BEAL Appraisal Certificate

APPRAISAL #: C2155

EXPIRY DATE: 30 April 2027

The Giant Stone Veneer Cladding System

Product

1.1 The Giant Stone Veneer Cladding System (GSVCS) is an exterior wall cladding installed over a cavity that provides a medium weight, highly durable cladding solution suited for residential housing and light commercial buildings. The GSVCS incorporates a sealing system for window and door openings utilising a combination of fibre-cement backing boards, board sealer, stone adhesive mix and natural stone veneers, precision hand cut to between 40mm and 60mm thick.

1.2 The technical manual outlines the typical installation and details of the GSVCS. If specifiers require additional details or clarification, please contact Giant Stone Ltd.

1.3 The Giant Stone Veneer Cladding System can be installed either with a typical NZ (aluminium) style head flashing system or as a rain screen without a head flashing, using air and moisture sealing tapes to prevent the ingress of air and moisture through the gap between the backing board and the window and or door opening.

NZ Building Regulations

2.1 In the opinion of BEAL, the GSVCS, when designed, installed and maintained in accordance with the statements and conditions of this Appraisal Certificate, will meet the following provisions of the New Zealand Building Code:

Clause B1.3.3(h) STRUCTURAL PERFORMANCE
The GSVCS meets the requirements of Performance Clause B1.3.3(h) (Refer para 6.3)
Clause B1 MECHANICAL / ADHESION PROPERTIES
The GSVCS meets the requirements of Performance B1.3.2. (Refer para 6.4)
Clause B2 DURABILTY
Performance B2.3.1 (b) 15 years for new or repair work. The GSVCS will meet this requirement. (Refer para 6.5)
Clause E2 EXTERNAL MOISTURE
Performances E2.3.2. The Giant Stone Veneer Cladding System will meet this requirement. (Refer para 6.6)
Clause F2 HAZARDOUS BUILDING MATERIALS
Performance F2.3.1. The GSVCS will not present a health hazard to people. (Refer para 6.7)

2.2 The GSVCS has been appraised as an 'Alternative Solution' in terms of compliance with the New Zealand Building Code.

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Scope and Limitations

3.1 The GSVCS has been appraised for use as a decorative stone veneer type cladding system for installation over either a flexible or rigid air barrier and cavity battens, all in compliance with the NZBC.

3.2 The design and construction of the framing, including control joints, are to be to be in accordance with NZS3604 or the NASH Standards for light gauge steel framing.

3.3 The GSVCS system shall be installed only by competent and experienced tradespersons.

3.4 The owner of the building is responsible for the proper maintenance of the installed cladding as set out in the Giant Stone maintenance and warranty document.

Technical Literature

4.1 The GSVCS Technical Manual Ver 4 must be read in conjunction with this appraisal. All aspects of design, use, installation and maintenance contained within the technical manual and scope of this Appraisal Certificate must be followed.
4.2 For a copy of this Technical Manual please contact Giant Stone Ltd.

Technical Details

5.1 The GSVCS can be installed over a frame protection system such as a flexible air barrier or a rigid air barrier that has been installed in compliance with the NZBC and the project specification.
Materials and accessories supplied by Giant Stone Ltd. are as follows:

- **Natural Stone Veneer pieces**

Hand cut stone veneer pieces (40 to 60mm thick) – which have an average weight of 50kg/m2, including corner pieces

- **Mapei Kerabond Plus (2-part adhesive)**

MAPEI Kerabond Plus powder with liquid isolastic is a specially designed ceramic/stone adhesive

- **RL20 – Parts A & B**

A 2-part sealer designed for fibre-cement substrates.

5.2 Materials and accessories to be provided by the owner include –

- **BGC 9mm Stonesheet** plus **BGC Render Tape** for joins
- NZBC compliant '**water pipe and conduit pipe gaskets**' for sealing penetrations through either the flexible air barrier or the rigid air barrier
- NZBC compliant **sealing tapes** for sealing between the flexible or rigid air barrier, and the framing of windows and doors
- **20mm x 25mm x 1.6mm aluminium angle,** where specified, for providing an edge surrounding the window or door opening
- **6mm wide butyl sealant** for sealing between the edge perimeter of the window or door framing and the aluminium angle
- Cavity battens, such as Cavibat 18mm x 45mm battens.

Refer to the GSVCS Technical Manual for the method of construction.

Handling and Storage

5.3 All components must be stored inside, in a well ventilated area, up off concrete floors, kept dry, out of direct sunlight and away from freezing conditions.

Advice for designers

General

6.1 The GSVCS is a decorative stone veneer type cladding system for installation over either a flexible or rigid air barrier and cavity battens, all in compliance with the NZBC.

6.2 Before any application can be carried out, it is essential that a careful inspection of the constructed framing as set out in the GSVCS Technical Manual.

Structure – Clause B1.3.3(h)

6.3 Based on the proven performance of the BGC Stonesheet and associated fixings, together with the adhesive performance of the Mapei KeraBond Plus stone adhesive, the product meets the requirements of B1.3.3(h) wind, including use in Extra High Wind Zones as described in NZS3604.

Adhesion – Clause B1.3.2

6.4 The adhered stone veneer pieces have good adhesion to the sealed BGC a wide range of substrates and therefore meet the requirements of clause B1.3.2.

Durability – Clause B2.3.1 (b)

6.5 The GSVCS system, when used in accordance with this Appraisal Certificate, subject to normal conditions of environment, use, and good housekeeping maintenance, is expected to have a serviceable life of at least 15 years.

External Moisture – Clause E2

6.6 The GSVCS will comply with the requirements of performance clause E2.3.2 when the system is installed in accordance with the manufacturer's Technical Manual.

Hazardous Building Materials – Clause F2

6.7 Performance F2.3.1. The cured GSVCS when installed according to the requirements of this appraisal meets this requirement and will not present a health hazard to people using the building.

Installation Requirements

Installation Skill Requirement

7.1 The GSVCS must be carried out by approved experienced applicators under the supervision of a person who has been trained and approved by Giant Stone Ltd.

Health and Safety

7.2 The safe use and handling of the coating system and related components are provided in the technical manual.
The products must be used in conjunction with the relevant materials safety data sheet for each component.

Basis of this Appraisal

BEAL use the compliance verification procedure to demonstrate compliance with the relevant clauses of the NZBC based on a risk analysis procedure. The following is a summary of the technical investigations carried out:

Assessments

8.1 An assessments of the GSVCS literature supplied has been undertaken by BEAL and found satisfactory.

Testing

8.2 To demonstrate compliance with performance clause E2.3.2 of the New Zealand Building Code, BEAL utilizes its proprietary test procedure, TP112. This method leverages over two decades of practical expertise in evaluating innovative alternative solution cladding systems.

In addition, testing to determine cladding pull-off resistance, required under performance clause B1.3.3 (h), was carried out using a fixing pull-through methodology in place of the use of the less accurate negative wind pressure assessment methodology.

Additional testing of the GSVCS has been undertaken by BEAL to verify:

- Compliance with clause B1.3.2 (mechanical strength)
- Compliance with clause B2.3.1 (b) durability by way of adhesion testing of the specified stone adhesive to the BGC Stonesheet and natural stone substrates
- Compliance with clause B2.3.1 (b) Water resistance of the stone adhesive over time.

In-service History

8.3 The GSVCS has been in use and, when subject to the manufacturer's requirements, performed satisfactorily for the past 5 years in New Zealand in a wide range of conditions.

Other Investigations

8.4 The installation of the GSVCS was also evaluated in practical building situations assessing the following:

- Ease of installation
- Potential risks of non-performance when being installed
- Any external factors that could affect the quality of the installed product

Ease of repair or maintenance

8.5 The Technical Manual has been examined by BEAL and found to be satisfactory.

Quality

8.6 The manufacture of the GSVCS system has been assessed by BEAL regarding the history and composition of the materials obtained by BEAL and found to be satisfactory.

8.7 The quality of materials, components and accessories supplied by Giant Stone Ltd. is managed through the use of a Building Product Quality Plan.

8.8 The Giant Stone Ltd. Building Product Quality Plan, based on a manufacturing quality plan, ensures continuous conformance with the quality requirements from purchase to application by experienced and approved applicators.

8.9 Giant Stone Ltd.'s Building Product Quality Plan is reviewed and audited at least annually by BEAL or appointed agent.

8.10 Designers are responsible for the substructure design, and building contractors are responsible for the quality of construction of the substructure or new substrate in accordance with the instructions of the substrate manufacturer and this Appraisal Certificate.

8.11 Building owners are responsible for the maintenance of the GSVCS in accordance with the manufacturer's instructions and this Appraisal Certificate.

Sources of Information

- The Building Regulations 1992, reprinted 1 January 2017
- NZS 3604:2011 Timber-framed Buildings
- AS/NZS2269 Plywood – Structural
- NASH Standards 1 & 2
- The Giant Stone Veneer Cladding System Technical and Installation Manual Ver 4
- BEAL Test Report TR230426-1 A weathertightness test of The Giant Stone Veneer Cladding System, dated 26 April 2023.
- BEAL Test Report TR230428-1 Adhesive Shear Resistance, dated 28 April 2023.

Concluding statement

9.1 In the opinion of BEAL, the GSVCS is fit for purpose and will comply with the NZBC to the extent specified provided that it is used, designed, installed and maintained in accordance with the manufacturer's instructions and this Appraisal Certificate.

The Appraisal Certificate is issued only to Giant Stone Ltd., and is valid until further notification, subject to the conditions of this Appraisal.

Conditions of Appraisal

10.1. This appraisal Certificate:
a) Relates only to the Giant Stone Veneer Cladding System as described herein;
b) Must be read, considered and used in full, together with the current version of the Technical Manual
c) Does not address any legislation, regulations, codes or standards, not specifically named herein;
d) Is copyright of BEAL

10.2 The Appraisal Certificate holder continues to meet the quality requirements of the Giant Stone Ltd. Building Product Quality Plan and has the plan audited and Appraisal certificate revalidated by BEAL on an annual basis.

10.3 Giant Stone Ltd. shall notify BEAL and obtain approval of any changes of the product specification or quality assurance prior to product being marketed including any trade literature, web site info or the like.

10.4 BEAL makes no representation 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 the Appraisal Certificate holder.

10.5 BEAL's verification of the building product or system complying with one or more of the above-mentioned criteria is given on the basis that the criteria used were those that were appropriate to demonstrate compliance with the NZBC at the date of this Appraisal Certificate. In the event that the criteria is withdrawn or amended at a later date, this Appraisal may no longer remain valid.

10.6 Any reference in this Appraisal Certificate to any other publication shall be read as a reference to the version of publication specified in this Appraisal Certificate.

Authorised Signatory,

C R Prouse – Director
BEAL (Building Element Assessment Laboratory Limited)
[Updated June 2026]