



## DATA COLLECTION LIMITED

# PAVEMENT CONDITION TESTING: VIDEO IMAGERY SURVEY



# PAVEMENT CONDITION TESTING

## BENEFITS

- » Innovative, market leading technology
- » Surveying at traffic speed; no traffic management required
- » Vehicle Survey; no need for physical road inspections
- » Rating assets from the office
- » Simultaneously collecting and synchronising all data sets from one survey.
- » All datasets are collected and only the information required will be processed and analysed. Option of acquiring additional datasets at a later date without the need to resurvey.

Pavement condition data is essential to prioritise and manage maintenance activities on pavement surfaces - whether it's main arterials, back country rural roads, runways or ports.

Data Collection Limited specialises in surveying roads, airports, ports, railways, and providing data and information on the assets surface and sub-surface condition.

We operate a fleet of survey vehicles dedicated to collecting accurate, reliable and relevant data used in making sound engineering judgements and network level maintenance decisions.

Our services are ideal for those who require the high accuracy and variety of data needed to manage modern roads.

## Applications

- » Annual surveys along sealed and unsealed pavements, forms part of forward works programme
- » Inventory and assets record
- » Budgetary decisions for pavement maintenance and repair

## DELIVERABLES

### Project and Network level testing

Longitudinal profile and Roughness	Rut data	Macrotexture
Pavement surface rating	Asset Inventory Rating	Road Geometry
Video imagery	Laser based pavement imaging	GIS Information



# SURVEY: VIDEO IMAGERY

## BENEFITS

- » Data in non-proprietary formats (JPEG and AVI) mean it can be viewed with standard software
- » Compatible with JunoViewer; images can be easily uploaded
- » Minimises risk for engineers being out on the field
- » RAMM Condition Rating:
  - » Trained personnel to perform RAMM Condition Rating
  - » Surface defects via video imagery and / or automatically rated by the laser based pavement imagery software
  - » The laser based pavement imagery is unaffected by ambient light conditions (which is a limitation of the traditional camera-based pavement imaging systems); data can be collected day or night

Video imagery captures the current pavement surface condition; a snapshot in time. This might be required before major construction commences as evidence of pavement condition at that time and/or used to help minimise the need for Engineers to be out on site and work in a safer environment. Our videos could also be used, in conjunction with our LCMS pavement images, to rate surface defects as well.

Our survey vehicles can be configured with one or multiple high-resolution cameras, positioned and angled as per the project's demands. Our typical set up, though, includes right of way (ROW) and kerb and channel (front left) videos. The cameras are usually mounted on the roof of the vehicle for optimal view and image quality. The image is triggered by our distance measuring equipment which allows for distance-based capture, defined by the user.

## Applications

- » Capture network condition on a regular basis to reduce on-site visits
- » True and accurate record for construction projects - record pre- and post-construction pavement surface
- » Asset management and inventory
- » Unsealed condition survey
- » RAMM visual condition rating - surface defects

## DELIVERABLES

Video imagery can be supplied on an external drive

Manual rating of surface defects

Location and condition of pavement defects, and kerb and channel defect



# OVERVIEW: SURVEY SERVICES

## THE DCL ADVANTAGE

- » Leading-edge technology for accurate and comprehensive data for road maintenance prioritisation
- » Original manufacturers of the road survey technology
- » Unrivalled expertise to maximise capabilities and optimise system configuration
- » One stop shop solution with all required technical and operational experience
- » Pool of resources with offices in New Zealand and India

Data Collection Limited (DCL) is a New Zealand owned and registered company who perform highly technical highway surveys and manufacture ROMDAS equipment.

We have been manufacturing and providing advanced road survey equipment to clients for the past 30 years. From our origins in the early 1990s, we have a proven track record in the collection of highway and asset information, both in New Zealand and internationally.

DCL's Survey services specialises in providing innovative solutions for measuring and managing pavements. We invest in highly technical survey equipment that is designed to meet New Zealand and international standards.

Catering to the satisfaction of our clients, we provide data and information on assets, surface and sub-surface conditions. Our services can be applied to a wide spectrum of industries including roads, airports, ports and railways.

Our team has collective knowledge and technical skills with varied experience. We are dedicated to collect and report accurate, reliable pavement information which is critical to successfully prioritising budgets and maintaining a high standard of service.

## Our Expertise

We have a dedicated team offering technical expertise for two types of surveys:

### » Pavement Condition Survey

Information on the condition of the pavement surface and assets, visually and automatically

- » Pavement Surface Condition with video imagery
- » High speed survey with automatic pavement surface assessments
- » Automatic crack detection and mapping
- » GIS mapping
- » Roadside inventory and asset management
- » Road construction quality testing

### » Structural Testing

Providing sub-surface structural data

- » Falling Weight Deflectometer Testing to determine pavement strength and identify failures
- » Heavy Weight Deflectometer Testing; for thicker pavements, airports and ports

