

Consistent condition data collection

Sealed Roads

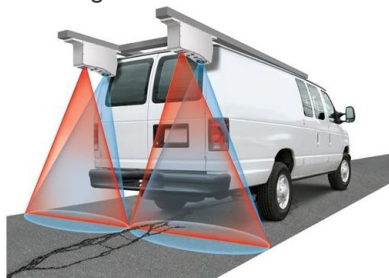
August 2024

Background

In 2021–24 approximately \$1.5 billion was spent on local road sealed pavement maintenance, resurfacing and rehabilitation.

The quality and consistency of the condition data is a crucial component of evidence-based investment management and optimisation of the whole-of-life asset cost. In addition, condition data is a critical indicator for maintenance programming, monitoring performance, managing maintenance contracts, comparative reporting, research and fatal crash investigations.

The current approaches for assessing network condition are outdated, leading to variable and inefficient collection of surfacing and pavement condition data across New Zealand. Establishing a consistent condition data collection (CCDC) programme will improve asset management system outputs for local and national decision making.



Changes for CCDC sealed roads

- New requirements for automated pavement inspections (roughness, rutting, texture, cracking and geometry).
- New national data standards, quality assurance regime and specifications for consistent data collection, accuracy, processing and management.
- Discontinuation of current manual condition rating requirements.
- Provide guidance and support to TLA RCAs for collecting drainage, skid resistance and pavement strength data.
- A Nationally Delivered Activity, 100% NLTF, for the 2024-27 NLTP period.

Expected benefits

- Better lifecycle management and performance
- Enhanced safety and asset management decision making
- Quality-assured condition data
- Value for money data collection
- Elimination of health and safety risk
- Freeing up crucial sector capacity

Transitioning from implementation to delivery

The data collection activities are due to commence as soon as validation testing is complete. The CCDC Centre of Excellence will continue work on a NZ cracking algorithm, and the development of high-level guidance for drainage, pavement strength and skid resistance.

Pavement inspection contracts start

National inspection programme

NZ cracking algorithm development

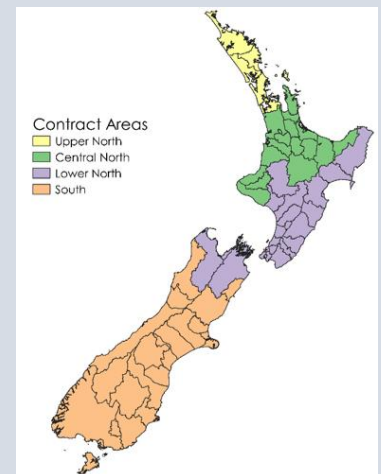
Establish & certify survey vehicles

Pavement inspections start

Delivery

National Centre of Excellence delivery model:

- ✓ Centre of Excellence responsible for broader outcomes, national data collection programmes and contracts.
- ✓ Centralised co-management delivery for local roads and state highways led by Road Efficiency Group.
- ✓ National approach to data collection calibration and quality assurance to ensure consistency.
- ✓ TLA RCAs have been grouped into four geographic contract areas for annual pavement inspection activities.
- ✓ Pavement inspection contracts for an initial term of 6 years with an optional extension of 3 years.



Pavement inspection surveys will start September 2024

Frequently asked questions

What are the new pavement condition inspection requirements?

An automated single-pass pavement condition inspection for roughness, rutting, texture, cracking and geometry of sealed roads will be undertaken annually on high-class roads and at least once every two years on low-class roads. The One Network Framework modal network classification for general traffic, freight, or public transport determines a high-class road. In addition to the new pavement inspection requirements, a forward-facing video will be captured to support quality assurance, and the collected footage will be available to RCAs.

Who will pay for the sealed road pavement condition inspections?

This is now a Nationally Delivered Activity, 100% funded from the National Land Transport Fund for 2024-27. The new sealed road pavement condition inspection requirements have resulted in a new investment policy. This includes changes to the Work Category 151 Network and Asset Management, which remains a condition for NLTP road maintenance funding from 1 July 2024. Manual RAMM condition rating surveys are not required after July 2024.

Are additional pavement condition inspections during 2024-27 possible?

Yes. If an RCA needed additional low-class inspections, they were included in their 2024-27 NLTP submission with the support of their Investment Advisor. This information has been used to develop the national inspection programme for 2024-27. The first year of the contracts will focus on delivering the programmed data collection and managing contingencies such as weather disruptions. RCAs requiring additional data are to make separate arrangements with the contractors for collection after the completion of the programme.

Which other condition assessment activities should be delivered by RCAs?

RCAs are responsible for budgeting and delivering other roading condition assessment activities, including skid resistance, pavement strength, drainage/shoulders and footpaths. Please continue your RCA's assessment programme for these road conditions. Your RCA will still have access to the skid resistance data collection services via the NZTA arrangement with WDM Limited.

How will the pavement condition inspections be undertaken?

TLA RCAs have been grouped into four geographic contract areas for annual pavement inspection activities to improve efficiency and reduce administrative costs to the sector. Contracts have an initial term of 6 years and an optional extension of 3 years. The first round of annual automated pavement condition inspections will start in September 2024. The high-level programme will be agreed with RCAs to accommodate any significant exceptions in the area which might impact on the ability to carry out the survey.

What is the national Centre of Excellence?

The Centre of Excellence is the co-management and delivery model of pavement condition surveys for all roads across NZ. From 1 July 2024, the Centre of Excellence, led by REG, will oversee the sealed road pavement condition requirements, quality assurance and national inspection programme delivery for state highways and local roads.

How will condition assessment consistency be ensured?

We have standardised around a single 3D laser scanner technology to collect all condition data parameters in a single pass. The automated pavement condition inspections will be undertaken by certified suppliers, using accredited equipment, that has satisfactorily applied an ongoing quality assurance programme. Collected condition data will be quality checked by the engineer after each RCA network survey, then uploaded to the RCA's asset management information system.

What is the approach for temporary traffic management?

NZTA is moving all contracts to the risk-based approach for managing temporary traffic management. CCDC will also be adopting the risk-based approach in accordance with the NZ Guide to Temporary Traffic Management and the NZTA Practice Note and Good Practice Guide for vehicle-based surveys and data collection operations. It is intended to, as far as possible, deliver a consistent set of temporary traffic management controls for all RCAs across the country for the CCDC data collection contracts.

How will the pavement condition inspection data be used?

RCAs will use the pavement condition data for asset management purposes and within their road asset management system for treatment selection. Separate work streams are being undertaken to release an updated CSA (replaces TSA) and update industry measures like SCI to consume the new pavement inspection data. RCAs are encouraged to arrange forward works programme analysis.

Is there any impact to surveying during a different time of the year?

Some RCAs have previously undertaken automated condition data collection, and potentially during a different time of the year to the CCDC programme. It is anticipated that the snapshot of the data collected will not have a material impact on long-term condition trends due to the CCDC programme timing, nor impact on operational maintenance activities.