

Assessor Certificate

Multiple Dwellings

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



| | | | | |
|--|-------------------------------------|-------------------------------------|---|----|
| Date: | 21 September 2021 | BSA File ref: | 12691 | |
| Assessor | | | | |
| Name: | Gavin Chambers | Company: | Building Sustainability Assessments | |
| Assessor #: | DMN/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 | | | |
| Project | | | | |
| Address: | 118 Cary Street | | | |
| | TORONTO NSW 2283 | | Climate Zone: | 15 |
| Assessment | | | | |
| Software: | BERS Pro 4.4 | Ceiling fans used in the modelling: | Living areas: None, Bedrooms: None | |
| 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)

Mark Lawler Architects dwg no. 1588 DD 07.09.2021 L

Thermal Performance Specification (copy on page 2)

Attached to the drawings and is on page: 1-06



| Thermal performance specifications | | | | | Certificate # | 0005808700 | Page 1 of 5 |
|------------------------------------|-------------|---------|---------------------------------------|------|---------------|--|-------------|
| Unit No. | Floor Areas | | Predict. loads (MJ/M ² /y) | | Star Rating | Basix Floor Type and Area m ² | |
| | Cond. | Uncond. | Heat | Cool | | | |
| A001 | 89 | 0 | 47 | 33 | 5.3 | | |
| A002 | 62 | 0 | 60 | 20 | 5.4 | | |
| A003 | 64 | 0 | 54 | 25 | 5.4 | | |
| A004 | 96 | 0 | 28 | 32 | 6.4 | | |
| A005 | 70 | 0 | 40 | 29 | 5.9 | | |
| A006 | 82 | 0 | 24 | 36 | 6.4 | | |
| A007 | 82 | 0 | 42 | 35 | 5.4 | | |
| A008 | 78 | 0 | 22 | 34 | 6.7 | | |
| A009 | 59 | 0 | 61 | 33 | 4.7 | | |
| A010 | 83 | 0 | 45 | 22 | 5.9 | | |
| A011 | 83 | 0 | 23 | 26 | 7.1 | | |
| A012 | 77 | 0 | 52 | 22 | 5.6 | | |
| A101 | 108 | 0 | 44 | 33 | 5.4 | | |
| A102 | 62 | 0 | 52 | 20 | 5.8 | | |
| A103 | 64 | 0 | 44 | 25 | 5.9 | | |



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|---|-------------------------------|---|-------------|-----------|
| September 2021 | | BSA Reference: 12691 | | |
| 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 | | |
| AAC 75mm Veneer | | R2.0 | | |
| | | | | |
| Internal Wall Construction | | Added Insulation | | |
| Plasterboard on studs (internal to units) | | None | | |
| Plasterboard+studs+shaft liner+studs+Plasterboard (party & common walls) | | R2.0 + R2.0 | | |
| Concrete + plasterboard (walls adjacent to lift & stair wells) | | R1.0 | | |
| Ceiling Construction | | Added Insulation | | |
| Plasterboard | | R3.5 to ceilings adjacent to roof space and decks above | | |
| Roof Construction | Colour | Added Insulation | | |
| Concrete | Any | None | | |
| | | | | |
| Floor Construction | Covering | Added Insulation | | |
| Concrete | As drawn | R1.0 to units A109, C106, C107 & C108 only (open below) | | |
| | | | | |
| Windows | Glass and frame type | U Value | SHGC Range | Area sq m |
| ALM-001-01 A | Aluminium Type A Single clear | 6.70 | 0.51 - 0.63 | As drawn |
| ALM-002-01 A | Aluminium Type B Single clear | 6.70 | 0.63 - 0.77 | 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 within the range specified | | | | |
| 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. | | | | |

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| Thermal performance specifications | | | Certificate # 0005808700 | | | Page 3 of 5 | |
| Unit No. | Floor Areas | | Predict. loads (MJ/M ² /y) | | Star Rating | Basix Floor Type and Area m ² | |
| | Cond. | Uncond. | Heat | Cool | | | |
| A104 | 96 | 0 | 21 | 33 | 6.8 | | |
| A105 | 78 | 0 | 35 | 32 | 6.0 | | |
| A106 | 82 | 0 | 17 | 36 | 6.8 | | |
| A107 | 82 | 0 | 36 | 35 | 5.8 | | |
| A108 | 78 | 0 | 18 | 36 | 6.8 | | |
| A109 | 65 | 0 | 43 | 30 | 5.7 | | |
| A110 | 78 | 0 | 16 | 35 | 6.9 | | |
| A111 | 83 | 0 | 35 | 30 | 6.2 | | |
| A112 | 83 | 0 | 18 | 33 | 6.9 | | |
| A113 | 77 | 0 | 43 | 27 | 5.9 | | |
| A201 | 108 | 0 | 46 | 34 | 5.4 | | |
| A202 | 62 | 0 | 54 | 20 | 5.7 | | |
| A203 | 64 | 0 | 47 | 24 | 5.9 | | |
| A204 | 96 | 0 | 22 | 32 | 6.8 | | |
| A205 | 78 | 0 | 36 | 31 | 5.9 | | |
| A206 | 82 | 0 | 27 | 33 | 6.4 | | |
| A207 | 82 | 0 | 38 | 36 | 5.6 | | |
| A208 | 78 | 0 | 19 | 35 | 6.8 | | |
| A209 | 108 | 0 | 44 | 22 | 6.1 | | |
| A210 | 98 | 0 | 47 | 29 | 5.5 | | |
| A211 | 78 | 0 | 17 | 34 | 6.9 | | |
| A212 | 83 | 0 | 36 | 29 | 6.1 | | |
| A213 | 83 | 0 | 19 | 32 | 6.9 | | |
| A214 | 77 | 0 | 44 | 27 | 5.8 | | |
| A301 | 98 | 6 | 39 | 30 | 5.9 | | |
| A302 | 76 | 0 | 40 | 16 | 6.7 | | |
| A303 | 110 | 0 | 24 | 22 | 7.2 | | |
| A304 | 78 | 0 | 38 | 31 | 5.9 | | |
| A305 | 82 | 0 | 28 | 32 | 6.4 | | |
| A306 | 82 | 0 | 39 | 36 | 5.6 | | |
| A307 | 78 | 0 | 20 | 33 | 6.8 | | |
| A308 | 108 | 0 | 46 | 21 | 6.0 | | |
| A309 | 98 | 0 | 49 | 29 | 5.4 | | |
| A310 | 78 | 0 | 18 | 34 | 6.9 | | |
| A311 | 83 | 0 | 38 | 28 | 6.1 | | |
| A312 | 83 | 0 | 20 | 32 | 6.9 | | |
| A313 | 77 | 0 | 46 | 27 | 5.8 | | |
| A401 | 98 | 6 | 51 | 30 | 5.3 | | |
| A402 | 76 | 0 | 52 | 18 | 5.9 | | |
| A403 | 110 | 0 | 37 | 23 | 6.4 | | |
| A404 | 78 | 0 | 52 | 29 | 5.3 | | |
| A405 | 82 | 0 | 38 | 33 | 5.8 | | |
| A406 | 82 | 0 | 54 | 33 | 4.9 | | |
| A407 | 78 | 0 | 34 | 30 | 6.2 | | |



0005808700 21 Sep 2021

Assessor Gavin Chambers
Accreditation No. DMN/13/1491
Address
118 Cary Street , Toronto ,
NSW , 2283



hstar.com.au

| Assessor Certificate | | | Assessor # DMN/13/1491 | | | Issued: 21 September 2021 | |
|------------------------------------|-------------|---------|---------------------------------------|------|-------------|--|--|
| Thermal performance specifications | | | Certificate # 0005808700 | | | Page 4 of 5 | |
| Unit No. | Floor Areas | | Predict. loads (MJ/M ² /y) | | Star Rating | Basix Floor Type and Area m ² | |
| | Cond. | Uncond. | Heat | Cool | | | |
| A408 | 108 | 0 | 46 | 20 | 6.1 | | |
| A409 | 98 | 0 | 49 | 28 | 5.4 | | |
| A410 | 78 | 0 | 31 | 31 | 6.3 | | |
| A411 | 83 | 0 | 50 | 27 | 5.4 | | |
| A412 | 83 | 0 | 33 | 29 | 6.4 | | |
| A413 | 77 | 0 | 57 | 26 | 5.2 | | |
| C101 | 107 | 0 | 29 | 32 | 6.4 | | |
| C102 | 73 | 0 | 58 | 36 | 4.7 | | |
| C103 | 78 | 0 | 18 | 36 | 6.8 | | |
| C104 | 72 | 0 | 45 | 32 | 5.4 | | |
| C105 | 78 | 0 | 18 | 36 | 6.8 | | |
| C106 | 97 | 0 | 46 | 21 | 5.9 | | |
| C107 | 77 | 0 | 43 | 18 | 6.4 | | |
| C108 | 33 | 0 | 45 | 32 | 5.4 | | |
| C109 | 78 | 0 | 19 | 30 | 7.1 | | |
| C110 | 83 | 0 | 35 | 30 | 6.2 | | |
| C111 | 83 | 0 | 18 | 33 | 6.9 | | |
| C201 | 107 | 0 | 30 | 31 | 6.4 | | |
| C202 | 73 | 0 | 59 | 36 | 4.7 | | |
| C203 | 78 | 0 | 19 | 36 | 6.8 | | |
| C204 | 72 | 0 | 46 | 31 | 5.4 | | |
| C205 | 78 | 0 | 19 | 36 | 6.8 | | |
| C206 | 97 | 0 | 17 | 22 | 7.7 | | |
| C207 | 77 | 0 | 21 | 19 | 7.6 | | |
| C208 | 33 | 0 | 39 | 36 | 5.6 | | |
| C209 | 78 | 0 | 15 | 31 | 7.3 | | |
| C210 | 83 | 0 | 36 | 29 | 6.1 | | |
| C211 | 83 | 0 | 19 | 32 | 6.9 | | |
| C301 | 107 | 0 | 31 | 30 | 6.3 | | |
| C302 | 73 | 0 | 61 | 35 | 4.6 | | |
| C303 | 78 | 0 | 21 | 34 | 6.7 | | |
| C304 | 72 | 0 | 49 | 30 | 5.4 | | |
| C305 | 78 | 0 | 21 | 34 | 6.7 | | |
| C306 | 97 | 0 | 21 | 22 | 7.4 | | |
| C307 | 77 | 0 | 22 | 20 | 7.5 | | |
| C308 | 33 | 0 | 41 | 35 | 5.4 | | |
| C309 | 78 | 0 | 16 | 30 | 7.3 | | |
| C310 | 83 | 0 | 38 | 28 | 6.1 | | |
| C311 | 83 | 0 | 20 | 32 | 6.9 | | |
| C401 | 107 | 0 | 43 | 29 | 5.8 | | |
| C402 | 74 | 0 | 57 | 34 | 4.8 | | |
| C403 | 59 | 0 | 45 | 23 | 5.9 | | |
| C404 | 59 | 0 | 51 | 24 | 5.6 | | |
| C405 | 79 | 0 | 45 | 26 | 5.9 | | |



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