

Fernandes & Associates

**Consulting Engineers** 

Date: October 16, 2018

Certificate no. FAC-877 Rev. 1

## **CERTIFICATE OF CONFORMANCE**

### APEX FASCIA GUTTER BACK GAP OVERFLOW CAPACITY AND RIDGE TO GUTTER LENGTH

## CERTIFICATION

I certify that the back gap overflow capacities and ridge to gutter lengths for the Apex Fascia Gutter in document FA-APEX-877 Rev. 1 have been obtained using methods and principles which comply with the Codes and Australian Standards stated below.

I also certify that the use of suitable back gap spacers to achieve the required overflow capacity is compliant with the requirements of Clause A2.2 of NCC2016 Volume three (Evidence of suitability).

### **BASIS OF CERTIFICATION**

The following documents were referred to in making this this certification:

- 1. AS/NZS 3500.3
- 2. NCC2016 Volumes 2 and 3
- Research Report Investigation of Back Gap Overflow Capacity of Residential Eaves Gutters. Prepared for the Australian Steel Institute Ltd. Prepared by Cam Seccombe and Mike Kelly. Report Date – 31<sup>st</sup> May 2016.

### CONDITIONS OF CERTIFICATION

The conditions of certification are as given in document FA-APEX-877 Rev. 1.

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#### APEX FASCIA GUTTER - FITTED WITH BACK GAP SPACERS

## Table 1: Overflow Capacity and Maximum Ridge to Gutter Length vs Average Bottom Back Gap (see Note 4)

| Average<br>Bottom Back Gap<br>(mm) | Back Gap Overflow<br>Capacity (L/s/m) | Maximum Ridge to Gutter Length (m)                                  |                        |  |                        |                              |                        |
|------------------------------------|---------------------------------------|---|------------------------|--|------------------------|------------------------------|------------------------|
|                                    |                                       | Geelong (144 mm/hr)<br>Hastings (145 mm/hr)<br>Sorrento (140 mm/hr) | Horsham<br>(173 mm/hr) | Ballarat (188 mm/hr)<br>Melbourne (187 mm/hr)<br>Stawell (186 mm/hr) | Benalla<br>(194 mm/hr) | Lakes Entrance<br>(198mm/hr) | Mildura<br>(218 mm/hr) |
| 1.50                               | 1.200                                 | 30  | 25                     | 23   | 22                     | 22                           | 20                     |
| 1.55                               | 1.207                                 | 30  | 25                     | 23   | 22                     | 22                           | 20                     |
| 1.60                               | 1.213                                 | 30  | 25                     | 23   | 23                     | 22                           | 20                     |
| 1.65                               | 1.220                                 | 30  | 25                     | 23   | 23                     | 22                           | 20                     |
| 1.70                               | 1.227                                 | 31  | 26                     | 23   | 23                     | 22                           | 20                     |
| 1.75                               | 1.233                                 | 31  | 26                     | 24   | 23                     | 22                           | 20                     |
| 1.80                               | 1.240                                 | 31  | 26                     | 24   | 23                     | 23                           | 20                     |
| 1.85                               | 1.247                                 | 31  | 26                     | 24   | 23                     | 23                           | 21                     |
| 1.90                               | 1.253                                 | 31  | 26                     | 24   | 23                     | 23                           | 21                     |
| 1.95                               | 1.260                                 | 31  | 26                     | 24   | 23                     | 23                           | 21                     |
| 2.00                               | 1.267                                 | 31  | 26                     | 24   | 24                     | 23                           | 21                     |

### Notes:

1. Table is valid for the following conditions

- a. Eaves gutter system must be designed and installed in accordance with AS/NZS 3500.3
- b. Maximum spacing of gutter clips is 1200mm
- c. Maximum back gap spacer width is 50mm
- d. Minimum vertical distance from top of fascia to top of gutter back = 10mm
- e. Gutter slope = 1:500 or steeper
- f. Roof membranes must be trimmed or terminated above the gutter back
- 2. ARIs in brackets are for 1 in 100 years
- 3. Interpolation is permitted for intermediate values of average bottom back gaps
- 4. Average bottom back gap is to be achieved with the gutter full.
- 5. Apex is responsible for supplying back gap spacer kit and instructions on how to achieve the required back gap.



Approved by Milton Fernandes-FIEAust CPEng NER APEC Engineer IntPE(Aus) RPEQ 4112 For and on behalf of Fernandes & Associates Pty Ltd (www.fernandes.net.au; Tel: (07) 3852 1371)



### CLIENT: APEX (VICTORIA) PTY LTD

CONTROLLED BACK GAP OVERFLOW SOLUTION FOR APEX FASCIA GUTTER USING BACK GAP SPACERS

FA-APEX-877 Revision 1

Date: 16/10/2018