



LEGEND

-  Lots Subject to this LDP
-  Residential

APPLICATION OF LOCAL DEVELOPMENT PLAN

GENERAL PROVISIONS
 The requirements of the Residential Design Codes (R-Codes) will apply to all lots in the Local Development Plan (LDP) unless otherwise varied below or illustrated on the LDP map.

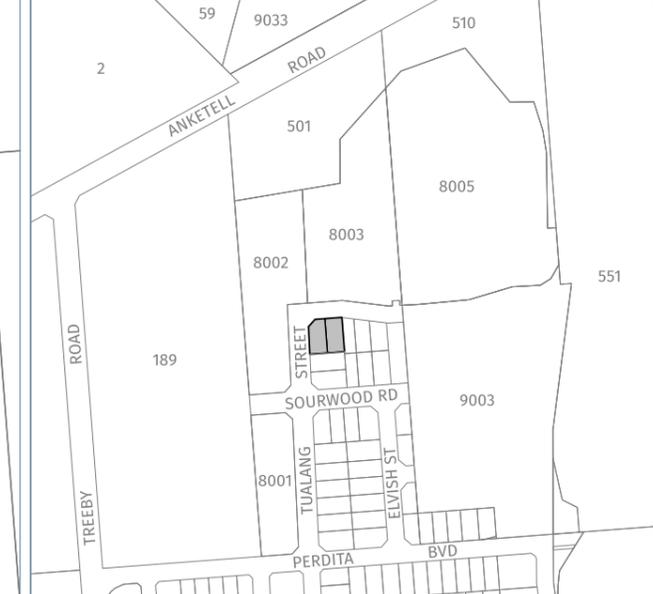
Noise Attenuation
 1. Lots 54 and 55 are subject to noise attenuation and accordingly dwelling design is to address Western Australian Planning Commission Statement of Planning Policy 5.4 'Road and Rail Noise' (SPP 5.4) through implementation of 'Quiet House Design Package A' to achieve an acceptable level of noise mitigation, unless supported by a noise assessment from a suitably qualified acoustic consultant which demonstrates an alternative form of noise mitigation which complies with SPP 5.4 to the satisfaction of the City of Kwinana. See attachment 1.

APPROVAL

This Local Development Plan (LDP) has been approved by the City of Kwinana under the provisions of Local Planning Scheme No.2 and Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*. This LDP is valid for the period specified in this approval, unless the City earlier revokes its approval.

	2025-5839	28/01/2025
Delegated Authority City of Kwinana	City Ref.	Approval Date
		28/01/2035
		Expiry Date

LOCATION MAP



LOCAL DEVELOPMENT PLAN

Lot 7 (No. 734) Anketell Road,
ANKETELL

Date		22/12/25
Drawn		NP
Checked		MB
Base Data		Landgate Oct 25
Projection		MGA2020 Z50
Plan No.		Rev.
24652-01		A



Scale: 1:250 @A3





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ATTACHMENT 1

Table 3: Quiet house requirements

Exposure Category	Orientation to corridor	Acoustic rating and example constructions					Mechanical ventilation / air conditioning considerations		
		Walls	External doors	Windows	Roofs and ceilings of highest floors	Outdoor living areas			
A Quiet House A	Facing	Bedroom and indoor living and work areas to Rw+Ctr 45dB <ul style="list-style-type: none"> One row of 92mm studs at 600mm centres with: <ul style="list-style-type: none"> Resilient steel channels fixed to the outside of the studs; and 9.5mm hardboard or 9mm fibre cement sheeting or 11mm fibre cement weatherboards or one layer of 19mm board cladding fixed to the outside of the channels; and 75mm glass wool (11kg/m³) or 75mm polyester (14kg/m³) insulation, positioned between the studs; and Two layers of 16mm fire-protective grade plasterboard fixed to the inside face of the studs. Single leaf of 150mm brick masonry with 13mm cement render on each face. Double brick: two leaves of 90mm clay brick masonry with a 20mm cavity between leaves. 	Bedrooms: <ul style="list-style-type: none"> Fully glazed hinged door with certified Rw+Ctr 28dB rated door and frame including seals and 6mm glass Other external doors to Rw+Ctr 25dB, e.g. <ul style="list-style-type: none"> 35mm solid core timber hinged door and frame system certified to Rw 28dB including seals Glazed sliding door with 10mm glass and weather seals 	Bedrooms: <ul style="list-style-type: none"> Total external door and window system area up to 40% of room floor area: Sliding or double hung with minimum 10mm single or 6mm-12mm-10mm double insulated glazing (Rw+Ctr 28 dB). Sealed awning or casement windows may use 6 mm glazing instead. Up to 60% floor area: as per above but must be sealed awning or casement type windows (Rw+Ctr 31dB). Indoor living and work areas <ul style="list-style-type: none"> Up to 40% floor area: Sliding, awning, casement or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (Rw+Ctr 25dB). Up to 60% floor area: As per Bedrooms at up to 40% area (Rw+Ctr 28 dB). Up to 80% floor area: As per Bedrooms at up to 60% area (Rw+Ctr 31dB). 	To Rw+Ctr 35dB <ul style="list-style-type: none"> Concrete or terracotta tile or metal sheet roof with sarking and at least 10mm plasterboard ceiling 	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.	<ul style="list-style-type: none"> Acoustically rated openings and ductwork to provide a minimum sound reduction performance of Rw 40dB into sensitive spaces Evaporative systems require attenuated ceiling air vents to allow closed windows 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 		
	Side on							As per 'Facing' above, except Rw+Ctr values may be 3dB less, e.g. glazed sliding door with 10mm glass and weather seals for bedrooms.	As above, except Rw+Ctr values may be 3dB less, or max % area increased by 20%
	Opposite							No specific requirements	
A Quiet House A+	All	As per Quiet House A, except double leaf masonry / brick construction only.	As per Quiet House A.	As per Quiet House A, except that <ul style="list-style-type: none"> 'Side-on' requirements same as 'Facing'. All windows comprise minimum 6 mm thick laminated or toughened glass in sealed awning or casement frames. Polymer (e.g. uPVC) window framing should be used. Evaporative air conditioning systems are not recommended. No external doors for bedrooms with entry 'Facing' transport corridor 	No specific requirements				
B Quiet House B	Facing	Bedroom and indoor living and work areas to Rw+Ctr 50dB <ul style="list-style-type: none"> 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 glass wool or polyester cavity insulation (R2.0+) insulation between studs; and One layer of 10mm plasterboard fixed to the inside face Single leaf of 220mm brick masonry with 13mm cement render on each face 	Bedrooms <ul style="list-style-type: none"> Fully glazed hinged door with certified Rw+Ctr 31dB rated door and frame including seals and 10mm glass Other external doors to Rw+Ctr 28dB, e.g. As per Quiet House A Bedrooms. 	Bedrooms: <ul style="list-style-type: none"> Total external door and window system area up to 40% of room floor area: Fixed sash, awning or casement with minimum 6mm single or 6mm-12mm-6mm double insulated glazing (Rw+Ctr 31 dB). Up to 60% floor area: as per above but must be minimum 10 mm single or 6mm-12mm-10mm double insulated glazing (Rw+Ctr 34dB). Indoor living and work areas <ul style="list-style-type: none"> Up to 40% floor area: Sliding or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (Rw+Ctr 28dB). Sealed awning or casement windows may use 6 mm glazing instead. Up to 60% floor area: As per Bedrooms at up to 40% area (Rw+Ctr 31 dB). Up to 80% floor area: As per Bedrooms at up to 60% area (Rw+Ctr 34dB). 	To Rw+Ctr 35dB <ul style="list-style-type: none"> Concrete or terracotta tile or metal sheet roof, sarking and at least 10mm plasterboard ceiling, R3.0+ insulation 	At least one outdoor living area located on the opposite side of the building from the 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			
	Side-on							As per Quiet House A 'Facing' above (Rw+Ctr values may be 3dB less, or max % area increased by 20%).	
	Opposite							As per Quiet House A 'Side-on' above.	
B Quiet House B+	All	As per Quiet House B example above, except use double leaf masonry construction only.	As per Quiet House B, except <ul style="list-style-type: none"> No external doors for bedrooms with entry 'Facing' or 'Side-on' to transport corridor 	As per Quiet House B, except that <ul style="list-style-type: none"> 'Side-on' requirements become the same as Quiet House B 'Facing'. All windows comprise minimum 6 mm thick laminated or toughened glass in sealed awning or casement frames. Polymer (e.g. uPVC) window framing should be used. Evaporative air conditioning systems are not recommended. 	As per Quiet House C (to Rw+Ctr 40dB).				

ATTACHMENT 1

Exposure Category	Orientation to corridor	Acoustic rating and example constructions					Mechanical ventilation / air conditioning considerations
		Walls	External doors	Windows	Roofs and ceilings of highest floors	Outdoor living areas	
C Quiet House C	Facing	Bedroom and indoor living and work areas to Rw+Ctr 50dB • As per Quiet House B example above	Bedrooms • External doors to bedrooms facing the corridor are not recommended. Other external doors to Rw+Ctr 30dB, e.g. • Fully glazed hinged door with certified Rw+Ctr 31dB rated door and frame including seals and 10mm glass. • 40mm solid core timber frame and door (without glass or with glass inserts not less than 6mm), side hinged with certified Rw 32dB acoustically rated door and frame system including seals	Bedrooms: • Total external door and window system area up to 20% of room floor area: Fixed sash, awning or casement with minimum 6mm single or 6mm-12mm-6mm double insulated glazing (Rw+Ctr 31 dB). • Up to 40% floor area: as per above but must be minimum 10 mm single or 6mm-12mm-10mm double insulated glazing (Rw+Ctr 34dB). Indoor living and work areas • Up to 40% floor area: Sliding or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (Rw+Ctr 31dB). Sealed awning or casement windows may use 6 mm glazing instead. • Up to 60% floor area: As per Bedrooms at up to 40% area (Rw+Ctr 34 dB).	To Rw+Ctr 40dB • To all bedrooms, 2 layers of 10mm plasterboard, or one layer 13 mm high density sealed plasterboard (minimum surface density of 12.5 kg/m ²), affixed using steel furring channels beneath ceiling rafters / supports. • R3.0+ insulation batts laid in cavity. • Concrete or terracotta tile roof with sarking, or metal sheet roof with foil backed R2.0+ fibre insulation between steel sheeting and roof battens.	As per Quiet House B	<ul style="list-style-type: none"> Acoustically rated openings and ductwork to provide a minimum sound reduction performance of Rw 40dB into sensitive spaces Evaporative systems require attenuated ceiling air vents to allow closed windows 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
	Side-on	As per Quiet House B 'Facing' above (Rw+Ctr values may be 3dB less, or max % area increased by 20%).					
	Opposite	As per Quiet House A 'Facing' above.					
C Quiet House C+	All	As per Quiet House B example above, except using double leaf masonry construction only. • Double brick: two leaves of 90mm clay brick masonry with: – A 50mm cavity between leaves – R2.0+ cavity insulation – resilient ties where required to connect • Double brick: two leaves of 110mm clay brick masonry with a 50mm cavity between leaves and R2.0+ cavity insulation	As per Quiet House C, except • No external doors for bedrooms with entry 'Facing' or 'Side-on' to transport corridor.	As per Quiet House C, except that • 'Side-on' requirements same as Quiet House C 'Facing'. • All windows into habitable areas comprise minimum 6 mm thick glazing in sealed awning or casement frames. Polymer (e.g. uPVC) window framing and hardware which cannot rattle loose should be used throughout. • Evaporative air conditioning systems are not recommended.	To Rw+Ctr 45dB As per Quiet House C, except • the roof must be concrete or terracotta tile construction with sarking (i.e. no steel sheet roof option). • Ceilings to bedrooms must be constructed from at least 2 overlapping layers of flush plasterboard.		

Footnotes:

- The airborne weighted sound reduction index (Rw) and traffic correction term (Ctr) are published by manufacturers/suppliers, can be determined by acoustical consultants or measured in accordance with AS ISO 717.1. Higher Rw+Ctr values infer greater sound insulation. All values are minimum Rw+Ctr (dB)
- Example construction for different external wall ratings of Rw+Ctr 45dB and 50dB are provided and are listed within Specification F5.2 in Volume 1 Part F of the National Construction Code. These values are based on the installation and sealing of joints and penetrations in accordance with Specification F5.2.

- Window and external door sound reduction values provided are based on the provision of suitable acoustic seals to prevent sound leakage. To comply with the above ratings, all external glass windows and doors specified under requirements A, B and C must have the following:
 - Operable windows and external doors must have a seal to restrict air infiltration fitted to each edge and doors must have a drop seal to provide an airtight seal when closed
 - Within doors or fixed framing, glazing must be set and sealed using an airtight arrangement of non-hardening sealant, soft rubber (elastomer) gasket and/or glazing tape, or be verified by manufacturer or approved person that the construction system as to be installed achieves the relevant Rw+Ctr value

- In this context, a seal is foam or silicon based rubber compressible strip, fibrous seal with vinyl fin interleaf or the like. Brush / pile type seals without this seal included are not allowed.
- Glazing referenced can be monolithic, laminated or toughened safety glass
- Any penetrations in a part of the building envelope must be acoustically treated so as not to degrade the performance of the building elements affected. Most penetrations in external walls such as pipes, cables or ducts can be sealed through caulking gaps with non-hardening mastic or suitable mortar