

Good morning, Mr. Chairman and members of the committee. I'm Amy Beise, Uncrewed Aircraft System (UAS) Manager and Materials & Research Division Engineer for the North Dakota Department of Transportation (NDDOT). I'm here to provide information related to HB 1519.

HB 1519 provides a one-time sum of \$250,000 to the North Dakota Department of Transportation for the purpose of uncrewed aircraft system, autonomous vehicle, or other autonomous technology grants to political subdivisions. The NDDOT shall develop an application process and guidelines for the grants, including eligibility criteria, maximum grant awards, and matching requirements.

The NDDOT has internally operated a departmentwide UAS program since 2019. We currently have 25 licensed part 107 remote UAS pilots. The pilots reside in 12 different divisions and districts throughout the state that support several different transportation related use cases.

UAS technology has allowed NDDOT to upgrade existing transportation infrastructure workflows by collecting data, remotely, autonomously, economically, and safely. The NDDOT has focused UAS efforts on use cases that support transportation infrastructure or communications to the traveling public including emergency response, construction inspection, and structure inspection. Below is a list of examples use cases under each category.

Emergency Response	Construction Inspection	Structure Inspection
<ul style="list-style-type: none"> ▪ Incident management ▪ Flooding ▪ Wind ▪ Landslides ▪ Fire ▪ Snow and ice impacts 	<ul style="list-style-type: none"> ▪ Documentation ▪ Routine Inspection ▪ Surveying ▪ Quantities ▪ Hazard and obstacle evaluation ▪ Work zone traffic monitoring 	<ul style="list-style-type: none"> ▪ Supplemental bridge inspection ▪ Deck delamination survey quantities ▪ High mast lighting ▪ Overhead signs ▪ Culverts

The NDDOT currently operates with a fleet of 18 uncrewed aircrafts (drones) which are used to collect aerial photography, images for photogrammetry, and LiDAR.

The NDDOT is also a lead participant in the Federal Aviation Administration UAS Beyond Program. The Beyond Program has a specific emphasis on beyond visual line of sight (BVLOS) UAS operations that support infrastructure inspection, public operations, and package delivery. The program focuses on opening existing regulatory frameworks operating under established rules rather than waivers, collecting data to develop performance-based standards, collecting and addressing community feedback, understanding the societal and community benefits, and streamlining the approval processes for UAS integration.

This concludes my testimony. Thank You.



**DJI Mavic 2
Zoom**

**DJI Mavic 2
Enterprise**

**DJI Mavic 2
Pro**

**DJI Mavic
Mini**

Skydio S2

Prism X8

9 Units

1 Unit

2 Units

4 Units

1 Unit

1 Unit

Service Areas

Communications
Construction
Maintenance
Materials & Research

Service Areas

Construction
Maintenance

Service Areas

Communications
Construction
Maintenance

Service Areas

UAS Manager
Statewide Support

Service Areas

Bridge Asset Mgmt.
Statewide Support

Service Areas

Design
Statewide Support

Use Cases

Public Outreach
Survey
Construction
Inventory

Use Cases

Public Outreach
Survey
Construction
Inventory

Use Cases

Public Outreach
Survey
Construction
Inventory

Use Cases

Training

Use Cases

Structure Inspection
Inventory
Measurements

Use Cases

Preliminary Survey
Aerial Survey
LIDAR