

# Assessor Certificate

## Multiple Dwellings

Assessed and issued in accordance with the BASIX  
Thermal Comfort Protocol for the Simulation Method



|  |                                     |               |   |    |
|--|-------------------------------------|---------------|---|----|
| Date:  | 26 May 2016                         | BSA File ref: | 11428                                   |    |
| <b>Assessor</b>                                |                                     |               |   |    |
| Name:  | Gavin Chambers                      | Company:      | Building Sustainability Assessments     |    |
| Assessor #:                                    | BDAV/13/1491                        |               |   |    |
| Address:                                       | 7 William Street, HAMILTON NSW 2303 |               |   |    |
| Phone:   | (02) 4962 3439                      | Email:        | enquiries@buildingsustainability.net.au |    |
| Declaration of interest in the project design: | None                                |               |   |    |
| <b>Project</b>                                 |                                     |               |   |    |
| Address:                                       | 500 King Street                     |               |   |    |
|  | NEWCASTLE WEST NSW 2302             |               | Climate Zone:                           | 15 |
| <b>Assessment</b>                              |                                     |               |   |    |
| Software:                                      | BERS Pro 4.3                        |               | Affix assessor stamp                    |    |

### Documentation

All details, upon which this assessment has been based, are included in the project documentation that has been stamped and signed by the Assessor issuing this certificate, as identified below:

### Drawings used for this assessment:

(Title, Ref.#, Revision, Issue date, etc)



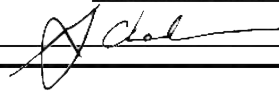
EJE Architecture Job No. 11014

### Thermal Performance Specification (copy on page 2)

Attached to the drawings and is on page: A49



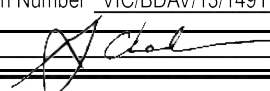
|                      |                  |
|----------------------|------------------|
|                      |                  |
| Certificate Number   | 0000321900       |
| Accreditation Number | VIC/BDAV/13/1491 |
| Signature            | Date 26/05/2016  |



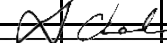
| Thermal performance specifications |             |         | Certificate #            |      | 0000321900  |                              | Page 1 of 4 |  |
|------------------------------------|-------------|---------|--------------------------|------|-------------|------------------------------|-------------|--|
| Unit No.                           | Floor Areas |         | Predict. loads (MJ/M²/y) |      | Star Rating | Basix Floor Type and Area m² |             |  |
|                                    | Cond.       | Uncond. | Heat                     | Cool |             |                              |             |  |
| 1                                  | 102         | 0       | 38                       | 25   | 6.3         |                              |             |  |
| 2                                  | 104         | 0       | 42                       | 12   | 6.8         |                              |             |  |
| 3                                  | 104         | 0       | 42                       | 11   | 6.8         |                              |             |  |
| 4                                  | 104         | 0       | 49                       | 19   | 5.9         |                              |             |  |
| 5                                  | 104         | 0       | 27                       | 20   | 7.2         |                              |             |  |
| 6                                  | 104         | 0       | 18                       | 13   | 8.3         |                              |             |  |
| 7                                  | 104         | 0       | 18                       | 13   | 8.3         |                              |             |  |
| 8                                  | 104         | 0       | 18                       | 23   | 7.6         |                              |             |  |
| 9                                  | 102         | 0       | 39                       | 25   | 6.2         |                              |             |  |
| 10                                 | 104         | 0       | 40                       | 13   | 6.9         |                              |             |  |
| 11                                 | 104         | 0       | 41                       | 12   | 6.8         |                              |             |  |
| 12                                 | 104         | 0       | 49                       | 19   | 5.9         |                              |             |  |
| 13                                 | 104         | 0       | 28                       | 20   | 7.2         |                              |             |  |
| 14                                 | 104         | 0       | 18                       | 13   | 8.2         |                              |             |  |
| 15                                 | 104         | 0       | 18                       | 13   | 8.2         |                              |             |  |

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| Certificate Number   | <b>0000321900</b>   |
| Accreditation Number   | VIC/BDAV/13/1491  |
| Signature  |  Date 26/05/2016 |

|   |                        |   |                     |           |
|---|------------------------|---|---------------------|-----------|
| May 2016  |                        | BSA Reference: 11428                                    |                     |           |
| Building Sustainability Assessments   |                        | Ph: (02) 4962 3439                                      |                     |           |
| enquiries@buildingsustainability.net.au   |                        | www. buildingsustainability.net.au                      |                     |           |
| Important Note  |                        |   |                     |           |
| The following specification was used to achieve the thermal performance values indicated on the Assessor Certificate and takes precedence over any other specification. |                        |   |                     |           |
| If different construction elements are applied then the Assessor Certificate is no longer valid.  |                        |   |                     |           |
| Thermal Performance Specifications (does not apply to garage)   |                        |   |                     |           |
| External Wall Construction  |                        | Added Insulation  |                     |           |
| Lightweight   |                        | R2.5  |                     |           |
|   |                        |   |                     |           |
| Internal Wall Construction  |                        | Added Insulation  |                     |           |
| Plasterboard on studs (internal to units)   |                        | none  |                     |           |
| Plasterboard on studs (between units and adjacent to lobbies/liftwells/stairwells)  |                        | R2.0  |                     |           |
| Ceiling Construction  |                        | Added Insulation  |                     |           |
| Plasterboard  |                        | R2.5 to ceilings adjacent to roof space and decks above |                     |           |
| Roof Construction   |                        | Colour  | Added Insulation    |           |
| Metal   |                        | Any   | Foil + R1.0 blanket |           |
| Concrete  |                        | Any   | none                |           |
| Floor Construction  |                        | Covering  | Added Insulation    |           |
| Concrete  |                        | As drawn  | none                |           |
| Windows   | Glass and frame type   | U Value   | SHGC                | Area sq m |
| ALM-003-04 A  | Aluminium Type A Low-e | 4.9   | 0.33                | As drawn  |
| ALM-004-04 A  | Aluminium Type B Low-e | 4.9   | 0.33                | As drawn  |
|   |                        |   |                     |           |
| Type A windows are awning windows, bifolds, casements, tilt 'n' turn' windows, entry doors, french doors  |                        |   |                     |           |
| Type B windows are double hung windows, sliding windows & doors, fixed windows, stacker doors, louvres  |                        |   |                     |           |
| Skylights   | Glass and frame type   | U Value   | SHGC                | Area sq m |
|   |                        |   |                     |           |
| U and SHGC values are according to AFRC. Alternate products may be used if the U value is lower and the SHGC is less than 5% higher or lower than the above figures.    |                        |   |                     |           |
| External Window Shading   |                        | (eaves, verandahs, pergolas, awnings etc)               |                     |           |
| All shade elements modelled as drawn  |                        |   |                     |           |
|   |                        |   |                     |           |
| Ceiling Penetrations  |                        | (downlights, exhaust fans, flues etc)                   |                     |           |
| No adjustment has been made for losses to insulation arising from ceiling penetrations.   |                        |   |                     |           |
| If insulation losses > 0.5% of the ceiling area occur then the assessment is no longer valid.   |                        |   |                     |           |

| Assessor Certificate               |             |         | Assessor # BDAV/13/1491               |      |             | Issued:                                  | 26 May 2016 |
|------------------------------------|-------------|---------|---------------------------------------|------|-------------|--|-------------|
| Thermal performance specifications |             |         | Certificate # 0000321900              |      |             | Page 3 of 4                              |             |
| Unit No.                           | Floor Areas |         | Predict. loads (MJ/M <sup>2</sup> /y) |      | Star Rating | Basix Floor Type and Area m <sup>2</sup> |             |
|                                    | Cond.       | Uncond. | Heat                                  | Cool |             |  |             |
| 16                                 | 104         | 0       | 19                                    | 23   | 7.5         |  |             |
| 17                                 | 102         | 0       | 39                                    | 25   | 6.2         |  |             |
| 18                                 | 104         | 0       | 40                                    | 12   | 6.9         |  |             |
| 19                                 | 104         | 0       | 42                                    | 12   | 6.8         |  |             |
| 20                                 | 104         | 0       | 50                                    | 19   | 5.9         |  |             |
| 21                                 | 104         | 0       | 28                                    | 20   | 7.2         |  |             |
| 22                                 | 104         | 0       | 19                                    | 13   | 8.2         |  |             |
| 23                                 | 104         | 0       | 19                                    | 13   | 8.2         |  |             |
| 24                                 | 104         | 0       | 19                                    | 23   | 7.6         |  |             |
| 25                                 | 102         | 0       | 40                                    | 25   | 6.2         |  |             |
| 26                                 | 104         | 0       | 41                                    | 13   | 6.8         |  |             |
| 27                                 | 104         | 0       | 42                                    | 12   | 6.8         |  |             |
| 28                                 | 104         | 0       | 50                                    | 19   | 5.9         |  |             |
| 29                                 | 104         | 0       | 29                                    | 20   | 7.1         |  |             |
| 30                                 | 104         | 0       | 19                                    | 13   | 8.2         |  |             |
| 31                                 | 104         | 0       | 19                                    | 13   | 8.2         |  |             |
| 32                                 | 104         | 0       | 19                                    | 23   | 7.4         |  |             |
| 33                                 | 102         | 0       | 40                                    | 25   | 6.1         |  |             |
| 34                                 | 104         | 0       | 41                                    | 13   | 6.8         |  |             |
| 35                                 | 104         | 0       | 43                                    | 12   | 6.7         |  |             |
| 36                                 | 104         | 0       | 51                                    | 18   | 5.9         |  |             |
| 37                                 | 104         | 0       | 29                                    | 20   | 7.0         |  |             |
| 38                                 | 104         | 0       | 19                                    | 13   | 8.2         |  |             |
| 39                                 | 104         | 0       | 19                                    | 13   | 8.2         |  |             |
| 40                                 | 104         | 0       | 20                                    | 23   | 7.4         |  |             |
| 41                                 | 102         | 0       | 41                                    | 25   | 6.1         |  |             |
| 42                                 | 104         | 0       | 42                                    | 13   | 6.8         |  |             |
| 43                                 | 104         | 0       | 43                                    | 12   | 6.7         |  |             |
| 44                                 | 104         | 0       | 52                                    | 19   | 5.9         |  |             |
| 45                                 | 104         | 0       | 29                                    | 20   | 7.0         |  |             |
| 46                                 | 104         | 0       | 20                                    | 13   | 8.1         |  |             |
| 47                                 | 104         | 0       | 20                                    | 13   | 8.1         |  |             |
| 48                                 | 104         | 0       | 20                                    | 23   | 7.4         |  |             |
| 49                                 | 102         | 0       | 41                                    | 24   | 6.1         |  |             |
| 50                                 | 104         | 0       | 42                                    | 13   | 6.7         |  |             |
| 51                                 | 104         | 0       | 44                                    | 12   | 6.7         |  |             |
| 52                                 | 104         | 0       | 52                                    | 19   | 5.9         |  |             |
| 53                                 | 104         | 0       | 30                                    | 20   | 6.9         |  |             |
| 54                                 | 104         | 0       | 20                                    | 13   | 8.1         |  |             |
| 55                                 | 104         | 0       | 20                                    | 13   | 8.1         |  |             |
| 56                                 | 104         | 0       | 21                                    | 23   | 7.4         |  |             |
| 57                                 | 102         | 0       | 42                                    | 24   | 6.1         |  |             |
| 58                                 | 104         | 0       | 43                                    | 13   | 6.7         |  |             |
| 59                                 | 104         | 0       | 44                                    | 12   | 6.7         |  |             |

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|--|--|--|
|  <b>Building Sustainability Assessments</b> |  | <small>COMPONENT MEMBER</small><br><br><small>Building Designers Accreditation Scheme</small> |
| Certificate Number <b>0000321900</b>   |  |  |
| Accreditation Number VIC/BDAV/13/1491  |  |  |
| Signature                                  |  | Date 26/05/2016  |

|   |   |  |
|---|---|--|
|  <p><b>Building</b><br/>Sustainability Assessments</p> | <p>CERTIFICATE OF<br/>ACCREDITATION</p>   | <p>CORPORATE<br/>MEMBERSHIP</p>  |
| <p>Building Sustainability Assessments</p>  | <p>0000321900</p>   |  <p>bda.v.<br/>Building Designers<br/>Association Victoria</p> |
| <p>Certificate Number</p>   | <p>0000321900</p>   |  |
| <p>Accreditation Number</p>   | <p>VIC/BDAA/13/1491</p>   |  |
| <p>Signature</p>  |  | <p>Date 26/05/2016</p>   |