

# Need to know about the health of your road network?

## We can help.

Stantec Road Tester 3000 Data  
Collection Vehicle

Infrastructure Management &  
Pavement Engineering



# What is the RT3000?

Stantec's Road Tester 3000 (RT3000) is a leading-edge data collection vehicle which incorporates the latest in mobile laser, GPS, and crack recognition technology. The RT3000 is a fully mobile solution, developed to collect pavement condition data accurately and efficiently. The RT3000 simultaneously collects pavement profile, rutting, surface distress, roadway geometrics, and pavement and right-of-way imagery

at a network level. This information is fundamental to understanding the current condition of your road network. It can be used to establish long-range budget plans, maintenance and rehabilitation activities, and capital investment requirements. High-speed data collection surveys provide a safe, cost-effective, repeatable, and accurate solution to the challenge of measuring pavement surface condition.

## How it works Components and Subsystems



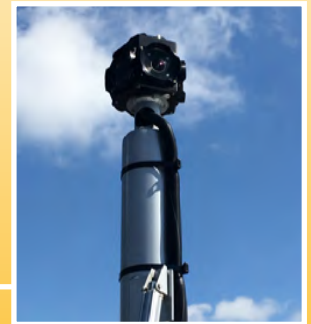
### Downward Laser Crack Measurement System (LCMS)

Automatically measures all key functional parameters of pavement in a single pass, including: cracking, rutting, texture, potholes, shoving, raveling and roughness.



### Inertial GPS Referencing System (Applanix POS LV)

Allows for the provision of spatial location data at all times, even in situations where the 'urban canyon' or tree coverage reduces signals.



### 360° High Resolution Cameras

A camera that can acquire high-quality right-of-way images while traveling at highway speeds. This includes six 5MP cameras used for individual or panoramic views.



### Location Referencing System (LRS)

#### Distance Measuring Instrument (DMI)

Used to provide a stationing reference measurement of the vehicle as it traverses the road for the collected data.



### Class I ASTM E950 certified Profiler

#### Laser Height Sensors

Measure the distance between the vehicle and the pavement surface, while the vehicle is traveling at posted speed or less.

#### Accelerometers

Measure the vertical acceleration of the vehicle as it bounces in response to the pavement surface profile.

# Applications

Network-Level Pavement  
Data Collection


Right-of-Way Digital Image  
Inventory


Asset Inventory


Infrastructure Condition  
Assessments





# Benefits


 Reliable, accurate  
and repeatable

 High resolution images  
and video aid in reducing  
the need for field visits

 Automatically measures all  
key functional parameters of  
pavement in a single pass

 Road data  
collection at regular  
traffic speeds

 Extensive on-board quality  
control measures

 Allows for right-of-way asset  
extraction for curbs, signs,  
sidewalks, streetlights and more

## Design with community in mind

We're active members of the communities we serve. That's why at Stantec, we always *design with community in mind*.

We collaborate across disciplines and industries to bring buildings, energy and resource, environmental, and infrastructure projects to life. Our work—engineering, architecture, interior design, landscape architecture, surveying, environmental sciences, project management, and project economics, from initial project concept and planning through design, construction, and commissioning—begins at the intersection of **community, creativity, and client relationships**.

Our local strength, knowledge, and relationships, coupled with our world-class expertise, have allowed us to go anywhere to meet our clients' needs in more creative and personalized ways. With a long-term commitment to the people and places we serve, Stantec has the unique ability to connect to projects on a personal level and **advance the quality of life in communities** across the globe. Stantec trades on the TSX and the NYSE under the symbol STN. Visit us at [stantec.com](http://stantec.com) or find us on social media.

