



GroundScience

The development of residential and commercial subdivisions will involve the design of the road pavements. Ground Science has the expertise and experience to conduct appropriate field investigations to determine the subsoil characteristics for the design of the pavement. The initial stages in developing a pavement design involves a preliminary desk top study of the site. Typically the site may have been a green field or been an alternative land use and is to be developed to support new development. The initial review ensures the investigation stage considers all site aspects, potential constraints and important features. It may be necessary to consider environmental sensitive features.

The progression to the field investigation stage will include a subsurface investigation using test pit techniques, borehole drilling, insitu testing and material retrieval for geotechnical testing. Ground Sciences has a NATA accredited testing laboratory that has the capabilities of conducting the design test requirements.

Once the investigation stage is complete, the design process begins and follows the following processes.

- Determine all relevant features of the site (geology, climatic zone)
- Presentation of field and laboratory test results
- Characterising subgrade soils in terms of strength, reactivity, expansive nature
- Nominating design parameters (CBR, Subgrade Improvements)
- Providing traffic design & data through traffic assessments
- Calculating pavement thickness based on obtained data
- Presenting pavement composition
- Analysing final outcome via CIRCLY™ (upon request)

**Ground Science** has built up relationships with Councils across Victoria and has tailored reports to meet the specific requirements of most Shires. All reports and procedures are in accordance with many council pavement design guidelines, Australian Standards and Austroads (2006 & 2008) requirements:

**Failed Pavement investigations** typically involves geotechnical investigations of the existing conditions and assessments of likely failure sources. It is typically performed for the upgrading of existing pavements as well as pavements that have failed/ceased to serve its design purpose.

A failed pavement investigation report is generally conducted adopting the following procedures:

- Investigation (field & laboratory) of existing pavement make up (asphalt, base, subbase, subgrade improvement layer & subgrade)
- Analysis of laboratory field & laboratory investigation results
- Presentation of likely causes to failure of pavement
- Recommendations and advice on remediation procedures

Please contact our pavement design & investigation specialist **Mr Gee Singh** on **9464 4617** for any questions or to organise a quote.