



Reference Number: LDP23/17 - 6037687

Riley Brown 21 December 2023

MW Urban
PO Box 214
NORTH FREMANTLE WA 6159

**Local Development Plan - Stage 7 Eliza Ponds Coogee LDP
9036L Entrance Road COOGEE WA 6166**

The Local Development Plan (LDP) received 12/10/2023 has been approved in accordance with Clause 52 of the Planning and Development (Local Planning Schemes) Regulations 2015.

Please ensure all prospective purchasers of the lots subject to the LDP are made aware of the approval.

You are reminded that in accordance with Clause 57 of the Regulations, the approval has effect for a period of 10 years from the date of this approval.

A signed copy of the document is attached for your records. In the event you have any questions, please contact the undersigned.

Should you require further information, please contact the City's Statutory Planning Department on 9411 3444.

Sincerely,

A handwritten signature in grey ink, appearing to read 'Riley Brown', is positioned below the 'Sincerely,' text.

Riley Brown
COORDINATOR – DEVELOPMENT SERVICES

LOCAL DEVELOPMENT PLAN (LDP) REQUIRED FACADE TREATMENTS (PAGE 2 OF 3)



GROUND FLOOR PLAN

FIRST FLOOR PLAN

- A+** - PACKAGE A+ TREATMENT
- B+** - PACKAGE B+ TREATMENT
- C+** - PACKAGE C+ TREATMENT

**CITY OF COCKBURN
LOCAL DEVELOPMENT PLAN**

APPROVED

**21 Dec 2023
File Ref: LDP23/17
Plan 2 of 3**

The packages and information provided ... are taken from *Road and Rail Noise Guidelines* (September 2019).

Where outdoor and indoor noise levels received by a noise-sensitive land-use and/or development exceed the policy's noise target, implementation of quiet house requirements is an acceptable solution.

The quiet house packages are not the only solution to achieving acceptable internal transport noise levels. A suitably qualified acoustical engineer or consultant may also determine more tailored acoustic design requirements for buildings in a transport noise corridor by carrying out acoustic design in accordance with relevant industry standards. This includes the need to meet the relevant design targets specified in AS/NZS 2107:2016 for road traffic noise.

(Source: Lloyd George Acoustics)

ELIZA PONDS - LOCAL DEVELOPMENT PLAN - STAGE 7
LOTS 101-150, 154, 156-167, 223-226



SIZE A3
1:1500 0 10 20 30 40 50

CADASTRAL INFORMATION
SOURCE: MCMULLEN NOLAN
YYMMDD: 230423
DWG REF: 96144pr-011r.dwg

A SUB DIVISION PLAN 23.10.02 MW 23.10.02 01
REV DESCRIPTION YY.MM.DD DRAWING NUMBER
Issued for design intent only. All areas and dimensions are subject to detail design + survey

REF NO. DRAW NO. REV.
MW 23.10.02 01 A

LOCAL DEVELOPMENT PLAN (LDP) QUIET HOUSE PACKAGES A + B + C (PAGE 3 OF 3) (SOURCE: LLOYD GEORGE ACOUSTICS)

Quiet House Package A+

56-58 dB LAeq(Day) & 51-53 dB LAeq(Night)

Element	Orientation	Room	
		Bedroom	Indoor Living and Work Areas
External Windows	Facing	<ul style="list-style-type: none">• Up to 40% floor area (Rw + Ctr ≥ 28):<ul style="list-style-type: none">◦ Awning or casement frames with minimum 10mm single or 6mm-12mm-10mm double insulated glazing;◦ Sealed awning or casement windows with minimum 6mm glass.• Up to 60% floor area (Rw + Ctr ≥ 31):<ul style="list-style-type: none">◦ Sealed awning or casement windows with minimum 6mm glass.	<ul style="list-style-type: none">• Up to 40% floor area (Rw + Ctr ≥ 25):<ul style="list-style-type: none">◦ Awning or casement frames with minimum 6mm single or 6mm-12mm-6mm double insulated glazing;• Up to 60% floor area (Rw + Ctr ≥ 28);• Up to 80% floor area (Rw + Ctr ≥ 31).
	Side On	As above, except Rw + Ctr values may be 3 dB less or max % area increased by 20%.	
	Opposite	No specific requirements	
External Doors	Facing	<ul style="list-style-type: none">• Not allowed	<ul style="list-style-type: none">• Doors to achieve Rw + Ctr ≥ 25:<ul style="list-style-type: none">◦ 35mm Solid timber core hinged door and frame system certified to Rw 28 including seals;◦ Glazed sliding door with 10mm glass and weather seals.
	Side On	As above (Living)	
	Opposite	No specific requirements	
External Walls	All	<ul style="list-style-type: none">• Rw + Ctr ≥ 45:<ul style="list-style-type: none">◦ Two leaves of 90mm thick clay brick masonry with minimum 20mm cavity;	
Roofs and Ceilings	All	<ul style="list-style-type: none">• Rw + Ctr ≥ 35:<ul style="list-style-type: none">◦ Concrete or terracotta tile or metal sheet roof with sarking and at least 10mm plasterboard.	
Outdoor Living Areas		At least one outdoor living area located on the opposite side of the building from the transport corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum 2 metres height above ground level.	

Quiet House Package B+

59-62 dB LAeq(Day) & 54-57 dB LAeq(Night)

Element	Orientation	Room	
		Bedroom	Indoor Living and Work Areas
External Windows	Facing	<ul style="list-style-type: none">• Up to 40% floor area (Rw + Ctr ≥ 31):<ul style="list-style-type: none">◦ Fixed sash, awning or casement with minimum 10mm glass or 6mm-12mm-6mm double insulated glazing.• Up to 60% floor area (Rw + Ctr ≥ 34):<ul style="list-style-type: none">◦ Fixed sash, awning or casement with minimum 10mm glass or 6mm-12mm-10mm double insulated glass.	<ul style="list-style-type: none">• Up to 40% floor area (Rw + Ctr ≥ 28):<ul style="list-style-type: none">◦ Sliding or double hung with 6mm-12mm-10mm double insulated glazing;◦ Sealed awning or casement windows with minimum 6mm glass.• Up to 60% floor area (Rw + Ctr ≥ 31);• Up to 80% floor area (Rw + Ctr ≥ 34).
	Side On	As above, except Rw + Ctr values may be 3 dB less or max % area increased by 20%.	
	Opposite	As above, except Rw + Ctr values may be 6 dB less or max % area increased by 20%.	
External Doors	Facing	<ul style="list-style-type: none">• Not Allowed	<ul style="list-style-type: none">• Doors to achieve Rw + Ctr ≥ 28:<ul style="list-style-type: none">◦ 40mm Solid timber core hinged door and frame system certified to Rw 32 including seals;◦ Fully glazed hinged door with certified Rw + Ctr ≥ 28 rated door and frame including seals and 6mm glass.
	Side On	❑ As above (Living)	
	Opposite	As above, except Rw + Ctr values may be 6 dB less or max % area increased by 20%.	
External Walls	All	<ul style="list-style-type: none">• Rw + Ctr ≥ 50:<ul style="list-style-type: none">◦ Two leaves of 90mm thick clay brick masonry with minimum 50mm cavity between leaves and 50mm glasswool or polyester insulation (R2.0+). Resilient ties used where required to connect leaves.◦ Two leaves of 110mm clay brick masonry with minimum 50mm cavity between leaves and 50mm glasswool or polyester insulation (R2.0+).◦ Single leaf of 220mm brick masonry with 13mm cement render on each face.◦ 150mm thick unlined concrete panel or 200mm thick concrete panel with one layer of 13mm plasterboard or 13mm cement render on each face.◦ Single leaf of 90mm clay brick masonry with:<ul style="list-style-type: none">▪ A row of 70mm x 35mm timber studs or 64mm steel studs at 600mm centres;▪ A cavity of 25mm between leaves;▪ 50mm glasswool or polyester insulation (R2.0+) between studs; and└ One layer of 10mm plasterboard fixed to the inside face.	
	Roofs and Ceilings	All	<ul style="list-style-type: none">• Rw + Ctr ≥ 35:<ul style="list-style-type: none">◦ Concrete or terracotta tile or metal sheet roof with sarking and at least 10mm plasterboard ceiling with R3.0+ fibrous insulation.
Outdoor Living Areas		At least one outdoor living area located on the opposite side of the building from the transport corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum 2.4 metres height above ground level.	

Quiet House Package C+

63-66 dB LAeq(Day) & 58-61 dB LAeq(Night)

Element	Orientation	Room	
		Bedroom	Indoor Living and Work Areas
External Windows	Facing	<ul style="list-style-type: none">• Up to 20% floor area (Rw + Ctr ≥ 31):<ul style="list-style-type: none">◦ Fixed sash, awning or casement with minimum 6mm glass or 6mm-12mm-6mm double insulated glazing.• Up to 40% floor area (Rw + Ctr ≥ 34):<ul style="list-style-type: none">◦ Fixed sash, awning or casement with minimum 10mm glass or 6mm-12mm-10mm double insulated glazing.	<ul style="list-style-type: none">• Up to 40% floor area (Rw + Ctr ≥ 31):<ul style="list-style-type: none">◦ Fixed sash, awning or casement with minimum 6mm glass or 6mm-12mm-6mm double insulated glazing.• Up to 60% floor area (Rw + Ctr ≥ 34):<ul style="list-style-type: none">◦ Fixed sash, awning or casement with minimum 10mm glass or 6mm-12mm-10mm double insulated glazing.
	Side On	As above, except Rw + Ctr values may be 3 dB less or max % area increased by 20%.	
	Opposite	As above, except Rw + Ctr values may be 6 dB less or max % area increased by 20%.	
External Doors	Facing	<ul style="list-style-type: none">• Not Allowed.	<ul style="list-style-type: none">• Doors to achieve Rw + Ctr ≥ 30:<ul style="list-style-type: none">◦ Fully glazed hinged door with certified Rw + Ctr ≥ 31 rated door and frame including seals and 10mm glass;◦ 40mm Solid timber core side hinged door, frame and seal system certified to Rw 32 including seals. Any glass inserts to be minimum 6mm.
	Side On	As above (Living)	
	Opposite	As above, except Rw + Ctr values may be 6 dB less or max % area increased by 20%.	
External Walls	All	<ul style="list-style-type: none">• Rw + Ctr ≥ 50:<ul style="list-style-type: none">◦ Two leaves of 90mm thick clay brick masonry with minimum 50mm cavity between leaves and 50mm glasswool or polyester insulation (R2.0+). Resilient ties used where required to connect leaves.◦ Two leaves of 110mm clay brick masonry with minimum 50mm cavity between leaves and 50mm glasswool or polyester insulation (R2.0+).◦ Single leaf of 220mm brick masonry with 13mm cement render on each face.◦ 150mm thick unlined concrete panel or 200mm thick concrete panel with one layer of 13mm plasterboard or 13mm cement render on each face.◦ Single leaf of 90mm clay brick masonry with:<ul style="list-style-type: none">▪ A row of 70mm x 35mm timber studs or 64mm steel studs at 600mm centres;▪ A cavity of 25mm between leaves;▪ 50mm glasswool or polyester insulation (R2.0+) between studs; and□ One layer of 10mm plasterboard fixed to the inside face.	
	Roofs and Ceilings	All	<ul style="list-style-type: none">• Rw + Ctr ≥ 40:<ul style="list-style-type: none">◦ Concrete or terracotta tile roof with sarking, or metal sheet roof with foil backed R2.0+ fibrous insulation between steel sheeting and roof battens;◦ R3.0+ insulation batts above ceiling;◦ 2 x 10mm plasterboard ceiling or 1 x 13mm sound-rated plasterboard affixed using
Outdoor Living Areas		At least one outdoor living area located on the opposite side of the building from the transport corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum 2.4 metres height above ground level.	

CITY OF COCKBURN
LOCAL DEVELOPMENT PLAN

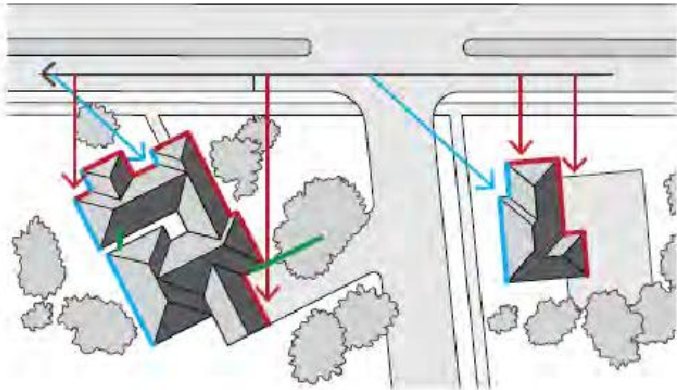
APPROVED

21 Dec 2023
File Ref: LDP23/17
Plan 3 of 3

Definitions

With regards to the packages, the following definitions are provided:

- Facing** the transport corridor (red): Any part of a building façade is ‘facing’ the transport corridor if any straight line drawn perpendicular (at a 90 degree angle) to its nearest road lane or railway line intersects that part of the façade without obstruction (ignoring any fence).
- Side-on** to transport corridor (blue): Any part of a building façade that is not ‘facing’ is ‘sideon’ to the transport corridor if any straight line, at any angle, can be drawn from it to intersect the nearest road lane or railway line without obstruction (ignoring any fence).
- Opposite** to transport corridor (green): Neither ‘side on’ nor ‘facing’, as defined above.



Mechanical Ventilation requirements

In implementing the acceptable treatment packages, the following mechanical ventilation / air conditioning considerations are required:

- Acoustically rated openings and ductwork to provide a minimum sound reduction performance R40 dB into sensitive spaces;
- Evaporative systems are not recommended adjacent to freight corridors;
- Refrigerant based systems need to be designed to achieve National Construction Code fresh air ventilation requirements;
- Openings such as eaves, vents and air inlets must be acoustically treated, closed or relocated to building sides facing away from the corridor where practicable.

ELIZA PONDS - LOCAL DEVELOPMENT PLAN - STAGE 7
LOTS 101-150, 154, 156-167, 223-226



SIZE A3
1:1500 0 10 20 30 40 50 metres

CADASTRAL INFORMATION
SOURCE: MCMULLEN NOLAN
YYMMDD: 230423
DWG REF: 96144pr-011r.dwg

A	SUB DIVISION PLAN	23.10.02	MW 23.10.02 01
REV	DESCRIPTION	YY.MM.DD	DRAWING NUMBER

Issued for design intent only. All areas and dimensions are subject to detail design + survey

REF NO.
MW 23.10.02

DRAW NO.
01

REV.
A

Your ref: LDP 23/17
Our ref: PLH2022P0428
Enquiries: Ronald Windass (6551 9401)

Riley Brown
Acting Manager Development Services
City of Cockburn
Via email to: riley.brown@cockburn.wa.gov.au

Dear Riley

**LOCAL DEVELOPMENT PLAN – VARIATIONS UNDER CLAUSE 7.3.2 OF THE
RESIDENTIAL DESIGN CODES**

I refer to your correspondence, requesting the Western Australian Planning Commission's approval of Local Development Plan 23/17 for Eliza Ponds – Stage 7 (9036L Entrance Road, Coogee).

On 20 December 2023, the Western Australian Planning Commission resolved to:

1. *approve, pursuant to State Planning Policy 7.3: Residential Design Codes (Volume 1) 2021, Clause 7.3.2, the amended deemed-to-comply provisions related to:*
 - (a) *open space, set out in cl.5.1.4;*
 - (b) *vehicular access, set out in cl.5.3.5; and*
 - (c) *solar access, set out in cl.5.4.2,**of the R-Codes 2021, proposed by the Eliza Ponds - Stage 7 - Local Development Plan (City of Cockburn ref: LDP 23/17); and*
2. *advise the City of Cockburn of its decision.*

Yours sincerely



Ms Sam Boucher
Secretary
Western Australian Planning Commission
20 December 2023

LOCAL DEVELOPMENT PLAN (LDP) VARIATIONS (PAGE 1 OF 3)

The density coding for the subject lots is in accordance with the approved LSP. Variations to the City of Cockburn's Town Planning Scheme No.3, Local Planning Policies and the R-Codes can take place as follows:-

1. For all lots, a minimum 40% open space is applicable.
2. For lots identified as having to address the street or POS, dwellings thereon shall address the street and/or POS with the main entry (accessible via this frontage) and major openings.
3. For Lots 116, 163 and 225 at least 50% of the fencing on the secondary street boundary must be permeable above 1.2m in height. An area with no fence is deemed visually permeable. The fence material is preferably Colourbond (Paperbark in colour) or masonry (face brick or render), matching the appearance of the dwelling.
4. For corner Lots 102, 116, 119, 132, 135, 156, 163 and 225 the minimum setback to the secondary street and the PAW (Lots 143 and 144) can be 1.0m.
5. For Lots 132-135, 154, 156 and Lot 225 fronting the POS the minimum and maximum setbacks to the primary street are 2.0m and 4.0m respectively.
6. For all other lots the minimum primary street setback shall be 3.0m (no averaging required) with a minimum garage setback of 4.5m.
7. For lots with frontages between 10.5m and 12.0m, a garage door and its supporting structure/s can be up to 6.0m wide, contrary to 5.2.2 (C2) of the R-Codes, subject to the main entry to the dwelling being clearly visible in the street and the front elevation containing at least one (1) major opening.
8. For all lots permitted boundary setbacks are 1.2m for wall heights up to 3.5m with major openings.
9. Walls are permitted up to two (2) lot boundaries (excluding streets), for the balance of length behind the front setback as follows:-

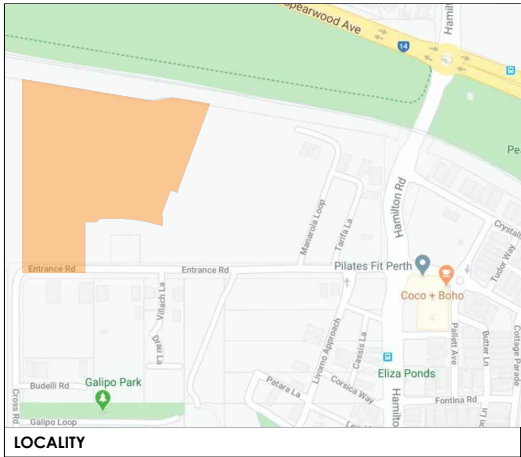
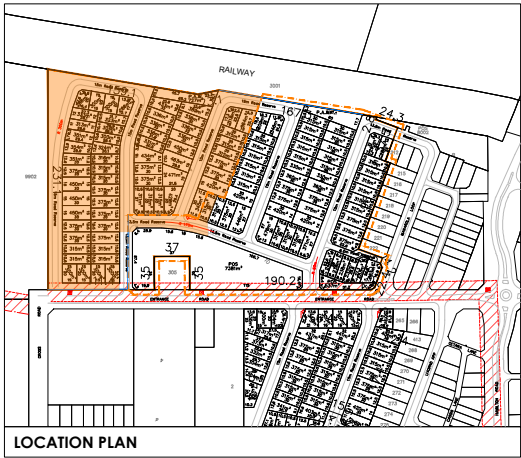
a) For Lots 103-115, 120-131, 136-142, 145-150, 157-162, 223 and 224, 2/3 length on the northern boundary and 1/3 length on the southern boundary;

b) For Lots 101, 117-118, 133-134, 154, 164 and 226, the 1/3 and 2/3 length on the boundary can be either side; and

c) For Lots 102, 116, 119, 132, 135, 156, 163 and 225 the 2/3 length applies to the side lot boundary (south-side Lots 143 and 144) and 1/3 applies to the rear boundary.
10. Provision 5.4.2 of the R-Codes dealing with solar access and adjoining properties does not apply to the development of lots/dwellings covered by this LDP.
11. Quiet House Design. For lots identified as requiring 'Quiet House Design' at either the ground or first floor level (see Page 2 of 3), all plans and supporting documents accompanying Building Permit applications on these lots are to demonstrate compliance with the applicable Quiet House Package (see Page 3 of 3). The packages are A+, B+ or C+.

NOTE:

1. The requirements of the R-Codes, Town Planning Scheme and Local Planning Policies are to be satisfied in relation to all other matters.
2. Consultation with adjoining or other landowners to achieve a variation is not required where the design complies with this LDP.
3. Any dividing fencing or fencing to POS constructed by the developer is to be retained. If there is a need to replace the fencing, the new fencing shall be constructed using the same materials and colours of the original fencing.
4. Some lots on this LDP are subject to an approved Bushfire Management Plan (BMP) and have been assigned a bushfire attack level. Dwellings and incidental structures on these lots are required to comply with the bushfire specific construction requirements of AS3959 and any additional requirements specified in the BMP.



LEGEND:

- LOTS SUBJECT TO LOCAL DEVELOPMENT PLAN
- DWELLING ORIENTATION TO PRIMARY STREET OR POS
- VERANDAHS AND/OR BALCONIES ENCOURAGED
- SEE POINT 3
- NO VEHICULAR ACCESS
- MANDATORY GARAGE LOCATION





GROUND FLOOR PLAN

- A+** - PACKAGE A+ TREATMENT
- B+** - PACKAGE B+ TREATMENT
- C+** - PACKAGE C+ TREATMENT



FIRST FLOOR PLAN

The packages and information provided ... are taken from *Road and Rail Noise Guidelines* (September 2019).

Where outdoor and indoor noise levels received by a noise-sensitive land-use and/or development exceed the policy's noise target, implementation of quiet house requirements is an acceptable solution.

The quiet house packages are not the only solution to achieving acceptable internal transport noise levels. A suitably qualified acoustical engineer or consultant may also determine more tailored acoustic design requirements for buildings in a transport noise corridor by carrying out acoustic design in accordance with relevant industry standards. This includes the need to meet the relevant design targets specified in AS/NZS 2107:2016 for road traffic noise.

(Source: Lloyd George Acoustics)

Quiet House Package A+
 56-58 dB LAeq(Day) & 51-53 dB LAeq(Night)

Element	Orientation	Room	
		Bedroom	Indoor Living and Work Areas
External Windows	Facing	<ul style="list-style-type: none">• Up to 40% floor area (Rw + Ctr ≥ 28):<ul style="list-style-type: none">◦ Awning or casement frames with minimum 10mm single or 6mm-12mm-10mm double insulated glazing;◦ Sealed awning or casement windows with minimum 6mm glass.• Up to 60% floor area (Rw + Ctr ≥ 31):<ul style="list-style-type: none">◦ Sealed awning or casement windows with minimum 6mm glass.	<ul style="list-style-type: none">• Up to 40% floor area (Rw + Ctr ≥ 25):<ul style="list-style-type: none">◦ Awning or casement frames with minimum 6mm single or 6mm-12mm-6mm double insulated glazing;• Up to 60% floor area (Rw + Ctr ≥ 28);• Up to 80% floor area (Rw + Ctr ≥ 31).
	Side On	As above, except Rw + Ctr values may be 3 dB less or max % area increased by 20%.	
	Opposite	No specific requirements	
External Doors	Facing	<ul style="list-style-type: none">• Not allowed	<ul style="list-style-type: none">• Doors to achieve Rw + Ctr ≥ 25:<ul style="list-style-type: none">◦ 35mm Solid timber core hinged door and frame system certified to Rw 28 including seals;◦ Glazed sliding door with 10mm glass and weather seals.
	Side On	As above (Living)	
	Opposite	No specific requirements	
External Walls	All	<ul style="list-style-type: none">• Rw + Ctr ≥ 45:<ul style="list-style-type: none">◦ Two leaves of 90mm thick clay brick masonry with minimum 20mm cavity;	
Roofs and Ceilings	All	<ul style="list-style-type: none">• Rw + Ctr ≥ 35:<ul style="list-style-type: none">◦ Concrete or terracotta tile or metal sheet roof with sarking and at least 10mm plasterboard.	
Outdoor Living Areas		At least one outdoor living area located on the opposite side of the building from the transport corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum 2 metres height above ground level.	

Quiet House Package B+
 59-62 dB LAeq(Day) & 54-57 dB LAeq(Night)

Element	Orientation	Room	
		Bedroom	Indoor Living and Work Areas
External Windows	Facing	<ul style="list-style-type: none">Up to 40% floor area (Rw + Ctr ≥ 31):<ul style="list-style-type: none">Fixed sash, awning or casement with minimum 10mm glass or 6mm-12mm-6mm double insulated glazing.Up to 60% floor area (Rw + Ctr ≥ 34):<ul style="list-style-type: none">Fixed sash, awning or casement with minimum 10mm glass or 6mm-12mm-10mm double insulated glass.	<ul style="list-style-type: none">Up to 40% floor area (Rw + Ctr ≥ 28):<ul style="list-style-type: none">Sliding or double hung with 6mm-12mm-10mm double insulated glazing;Sealed awning or casement windows with minimum 6mm glass.Up to 60% floor area (Rw + Ctr ≥ 31);Up to 80% floor area (Rw + Ctr ≥ 34).
	Side On	As above, except Rw + Ctr values may be 3 dB less or max % area increased by 20%.	
	Opposite	As above, except Rw + Ctr values may be 6 dB less or max % area increased by 20%.	
External Doors	Facing	<ul style="list-style-type: none">Not Allowed	<ul style="list-style-type: none">Doors to achieve Rw + Ctr ≥ 28:<ul style="list-style-type: none">40mm Solid timber core hinged door and frame system certified to Rw 32 including seals;Fully glazed hinged door with certified Rw + Ctr ≥ 28 rated door and frame including seals and 6mm glass.
	Side On	❑ As above (Living)	
	Opposite	As above, except Rw + Ctr values may be 6 dB less or max % area increased by 20%.	
External Walls	All	<ul style="list-style-type: none">Rw + Ctr ≥ 50:<ul style="list-style-type: none">Two leaves of 90mm thick clay brick masonry with minimum 50mm cavity between leaves and 50mm glasswool or polyester insulation (R2.0+). Resilient ties used where required to connect leaves.Two leaves of 110mm clay brick masonry with minimum 50mm cavity between leaves and 50mm glasswool or polyester insulation (R2.0+).Single leaf of 220mm brick masonry with 13mm cement render on each face.150mm thick unlined concrete panel or 200mm thick concrete panel with one layer of 13mm plasterboard or 13mm cement render on each face.Single leaf of 90mm clay brick masonry with:<ul style="list-style-type: none">A row of 70mm x 35mm timber studs or 64mm steel studs at 600mm centres;A cavity of 25mm between leaves;50mm glasswool or polyester insulation (R2.0+) between studs; andOne layer of 10mm plasterboard fixed to the inside face.	
	Roofs and Ceilings	All	<ul style="list-style-type: none">Rw + Ctr ≥ 35:<ul style="list-style-type: none">Concrete or terracotta tile or metal sheet roof with sarking and at least 10mm plasterboard ceiling with R3.0+ fibrous insulation.
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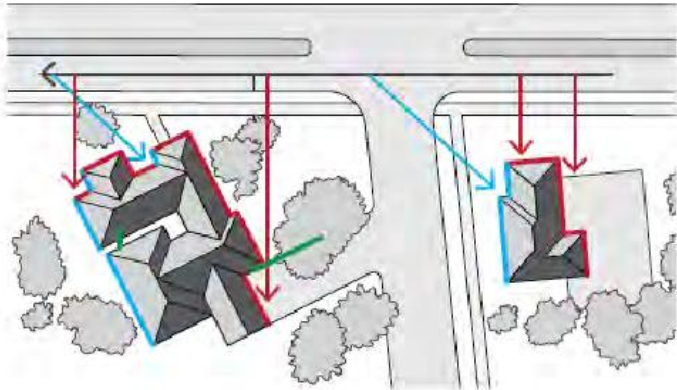
Quiet House Package C+
 63-66 dB LAeq(Day) & 58-61 dB LAeq(Night)

Element	Orientation	Room	
		Bedroom	Indoor Living and Work Areas
External Windows	Facing	<ul style="list-style-type: none">• Up to 20% floor area (Rw + Ctr ≥ 31):<ul style="list-style-type: none">◦ Fixed sash, awning or casement with minimum 6mm glass or 6mm-12mm-6mm double insulated glazing.• Up to 40% floor area (Rw + Ctr ≥ 34):<ul style="list-style-type: none">◦ Fixed sash, awning or casement with minimum 10mm glass or 6mm-12mm-10mm double insulated glazing.	<ul style="list-style-type: none">• Up to 40% floor area (Rw + Ctr ≥ 31):<ul style="list-style-type: none">◦ Fixed sash, awning or casement with minimum 6mm glass or 6mm-12mm-6mm double insulated glazing.• Up to 60% floor area (Rw + Ctr ≥ 34):<ul style="list-style-type: none">◦ Fixed sash, awning or casement with minimum 10mm glass or 6mm-12mm-10mm double insulated glazing.
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External Doors	Facing	<ul style="list-style-type: none">• Not Allowed.	<ul style="list-style-type: none">• Doors to achieve Rw + Ctr ≥ 30:<ul style="list-style-type: none">◦ Fully glazed hinged door with certified Rw + Ctr ≥ 31 rated door and frame including seals and 10mm glass;◦ 40mm Solid timber core side hinged door, frame and seal system certified to Rw 32 including seals. Any glass inserts to be minimum 6mm.
	Side On	As above (Living)	
	Opposite	As above, except Rw + Ctr values may be 6 dB less or max % area increased by 20%.	
External Walls	All	<ul style="list-style-type: none">• Rw + Ctr ≥ 50:<ul style="list-style-type: none">◦ Two leaves of 90mm thick clay brick masonry with minimum 50mm cavity between leaves and 50mm glasswool or polyester insulation (R2.0+). Resilient ties used where required to connect leaves.◦ Two leaves of 110mm clay brick masonry with minimum 50mm cavity between leaves and 50mm glasswool or polyester insulation (R2.0+).◦ Single leaf of 220mm brick masonry with 13mm cement render on each face.◦ 150mm thick unlined concrete panel or 200mm thick concrete panel with one layer of 13mm plasterboard or 13mm cement render on each face.◦ Single leaf of 90mm clay brick masonry with:<ul style="list-style-type: none">▪ A row of 70mm x 35mm timber studs or 64mm steel studs at 600mm centres;▪ A cavity of 25mm between leaves;▪ 50mm glasswool or polyester insulation (R2.0+) between studs; and□ One layer of 10mm plasterboard fixed to the inside face.	
Roofs and Ceilings	All	<ul style="list-style-type: none">• Rw + Ctr ≥ 40:<ul style="list-style-type: none">◦ Concrete or terracotta tile roof with sarking, or metal sheet roof with foil backed R2.0+ fibrous insulation between steel sheeting and roof battens;◦ R3.0+ insulation batts above ceiling;◦ 2 x 10mm plasterboard ceiling or 1 x 13mm sound-rated plasterboard affixed using	
Outdoor Living Areas		At least one outdoor living area located on the opposite side of the building from the transport corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum 2.4 metres height above ground level.	

Definitions

With regards to the packages, the following definitions are provided:

- Facing** the transport corridor (red): Any part of a building façade is ‘facing’ the transport corridor if any straight line drawn perpendicular (at a 90 degree angle) to its nearest road lane or railway line intersects that part of the façade without obstruction (ignoring any fence).
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- Side-on** to transport corridor (blue): Any part of a building façade that is not ‘facing’ is ‘sideon’ to the transport corridor if any straight line, at any angle, can be drawn from it to intersect the nearest road lane or railway line without obstruction (ignoring any fence).
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- Opposite** to transport corridor (green): Neither ‘side on’ nor ‘facing’, as defined above.



Mechanical Ventilation requirements

In implementing the acceptable treatment packages, the following mechanical ventilation / air conditioning considerations are required:

- Acoustically rated openings and ductwork to provide a minimum sound reduction performance R40 dB into sensitive spaces;
- Evaporative systems are not recommended adjacent to freight corridors;
- Refrigerant based systems need to be designed to achieve National Construction Code fresh air ventilation requirements;
- Openings such as eaves, vents and air inlets must be acoustically treated, closed or relocated to building sides facing away from the corridor where practicable.