

Acoustic Covenant – Bellvista 2

02.09.11

Page 1

Disclaimer and Acknowledgement

- This Acoustic Covenant refers to all Bellvista 2 building envelopes acoustically affected and as conditioned by the ULDA
- The acoustic building elements applied to this Covenant will achieve a maximum interior sound level 50dB(A)for sleeping areas, and 55dB (A) for other habitable spaces.
- This Covenant is based on Australian Standard 2021 : 2000 “ Acoustics – Aircraft Noise Intrusion – Building Siting and Construction “ and complies with acoustic engineers Parsons Brinckerhoff sound modelling and Certification.
- For reference, **this Acoustic Covenant and Certification excludes :**
 1. 2 storey construction,
 2. Dwelling façade elements that exceed the nominated ratio of window to floor area (See Glazing section)
 3. double hung and louvre windows
 4. roof ventilation systems
 5. other systems of residential construction.
- For Dwellings that don't comply with this Acoustic Covenant , a lot specific certified acoustic report is required to be submitted from a qualified Acoustic Engineer .This alternate Acoustic Certification must reference the actual design drawings and lots details over which the building approval is sought.
- Owners acknowledgment (Pages 1 – 8):

Signature.....

Name.....

Signature.....

Name.....

Acoustic Covenant – Bellvista 2

02.09.11

Page 2

Building Element - Roof	Assumed Building Elements for current 6 star (+) energy rating	Minimum Building elements to achieve Acoustic Requirement Rw 46	Acoustic Achievement Rw 50	Notes
Concrete Roof Tiles	✓	✓	✓	
Roof Insulation	Sisalation	Sisalation	✓	
Ceiling Insulation	R1.5 to R2.5 – 90mm	R 2.5 Glasswool– 90mm	✓	
Ceiling Internal Lining	10mm / 13mm plasterboard	10mm standard plasterboard fixed to 28mm furring channels on “ A “clips . NOTE : Ceiling joist must not be in contact with furring channel	✓	

Building Element - Roof	Assumed Building Elements for current 6 star (+) energy rating	Minimum Building elements to achieve Acoustic Requirement Rw 46	Acoustic Achievement Rw 50	Notes
Metal	✓	✓	✓	
Roof Insulation	Sisalation	Sisalation	✓	
Ceiling Insulation	R1.5 to R2.5 – 90mm	R 2.5 Glasswool– 90mm	✓	
Ceiling Internal Lining	10mm / 13mm plasterboard	10mm standard plasterboard fixed to 28mm furring channels on “ A “clips . NOTE : Ceiling joist must not be in contact with furring channel	✓	

Acoustic Covenant – Bellvista 2

02.09.11

Page 3

Building Element External Wall Cladding	Assumed Building Elements for current 6 star (+) energy rating	Minimum Building elements to achieve Acoustic Requirement Rw 46	Acoustic Achievement Rw 53	Notes
Masonry	110mm brickwork plus 40mm cavity OR 90mm brickwork plus 50mm cavity	✓	✓	
External wall frame Timber or Steel studs at 70mm or 90mm	450mm to 600mm max . centres	✓	✓	
cavity insulation	Sisalation	✓	✓	
frame insulation	Not standard	✓	✓	
internal lining	10mm plasterboard	✓	✓	

Acoustic Covenant – Bellvista 2

02.09.11

Page 4

Building Element – External Wall Cladding (1)	Assumed Building elements for current 6 star (+) energy rating	Minimum Building elements to achieve Acoustic Requirement Rw 46	Acoustic Achievement Rw 47	Notes
Fibre Cement Cladding	16mm Planking / Cladding	✓	✓	
External wall frame Timber or Steel studs at 70mm or 90mm	450 mm to 600mm max.centres	✓	✓	
cavity insulation	Sisalation	✓	✓	
frame insulation	R1.5 Glasswool Batts	R2 Glasswool batts inside external frame	✓	
internal lining	10mm plasterboard	two layers of 10mm standard plasterboard	✓	*Window reveals upsize

Acoustic Covenant – Bellvista 2

02.09.11

Page 5

Building Element – External Wall Cladding (2)	Assumed Building elements for current 6 star (+) energy rating	Minimum Building elements to achieve Acoustic Requirement Rw 46	Acoustic Achievement Rw 47	Notes
Fibre Cement Cladding	16mm Planking / Cladding	✓	✓	
External wall frame Timber or Steel studs at 70mm or 90mm	450 mm to 600mm max.centres	✓	✓	
cavity insulation	Sisalation	25mm Rockwool batts between battens outside sisalation	✓	*70mm or 90mm frame for Rockwool batts
frame insulation	R1.5 Glasswool Battis	75mm Rockwool batts inside external frame	✓	
internal lining	10mm plasterboard	one layer of 16mm Acoustically Rated plasterboard	✓	

Acoustic Covenant – Bellvista 2

02.09.11

Page 6

Building Element Glazing	Assumed Building Elements for Current 6 star (+)energy rating	Minimum Building elements to achieve Acoustic Requirement Rw 29 - 31	Acoustic Achievement (See table below)	Notes
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NOTE : The Glazing acoustic requirement Rw varies based on the dwelling window to floor area ratio . For the purpose of this Acoustic Covenant : -

Sc / S f Ratio (per room) Sc - represents total window area of a room Sf – represents total floor area of a room	Acoustic Requirement Rw
0.29 or less	Rw 29
0.30 to 0.34	Rw 30
0.35 to 0.40	Rw 31

NOTE : For a custom design dwelling application outside the ratio table above, a lot specific accredited Acoustic Report and Acoustic Certification must be submitted to your Private Certifier.

Acoustic Covenant – Bellvista 2

02.09.11

Page 7

Building Element Glazing	Assumed Building Elements for Current 6 star (+)energy rating	Minimum Building elements to achieve Acoustic Requirement Rw 29 – 31 Refer to Window/ Floor Ratio table on Page 6	Acoustic Achievement	Notes *Louvres and Double Hung windows are excluded from this Acoustic Covenant
Glazing for standard Sliding Windows 3 – 5mm Float	✓	6.38mm laminated with acoustic seals	Rw 31	
Glazing for standard Awning or Fixed 3mm Float	✓	5mm float	Rw 29	
Glazing for standard Sliding Glass Doors 4mm toughened	✓	6.38mm laminated with acoustic seals	Rw 30	
Glazing for standard Double Glazed		I	Rw 32	Optional

Acoustic Covenant – Bellvista 2

02.09.11

Page 8

Building Element Mechanical Ventilation and External Swing Door Seals	Assumed Building Elements for Current 6 star (+)energy rating	Minimum Building elements to achieve Acoustic Requirement	Acoustic Achievement	Notes
External Swing Doors 40mm solid core And Seals	Door Threshold Raven P8 or similar	Door Threshold Seal Raven P8 or similar plus Door Jamb Seal Raven RP 10 or similar	✓	
Mechanical Ventilation # This ventilation method and/or air conditioning acoustically affected Lots	Ceiling Fans throughout	Ceiling Fans throughout plus # all “Wet” areas to have exhaust fans # must be ducted from ceiling to eaves # first 3m from eaves lined with 50mm acoustic insulation # Duct max.dia. 300mm with 0.6mm steel # Outlet at eaves acoustically sealed	✓	Example : Exhaust Fan Heller HEFM250SSQ

