, high-definition ground-coupled applications to maximize the diversity and quantity of condition data while minimizing time on the bridge, ensuring the most accurate assessment of surface and subsurface conditions.

Conclusions/Next Steps

The project outcomes featured bridge-specific condition plots, tabulations, repair quantity estimates and data-driven recommendations, with a focus on the underlying deterioration mechanisms.

Impacts and Benefits

The results of this and future projects would prevent cost overruns in construction projects by having a more accurate and reliable picture of the bridge decks' condition. The results can also help determine the ideal time and type of preservation strategies to apply in early stages of the structure lifecycle when problems are small and inexpensive to fix.