

Appraisal No. 965 [2022]

# THE GEO GRANDE SAOO1 CURVED STAIRCASE

#### Appraisal No. 965 (2022)

This Appraisal replaces BRANZ Appraisal No. 965 [2017]

Amended 17 October 2023



Technical Assessments of products for building and construction.



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#### **Product**

1.1 The Geo Grande SA001 is an internal curved timber staircase. It fits against two walls at right angles and can be built to curve in either direction. The staircase is less than one metre wide at the centre point and extends to the corner of the two walls.

# Scope

- 2.1 The Geo Grande SA001 has been appraised for use as a curved internal stairway in Class 1 or Class 10 buildings.
- 2.2 Installation of components and accessories supplied by Slattery and Acquroff Holdings Pty Ltd must be carried out by Slattery and Acquroff Holdings Pty Ltd approved installers.

# **Building Regulations**

### National Construction Code (NCC)

3.1 In the opinion of BRANZ, the Geo Grande SA001 Curved Staircase, if designed, installed, used and maintained in accordance with the statements and conditions of this Appraisal, will meet or contribute to meeting the following provisions of the NCC:

#### NCC 2022 Volume Two - Building Code of Australia

**Part H1 STRUCTURE:** Performance Requirement H1P1. The Geo Grande SA001 meets the requirements for actions arising from the following imposed actions: permanent actions (dead loads) and imposed actions (live loads arising from occupancy and use) [i.e. H1P1 (2) (a) and (b)]. See Paragraph 8.1.

**Part H5 SAFE MOVEMENT AND ACCESS:** Performance Requirement H5P1. The Geo Grande SA001 will contribute to meeting this requirement. See Paragraphs 11.1 and 11.2.

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# **Technical Specification**

- 4.1 The Geo Grande SA001 is similar to standard tapered tread stairs where the narrowest point at the centre of the stair is less than one metre wide. The difference between the two stair types is that the treads of the Geo Grande SA001 extend to the two walls. This produces a spacious area but one not intended as the traffic route of the stairway.
- 4.2 The Geo Grande SA001 is manufactured either from solid timber or medium density fibreboard. Wedges, glueblocks, nails, screws and adhesive are used to assemble the Geo Grande SA001 in the conventional manner.

# Handling and Storage

5.1 Handling and storage of all materials supplied by Slattery and Acquroff Holdings Pty Ltd is under the control of the Slattery and Acquroff Holdings Pty Ltd approved installer.

#### **Technical Literature**

- 6.1 This Appraisal must be read in conjunction with:
  - Geo Grande SA001 Standard Template (each job has individual measurement and detail sheets), Rev A, 21/02/17.
- 6.2 All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.

# **Design Information**

- 7.1 The Geo Grande SA001 is for use in dry, internal environments.
- 7.2 The Geo Grande SA001 must only be used in stairs that connect no more than 2 storeys.
- 7.3 The Geo Grande SA001 is similar to standard tapered tread stairs where at the narrowest point at the centre, the stair is less than one metre wide. The difference between the two stair types is that the treads of the Geo Grande SA001 extend to the two walls. This produces a spacious area towards the corner of the walls but one not intended as the traffic path for people on the stairway. A hand rail is provided on the inside of the stair curve which attracts people to a path on the shortest inside and one with constant tread width (going) and risers. Only when the person moves towards the corner of the walls and outside one metre from the hand rail does the stair going width become irregular. This is not considered to be the natural path for people wishing only to navigate the stairs to the other level. Towards the bottom of the stairs, the stair width increases as the inner moves away from the wall and the treads curve to maintain the going.
- 7.4 The Geo Grande SA001 curved staircase has a set plan with standard treads. The variations are the riser height dimension and the number of risers, which is 16, 17 or 18. The 16 riser staircase has a wide nosing at the top, and the 18 riser staircase has an extra curved step at the bottom. The maximum floor to floor dimension is 3,420 mm. The going is 240 mm measured 400 mm in from the handrail. The staircases are manufactured within the tolerance guidance given in the NCC.
- 7.5 Stair treads must have a slip resistant coating or nosing complying with the ABCB Housing Provisions. Part 11.2.4.
- 7.6 Barriers and handrails to prevent falls must comply with the ABCB Housing Provisions, Part 11.3.

#### Durability

#### Serviceable Life

8.1 The Geo Grande SA001 is constructed as a conventional timber staircase and is therefore expected to have a similar serviceable life.

#### Maintenance

9.1 The Geo Grande SA001 will require little maintenance. The slip resistant coating or non-skid strip near the nosing of each step, as required by the NCC, must be maintained.



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#### Safe Movement and Access

- The Geo Grande SA001 will allow for the safe movement and access between floors of a building. 1N 1 The fact that the stair becomes wider as it curves inside two walls that are at right angles does not adversely affect a person's ability to navigate the stairs.
- Persons (occupants) will be familiar with the geometry as they use the stairs daily. The staircase 10.2 is fitted with a handrail which provides added safety and attracts users to the one metre wide constant going similar to other tapered tread stairs.

#### Installation Information

Geo Grande SA001 installations are all individually measured, manufactured and installed by Slattery & Acquroff Holdings Pty Ltd and their approved installers.

# **Basis of Appraisal**

The following is a summary of the technical investigations carried out:

- A Building Code of Australia Performance Solution Report on the Geo Grande SA001 prepared by 12.1 Progressive Building Solutions Building Surveyor has been reviewed by BRANZ. This report forms the compliance basis of this Appraisal.
- The history of use of the Geo Grande SA001 has been assessed by BRANZ and found to demonstrate 122 suitable performance. At the time of issue of this Appraisal, over 1,500 Geo Grande SA001 Curved Staircases have been installed.
- The measuring, manufacture and installation systems used by Slattery and Acquroff Holdings Pty Ltd for the construction of the Geo Grande SA001 have been reviewed by BRANZ and found to be satisfactory.

#### Quality

- 13.1 Slattery and Acquroff Holdings Pty Ltd are responsible for the design including the materials used for the stairs.
- 13.2 Building designers are responsible for incorporating the Geo Grande SA001 into the design of the building.
- 13.3 Slattery and Acquroff Holdings Pty Ltd are responsible for the quality of manufacture and installation of the Geo Grande SA001.
- 13.4 Building owners are responsible for the maintenance of the Geo Grande SA001.

#### Sources of Information

• National Construction Code 2022, Australian Building Codes Board.

#### Amendments

#### Amendment No. 1, dated 17 October 2023

This Appraisal has been amended to update references from NCC 2019 to NCC 2022.





In the opinion of BRANZ, the Geo Grande SA001 Curved Staircase is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to Slattery and Acquroff Holdings Pty Ltd, and is valid until further notice, subject to the Conditions of Appraisal.

# **Conditions of Appraisal**

- 1. This Appraisal:
  - a) relates only to the product as described herein;
  - b) must be read, considered and used in full together with the Technical Literature;
  - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
  - d) is copyright of BRANZ.
- 2. Slattery and Acquroff Holdings Pty Ltd:
  - a) continues to have the product reviewed by BRANZ;
  - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
  - c) abides by the BRANZ Appraisals Services Terms and Conditions;
  - d) warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
- 3. BRANZ makes no representation or warranty as to:
  - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
  - b) the presence or absence of any patent or similar rights subsisting in the product or any other product;
  - c) any guarantee or warranty offered by Slattery and Acquroff Holdings Pty Ltd.
- 4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
- BRANZ provides no certification, guarantee, indemnity or warranty, to Slattery and Acquroff Holdings
   Pty Ltd or any third party.

For BRANZ

Chelydra Percy Chief Executive

Date of Issue:

15 September 2022