



## INTRODUCTION TO WILLOWS ENGINEERING

Willows Engineering Consultants Pty Ltd was founded in 2020 to provide a consultancy service in the fields of forensic, geotechnical and remedial engineering. The company has developed a unique approach to engineering assessment and reporting, with a focus on risk management, geological interpretation and the principles of ground-structure interaction.

Willows Engineering collaborates on projects with other experienced engineers, professionals and remedial builders, which inevitably raises the project quality and understanding of the entire team.

Clients of Willows Engineering include solicitors dealing with legal proceedings, insurance claim managers and loss adjusters, government regulatory bodies requiring peer review, as well as strata unit managers, individual property owners, builders, architects and engineers.

## DIRECTOR PROFILE

The company director David Willows has a background in landslide risk management, geotechnical investigation, civil construction, monitoring, peer review and assessment of damaged structures.

David prepares expert reports for civil litigation and has given evidence in the NSW District Court. He may be retained for ongoing expert witness consulting services, to interact with solicitors and barristers on technical details, participate in expert conclaves and for court cross-examination.

David is a member of the Engineers Australia Civil & Structural Panel (Sydney Division) and Board member of CIRCEA (College of Investigative, Remedial and Consulting Engineers of Australia).

## FORENSIC SERVICES

Willows Engineering provides Forensic services aimed at identifying the geotechnical causes of excavation failures and structure damage, including cracking, settlement, landslide or collapse. A systematic forensic approach is used to identify the factors, events and mechanisms relevant to the matter. Reports are suitable for insurance claims and can be prepared for legal proceedings.

Willows Engineering offers the following standard range of Forensic engineering services:

- Consultation (meeting, document review and preliminary opinion, email of advice only).
- Desktop study (document review and preliminary opinion report on letterhead).
- Site inspection and preliminary opinion report (not for court proceedings).
- Technical review of documents and failure mechanism (not for court proceedings).
- Expert reports (for court proceedings, in accordance with Uniform Civil Procedure Rules).

## **GEOTECHNICAL SERVICES**

Willows Engineering provides Geotechnical services aimed at identifying the geological model and underlying ground conditions of a portion of land. The assessment process may involve a desktop review of geology and topography maps, photos and history, walkover site inspections, survey, monitoring, instrumentation, drilling investigations, sampling and laboratory testing.

Sketches and annotated photos of the inferred soil, groundwater and rock profile are used to communicate geotechnical issues with developers, engineers, builders, solicitors and owners.

Willows Engineering offers the following standard range of Geotechnical engineering services:

- Consultation (office meeting, document review and summary email only, no inspection).
- Desktop study report (document review and consultation, no inspection).
- Peer review and reporting on landslide risk management (AGS 2007).
- Geotechnical assessment report (inspection, optional meeting and document review).
- Geotechnical investigation report (inspection, co-ordinate fieldwork, testing as required).

## **REMEDIAL SERVICES**

Willows Engineering provides Remedial services to assess damaged structures and for geotechnical input into concept design, slope stabilisation and risk reduction works.

Remedial works assessment reports include an interpreted geological model, commentary on the geotechnical issues and factors relating to the damage, with recommendations for the planning, engineering design and construction of remedial works.

Willows Engineering offers the following standard range of Remedial engineering services:

- Consultation (office meeting, review and summary email only, no inspection).
- Desktop study report (review and consultation, no inspection).
- Damage assessment report (inspection, review and geotechnical assessment).
- Remedial works concept report (inspection, concept sketches and recommendations).
- Slope stabilisation risk reduction report (landslide risk management - AGS 2007).

## **INDUSTRY ENGAGEMENT**

Willows Engineering is committed to working with leaders in the civil engineering industry to raise awareness of forensic engineering in Australia.

The company has a vision to deliver webinars, online forums, seminars, education and training courses through Engineers Australia, CIRCEA, tertiary institutions and industry groups.

For enquiries, contact David Willows by email: [david@willowsengineering.com.au](mailto:david@willowsengineering.com.au)