



NZGS Specification

NZGS_0000 STANDARD SPECIFICATION USER GUIDE

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**NEW ZEALAND
GEOTECHNICAL
SOCIETY INC**

A Collaborating Technical Society
of Engineering New Zealand

Document Status

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The document may be updated from time to time following the issue date. The latest version is available from the New Zealand Geotechnical Society (NZGS) website www.nzgs.org

About the New Zealand Geotechnical Society

The New Zealand Geotechnical Society (NZGS) is the affiliated organisation in New Zealand of the International Societies representing practitioners in Soil Mechanics, Rock Mechanics and Engineering Geology. NZGS is also a collaborating Technical Society of Engineering New Zealand.

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Foreword

This long-form specification has been developed to be used in conjunction with:

- NZS3910:2013 Conditions of contract for building and civil engineering construction
- NZS4431:2022 Engineered fill construction for lightweight structures
- The other components of the NZGS Specification series, notably:
 - NZGS_000 Standard Specifications User Guide
 - NZGS_100 Preliminary and general
 - NZGS_200 Ground Investigations ¹
 - NZGS_110 Method of measurement
 - NZGS_520 Reinstatement
- The project-specific details

It may be used in conjunction with other specifications where appropriate.

This specification is intended to be appropriate for use on most residential or light commercial development projects with common soil and rock types found in New Zealand. It is also intended to be flexible enough to be used on major earthworks projects, but may require more significant additions to the project-specific details by the Geotechnical Designer.

A separate short-form version of this specification is being developed for smaller projects.

Acknowledgements

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A draft version of this document was released for industry review in mid-2022. Feedback was received from the following individuals and organisations:

- To be listed following feedback

¹ Currently presented as Volume 1 of the New Zealand Ground Investigation Specification, NZGS 2017

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NZGS_000.1 **General**

NZGS_000.1.1 **Introduction and scope**

A clear and effective specification is an essential tool to help ensure that projects achieve the objectives desired by the client, geotechnical designer and contractor. While project-specific specifications can be useful in accurately describing the exact requirements for each project, they result in a steep learning curve for contractors on each project where a new specification is encountered, risking errors, rework, and increasing costs.

These specifications have been developed to cover geotechnical aspects of common civil engineering projects to:

- Improve efficiency by reducing the need to create new specifications for every project.
- Reduce risk from mistakes by introducing consistent expectations across projects.
- Set standards for geotechnical works at a level that reduces project risk to acceptable levels by specifying good practice.

These specifications may be used as stand-alone documents for purely geotechnical projects, or integrated into a larger specification for projects with other elements.

Notes for guidance are presented in blue boxes similar to this example. They do not form part of the Specification or contract.

NZGS_000.1.2 **Philosophy**

These specifications have been developed to work as both:

1. Complete specifications for projects that are purely within the scope of the individual specifications, by using the preliminary and general section alongside the relevant technical section(s).
2. As part of a specification for projects that include work outside the scope of the individual specification, by using the technical section(s) as part of a larger suite of specification documents.

These specifications have been written to be compatible with NZS3910 contracts, but can be used with other similar contract forms.

The specifications are read-only, to encourage consistency between projects and to reduce the risk that can be introduced when customisations are made to the document which aren't readily apparent to the contractor. Instead, project specific requirements which over-ride the main specification are provided in a short "Project-specific Specifications" document which describes the changes from the NZGS Specification.

NZGS_000.1.3 Taxonomy and numeration

The taxonomy for NZGS Standard Specifications is based on the UK Civil Engineering Standard Method of Measurement Revision 3 (CESMM3). This allows these documents to work alongside other specifications in the same series, or to work alongside other non-aligned specifications (including those commercially available in New Zealand) with only minor alterations.

CESMM3 divides common civil engineering works into the following main headings:

CESMM3 Section No.	Topic	Covered by NZGS Specifications
100	Preliminary and general	Yes
200	Geotechnical investigation	Yes ²
300	Geotechnical and other specialist processes	No
400	Demolition and site clearance	No
500	Earthworks	Yes ³
600	Concrete construction	No
700	Pipelaying	No
800	Metalwork	No
900	Piling	No
1000	Roadworks	No
1100	Tunnelling, boring and drilling	No
1200	Brickwork, blockwork and masonry	No
1300	Miscellaneous works	No

It is expected that the geotechnical designer will select the appropriate sections of the specification.

Standard Specification numbers will be prefaced with “NZGS” (New Zealand Geotechnical Society Specification), for example, the Standard Specification for Preliminary and General Items will be NZGS_100.

Project-specific Specifications will have the same number as the standard specification it complements with a “P” added at the end. For example, the Project-specific Specification for Preliminary and General Items will be NZGS_100P.

² Currently presented as Volume 1 of the NZ Ground Investigation Specification (NZGS, 2017)

³ Prepared to be entirely compatible with NZS4431:2022

NZGS_000.1.4 How to use the specifications

Contract documents should have:

- Section A including Project-specific Specifications
- Section B including Standard Specifications.

NZGS_000.1.4.1 Standard specifications

The Standard Specifications for any Contract must include NZGS_100 (Preliminary and General Items), or an alternative that includes the equivalent requirements.

Other Standard Specifications should be included, as required, to cover the types of work expected in the Contract.

Standard Specifications must not be edited. If Contract-specific additions, deletions or amendments are required, this must be done in the Project-specific Specifications.

NZGS_000.1.4.2 Project-specific specifications (preliminary and general)

All Contracts must include Project Specification NZGS_100P Preliminary and General (or the equivalent where an alternative P&G form is being used).

It is the responsibility of the Engineer, Civil Designer and Geotechnical Designer to collaborate when drafting the NZGS_100P with all project-specific requirements, descriptions of the works and site etc. The following headings (where applicable) are suggested for the Preliminary and general Project-specific Specification

- Location and scope of work
- Drawings list
- Specifications list
- Project-specific specifications list
- Working area and site services
- Site access
- Co-operation with affected parties
- Communications
- Protection of existing facilities
- Site fencing and security
- Traffic control for works within the road reserve
- Client supplied items
- Construction methods
- Existing Services
- Resource Consents
- Building consents
- Site signs
- Temporary power

- Site buildings
- Engineer's site office
- Other Project-specific Specifications should be used as required.

NZGS_000.1.4.3 Other Project-specific specifications

Other Project-specific Specifications should be used as required where additional requirements or amendments to standard specifications are specifically required by the designer.

The intent of the Project-specific specifications is only to add or amend clauses where it is absolutely necessary. Designers must not merely add their own specifications to the Project-specific specification especially clauses that replace standard clauses unnecessarily (i.e. they do not relax or tighten a requirement specifically required by the design).

Note that all Project-specific Specifications must refer to the version numbers of the Standard Specifications used for the Contract. This is to ensure that it is clear what the Contract was based on at the time of Tender in case Standard Specifications are revised during the life of the Contract.

If no variations to a Standard Specification (other than NZGS_100) are required, a Project-specific Specification doesn't need to be included.