



Smart Structures Demonstration Project

NYS Thruway Authority

PROJECT PARTNERS

NUAIR



Thruway
Authority



PROJECT CHALLENGE

Disjointed data flow. Lack of systems integration. Error-prone process of data transcription. Inefficient processes, including unnecessary steps. Lack of procedural updates using new technologies to increase staff safety. Limited datasets for long term analysis. Prop Solution: Implement UAS where applicable to gather data in support of infrastructure inspection. Create a mobile reporting app to collect data, with seamless transfer of drone data and a database of info for inspectors to provide all data in one place digitally on-site.

IMPACT

This project will impact Thruway staff and the traveling public by providing safer inspection workflows, better predictive maintenance, and a more resilient highway system in Herkimer County, NYS.

CURRENT STATE OF THE ISSUE

1. Archaic note taking methods for inspection. 2. Disjointed workflows through multiple applications. 3. Deep reliance on paper documents for historical information.

POLICY QUESTIONS

1. Can this concept provide measurable gains to efficiency in inspection processes? 2. Can information collected by a drone be retrieved, annotated, and organized on site during inspections?

STAGE 1 OUTCOMES

1. Improved access to historical data. 2. Seamless data integration from drone to mobile app. 3. Streamlined reporting for infrastructure inspection.

STAGE 2 VISION

Streamlining workflows and providing better data access and reporting processes across NYS through integration with NYSDOT.