# Waka Kotahi Pavement Design Standard Volume 6 Field Testing and Investigation and Volume 7 Laboratory Testing Requirements

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| Waka Kotahi spends a significant amount per annum on pavement construction and/or rehabilitation projects, which are generally designed to have a 25 years design life. Waka Kotahi has identified that the asset life for many of the pavements designed and constructed for them do not align with the designed asset life, failing after only a few years. Several studies over the past 25 years have shown that these issues are primarily caused by five factors, being wrong treatment type, inadequate design, materials used and quality, adverse environmental conditions, and construction methodology. A review of pavement design reports revealed vast differences despite all following the same design guides from a brief report with virtually nil investigation to large reports with significant amount of testing and design options. The failure modes were not either determined or linked to the chosen treatment or traffic volumes. It was clear that the pavement design and investigation process is not clearly defined leading to differences across the pavement design community. To ensure design consistency and appropriate treatments chosen relevant for failure mode and road hierarchy (primarily traffic volume and urban or rural based on ONF) plus prevent early failures Waka Kotahi has started on a process to write a pavement design standard. The design standard are being developed using expert industry steering groups with a lead working group representing industry and Waka Kotahi overseeing the process ensure the content is acceptable and balances risk and cost. This pavement design standard will clearly detail Waka Kotahi requirements based on Road Hierarchy (ONF) in the body of the document while in the appendices will be guidance if not already available elsewhere. This presentation will detail the contents of the first chapters developed being Volume 6 Field Testing and Investigation and Volume 7 Laboratory Testing Requirements. The key differences are that the testing is linked to the road class and treatment type with a test pit specification to ensure a consistent high standard is achieved throughout the country. |