



ENVIRONMENTS



Residential



Rural



Motorway



Hawkeye is a road profiling system that accurately measures surface texture, ride quality, and irregularities.

Hawkeye high-speed survey vehicles are equipped with laser profiler technology that enables continuous, highly accurate recording of road and pavement data — including roughness, texture, and geometry, that links back to GPS and distance-based measurements.

Using GipsiTrac, an advanced inertial navigation system, we capture detailed road geometry such as horizontal and vertical curvature, grade, crossfall, and superelevation with precision.

Our fleet of state-of-the-art Hawkeye 1000 vehicles is operated by Road Science's expert technicians, who conduct nationwide surveys at normal traffic speeds — eliminating the need for traffic management and keeping crews out of live lanes. This approach saves time, reduces costs, and enhances safety.

Hawkeye surveys are the modern solution for safe, efficient, and comprehensive road corridor data collection.

Benefits

- High speed data collection reduces costs and decreases data delivery time frames
- Data available to inform pre-construction planning and post-construction validation. Includes roughness (NAASRA testing), macrotexture (Sand Patch or MPD), and geometry
- High resolution cameras and dedicated software deliver visual outputs to support office-based site analysis and observations
- Seamless data integration with chainage and GPS coordinates, simplifying location of data
- Safer usability - Using Hawkeye removes the need to place people in live traffic lanes to capture data

Location:

Hawkeye vehicles are based in both Tauranga and Christchurch, with the ability to survey nationwide.



Images: (left) Hawkeye on-site capturing data. (right) Road survey data interpretation.

Hawkeye survey vehicles comply with the following international standards:

- Measuring the longitudinal profile: ASTM E950.
- Pavement roughness: AASHTO PP37; Austroads AGAM-T002.
- Pavement macrotexture: ASTM E1845; Austroads AGAM-T014; ISO 13473.
- Austroads repeatability tests: AGAM-T004, T005.

Hawkeye software

The Hawkeye processing tool kit software ensures that the survey database can be reviewed, edited, and processed quickly and efficiently. The data from each module can be compared against other results and exported to pavement and asset management systems.

The Hawkeye data viewer is an office-based programme that enables detailed assessment of sites to be completed by providing zoom and measurement tools for reviewing processed surveys.

Using the ProVal software package, we are able to calculate roughness from design levels. This allows clients

to check whether specifications are achievable. We can also perform simulated rolling straight edge testing with ProVal, using a straight edge of customisable length. Other analyses relating to road profiles are available, so get in touch with our Hawkeye specialists.

Contact information:

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Need more information?

At Road Science, we're committed to providing innovative solutions backed by engineering expertise. If you have any questions about this service, need technical guidance, or want to discuss how it fits your specific project needs, our team is here to help. Contact us today for expert advice and tailored support. Contact us via **0800 180 200** or visit our website at **roadscience.co.nz** to learn more.

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