Consistent Condition Data Collection – cracking data

August 2025

REG recognises cracking data is an important dataset for RCAs and is investigating how to best use the data that is being collected through the Consistent Condition Data Collection (CCDC) programme.

Changes

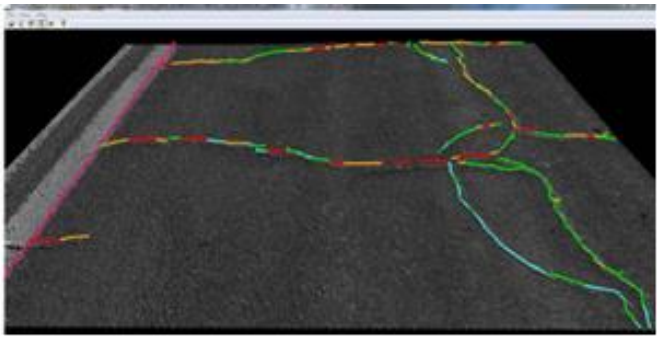
LCMS-2 delivers high-resolution, automated pavement crack detection, significantly improving consistency and detail compared to Visual RAMM Rating Crack Assessment.

The CCDC laser surveys provide:

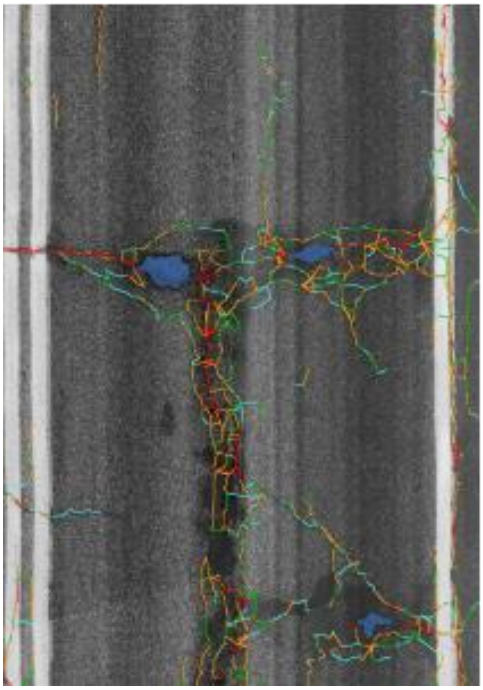
- Greater precision: LCMS-2 captures continuous, millimetre-level crack detail, reducing subjectivity and improving repeatability across surveys. This also means it is likely that more cracking will be identified across your network compared with a visual assessment of a smaller sample of the network.
- Under reporting: On fine textured surfaces such as asphalt, expect minor under-reporting of cracking in some cases.
- Over reporting: On coarse textured chipseals (where texture is greater than 1.8mm MPD), LCMS-2 may over report cracking due to surface texture being misinterpreted as cracks. Accuracy in these cases can be expected to drop to around 30% and care should be taken when using this data.
- Data averaging impacts: LCMS-2 data is averaged over shorter intervals (e.g. 10m), which can highlight localised faults that visual surveys might not identify.

Other differences

- Surveying will detect and report all visible surface cracking, however, not all cracking it identifies necessarily indicates pavement or surfacing fault e.g. cracking around manhole/service covers, utility trenches, construction joins, pavement edges, etc.
- Cracking data has been collected and stored into 10m sections (“bins” in AWM – The Asset and Works Manager database – formerly known as RAMM), with Crack Count All (total number of cracks) and Crack All Length and Width (total and average length and min/max/average width of cracks).
- Area of cracking and classified crack data is not yet included in Year 1 of CCDC data capture, this includes Crack All Area (area of surface with any type of cracking), Crack Linear Length (length of linear type cracking), and Crack Mesh Area and Percentage (area of surface with mesh type cracking).



Traverse and linear cracking as identified from a laser survey (Pavemetrics).



Mesh cracking (and potholes) as identified from a laser survey (Pavemetrics).

Further guidance in development

To support more accurate and meaningful use of LCMS2 data, an expert-led REG Cracking Focus Group is developing further guidance. This will include:

- Standardising crack definitions,
- Enhancing processing methods to include crack classification, and
- Clarifying how to interpret and apply the data in asset management processes and performance reporting.

The Cracking Focus Group will also be refining the LCMS2 crack detection algorithm, particularly to improve reporting accuracy on coarse chipseal surfaces, where false positives are more likely.