

Location Plan



Local Development Plan Provisions

- 1.0 GENERAL PROVISIONS
- 1.1 The requirements of the City of Wanneroo District Planning Scheme No. 2, the Residential Design Codes (R-Codes) and Local Planning Policy 4.19: Medium-Density Housing Standards (RMD-Codes) apply, unless otherwise provided below.
- 1.2 The following standards represent variations to the deemed-to-comply provisions of the R-Codes and constitute new deemed-to-comply provisions pursuant to the R-Codes, or are deemed to meet the relevant Design Principles of the R-Codes.
- 1.3 The following standards are deemed to meet the relevant Design Principles of the R-Codes and do not require consultation with adjacent owners.

2.0 RESIDENTIAL DESIGN CODE AND ZONE

| LOTS APPLICABLE | R-CODE DENSITY AND ZONING |
|---|---------------------------|
| Lots 2300-2313, 2315-2316, 2330-2339, 2367-2371 | RMD30 |

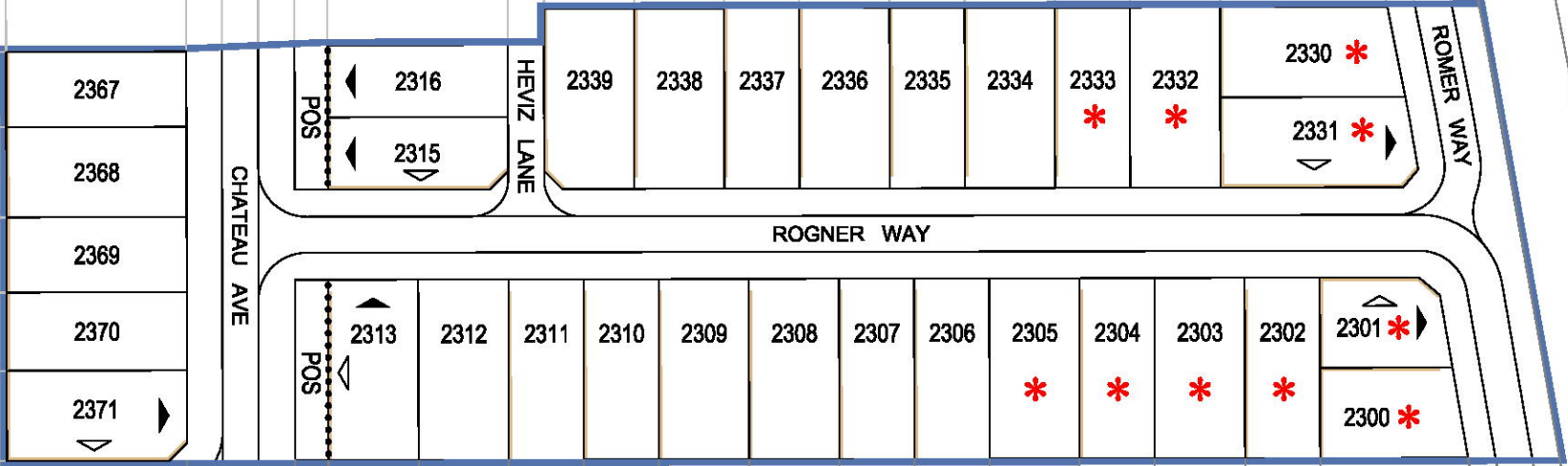
- 3.0 DEVELOPMENT STANDARDS
- 3.1 For Lots 2315-2316 directly orientated to Public Open Space (POS), a minimum 2.0m setback to the POS boundary is permitted.
- 3.2 For Lot 2313 siding onto POS, a minimum 1.0m side setback to the POS boundary is permitted.
- 3.3 For Lots 2315-2316, dwellings shall have one or more major opening(s) to a habitable room facing the POS.

4.0 ACOUSTIC REQUIREMENTS

| LOTS APPLICABLE | REQUIREMENTS |
|---------------------------|--|
| Lots 2300-2305, 2330-2333 | 3.1 Façade protection treatments (Quiet House Design Measures) as defined in the Lloyd George Transportation Noise Assessment dated 22 December 2020 are required for the following: <u>Ground Floor:</u> Lot 2303 & 2332 as per Package 'A', Lot 2302 as per Package 'B' and Lots 2300-2301 & 2330-2331 as per Package 'C' <u>Upper Floor:</u> Lot 2304-2305 & 2333 as per Package 'A', Lot 2302-2303 & 2332 as per Package 'B' and Lots 2300-2301 & 2330-2331 requiring 'Specialist Advice'. Details of the Quiet House Design Requirements are included in Attachment 1. |

Legend

- Extent of Local Development Plan
- Primary Dwelling Orientation
- Secondary Dwelling Orientation
- Retaining Walls (by developer)
- Lots Subject to Quiet House Design Requirements
- Uniform Fencing by developer (visually permeable above 1.2m)



Endorsement Table

This Local Development Plan has been approved by Council under Clause 52(1)(a) of the Deemed Provisions of District Planning Scheme No. 2

Manager, Approval Services
City of Wanneroo

Date: 11 March 2021

Local Development Plan - Aura Stage 33A
TRINITY ESTATE ALKIMOS

ATTACHMENT 1 - QUIET HOUSE DESIGN PACKAGES - 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 ($R_w + C_{tr} \geq 28$):<ul style="list-style-type: none">Sliding or double hung 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 ($R_w + C_{tr} \geq 31$):<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 ($R_w + C_{tr} \geq 25$):<ul style="list-style-type: none">Sliding or double hung with minimum 6mm single or 6mm-12mm-6mm double insulated glazing;Up to 60% floor area ($R_w + C_{tr} \geq 28$);Up to 80% floor area ($R_w + C_{tr} \geq 31$). |
| | | As above, except $R_w + C_{tr}$ values may be 3 dB less or max % area increased by 20%. | |
| | | No specific requirements | |
| | Opposite | | |
| External Doors | Facing | <ul style="list-style-type: none">Fully glazed hinged door with certified $R_w + C_{tr} \geq 28$ rated door and frame including seals and 6mm glass. | <ul style="list-style-type: none">Doors to achieve $R_w + C_{tr} \geq 25$:<ul style="list-style-type: none">35mm Solid timber core hinged door and frame system certified to $R_w 28$ including seals;Glazed sliding door with 10mm glass and weather seals. |
| | Side On | As above, except $R_w + C_{tr}$ values may be 3 dB less. | |
| | Opposite | No specific requirements | |
| External Walls | All | <ul style="list-style-type: none">$R_w + C_{tr} \geq 45$:<ul style="list-style-type: none">Two leaves of 90mm thick clay brick masonry with minimum 20mm cavity; orSingle leaf of 150mm brick masonry with 13mm cement render on each face; orOne row of 92mm studs at 600mm centres with:<ul style="list-style-type: none">Resilient steel channels fixed to the outside of the studs; and9.5mm hardboard or fibre cement sheeting or 11mm fibre cement weatherboards fixed to the outside;75mm thick mineral wool insulation with a density of at least 11kgkg/m³; and2 x 16mm fire-rated plasterboard to inside. | |
| Roofs and Ceilings | All | <ul style="list-style-type: none">$R_w + C_{tr} \geq 35$:<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. | |

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 of $R_w 40$ dB 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.

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 ($R_w + C_{tr} \geq 31$):<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 ($R_w + C_{tr} \geq 34$):<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 ($R_w + C_{tr} \geq 28$):<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 ($R_w + C_{tr} \geq 31$);Up to 80% floor area ($R_w + C_{tr} \geq 34$). |
| | | As above, except $R_w + C_{tr}$ values may be 3 dB less or max % area increased by 20%. | |
| | | As above, except $R_w + C_{tr}$ values may be 6 dB less or max % area increased by 20%. | |
| External Doors | Facing | <ul style="list-style-type: none">Fully glazed hinged door with certified $R_w + C_{tr} \geq 31$ rated door and frame including seals and 10mm glass. | <ul style="list-style-type: none">Doors to achieve $R_w + C_{tr} \geq 28$:<ul style="list-style-type: none">40mm Solid timber core hinged door and frame system certified to $R_w 32$ including seals;Fully glazed hinged door with certified $R_w + C_{tr} \geq 28$ rated door and frame including seals and 6mm glass. |
| | | As above, except $R_w + C_{tr}$ values may be 3 dB less or max % area increased by 20%. | |
| | | As above, except $R_w + C_{tr}$ values may be 6 dB less or max % area increased by 20%. | |
| External Walls | All | <ul style="list-style-type: none">$R_w + C_{tr} \geq 50$:<ul style="list-style-type: none">Two leaves of 90mm thick clay brick masonry with minimum 50mm cavity between leaves and 25mm glasswool or polyester (24kg/m³). Resilient ties used where required to connect leaves.Two leaves of 110mm clay brick masonry with minimum 50mm cavity between leaves and 25mm glasswool or polyester insulation (24kg/m³).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 (11kg/m³) between studs; andOne layer of 10mm plasterboard fixed to the inside face. | |
| Roofs and Ceilings | All | <ul style="list-style-type: none">$R_w + C_{tr} \geq 35$:<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 ($R_w + C_{tr} \geq 31$):<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 ($R_w + C_{tr} \geq 34$):<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 ($R_w + C_{tr} \geq 31$):<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 ($R_w + C_{tr} \geq 34$):<ul style="list-style-type: none">Fixed sash, awning or casement with minimum 10mm glass or 6mm-12mm-10mm double insulated glazing. |
| | | As above, except $R_w + C_{tr}$ values may be 3 dB less or max % area increased by 20%. | |
| | | As above, except $R_w + C_{tr}$ values may be 6 dB less or max % area increased by 20%. | |
| External Doors | Facing | <ul style="list-style-type: none">Not recommended. | <ul style="list-style-type: none">Doors to achieve $R_w + C_{tr} \geq 30$:<ul style="list-style-type: none">Fully glazed hinged door with certified $R_w + C_{tr} \geq 31$ rated door and frame including seals and 10mm glass;40mm Solid timber core side hinged door, frame and seal system certified to $R_w 32$ including seals. Any glass inserts to be minimum 6mm. |
| | | As above, except $R_w + C_{tr}$ values may be 3 dB less or max % area increased by 20%. | |
| | | As above, except $R_w + C_{tr}$ values may be 6 dB less or max % area increased by 20%. | |
| External Walls | All | <ul style="list-style-type: none">$R_w + C_{tr} \geq 50$:<ul style="list-style-type: none">Two leaves of 90mm thick clay brick masonry with minimum 50mm cavity between leaves and 25mm glasswool or polyester insulation (24kg/m³). Resilient ties used where required to connect leaves.Two leaves of 110mm clay brick masonry with minimum 50mm cavity between leaves and 25mm glasswool or polyester insulation (24kg/m³).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 (11kg/m³) between studs; andOne layer of 10mm plasterboard fixed to the inside face. | |
| Roofs and Ceilings | All | <ul style="list-style-type: none">$R_w + C_{tr} \geq 40$:<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 steel furring channel to ceiling rafters. | |
| 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. | |