**Presentation and Workshop: CBR and DCP testing in pavement investigations**

Both DCPs (Scalas) and CBRs are embedded in New Zealand laboratory and engineering practice. However, there are significant measurement uncertainty within both tests, with many being derived from the ways in which tests are carried out, and then interpreted by engineers.

**Presentation**

Over the past 4 years, Rob Damhuis has been collating subgrade investigation test report data into a spreadsheet database. Some surprising, and not surprising observations have been made regarding the subgrade testing, resulting potentially in big changes to the way subgrades are tested and analysed for pavement design.

Pavement engineers take these test results and use correlations to estimate the CBR from the DCP, and then further correlations to estimate the modulus from the CBR (which was estimated), in order to derive the pavement design thickness.

Laboratories need to understand the challenges surrounding the testing and interpretation of these test results, so that we can improve our practices, laboratories and engineers alike.

**Workshop**

There are some significant issues within the test methodology for the CBR, and to a lesser extent for the DCP. Laboratories generally adhere to the test methods for each, these methods attempt to provide guidance for every possible scenario, creating ambiguities and leading laboratories to create sub-rules to achieve the desired outcomes. Unfortunately, tests conducted using these sub-rules may yield different results compared to the same tests performed by another laboratory using different sub-rules.

In addition, once reported, engineers take these results and treat them as ‘the’ bull’s eye for their designs with little understanding of the measurement uncertainty of the test results.

This workshop will explore some of these issues with the aim to aligning or improving the method and/or the reporting thereof.